

The Proposal

- 4.1 The proposal to redevelop the Army Aviation Centre at Oakey encompasses the upgrade of facilities for the Army Aviation Training Centre, including facilities for the introduction of the armed reconnaissance helicopter and the Army component of the ADF Helicopter School. The various component works include:
- the redevelopment of the Army Aviation Training Centre;
 - the construction of facilities to support the flying training and maintenance training necessary for the introduction of the armed reconnaissance helicopter;
 - the provision of facilities for the relocation of the Army component of the ADF Helicopter School from Canberra to Oakey;
 - the refurbishment of helicopter maintenance facilities;
 - the rationalisation of all ranks messing, and the rationalisation of permanent and student living-in accommodation, requiring a mix of refurbishment and new construction;
 - the construction of a new Emergency Response Station and an associated fire training area;
 - the construction of a new civil aviation terminal;
 - the upgrade of engineering and support infrastructure as necessary; and
 - demolition as necessary.¹
- 4.2 Concept design sketches for the proposed works are at Appendix C.

¹ Submissions, p. 7.

Redevelopment Options Considered

- 4.3 The primary aim of the proposal is the provision of facilities capable of supporting Army Aviation training. The Defence submission on the proposal stated that, given the conclusions of the Strategic Plan for the Defence Estate on the long term future of Oakey Base, only one viable option exists to achieve this aim and that is the refurbishment and re-use of suitable facilities and the construction of new facilities as necessary.
- 4.4 Defence advised the Committee that it believed the options of rebuilding elsewhere or demolishing the majority of existing facilities and starting again were not economically viable.
- 4.5 Oakey Base's gross replacement value is approximately \$155m and its depreciated value is \$53m. An investment of \$76.2m (out-turn cost) as proposed represents a half-life reinvestment of approximately 50%, which accords with the Strategic Plan's requirement to maintain an adequate level of reinvestment in the Defence Estate. To rebuild elsewhere would incur the proposed \$76.2m cost, and attract considerable additional costs to replace existing suitable infrastructure. Associated personnel relocation costs would be significant, as would the impact upon the local economy.
- 4.6 A 'do nothing' solution will not overcome functional, operational, operating cost or occupational health and safety (OH&S) issues. It will neither address Defence obligations under the *Air 87* supply contract, nor operational requirements. Moreover, it will not address the relocation of basic helicopter training.
- 4.7 Defence stated in its submission that there is considerable scope for refurbishment. To undertake extensive demolition in order to construct new facilities, rather than refurbish, could not be justified.
- 4.8 Within the context of a mix of refurbishment and new construction, some siting options exist, as do some options relating to the degree of refurbishment. Subject to approval by the Parliament, these options will be subjected to detailed examination and the most cost-effective solution will be adopted.²
- 4.9 Table 1 lists planning carried out to date and courses of action to be adopted.

Table 1

| Project Element | Scope of Works |
|--|---|
| Army Aviation Training Centre | Refurbishment and new construction |
| Fire Station | New construction |
| Army Aircraft Workshops | Refurbishment and new construction |
| Hot Refuel Facility | New construction |
| 173 Squadron | Refurbishment and new construction |
| 171 Squadron | No works required (to be disbanded in 2006) |
| Base Operations Centre | Refurbishment and new construction |
| Base Security | Alterations and additions |
| Fitness Centre | Refurbishment and new construction |
| Messing Complex | New construction |
| Living In Accommodation | Refurbishment and new construction |
| Air Services Australia Office/Workshop | Refurbishment |
| Civil Terminal | New construction |
| Concessions Area | Refurbishment |
| Headquarters Aviation Support Group | New construction (extension to existing building) |
| Museum | Re-establish entry, paths |

Source *Submissions, p. 13*

Advantages of Redevelopment at Oakey

- 4.10 The redevelopment of Oakey will recognise the long-term requirement for the retention of the base and would enable significant rationalisation of facilities assets. While no substantial personnel or military operating cost savings can be quantified, in many areas there should be savings. Example areas include reduced aircraft operation costs with hot refuelling, aircraft simulator use, and more efficient facilities layouts. Facilities operating costs could increase due to the increase in building area and the higher level of servicing (eg. air conditioning and information technology), however energy efficient design will minimise any increase.
- 4.11 The proposed redevelopment would optimise the utility of Oakey as a rotary wing flying training establishment. This would contribute to more effective delivery of training by instructors and support staff and more efficient utilisation of training resources, particularly aircraft. The redevelopment would also provide an enhanced learning environment for trainees, both in working accommodation and living in accommodation.

- 4.12 The redevelopment of Oakey would provide suitable facilities and infrastructure to meet the Training Centre's requirements, support and maintain Army Aviation's combat capability and its ability to contribute to Land Force operations.
- 4.13 The redevelopment would facilitate the efficient provision of client services by Defence service elements on the base, in line with changes to Defence service provider structures and business management systems.³

Planning and Design Concepts

- 4.14 Defence stated that designs for the redevelopment project must provide a safe, efficient and pleasant workplace and represent value for money and be able to pass the test of public scrutiny. The designs must offer good economy in relation to floor area, construction techniques and finishes while achieving the necessary functional requirements.
- 4.15 In selection of services and associated equipment, the capital cost is to be balanced against operational and maintenance costs. Operating costs and comparisons are to be included in a life cycle costing analysis prior to selection. Particular consideration is to be given to energy efficient design solutions employing passive solar energy.
- 4.16 The design, structure, servicing and siting of buildings should ensure that future expansion is possible. Maximum flexibility is required for most internal office accommodation facilities. Except where the need for security or noise reduction dictates otherwise, minimum use is to be made of structural internal walls or columns.⁴

Scope of Works

Army Aviation Training Centre

- 4.17 The Aviation Training Centre consists of a Headquarters and three schools:
- Army Helicopter School, responsible for basic helicopter training and conversion training onto operational aircraft types;

3 Submissions, pp. 13-14.

4 Submissions, p. 17.

- School of Army Aviation, responsible for basic and advanced tactics training; and
 - Rotary Wing Aircraft Maintenance School, responsible for aircraft maintenance training.
- 4.18 Headquarters Aviation Training Centre will remain in building B11, which will be refurbished and sound attenuated to meet current standards. Initially however, the Headquarters will move into demountable buildings so that the ADF Helicopter School can occupy building B11. When the new facilities for the Helicopter School are completed it will reoccupy B11.
- 4.19 The Army Helicopter School will take over office facilities currently occupied by the 1st Aviation Regiment which will relocate to Darwin. The hangar and workshops now used by 173 Surveillance Squadron would then be used by the Army Helicopter School helicopters and shared with 171 Operational Support Squadron until it is disbanded.
- 4.20 Facilities occupied by School of Army Aviation will be re-configured, refurbished and expanded. This will include the provision of modern classroom facilities equipped for computer based training.
- 4.21 Rotary Wing Aircraft Maintenance School, centred on Building C7, will be expanded to accommodate new armed reconnaissance helicopter classrooms and equipment system trainers, as well as a new secure armaments wing.
- 4.22 A stand-alone simulator building, including administration offices, stores, briefing and waiting rooms will be provided for the new armed reconnaissance helicopter. The simulator equipment will be provided separately under the armed reconnaissance helicopter acquisition project. If the simulator building is better provided by Project *Air 87*, it may be excised and delivered by the *Air 87* contractor.

Emergency Response Station

- 4.23 The preferred option is to construct a new facility more centrally located to the airfield, northeast of the main building area in the Base, and distant from other activities. Expansion of the existing facility was rejected as an option because of insufficient space to achieve this, and because of the inappropriate location.

Army Aircraft Workshops

- 4.24 It is proposed to refurbish some facilities, demolish others and build a number of new buildings. Workshops would be much closer to helicopter maintenance hangar C1. This rationalisation should better accommodate operational maintenance and result in better functionality and greater efficiency.

Hot Refuel Facility

- 4.25 Defence's preferred option for a hot refuelling facility is to provide a special apron isolated from other Base facilities with fixed fuel dispensing cabinets, fire control system, spill collection systems and operations control room, to ensure safer procedures with environmental safeguards.
- 4.26 Such a facility should achieve increased efficiencies, because cold refuelling, involving long periods of start up and shut down, would be reduced and the use of aging equipment eliminated. Significant OH&S problems should also be rectified.
- 4.27 The proposal also includes the upgrading of a currently unserviceable taxiway to provide helicopter access to the Hot Refuelling Facility.

173 Surveillance Squadron

- 4.28 As part of the redevelopment proposal 173 Surveillance Squadron crew and office facilities will be relocated from the first floor of Building B27 to the ground floor to make way for Army Helicopter School personnel and to provide a separate, identified ground floor entrance. Aircraft storage and maintenance would move from hangar B3 to a refurbished hangar B1. New workshops and associated support facilities work will be constructed adjacent to B1 in B1A.

171 Operational Support Squadron

- 4.29 171 Operational Support Squadron will remain at Oakey until disbandment and will occupy its current accommodation until that time. Aircraft storage and maintenance support would continue to be provided at the eastern end of hangar B3.

Base Operations Centre

- 4.30 The proposal is to refurbish facilities vacated by Emergency Response Station personnel and construct a new briefing room within the building expansion planned for School of Army Aviation. This would provide modern and OH&S compliant facilities on the flight line, as required.

Fitness Centre

- 4.31 Physical fitness activities are presently conducted in building B39, the former base picture theatre, and outside on a grassed activities area and basketball and beach volleyball courts. Defence proposes to provide additional space (air-conditioned) for training activities and associated equipment. Defence's preferred option is to extend the existing structure and to rectify a number of deficiencies with the building, principally relating to change rooms. This is a less costly solution than constructing a new purpose built facility.

Air Services Australia

- 4.32 Air Services Australia is ideally located in the Air Traffic Control building (B4). This space would be reconfigured to better suit its functions and refurbished to provide upgraded air-conditioning and sound attenuation.

Civil Terminal

- 4.33 The proposal includes the replacement of an existing terminal building and a civil terminal aircraft apron of 4,000m² constructed to enable Defence use by a C130 Hercules. An access road from Kelvinhaugh Road to the new terminal is also required.

Concessions Area

- 4.34 The present facility B38 is in poor condition, is only partly tenanted and has a general appearance of neglect. Refurbishment and reconfiguration of the facility would provide adequate space for existing tenants and functions as well as incorporate a fast food outlet and video hire shop.
- 4.35 The possibility of a private financing arrangement was considered for this element, however there would be insufficient profits to make this attractive to a concession contractor. Defence funding was considered necessary to maintain this amenity for Base personnel.

Headquarters Aviation Support Group

- 4.36 Headquarters Aviation Support Group, located in building B45, requires additional space for its increased establishment and to allow Defence Corporate Service Organisations to also be located in this facility. The building will be extended to the north, and will include a separate, identifiable entrance for the Aviation Support Group.

Museum

- 4.37 It is planned that the museum would continue to occupy its current facilities. Refurbishment of the Museum and other improvements proposed by Army are not part of the Oakey Redevelopment Project and will need to be separately funded by Army.

Interim Facilities

- 4.38 Given the extensive amount of refurbishment works and the lack of spare space, there is a need for interim facilities to be used for decamping. These would comprise a centrally located 'transit camp'.

General Works

- 4.39 A range of general civil and site services is needed in support of the functional based work elements. This includes an extension to Guild Avenue to better control vehicle movement around the Base, upgrades to engineering services as required, and upgrades to communications infrastructure. More detailed comments are provided below on:
- information technology, communications and office equipment;
 - living-in accommodation;
 - Base security; and
 - the Army Aircraft Logistics Management Squadron based at Oakey.

Information Technology, Communications and Office Equipment

- 4.40 The project budget includes provision for information technology, communications and office equipment connected to the base infrastructure. These have been included with an estimated provision for significant reuse of existing items.⁵

⁵ Submissions, pp. 28-34.

Living-In Accommodation

- 4.41 The proposal includes a minor refurbishment of some existing living-in accommodation to provide comfortable accommodation primarily for short stay trainees, and to build new Living-In Accommodation (LIA) to current Defence standard for live-in and long stay trainees in the current Officers' precinct. A new integrated mess/kitchen complex is to be provided based on the model recently employed at Lavarack Barracks, Townsville.
- 4.42 The current LIA stock at Oakey is provided in three distinct precincts, with the Other Ranks accommodation located within an unacceptable noise zone. LIA in all three areas does not provide a suitable study environment for trainees. The redevelopment will provide a mix of refurbished and new LIA in a single precinct, located with the current Officer's Mess. In accordance with current Defence policy, the majority of permanent posted members will be required to seek commercial accommodation in the surrounding area as this is available at relatively low cost.
- 4.43 With the relocation of the 1st Aviation Regiment to Darwin the requirement for permanent LIA will reduce. There will however, be an increases in the demand for student LIA with the projected increase in trainees for the ADF Helicopter School and the introduction into service of the armed reconnaissance helicopter. However, overall there will be a reduction in LIA rooms from 297 to 181.
- 4.44 Defence advised that for the LIA accommodation it is more economical to build new facilities than to refurbish as the existing rooms would require acoustic treatment, rectify OH&S problems and the provision of ensembles external to the existing building.⁶

Base Security

- 4.45 The Base security element of the redevelopment proposal includes an allowance for the reconfiguration of the security fence. The fence includes separate pass-operated access gates for vehicles and pedestrians. The guardhouse will also be modified to allow for better visibility of vehicles approaching along the main access road. Security will also include the use of security guards, dog patrols and remote sensor systems.
- 4.46 The armed reconnaissance helicopter will be fitted with weapons on the training helicopters and additional weapon systems and components will

⁶ Submissions, pp. 82-83 and Evidence p. 22.

be provided for maintenance training. The storage of these weapons in armoury facilities has been allowed for in the Aviation Training Centre cost estimate.

- 4.47 The additional security that may be required for the armed reconnaissance helicopter cannot be determined until contract negotiations are further advanced with Eurocopter, the preferred tenderer. A security assessment of the requirements of the armed reconnaissance helicopters will be carried out and facility implications of this assessment will be included within the redevelopment project. Any additional requirements will be funded by the armed reconnaissance helicopter project.⁷

Army Aircraft Logistics Management Squadron Oakey

- 4.48 The Army Aircraft Logistics Management Squadron (AALMS) is a Support Command unit that is responsible for maintenance policy and through life support to all Army Rotary Wing Aircraft types. There are no works identified for the AALMS in this project, however, the Defence Materiel Organisation plans to relocate the *Air 87* project office of approximately 40 personnel to be collocated with the AALMS. This will be funded as a separate medium works project, but may be managed under the Oakey Redevelopment Project contractual framework to achieve economies. The scope of this project is not yet sufficiently defined to include it as part of the Oakey Redevelopment Project at this stage.⁸

Zoning and Approvals

- 4.49 All of the works proposed as part of the redevelopment of the Army Aviation Centre are within the designated boundaries of the Base, which is designated “defence special purposes”. The proposed works conform to the current zone and master plans for the development of facilities, noting that the current master plan (effective April 1996) will be updated on the completion of the project. No civilian authority design or construction approvals are required, although works will comply with relevant standards and regulations.⁹

7 Submissions, p. 83.

8 Submissions, pp. 10-11.

9 Submissions, p. 16

Base Boundaries

- 4.50 While there is no requirement for the acquisition of additional land outside the current boundaries of the Base, Defence stated that some land had been acquired in recent years to act as a buffer zone. In 1990 a property of 343.3 hectares in size was purchased along the western side of the base. While in 1995 a property of 255.4 hectares in size was purchased along the eastern side of the base. In addition the Jondaryan Shire Council had placed development restrictions on land immediately to the south of the Commonwealth owned land. Defence indicated that because of flying operations, it would be concerned if this land was developed in the future.¹⁰
- 4.51 The Committee was advised that the Base Master Plan presumes that, should future expansion of facilities be required, this would take place east of the current facilities. While there is no indication that the Singapore Air Force wishes to expand its facilities, this could be achieved by expansion to the west of its current facilities but remaining within the existing Base boundaries.¹¹

Codes and Standards

- 4.52 Design and construction will conform to the relevant sections of the following:
- current Australian Standards and codes, including the Building Code of Australia;
 - Commonwealth and State legislation;
 - the Defence Manual of Fire Protection Engineering;
 - relevant Defence Security Publications; and
 - OH&S and welfare legislation and the Defence Occupational Health and Safety Manual.¹²

10 Evidence, p. 41.

11 Evidence, p. 23.

12 Submissions, pp. 16-17.

Acoustics

- 4.53 The Oakey Base is inherently noisy with the noisier areas being the flight line, emergency response station and workshops. In these areas, it was proposed that sound attenuation provided through construction techniques and materials would be supplemented by personal aural protection. Sound attenuation is especially important in classrooms and domestic accommodation on the Base. Defence advised that specific levels, as specified within Australian Standards, would be met.
- 4.54 Vibration isolation of mechanical plant and equipment is an associated and essential design consideration and the designers and construction contractors will be required to limit vibration levels to comply with the recommended vibration levels as set out in Australian Standards.¹³

Provisions for People with Disabilities

- 4.55 Access and facilities for the disabled are to be provided in accordance with the Defence Estate Management Guide, the Building Code of Australia and Australian Standards.

Fire Protection

- 4.56 The following philosophy has been adopted with respect to the design of the fire protection systems:
- all construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the Defence Manual of Fire Protection Engineering and all other applicable Codes and Standards;
 - the Defence Manual of Fire Protection Engineering will be used, as the authoritative reference should there be any variance in standard or conflict with the Defence Manual of Fire Protection Engineering and other non-military reference; and
 - Defence will require certification, from a suitably qualified certifier, that the design and construction meet the requirements of the Building Code of Australia, the Defence Manual of Fire Protection Engineering,

relevant Codes and Standards and any additional State, Local Government and Defence requirements.¹⁴

Precautions against Legionella

4.57 The airconditioning systems are required to be air cooled, so no specific precautions against the Legionella Bacillus are considered necessary.

Occupational Health and Safety

4.58 The health and safety of all workers employed on the construction of the proposed facilities will be protected by strict compliance with the *Commonwealth Employment (Occupational Health and Safety) Act 1991*.

Landscaping

4.59 The redevelopment project will not give rise to any substantial alteration in the essential character of the existing facilities or landscaping, and thus landscaping works will be directed to the rectification of any areas disturbed during construction, as well as enhancing the general visual environment. Care will be taken to avoid compromising existing environmental sensitivities by adopting landscaping practices in keeping with local environmental conditions.

Local Employment Impact

4.60 The redevelopment project will generate a significant amount of short time employment, mostly in the sub-contractor and unskilled worker areas. It is estimated that there will be approximately 100 personnel associated with the project on-site once construction starts.¹⁵

14 Submissions, p. 20.

15 Submissions, pp 20-21.

Consultations

- 4.61 Defence advised that consultations have been held with the following organisations regarding the project:
- Air Services Australia;
 - Bureau of Meteorology;
 - Toowoomba City Council;
 - Jondaryan Shire Council;
 - Rosalie Shire Council; and
 - Environment Australia.
- 4.62 The Federal Member for Groom, the Hon Ian Macfarlane MP, has also been briefed on the project.¹⁶

Project Cost

- 4.63 Defence advised the Committee that the estimated out-turn cost estimate is approximately \$78.5m and is the current estimate of the cost of the proposed works, including escalation and contingency. Defence will refine the details of the scope of works through value management workshops with the users, and further develop the designs for each facility. This will allow more accurate cost estimates to be produced. Defence is confident that the project will be able to be delivered within the budgeted out-turn cost of \$76.2m.
- 4.64 The budgeted out-turn cost of \$76.2m includes management, design, construction, information technology and communications equipment, and fit out. On-costs likely to be incurred because of the regional location have been factored into the estimates, as have allowances for the particular geology of the region, which will affect foundations, in ground services and civil works. A comprehensive geotechnical survey of the site will be undertaken during detail design.
- 4.65 The proposed contingency allowance takes account of the risk associated with latent conditions expected where there is a significant refurbishment element within a project.

- 4.66 While at the time of the public hearing the name of the selected aircraft had not been publicly announced, the Committee was assured by Defence that the cost estimate had taken into account the larger and more sophisticated nature of the new helicopters.¹⁷

Project Delivery

- 4.67 Due to the nature of the Oakey project where there will be a significant number of individual works being executed over a large area, Defence believes that the appointment of a managing contractor will provide the most efficient delivery system. This project will demand a high degree of coordination because of the need for the Aviation Training Centre and operational maintenance workshops, in particular, to continue operating throughout the project period.
- 4.68 The managing contractor has the ability to control and coordinate concurrent design and construction of disparate works packages and maintains a schedule, which relies upon a tight sequence of vacation, relocation and construction. This system also reduces risk associated with latent conditions.
- 4.69 A project consultant has been engaged to represent Defence and to act as superintendent for the project.¹⁸
- 4.70 Subject to Government approval, the proposed works will commence in late 2001 and be completed in mid 2004.¹⁹

17 Submissions, pp. 21-22 and Evidence, pp. 3 and 16.3, 16.

18 Submissions, p. 22.

19 Submissions, p. 5.