Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Performance of Airservices Australia 4 December 2018

Committee Question Number:
Question Number: 1

Agency: Airservices Australia
Topic: Digital Aerodrome Services
Proof Hansard Page: 6-7 (4 December 2018)

Senator Patrick asked:

Senator PATRICK: Obviously this is a long-term plan. Can you provide the committee with some advice as to where you are at with the plan? Have you gone to industry briefings? Is it just a proposal at this stage? What sorts of time frames are you looking at in terms of introducing to a first site and then perhaps across all sites?

Mr Harfield: We're a long way from even looking at all sites. This is a technology that has flourished in recent years, and is being applied globally at this moment in time. We've looked at it because of the enhancement that it actually makes to safety in assisting the air traffic controllers in doing their job. It is not a replacement for air traffic controllers; it is actually about improving the situation. So in an air traffic control tower environment, you have air traffic controllers looking out the window at the airport. This is about enhancing that; it literally gives a head-up display that splices in all of the radar data and all of that so that the controller can do better.
Where we are at is that we have just gone to market with a number of suppliers to do a number of trials to look at what the potential of the technology can do. We're in the process where we expect to make a decision on a supplier or suppliers in the market to conduct these trials in about March next year. There are three trials that we are looking at. One is a contingency type arrangement for business continuity resilience for Sydney Airport, similar to what's been in place at Heathrow for the last couple of years. This committee would be familiar with the fact that it's known that if there's a disruption in Sydney, it has an effect around the country; therefore, how do we make sure that the service is resilient and able to continue if something actually happened to the tower. The second trial we're looking at is that, in the longer term, when some of our infrastructure builds come to their end-of-life, there may be a better option of improving safety in a more cost-effective way, and we may be looking at doing a trial here in Canberra. The third trial is looking at where we currently don't have air traffic control towers today in remote locations that are coming up to the risk profile, and applying this technology where it prevents us building a full-blown tower. It's also something where we can actually improve services at some of our more remote locations, providing services rather than having to build a full air traffic control tower. We'll go through, over the next 12 months or two years, trialling that technology once that has occurred. Whether we can make the business case that meets all of the objectives, then we would have to go through the regulatory approvals et cetera to bring it online and operationalise it.

Senator PATRICK: Would you at least have some sort of layout plan of what you intend to do that you could provide the committee with?

Mr Harfield: Absolutely.

Answer:

Airservices has established a program to examine the possible introduction of digital aerodrome services into Australia, also known as digital air traffic control towers. The intent of the program is to safely utilise technology to assist our air traffic controllers, enhance service delivery and provide improved safety outcomes for the aviation industry and the travelling public.

Digital air traffic control technology is recognised by ICAO's Global Air Navigation Plan and its use is expanding rapidly globally, being implemented at a number of aerodromes around the world such as Heathrow (UK), Changi (Singapore), Saarbruken (Germany), London City (UK), Bodø (Norway), Sundsvall (Sweden), and Leesburg (US).

Airservices program is in its infancy and is being progressed in a very measured way, taking a staged approach. We have developed a concept of operations, and have now approached the market to seek information on the

technology options available to meet Airservices stringent operational and safety performance standards in order to commence an operational trial.

This trial will enable Airservices to determine the suitability of the technology, carefully considering any risks that emerge, as well as validating the range of potential benefits this technology offers in terms of service continuity, safety and the efficient delivery of world-class air traffic control tower services. Of particular note, the trial will allow exploration of the opportunity provided by the technology to improve safety at regional aerodromes, particularly those that do not currently have an air traffic control tower.

To appropriately assess the range of potential operational use of digital tower technology, the trial will cover a range of possible applications:

- A back up facility for service continuity and resilience purposes (to be trialled at Sydney, similar to what is in operation at Heathrow airport with Sydney having the added advantage of visual service capability through video feeds of the airport);
- A control tower service where there is the need for a future replacement of the current air traffic control tower (this will be trialled at Canberra, similar to the approach being implemented at London City (UK) and Saarbruken (Germany));
- The introduction of a service at an aerodrome that does not currently have an air traffic control tower, but may require an air traffic control service in the future (Ballina); and
- The potential for a remote tower centre to improve services for regional or remote low traffic airports (similar to what is being implemented in Sweden and Norway).

Subject to the successful outcome of the trial, Airservices would commence a thorough program of work to progress to operational implementation, supported by the appropriate safety analysis, a business case, and necessary regulatory approvals.

In accordance with our 2018-19 corporate plan, we expect to finalise the technology roadmap this financial year, and will be aiming to have the first Digital Aerodrome Service trial in operation in the second half of 2019.

Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Performance of Airservices Australia 4 December 2018

Committee Question Number:
Question Number: 2

Agency: Airservices Australia
Topic: Aircraft movements at Adelaide
Proof Hansard Page: 3 (4 December 2018)

Senator Gallacher asked:

Senator GALLACHER: Just refresh my memory. What have the movements at Adelaide Airport been in the last 10 years? There's been something like a 50 per cent increase?

Mr Harfield: I would have to take that on notice, but it has been growing at a reasonable rate.

Answer:

Aircraft movements at Adelaide from 2008 to 31 October 2018 were as follows:

Year	Aircraft movements
2008	105,070
2009	100,138
2010	101,714
2011	101,476
2012	101,982
2013	104,432
2014	107,676
2015	106,630
2016	105,848
2017	106,006
2018 (as at 31 October)	87,894

Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Performance of Airservices Australia 4 December 2018

Committee Question Number:
Question Number: 3

Agency: Airservices Australia
Topic: Brisbane Incident (5 November 2018)
Proof Hansard Page: 9-10 (4 December 2018)

Senator Sterle asked:

CHAIR: With an incident reference number 19116 in the top right-hand corner of the document. It is so resolved.
Senator STERLE: Gentlemen, I'll give you an opportunity to quickly browse through that. I'll go back but try not to dwell too much. This was an incident at Brisbane Airport which I've already covered over. I'd left it that the BA team was left without a safety net required for 23 minutes for this incident. I don't expect you to know the answers yet. I'm told that this was a direct result of the staffing model being reduced from 17 to 14. Feel free to come in and correct however you can with what knowledge you've got in front of you. Are you able to pull up that number? Is that easy to reference or do you have to go back?
Mr Wood: I have to go back. Even when we do, I note on the back there that the local operation manager, the person in charge at the station, was in attendance, and these types of reports we do—we examine them from time to time and they will need to investigate and understand the reasons for the decisions taken. It's a very dynamic environment, responding to an emergency. There are many things to consider and decisions to be made. There are strict rules to follow in terms of when we advise industry of service level changes and the like. What it will need is our fire station manager or local operations manager to give the reasons in support of the actions taken and so on.
Senator STERLE: Sure. It's been brought to my attention that this is what has happened. It's one of those incidents that you think might be hypothetical, but here we go: there's a classic example for you to go through. Can you take that away and have a look at that? I'm told that the ARFF backup that should have been released was not done until after the category 10 level had been reduced. Does that mean the plane had taken off?
Mr Wood: Correct. That's why we have the vehicles ready for category, and decisions need to be made about that.

Answer:

ARFFS officers are highly trained in how to manage emergency situations. They are regularly required to make decisions and exercise judgment as emergency situations can vary considerably.

In reviewing this incident, the Chief Fire Officer has determined that the decision of the officers attending the fire alarm activation not to call for immediate back-up was appropriate in the circumstances, did not put ARFFS staff at risk, was not made as a result of the staffing model reduction as claimed, and was consistent with operating procedures.

The two ARFFS officers that managed the incident assessed the situation as low risk, commencing breathing apparatus operations as a precautionary measure. Metropolitan fire service assistance was requested in line with standard operating procedure and arrived 14 minutes after ARFFS breathing apparatus operations commenced.

The officers did not call for ARFFS back-up, determining that it was not required as no fire was detected. At any time during the emergency, should the ARFFS officer in charge have determined that back-up from ARFFS was required, this would have occurred regardless of staffing at the fire station.

Once the Category 10 aircraft departed, ARFFS dispatched an additional vehicle as a precautionary measure, however officers on the scene confirmed that additional support was not required.

Committee Question Number:
Question Number: 4

Agency: Airservices Australia
Topic: Brisbane and Perth Crewing
Proof Hansard Page: 12 (4 December 2018)

Senator Sterle asked:

Senator STERLE: Well, okay. You're going to go and have a look and come back to me. I've only got two more questions. On the Brisbane example that I gave you and what you know about it, I would propose—and I know the answer's going to be that you're going to go and have a look—that the Brisbane example shows that the firefighters were directly put at risk as a result of a lack of backup crews being available. That's what I am putting to you. I understand the answer you're going to give me, and that's fine.
Mr Wood: We'll need to investigate and seek information from the local manager about the actions that were taken.
Senator STERLE: All right. While I'm at it, then—
CHAIR: You promised there were only two questions.
Senator STERLE: Yes, that's right. This is the last one. I believe—and I will get you to come back to my question here—that the current crewing arrangements are not sufficient to meet the requirements of the category 10 response in circumstances where firefighters are unavailable due to deployment to another incident.

Answer:

The Chief Fire Officer has reviewed the Brisbane incident and determined that at no stage were fire fighters put at risk. The detail is contained in the answer to QON 3

The adequacy of staffing levels at Brisbane ARFFS was comprehensively addressed in Airservices letter to the Committee dated 12 November 2018.

Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Performance of Airservices Australia 4 December 2018

Committee Question Number:
Question Number: 5

Agency: Airservices Australia
Topic: Perth Incident Responses
Proof Hansard Page: 10 (04 December 2018)

Senator Sterle asked:

Senator STERLE: Rather than me ambushing you and expecting you to answer all that, please take that away and come back to us. There was another incident for which I don't have one of these to give you a number. It was at Perth Airport. I'm sorry. If I had that, I would provide that. This was on 13 November this year. It was something similar. There was a fire alarm to which the domestic response vehicle was required to turn out. During the period, the crews were not available. Crewing at the station was down to only eight firefighters. In this time, an A380 took off. On 14 November, the next day, also at Perth, there was a first-aid call-out again, where the domestic response vehicle was required to respond to a patient. I don't know if that was in the terminal or on a plane or what. As a result of this incident, again crewing levels were not maintained in a sufficient manner to respond to a category 10. But I have no proof that there was an A380 moving.
CHAIR: Can I ask a question in the context of this? Sorry; you can respond to that first, Mr Wood.
Mr Wood: I just wanted to clarify that the two on the 13th and 14th were Perth incidents?

Answer:

ARFFS operating procedures set out requirements relating to multiple incidents occurring simultaneously and the re-deployment of resources to aircraft emergencies. The Civil Aviation Safety Regulations also provide for the situation where there is a temporary reduction to the category of ARFFS for any reason, requiring notification to industry. Further, our ARFFS officers are highly trained in how to manage emergency situations and are regularly required to make decisions and exercise judgment as emergency situations can vary considerably.

On 13 November 2018, the Domestic Response Fire Vehicle staffed by three fire fighters responded to a fire alarm activation during a period when an A380 (Category 10) aircraft operation occurred. In accordance with standard operating procedures, industry was notified of a temporary change from Category 10 to Category 9. There were eleven remaining fire fighters at the station; sufficient to operate the four fire vehicles and respond to the incident in the event of an A380 aircraft emergency during this period.

On 14 November 2018, the Domestic Response Fire Vehicle was dispatched to a request for first aid assistance. There were no Category 10 aircraft operations for the duration of the response.

Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Performance of Airservices Australia 4 December 2018

Committee Question Number:
Question Number: 6

Agency: Airservices Australia
Topic: Digital Aerodrome Services
Proof Hansard Page: 7-8 (4 December 2018)

Senator Patrick asked:

Senator PATRICK: You would understand my concern in running these sorts of projects side-by-side. I am wondering if you have done any risk assessment in relation to those two separate systems that are part of the system of systems, whether or not you have done any risk analysis on the interaction of those two systems because there clearly must be some handover?
Mr Harfield: There is a connection into the systems, absolutely. It just goes beyond even the digital towers type environment. There are a number of other technology advancements that we are progressing such as the long-range air traffic flow management, the airport collaborative decision making. And one of the big risks associated not only with OneSKY but with the full uplift in capability in the whole air traffic management system is all of the interfaces. If you take the systems by themselves, they are okay but it is in all of those interfaces and interactions where the risk actually lies. That is something that we are actually concentrating on and why we have a chief information officer structured in the organisation who is the design authority who oversights that, because we have also got to add in, with all of those connections, cyber and a range of other resilient type estimates. That is something that we concentrate on fairly heavily.
Senator PATRICK: But do you get where I am coming from?
Mr Harfield: Absolutely.
Senator PATRICK: A lot of times, you are only chained to one system at the time and when you are comfortable with one then you move to the other, and of course OneSKY is still in its infancy.
Mr Harfield: Yes, but just as an aside to let the committee know, the voice communications switch for OneSKY has been successfully implemented into Perth, Melbourne and Sydney on the weekend and so we are well underway. So when you are travelling home, part of OneSKY is already in operation, and so we are progressing along the lines as expected. The big fundamental change is we change and upgrade the overall air traffic management system—that is the system of systems issue. But we have to start looking at it from a system of systems. Historically, we have looked at the system as component by component.
Senator PATRICK: Would you be kind enough to provide the committee an overview of the system of systems. I understand it ranges from everything to GPSs to how the baggage-handling systems work and so forth but mostly around aircraft movements.
Mr Harfield: We can provide you the scope.
Senator PATRICK: And then perhaps any risk analysis you have done in terms of this new proposal and how it interacts with perhaps the things that sit next to it?
Mr Harfield: Yes, absolutely.
CHAIR: Would it aid you to have a private briefing with them to go through and then really pinpoint?
Senator PATRICK: Maybe that follows the provision of that information.
CHAIR: No. This committee has asked for documents and we end up with 170,000 documents that no-one reads. I am wondering, if we have a briefing at the front end, if you can say, 'No, I specifically want that,' or even citing documents as the briefing goes ahead. I am just trying to streamline things for you. If you have a private briefing, they collect the documents. You have a private briefing, you go document-to-document, batch-to-batch and you say, 'I want them; I don't want them.'
Mr Harfield: Maybe that is a good approach.
CHAIR: Does this work for you, Mr Harfield?
Mr Harfield: Absolutely.

Answer:

Airservices has been in contact with Senator Patrick's office to arrange a private briefing as agreed at the hearing.