

Issues and Conclusions

Project Delivery

- 3.1 Defence stated in its main submission that the expected completion date for the TUAV project as October 2007.¹ Based on advice from Defence project managers and design consultants, Defence amended its date of completion to read as follows:

Subject to parliamentary clearance of this project, construction will commence in late 2006 with completion by early 2008.²

Options Considered

- 3.2 In its main submission, Defence explained that the options considered for the TUAV facilities at Gallipoli Barracks at Enoggera were a Greenfield site; and the re-use, refurbishment and some construction of purpose built facilities.³ The Committee sought more information regarding the options Defence considered for the proposed works.

1 Appendix C, Submission No. 1, paragraph 8

2 Appendix D, Official Transcript of Evidence, page 2

3 Appendix C, Submission No. 1, paragraph 15

3.3 At the public hearing Defence further supported its decision to base the TUAV at Enoggera by explaining that the TUAV

...capability is to support and provide intelligence information to the commander of the Deployable Joint Force Headquarters.⁴

Defence added that as the existing 131st STA Battery is already in this role, it decided to co-locate TUAV at Enoggera and form a new regiment, 20th STA Regiment, where it is able to make use of some existing facilities and procedures.⁵

3.4 Defence continued that within Enoggera, it considered two options for the location of TUAV facilities and 20th STA Regiment:

- the first option was the construction of new facilities on Greenfield sites adjacent to the existing 131st STA Battery lines; and
- the second option was to re-use existing facilities, to be vacated by another regiment, and minimise the amount of new construction.

3.5 Defence progressed the first option to 15 percent design solution where it was deemed cost prohibitive. The second, and preferred, option was determined to be a more cost-effective as explained by Defence:

The cost estimate for the Greenfield site was of the order of \$30 million. The current project is \$17.45 million and provides us [Defence] a better fit for those units in the existing facilities and provides maximum re-use of facilities...⁶

Location

Relation to Shoalwater Bay Training Area

3.6 Defence stated in its main submission that the TUAVs will not be flown from Gallipoli Barracks, but will use existing Defence training areas.⁷ At the public hearing, the Committee raised the issue of TUAVs being housed at Enoggera yet launched and operated out of the Shoalwater Bay Training Area, and the associated issues with these elements not being co-located.

4 Appendix D, Official Transcript of Evidence, page 4

5 *ibid*

6 *ibid*

7 Appendix C, Submission No. 1, paragraph 20

3.7 Defence explained that there are two parts to the TUAV capability:

- the actual flying of the aircraft; and
- the procedures for provision and integration of information.⁸

A flight simulator, located in Building Q112, will be amongst TUAV facilities provided at Enoggera where most of the flight training of operators will be undertaken. Actual flight of the TUAVs will be conducted in a military training environment such as the Shoalwater Bay training area. Defence assured the Committee that there will be no loss of efficiency by having the TUAV facilities in Enoggera and the launching and deployment at Shoalwater Bay.⁹

3.8 Defence added that the training location for “actual flight hours” will be Shoalwater Bay; however “actual flight hours” are not required for the training of the operators.

Time spent on the simulator system exactly equates to time spent flying the aircraft because the operators are ground based and they are using the same deployable system that they would take to the field.¹⁰

TUAV Operation

Number of Vehicles

3.9 Defence stated in its main submission that the system will consist of four air-vehicles.¹¹ The Committee sought clarification on the actual number of TUAVs that will be based at Enoggera.

3.10 Defence responded that the Army requirement is four air-vehicles per troop. The 132 Unmanned Aerial Vehicle Battery consists of two troops which equates to a requirement of eight air-vehicles. Furthermore,

The Department of Defence as part of the project approval directed that the acquisition cost cover any attrition air-vehicles, as such, the project will procure another four air-vehicles that will be

8 Appendix D, Official Transcript of Evidence, page 5

9 *ibid*

10 *ibid*, page 6

11 Appendix C, Submission No. 1, paragraph 6

kept in storage here at Enoggera. So the total procurement of aerial vehicles...is 12.¹²

Defence assured the Committee that this facilities project will adequately accommodate the 12 TUAVs with regard to workshop area and storage.

Deployment

- 3.11 During the public hearing Defence showed a short audio visual presentation on the deployment of TUAVs. As the TUAVs will be operated out of Shoalwater Bay, the Committee sought further information on the procedures of the deployment of the TUAVs, and whether any additional facilities were required at Shoalwater Bay.
- 3.12 Defence explained that there is an Unmanned Aerial Vehicle runway at Shoalwater Bay and that the operating battery would deploy with its own tenting and messing facilities. However TUAVs can be launched by catapult and recovered into an unprepared area. Defence assured the Committee that there is no requirement for additional facilities at the Shoalwater Bay training area to facilitate the operation of the TUAVs.¹³
- 3.13 Defence informed the Committee that it expects that there will be nine TUAV deployments per year in accordance with the overall Army training program.

Environmental Considerations

Ecologically Sustainable Development

- 3.14 Defence states in its main submission that it is committed to Ecologically Sustainable Development (ESD) and the reduction of greenhouse emissions.¹⁴ Some of Defence's ESD initiatives were discussed during the confidential briefing, and due to time constraints could not be further explored during the public hearing. With Defence's consent, its response provided during the confidential briefing was incorporated into the public hearing transcript.

12 Appendix D, Official Transcript of Evidence, page 6

13 *ibid*, page 5

14 Appendix C, Submission No. 1, paragraph 38

- 3.15 Defence submitted that the new TUAV facilities include a range of practical, environmentally sustainable design initiatives to both minimise and measure water and energy consumption. Key environmentally sustainable design initiatives include:
- energy efficient lighting utilising high-efficiency T5 fluorescent lighting;
 - motion sensor light switching for amenities and meeting rooms;
 - building management systems to control office lighting;
 - energy meters on all major energy sources;
 - water metres on all major water sources;
 - air-conditioning units with zone management systems;
 - specified water efficient fittings, including AAA rated taps on toilets and showers; and
 - shading on the building façade.¹⁵

- 3.16 Defence added that much of the project is the refurbishment of existing buildings. In this regard,

The project did consider ESD measures...however we [Defence] did not adopt these because the whole-of-life cost analysis did not demonstrate value for money.¹⁶

Further, Defence anticipated that implementing ESD initiatives in the refurbished buildings involved a capital expense that will not be recouped in reduced operating costs for the life of the building.

Building Works

- 3.17 Given the number of facilities proposed for refurbishment; re-use; construction; and demolition, the Committee requested clarification on whether works would have occurred regardless of the TUAV project. Defence confirmed for the Committee that if it were not for the TUAV facilities project at Gallipoli Barracks, none of the proposed works would have been progressed.¹⁷

15 Appendix D, Official Transcript of Evidence, page 11

16 *ibid*

17 *ibid*, page 9

Building Q26

- 3.18 In its main submission Defence indicated that part of Building Q26 will be used for warehousing space for the Prime TUAV Equipment Contractor, Boeing Australia.¹⁸ The Committee sought clarification on what Defence was to provide for the Equipment Contractor in Building Q26. Defence responded that it will provide the base building and the prime contractor will be responsible for the fit-out. Defence will rectify Occupational Health and Safety (OH&S) issues, and ensure the building is suitable for use as the TUAV Contractor Warehouse.¹⁹
- 3.19 Defence also mentioned that it will provide space in the facility and Boeing, under its contract, will provide the installations.²⁰

Building Q27

- 3.20 Defence stated in its main submission that Building Q27 is proposed for demolition to clear the site for the new TUAV facility.²¹ The Committee enquired whether there would be any requirement for removal of hazardous materials as a result of the building demolition.
- 3.21 Defence responded that the Building Q27 was the only building proposed for demolition as part of this project. Building Q27 is a steel portal frame storage consisting mainly of steel, metal cladding and concrete, and contains no interior fit-out. According to Defence, there are no hazardous materials in Building Q27.²²
- 3.22 Defence submitted that the only hazardous material discovered on site is some asbestos sheeting in the existing 131st STA Battery area and that
- ...is being assessed and audited by a specialist company to give us [Defence] a report on how to contain it and remove it and certify the area is free of asbestos...²³

Building Design

- 3.23 In its main submission, Defence indicated that the structural design of buildings will provide control of cracking of concrete and incorporate
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18 Appendix C, Submission No. 1, paragraph 26d

19 Appendix D, Official Transcript of Evidence, page 8

20 *ibid*, page 6

21 Appendix C, Submission No.1, paragraph 26f

22 Appendix D, Official Transcript of Evidence, page 8

23 *ibid*

structural tolerances for long-term settlement.²⁴ The Committee expressed concern that the cracking of concrete may have been an ongoing issue, and was interested to see how Defence had addressed the problem.

- 3.24 Defence answered that an extensive geological report had been undertaken and concluded that there were no major problems in the area. Defence proposes to establish a structural system that will allow the workshop space to not have any joints in the concrete ensuring a level floor; and the use of post-tension concrete slabs to minimise cracking.²⁵

Building Services

Air-conditioning

- 3.25 Part of the proposed works include the installation of air-conditioning units into some of the buildings. The Committee was interested in the details of air-conditioning systems being proposed by Defence.
- 3.26 Defence informed the Committee that the proposed air-conditioning systems were “up-to-date energy efficient split systems” and would not make use of cooling towers. Defence were confident that the proposed air-conditioning systems were of the highest grade of energy efficiency available.²⁶

Defence Forward Planning

- 3.27 In its main submission, Defence indicated that the TUAV facilities project aligns with the draft Master Plan for Gallipoli Barracks.²⁷ Given that some existing facilities are proposed for demolition as part of this project, the Committee enquired as to whether facilities approved as part of this proposal may be demolished in the future.
- 3.28 Defence assured the Committee that

24 Appendix C, Submission No. 1, paragraph 47

25 Appendix D, Official Transcript of Evidence, page 12

26 *ibid*, page 8

27 Appendix C, Submission No. 1, paragraph 30

The draft master plan does include these facilities and units remaining in their locations and there is no plan to demolish any of these in the future.²⁸

Office Configuration

- 3.29 Part of the proposed works is the provision and reconfiguration of workstations, and in its main submission Defence mentioned that internal office design will be configured for maximum flexibility.²⁹ The Committee sought further detail on the workstations, and the flexible office configurations.
- 3.30 Defence stated that its standard manual for office accommodation provides workstations for troops and other support personnel. The standard workstation fit-out includes a 1,800 by 1,800 centimetre workstation with laminate finish; gas lift chairs; and computer terminals. Defence continued that office accommodation will be open plan, with demountable and relocatable workstations. The new TUAV facilities will be in steel, clear-span, portal frame building with removable internal partitioning allowing for future internal churn, or change in operational requirements at minimal cost.³⁰

Recommendation 1

The Committee recommends that the proposed Tactical Unmanned Aerial Vehicles facilities project, Gallipoli Barracks, Enoggera, Queensland, proceed at the estimated cost of \$17.45 million.

Hon Judi Moylan MP

Chair

16 August 2006

28 Appendix D, Official Transcript of Evidence, page 9

29 Appendix C, Submission No. 1, paragraph 44

30 Appendix D, Official Transcript of Evidence, page 10