Chapter 4

Defence policy issues

Introduction

4.1   This chapter will consider some of the defence policy issues arising from ADF use of unmanned platforms. These include:

- the suitability of unmanned platforms to Australia's defence and strategic circumstances;

- the effect of unmanned platforms on security stability;

- the deployment of unmanned platforms within Australia;

- perceptions and transparency of unmanned platforms;

- the use of unmanned platforms for emergency assistance and national support; and

- the issue of arming ADF unmanned platforms.

Suitability

4.2   The *Defence Issues Paper 2014* outlined some of the ways Australia's defence policy settings have adapted to changing strategic circumstances over the decades. It stated:

> Today, Australia's defence policies must deliver an ADF that can effectively protect Australia from direct attack, of whatever form, and is also able to secure and advance our interests. These include the protection of our trade routes and prevention of non-geographic threats, such as those from cyberspace, terrorism, transnational crime, people smuggling, and illegal fishing. Our Alliance with the United States remains integral to our defence and security arrangements and our changed strategic environment means that we now work more closely with a wider range of like-minded countries in our region.[1]

4.3   In this context, unmanned platforms were viewed as appropriate to Australia's defence and strategic circumstances. For example, Northrop Grumman considered 'Australia's geostrategic circumstances, particularly its expanse, its vast sea/air approaches, its export/trading economy and its proximity to Southeast Asia stress the importance of range, endurance, surveillance and intelligence; all attributes well-suited to the use of unmanned systems'.[2]

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1   Department of Defence, *Defence Issues Paper 2014*, p. 6.

2   *Submission 12*, p. 6.

4.4   Maritime unmanned platforms (UUV and USVs) were perceived as having particular relevance for Australia in the future. The importance of effective UUVs for mine counter measures was emphasised. The potential of USVs for mine sweeping, mine hunting and as a tool for anti-submarine warfare (ASW) was also highlighted. For example, Ms Rosalyn Turner from ASPI commented:

> UUVs might suit the [ADF] particularly well given our strategic context. With our vast maritime claim, long coastline to monitor and a vital interest in maintaining free and open sea lines of communication in our region, UUVs could foreseeably carry out key roles contributing to Australia's strategic interests. UUVs won't be replacing manned submarines anytime soon. But they're being considered as key complementary elements to address several operational challenges navies currently face.[3]

4.5   Northrop Grumman stated that undersea warfare was the most demanding and dangerous operational environment and argued it was 'one of the key domains where Australia needs to develop a decisive capability edge'. It stated '[a] replacement fleet for the Collins Class submarine would consume a huge proportion of Australia's Defence budget and the complementary contribution that UUVs can make to overall [undersea warfare] mission effectiveness needs to be established as an integral part of the force development process'.[4] Similarly, Dr Andrew Carr observed:

> The nature of Australia's largely maritime domain, 'air-sea gap' concerns and emergent maritime strategy speak to a need for underwater/surface unmanned systems. While maritime systems are currently far less developed than aerial systems, the technology is rapidly expanding. Such systems could help protect and expand the capacity of Australia's submarine and surface fleets, offer remote surveillance, static and mobile elements and enticingly— given the trend of regional arms purchases— offer promising new Anti-Submarine Warfare (ASW) options.[5]

Destabilising effect

4.6   The potential for unmanned platforms to destabilise security situations was seen as a key risk in their potential use. Dr Clinton Fernandes argued that as unmanned platforms improve in lethality and stealth 'one concern is that the political barriers to war may be lowered'.[6] Similarly, Dr Carr stated:

> One notable and under-discussed issue is that unmanned systems may face a lower strike threshold with countries more willing to shoot down unmanned platforms in contested territory. Clear discussion of the

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3   Rosalyn Turner, 'The unmanned underwater future', *The Strategist*, 9 April 2014.

4   *Submission 12*, p. 3.

5   *Submission 19*, p. 2.

6   *Submission 2*, p. 4.

acceptable norms regarding these systems will be vital, not only for Australian interests but as an issue to lead discussion on in our region.[7]

4.7   Dr Christian Emermark also noted that questions exist about 'the effect that the availability of drone technology has on political decisions to use force':

> One hypothesis worth testing is that the availability of remotely-controlled drones (as distinct from manned aircraft) lowers the threshold for deciding to go to war. The job of drone operators does not, unlike a combat infantryman, involve experiencing physical risk. Thus political leaders, having less cause to contemplate the prospect of deaths, injuries and grieving families, might accordingly feel less anxious about using force to solve political problems. And citizens, if not called upon to spill their own blood for a cause, might feel less inclined to 'dissuade leaders from foreign misadventures and ill-planned aggression'.[8]

4.8   Ms Turner observed that '[o]ne of the major concerns that surrounded the UK's acquisition of Reapers was that the platform might reduce the threshold for military intervention and the use of lethal force because of the lack of physical risk to personnel'. She stated that '[f]or some, that concern has been heightened by the widespread use of drone strikes by the US outside traditional battlefields'.[9] The Programme on the Regulation of Emerging Military Technology, (PREMT) at Melbourne Law School commented:

> As regards [unmanned platforms], there are well-founded concerns about an ever-expanding theatre of operations and the use of a technological capability that extends hostilities beyond what may otherwise have been feasible. In the long term, armed [unmanned platforms], the use of which entails little political risk for a government, may contribute to the spread of low-level conflicts globally and reduce the willingness of states to use judicial means to address security threats.[10]

Operation within Australia

4.9   It has been announced that the Triton UAVs will be based at RAAF Base Edinburgh in South Australia. However, the Northern Territory (NT) Government urged that consideration be given to the benefits of basing ADF UAVs in the NT. In particular, the NT Government proposed the Triton UAV fleet could be based, operated and maintained at RAAF Base Tindal.[11] It noted that Darwin is the current forward operating base for the P3 Orion maritime patrol aircraft. At the April hearing, Mr Stephen Mencshelyi from the NT Government elaborated:

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7   *Submission 19*, p. 3.

8   *Submission 5*, p. 5.

9   *Submission 13*, 'Lessons for the ADF from Britain's armed drone program', p. 1.

10   *Submission 22*, p. 6.

11   *Submission 9*, p. 2.

The benefits include dramatic cost savings achieved through basing close to the area of operations, whereby eliminating the flying time from southern bases to reach their primary-operating environment. Savings in fuel, aircraft maintenance, airframe hours and manning also provide opportunities for additional cost savings and response times, particularly in response to humanitarian and natural disasters, and provide initial situational awareness and damage assessments rapidly. In addition to cost benefits there are capability benefits, with aircraft able to spend more time on tasks. The Northern Territory also offers the benefits of low air-traffic density and existing military and civil air-traffic interaction.[12]

Humanitarian emergencies and national support

4.10   Currently the ADF's manned platforms contribute to a variety of national support and emergency response operations such as disaster relief. In 2011, during Operation Queensland Flood Assist, all three services provided assets for tasks such as airlift support, search and rescue, aerial survey and the assessment of underwater hazards as part of the Australian Government's emergency response to flood affected areas of Queensland.[13] RAAF AP3C Orion aircraft and RAN patrol boats routinely contribute to efforts to manage civil maritime security as part of the interagency taskforce Border Protection Command.

4.11   Unmanned platforms were perceived by a number of submitters as providing additional opportunities for the ADF to conduct national support tasks such as assistance during emergencies. These included extreme weather monitoring, bushfire monitoring, damage assessments after civil emergencies, search and rescue, detection of illegal fishing and other border protection functions.[14] Mr Ken Crowe, from Northrop Grumman, highlighted that Australia's immediate region was prone to natural disasters and suggested that the response to those 'disasters can be aided by the application of unmanned technology'.[15] Mr Brian Weston also commented:

> With the emergence of UAS, there is considerable scope for UAS to play an increasing role in national support tasks where their persistence, surveillance capabilities and economy of operation are advantageous.[16]

4.12   When the then Minister of Defence, Senator the Hon David Johnston, announced that Australia would maintain a Heron capability he stated that 'while Defence resources are primarily used for national security purposes, if the Heron was available it could be used at the request of state governments for civilian roles, such as

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12   *Committee Hansard*, 14 April 2015, p. 9.

13   Department of Defence, 'Operation Queensland Flood Assist', *Media release*, 5 February 2011.

14   NT Government, *Submission 9*, p. 5.

15   *Committee Hansard*, 14 April 2015, p. 17.

16   *Submission 4*, p. 13.

assistance during natural disasters'.[17] Defence noted that while the ADF's 'limited unmanned platform capabilities have been employed extensively and successfully in combat-support…[they] have not been employed in border security, civil emergency support or regional cooperation tasking in Australia or its region'.[18] However it also indicated that as the capabilities of unmanned platforms develop they 'could easily be extended to support domestic, regional and border protection operations'.[19] Air Vice-Marshal Gavin Davies predicted that 'the versatility of unmanned aerial vehicles will mean that they become a vital part of how emergency response is done around the world'.[20]

4.13   The Australian Red Cross outlined that there were a number of issues which have been identified by the international community as problematic in the use of military platforms (including unmanned platforms) deployed for humanitarian purposes. However, it considered that the Australian government has adopted a conservative approach to the use of military assets to assist with the delivery of humanitarian aid in an overseas context. It commented:

> It is worth noting that in natural disaster response in the Asia-Pacific region, affected States' militaries play a substantial role in disaster response and many governments look to their militaries to be a principal responder. In a natural disaster environment, military deployments to a disaster zone may follow government direction and provide rapid deployment of medical, logistics and engineering capabilities. Military assets (planes, helicopters or UAVs) may be used for immediate damage assessments and such use is increasing, for example in the Philippines following Typhoon Haiyan. In a domestic situation when responding to a natural disaster, the use of Australian military assets is considered supplementary to civilian responders when additional resources are required. Such use however, from experience, is thought to be uncontroversial.[21]

4.14   However, the Australian Red Cross also highlighted the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) advice which suggested that UAVs operated by the military should follow existing guidelines which require humanitarian organisations to ensure that:

- any humanitarian civil-military relationship or interaction does not impact principled humanitarian action [neutral, impartial, independent]; [and]

- the use of military assets in support of humanitarian operations is appropriate and in accordance with international guidelines, i.e. that

17   Senator the Hon David Johnston, Minister for Defence, 'Heron to be retained to keep Australia's unmanned aerial capability', *Media release*, 28 October 2014.

18   *Submission 23*, p. 3.

19   *Submission 23*, p. 13.

20   *Committee Hansard*, 14 April 2015, p. 45.

21   Australian Red Cross, *responses to questions on notice*, p. 6.

> military assets provide a unique capability, availability and timeliness not possessed by the humanitarian community (i.e. "last resort").[22]

4.15   The OCHA paper noted:

> In many cases, UAVs will clearly provide a "unique capability", particularly in areas where humanitarian access is restricted due to security or terrain. However, it is harder to show that the use of UAVs by military or peacekeeping actors will not impact humanitarian principles, because this depends on the perceptions of local communities and stakeholders, not the mission per se. Humanitarians will have to consider whether the military is a party to the conflict, and if association with them would impact the perceived or actual neutrality, impartiality and operational independence of the overall humanitarian effort.[23]

4.16   Other possible uses of ADF UAVs were raised. For example, the Australian Federal Police (AFP) argued that the use of 'UAVs in areas such as the Torres Straight and Northern Australia would provide significant opportunities to mitigate the AFP's current vulnerabilities in its covert surveillance operations'. It noted that the use of unmanned platforms by the ADF could provide opportunities 'to collaborate and share imagery information between various government agencies in the appropriate circumstances'. However, the AFP cautioned that a regulatory framework would need to be 'established for the effective exchange of imagery'.[24]

4.17   Despite these new opportunities for the use of UAVs, concerns were also expressed that the use of 'military-grade' unmanned platforms may not be an effective use of resources in non-military situations. For example, Cobham Aviation Services commented:

> [I]t needs to be noted that the use of high end military ISR capability, [UAVs] or manned, to deliver civil surveillance outcomes is a misuse of military capability and is provided at very high cost to government. This is because military platforms are designed, developed, crewed, trained for and operated for use in complex hostile conflict environments.[25]

Perceptions and transparency

4.18   The negative perception of unmanned platforms was identified as a key risk of their acquisition and deployment, particularly if they were armed.[26] Concerns were expressed that an ill-informed view was held by the general public in relation to unmanned platforms. Dr Andrew Davies from ASPI stated:

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22   Australian Red Cross, *responses to questions on notice*, p. 8.

23   UN Office for the Coordination of Humanitarian Affairs, *Unmanned Aerial Vehicles in Humanitarian Response*, Occasional Policy Paper, June 2014, p. 12.

24   *Submission 10*, p. 2.

25   *Submission 14*, p. 3.

26   For example, Australian Association for Unmanned Systems, *Submission 17*, p. 3.

> [B]ecause of the way that armed drones have entered the public consciousness as weapons in the unconventional part of the 'war on terror', they've the potential to draw opposition from the public and from neighbouring governments…So if Australia was to purchase Reapers or a similar system, there's the potential to cause alarm, among both Australians and our neighbours.[27]

4.19 Dr Davies suggested these concerns could be allayed by making clear public statements about the concept of operations for the UAVs and 'ensuring they are unambiguously and visibly under military control'.[28] Ms Turner, also from ASPI, argued that Australia could learn from the UK's experience in the acquisition and use of armed Reaper UAVs. In particular:

> The UK has made an effort to embrace transparency around its use of Reapers in military operations, most likely to allay speculation that it conducts covert strikes that have proven unpopular for the US. The UK has made data available on Reaper strikes and the Ministry of Defence (MoD) and British government have publicly answered questions about their use through formal inquiry…The MoD has also conducted a PR campaign by supporting media events intended to 'dispel some of the myths that surround the use of UAVs' and raise awareness of how it uses the technology.[29]

4.20 The Human Right Law Centre argued that there was an 'accountability vacuum' in relation to the use of military UAVs. It noted that '[d]espite the ongoing calls by the United Nations and other bodies, and various promises by governments, there continues to be a lack of transparency surrounding drone use'. The Human Rights Law Centre noted:

> In the United Kingdom, the Royal Air Force is accountable to Parliament through the Ministry of Defence, which allows for some transparency. The Ministry does not, however, comment publicly on the use of remotely piloted aircraft in connection with special operations. Under some of its operating procedures, every remotely piloted aircraft weapons discharge is internally reviewed and a mission report, including video footage and communications reports, prepared and reviewed. Where there is an indication of civilian casualties, the incident is referred to a body whose personnel are independent of the chain of command involved in the strike.[30]

4.21 Defence also highlighted 'perception management' as a potential risk in the use of unmanned platforms. It noted that '[p]oor perceptions created by illegal or uncertified civilian use of unmanned platforms within the domestic community in particular, has the potential to generate an incorrect perception of the systems used by

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27   *Submission 13*, 'ADF and armed drones', p. 1.

28   *Submission 13*, 'ADF and armed drones', p. 2.

29   *Submission 13*, 'Lessons for the ADF from Britain's armed drone program', pp. 1-2.

30   *Submission 16*, p. 9.

the military'.[31] Defence stated it had been 'engaged with Royal Air Force (RAF) regarding their experience with the introduction into service of the REAPER platform'. It noted that the 'ADF does not currently report on operations' but that changes to reporting practices may be considered 'should the ADF procure armed [UAVs]'.[32]

Personnel issues

4.22   The number of personnel required to operate and maintain unmanned platforms was frequently raised as one of the criteria to judge their value. For example, Mr Anthony Patterson, from Cobham Aviation Services, considered the reference to 'unmanned' was inappropriate as the 'employment level, or the relative number of people required to operate [a] system for the same unit of surveillance outcome, is about the same between manned aircraft and unmanned aircraft'.[33]

4.23   The Heron UAV used by the ADF in Afghanistan utilised a small team to operate it from a ground control station. This team could involve an air vehicle operator (pilot), an ISR officer, a payload operator and an electronic warfare operator as well as other specialist technicians or linguists.[34] Air Vice-Marshal Gavin Davies suggested to the committee that the impression that 'it takes fewer people to operate remotely piloted aircraft' may be overstated. He stated that the 'Air Force is of the view that our acquisition of Triton as part of the long-term maritime capability will, basically, be replacing a P3 squadron with a Triton squadron, in terms of people'.[35]

4.24   Defence acknowledged that '[r]ecruiting and retaining sufficient numbers of qualified personnel to operate and support emerging unmanned platform capabilities that can operate 24/7, such as the Triton, will be a challenge for the ADF in managing its workforce'. It noted it was 'currently planning the required personnel support structures to do this with specific consideration being undertaken under the Force Structure Review'.[36] Defence also identified that policy consideration was required in areas such as 'personnel management, training/competency requirements and medical standards for [UAV] operators'.[37]

4.25   Having sufficient personnel to operate, maintain and analyse the ISR material produced by unmanned platforms was highlighted as a significant issue. For example, Ms Rosalyn Turner from ASPI noted that, since acquiring armed Reapers from the US in 2007, the United Kingdom (UK) has extensively deployed them:

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31   *Submission 23*, pp 13-14.

32   Department of Defence, response to questions on notice no. 3, p. 1.

33   *Committee Hansard*, 4 May 2015, p. 2.

34   Royal Australian Air Force, 'Heron: looking to the future', *Air Force*, 29 January 2015, p. 5.

35   *Committee Hansard*, 14 April 2015, p. 42.

36   *Submission 23*, p. 13.

37   *Submission 23*, p. 14.

One of the issues arising from such a high operational tempo has been maintaining capacity to resource the platforms. The UK's Select Committee on Defence highlighted a lack of UAV operators and imagery analysts as a key challenge shortly after the Reapers began operations. (The US Air Force (USAF) has also struggled in this regard)…

It's hard to predict whether an Australian fleet would see as much action, and it would of course depend on the number and type of operations to which the ADF was committed. Nevertheless it's been reported that there's currently a shortage of drones available to confront the challenges in Iraq and Syria, which suggests they'll remain a sought-after capability for some time. If the ADF decides to acquire these platforms, it'd be well placed to start the process of recruiting and training personnel early to head off challenges faced by the RAF and USAF.[38]

4.26   At the hearing, Ms Turner observed that Australia could benefit from the experiences of the US and the UK UAV programs:

Starting early is really important—and definitely using our allies' capabilities and facilities in terms of maintaining and enhancing our personnel's capabilities and training in those areas. And the US has certainly started targeting younger people, targeting different people, in terms of recruiting drone operators, because of course this is very different from recruiting fighter pilots.[39]

Armed unmanned platforms

4.27   The decision to acquire armed unmanned platform was highlighted as a significant one. The Defence submission emphasised the Defence Capability Plan 'does not currently contain a project to procure an armed unmanned platform or system'.[40] It noted that the 'procurement of an armed UAS capability remains the subject of the Force Structure Review'.[41] At the April hearing, Air Vice-Marshal Davies commented that 'Air Force think that an armed medium-altitude, long-endurance vehicle gives us the tactical flexibility to have a greater impact on the battlefield'.[42]

4.28   Dr Davies outlined two applications for armed UAVs: armed reconnaissance 'being able to survey the battlefield and the wider environment, with the ability to engage the enemy if necessary'; and 'flying fire support for land force elements that find themselves under fire or otherwise in danger'.[43] However, Dr Derek Rogers, from

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38   *Submission 13*, 'Lessons for the ADF from Britain's armed drone program', pp 1-2.

39   *Committee Hansard*, 14 April 2015, p. 25.

40   *Submission 23*, p. 10

41   Department of Defence, *response to question on notice 3*, p. 1.

42   *Committee Hansard*, 14 April 2015, p. 48.

43   *Submission 13*, 'The ADF and armed drones', p. 1.

Saab Australia, commented that 'there is not always a need to weaponise such systems to be effective in a number of operational scenarios'. He noted that 'the ability of unmanned platforms 'to shadow, loiter, picket, record video evidence and standoff may be a valuable deterrent in anti-piracy operations for example'.[44]

4.29   If Australia decided to acquire armed UAVs some argued there was a need to establish rigid standards of practice in relation to their use. For example, Dr Christian Enemark observed that 'some decision-makers within Britain and the United States have already expressed concerns about the need to champion normative limitations on the use of drones'.[45] Similarly, Mr Ben Fitzegerald from the Lowy Institute has argued that to 'have a credible voice in developing appropriate norms and policies for drone use on the world stage, Australia must establish itself as a leading operator of drone capability, including armed variants'. He stated:

> The greatest risk to Australian interests is not that other nations will acquire drones and use them against us…The more likely risk is that some nations will use them in ways that undermine the rules-based international order that Australia subscribes to, or will increase regional instability through risky use…These incidents are likely to increase in frequency as nations acquire drones and seek to push the boundaries of international norms or re-establish them in their favour.[46]

4.30   The Human Rights Law Centre also argued that, as unmanned platforms are increasing used by State and non-State actors, it was in Australia's interest that they are used according to law. It considered it was 'critical that a rules-based order for the use of drones is established and followed'.[47]

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44   *Submission 24*, p. 2.

45   *Submission 20*, p. 3.

46   Ben Fitzgerald, 'Apply Australian values to drone warfare', *The Interpreter*, 3 March 2015, available at http://www.lowyinterpreter.org/post/2015/03/03/Applying-Australian-values-to-drone-warfare.aspx (accessed 31 May 2015).

47   *Submission 16*, pp. 5.