

**Rural & Regional Affairs and Transport Legislation Committee**  
ANSWERS TO QUESTIONS ON NOTICE  
Supplementary Budget Estimates 2015 - 2016  
**Infrastructure and Regional Development**

**Question no.:** 78

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Current Age Profile of Air Traffic Controllers

**Proof Hansard Page:** 82 - 83 (19 October 2015)

**Senator Gallacher, Alex asked:**

**Senator GALLACHER:** Are 30 per cent of ATCs over 55?

**Mr Harfield:** I will have to take that on notice. However, the demographics of the Operational Air Traffic Controllers is, in my understanding, about 48 or 49.

**Answer:**

As of September 2015, Airservices had 1151 operational air traffic controllers, including line management. Of these, 191 are aged 55 or more (16.6%).

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**Infrastructure and Regional Development**

**Question no.:** 79

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** TCU Integration Business Case

**Proof Hansard Page:** 83 (19 October 2015)

**Senator Gallacher, Alex asked:**

**Senator GALLACHER:** You are planning on 17 training replacements in the Adelaide TCU in the short term, almost the entire current staffing level, and in section 4.3 of the business case you have budgeted for \$7.3 million to replace the ageing workforce which numbered between seven and 14, and in section 5.1 you have only budgeted for \$6.5 million. Is there a discrepancy in your business case?

**Mr Harfield:** I will have to take that on notice. I do not have the detail in front of me.

**Answer:**

The costings quoted relate to a Net Present Value (NPV) that was calculated over 15 years and compares the 'do nothing' scenario against the 'TCU integration' scenario.

In the 'do nothing' scenario (i.e. do not integrate), based on the age profile data, 18 TCU staff would need to be replaced over the next 15 years in Adelaide. The training costs associated with training replacement staff were estimated at \$7.3m. This included an estimated cost to recruit and train 18 staff (\$6.5m), ongoing training related travel costs for refresher training in Melbourne (\$0.6m), plus one-off training related travel costs for training on the new Civil-Military Air Traffic System (CMATS) in Melbourne when that is implemented (\$0.2m).

In the 'TCU integration' scenario, which the costing table in section 5.1 represents, the recruitment and training cost is the same (\$6.5m). However, the travel costs have been removed as they are no longer required post integration. This is because staff will be co-located with the training facility in Melbourne, thus reducing the overall training costs by \$0.8m.

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**Question no.:** 80

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Eurocate Console Cost

**Proof Hansard Page:** 85 (19 October 2015)

**Senator Gallacher, Alex asked:**

**Senator GALLACHER:** Are you buying four new Eurocat consoles to provide Adelaide Approach Services from Melbourne, or are you moving the existing consoles from Adelaide?

**Mr Harfield:** My understanding is that we are buying four new ones to replace Adelaide, and that is to replace Adelaide and Cairns in Brisbane because when we move one of the terminal control units, those consoles at that particular location will be used for the other location. In other words, it is capacity. However, on top of that is that those four are not four extras specifically for the project. Because of the air traffic growth across the entire operation, we will need those extra four consoles to provide additional services; for example, providing new positions for Melbourne, Perth and Brisbane approach services with the introduction of the director positions.

**Senator GALLACHER:** How much will those four consoles cost?

**Mr Harfield:** I do not have that. I will have to take that on notice.

**Senator GALLACHER:** The four console system reconfiguration and all of the associated hardware and software changes will cost a budgeted \$4.1 million; is that correct?

**Mr Logan:** That sounds correct, but I would need to double-check. When you talk specifically about the consoles, there are pieces of configuration work around some of those sorts of things.

**Senator GALLACHER:** You will give us on notice how much the consoles will cost, but there are software changes and there is a budgeted figure of \$4.3 million in the business case; is that correct?

**Mr Logan:** Yes.

**Senator GALLACHER:** Capex, technical, engineering and communication equipment system; the training costs to address the age profile exists regardless of whether the service is provided in Melbourne or Adelaide; there is \$7.3 million attributed to it, and that is carried across to the TCU integration project; is that a correct statement?

**Mr Logan:** Yes.

**Answer:**

The cost for the four Adelaide consoles is approximately \$1,148,800 (approximately \$287,200 each) – this is for the hardware component only.

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**Question no.:** 81

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** TASWAM

**Proof Hansard Page:** 87 (19 October 2015)

**Senator Xenophon, Nick asked:**

**Senator XENOPHON:** I will put some of these questions on notice. I do have some questions to ask Airservices and then I am out of here. I refer to TASWAM, something Mr Dick Smith has been commenting on in the media. Are you able to provide the original project objectives for TASWAM as well as the project risks register?

**Mr Harfield:** Yes, we can provide that on notice.

**Senator XENOPHON:** In particular, could you advise the extent of the regulatory risk identified, including the evolving risk as the project proceeded and the mitigation strategies put in place to avoid what appears to be the current impasse where you say it will do the job, but CASA will not let you use it as intended? That seems to be one of the issues that seems live on this.

**Answer:**

The project objectives as described in the approved business case were:

*2.1.1 The purpose of the project is to implement and trial a Wide Area Multilateration (WAM) surveillance system (the System) to provide surveillance of air traffic over Tasmania.*

*2.1.2 The System will initially be used by Airservices Australia to conduct extensive flight testing to validate the performance of the System as a suitable surveillance technology for the provision of terminal area and enroute ATC services. The objective of the trial is to obtain Civil Aviation Safety Authority (CASA) approval to use the System to provide ATC airborne separation services for aircraft.*

*2.1.3 The System will also be used by Airservices Australia to conduct extensive flight testing to validate the performance of the System as a suitable surveillance technology for the provision of Precision Runway Monitoring (PRM).*

*2.1.4 The System will also provide Automatic Dependent Surveillance - Broadcast (ADS-B) data to The Australian Advanced Air Traffic System (TAAATS).*

*2.1.5 Once the System has been commissioned and its data integrated into the Melbourne Centre Eurocat environment, air traffic controllers will have improved situational awareness of traffic operating in Tasmanian airspace and this may allow for the redeployment of the transportable radar from Launceston Airport to support the installation activities of the Terminal Area Radar Replacement Project in early to mid 2007.*

Throughout the course of the system implementation, WAM operated in parallel with the transportable radar in Launceston for 12 months and subject to rigorous testing by the Civil Aviation Safety Authority (CASA). CASA subsequently approved WAM for ongoing operational use in March 2010. The safety case identified no regulatory risk associated with the implementation of WAM.

Airservices did not seek approval from CASA for WAM to be used for separation below 7000 feet. En route controllers hand aircraft off to either Hobart or Launceston towers to manage below that level. The controllers in those locations provide a separation service that does not require the use of electronic surveillance.

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**Question no.:** 82

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Melbourne Airport Terminal Area Procedures

**Proof Hansard Page:** 87 - 88 (19 October 2015)

**Senator Xenophon, Nick asked:**

**Senator XENOPHON:** Finally, in relation to the issue involving the separation between Essendon and Tullamarine, and also the issue of the double go-around on 5 July this year, can you give us an update as to whether there have been any changes in procedure for both incidents that caused a lot of concern amongst people in the aviation community I speak to?

**Mr Harfield:** I will pass to Mr Hood to provide some detail on that.

**Mr Hood:** In relation to the Essendon issue that we discussed, there were changes in the Melbourne terminal area procedures, so we have made some changes in that space.

**Senator XENOPHON:** Could you provide those details on notice?

**Mr Hood:** Certainly; we would be delighted to. In relation to LAHSO, we have had a number of meetings in relation to land and hold short operations. I consider that the land and hold short procedure in Melbourne continues to remain safe. However, we are considering further enhancements to the procedure.

**Senator XENOPHON:** If you can provide details on that as well, that would be very welcome.

**Mr Hood:** Will do, Senator.

**Answer:**

**Essendon**

Airservices has reviewed coordination procedures and in July 2014 implemented the following actions:

- Melbourne tower is required to be kept informed of the status of Essendon, increasing the shared knowledge and understanding of the current state of Melbourne operations.
- Melbourne tower is advised of aircraft conducting instrument approaches for RWY 26 at Essendon. This increases Melbourne tower's awareness of potential conflicts when they are operating on Runway 16 for departures.

In addition, an interim system enhancement has been implemented which involves a visual prompt that presents the approach controllers with the status of Essendon tower to provide visual separation.

**LAHSO**

Airservices has maintained a strong safety focus on LAHSO over the past 12 months and has a number of actions underway to strengthen existing safety risk controls and provide assurance that the risk of ongoing LAHSO operations is tolerable and being managed to as low as reasonably practicable. These include:

- Suspension of LAHSO under the 09/34 runway configuration
- Suspension of LAHSO at night until enhancements to night time compromised separation training have been implemented
- Only allowing aircraft who operationally require the longer runway (RWY 34) for departure to use it.
- Requirement for a Shift Manager in the tower cabin during LAHSO operations as they hold the decision-making accountability for when and how LAHSO operations are conducted
- Simulator trials for a 'stagger' within the Maestro program are being undertaken to ensure that the aircraft approaching each runway are in a position relative to each other that, should they both go around, they will not be in close proximity
- Instrument Approach Procedures must be used during LAHSO. Instrument approach procedures require the aircraft to be established on the runway heading much further out and the pilot is provided with electronic lateral and vertical navigation information that better ensure that the aircraft flies the correct profile.
- High capacity modes will only be used only during periods of high demand.

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**Question no.:** 83

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** ACE Melbourne

**Proof Hansard Page:** 88 (19 October 2015)

**Senator Rice, Janet asked:**

**Senator RICE:** In terms of when it commenced in Melbourne, can you tell me the date of that?

**Mr Hood:** I will have to take that on notice.

...

**Senator RICE:** Has there been community consultation with the program that has been operating in Melbourne?

**Mr Hood:** I will have to take that on notice in terms of the specific line items of the program for Melbourne.

**Answer:**

The Airport Capacity Enhancement (ACE) program was initiated in Melbourne in February 2011 to identify opportunities to improve efficiency and to increase the utilisation of existing infrastructure in order to increase runway capacity. The ACE program is focused on increasing scheduling confidence by improving the predictability and resilience of available capacity without compromising the safety of operations.

As there were no changes to flights paths or noise impacts to the community, the ACE program was not considered for community consultation.

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**Question no.:** 84

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Melbourne Airport Noise Complaints

**Proof Hansard Page:** 88 - 89 (19 October 2015)

**Senator Rice, Janet asked:**

**Senator RICE:** I have been hearing from local residents raising issues with me about some increased noise from passenger aircraft over the north-west of Melbourne, and also in areas of the inner city. They were wondering whether it was connected with the runway occupancy program. Is there any other reason why there would have been flight path changes?

**Mr Harfield:** We will have to take that on notice, but it would not be as a result of the runway occupancy program.

**Senator RICE:** Do you have any other thoughts as to why those flight path changes might have occurred?

**Mr Harfield:** I am not sure whether there have been actual flight path changes; that is why I need to take it on notice to see what the particular issue may or may not be.

**Answer:**

There has been no change to flight paths in the inner city or north-west area of Melbourne during 2015.

Airservices Noise Complaint Information Service (NCIS) has received some concerns from the NW area of Melbourne relating to departures from runways 16 and 27. There have been no changes to departure tracks however runway use is influenced by seasonal weather patterns. Runway 16 is historically used more over the summer, autumn and spring due to southerly winds and the heaviest use was in December 2014 and January 2015.

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**Question no.:** 85

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Airspace Approvals

**Proof Hansard Page:** Written

**Senator Gallacher, Alex asked:**

1. What role does Airservices Australia have with respect to prescribed airspace issues around airports?
2. If construction is planned in prescribed airspace, what role does Airservices have?
3. Is there a timeframe for responding to these applications by Airservices Australia?
4. If both Airservices and CASA are involved, how does each work with the other?
5. Is there an overall timeframe for a response/approval?

**Answer:**

1. Under the provisions of the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996, the airspace around specific airports may be declared as Prescribed Airspace to protect it from physical and non-physical intrusions for the safe arrival and departure of aircraft. Airservices provides details of Procedures for Air Navigational Services - Aircraft Operations (PANS-OPS) surfaces and reviews proposed airspace maps prepared by airports.
2. Development proposals that may intrude into prescribed airspace are assessed by Airservices for potential impacts on PANS-OPS and/or the operation of our communications, navigation and surveillance (CNS) facilities. Under the Airports (Protection of Airspace) Regulations 1996, there must be no penetration of PANS-OPS surfaces at federal leased airports. Airservices provides its assessment advice to affected airports, CASA, development proponents and the Department of Infrastructure and Regional Development (DIRD) as required. Airservices does not approve or reject development proposals.
3. The Airports (Protection of Airspace) Regulations 1996 sets out some timeframes for notification of development at or near federal leased airports but there is no stipulated timeframe for Airservices to respond. Airservices endeavours to respond within 4 weeks.
4. Airservices and CASA are assessing different aspects of a development proposal and it is the responsibility of affected airports to seek comments from both CASA and Airservices. However, where critical issues are identified, Airservices will share its assessment with CASA.
5. There are no timeframes for non-federal leased airports. The Airports (Protection of Airspace) Regulations 1996 sets out timeframes for the airport operators at federal leased airports.

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**Question no.:** 86

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Remote Terminal Control Services

**Proof Hansard Page:** Written

**Senator Xenophon, Nick asked:**

Further to my questions during Estimates on Monday 19th October, can you advise if there is another airport in Australia with anywhere near the same number of RPT movements that Adelaide airport has that uses a remote terminal control service to the surface of the airport (ie no local tower airspace)?

**Answer:**

While there is not another airport in Australia with the same number of movements as Adelaide (i.e. approximately 78,000 movements per year) there are a number of international examples that use a remote terminal control unit including:

- London Luton Airport handles approximately 101,950 movements annually and is served by Swanwick centre, 90 nautical miles away.
- Stansted Airport handles approximately 134,000 movements and is 155 nautical miles from Swanwick centre.
- Manchester Airport handles approximately 169,000 movements and is served by Preswick centre, 198 nautical miles away.
- LAX Airport handles approximately 636,000 movements and is served by Southern California TRACON, 90 nautical miles.

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**Question no.:** 87

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Terminal Control Service - Adelaide

**Proof Hansard Page:** Written

**Senator Xenophon, Nick asked:**

Further to my questions during Estimates on Monday 19th October, is there another airport anywhere, even internationally, with anywhere near the same number of RPT movements that Adelaide airport has that uses a terminal control service to the surface of the airport (ie no local tower airspace) and that terminal control service is carried out from a location more than 100 nautical miles from the airport to which it provides a service?

**Answer:**

See answer to 86.

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**Question no.:** 88

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** Airport Comparison – Terminal Control Service

**Proof Hansard Page:** Written

**Senator Xenophon, Nick asked:**

For each similar airport that can be identified, please provide the distance between the airport and its remote terminal control service

**Answer:**

See answer to 86.

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**Question no.:** 89

**Program:** N/A

**Division/Agency:** Airservices Australia

**Topic:** TASWAM

**Proof Hansard Page:** Written

**Senator Xenophon, Nick asked:**

Further to my questions during Estimates on Monday 19th October on TASWAM, it seems to me that Airservices Australia are distinguishing surveillance technologies (like radar, ADS-B and TASWAM that tell you each aircraft's position) from how they may be used to manage air traffic and by whom. Similarly, Airservices Australia appear to be talking about OneSky simply as the management tool that integrates the surveillance data and separating it from the provision of the surveillance sensors. Can you please clarify those distinctions and provide details about how the surveillance data is used. What prevents it from being used more widely for separation of aircraft? What determines when the data is used for situational awareness rather than separation? Finally, what updates to surveillance sensors are planned with or without OneSky?

**Answer:**

The major surveillance systems used by Airservices include Terminal Area Radars, Enroute Radars, Advanced Surface Movement Guidance and Control Systems (A-SMGCS), the ADS-B network, Sydney Wide Area Multilateration (WAM), TASWAM, and ADS-C.

ATC surveillance systems allow automatic identification and tracking of aircraft, using various surveillance technologies either alone or in combination. TASWAM ground stations receive transmissions from aircraft transponders to allow the determination of aircraft position using multilateration and/or ADS-B technology.

Surveillance data from the individual sensors is transmitted to the Air Traffic Management system platform, where it is combined with data from the aircraft's flight plan, other surveillance feeds, information reported by the flight crew and other information to provide the air traffic controller with an integrated display of the traffic situation to support the required service level.

The OneSKY program is replacing the current Airservices (TAAATS) and Defence (ADATS) air traffic systems with a single national solution.