CHAPTER 5

AUSTRALIA'S DEFENCE POSTURE

5.1 We have a responsibility to the Australian people to provide for our own defence. In addition, the ability to undertake the demanding task of defending Australia underpins our broader defence efforts, providing the capacity for Defence to contribute substantially to wider regional and global security. But Australia’s national defence posture - including our force structure capabilities, size, disposition and preparedness - needs to be reviewed in the light of the more uncertain and complex strategic outlook for our region, and for the world community generally.

5.2 This Review has identified no specific source of potential military threat to Australia or our interests. Yet we cannot offer a guarantee against all future possibilities. Nor can we guarantee that we will not be drawn into any regional conflicts that may arise. In any event, the existence of strong Australian defence capabilities will help to avert the emergence of threats.

5.3 Providing for the defence of Australia is no easy task. We have a small defence force to defend a vast area. To meet this demanding responsibility from a small population base requires clear strategic objectives, and a force structure carefully tailored to Australian priorities. It also requires the capacity to draw on the full range of Australia’s national resources, including Australian industry, as well as advanced defence technology to develop the greatest practicable combat effectiveness from available resources and to provide for rapid adjustment as strategic circumstances change.

5.4 For its security Australia relies upon:

- a national defence capacity to provide for the self-reliant defence of Australia and its interests against threats that could arise in the region;

- encouraging the growth of a 'regional security community' both in South-East Asia, and more broadly throughout the Asia-Pacific region, to reduce the likelihood of instability and conflict in Australia’s region;

- an alliance relationship with the United States that contributes to our national defence capacity, broader regional security, and global stability, while providing direct benefits such as training, science, technology, equipment, logistics and intelligence; and

- maintaining a high level of defence commitment to the UN and other multinational operations that support Australian security through contributing to a more secure global environment.
5.5 The critical strategic issue is whether, given our changing strategic outlook, the self-reliant defence of Australia within a framework of alliances and regional associations continues to provide the basis for our defence posture over the next few years. The answer to this question is broadly affirmative, but with a more regional orientation, and recognising that in the longer term we may be moving to a national defence posture based on a greater degree of self-reliance and on even closer regional engagement.

5.6 The defence of Australia will continue to be the focus of our defence planning. That reflects our highest national priority. But it also accords with regional trends. The ASEAN states are in the midst of a transition from a focus on internal security to a focus on external security. They are equipping their armies with modern weapons and greater mobility, and they are developing their air and maritime capabilities with modern platforms, combat systems and smart weapons. This effort will continue over the decade, and its focus will be defence of national territory, strategic approaches and national maritime interests. In short, they will be doing over the 1990s what Australia did in the 1980s.

5.7 Little of this is driven by heightened threat perceptions; rather it reflects the growing strategic confidence of nations that have come through the initial stage of nation-building, and now have the economies to support a larger and technologically-sophisticated defence effort. Yet there are regional tensions - both current and potential - and the growing availability of longer-range and more sophisticated weapons will set wider parameters within which conflict would be conducted.

5.8 For Australia to maintain its security and its regional defence standing in the 1990s, we will need to continue to give our first priority to capabilities for national defence. This approach meets the responsibility of Government to provide for national security. It will also provide a secure and confident basis on which to engage in regional defence cooperation. It is precisely our strengths in planning for national defence - in acquiring, adapting and supporting modern defence equipment and developing the professional skills of a modern defence force - that are attractive to regional countries. It is these strengths that will provide the basis for industry and logistic cooperation, and, over time, for the levels of interoperability that will be required for true regional defence cooperation. It is also these strengths of our Defence Force that will enable us to provide the high-quality contributions to peacekeeping and other global efforts that are so highly valued by the international community.

5.9 Our defence relations with the United States will continue to be important, both for sustaining our self-reliant capability for the defence of Australia, and for supporting wider regional security by helping to maintain US engagement in the region.

5.10 A major challenge for Australia's security policies will be to balance all four elements of the approach outlined in this Review. The argument that it is not in our economic interests to have to choose between our relationship with the US and our relationship with Asia applies with even more force to our security interests. We would sacrifice too much in any choice.

5.11 Overall, the measured enhancement of regional defence capabilities, together with the associated strategic confidence of regional states and the trend towards a regional strategic community in which we participate as a valued member, will support Australia's security. But the growth of regional economies and technological skills, and the enhancement of military capability, will reduce the technological and capability edge that has traditionally been an important element in Australia's defence posture. Further, the intensity of conflict that could arise at short notice will increase. We will need to work harder and smarter to sustain the high level of confidence that we have enjoyed in recent decades. Of particular importance is the need for an integrated approach to the overall development of the skills and capabilities of the ADF - both regular and reserve.

5.12 So for Australia to maintain a strong and relevant defence posture for the remainder of the 1990s and into the twenty-first century, we require:

- a highly competent and professional defence force able to respond to the new and more complex strategic environment;
- continuing analysis of the key factors that determine planning for the defence of Australia, in particular the nature and reliability of intelligence on possibilities for conflict; and
- further development of national support for the defence effort to provide for substantial investment in defence capabilities and transfer of defence resources into combat capability.

**PLANNING FOR THE DEFENCE OF AUSTRALIA**

**Key Factors**

5.13 Uncertainties in the international environment have reinforced the strategic foundations that guide planning for the defence of Australia. Australia should be able to carry out itself the essential combat and combat-related tasks that are judged necessary for our defence. These are the tasks we can least rely on other countries to perform, and which are vital for national independence. An ability to handle these tasks ourselves is part of our fundamental contribution to the security and stability of our region. It meets our responsibility to our regional defence partners and to our allies to carry our share of the security burden.

5.14 In circumstances where Australia faces no identifiable military threat, priorities for the development of our defence capabilities are driven principally by Australia's geography, the different forms of conflict to which we could be required to respond, and the timescales in which various levels of pressure could arise.

3. 'Combat-related' means command and communications, field and flight-line maintenance, tactical transport, combat and combat-zone engineering support, and combat-zone support generally. It includes logistic support in areas of operations.
Australia's Geography

5.15 The enduring features of Australia's geography provide us with substantial natural defences against major conventional military assault. We have no land borders with any other nation, across which we might be invaded. Our major population centres and infrastructure are located south of the Tropic of Capricorn, although northern Australia and northern offshore waters are strategically important and contain more vulnerable major national assets.

5.16 Australia's northern environment also presents potential vulnerabilities that could be exploited by an adversary. The use of limited military force to attack population centres or settlements and other targets around northern Australia, our offshore territories and resource assets, and shipping in proximate areas could pose significant problems for us.

5.17 While the nature of possible future conflict will always be hard to predict, the enduring nature of our land, sea and air environment provides the long-term basis for our defence planning. Australia's geography continues therefore to be a central factor in deciding the characteristics of our military forces and our strategic concepts for their use.

Warning

5.18 Judgments about warning are fundamental to our defence posture. Intent and capability are critical elements of warning. Intent alone is an insufficient basis for defence planning, since intentions can change relatively quickly. It is important to consider also the capabilities that could be brought to bear against us, and the timescales involved. Account needs to be taken not simply of the existing and prospective capabilities of other countries, but of the extent to which they could realistically be applied in the face of our own current and future capabilities.

5.19 The use of warning to assess the feasibility of different forms of conflict is not to be predictive about any of these, nor is it to assess any as likely. We cannot be assured of predictions of the future. But based on knowledge of regional military strengths, capabilities planning and force development, we can be confident in our judgments about the capacity of others to mount operations in the face of Australian capabilities. We can also estimate with some precision the time that it would take to develop a sufficient capability advantage to prevail against us.

5.20 In our defence planning, priority will be given to developing the capabilities to respond to threats that could arise with little warning. But attention will also be given to planning and developing concepts that will allow us to be confident that we can respond to more major threats should strategic circumstances change.

5.21 In short-warning conflict, an adversary's use of military force could take many forms. Among the easier operations for an adversary would be attacks on Australian assets and interests in the 'sea-air gap', which lie between Australia and the archipelago to our north and north-west. These could take the form of harassment from air or sea; targets might include our sea lines of communication (SLOCs - including coastal shipping) and offshore resource activities, such as oil and fishing. An adversary might seek to mine maritime approaches, ports and shipping focal areas. Limited air and ground force attacks on Australian territory would also be possible, and could include sabotage of defence and civil installations. Australia's offshore territories would be especially vulnerable.

5.22 Australia will need to be able to deal with the full range of possibilities in short-warning conflict, within the limits of capabilities that can be effectively brought to bear. Planning should consider the possibility of a number of concurrent activities, although an adversary would be most unlikely to use all assets against Australia simultaneously.

5.23 Short-warning conflict would place significant demands on civil-military cooperation. If conflict were to commence with small, disavowable acts of violence, civil agencies would play a key role in responding to incidents. The coordination arrangements for dealing with terrorism offer a useful model in such cases. Defence's continued involvement in counter-terrorism planning and response therefore supports defence, as well as civil, interests.

5.24 During peacetime, mobilisation and contingency plans for short-warning conflict should be prepared and tested regularly, including on major ADF exercises, but in a way that is compatible with regional engagement.

Major Conflict

5.25 No country shows the intention to threaten Australia. But it is possible that nations could acquire substantially greater capabilities and threaten us with 'major conflict'. This could take many forms, from acquiring weapons of mass destruction to developing power projection capabilities able to support major lodgment on our territory. Major expansion would require long lead-times, which would be clearly evident to us. Significant expansion, especially where assisted by a major external power, would also be likely to engage the strategic interests of other powers.

5.26 Major conflict should not determine our force structure or preparedness. Studies have shown that an immense effort would be needed to conduct a major assault against Australia, even in the face of the defences we currently have. Further, Australia has a significant capacity to expand its forces. It would be well within Australia's economic and military capacity to raise the threshold for major assault quite considerably - to the point where an aggressor could not contemplate such an attack without facing the near certainty of defeat. Nevertheless, some planning, monitoring and expertise relevant to major conflict should be
maintained in Defence, as insurance against the unexpected. Were more significant capabilities to be acquired than currently expected, Australia would need to respond with greater efforts.

5.27 Our intelligence monitoring and analysis plays a key role in assessing the effects of growing regional capabilities on warning time for major conflict. In addition, our scientific expertise, mobilisation planning and training should give some attention to the possibility of higher levels of capability being developed than is currently in prospect - although this attention should not be at significant cost to our focus on short-warning conflict. We should maintain relevant skills and doctrine through our exercising and through personnel exchanges with regional and allied forces.

Defence-in-Depth

5.28 Our strategy for the defence of Australia is defence-in-depth. This strategy, and our force structure planning, give priority to meeting credible levels of threat by presenting an adversary with a comprehensive array of military capabilities, capable of independent defensive and offensive operations in the sea-air gap to our north and throughout Australian territory. Defence-in-depth requires the coordinated, flexible and measured application of defence capabilities. Defence-in-depth emphasises a capacity to operate independently across Australia, its offshore territories and proximate ocean areas.

5.29 Defence-in-depth requires the coordinated application of the full range of defence capabilities. In conflict, the ADF would seek to gain quickly and maintain the operational initiative against an enemy. Our objective would be to terminate the conflict promptly and to prevent escalation. In addition, there will be a need for forces to provide more direct protection for commercial activities and the civilian population.

5.30 Defence-in-depth exploits our geography by aiming to keep an adversary at arm’s length, and to make any operations on Australian territory more difficult for an aggressor. It has a particular focus on the northern approaches to Australia. An ability to defend these greatly reduces the prospect of successful military attack on Australia. The strategy requires a national defence structure that can:

- provide timely warning of changes in our strategic environment and developments in the Asia-Pacific region, and especially in our nearer region;
- exploit the strengths and overcome the vulnerabilities of our geography;
- avoid, and when necessary resolve, conflict on terms favourable to us by controlling our sea-air gap, including key SLOCs such as important coastal shipping, maintaining our freedom of manoeuvre, and providing flexible options to engage an adversary;
- prevent or quickly nullify lodgments on Australian territory and threats to vital assets, resources, airspace and population centres, particularly in northern Australia;
- sustain air, sea and land operations over long distances and in harsh climatic and geographic conditions; and
- employ effective civil-military procedures and be able to draw on the broader national infrastructure to meet the demands of national defence.

5.31 Emphasis, therefore, should be given to clearly focused intelligence and surveillance operations, and to having highly mobile and capable forces that can deal with hostilities quickly on our own terms. To do this effectively, the ADF needs to be knowledgeable of and acclimatised to its environment, and should have capabilities that provide freedom of manoeuvre and an ability to prevail when necessary. We need also to ensure that an adversary is left under no misapprehension about our ability to strike selected military targets. Moreover, our resolve to do so - as circumstances warrant - should be equally clear.

Defence of Australia Roles

5.32 Our key defence roles are derived from our strategy of defence-in-depth for the defence of Australia. The capabilities for these roles determine the ADF’s overall force structure. The roles are:

- intelligence collection and evaluation;
- surveillance of maritime areas and northern Australia;
- maritime patrol and response;
- protection of shipping, offshore territories and resources;
- air defence in maritime areas and northern approaches;
- defeat of incursions on Australian territory;
- protection of important civil and defence assets, including infrastructure and population centres; and
- strategic strike.

More detailed guidance on priorities for these roles is provided at Annex A.
5.33 To operate effectively, the ADF needs support capabilities attuned both to the likely nature of conflict in Australia’s strategic environment and to the capacity of the national and civil infrastructure to contribute to the national defence effort. The primary support roles relate to the provision of:

- command, control and communications;
- training;
- logistic support;
- transport;
- infrastructure; and
- industry support.

Other Defence Roles

5.34 Apart from implementing the strategy of defence-in-depth for the defence of Australia, the ADF must also be able to undertake a number of other important roles. Examples include natural disaster relief, assistance to the civil community, aid to the civil power, peacekeeping and peace enforcement, provision of assistance and responding to crises in the nearer region, and other activities in support of regional security. These roles can influence training and the acquisition of materiel for specific missions, but they do not determine the ADF’s overall force structure. The ADF should not develop capabilities for transnational issues that are primarily the responsibility of other government agencies. In such areas the ADF should support, rather than supplant, civil authorities.

5.35 Defence’s commitment to peacekeeping and peace enforcement operations has increased markedly in recent years. Forces structured for the defence of Australia have proved sufficiently versatile for us to meet our commitments to international security operations on time, well trained and properly prepared, without requiring fundamental change to our force structure. Some operations have necessitated adjustments to peacetime unit structures, equipment acquisition priorities, and operating costs, but they have not caused major force structure changes. The funding of such operations should not place in jeopardy our capabilities for the defence of Australia.

5.36 Defence may be called upon to evacuate Australian citizens abroad, particularly from the South-West Pacific. Generally, capabilities for evacuation tasks exist within the ADF and wider national resources. Additional specific purpose capabilities need be acquired only if capabilities for the defence of Australia are insufficient or inappropriate for evacuation tasks, and then only in the context of overall force development priorities.

Capability Priorities

5.37 Capabilities are required for all the defence of Australia roles. Force development decisions reflect a range of considerations, including the types and urgency of tasks that need to be undertaken, the life-of-type of existing major capital equipment, our unique geographic circumstances, costs and resource allocations. Efficiencies should continue to be sought in support areas to make additional resources available for combat and combat-related capabilities. Risk management strategies need to be developed and continually applied in the decision-making process.

5.38 Investment in major capital equipment will need to be maintained if block obsolescence in the first decade of the next century is to be avoided, and the regional standing of our capability levels retained. Capabilities which enhance our degree of control in the sea-air gap - particularly in C³, intelligence, surveillance, self-defence and rapid response - require special attention. Capabilities to protect our people and assets and to conduct operations with ready and sustainable joint forces will become increasingly important. Overall, Defence will need to maintain its high standards of training and professionalism as it engages more closely with regional nations.

MAINTAINING AUSTRALIA’S DEFENCE STANDING

5.39 The overall development of the ADF will need to have a particular emphasis on the key principles of joint operations, the selective application of advanced technology, the promotion of competence and professionalism, and the application of a rigorous approach to preparedness.

Interoperability and Joint Operations

5.40 The concept of defence self-reliance requires that our single Services are interoperable with each other. To optimise the ADF’s effectiveness in the defence of Australia, the first priority is for the ADF to develop and exercise joint capabilities, and to plan and conduct joint ADF activities. The capacity to work closely with wider national and civil resources is important, particularly in communications, supply, maintenance, transport and coastal surveillance.

5.41 Practical considerations also favour the acquisition of some systems that allow interoperability with our allies - the United States and New Zealand. Such systems can allow effective training and exercises, ready materiel and logistic support, and if necessary, effective combined operations. Such interoperability need not extend to acquisition of identical platforms or equipment, although it may require compatibility of systems such as command and control, communications and sensors.
5.42 There is also scope to increase the level of interoperability with the forces of countries in our nearer region, principally in terms of common procedures. This may enable increased combined exercises and training to take place, and help to establish closer security relationships with our regional neighbours.

5.43 Interoperability with allies and neighbours is not a determinant of our force structure, although it may be a factor to be considered in acquisition decisions, if there is no significant cost penalty involved or if, on balance, such acquisition is judged to offer value for money.

Advanced Technology

5.44 Australia’s use of advanced technology will continue to be a key element in our overall defence approach, not least for maintaining our regional standing. Our emphasis on technology reflects the realities of a small population defending a large country, as well as our technical capacity to use advanced equipment. The range of new technologies relevant to defence is expanding. We should continue to seek new and innovative applications to increase our capacity for defence in the context of a constrained resource outlook.

5.45 Given the limitations on resources, we must be selective in our use of advanced technology. We need the most advanced capabilities in areas such as command and control, information transfer and integration, all-weather day/night operations and the ability to control and concentrate force rapidly and precisely. Judgments on the balance between technological quality and numbers of equipment will become increasingly important. Planning should identify opportunities for quality/quantity trade-off.

Competence and Professionalism

5.46 Australia will in future rely even more on the high level of competence and professionalism of the ADF. Education and training are a long-term investment; relevant knowledge and critical skills can take many years to acquire. Training for Defence personnel - both individual and collective - should be realistic, comprehensive and relevant. The well-tested practice of providing Defence personnel with relevant overseas training and exchange appointments should be continued, and opportunities to expand this practice within our nearer region will contribute to our interests in enhancing regional security.

Preparedness

5.47 The ability of the ADF to respond quickly to short-notice tasks relies on its preparedness as well as the effectiveness of mechanisms to draw on civil resources. Over-insuring in either readiness or sustainability (the components of preparedness) can consume resources at the expense of other major areas of capability, such as investment in major capital equipment, and operating and personnel costs. Striking the right balance is a critical issue that calls for judgments of risk.

5.48 In general terms, our levels of readiness for key response forces - intelligence, surveillance, maritime patrol, air defence, and ready-reaction ground forces - have increased over the past decade as we have understood better the demands of defence in short-warning conflict. This trend will likely continue over the 1990s, and we need to develop firmer judgments on the rate at which readiness levels would need to be increased during a period of serious tension.

5.49 Preparedness planning for the ADF should be based on short-warning conflict, although the need to have forces ready and provisioned for other tasks (e.g. peacekeeping, natural disaster relief, counter-terrorism etc) should also be kept in mind. Sustainability planning should be based on the judgment that, in short-warning conflict, much defence activity is likely to be carried out with little or no enemy contact, including training, surveillance, patrolling, vital asset protection and a range of supporting tasks. Planning also needs to consider the demands involved in sustaining forces deployed at dispersed and remote locations for lengthy periods.

CONCLUSION

5.50 The priorities in our defence capabilities set out in this chapter, and the one following, reflect the continuing need to provide for national defence, independently if necessary. These priorities reflect both the basic obligations of government and the uncertain elements in our strategic future.

5.51 But while our broader capability needs will continue to be determined by these priorities, the activities of the ADF will be increasingly influenced by the need to expand our defence activity in the region to foster regional engagement, and by continuing requirements to contribute to peacekeeping tasks at a higher level than in past decades.

5.52 There is no conflict between our tightly defined priorities for force structure and our more broadly defined priorities for activities. Forces structured, equipped and trained for the defence of Australia provide a wide range of options for regional cooperation activities, and for supporting international peace efforts. Our strategic geography demands the same broad levels of range, integral support and flexible firepower for the defence of Australia as will generally be required for tasks further afield.

5.53 Moreover, it is precisely Australia’s skills in acquiring and adapting high technology for national defence, and in achieving the highest professional military standards, that are attractive to regional countries contemplating their own defence planning problems. These capabilities and skills give Australia its regional defence standing. We need to maintain this standing if we are to engage effectively with the region.
CHAPTER 6

A NATIONAL APPROACH

6.1 The defence of Australia is a national responsibility. Therefore a key priority for Australia is the harnessing of our national resources - military and civilian - to achieve the most cost-effective defence effort. Australia's history shows the importance of an integrated national effort to successful military endeavour. Defence depends critically on a wide range of services provided by the commercial sector. We have the opportunity with industry restructuring in Australia to enhance our capacity for national defence.

Civil-Military Coordination

6.2 In time of conflict, the Government should be able to implement a unified national response in which available civil and military resources could be marshalled and effectively coordinated. This calls for the coordination of civil and military interests at the Ministerial level, and close consultation among senior policy advisers. It also calls for a civil-military interface in the theatre of operations, to coordinate implementation of our national response. Arrangements for coordinating Federal, State and Territory policy-making and advice need to be better defined and practised.

6.3 Formal coordination arrangements should be buttressed by a network of consultation between Defence and civil agencies. In peacetime, this should extend to further consultation in development of contingency plans and major equipment proposals to help different agencies see each other as natural partners. Defence's requirements from the civil sector should be defined more clearly, and policies developed for making most efficient and effective use of civil resources in the national defence effort.

6.4 Civil defence is an integral part of national security. In conflict, peacetime civilian organisations, expanded as necessary by specialist skills and manpower from the community, would be called on to meet our civil defence needs. The State and Territory emergency management organisations would play a critical role, with Federal policy oversight and coordination. Civil defence planning and operations should be conducted in close cooperation with the ADF through the established civil-military coordination processes, which should be exercised during peacetime.

4 The function of civil defence is to protect the civilian population against the dangers of conflict, to help the civilian population recover from the immediate effects of hostilities, and to provide the conditions necessary for survival of the civil population.
KEY CAPABILITIES FOR INDUSTRY SUPPORT

Australian industry has an important role in supporting major capability areas, including:

- C³ - adapted to the Australian environment, fully integrated and secure. Industry support includes software support and systems integration, recognising that some technology and infrastructure transfer may be involved. Defence will aim to maximise the use of technology and infrastructure that has dual defence and civil applications.

- Intelligence - including high levels of operational availability on a continuous basis and timely distribution to users. As for C³, software support and systems integration are important.

- Surveillance - Defence needs advanced technology adapted to the Australian environment, and advanced facilities to integrate and analyse information from various sources. Maintenance and through-life support of these systems by Australian industry is a high priority.

- Weapons platforms - the support of weapons platforms is a high priority. Adaptation to meet Australian conditions is important.

- Combat systems - the support of combat systems is of similar priority to the weapons platforms. It includes the capability to integrate weapons systems with associated C³. It includes sensors and their integration in combat data systems, and the attendant need to adapt them to Australia’s environment. Support of weapons and sensor countermeasures is important.

- Munitions - Defence will be looking for a combination of supply by Australian industry - for high-use items and those items where there is greatest risk of disruption of overseas supply - and stockpiling of overseas supplies.

- Logistic support - including transport and supply of consumables. Defence will make maximum use of facilities and services already available in the community. In particular, Defence will be looking for increased industry support in the north of Australia. These priorities suggest that the support of key capabilities will involve all major industry areas that supply Defence:

  - Electronics/optics - to support intelligence systems, weapons systems and surveillance, and countermeasures.
  - Communications and Information Technology - to support C³, intelligence, critical management and administrative systems, and to provide systems integration.
  - Aerospace - to maintain aircraft and their systems, and to adapt aircraft systems.
  - Shipbuilding and repair - to maintain ships and their systems, and to adapt those systems.
  - Munitions - to produce stocks of high-use munitions, and to maintain munitions such as missiles.
  - Land vehicles - to repair, maintain and adapt vehicles suited to Australia’s environment.

DEFENCE SCIENCE AND INDUSTRY

6.5 Defence science and industry have been, and will continue to be, important in enhancing Australia’s national defence posture. Their significance will increase as Australia seeks greater defence self-reliance and increased defence cooperation and stability within the region.

6.6 In pursuing greater defence self-reliance, the proportion of spending in Australia on new defence systems and equipment has grown over the last decade from around 30 per cent to approximately 65 per cent. In total, 88.9 per cent of the 1993-94 Defence budget of $9786m is planned to be spent in Australia, including 59 per cent of the more than $2160m that is planned to be spent on major capital equipment.

6.7 Defence depends heavily on Australian industry for the provision of goods and services. But self-reliance does not mean self-sufficiency. Beyond the combat and combat-related needs of our defence capability, Australia will not need to carry out all tasks itself. There are also limits to the extent to which Australia can divorce itself from overseas support, particularly in important aspects of new and complex technology. Complete self-sufficiency would be unachievable and would divert resources at the expense of capability. Hence, as well as developing local support capabilities, ensuring a capacity to draw on support from overseas is an integral part of our strategic planning. A comprehensive discussion of industry priorities is at Annex B, and summarised in the opposite table.

Strategic Role of Defence Science and Industry

6.8 For Defence to be able to develop appropriate ADF capabilities to defend Australia, effectively engage regional security partners and to support multinational operations, sufficient and reliable technical support will continue to be particularly important.

6.9 An understanding of potential developments in science and technology enables Defence to take full advantage of such advances and ensures our capacity to assess the implications for defence planning of the introduction of new technology by other countries. In addition, systems and applications developed overseas - particularly for European conditions - are not always well-suited to Australia’s strategic circumstances or environment. This reinforces the need for an indigenous capacity to modify, adapt, and in some cases develop new defence technology.

5. ‘Defence science’ comprises the research and development (R&D) infrastructure available to the Defence Organisation, primarily through the Defence Science and Technology Organisation (DSTO). Australia’s defence science resources also include the relevant R&D infrastructure of other Government agencies, such as tertiary institutions and CSIRO. Contracting to industry is included where it involves specific Defence R&D contracts.

6. ‘Industry’ includes Government business enterprises such as Australian Defence Industries Ltd (ADI) and Aerospace Technologies of Australia Ltd (ASTA).
6.10 In facilitating closer engagement with the region, defence science and industry can make valuable contributions. The use of scientific collaboration in defence related areas should continue to be actively pursued to enhance our regional defence ties. The potential for industry to export defence technology into the region should also be encouraged; this will promote Australia's technology and skills-base for future regional support functions.

6.11 Ultimately, the most essential functions for defence science and industry are to support the development of the combat and combat-support capabilities of the ADF for the defence of Australia. Effort should be given to those capabilities needed to implement the defence roles for the strategy of defence-in-depth. In broad terms, the capability areas that warrant greatest attention by defence science and industry are: C3, information technology, intelligence, surveillance, combat-systems integration, weapons and sensor countermeasures and support to major platforms. (See also Annex B).

**Developing New Capabilities**

6.12 Development covers both bringing into service new capabilities and enhancing the effectiveness of equipment already in service.

6.13 Defence science, by its nature, is forward-looking; it should extend to familiarity with the emerging technologies that might be important in the battlefield of the future. As a result, the weight of its effort should continue to be on assisting the development of new capabilities, including upgrades to existing forces.

6.14 DSTO plays a central role in this development process by providing expert advice to the ADF on options and technological opportunities for the various capabilities needed for the defence of Australia. Importantly, DSTO's activities help to avoid technological surprise. Particular attention should be given to technologies with a wide range of relevant applications, and to the maintenance of an associated skills-base.

6.15 DSTO's activities in capability development should reflect the priorities of Defence's ten-year force development planning process. Specific opportunities for local industry to become involved in capability development are also identified through the force development process, details of which should continue to be provided to industry. Industry input should be sought early in this process.

6.16 Close collaboration is required between defence science and industry in the development of new capabilities. Industry should be encouraged to undertake complete engineering developments to the point where they can be acquired by Defence as new capabilities. DSTO should undertake engineering development only for high-priority capability areas if local or overseas industry cannot do so at acceptable cost, or if security considerations are paramount. Where appropriate, DSTO should continue to transfer, or make available, its technology and technical expertise to industry for commercial exploitation, thereby contributing to national industry capacity and broader defence self-reliance.

6.17 While Australian industry has an important role to play in development, Defence should be careful not to cause local industries to be created that could not be sustained without significant and long-term subsidy. We should be particularly selective in departing from normal commercial practice to secure a role for local industry in defence development. Australian industry can assist most where:

- Australian suppliers are commercially competitive;
- overseas suppliers are not able to meet important Australian defence needs, normally those reflecting the special characteristics of our natural and strategic environment;
- overseas suppliers are able to supply, but face constraints due to political or national disclosure reasons; or
- Australian production is judged to be necessary to establish a local capacity to support a new capability.

**Supporting Existing Capabilities**

6.18 Without support from defence science and industry, the sustainability of our combat and combat support capabilities would be quickly eroded. Support is provided by Australian industry through the repair, maintenance and adaptation of equipment, including life-extension and improving operational availability. Defence science can provide specialised support to help reduce operating costs, conduct operational analysis of in-service equipment, and, if necessary, keep equipment in service when support from the original supplier has ceased. It is industry, however, which must play the major role in the areas of support. In line with the Commercial Support Program, industry is increasing its role in defence support when it is operationally feasible, practical and cost-effective for such support to come from outside the Defence Organisation.

6.19 Defence should continue to look for efficiency and cost-effectiveness in the support provided by industry. Normal commercial practice should be applied, except when premiums are warranted for specific economic, security or self-reliance purposes. These should be determined case-by-case, bearing in mind that long-term government assistance to industry has on occasions preserved obsolescence, rather than maintained competitive capabilities.

6.20 Whenever practical, Defence should 'buy Australian' to support self-reliance. However, Australian industry cannot always support Defence's needs at an acceptable cost. We need a judicious blend of overseas and indigenous sources, complemented by stockpiling.
Industry also supports defence capabilities through the supply of consumables. These range from ordnance to food and fuel. Many of these are routine items that can be supplied under normal commercial arrangement. In the case of ordnance, we have a strategic interest in local production to provide greater assurance of supply. But we should avoid excessive diversion of resources in pursuit of self-reliance; ordnance can often be procured overseas more cheaply and with short lead-times, and can be stockpiled.

MANAGING DEFENCE

An important consideration when looking at the strategic objectives of the Defence Organisation is the capacity of the people within the Defence Organisation to meet the challenges of the future. As military equipments and systems become more complex and sophisticated, Defence staff will need to be more highly trained and skilled, better educated and managed and maintain a high sense of motivation, commitment and purpose. Quality management of the highest order of the physical and personnel assets of the Defence Organisation is an important force multiplier and can add significantly to the latent capability of the Defence Force.

It is of great importance that a management change program throughout the Defence Organisation be maintained, emphasising the pursuit of excellence through a continuous efficiency enhancement program directed at creating more efficient, effective and flexible management systems. This can be achieved through such measures as: consolidation of financial and budgeting arrangements; closer integration of civilian and military functions; greater commercialisation; the implementation of flatter structures; and most importantly, improvement in the quality of personnel management.

Personnel are an important element in any organisation and the Defence Organisation is no exception. In coping with the challenges of the next decade, Defence will need to attract quality staff through merit-based processes, improve the staff planning processes through better staffing support systems, extend multi-skilling within the organisation, enhance the training and development of its personnel, improve productivity, and provide sufficient incentives by maintaining pay and conditions for Defence personnel at competitive levels.

Australia's skills in defence management can also be an important element in our strategy of regional engagement. Regional countries are increasingly looking to Australia for advice and planning models for the long-term management of their defence organisations.

CONCLUSION

A national capacity for defence requires both a highly competent ADF and the policies and mechanisms to draw fully on the considerable resources in the wider Australian community. By harnessing our national resources we improve our own defence and that of our region, and contribute to industry development within Australia, thereby assisting national prosperity and hence our long-term security.
CHAPTER 7

DEFENCE INTO THE NEXT CENTURY

7.1 Australia's security environment is changing and will continue to evolve in the years ahead. The shape of the new global security situation will remain in a state of flux for some time, with superpower rivalry replaced with a more complex and changing balance of regional powers, influenced by an array of economic, nationalist, territorial, religious, social, human rights and environmental issues. The increasing use of multilateral mechanisms (such as peacekeeping, peace enforcement and preventive diplomacy) to resolve regional problems, predominantly through the auspices of the United Nations, is likely to continue in the immediate future, although the pace of new initiatives may slow as the limits to such action become clear in the light of experience.

7.2 Within Australia's region, economic growth and regional confidence in the Asia-Pacific, including ASEAN, provides a sound backdrop for emerging security deliberations. But security in the region will continue to depend ultimately on the capability of national defence forces.

7.3 The United States will remain the predominant global power, and the nation on which most international security efforts will depend. But it will have difficulty coping with the multiple challenges of the post-Cold War era, at the same time as remaking its own economic and social systems. The future effectiveness of our dialogue and activities with the United States will require strong advocacy and coordination with the Commander in Chief, U.S. Pacific Command (CINCPAC) and Washington.

7.4 Enhancing the security of the wider Asia-Pacific region will become an increasingly important theme in our defence policy. We will seek a stronger strategic partnership with South-East Asia, while developing constructive contact with Japan and China, and continuing our strategic commitment to stability in the South-West Pacific. Australia's growing interdependence with Asia requires an active role in emerging security dialogue, including promotion of sound and publicly visible strategic assessment and force-structuring processes.

7.5 In the 1990s Australia will also retain its interest in contributing to multilateral mechanisms that promote security more globally, particularly through the auspices of the United Nations. Defence can contribute, particularly in supporting international initiatives for peacekeeping and peace enforcement.

7.6 The challenge for Defence for the remainder of the 1990s and into the next century will be to develop and extend the comprehensive defence approach described in this Review, within a constrained resource outlook, in ways that optimise our overall security. Increasingly, Defence will be required to make complex and difficult decisions in optimising...
the utility of its allocated resources. There will be a continuing need to balance expenditure between capital investment, operating costs and personnel. The maintenance of long-term investment will be essential to maintaining our self-reliant defence posture.

7.7 Continued funding for investment will be necessary to manage block obsolescence in the first decade of the next century. Operating and personnel costs will come under increasing pressure as we become more involved in regional and global activities, while still undertaking essential activities for the defence of Australia. But the true value of the Defence Organisation will continue to rest on the quality of its people: Defence should continue to embrace opportunities to streamline its management practices and structures, ensuring that personnel remain well-trained and their welfare requirements properly provisioned. Within a more constrained resource base, a vital issue for the future will be to continue to find innovative ways of progressing organisational and support efficiencies, integrating more closely Australia’s military and civil capacity, to sustain and strengthen our personnel resources that will allow Defence to contribute to, and benefit from, the wider developments across Australia of a more open and competitive economy.

7.8 In recent years Defence has made highly innovative and successful reforms to maximise efficiencies, and maintain investment and capabilities broadly in line with our long-term defence policy, despite significant reductions in financial guidance. These efforts will continue, and intensify. But the maintenance of a self-reliant defence capability that can protect Australia, contribute to the security of our wider region, and support the UN, will require continued commitment by the Commonwealth and the people of Australia to adequate sustained defence funding.

ANNEX A

KEY DEFENCE CAPABILITIES

Intelligence Collection and Evaluation

1. Intelligence collection and evaluation are necessary to monitor regional developments, develop intelligence databases, provide information on specific regional crises, and support ADF operations. By providing a picture of the regional strategic environment, intelligence provides a basis for planning and force structure development.

2. Intelligence collection and evaluation require a national effort, involving a number of government departments and agencies. Close coordination in peacetime enables the civil intelligence agencies to provide better support to a defence effort in time of conflict.

3. A key measure of the effectiveness of the national intelligence system is how well it can support both national security policies and ADF operations. Systems are needed to fuse strategic and tactical intelligence, gathered from a variety of sources, into a useable format for commanders; for example, through the development of distributed information systems. Procedures for this fusion need to be established and tested.

Surveillance of Maritime Areas and Northern Australia

4. Effective surveillance requires the coordination of civil and defence assets to provide systematic observation of our maritime areas of interest, our sea and air approaches and the vast expanse of northern Australia. A national surveillance system is required to integrate civil and military surveillance information, and to disseminate the product by timely and secure means to military commanders and other authorities. Defence needs to maintain close liaison with civil surveillance organisations and explore ways for them to assist in time of conflict. Coastwatch in particular makes a significant contribution, including valuable skills in visual surveillance and local knowledge.

5. Surveillance of our sea-air gap is particularly important for the early detection and response to an adversary’s activities and more work needs to be done to determine the surveillance benefits to be gained from new or evolving technologies.

6. Effective surveillance and reconnaissance over land are also important. Ground forces need to be equipped with modern, reliable, lightweight, and night-capable surveillance assets which, when combined with mobility, optimise their ability to detect and monitor hostile forces. The three regional force surveillance units (RFSU) should be trained and equipped for specific tasks in their respective areas of interest. When required, the RFSUs could be
augmented by increased air surveillance and by the reconnaissance and surveillance capabilities of other ground force units.

Maritime Patrol and Response

7. Maritime patrol and response capabilities are required to intercept intrusions in our maritime areas of interest; help protect our offshore territories and resources; influence the type, tempo and location of hostilities; help keep hostile forces away from Australian territory; and prevent enemy resupply should lodgments occur. The effectiveness of our maritime forces to control the sea-air gap is a critical element of our strategy of defence-in-depth. Denial of an adversary's operational freedom near Australian territory would be crucial in constraining hostilities and defending Australia's northern areas. There is an important interaction between the intelligence, surveillance and maritime patrol and response roles.

8. Effective maritime operations will generally require the employment of land-based aircraft and shipborne helicopters able to complement and enhance the surveillance and combat capabilities of surface vessels. Further refinement of command, control and communications (C3) procedures, particularly in the transfer of information between tactical and strategic commanders, would improve ADF capabilities in maritime patrol and response.

9. The introduction of more advanced surface combatants and fighter aircraft into the region, and increased availability of precision-guided munitions, have the potential to place ADF assets at greater risk. ADF assets should possess appropriate offensive and defensive capabilities against air and surface attack. Resource allocations will often require trade-offs between the number of platforms and the fitting of high-cost weapon systems.

10. The potential for submarine operations against us is small. Anti-submarine warfare capabilities needed to counter any threats are costly and take time to acquire. Consequently, the ADF should maintain an adequate level of capability and proficiency in anti-submarine warfare, but in current strategic circumstances this should not be at significant cost to our capability and proficiency in air and surface warfare.

Protection of Shipping, Offshore Territories and Resources

11. The interdiction of shipping or closure of major Australian ports would have important economic implications for the nation and could place in jeopardy the sustainment of ADF operations in the north.

12. Protection of shipping may require the cooperation of ADF and merchant marine authorities. Protection efforts should focus on our northern coastal SLOCs, our ports and their approaches, and our maritime focal areas and choke points (such as Torres Strait). Outside these areas, the threat to our shipping is much less; adequate protection can often be provided by diversionary routing (albeit with potential time and resource penalties) together with broad area surveillance and response capabilities. Only the most strategically-important shipping would need to be escorted. Naval Control of Shipping procedures provide a mechanism for helping manage shipping movements; the potential for these procedures to be enhanced through closer collaboration with our nearer regional neighbours and major trading partners should be considered.

13. The approaches to Australian ports are susceptible to maritime mining. The planned introduction of an effective mine counter-measures force should be given high priority.

14. Our offshore territories and resources are also of political and economic importance, and are relatively vulnerable. The sea-air gap helps protect our mainland, but presents us with challenges for the defence of offshore assets.

Air Defence in Maritime Areas and Northern Approaches

15. The ability to monitor and intercept traffic in Australia's airspace helps demonstrate our ability to control our sovereignty. Our air defence effort should focus on our maritime areas and northern approaches, and especially in the sea-air gap to our north and north-west. We will be unable to control all airspace and will need a detailed air picture to engage targets selectively.

16. The national air defence system should be able to integrate civil and Defence surveillance and intelligence sources, including combat aircraft, mobile surface-to-air missile systems, and major surface combatants. Airborne Early Warning and Control (AEW&C) aircraft would considerably enhance our air defence, but in current circumstances some flexibility in acquisition timing can be accepted to take advantage of evolving technology, and in the light of availability of resources.

7. Maritime forces include air and sea assets and embarked ground forces capable of operating effectively in the maritime environment.

8. Air defence includes measures to reduce the effectiveness, or nullify, an adversary's air operations against Australia's national interests. An adversary's air operations includes fighter and/or strike attack, airborne surveillance of Australia's sovereign territory, guided missiles and aircraft engaged in inserting or recovering ground troops.
Defeat of Incursions on Australian Territory

17. The ADF must be able to act quickly and decisively over long distances to prevent lodgment, resupply, reinforcement or extraction of an adversary's forces. The timely insertion of a joint force (predominantly based on ground forces), would usually be required to defeat an adversary and reassure the civil population. In some situations the deployment of aircraft (armed with precision weapons) or naval vessels could be sufficient. Special forces, selected night-capable precision air elements, and a joint Ready Deployment Force based on a brigade group - including a paratroop capability - provide a capable response force. The basing of a brigade in Darwin by the end of the decade will enhance our ability to operate effectively in northern Australia.

18. Deployed forces should be able to operate with limited logistic support at long distances from major supporting infrastructure. Technology and training systems should be exploited to maximise the effective use of combat power. Concepts for the coordination of air and ground combat power in varying seasons and terrain need continued development. A careful balance is required between mobility and firepower.

Protection of Important Civil and Defence Assets

19. The protection of Australian citizens and property, and of commercial and public enterprises, is of major concern to Government. This requires a national effort, and the ADF may be called upon to play an important role. An ADF presence may be required to protect and reassure the civil population and to protect important civil and defence assets. But protection tasks can have a considerable bearing on the size and shape of the ADF (particularly of ground forces) and can place major demands on ADF resources. Sensible risk management strategies and options need to be applied.

20. The capabilities to protect important assets are provided partly by capabilities required for the other defence roles. We should not duplicate these unnecessarily during peacetime. Where practicable, technology should be exploited to enhance the effectiveness of our scarce manpower. Ground forces require effective surveillance devices, firepower to defend key points, and tactical mobility for extensive patrolling and quick-action deployments. Where practicable, forward deployed forces should be collocated, and administrative and logistic support arrangements shared.

21. Interaction between Defence and civil agencies will be vital during periods of tension or conflict. By working with these organisations in peacetime, Defence is better able to establish effective operating procedures, coordinate activities and exchange information.

Strategic Strike

22. The ability to attack an adversary's operational and support infrastructure and to interdict the adversary's lines of communication is an important option that Government would wish to have available. This option might be exercised to dissuade an adversary from using military force against us, to force the adversary to cease hostilities, to raise the costs to the adversary, to control escalation or move the focus of operations, or to force the adversary to undertake extensive defensive measures. Strategic strike forces require capabilities which provide Government with useable, realistic options consistent with the obligations of the laws of armed conflict.

23. Our use of strategic strike, particularly in short-warning conflict, would need to be considered carefully. We would generally not want, or want to be seen by the international community, to escalate a conflict. But any potential adversary needs to be in no doubt that such forces would be used if necessary.

24. We should maintain an affordable program of qualitative improvements to our strategic strike forces to ensure that they remain able to survive and deliver ordnance accurately. These improvements should enhance the flexibility of our strategic strike forces, allowing them to contribute to other Defence Roles. Major increases to our strategic strike capabilities beyond these improvements would be needed only in the event of significant deterioration to our strategic situation.

SUPPORTING CAPABILITIES

25. Capabilities are also needed to support the key defence roles. These capabilities draw on the civil infrastructure. The three supporting capabilities are:  
- modern and effective C3 systems;
- effective logistic support systems and facilities; and
- adequate provision of strategic and tactical transport.

Command, Control and Communications

26. Effective C3 is essential for the successful prosecution of any military operation and represents a significant force multiplier. The ADF requires simple, reliable and resilient command and control systems at the strategic, operational and tactical levels. Command
structures should be ‘joint’ and kept as small as practicable. The number of headquarters should be kept to the minimum required to ensure efficient command and control. Unified command in a theatre of operations is essential. Headquarters should be highly automated with computer-based information systems to support decision-making. The integration of all-source intelligence and operational information together with command support will become increasingly important in achieving operational effectiveness.

27. The services provided by the national civil communications infrastructure are extensive and are expected to develop further during this decade. Defence planning should assume maximum practicable use of the civil infrastructure.

**Logistic Support and Facilities**

28. Successful combat operations rely on effective logistic support systems. These systems use the national infrastructure and should be developed in concert with national developments. Logistic support arrangements would be enhanced by:

- the continued development of joint or shared logistics arrangements, including munitions storage, maintenance facilities and common-use supplies;
- the development of operational sustainability guidance, specifying indicative periods of sustainment as the basis for determining stock levels;
- the efficient use of civil resources and infrastructure, particularly for non-military supplies and specialist skills;
- greater use of national industry for base-level support, repair and recovery and through-life maintenance;
- automated systems to enhance efficiency and reduce manpower where practicable;
- maximising the interoperability of equipment and systems within the ADF - and with industry, allies and regional neighbours where it is cost-effective or of marked operational benefit for the defence of Australia; and
- the continued participation by Defence in the broader national efforts to survey, map and collect relevant data on our physical environment, using advanced digital systems and focusing on the more likely areas of operations.

29. Further consideration needs to be given to the sustainability of operations, particularly the movement of large volume supplies (fuel, consumables) along secure lines of communication to the north. Shipping is likely to remain the primary means for bulk resupply for both civil and military requirements, but alternatives should be considered against the possibility of disruptions. Where possible, developments need to complement existing civil infrastructure.

30. The move of more of our combat forces to the north and west coincides with the rationalisation of Defence facilities in southern Australia, including the disposal of unnecessary properties and the progressive development of modern facilities required to support the Defence effort. Progressive improvement in the standard of training, repair, research, warehousing and accommodation facilities throughout Australia should be pursued.

**Strategic and Tactical Transport**

31. Strategic and tactical transport capabilities are essential for effective ADF operations. They comprise both military and civil assets. The ADF should not duplicate the civil transport sector where civil assets can be used. Possession and retention of specific strategic and tactical transportation capabilities within the ADF is important where there are particular weight, space or loading requirements; where assets are dedicated to certain forces; or where assured availability at short notice is required.

32. The continued availability of civil transport resources would be essential for success in a period of conflict. Defence would seek to obtain these services voluntarily under commercial arrangements. To this end, Defence should expand the network of Memoranda of Understanding through all transport sectors. In consultation with other departments, Defence should examine the requirement to draft regulations to enable requisitioning in time of conflict. Defence should extend its network of informal contacts and formal consultation arrangements with industry to address how best to involve civil carriers during periods of conflict.
INDUSTRY PRIORITIES

1. The optimisation of Australian industry involvement in defence activities and procurement assists with broadening the total support base for national defence. As a result of the achievements in defence procurement during the 1980s, there are further opportunities to maintain and develop the national capacity to defend Australia.

OPTIMISING INDUSTRY INVOLVEMENT

2. Industry plays a central role in our national capacity for defence. Defence is looking towards industry to provide maintenance and support of equipment, and through the Commercial Support Program to provide a range of other support services - such as catering and base support.

3. Through achieving greater efficiency, Defence is able to move more of its resources towards the combat end and away from support activities. This process needs to continue, with the aim of achieving an ADF structure that as far as practicable contains only those capabilities unique to defence forces: combat and combat-related capabilities.

4. Drawing on local industry serves several objectives. Defence can avoid needless duplication by using commercial suppliers, which are often likely to provide goods and services more efficiently than Defence; industries familiar with supplying to Defence provide a better industrial base for surging to meet higher usage rates during conflict; and engaging local industry supports the broader objective of encouraging greater community awareness and commitment to defence issues. Yet supporting Australian industry is not a strategic objective in its own right. The Defence Organisation must identify its strategic needs to define the appropriate level of reliance on local industry.

5. By moving a range of functions to industry, Defence has assisted micro-economic reform. New industries have been established on commercially-competitive grounds. This has been achieved by insisting on cost-effectiveness, and by demanding high standards of production. The result is industries better able to compete in the international marketplace.

6. Over the last decade, Defence has divested itself of a direct role in the production of capital equipment and consumables, with the privatisation of Williamstown Dockyard and the establishment of Aerospace Technologies of Australia Ltd (ASTA) and Australian Defence Industries Ltd (ADI) in place of the former Office Of Defence Production.

7. Defence self-reliance is advanced by greater use of local rather than overseas industry. Local industry can be less susceptible to interruption of supply by interdiction or decisions of foreign governments, and is more likely to treat an urgent Australian military need as a high
priority. Yet self-reliance does not mean complete self-sufficiency in the supply of goods and services. Australian industry, with the disadvantages of a small indigenous defence market and remoteness from the biggest markets, will often not be competitive. Complete self-sufficiency would divert resources at the expense of capability.

8. Defence, therefore, has to manage two different interests: our desire to achieve the most efficient supply of goods and services and our interest in a more self-reliant defence. At times our strategic interests will call for a more interventionist role in the market-place, through the paying of premiums and the establishment of closer relationships with particular local suppliers. Such judgments require a clear view of our strategic priorities for industry.

9. Under the terms of the ANZAC Ship Treaty, there is a special relationship spelt out between Australia and New Zealand. The Treaty states that “For the purpose of Defence procurement, the industries of both Participants shall be treated as a common industrial base and each Participant shall treat the industry of the other in the same way as it treats its own with the exception of a small number of high security or third country collaborative projects”. Any reference to Australian industry should be taken as referring to Australian or New Zealand industry.

**INDUSTRY ASSISTANCE TO THE ADF**

10. There are two main ways in which industry assists the various ADF capabilities. Firstly, industry supports the existing capabilities of the ADF. Secondly, industry enables Defence to acquire new systems to develop its capabilities.

11. Industry ‘supports’ defence capabilities through repair, maintenance, overhaul and adaptation of equipment and supply of consumables. Repair, maintenance and adaptation is the most critical form of industry assistance. Defence already relies heavily on local industry for these services.

12. ‘Support’ also extends to the supply of consumables. These range from ordnance to water, food and fuel. Many of these are routine items that Australian industry will supply under normal commercial arrangements. Local support through supply of consumables is therefore of strategic value to us, although at lower priority than repair, maintenance and adaptation.

13. In the case of ordnance, Australia is generally not a competitive producer. Moreover, ordnance can often be provided from overseas with short lead-times, or can be stockpiled. The possibility exists, however, of disruption of overseas supply through decisions of other governments or through interdiction of supplies. There is also a risk that overseas suppliers will have other priorities when urgent supplies are needed by Australia. Furthermore, stockpiling involves uncertain judgments about rates of consumption during potential conflict.

14. Industry also assists Defence in acquiring new capabilities. For all major new capabilities Defence will look to maximise local industry involvement, usually via the use of local prime contractors teaming, as necessary, with overseas suppliers of equipment and technology in order to secure best value for money. We would expect the trend to greater local industry involvement to continue, as past Defence acquisitions impact on local industry capability and general microeconomic reforms raise further the overall competitiveness of local industry. In aggregate terms, however, the overall level of Australian content in capital procurement is unlikely to exceed, and indeed may fall below, the estimated current level of 65%, as smaller and diverse projects figure more prominently in the capital program.

15. We need to recognise, however, that local manufacturers need not play this role exclusively: local manufacturers will not always be competitive, and there are many overseas suppliers to which Australia has exceptional access. We should exploit these strengths on a case-by-case basis, having prime regard for the strategic interest of the ADF. As with most other countries, it will be most cost-effective for us to draw on overseas sources of supply for some new capabilities without detriment to our ability to operate them. This is likely to be most true for major aerospace platforms, where the size of the Australian and prospective export markets and the capital requirements for development and production provide an insurmountable barrier to a commercially-sustainable domestic capability. We will, therefore, seek to optimise the role for local industry in the acquisitions area on the basis of strategic, technological and value for money criteria.

16. These are case-by-case judgments. Circumstances most likely to favour a sole or major role for local industry are:

- where Australia is commercially competitive (particularly in niche areas, such as weapons systems integration);
- where we have unique needs in important capability areas that overseas suppliers are not able to meet, which reflect the peculiarities of our natural and strategic environment;
- in the areas of intelligence, surveillance, sensor equipment (including electronic warfare) and associated command and control;
- where overseas suppliers are able to supply, but where they are not sufficiently reliable, or they are unwilling to supply due to political or national disclosure constraints; or
- where local production is needed to establish a capacity to support a new capability.

17. While we are prepared to consider some premiums and other departures from commercial practice where there are strong strategic reasons for doing so, Australia’s general strategy will be to avoid them as far as possible. Defence has had much success in recent years
in making local industry a more efficient and competitive source of assistance. It will remain important, however, to have regard to the long-term commercial sustainability of the capacity once created.

18. In most of these fields, the use of Australian industry is likely to be notably more cost effective than retaining the full capability within the ADF, and is also likely to be more cost effective than the use of overseas industry. In certain fields, such as communications, intelligence and surveillance, even if Australian industry were not internationally competitive (and there is strong evidence that it is), Defence investment in Australian industry is necessary to ensure that the best technology imported from elsewhere is adapted and sustained to retain an edge.

**KEY CAPABILITIES FOR INDUSTRY SUPPORT**

19. More specific capability priorities for industry will continue to evolve as Defence more precisely defines operational requirements and the capabilities to meet these requirements. In terms of key ADF priorities, the following indicates in broad terms the capabilities Defence is looking for from industry:

- **Command, Control, Communications** - Defence requires the best technology available in the world, adapted to the Australian environment, fully integrated and secure, to ensure an edge over any potential adversary. Given technological advances in the commercial field, Defence is looking to increase its support from industry in the software development and systems integration areas, recognising that some technology transfer from overseas may be involved. Security, integration and adaptation require considerable indigenous industry support and Defence will aim to maximise the use of technology that has dual defence and civilian applications.

- **Intelligence** - Defence requires systems that provide a high level of operational availability on a continuous basis and timely distribution to users. As for C3, software support and systems integration are important.

- **Surveillance** - Defence requires leading-edge technology adapted to meet Australia’s unique geophysical environment. It also needs advanced facilities for the integration and analysis of information from various sources. Maintenance and through life support of these systems by Australian industry is a high priority.

- **Weapons Platforms** - The maintenance, repair and through life support of weapons platforms is a high priority for industry assistance to Defence. Adaptation to meet Australia’s environment is also a high priority. The production or manufacture of platforms in Australia will be a priority when it represents value for money or where it contributes to the development of capabilities and skills required for through life support.

20. The above suggests that the following industry sectors will be of particular importance to Defence:

- **electronics/optics:** to support intelligence systems, systems integration activities, weapons systems and surveillance;

- **communications and information technology:** to support command, control and intelligence systems and critical management and administration systems, and to integrate these systems with specific weapons systems;

- **aerospace:** to support/maintain and provide infrastructure for operation of aircraft and their systems, and to adapt aircraft systems;

- **shipbuilding and repair:** to support/maintain ships and their systems, and to adapt those systems;

- **munitions:** to produce stocks of high-usage munitions and to maintain sophisticated munitions such as missiles; and

- **land vehicles:** to adapt, repair and maintain vehicles suited to Australia’s terrain and environment.

21. In addition, Defence is increasingly looking to Australian industry, on a competitive basis, to provide support services, consumable items and minor capital items across a wide range of areas.
SUPPORTING REGIONAL AND GLOBAL SECURITY

22. Changes in Australia's international outlook have created new opportunities to use local industry capabilities for the combat effectiveness of the ADF in support of other important objectives, including regional and global security and strong alliances.

23. Australia's defence relationships with South-East Asia can assist in opening up a range of areas for cooperation in defence industry. They can facilitate the development of logistics cooperation, technology development and sharing and collaborative projects that build on Australia's significant industrial infrastructure and performance. In undertaking substantive cooperative and collaborative programs with South-East Asian nations, there is the prospect of commercial advantage and greater engagement of Australian industry with the region, in addition to the strategic benefit of strengthening regional defence.

24. The exposure of Australia's skills in project management and systems integration and wider industrial capabilities to South-East Asian nations may facilitate the promotion of Australia as a support base for a range of their military equipments and systems.

25. The development of an efficient Australian defence industry has created valuable new opportunities for exports of defence goods and services to the Asia-Pacific region, and for collaborative developments with these countries. Exports to South-East Asia and the South-West Pacific, in particular, can serve our objective of regional security, by strengthening our neighbours' security.

26. At the same time, defence exports support our national capacity for defence. They are a valuable way of making local industry more efficient and of retaining industry capabilities of value to Defence.

27. The approach to exports and collaborative developments in our region will need to reflect a balance of our strategic interests. In practice, there will be few cases where we should be constrained on strategic grounds, given the competitive nature of the international defence market.

28. There will be a need to take into account different industrial practices and processes when contemplating collaborative development, especially where collaboration involves a reciprocal obligation on Australia to purchase goods and services from the other country. These matters will need to be reviewed case-by-case.

29. Within these and other constraints of government policy, the approach should be to encourage increased market opportunities abroad. The acceptability of Australia as a commercial player will depend on our reliability as a supplier. It is important that defence export guidelines and practices clearly support this approach.

BALANCING OBJECTIVES

30. With the uncertainties in our long-term strategic outlook, the demand for using broader defence capabilities for purposes other than the direct defence of Australia can be expected to grow.

31. In general, we should seek to use broader defence capabilities to a greater extent in support of regional engagement, alliances and global security - collectively, these objectives are now more important in our overall security. But in a period of resource constraint, we must ensure that greater efforts in these areas do not conflict with important needs arising from our national capacity to defend ourselves. The shape of our efforts should be directed, where practical, towards those areas where the demands of our different objectives are mutually supporting.