

## **4. JP500 Phase 2A - Electronic Warfare Facility**

- 4.1 The Department of Defence (Defence) seeks approval from the Committee to construct a fit-for-purpose facility that is capable of supporting the new systems installation for current and emerging electronic warfare detection and countermeasure technologies. The works will occur in the Edinburgh Defence Precinct in South Australia.
- 4.2 The estimated cost of the project is \$24.91 million (excluding GST).
- 4.3 The project was referred to the Committee on 10 November 2016.

### **Conduct of the inquiry**

- 4.4 Following referral, the inquiry was publicised on the Committee's website and via media release.
- 4.5 The Committee received one submission and one confidential submission from Defence. A list of submissions can be found at Appendix A.
- 4.6 On 23 January 2017, the Committee conducted a site inspection at the Edinburgh Defence Precinct. During the site visit, representatives of Defence briefed the Committee on the project.
- 4.7 Following the on-site briefing, 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

4.8 Joint Project 500 (JP500) aims to bring the Australian Defence Force's (ADF) electronic warfare (EW) capabilities in the land and maritime space up to a level that comparable to the ADF's current electronic warfare air capability. According to Defence, the project 'will provide a Survivability and Tactical Validation Program (STVP) for each of the land and maritime domains'.<sup>1</sup>

4.9 Defence elaborated on the role of the STVP:

The primary mission of the STVP is to ensure ADF platforms fitted with EW systems are able to achieve and maintain an effective EW capability. The STVP also ensures operators have a clear and documented assessment of the susceptibility of their platform when using authorised countermeasures and tactics against specific threats in both single and complex engagements.<sup>2</sup>

4.10 Phase 2 of this project has been split into two sub-phases, 2A and 2B. According to Defence, Phase 2A (the current proposal) will:

Provide fit for purpose facilities and infrastructure that is capable of supporting the new systems installation for current and emerging electronic warfare detection and countermeasure technologies.<sup>3</sup>

4.11 At the public hearings, Defence told the Committee:

The facilities and infrastructure component... is a fundamental input to this capability and will directly support the experimentation, testing, and validation required to ensure the survivability of ADF land and maritime platforms against both current and future EW threats.<sup>4</sup>

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

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<sup>1</sup> Department of Defence, *Submission 1*, p. 1.

<sup>2</sup> Department of Defence, *Submission 1*, p. 1.

<sup>3</sup> Department of Defence, *Submission 1*, p. 6.

<sup>4</sup> Brigadier Noel Beutel, Department of Defence, *Transcript of evidence*, 23 January 2017, p. 1.

## Options considered

- 4.13 In its submission, Defence notes that JP500 is ‘an active capability project’, and that it will deliver ‘new EW equipment for the land and maritime research and development domains by 2018’.<sup>5</sup>
- 4.14 Defence expanded on this at the public hearing, stating that Government had determined that it was necessary to extend the ADF’s EW capability to Australia’s land and maritime forces, and as a result there would be ‘new equipment, new personnel and new requirements’ for which there were ‘no existing facilities’. As a result, most of the options considered by Defence to meet the identified need involved the construction of a new facility.<sup>6</sup>
- 4.15 One of the options considered by Defence was extending the existing building at Edinburgh Defence Precinct where Australia’s current EW capability is housed. However, it was noted that this building could not easily be extended without ‘major disruption’ to its current functions.<sup>7</sup>
- 4.16 Specifically, Defence stated that the work undertaken at the existing EW facility is ‘critical to the survivability of our personnel and platforms, particularly in a lot of current operations’. As such, ensuring that the proposed works ‘do not interfere with or compromise those ongoing operations is paramount and one of our key planning decisions’.<sup>8</sup>
- 4.17 Another potential option considered was the construction of a new facility at a Defence Science and Technology (DST) Group site other than Edinburgh. However, ‘close collaboration’ with personnel at the existing facility was ‘an important element in the operations of the new capability’, and this collaboration was considered not to be possible without physical proximity.<sup>9</sup>
- 4.18 Defence provided further detail on the need for in person collaboration:

Part of the collaboration aspect are things as fundamental as being able to walk across and have a scientist come and physically assist on site with some

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<sup>5</sup> Department of Defence, *Submission 1*, p. 3.

<sup>6</sup> Brigadier Noel Beutel, Department of Defence, *Transcript of evidence*, 23 January 2017, p. 3.

<sup>7</sup> Department of Defence, *Submission 1*, p. 3.

<sup>8</sup> Brigadier Noel Beutel, Department of Defence, *Transcript of evidence*, 23 January 2017, pp/ 3-4.

<sup>9</sup> Department of Defence, *Submission 1*, p. 3.

work that may be conducted... for example, coming in, sitting in the room, observing and being able to provide subject matter expertise at the time.<sup>10</sup>

4.19 While Defence stated that ‘virtual collaboration’ was ‘absolutely applicable’:

Proximity will save money, through reduced travel costs, and time, but it will also allow face-to-face communication. You will note that in the new facility we do have some significant space devoted to meeting rooms, as an example. Also, there is the ability to move equipment around and observe similarities between different types of equipment on site.<sup>11</sup>

4.20 As a result, Defence considered that the only viable option was to build a new facility adjacent to the Joint Electronic Warfare Operational Support Unit (JEWOSU) facility at the DST Group’s research establishment in the Edinburgh Defence Precinct.<sup>12</sup>

4.21 In its submission, Defence states that new facility will be connected to JEWOSU via a secure link to control access. According to Defence:

The primary reason for the selected site is to enable the critical collaborative relationship between the existing Air EW research and development functions in the JEWOSU building and the emerging Land and Maritime EW research and development functions in the new facility.<sup>13</sup>

4.22 At the public hearing, Defence elaborated on the reasons behind the proposed site for the facility:

Because of the synergies that already exist at the DST Group precinct at Edinburgh... [and its proximity to] the Woomera test range, the Port Wakefield proof and experiment range, and also access for our maritime platforms for testing in the South Australian exercise area, there were just [so] many synergies and [so] much existing Defence capability and units that we could leverage off to support the overall whole-of-Defence approach to this new capability.<sup>14</sup>

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<sup>10</sup> Captain Stephen Dryden, Department of Defence, *Transcript of Evidence*, 23 January 2017, p. 4.

<sup>11</sup> Captain Stephen Dryden, Department of Defence, *Transcript of Evidence*, 23 January 2017, p. 4.

<sup>12</sup> Department of Defence, *Submission 1*, p. 2.

<sup>13</sup> Department of Defence, *Submission 1*, pp. 9 and 6.

<sup>14</sup> Brigadier Noel Beutel, Department of Defence, *Transcript of evidence*, 23 January 2017, pp. 1-2.

4.23 The Committee found that Defence had considered a number of options to deliver the project and has selected the most suitable option to achieve its objectives.

## Scope of the works

4.24 Defence told the Committee that it proposes to construct a single, 'secure-rated' building, containing the following components:

- Four radio frequency laboratories;
- Four electro-optic laboratories;
- Two workshops areas for equipment preparation;
- Five specialised modelling and simulation laboratories;
- Dedicated 'Human-in-the-Loop' laboratories;
- Three laboratory, workshop and utility storerooms;
- Four meeting room at both Secret and Top Secret security classifications;
- Two enclosed offices and open plan office space,
- A staff breakout space, with bathroom facilities and other amenities;
- An external equipment hardstand area; and
- 20 car parking spaces.<sup>15</sup>

4.25 The proposed facility will be approximately 2,500 square meters in area, and will have two stories with a mechanical services plant room located on the upper floor.<sup>16</sup>

4.26 Subject to Parliamentary approval of the project, construction is expected to commence in mid-2017 and reach completion by mid-2018.<sup>17</sup>

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

## Cost of the works

4.28 The estimated cost of the project is \$24.91 million (excluding GST). It includes the cost of construction, management and design fees, information

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<sup>15</sup> Department of Defence, *Submission 1*, pp. 7-8.

<sup>16</sup> Department of Defence, *Submission 1*, p. 10.

<sup>17</sup> Department of Defence, *Submission 1*, p. 17.

communications technology, Defence contingencies and an escalation allowance.

- 4.29 The Committee received a confidential supplementary submission detailing the project costs and held an in-camera hearing with Defence on the project costs.
- 4.30 The Committee is satisfied that the costings for the project provided to it have been adequately assessed by the proponent entity.

## Committee comment

- 4.31 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.
- 4.32 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 4

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- 4.33 **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: JP500 Phase 2A Project – electronic warfare operations support facility.**
- 4.34 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.