5. Woomera Range Remediation Facilities

5.1 The Department of Defence (Defence) seeks approval from the Committee to construct remediated, fit for purpose facilities and range infrastructure to support the installation of new systems, contributing significantly to the research, experimentation, testing and evaluation functions of the Woomera Test Range (WTR). The works will take place at the Woomera Range Complex (WRC), located in South Australia, approximately 500 kilometres northwest of Adelaide.

5.2 The estimated cost of the project is $48.64 million (excluding GST).

5.3 The project was referred to the Committee on 10 November 2016.

Conduct of the inquiry

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

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

5.6 On 23 January 2017, the Committee conducted a public and an in-camera hearing. A transcript of the public hearing is available on the Committee's website.

Need for the works

5.7 The current role of the WRC is to provide a specialised operations environment for the testing of war materiel, including:

- Air and space-based systems testing;
- Ground-based systems testing;
- Explosives and hazardous material testing and demolition; and
- Specialist force preparation simulation, training, testing and evaluation.[1]

5.8 Defence told the Committee that the capacity of the WTR is constrained by the systems currently in use:

> In conducting operations at the WTR the capability manager is restricted by existing deficiencies in the ageing and unreliable systems used for aerospace test, evaluation and development trials. Range operators are restricted in their ability to execute complex activities using obsolete range equipment.[2]

5.9 At the public hearing, Defence elaborated on the condition of the technical equipment at the WTR:

> A number of the radars out at Woomera currently are 1950s, 1960s technology, unique in the world. They have been subject to the standard wear and tear that you would expect of equipment that is sitting out in the weather.[3]

5.10 Additionally, Defence noted that the current systems are manually controlled and 'require operators to be co-located with the radar and optical sensors'. The new equipment being acquired will 'allow remote control' and increase the WTR operators' ability 'to efficiently gather trials data using a digitised, networked and integrated testing environment'.[4]

5.11 According to Defence:

> The Woomera Range Remediation Facilities Project will support testing on Australia's most important air based war fighting assets, including the incoming F-35A Lightning II Joint Strike Fighter. The project will subsequently

[1] Department of Defence, *Submission 1*, p. 2.

[2] Department of Defence, *Submission 1*, p. 2.

[3] Mr Darren Manser, Department of Defence, *Transcript of evidence*, 23 January 2017, p. 3.

[4] Department of Defence, *Submission 1*, p. 2.

> enable the WTR to become one of the world's most technologically advanced and effective land based aerospace testing and evaluation and research and experimentation ranges.[5]

5.12 At the public hearing, Defence stated that the new systems were being acquired under AIR3024, a separate capability project. These systems, combined with the proposed new facilities and infrastructure, will significantly improve 'the efficiencies and standards of Defence's test and evaluation and research and experimentation capability'.[6]

5.13 Defence told the Committee that the proposed facilities will increase the capacity of the WTR by providing:

- An instrumented range service available for up to 24 weeks per years;
- Non-instrumented range services available for up to 40 weeks per year;
- Range management and support services, together with trials coordination and control services, available throughout the year.[7]

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

Options considered

5.15 In its submission, Defence stated that it considered a number of options to meet the need, 'including the adaptive reuse of existing facilities' and 'the construction of new facilities'.[8]

5.16 Adaptive reuse was considered to be inappropriate for some of the existing facilities at WRC. Defence outlined the reasons in its submission:

- The column layout, ceiling height and floor plan of the Instrumentation Building could not accommodate the new range control system and supporting equipment;
- The current storage facility does not have sufficient capacity to accommodate the new range instrumentation;

[5] Department of Defence, *Submission 1*, p. 2.

[6] Brigadier Noel Beutel, Department of Defence, *Transcript of evidence*, 23 January 2017, p. 1.

[7] Department of Defence, *Submission 1*, p. 2.

[8] Department of Defence, *Submission 1*, p. 5.

- Refurbishment of existing facilities would significantly impact the operational capability of the WTR for several months;
- Major work on the existing facilities would create non-compliance issues with the current building standards; and
- Much of the material comprising the existing facilities has deteriorated and would no longer be suitable for reuse.[9]

5.17 As such, Defence told the Committee that:

> The preferred option is to construct new range control, communications interface, and maintenance and storage facilities in the vicinity of the Range Head. New facilities and infrastructure will use the service infrastructure available within the immediate area.[10]

5.18 Furthermore, Defence noted that 'existing service infrastructure' at the remote instrumentation and communication sites on the range 'will be adaptively reused' with further development of the 'fibre-optic and road networks in order to meet new requirements'.[11]

5.19 The Committee found that Defence had considered a number of options to deliver the project and has selected a suitable mix of adaptive reuse and new infrastructure to achieve its objectives.

Scope of the works

5.20 Defence split the proposed works into eight project elements:

- Project Element 1 – New range control centre. The proposed new range control centre will comprise two segregated, independent compartments that would facilitate simultaneous trials while monitoring safety and controlling operations. These compartments comprise a mission control room; trials room; instrument operator's room; mission system server room; and an internal passage link between the two spaces.
- Project Element 2 – Communications interface building. The proposed communications interface building is a single storey, steel framed building intended to house the test range's main communications technology distribution cabinets and will integrate the command, control

[9] Department of Defence, *Submission 1*, p. 5.

[10] Department of Defence, *Submission 1*, p. 6.

[11] Department of Defence, *Submission 1*, p. 6.

and communications systems to the new range control centre and remote sites.

- Project Element 3 – Maintenance and storage facility. This facility is intended to provide a new combined storage and workshop facility, and is proposed to include:
  - a bulk caged area for storage;
  - storage for support and test equipment;
  - a light maintenance and mechanical workshop;
  - a storage area for flammable products;
  - a 10 ton overhead hoist for lifting the mobile range control centre from its trailer; and
  - storage for the fuel trailer and generator, and a vehicle wash facility and refuelling station.
- Project Element 4 – Instrumentation and communications sites. Defence proposes to build 17 new instrumentation and communications sites to support command and control on the test range. These facilities include:
  - two 144 square metre gravel hardstands;
  - communications towers;
  - fibre optic interconnection enclosures;
  - 16 kilometres of upgraded roads;
  - Fibre runs to facility connectivity;
  - Solar arrays;
  - A security fence and grate; and
  - Water pipes and power reticulation.
- Project Element 5 – Target sites. Defence proposes to build three new inert target sites, and three new high explosive target sites. This element includes no new facilities or infrastructure.
- Project Element 6 – Fibre-optic cable connections. Defence proposes to install new direct buried fibre optic cables to facilitate the transmission of data from sensor sites back to the communications interface building.
- Project Element 7 – Roads network upgrades. Defence proposes to upgrade the existing Wild Dog Hill Road, which is currently 1.77 kilometres long and facilitates access to the Wild Dog Hill Instrumentation Site. Additionally, Defence intends to build 14.3 kilometres of road to upgrade the access road to the Rawlinson Hill

instrumentation site as well as minor upgrades to two other roads within the WRC.

- Project Element 8 – Woomera Airfield communications tower. The proposed works at Woomera Airfield will be limited to a weatherproof fibre interconnection enclosure, connected by fibre to a new 30 metre mast, as well as gravel hardstand and security fencing.[12]

5.21 Subject to Parliamentary approval, Defence anticipates that construction will commence in mid-2017 and reach completion in mid-2018.[13]

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

Cost of the works

5.23 The estimated cost of the project is $48.64 million (excluding GST). It includes the cost of construction, management and design fees, information communications technology, Defence contingencies and an escalation allowance.

5.24 The Committee received a confidential supplementary submission detailing the project costs and held an in-camera hearing with Defence on the project costs.

5.25 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

Committee comment

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

5.27 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.

[12] Department of Defence, *Submission 1*, pp. 11-13.

[13] Department of Defence, Submission 1, p. 21.

Recommendation 2

5.28 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 works: Woomera Range Remediation Facilities Project.

5.29 Proponent entities must notify the Committee of any changes to the project scope, time, cost, function or design. The Committee also requires that a post-implementation report be provided within three months of project completion. A report template can be found on the Committee's website.

Mr Scott Buchholz MP
Chair

Mr Tony Zappia MP
Deputy Chair

9 February 2017