The Parliament of the Commonwealth of Australia

Report 7/2014

Referrals made September 2014

- Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project
- Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project

Parliamentary Standing Committee on Public Works

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List of recommendations

2 Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project

Recommendation 1

The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project.

3 Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project

Recommendation 2

The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project.

1

Introduction

1.1 Under the Public Works Committee Act 1969 (the Act), the Parliamentary Standing Committee on Public Works is required to inquire into and report on public works referred to it through either house of Parliament. Referrals are generally made by the Parliamentary Secretary to the Minister for Finance.

1.2 All public works that have an estimated cost exceeding $15 million must be referred to the Committee and cannot be commenced until the Committee has made its report to Parliament and the House of Representatives receives that report and resolves that it is expedient to carry out the work.[1]

1.3 Under the Act, a public work is a work proposed to be undertaken by the Commonwealth, or on behalf of the Commonwealth concerning:

- the construction, alteration, repair, refurbishment or fitting-out of buildings and other structures;
- the installation, alteration or repair of plant and equipment designed to be used in, or in relation to, the provision of services for buildings and other structures;
- the undertaking, construction, alteration or repair of landscaping and earthworks (whether or not in relation to buildings and other structures);
- the demolition, destruction, dismantling or removal of buildings, plant and equipment, earthworks, and other structures;
- the clearing of land and the development of land for use as urban land or otherwise; and

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1 The *Public Works Committee Act 1969* (The Act), Part III, Section 18(8). Exemptions from this requirement are provided for work of an urgent nature, defence work contrary to the public interest, repetitive work, and work by prescribed authorities listed in the Regulations.

- any other matter declared by the regulations to be a work.[2]

1.4 The Act requires that the Committee consider and report on:

- the purpose of the work and its suitability for that purpose;
- the need for, or the advisability of, carrying out the work;
- whether the money to be expended on the work is being spent in the most cost effective manner;
- the amount of revenue the work will generate for the Commonwealth, if that is its purpose; and
- the present and prospective public value of the work.[3]

1.5 The Committee pays attention to these and any other relevant factors when considering the proposed work.

Structure of the report

1.6 The proposed projects were referred to the Committee in September 2014 by the Parliamentary Secretary to the Minister for Finance, The Hon Michael McCormack MP.

1.7 In considering the works, the Committee analysed the evidence presented by the proponent agencies, submissions and evidence received at public and in-camera hearings.

1.8 In consideration of the need to report expeditiously as required by Section 17(1) of the Act, the Committee has only reported on significant issues of interest or concern.

1.9 The Committee appreciates, and fully considers, the input of the community to its inquiries. Those interested in the proposals considered in this report are encouraged to access the full inquiry proceedings available on the Committee's website.[4]

1.10 Chapter 2 of this report addresses Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project. The estimated cost of the project is $63.0 million, excluding GST.

1.11 Chapter 3 of this report addresses Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project. The estimated cost of the project is $24.7 million, excluding GST.

1.12 Submissions are listed at Appendix A, and hearings and witnesses are listed at Appendix B.

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2 The Act, Section 5.

3 The Act, Section 17.

4 <www.aph.gov.au/pwc>

2

Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project

2.1 The Department of Defence (Defence) seeks approval from the Committee to provide facilities and supporting infrastructure necessary for the operations of the new Space Surveillance Telescope.

2.2 The Space Surveillance Telescope will develop an Australian Defence Force (ADF) space surveillance capability, enhance the global surveillance capability and provide an increased ability to track space debris. The telescope will also demonstrate an increased Australian and US commitment to closer space cooperation, and provides further practical expression to the 2010 Space Situational Awareness partnership.[1]

2.3 The proposed facilities and infrastructure works to support the telescope will be undertaken at the Harold E Holt Naval Communications Station base area, near Exmouth, Western Australia.[2]

2.4 The estimated cost of the project is $63.0 million, excluding GST.

2.5 The project was referred to the Committee on 23 September 2014.

Conduct of the inquiry

2.6 Following referral, the inquiry was publicised on the Committee's website and via media release.

2.7 The Committee received one submission and three supplementary submissions from Defence. A list of submissions can be found at Appendix A.

2.8 The Committee conducted an inquiry briefing and inspection, and public and in-camera hearings, at Harold E Holt Naval Communications Station,

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1 Department of Defence (Defence), submission 1, pp. 9-10.

2 Defence, submission 1, p. 10.

Exmouth, WA, on 4 November 2014. A transcript of the public hearing and the public submissions to the inquiry are available on the Committee's website.[3]

Need for the works

2.9 Military forces around the world are increasingly reliant on space-based capabilities for communications, positioning, timing and surveillance. However, space is becoming increasingly congested with active satellites and discarded space junk. Currently, the United States tracks approximately 17,000 objects in orbit, with an estimated half a million additional objects too small to track. Maintaining an awareness of the position and trajectory of these objects is important when the relative speed of closure between objects can be as high as 14 kilometres per second. At such speeds, even objects smaller than one centimetre in diameter can cause serious damage to operational satellites or manned space missions. The vulnerability of a space asset to a collision with even a minute piece of space junk makes space situational awareness an absolute necessity to successful operations in the space domain.[4]

2.10 Space situational awareness provides the operators of space-based capabilities the ability to anticipate the influence of other space objects and take action to ensure continued and unimpeded operation of space vehicles. This can include manoeuvring spacecraft to reduce the probability of a collision with another object in orbit. With the very long lead times and huge costs often associated with placing satellites into orbit, the capability to predict and avoid potential collisions is extremely valuable. From a military perspective, commanders and decision makers use space situational awareness to leverage the capabilities of space-based systems while exploiting the associated vulnerabilities of an adversary. Space situational awareness is provided through the tracking, classification and identification of space-based objects.[5]

2.11 Currently, the ADF possesses very limited capability to obtain knowledge of space-based threats, relying heavily on the United States for space situational awareness. In order to develop an ADF space surveillance and situational awareness capability, the Australian and United States governments have agreed to the establishment of a surveillance capability in Australia. Most recently, this has been given practical expression through a decision to relocate a US space surveillance telescope to

3 <www.aph.gov.au/pwc>

4 Defence, submission 1, p. 1.

5 Defence, submission 1, pp. 1-2.

Australia, to be accommodated in facilities specifically designed and constructed to suit the purpose.[6]

2.12 During the 2012 Australia-US dialogue, a joint commitment was made to work towards the relocation of a highly advanced optical space surveillance telescope to Australia. This intention was given added emphasis in the 2013 Defence White Paper, where it was observed that space surveillance was of increasing significance and importance in defence and national security. A memorandum of understanding to relocate the telescope to the Harold E Holt Naval Communications Station area from the United States was signed on 20 November 2013.[7]

2.13 The funding for the telescope and the facilities will be split between the US and Australia, with the:

> … United States to provide the telescope itself and fund its relocation, while Australia will provide funding for the [facilities] solution. Sustainment and support costs will be shared.[8]

2.14 The telescope is expected to be operational in Australia by September 2017 for southern hemisphere observations, when it would begin contributing to the US Global Space Surveillance Network.[9] This leads to an accelerated facilities delivery schedule in readiness to receive and house the telescope, and for its subsequent testing and demonstration activities.[10]

2.15 The Committee is satisfied that the need for the works exists.

Options considered

2.16 Defence's submission stated that the development of an ADF space situational awareness capability would be streamlined by building on the existing security alliance with the US. The establishment of US assets in Australia for shared operation makes use of existing US technology, allowing the ADF to rapidly acquire a space surveillance capability whilst avoiding the time and cost premiums associated with developing an independent ADF capability. Relocating US assets to Australia also addresses the limited coverage currently available in the southern hemisphere. This outcome could not be achieved by placing ADF personnel in existing US facilities, which would also offer little towards the development of a sustained Australian capability.[11]

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6 Defence, submission 1, p. 2.

7 Defence, submission 1, pp. 2-3.

8 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 1.

9 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 2.

10 Defence, submission 1, p. 3.

11 Defence, submission 1, p. 4.

2.17 Defence identified a number of siting options in Australia for the telescope, discarding those not on Defence land due to potential access issues and those considered to be too remote.[12] The sites assessed included:

- Exmouth, including Harold E Holt Naval Communications Station;
- RAAF Learmonth, in Western Australia;
- the Australian Defence Satellite Communications Station at Kojarena, in Western Australia, which is near Geraldton, in Western Australia;
- the Laverton Jindalee Operational Radar Network (JORN) receiver site, in Western Australia;
- Pine Gap, in the Northern Territory;
- the Alice Springs JORN receiver site, in the Northern Territory;
- Woomera, in South Australia;
- the Mobile Laser Ranging System 4 (MOBLAS 4) satellite ranging station at Yatharagga, Western Australia;
- Gingin, Western Australia; and
- the Murchison Radio-astronomy Observatory, Boolardy, Western Australia.[13]

2.18 Defence conducted site visits with the US in March 2012, and assessed the options against various criteria, including:

- astro-climate;
- temperature;
- wind speed;
- humidity;
- cloud cover; and
- cyclone vulnerability.[14]

2.19 Defence then identified three potential locations in Australia that were within Defence areas and remote from the possibility of light interference during the telescope's operational life:

- the Jindalee 'Over the Horizon Radar' receiver site near Alice Springs, Northern Territory;
- the Australian Defence Satellite Communications System site, Geraldton, Western Australia; and

12 Wing Commander Stuart Briese, Defence, transcript of evidence, 4 November 2014, p. 2.

13 Wing Commander Stuart Briese, Defence, transcript of evidence, 4 November 2014, p. 2.

14 Wing Commander Stuart Briese, Defence, transcript of evidence, 4 November 2014, p. 2.

- the Harold E Holt Naval Communications Station near Exmouth, Western Australia.[15]

2.20 Technical assessments of these strategic level siting options were then undertaken, and it was determined that the Harold E Holt Naval Communications Station offered the best geographical location and weather conditions to enable the telescope to obtain the maximum possible quantity of useful data.[16]

2.21 The geographic location of Harold E Holt Naval Communications Station was a significant factor in its selection:

> … the strategic concern of actually getting the data we needed from the telescope was very heavily weighted. This site offers a site that is far enough north to see a large part of the geostationary orbit belt yet is far enough south to be out of the monsoonal cloud band. Likewise, it is far enough west to see the part of the geostationary orbit belt we are most interested in, because it contains a large number of satellites belonging to countries of military interest to Australia, the US and our allies. So it really was, from that point of view, strategically the ideal site.[17]

2.22 Two operational siting options within the Harold E Holt Naval Communications Station were then identified and considered, one accessed from Borefield Well 18 and one accessed from Borefield Well 16. The basic requirement was that the site would need to be away from the base administrative centre and developed areas to avoid light interference, but proximate enough to base services for beneficial cost and environmental factors. The Borefield Well 16 option was not considered viable for long term access to the site due to the steeply graded landscape. As a result, the site accessed from Borefield Well 18 was selected as the preferred site within Harold E Holt Naval Communications Station for its comparatively easy access.[18]

2.23 Due to the specialised and unique nature of the capability, and the premise that it is a replication of the US space surveillance telescope capability in New Mexico, there was only one facility option available to develop.[19] Accordingly:

> The design of the facility is essentially being replicated as far as possible from the existing space surveillance telescope in New

15 Defence, submission 1, p. 4.

16 Defence, submission 1, pp. 4-5.

17 Wing Commander Stuart Briese, Defence, transcript of evidence, 4 November 2014, p. 2.

18 Defence, submission 1, p. 5.

19 Defence, submission 1, p. 5.

> Mexico USA, with some modifications to make it compliant with the Australian standards and adapted to suit the climatic conditions of Australia's north-west cape.[20]

2.24 There are significant climate differences between New Mexico and Exmouth that impact the design of the facility:

> The difference between the driving factors at the New Mexico site and here at Exmouth are definitely the higher temperatures and the humidity. What drives that is the capacity of the chiller and chiller system. In order to mitigate the difference between the day-time and night-time temperatures we look at what that delta is on a given night, and we project what the dome has to [cool] down to on that night. We set up the chiller system to bring down that projected temperature. That requires a low-temperature chiller to get us to the extreme points of the variations at night times in order to accommodate the extreme points of that. Normally, a facility would have a single chilled-water circulation system. We have added what is called a low-temp chiller to make sure that we accommodate that load.
>
> The higher humidity at this site also requires additional cooling to bring the relative humidity down to the point where it is going to be for the ambient night-time temperature. Again, the goal of the facility is to accommodate whatever the humidity is going to be, and whatever the night-time temperature will be when they open up the telescope observatory.[21]

2.25 The potential for severe weather events at Exmouth such as cyclones also influences the design of the facility and its ability to operate:

> … [In New Mexico] what they would have which is similar to a cyclone is a snow event. If a snow event comes around for them they would have to hunker down, so to speak, and take the wind load, the snow load and the ice load on that facility. In comparison, at Exmouth we are going to have to, again, hunker down and take the wind load and the water load.
>
> So, under normal operations, when you see an oncoming storm—whether it is a snow storm, a cyclone or something like that—you basically shut the operations down for that period. You cannot operate during those conditions…[22]

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20 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 1.

21 Mr Jose Teran, Defence, transcript of evidence, p. 3.

22 Mr Jose Teran, Defence, transcript of evidence, p. 3.

2.26 Defence advised that adapting the facility to the Exmouth conditions had taken slightly longer than initially expected. However, the slight delay in the availability of the telescope has eased this time constraint.[23]

2.27 The Committee found that Defence has considered multiple options to deliver the project and has selected the most suitable option.

Scope of the works

2.28 The proposed facility to accommodate the telescope would comprise the dome enclosure structure (the observatory), an operations support centre (connecting to the dome structure) and multiple equipment structures (for supporting services).[24]

2.29 The enclosure houses the telescope. The structure is designed to exacting standards that ensure the stability of the telescope. In the closed position, the enclosure protects the telescope and its instruments against adverse weather conditions. In the open position, the enclosure allows the telescope a free field of view by means of a large slit in the structure. The enclosure is connected directly to the support building. The enclosure base serves as a foundation and stationary floor for the rotating enclosure and also provides for storage and an equipment room. Due to the requirement to minimise vibration, the connected dome and support building requires significant foundation and concrete slab works.[25]

2.30 The support building comprises three functional areas for telescope related activities, utilities infrastructure and personnel related functions.[26]

2.31 The equipment buildings house large mechanical and electrical equipment that support the enclosure and support building, and will be set at a distance from this building. Defence's initial submission indicated that there may be more than one equipment building.[27] This was confirmed at the public hearing.[28] Defence advised:

> For the main building, there are two parts in it. There is the normal facility which contains the power facilities; there is also a second part, which is the air conditioning section. There are two water tanks and then three smaller facilities comprising the emergency

23 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 3.

24 Defence, submission 1, p. 10.

25 Defence, submission 1, p. 11.

26 Defence, submission 1, p. 11.

27 Defence, submission 1, p. 11.

28 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 5.

> generator, the fuel tank and the [high voltage] transformer. That is a total of six facilities.[29]

2.32 Other scope elements include:

- an access track to connect the proposed site to the existing base road and track network;
- the establishment of a communications link back to the base, for security observation and for data distribution as required from the existing base infrastructure;
- connection to existing base high voltage power, water and sewerage services, with provision for stored fire services water on site;
- installation of uninterrupted back-up power supply for operational continuity and protection of sensitive equipment;
- security fencing, with sufficient enclosed area to allow cranes and construction traffic to be manoeuvred on the site; and
- car parking for five vehicles.[30]

2.33 Subject to Parliamentary approval of the project, construction is expected to commence by mid-2015, and be completed by late 2016.[31]

2.34 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

Cost of the works

2.35 The estimated cost of the project is $63.0 million, excluding GST.

2.36 Defence provided further detail on the project costs in the confidential submissions and during the in-camera hearing.

2.37 The Committee considers that the cost estimates for the project have been adequately assessed by Defence and the Committee is satisfied that the proposed expenditure is cost effective. As the project will not be revenue generating the Committee makes no comment in relation to this matter.

Committee comments

2.38 During its inspection of the proposed site, the Committee observed the remoteness of the Harold E Holt Naval Communications Station and the rocky terrain that limits access to the site.

2.39 The Committee notes that the local community has been consulted regarding the project, and expects this consultation to continue as

29 Mr David Mitchell, Defence, transcript of evidence, p. 5.

30 Defence, submission 1, pp. 11-12.

31 Brigadier Darren Naumann, Defence, transcript of evidence, 4 November 2014, p. 2.

construction occurs and the telescope is delivered.[32] The Committee also notes that there is likely to be a positive economic benefit to the community during the construction phase of the project.

2.40 The Committee accepts that there is likely to be minimal impact on local roads during the construction, and is satisfied that Defence will follow the appropriate state government requirements for managing and escorting large oversized loads, particularly associated with the delivery of the telescope, through community areas.[33]

2.41 The Committee notes Defence's consideration of bushfire protection, including the appropriateness of the materials used in the construction of the facility and a 35-metre setback to reduce bushfire risk.[34]

2.42 During the in-camera hearing, Defence assured the Committee that it has appropriately assessed the project costs and risks, and will continue to manage these elements throughout the project.

2.43 The Committee did not identify any issues of concern with Defence's proposal and is satisfied that the project has merit in terms of need, scope and cost.

2.44 The Committee reminds Defence that it must notify it of any changes to the project scope, time and cost. The Committee also requires that a post-implementation report be provided within three months of completion of the project. A report template can be found on the Committee's website.

2.45 Having regard to its role and responsibilities contained in the *Public Works Committee Act 1969*, the Committee is of the view that this project signifies value for money for the Commonwealth and constitutes a project which is fit for purpose, having regard to the established need.

Recommendation 1

2.46 **The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project.**

32 See submission 1.2; transcript of evidence, 4 November 2014, p. 7.

33 See transcript of evidence, 4 November 2014, pp. 5-6.

34 See transcript of evidence, 4 November 2014, pp. 8-9.

3

Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project

3.1 The Department of Defence (Defence) seeks approval from the Committee to provide the facilities and supporting infrastructure necessary to support its Counter Improvised Explosive Device (IED) Capability.

3.2 The purpose of the proposed project is to deliver new and refurbished, purpose-built facilities and associated infrastructure to support the introduction of a sustainable Counter IED capability into the Australian Defence Force.[1]

3.3 There are 13 project elements that make up the proposed project. These project elements are being delivered in two distinct stages at various Defence bases and establishments. The collective proposed works will support the testing and storage of counter IED equipment and training of personnel.[2]

3.4 The works proposed under Stage 1 will be delivered at Nurrungar in South Australia. Twelve elements make up the package defined as Stage 2 works which include support facilities at multiple bases around Australia.

3.5 Stage 2 works were previously approved by the Public Works Committee and construction on these sites commenced in October 2013. Some elements of the Stage 2 works have been completed and some are still under construction.[3]

3.6 It is the Stage 1 works which are the subject of this chapter. The estimated cost of the project is $24.7 million, excluding GST.

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1 Department of Defence (Defence), submission 1, p. 5.

2 Defence, submission 1, p. 3

3 Defence, submission 1, p. 3.

3.7 The project was referred to the Committee on 23 September 2014.

Conduct of the inquiry

3.8 Following referral, the inquiry was publicised on the Committee's website and via media release.

3.9 The Committee received one submission and one supplementary submission from Defence. A list of submissions can be found at Appendix A.

3.10 The Committee conducted an inspection, public hearing and in-camera hearing on the project on 19 and 20 November 2014 in Nurrungar and Woomera in South Australia. A transcript of the public hearing and the public submissions to the inquiry are available on the Committee's website.[4]

Need for the works

3.11 Defence informed the Committee that the use of IEDs by insurgents continues to represent a major threat to Australian Defence Force elements deployed on operations around the world. This threat also has potential to migrate to mainland Australia and countries within Australia's immediate neighbourhood. It is highly likely that the Australian Defence Force will encounter IEDs on future deployments.[5]

3.12 The 2013 Defence White Paper recognises this threat and supports the enhancement of Counter IED capabilities into the future.[6]

3.13 To counter this threat, Counter IED capabilities, primarily in the form of Force Protection Electronic Counter Measures (FPECM) systems, have been acquired by Defence under Joint Project 154 Phase 1 to protect deployed forces.[7]

3.14 Defence has observed that as time progresses, threat elements are embracing Radio Frequency consumer products with frequencies extending beyond those that can be countered by current FPECM systems. To effectively counter the extant, emerging and future IED threats, a continuous technology refresh program is required.[8]

4 <www.aph.gov.au/pwc>
5 Defence, submission 1, p. 1.
6 Defence White Paper 2013, p. 19.
7 Defence, submission 1, p. 2.
8 Defence, submission 1, p. 2.

3.15 Facilities are required to support this ongoing capability in terms of testing (research and engineering acceptance), storage and training facilities for the FPECM systems.[9]

3.16 Defence told the Committee that currently, there are very limited facilities to support the FPECM systems capability. Research and development, engineering acceptance, storage and training activities are being undertaken in an ad hoc manner and this arrangement is neither effective nor economical.[10]

3.17 Current temporary testing arrangements at Nurrungar impose limitations on fully developing the capability and alternative offshore options are expensive and time-consuming to plan and utilise, according to Defence.[11]

3.18 The proposed works will allow Defence to address identified operational and capability deficiencies and provide the ability to fully and effectively introduce and support the capability into the Australian Defence Force. It is expected that other Government agencies will also benefit from the proposed works in support of domestic security requirements.[12]

3.19 The Committee is satisfied that the need for the works exists.

Reasons for adopting the proposed course of action

3.20 Defence told the Committee that FPECM Systems are continuously improved through research and development to ensure that they remain effective into the future.[13]

3.21 Currently, the Australian Defence Force can only conduct limited research, development and testing to vehicle mounted FPECM Systems, due to severe limitations on when and where the testing can be conducted and the radio frequency spectrum that can be tested. The limitations on the testing are in place to minimise the emission of radio frequency radiation and consequent interference with civilian and military radio communications.[14]

3.22 When asked by the Committee why this particular location was chosen for the proposed works, Brigadier Naumann said:

> … this is a very electronically quiet area, which means that we do not have background electromagnetic radiation levels that might

9 Defence, submission 1, p. 2.
10 Defence, submission 1, p. 2.
11 Defence, submission 1, p. 2.
12 Defence, submission 1, p. 3.
13 Defence, submission 1, p. 15.
14 Defence, submission 1, p. 15.

> interfere with the testing that we are undertaking. Also, because of the isolation of the site it means that there is a reduced risk of the testing that we do interfering with civilian activities going on nearby.[15]

3.23 The proposed works will further develop the Australian Defence Force's counter IED capability and ensure that FPECM systems remain effective.[16]

3.24 Following its visit to the existing temporary testing site and the nearby proposed site, the Committee is satisfied that Defence's reasons for adopting the proposed course of action are sound.

Scope of the works

3.25 The proposed facilities at Nurrungar and RAAF Base Edinburgh will close existing gaps in the Australian Defence Force's capability to conduct research, development and acceptance testing of FPECM equipment. The Nurrungar works form the central facilities component supporting the capability and include a test track and support facilities. Under Stage 2, other support facilities works will be carried out at multiple bases around Australia to further develop, store and maintain the capability.

3.26 Nurrungar was selected as the site for the test track and supporting infrastructure, as it provided the following advantages:

- it is located on Commonwealth land;
- ease of access to services in the nearby Woomera township, decreasing the need for additional supporting infrastructure;
- Defence Science and Technology Organisation modelling has indicated that the siting option minimises radio frequency leakage to the outside environment through natural terrain shielding and has zero line of sight from the Stuart Highway, thereby minimising effects on nearby populated areas and vehicles transiting the Stuart Highway;
- the area is relatively 'electronically quiet' which makes it ideal for the conduct of electronic warfare testing; and
- this option received the support of the local Aboriginal groups.[17]

3.27 The proposed work to be delivered at Nurrungar is as follows:

- Test track. A bitumen sealed road to allow testing of FPECM equipment mounted onto various Defence vehicles. Monitoring stations are located perpendicular to the test track and are connected to the test recording building with fibre optic cables.

15 Brigadier Darren Naumann, Defence, transcript of evidence, 20 November 2014, p. 4.

16 Defence, submission 1, p. 15.

17 Defence, submission 1, p. 5.

- Test recording building. This building will be used to capture and record the results from the test track. The proposed facility will include office space, basic amenities and a server room.
- Workshop. The proposed workshop is connected to the test recording building and will accommodate heavy vehicles to enable the installation, programming and fault finding of FPECM equipment.
- Access road. A new unsealed, all-weather road is proposed to be constructed from the existing Nurrungar access road (which links the Stuart Highway and the disused Nurrungar Technical Compound) to the test track. The new access road will accommodate a range of vehicles, from light passenger to Bushmaster military vehicles. The alignment of the new access road avoids areas of heritage significance.
- Engineering services. Power, voice and data communications are proposed to be supplied to the test recording building by recommissioning existing infrastructure. New local water and sewerage infrastructure is also proposed to service the amenities at the test recording building.[18]

3.28 Siting of the test track facility was severely constrained by the operational requirement to minimise radio frequency leakage to the outside environment. Nurrungar was selected as the preferred site because early investigations showed that the site met the radio frequency shielding requirements and provided the added benefit of being located in close proximity to existing Defence infrastructure at Woomera.[19]

3.29 Three geographic locations were considered for the test track within the boundaries of the Commonwealth-owned land at Nurrungar. Of these, the Entrance Road was discounted, as it did not meet the radio frequency shielding requirement and was visible from the Stuart Highway. The Central Valley was removed as an option due to the presence of culturally significant indigenous sites. The Western Valley was chosen as the preferred site following confirmation it met the project siting requirements and was preferred by the Traditional Owners (see below).

3.30 Subject to Parliamentary approval of the project, construction of Stage 1 works at Nurrungar will commence in April 2015 and are due to be completed by late 2015.[20]

3.31 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

18 Defence, submission 1, pp. 6-7.

19 Defence, submission 1, p. 7.

20 Defence, submission 1, p. 24.

Community consultation

3.32 Defence told the Committee that it engaged with a variety of internal and external stakeholders in each of the regions impacted by the proposal.[21]

3.33 The two-pronged community consultation strategy Defence adopted was:

> Broadly, … undertaken with the objectives of:
>
> - ensuring that the community was informed about the project using effective, proven communication channels; and
> - ensuring the community had every opportunity to raise issues of concern so that wherever feasible, they could be addressed by Defence in its program of works.[22]

3.34 Under its project consultation plan, Defence undertook five main activities, namely:

- stakeholder briefings;
- letterbox drop to all residents of Woomera in South Australia, and the immediate surrounding area;
- communications with local, state and federal political representative;
- targeted consultation with the Bungarla and Kokatha Unwankara Aboriginal groups in South Australia; and
- provision of a project specific email address to receive community feedback.[23]

3.35 Defence reported that no significant issues that will impact on the proposed works, apart from Aboriginal anthropological and heritage issues in Nurrungar, South Australia, were identified as a result of its community consultations (see below).[24]

3.36 Regarding the Aboriginal anthropological and heritage issues in Nurrungar, Defence 'is satisfied that strategies have been developed that will provide appropriate mitigation'.[25]

Consultation with Aboriginal Traditional Owners

3.37 Consultation between Defence and Aboriginal Traditional Owners in early 2011 resulted in parts of Nurrungar being identified as previously undiscovered sacred sites. The Traditional Owners indicated that any

21 Defence, submission 1, p. 17.
22 Defence, submission 1.2, p. 2.
23 Defence, submission 1.2, p. 2.
24 Defence, submission 1.2, p. 1.
25 Defence, submission 1.2, p. 1.

modification to the identified area would result in significant impacts to indigenous ceremonial values and sites.[26]

3.38 An archaeologist and an anthropologist were engaged by Defence to undertake consultation with the Traditional Owners and to conduct an indigenous heritage assessment of the whole Nurrungar area. In February 2013, this assessment culminated in an Aboriginal Heritage Management Plan. The plan complies with the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*.[27] Dr Tim Owen said of the process of consultation with the Traditional Owners:

> The Kokatha Aboriginal elders[28] have described the area around the Nurrungar valley as containing a very important cultural landscape to them. My understanding is that it is part of them. It is part of their lives and their lives are part of it. To be denied access or to be excluded from that area would cause them great personal harm and harm to the community. … The process has involved four years of consultation … [which] has led to the development of a site specific heritage management plan. That plan is not just for this project; that plan is for all Defence users of this range going forward for the immediate and the long-term future. That plan was developed with the community and specifies how and where the Department of Defence should use this land.[29]

3.39 Defence's engagement with the Aboriginal Traditional Owners over four years included attending community meetings to present the need and reasons for the project; providing Aboriginal groups with project updates and working with Aboriginal groups to conduct several surveys to determine the most suitable location for the proposed works to minimise impacts on culturally sensitive locations.[30]

3.40 Following the consultation phase, Defence determined that the Western Valley was the most suitable location for the test track, as it met Defence's functional and operational requirements for the facility and it was acceptable to the Aboriginal Traditional Owners.[31]

3.41 At the public hearing Brigadier Naumann told the Committee that:

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26 Defence, submission 1, p. 16.

27 Defence, submission 1, p. 16.

28 As directed by the Federal Court's Native Title decision, from 1 September 2014 the Kokatha Unwankara Aboriginal people will be called the Kokatha Aboriginal Corporation (KAC).

29 Dr Tim Owen, GML Heritage, transcript of evidence, 20 November 2014, p. 5.

30 Defence, submission 1.2, pp. 2-3.

31 Defence, submission 1, p. 17.

> There are some very significant heritage areas in that particular area, and we were very concerned to ensure that what we did, did not adversely impact on those heritage values any more than we absolutely necessarily had to, with agreement from the groups.[32]

3.42 Speaking about the consultation process between Defence and the Traditional Owners, Dr Owen said that:

> [Defence] allowed us[33] the time, as the experts, to communicate with the community and let the community have the time to communicate and discuss amongst themselves, and then come back to Defence and make the recommendations for this specific project, so that Defence could take that information and implement it through their actual planning process. In terms of that process, this project has gone above and beyond the standards and the norms that we see in and across Australia.[34]

Public Works Committee's community consultation

3.43 On the evening before the public hearing, the Committee held a 'community consultation' in Woomera. This was advertised as an opportunity to meet Committee Members to raise any concerns about the project. It was advertised in the local media for several weeks prior to the Committee's visit. On the evening, approximately 15 people attended, including the local Elders.

3.44 The first question raised was whether locals would be engaged in the project. It was noted that subsidised housing for non-locals can make tenders from locals uncompetitive. Further, it was stated that if a local wins the work, he/she has a reputation to maintain in the town and therefore, while the local contractor may not tender the lowest price, in the long run a local contractor may represent the best value for money.

3.45 The question was raised as to whether indigenous locals would be given any preference for jobs, particularly those opportunities with some on-the-job training.

3.46 Defence was asked at the public hearing if there would be a requirement for the contractors to engage indigenous and other locals in the project. Brigadier Naumann said that:

> Defence contracting … are required to undertake contracting in accordance with the Commonwealth procurement rules. The overriding provision within that is value for money, and we are

32 Brigadier Darren Naumann, Defence, transcript of evidence, 20 November 2014, p. 5.

33 Dr Tim Owen, project archaeologist and Mr Andrew Morley, project anthropologist.

34 Dr Tim Owen, GML Heritage, transcript of evidence, 20 November 2014, p. 5.

> not permitted to make directions to contractors to employ certain individuals. However, [we can] encourage construction contractors to employ local subcontractors, local personnel, wherever possible. … there will be occasions when it is more cost-effective for a contractor to use a local subcontractor, should one be available. So we will be encouraging our tenderers for the contracting work here in Nurrungar to make maximum use of local subcontractors where they are available.[35]

3.47 Mr Andrew Starkey[36] raised the issue of asbestos contamination at the site, which was unearthed during a past rain event. Also on site are piles of old fencing, pests such as feral goats and noxious weeds. Mr Starkey expressed an interest in seeing these things cleared from the site during the project works. At the public hearing Brigadier Naumann said:

> We are not aware of particular deposits of asbestos … [but] where we do discover asbestos we will deal with that asbestos, and any other contaminant that we do discover. We have long-standing policies and practices that govern how contractors are required to deal with asbestos on our projects, and that will be made clear to the successful contractor once they are appointed. … In terms of other rubbish: yes, … there are piles of barbed wire and so on and we would be looking to include some arrangements within the contract to clean up a bit of that if it falls within the work area. At this stage though, this project is not about doing a clean-up of Nurrungar as such; this project is about providing counter IED capability to the Defence Force. We are neither funded nor able to undertake a full clean-up of Nurrungar, should that be required, but we will certainly deal with waste as we discover it through the contract.[37]

Cost of the works

3.48 The estimated cost of both stages of this facilities project is $24.7 million, excluding GST.

3.49 Defence provided further detail on the project costs in the confidential submissions and during the in-camera hearing.

3.50 The Committee considers that the cost estimates for the project have been adequately assessed by Defence and the Committee is satisfied that the

35 Brigadier Darren Naumann, Defence, transcript of evidence, 20 November 2014, p. 2.

36 Mr Andrew Starkey, Chairman of the KAC and Kokatha Elder.

37 Brigadier Darren Naumann, Defence, transcript of evidence, 20 November 2014, p. 2.

proposed expenditure is cost effective. As the project will not be revenue generating the Committee makes no comment in relation to this matter.

Committee comments

3.51 The Committee thanks the Kokatha Aboriginal Corporation Traditional Owners for welcoming its Members to Nurrungar, which is of such importance to all Kokatha people.

3.52 The Committee acknowledges that the site of the proposed works has always been a place of significance and importance to Kokatha people.

3.53 The Committee commends the Traditional Owners and Defence for working together co-operatively over several years to find a suitable site for the project.

3.54 While understanding that the project as defined is not about undertaking a clean-up of Nurrungar, the Committee expects Defence to take whatever steps it can to remove buried asbestos, old fencing, feral goats and noxious weeds as may be found during the project works.

3.55 The Committee also encourages Defence to do what it can to encourage the chosen contractor to use local sub-contractors and local indigenous people wherever possible.

3.56 The Committee did not identify any issues of concern with Defence's proposal and is satisfied that the project has merit in terms of need, scope and cost.

3.57 The Committee reminds Defence that it must notify it of any changes to the project scope, time and cost. The Committee also requires that a post-implementation report be provided within three months of completion of the project. A report template can be found on the Committee's website.

3.58 Having regard to its role and responsibilities contained in the Public Works Committee Act 1969, the Committee is of the view that this project signifies value for money for the Commonwealth and constitutes a project which is fit for purpose, having regard to the established need.

Recommendation 2

3.59 **The Committee recommends that the House of Representatives resolve, pursuant to Section 18(7) of the *Public Works Committee Act 1969*, that it is expedient to carry out the following proposed work: Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project.**

Karen Andrews MP
Chair

27 November 2014

A

Appendix A – List of Submissions

Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project

1. Department of Defence
   - 1.1 Confidential
   - 1.2 Department of Defence
   - 1.3 Confidential

Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project

1. Department of Defence
   - 1.1 Confidential
   - 1.2 Department of Defence

B

Appendix B – List of Hearings and Witnesses

Project JP3029 Phase 2 – Defence Space Surveillance Telescope Facilities Project

Tuesday, 4 November 2014 – Exmouth, WA

Public Hearing

For Department of Defence

Brigadier Darren Naumann, Director General, Capital Facilities and Infrastructure, Defence Support and Reform Group, Department of Defence

WGCDR Stuart Briese, Deputy Director Defence Space Coordination Office, Air Force Headquarters

Mr David Mitchell, Project Director, Capital Facilities and Infrastructure, Infrastructure Division

Mr Allan Schmidt, Project Manager/Contract Administrator, GHD Pty Ltd

Mr Jose Teran, Vice President, M3 Technology and Engineering (USA)

In-Camera Hearing

Five witnesses

Project JP154 Phase 1 – Defence Counter Improvised Explosive Device Capability Facilities and Infrastructure Project

Thursday, 20 November 2014 – Woomera, SA

Public Hearing

For Department of Defence

Brigadier Darren Naumann, Director General, Capital Facilities and Infrastructure, Defence Support and Reform Group, Department of Defence

Col James Murray, Director Enabling Systems Development (Army Headquarters), Department of Defence

Lt Col Damian Drain, Director General Capital Facilities and Infrastructure (Defence Support and Reform Group), Department of Defence

Dr Tim Owen, Senior Specialist Aboriginal Archaeology, GML Heritage

Mr David Alm, Principal Electrical Engineer, Technical Executive, Aviation, GHD

Mr Stephen Carroll, Project Manager, Aurecon

In-Camera Hearing

Six witnesses