

Report 9/2015

Referrals made August 2015

- HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia
- Brisbane and Cairns Control Tower Life Extensions
- Melbourne and Brisbane Air Traffic Service Centre – Extension Works

Parliamentary Standing Committee on Public Works

© Commonwealth of Australia 2015

978-1-74366-384-4 Printed version

978-1-74366-384-1 HTML version

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia License.



The details of this licence are available on the Creative Commons website:
<http://creativecommons.org/licenses/by-nc-nd/3.0/au/>.



Contents


- Membership of the Committee v
- List of recommendations vii

- 1 Introduction 1**
 - Structure of the report 2

- 2 HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia 3**
 - Conduct of the inquiry 3
 - Need for the works 4
 - Options considered 5
 - Scope of the works 5
 - Community consultation 10
 - Cost of the works 12
 - Committee comments 13

- 3 Brisbane and Cairns Control Tower Life Extensions 15**
 - Conduct of the inquiry 16
 - Need for the works 16
 - Options considered 17
 - Scope of the works 17
 - Similar works 20
 - Cost of the works 21
 - Committee comments 22

4	Melbourne and Brisbane Air Traffic Service Centre – Extension Works	23
	Conduct of the inquiry	23
	Need for the works	24
	Options considered	25
	Scope of the works.....	27
	Cost of the works	28
	Committee comments	28
	Appendix A – List of Submissions.....	31
	Appendix B – List of Hearings and Witnesses.....	33



Membership of the Committee

Chair	Senator Dean Smith
Deputy Chair	Mr Graham Perrett MP
Members	Senator Matthew Canavan
	Ms Sharon Claydon MP
	Senator Alex Gallacher
	Mr Ian Goodenough MP
	Ms Joanne Ryan MP
	Ms Fiona Scott MP
	Dr Andrew Southcott MP

Committee Secretariat

Secretary	Dr Alison Clegg
A/Inquiry Secretary	Dr Cathryn Ollif
Senior Research Officer	Ms Melita Caulfield
Research Officer	Ms Samantha Leahy
Administrative Officer	Mrs Fiona McCann



List of recommendations

2 HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia

Recommendation 1

The Committee requires the Department of Defence to provide a mid-term status report, on completion of the project's design stage.

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: HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia.

3 Brisbane and Cairns Control Tower Life Extensions

Recommendation 3

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: Brisbane and Cairns Control Tower Life Extensions.

4 Melbourne and Brisbane Air Traffic Service Centre – Extension Works

Recommendation 4

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: Melbourne and Brisbane Air Traffic Service Centre – Extension Works.

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

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.

2 The Act, Section 5.

- 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 August 2015 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 the HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia project. The estimated cost of the project is \$366.8 million, excluding GST.
- 1.11 Chapter 3 of this report addresses the Brisbane and Cairns Control Tower Life Extensions project. The estimated cost of the project is \$23.9 million, excluding GST.
- 1.12 Chapter 4 of this report addresses the Melbourne and Brisbane Air Traffic Service Centre – Extension Works. The estimated cost of the project is \$107 million, excluding GST.
- 1.13 Submissions are listed at Appendix A, and hearings and witnesses are listed at Appendix B.
-

3 The Act, Section 17.

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

HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia

- 2.1 The Department of Defence (Defence) seeks approval from the Committee to conduct redevelopment works at HMAS *Stirling* on Garden Island, Western Australia.
- 2.2 HMAS *Stirling* is the Royal Australian Navy's primary operational support base on Australia's west coast. This support includes command, administration, training, live-in-accommodation, ship replenishment, repair, maintenance and logistics. It currently accommodates a working population of approximately 3600, comprising both Defence and civilian personnel.¹
- 2.3 The primary objective of the project is to upgrade and refurbish existing key infrastructure and facilities at HMAS *Stirling*.²
- 2.4 The estimated cost of the project is \$366.8 million, excluding GST.
- 2.5 The project was referred to the Committee on 19 August 2015.

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 two supplementary submissions from Defence. A list of submissions can be found at Appendix A.
- 2.8 The Committee received a briefing and inspection from Defence on Garden Island and conducted public and in-camera hearings in Rockingham, Western Australia on 8 October 2015. A transcript of the

1 Defence, submission 1, p. 4.

2 Defence, submission 1, p. 12.

public hearing and the public submissions to the inquiry are available on the Committee's website.³

Need for the works

- 2.9 Much of the infrastructure and facilities at HMAS *Stirling* are approaching 40 years of age. This, coupled with exposure to a coastal environment, has rendered several areas in need of upgrade and repair.⁴
- 2.10 During the site inspection the Committee was shown examples of the ageing infrastructure on the base. It was clear that the harsh environment and age of the facilities has contributed to the deterioration of infrastructure.
- 2.11 At the public hearing, Defence stated:
- As the base has grown over the years, the base infrastructure has been progressively extended, but it has not received significant upgrade since its initial installation. This infrastructure has now reached or, in certain cases, is nearing the end of its remaining useful life, and will not continue to effectively support naval operations from Western Australia without immediate and substantial redevelopment.⁵
- 2.12 As part of the redevelopment works, Defence proposes repairing the existing road network, replacing the combined potable and fire-fighting water supplies and upgrading the electrical power supply and distribution system, base sewerage and waste water systems and the current data and communications infrastructure.⁶
- 2.13 The project will contribute significantly to Defence preparedness and Navy capability by ensuring facilities at HMAS *Stirling* remain fit for purpose and operational.⁷
- 2.14 At the public hearing, the Committee sought examples of how activities at HMAS *Stirling* had changed over time. Representatives for Defence noted that providing support for foreign navies had expanded. In the case of the United States, this has increased from supporting one submarine every one to two years to four in the period since November 2014.⁸
- 2.15 The Committee is satisfied that the need for the work exists.

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

4 Defence, submission 1, p. 5.

5 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 1.

6 Defence, submission 1, pp. 8-9.

7 Defence, submission 1, p. 32.

8 Captain Angela Bond, Defence, transcript of evidence, , 8 October 2015, p. 4.

Options considered

- 2.16 Defence has identified 25 scope elements and considered options for each. For most elements, altering existing facilities and infrastructure is the most feasible and cost-effective option. Where re-use is not cost-effective, Defence proposes to construct new facilities.⁹
- 2.17 The Committee found that Defence has considered multiple options to deliver the project and has selected the most suitable option.

Scope of the works

- 2.18 The following are the 25 scope elements identified by Defence:
- 2.19 *Scope Element 1 – Central Emergency Power System*
A new emergency power station will be constructed to support the existing station. Construction will include a high-speed diesel generator, three rotary frequency converters, switchboards, transformers, acoustics, security, fire detection and fuel supply systems.¹⁰
- 2.20 *Scope Element 2 – Incoming Power Supply and Modifications to the Powerhouse*
The existing high voltage power supply to the base will be upgraded to increase capacity. The existing power station will also be upgraded. This will involve replacing generators, rotary frequency converters and associated equipment.¹¹
- 2.21 *Scope Element 3 – Base 11kV Power Distribution and Building Services*
The proposed upgrade of the existing base power distribution network will include providing new power ring feeders, conversions to increase capacity and efficiency and clearing surrounding vegetation to comply with safety codes. A new monitoring and control system will also be installed.¹²
- 2.22 *Scope Element 4 – Maritime Structures Remediation*
The following key maritime structures will be remediated:
- Armament Wharf;
 - Diamantina Pier;
 - High Level Bridge;
 - Moresby Harbour;
 - Oxley Wharf; and
 - Parkes Wharf.

9 Defence, submission 1, p. 9.

10 Defence, submission 1, p. 13.

11 Defence, submission 1, p. 14.

12 Defence, submission 1, pp. 14-15.

Works will include concrete repair, new lighting, protective coatings to guard rails and repairs to steel structures, fender systems, service tunnels and the causeway.¹³

2.23 *Scope Element 5 – Sewerage System*

Upgrading the existing freshwater sewerage system will include a new sewerage treatment plant, new electrical transformer and switchboard and new storage tanks. The sewer mains network will also be upgraded.¹⁴

2.24 *Scope Element 6 – Sullage (Waste Water) System*

Upgrading the existing freshwater sullage system will include repairing the existing sullage tank, installing treatment equipment, drying beds and pumps, and modifications to existing sullage lagoons to provide an anaerobic pond and a maturation pond.¹⁵

2.25 *Scope Element 7 – Potable Water and Fire System*

This will include replacing the existing combined potable and fire-fighting water supply system with a new combined system. This will include new pipework, water metres, pressure-reducing valves and a pump station.¹⁶

2.26 *Scope Element 8 – Air Conditioning, Chiller and Boiler Systems*

This will include replacing existing pipework, installing new air conditioning units and systems, new centrifugal chillers and pumps, new cooling towers, and new internal pipework for heated and chilled water.¹⁷

2.27 *Scope Element 9 – Flammable/Hazardous Goods and Waste Storage Areas*

A new flammable and hazardous waste store is proposed for construction on the site of the existing facility. Additionally, a paint storage container will be provided close to the base sand blast and painting facility.¹⁸

2.28 *Scope Element 10 – Communication and Supervisory System*

The base communications and supervisory system will be upgraded to address shortcomings in configuration, capacity and security. Optical fibre cabling will be installed to increase the capacity of the network. The integration of the building management system with this network will significantly improve the central monitoring and control of all key building, fire and energy management systems.¹⁹

2.29 *Scope Element 11 – Mains Water Supply*

The existing mains water supply pipeline will be repaired using an

13 Defence, submission 1, pp. 15-16.

14 Defence, submission 1, pp. 16-17.

15 Defence, submission 1, pp. 17-18.

16 Defence, submission 1, p. 18.

17 Defence, submission 1, pp. 18-19.

18 Defence, submission 1, p. 19.

19 Defence, submission 1, pp. 19-20.

approved corrosion protection repair system. Additionally, valves will be replaced or upgraded and a new cathodic protection system will be installed to control metal corrosion.²⁰

2.30 *Scope Element 12 – Recycled Water Reticulation*

A recycled water system is proposed and will include a new pump and pipeline and a new pump station.²¹

2.31 *Scope Element 13 – Base Entrance Enhancements and Training Ship ANZAC Refurbishment*

The proposed reconfiguration of the base entrance will include:

- a new single-storey pass office, induction centre and entry control point to replace the existing pass office and security booth;
- new security boom gates;
- a new crash barrier on the island side of the causeway in both lanes;
- a vehicle quarantine area and a wash down area; and
- a multipurpose car park.

The new building will include administrative office space, a pass control office, training room and amenities. It will be equipped with appropriate security, fire and communications systems and the existing electrical supply and area lighting will be upgraded.

The existing training ship's buildings and structures will be upgraded or replaced, to comply with workplace health and safety standards. This will include upgrading electrical supply and lighting, repairing asphalt surfaces, extending the boat launching ramp and constructing a rigging shed.²²

2.32 *Scope Element 14 – Road Reconstruction, Repairs and Resurfacing*

The works proposed will vary from reconstructing roads to minor repairs to the existing pavements. Works will also include improvements to the associated drainage systems and ancillary roadway structures. Upgrades will affect Wickham, Baudin and Vancouver Roads.²³

2.33 *Scope Element 15 – Submarine Training and Systems Centre Remedial Works*

This will include upgrading and extending the existing public address system throughout the entire facility, upgrading the existing emergency warning intercommunications system, including the installation of a

20 Defence, submission 1, p. 20.

21 Defence, submission 1, p. 20.

22 Defence, submission 1, p. 21.

23 Defence, submission 1, p. 22.

booster to increase the volume of the system and installing a security system to meet Defence standards.²⁴

2.34 *Scope Element 16 – Health Centre Refurbishment*

The proposed refit will include upgrading physiotherapy, psychology, dental services, health records management and pharmaceutical storage areas and increasing the number of consulting rooms. There will also be general upgrade works to amenities and office space.²⁵

2.35 *Scope Element 17 – Buildings Internal and External Upgrades*

The proposed scope of work for this element addresses the poor internal and external condition of 36 key facilities.

Internal upgrades will generally include:

- repairs and maintenance of the floor, wall and ceiling finishes, replacing ceiling tiles;
- replacing carpet or floor finishes, repairs to internal and external doors, and general;
- carpentry repairs to fixtures and fittings;
- repainting;
- replacing window seals; and
- minor repairs and/or replacement of the mechanical, electrical and fire services.

External upgrades will generally include:

- repairs and maintenance of building fabric, including miscellaneous corroded metal;
- work, fretted mortar, remediating deteriorated brickwork;
- repainting;
- repairing fencing and other ancillary structures;
- general carpentry work; and
- refurbishing roller doors.²⁶

2.36 *Scope Element 18 – Roof Tiles and Roof Plumbing*

This will include high-pressure cleaning of roof tiles, repairs to and replacement of gutters, where required, and other general roofing repairs.²⁷

24 Defence, submission 1, p. 22.

25 Defence, submission 1, p. 22.

26 Defence, submission 1, p. 22.

27 Defence, submission 1, p. 23.

- 2.37 *Scope Element 19 – Closed Circuit Television (CCTV) Coverage (and Intruder Alarm)*
A new centralised CCTV monitoring and control system will be installed. This will integrate all of the existing CCTV systems, allowing monitoring and management from a central control point. A back up control and monitoring point will be installed at the proposed base entrance facility. Additional CCTV coverage will also be provided to critical areas, such as the base entrance, the explosive ordnance storage area and key security points around the base.
Parts and panels for all existing intruder alarms more than 10 years old will be replaced with new units.²⁸
- 2.38 *Scope Element 20 – Work at Height Access Systems*
Fixed safe access systems are proposed for 36 key facilities. A number of these facilities will also require minor structural upgrading to enable the roof access systems to be installed.²⁹
- 2.39 *Scope Element 21 – Mess Facilities Upgrades*
This will include installing new security grilles to all bar areas, providing air conditioning, upgrading amenities, electrical services and lighting and minor improvements to the northern outdoor veranda area.
Pending available funds, additional works would include providing access ramps, a covered pedestrian link and a fit-out to an adjacent building.³⁰
- 2.40 *Scope Element 22 – Car Parking Rationalisation*
This will include a major extension to the existing car park and works to surrounding footpaths.³¹
- 2.41 *Scope Element 23 – Chaplain Centre Extension*
This will provide:
- an expanded chapel space to suit a capacity of up to 120 persons;
 - a separate smaller dedicated multi-faith prayer room;
 - a staff kitchenette;
 - a formalised reception area;
 - a multi-purpose conference/staff/training/meeting room;
 - disabled/wheelchair access to the Chaplain Centre, Chapel and toilets;

28 Defence, submission 1, p. 24.

29 Defence, submission 1, p. 24.

30 Defence, submission 1, p. 24.

31 Defence, submission 1, p. 25.

- toilet and disabled toilet facilities for the maximum occupancy of 120 persons;
- additional office space; and
- an upgrade of the mechanical, electrical, hydraulics and fire services to meet the relevant standards.³²

2.42 *Scope Element 24 – Mechanical Lockout Capability*

This will involve developing a policy for a standard system of mechanical lockout for all plant and equipment at HMAS *Stirling*. The aim is to meet contemporary workplace health and safety legislation. The policy will identify selected plant, switch rooms and equipment to be secured when maintenance work is being conducted and will include procedures for each specific lockout situation and appropriate training for maintenance staff.³³

2.43 *Scope Element 25 – Physical Training Facilities Upgrades*

Three facilities have been identified for upgrade: gymnasium building, weights room and swimming pool change rooms. Works include reconfiguration of internal fit-out, installing ventilation and air conditioning systems, amenities and safety equipment.³⁴

Potential impacts on scope

- 2.44 At the public hearing, the Committee queried if foreign navies' berthing requirements impacted the scope of the works. Defence indicated that although some consideration had been given to foreign navy vessels, this had not been a major factor in determining the scope of the works required.³⁵
- 2.45 Subject to Parliamentary approval of the project, the design stage of the project is expected to be completed by the end of 2016. Construction work is expected begin in mid 2017 and be completed in early 2020.³⁶
- 2.46 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

Community consultation

- 2.47 In accordance with its community consultation and communications strategy, Defence undertook the following consultative activities:

32 Defence, submission 1, p. 25.

33 Defence, submission 1, pp. 25-26.

34 Defence, submission 1, p. 26.

35 Captain Angela Bond, Defence, transcript of evidence, 8 October 2015, p. 5.

36 Defence, submission 1, p. 32.

- detailed email correspondence with local groups and State and Federal members, with individual briefings conducted where requested;
 - notices in the local newspapers providing information on opportunities for the public to comment on issues relating to the project; and
 - a public consultation session held on 8 September 2015.³⁷
- 2.48 At the public consultation session, Defence responded to a number of issues, including questions about a possible increase to local traffic. Defence advised community participants that while there would be a small increase to traffic on Point Peron Road, mitigation strategies are in place to reduce congestion. Strategies will include staggering personnel start and finish times and stock-piling materials and equipment at HMAS *Stirling* to reduce the number of vehicles onsite.³⁸
- 2.49 Traffic concerns were also raised in relation to an unrelated redevelopment project at the nearby Mangles Bay Marina. Defence advised that it was in discussions with the project managers, LandCorp and Cedar Woods, to find solutions to the impact of the proposed closure of Point Peron Road.³⁹
- 2.50 At the public hearing, the Committee sought assurances that the two projects would not adversely impact on each other or the local residents. Defence responded:
- On the Defence side, we aim to streamline the flow of traffic which will help with the traffic backup that we currently experience when we have a number of our ships and submarines alongside. We have been working well with LandCorp and now Cedar Woods in relation to the traffic management plan that was undertaken by Cedar Woods last year. We are now engaged in that process and we are undertaking an independent review of the traffic management plan to have a look at the issues and what might need to be done to meet our needs, along with the redevelopment of the roads. The proposal under the Mangles Bay Marina precinct is that Point Peron Road will no longer exist and that project will require a realignment of Memorial Drive. We want to ensure that that realignment and the redevelopment of that road meets our needs and that we do not impact as an entity on the public in that area and that we are catered for in the process. We are currently engaged in that process. We are also well supported by Rockingham City Council that is very aware

37 Defence, submission 1.2, pp. 1-7.

38 Defence, submission 1.2, p. 8.

39 Defence, submission 1.2, p. 9.

that Defence is a big part of their community here. But, of course, they want the development so they are trying to make sure that all entities reach a positive conclusion.⁴⁰

- 2.51 Further, the project's Design Manager, commented on HMAS *Stirling's* entry in relation to traffic flow:

At the moment the design as it stands is separate and independent of what happens to Point Peron [Road]; however, if for some reason Memorial Drive gets pushed through and it is dual carriageway we will obviously have to interface to a dual carriageway and not a single carriageway as the design is at the moment. So we do need to manage that interface point. The other point I would like to make is that during the design process for that intersection we did consult with the City of Rockingham. They reviewed the design and they have no adverse comments. They are happy with the design as it stands currently.⁴¹

- 2.52 Finally, Defence told the Committee that they conduct regular meetings with state governments to consult on matters of mutual interest. The particular issue of HMAS *Stirling* and Mangles Bay Marina Redevelopment Projects was raised with the Western Australian Premier, Mr Colin Barnett MLA and this facilitated further liaison with LandCorp and Cedar Woods.⁴²

Cost of the works

- 2.53 The estimated cost of the project is \$366.8 million, excluding GST.
- 2.54 In their submission, Defence noted that the project aims to support capabilities at HMAS *Stirling* until at least 2030.⁴³
- 2.55 At the public hearing, the Committee queried the cost of the works in relation to value for money and longevity of the works. In response, Defence told the Committee:

The 2030 is a minimum requirement. Within the confidential cost-estimate submission, provided by Defence to the committee, there is detail on each of the different...components of that; it is design life that we are focusing on. If you look at the maritime structures and what we are proposing there, the design life – and I can confirm this when we get into the in camera hearing – is a 40-year

40 Captain Angela Bond, Defence, transcript of evidence, 8 October 2015, pp. 6-7.

41 Mr Rob Roberts, Doric Constructions, transcript of evidence, 8 October 2015, p. 7.

42 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 6.

43 Defence, submission 1, p. 12.

design life. The 2030 aspect of it is a minimum requirement, but the actual design life we are proposing will take us well past that.⁴⁴

- 2.56 Additionally, Defence told the Committee that funding is available through three large contracts that have recently been implemented by Defence to ensure that new works are well maintained.⁴⁵
- 2.57 Defence provided further detail on the project costs in the confidential submission and during the in-camera hearing.
- 2.58 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

- 2.59 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.
- 2.60 Proponent agencies 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.
- 2.61 The Committee requires Defence to provide a mid-term status report, on completion of the project's design stage.
- 2.62 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

- 2.63 The Committee requires the Department of Defence to provide a mid-term status report, on completion of the project's design stage.**

44 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, p. 3.

45 Brigadier Noel Beutel, Defence, transcript of evidence, 8 October 2015, pp. 7-8.

Recommendation 2

- 2.64 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: **HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia.**

Brisbane and Cairns Control Tower Life Extensions

- 3.1 Airservices Australia (Airservices) seeks approval from the Committee to refurbish air traffic control towers in Brisbane and Cairns. The works will extend the towers' useful life by 15 years and prepare them for the installation of new technology known as the Integrated Tower Automation Suite (INTAS).¹
- 3.2 INTAS combines flight and operational data, surveillance and voice communications into a tower-specific system to replace current manual processes. It is being progressively installed in all air traffic control towers around the country in readiness for the *OneSKY Australia Program*.²
- 3.3 OneSKY is a joint initiative of Airservices and the Department of Defence. It will see the nation's separate civil and military air traffic control systems replaced by a more modern, combined Civil-Military Air Traffic System (CMATS).³
- 3.4 CMATS will be implemented in air traffic service centres in Melbourne and Brisbane, and will integrate with the INTAS technology. Together, these new technologies will equip Airservices to safely manage increasing aviation traffic in the Australian airspace.⁴
- 3.5 The estimated cost of the project being considered in this report is \$23.9 million, comprised of the following location costs:
- Brisbane, \$9.98 million; and
 - Cairns, \$13.95 million, all excluding GST.⁵

1 Airservices Australia, submission 1, pp. 4-6.

2 Airservices Australia, submission 1, p. 4.

3 Airservices Australia, submission 1, p. 5.

4 Airservices Australia, submission 1, pp. 4-6.

5 Airservices Australia, submission 1, p. 10.

- 3.6 These figures include the cost of elevator repairs originally included in the scope of the proposed Brisbane tower works, but these repairs had been progressed ahead of schedule as a matter of urgency to resolve frequent service disruptions.⁶
- 3.7 The project was referred to the Committee on 19 August 2015.

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 Airservices. A list of submissions can be found at Appendix A.
- 3.10 The Committee received a briefing from Airservices and conducted public and in-camera hearings in Canberra on 16 October 2015. A transcript of the public hearing and the public submissions to the inquiry are available on the Committee's website.⁷

Need for the works

- 3.11 The Brisbane and Cairns control towers were built in 1987 and 1990 respectively. The towers' electrical, mechanical and fire suppression systems are at the end of their life expectancy, and some components do not meet current building codes and standards, workplace health and safety standards or environmental sustainable design requirements.⁸
- 3.12 Refurbishment is required to extend the useful life of the towers and to ensure they have the capacity to accommodate new technologies such as INTAS. For example, the Cairns tower's current lighting and window blind systems are insufficiently automated to interface with INTAS. They must be updated to enable cabin lighting and window blinds to be controlled from new INTAS operator consoles.⁹
- 3.13 During its briefing, Airservices showed the Committee photos which demonstrated various internal and external aspects of the towers which are aged and in need of repair and/or replacement.
- 3.14 The Committee is satisfied that the need for the work exists.

6 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 1.

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

8 Airservices Australia, submission 1, p. 5.

9 Airservices Australia, submission 1, pp. 5-6.

Options considered

3.15 Airservices considered two options before settling on the proposed works.

3.16 *1 – Maintenance of Existing Facilities*

The option to maintain existing control tower facilities without significant refurbishment was discounted because:

- the capacity of tower systems would remain insufficient to accommodate new technologies including INTAS;
- the towers would continue to be non-compliant with building codes and standards, and environmental sustainable design requirements;
- Airservices personnel would continue to be exposed to risk arising from known workplace health and safety issues; and
- the risk of loss or failure of air traffic control services would be increased.¹⁰

3.17 *2 – Upgrade and Refurbish Facilities*

The option to refurbish and modernise the control towers is preferred because, although it requires a significant financial investment, this option:

- extends the useful life of the towers by at least 15 years;¹¹
- safeguards the reliability and maintainability of the towers mechanical and electrical systems;
- equips them to accommodate new technology, including INTAS;
- resolves compliance issues with building codes and standards, and environmental sustainable design requirements;
- addresses identified workplace health and safety issues, including the removal of hazardous materials; and
- modernises staff amenities.¹²

3.18 The Committee found that Airservices has considered options to deliver the project and has selected the most suitable option.

Scope of the works

3.19 Works on the Brisbane control tower will comprise:

- general renovation including roof repairs, treatment of corrosion and internal fit-out;

10 Airservices Australia, submission 1, p. 6.

11 Mr Darryl Wood, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

12 Airservices Australia, submission 1, p. 6.

- mechanical upgrades including a new heating, ventilation and air conditioning, building control and monitoring, fuel, and hydraulic systems;
- electrical upgrades including the assessment and (if necessary) replacement of power supply, distribution boards and switchboards; and
- extensive fire system upgrades including: new fire indication panels, fire warden intercom, fire doors, and upgraded fire and smoke detection systems.¹³

3.20 Airservices advised the Committee that elevator repairs included in the original scope for the proposed Brisbane tower works were brought forward:

Since our submission for this project we have made a small change the scope of the Brisbane refurbishment... I apologise for the late change; however, the passenger lift in our Brisbane tower has become very unreliable. In fact we have had a couple of occasions where air traffic controllers have been stuck in the lift on the way up and down. A decision was made to make the urgent repairs necessary from this project.¹⁴

3.21 Works on the Cairns tower will comprise:

- general refurbishment including, new task spot lighting and automated window blinds;
- general control tower complex refurbishment;
- modernisation of the administrative area, the radio equipment room, and the tower power house to provide continuous power for the facilities.¹⁵

3.22 Airservices noted that works on the Cairns tower will include the removal of an asbestos membrane on the upper facade of the tower. It assured the Committee that it has the expertise and experience to manage its removal safely:

If we can in Cairns, during a low time we will actually shut the tower and get the appropriately qualified people up there to scrape it off and then resume service. We just need to work through those plans as we go through our planning but yes, [] we

13 Airservices Australia, submission 1, p. 8.

14 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 1.

15 Airservices Australia, submission 1, p. 8.

have had experience where we have upgraded our towers with asbestos elements in them before.¹⁶

3.23 Airservices noted that a similar asbestos membrane was identified on control towers at Jandakot and Coolangatta and a qualified external provider was sourced to manage its removal safely.¹⁷

3.24 Further, Airservices observed that many of its assets incorporate asbestos and a removal program is being progressed:

As you would be aware, our service has radio equipment all over the country – aerials and generators et cetera. We maintain an asbestos register for where we have asbestos in each of those sites and we have a program we are working through very slowly – the safe removal of asbestos from those sites.¹⁸

3.25 The Committee queried the exemption of the proposed works from *Disability Discrimination Act 1992* requirements to provide disability access. In response, Airservices said it accommodates different abilities where possible; however the requirement to evacuate the control towers via stairs in an emergency situation necessitated an exemption in the case of the proposed works:

We have the situation, for example, of an air traffic controller working in Brisbane who is wheelchair-bound; he can work in the air traffic control centre on the radar side of things. We have all the facilities in the major centres, as you would have seen in Melbourne. But in a control tower where egress is via a set of stairs... it is going to be difficult for somebody and that is where we seek that exemption.¹⁹

3.26 Subject to Parliamentary approval of the project, work on the Brisbane control tower is expected to commence in late 2016 and be completed by mid-2017. Work on the Cairns control tower is expected to commence in early 2016 and be completed by late 2016.²⁰

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

16 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p.4.

17 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p.4.

18 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p.4.

19 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p.4.

20 Airservices Australia, submission 1, p. 11.

Similar works

3.28 At the public hearing, the Committee sought information on the outcome of similar projects undertaken by Airservices and possible lessons learned which could be applied to the control tower works being proposed.

3.29 In response, Airservices outlined a series of tower refurbishment and replacement works arising from a 2007 survey of all control towers to assess their 'baseline health'. Airservices advised that the survey had identified:

- four towers that needed replacing; and
- five requiring refurbishment.²¹

3.30 Airservices reported that three of the four towers identified for replacement were constructed under budget but 18 months behind schedule:

The experience with those [towers] was that [project completion] was 18 months late from our initial planning; however, when we got into the construction phase we completed the towers within the time frame for the planned construction and we were also under budget overall.²²

3.31 The construction of the fourth tower identified for replacement did not commence due to unsuccessful lease negotiations with Canberra airport.²³

3.32 Works on the five towers identified for refurbishment were completed within projected budgets and timeframes. Airservices said lessons from these completed projects have informed the proposed Brisbane and Cairns tower works:

...we are carrying the lessons learnt from all those experiences through into this proposal.²⁴

3.33 Airservices specifically noted learnings around working with air traffic controllers to maintain continuity of air traffic control services. It acknowledged that aviation is a 'safety-critical industry' and reassured the Committee that plans are in place to avoid service disruption during the proposed works:

With the work we have done to date we have not had any incidents where we have had to stop tower operations and yes, we

21 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 2; Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

22 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

23 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

24 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

are bringing those plans and our experience through into these two [proposed tower works].²⁵

3.34 Airservices said previous tower works also highlighted the importance of managing the expectations of building occupants:

We have had issues. There were issues that arose in Perth with respect to the use of the kitchen... We have factored that into our planning. As long as we do our stakeholder management, we inform the staff what we are up to and how we are going to do it, things run a lot smoother.²⁶

3.35 The Committee noted recent scrutiny of Airservices by the Federal Parliament and the Australian National Audit Office, and sought assurance that these activities would not impact the delivery of the proposed works. In response Airservices outlined recent performance improvements and asserted:

The executive is rock solid. We have a first-class acting chief executive and a first-class acting chief financial officer. The executive are very much aligned and very much focused on delivering for the customers' needs.²⁷

Cost of the works

3.36 The estimated cost of the project (including the elevator repairs which have already commenced) is \$23.9 million, comprised of the following location costs:

- Brisbane, \$9.98 million; and
- Cairns, \$13.95 million, all excluding GST.²⁸

3.37 At the public hearing, the Committee asked Airservices to explain the disparity between the projected costs for works on the two towers. Airservices said the cost of the proposed Cairns tower works is greater because it includes the refurbishment of a two-storey building at the base of the tower, whereas the Brisbane tower is a standalone structure.²⁹

Cost efficiencies

3.38 The Committee invited Airservices to outline any cost efficiencies which will be achieved by the proposed works.

25 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

26 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

27 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 6.

28 Airservices Australia, submission 1, p. 10.

29 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

- 3.39 Airservices said it achieved efficiencies by combining planning processes for the two towers and suggested that additional savings may be made by tendering for a single contractor to undertake the refurbishment of both towers:

The cost efficiency we are looking at is that we have a Brisbane tower and a Cairns tower – that is why I brought this to the Committee as a package, because we are going to tender for both towers. Though they are both in Queensland, they are quite a distance apart; however, Queensland contractors will be able to implement [work for] both towers.³⁰

- 3.40 Airservices provided further detail on the project costs in the confidential submission and during the in-camera hearing.
- 3.41 The Committee considers that the cost estimates for the project have been adequately assessed by Airservices 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

- 3.42 The Committee did not identify any issues of concern with Airservices' proposal and is satisfied that the project has merit in terms of need, scope and cost.
- 3.43 Proponent agencies 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.
- 3.44 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 3

- 3.45 **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: Brisbane and Cairns Control Tower Life Extensions.**

30 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

Melbourne and Brisbane Air Traffic Service Centre – Extension Works

- 4.1 Airservices Australia (Airservices) seeks approval from the Committee to construct additional buildings and supporting amenities at the Melbourne and Brisbane air traffic service centres. The buildings will each house a modern air traffic control operations room compatible with new technology being implemented as part of the *OneSKY Australia Program*.¹
- 4.2 OneSKY is a joint initiative of Airservices and the Department of Defence. It will see the nation's separate civil and military air traffic control systems replaced by a more modern, combined Civil-Military Air Traffic System (CMATS).² Airservices said CMATS will deliver:
- ...enormous safety, service and efficiency benefits for the nation.³
- 4.3 The estimated cost of the project is \$107 million, excluding GST.
- 4.4 The project was referred to the Committee on 19 August 2015.

Conduct of the inquiry

- 4.5 Following referral, the inquiry was publicised on the Committee's website and via media release.
- 4.6 The Committee received one submission and one supplementary submission from Airservices. A list of submissions can be found at Appendix A.
- 4.7 The Committee received a briefing from Airservices and conducted public and in-camera hearings in Canberra on 16 October 2015. A transcript of

1 Airservices Australia, submission 1, pp. 5-6.

2 Airservices Australia, submission 1, p. 5.

3 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 1.

the public hearing and the public submissions to the inquiry are available on the Committee's website.⁴

Need for the works

- 4.8 Airservices manages aviation traffic in the Australian airspace from the Brisbane and Melbourne air traffic service centres. Approximately 600 air traffic controllers work across the centres, operating on rosters to provide round-the-clock management of aviation traffic, seven days a week. Staff currently work from operations rooms in existing air traffic service centre buildings, which also house supporting amenities such as training rooms.⁵
- 4.9 The construction of additional buildings at the Melbourne and Brisbane air traffic service centres is necessary to provide the physical facilities required during the transition period of the *OneSKY Australia Program*. Beginning 2018, CMATS will operate in tandem with existing air traffic control systems until incumbent systems are phased-out four years later. Airservices explained:
- We will be building our new OneSKY system and [will] be operating it in parallel with our existing system, transitioning small components of our airspace over a number of years.⁶
- 4.10 Airservices said aviation safety and service reliability was a 'primary driver' in the decision to incrementally transition to CMATS:⁷
- ...in moving to a brand new system, it is going to be very important to run it in a mimicked or ghosting environment and take all the live inputs and make sure that the system does not lose its integrity. We are going to... run it in parallel as a ghosted system for some time. Then we will present [a] safety case to [the Civil Aviation Safety Authority] to implement the system.⁸
- 4.11 Additional operations and training rooms are necessary to enable Airservices to operate both the original and new air traffic control systems in parallel as well as prepare its personnel to operate CMATS.⁹
- 4.12 Airservices said the benefits of extending air traffic service centres to enable an incremental transition to a new air traffic control system have been proven. It described its previous move from post-World War II radar technology to the current air traffic control system in 1998:

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

5 Airservices Australia, submission 1, p. 6.

6 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 1.

7 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

8 Mr Darryl Woods, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

9 Airservices Australia, submission 1, p. 6.

In transitioning in 1998 we constructed a new building. We purchased [] a simulation capacity but we also kept the systems running in parallel... then we moved through a period of training and then ghosting – so you had controllers in both centres:

- the old centre was providing live air trafficking services; and
- the new centre was watching... how the traffic was progressing and mimicking what they were doing.

Then we did the cut-over so that the new centre was providing services but we still had the old centre doing the backup to ensure that any degradation of service, loss of functionality or anything that was missed... by the new system was picked up.

...the ghosting and mimicking process and running the two in parallel for a period of time makes sense from a redundancy point of view. That is what we did in 1998, and we think that is the safest and most effective way to do it again.¹⁰

- 4.13 Airservices said this approach will also enable staff to undertake training and familiarise themselves with the new system before it goes live:

One of the less tangible advantages to [an incremental transition to CMATS] is that people, who are a little challenged and a bit nervous about using the technology, will have the ability to play with the system first without having to be in the control seat. This is what happened in 1998... We found by allowing people to go and explore by themselves in an adult learning sense that they could overlearn the way in which things are done and do free play, if you like. They were able to feel much more comfortable with the new software driven systems.¹¹

- 4.14 The Committee is satisfied that the need for the work exists.

Options considered

- 4.15 Airservices considered two options before settling on the proposed works.

- 4.16 *1 – Refurbishment of Existing Air Traffic Service Centres and In-Situ Transition*

The option to refurbish existing air traffic service centres and in-situ transition to OneSKY technology was discounted because:

- existing facilities lack sufficient floor space to accommodate two air traffic control systems and could not support training activities during the transition period;

10 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

11 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 4.

- managing the complexities of in-situ transition would result in increased project costs;
- upgrading technology in an operational facility increases the risk of disruption or failure of air traffic control services;
- Airservices personnel would be exposed to safety risks associated with construction in an operational facility; and
- the complexities of in-situ transition increases the risk of project timeframes not being met.¹²

4.17 2 – *Extension of Air Traffic Service Centres*

The construction of additional buildings, linked to current air traffic service centre buildings, was the preferred option because:

- additional buildings will provide the physical facilities require to accommodate and manage new and incumbent air traffic control systems in tandem;
- the impact of construction activities on Airservices personnel is minimised;
- the risk of disrupting air traffic control services is lower; and
- project costs are reduced.¹³

4.18 Further, Airservices said that existing air traffic service centre buildings could be repurposed for training, office space and supporting amenities following the completion of the *OneSKY Australia Program*. This would enable Airservices' personnel currently accommodated in rented Brisbane office space to relocate into these facilities. It would also remove the need to build a new training facility in Melbourne.¹⁴

4.19 However, Airservices said plans to repurpose the buildings had not been finalised as the ongoing evolution of air traffic control technologies may see priorities for these spaces shift by the time OneSKY concludes:

[]We have not yet finalised our plans in relation to how and for what purpose we might refurbish the [existing] Brisbane and Melbourne centres, that is because we have got some emerging technologies and we need to do some careful thinking first in that space.¹⁵

4.20 The Committee found that Airservices considered options to deliver the project and has selected the most suitable option.

12 Airservices Australia, submission 1, p. 6.

13 Airservices Australia, submission 1, p. 7.

14 Airservices Australia, submission 1, p. 7.

15 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 3.

Scope of the works

4.21 Works on the Brisbane air traffic service centre will comprise:

- the construction of an additional two-storey building to house a modern operations room, staff amenities and an internal plant room;
- an external plant room to accommodate generators, boilers, chillers and associated pumps;
- new liquid petroleum gas (LPG) and fuel tank storage facilities;
- fire protection services;
- car parking spaces; and
- landscaping.¹⁶

4.22 Works on the Melbourne air traffic service centre will comprise:

- the construction of an additional two-storey building to house a modern operations room, staff amenities and an internal plant room;
- an external plant room to accommodate generators, boilers, chillers, associated pumps, and an electrical substation;
- a chiller enclosure;
- new LPG and fuel storage facilities;
- associated building services such as plumbing, water supply, rainwater harvesting and reticulation;
- fire protection services;
- car parking spaces; and
- landscaping.¹⁷

4.23 Airservices explained how the extension works were designed to support delivery of a highly reliable air traffic management system, with existing facilities providing access to back-up if needed:

The new extensions are designed to provide state-of-the-art high-security high-reliability environments that operate 24 hours a day. They are complex facilities that will have their own power and water supplies as well as air-conditioning and fire suppression systems that minimise the risk of staff every having to walk away from their job. The extensions are designed to be linked to existing facilities in order to minimise the requirements for supporting amenities.¹⁸

16 Airservices Australia, submission 1, p. 10.

17 Airservices Australia, submission 1, p. 10.

18 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 1.

- 4.24 With so many capital works projects being managed at the same time (including a number of public works projects recently examined by the Committee), the Committee sought assurance that Airservices has adequate capacity. Airservices responded:
- With regard to resourcing, obviously the criticality of the provision of air traffic control to this nation is acknowledged. We have a comprehensive resourcing plan that takes us up to 2025 and includes the transition to OneSKY... We are confident in our resourcing levels to support this transition.¹⁹
- 4.25 Subject to Parliamentary approval of the project, work is expected to commence in 2016 and be completed by the end of 2017.²⁰
- 4.26 The Committee finds that the proposed scope of works is suitable for the works to meet its purpose.

Cost of the works

- 4.27 The estimated cost of the project is \$107 million, excluding GST.
- 4.28 Airservices provided further detail on the project costs in the confidential submission and during the in-camera hearing.
- 4.29 The Committee considers that the cost estimates for the project have been adequately assessed by Airservices 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

- 4.30 The Committee did not identify any issues of concern with Airservices' proposal and is satisfied that the project has merit in terms of need, scope and cost.
- 4.31 Proponent agencies 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.
- 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.

19 Mr Greg Hood, Airservices Australia, transcript of evidence, 16 October 2015, p. 2.

20 Airservices Australia, submission 1, p. 14.

Recommendation 4

- 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: Melbourne and Brisbane Air Traffic Service Centre - Extension Works.**

Senator Dean Smith

Chair

12 November 2015



Appendix A – List of Submissions

HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia

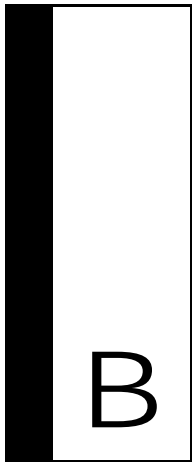
1. Department of Defence
 - 1.1 Confidential
 - 1.2 Department of Defence

Brisbane and Cairns Control Tower Life Extensions

1. Airservices Australia
 - 1.1 Confidential
 - 1.2 Confidential

Melbourne and Brisbane Air Traffic Service Centre – Extension Works

1. Airservices Australia
 - 1.1 Confidential



Appendix B – List of Hearings and Witnesses

HMAS *Stirling* Redevelopment, Stage 3A, Garden Island, Western Australia

Thursday, 8 October 2015 – Garden Island

Public Hearing

For Department of Defence

Brigadier Noel Beutel, Director General, Capital Facilities and Infrastructure,
Department of Defence

Captain Angela Bond, Commanding Officer, HMAS *Stirling*,

Mr Greg Flanagan, Project Director, Capital Facilities and Infrastructure,
Department of Defence

Mr Niall Pigott, Project Manager, Contract Administrator, Point Project
Management

Mr Rob Roberts, Design Manager, Doric Contractors

In-Camera Hearing

Five witnesses

Brisbane and Cairns Control Tower Life Extensions

Friday, 16 October 2015 – Canberra

Public Hearing

For Airservices Australia

Mr Greg Hood, Executive General Manager, Air Traffic Control, Airservices Australia

Mr Paul Logan, Acting Chief Financial Officer, Airservices Australia

Mr Darryl Woods, General Manager, Projects, Airservices Australia

In-Camera Hearing

Three witnesses

Melbourne and Brisbane Air Traffic Service Centre – Extension Works

Friday, 16 October 2015 – Canberra

Public Hearing

For Airservices Australia

Mr Greg Hood, Executive General Manager, Air Traffic Control, Airservices Australia

Mr Paul Logan, Acting Chief Financial Officer, Airservices Australia

Mr Darryl Woods, General Manager, Projects, Airservices Australia

In-Camera Hearing

Three witnesses