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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]

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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.

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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.

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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.

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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.