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Introduction

The future of aviation on our island continent matters to every Australian.

Today urban Australians take it for granted that they will be able to travel by air with ease around our nation and beyond our shores. The convergence of modern technologies and networked systems means that air travel for city dwellers has never been safer or more affordable.

But the view is probably a bit different from regional and rural Australia. At Airservices we know that. Our legislated obligations under the Air Services Act require us to provide the facilities and services for the safety, regularity and efficiency of air navigation in Australian administered airspace, and to promote civil aviation. For the whole of Australia.

And we take that duty very seriously. We know that for regional and outback Australians, safe and affordable air services are more than a convenience. We employ nearly 700 operational staff outside Australia's capital cities, and they see how important air transport is every single day. Quality air services can mean a world of difference in terms of access to work opportunities, health and education, emergency assistance, and a feeling of community well-being and connectivity.

Many of you will have seen the June report into regional, rural and remote aviation by the relevant Commonwealth Senate committee. Some of the most moving submissions to that committee told of families who needed to come together at short notice in the event of a sudden death. They were confronted by the distressingly high cost of obtaining last minute air tickets to major cities from regional, rural and remote locations. In those situations, it must feel as though the system is stacked up against you.

But things are changing. It's now about a hundred years since Australian aviation first began to develop as an industry after the First World War. Today aviation is a key player in what people are calling the fourth industrial revolution (or Industry 4.0). If the third industrial revolution was all about the adoption of computers and automation, the fourth means using data and machine learning to accelerate the creation of smart and autonomous systems that are so advanced they are capable of improving their own performance.

In regional Australia, communities may understandably be focused on tough, concrete challenges like drought and bushfires, and individuals may worry about the high cost of air-tickets to a loved-one's funeral. So, hearing about the high-tech, large-scale transformation of Australian aviation or even the latest complex systems in the management of safe airspace may seem at best abstract, at worst over-engineered, and even a bit irrelevant.

And we do recognise that regional Australian aviation will always have its own unique challenges, and that, as we do our job at Airservices, we need to go beyond the big systemic capital expenditures and respond to specific, often very local requirements. We are doing more to make sure we hear and understand directly what you need from us, so that we can deliver for you. We want to play our part in making sure regional, rural and remote Australia is a thriving aspect of one of the world's best air traffic networks.

It's because of this commitment to you that....

- We have already passed on the savings to you, our customers, via a two per cent price reduction, which represents a cost saving of around \$20 million per annum. The real price decrease for you since 2015 amounts to 20 per cent.
- We are waiving approximately \$2.5 million in annual service charges for Australia's flying medical services because they play such a vital role for the wellbeing and peace of mind of outback Australians.
- We provide some cross-subsidies to strike a balance that prevents smaller, low-traffic airports from being unduly burdened by our essential system-wide safety and regulatory requirements.

- We waive fees for 3600 operators from Australia's GA community who incur less than \$500 worth of charges per annum.
- We have responded to the demand for more pilots and, over the past 12 months, have funded and supported 16 scholarships for young and emerging pilots across the nation so they can achieve their pilot licence without placing an extra financial burden on their families.

What I want to do today, however, is to put all our plans into perspective because everything we are doing - whether large scale or small - is about creating a nation-wide system that is safe, secure, efficient, environmentally responsible, and good for all Australians. In fact, in some respects regional and remote Australia will have even more to gain than their city counterparts as Australian aviation transitions to the global forefront with a 21st century model of airspace management.

OneSky

First OneSKY – our world-leading program to unify the air traffic management of civil and military aviation in this country. It is a transformative reform. Because of its scale and ambitious scope, OneSKY will drive a whole range of technical advances, safety and security improvements, and underpin traffic growth in Australia. It will be good for this country for years and years to come.

Now OneSKY is starting to hit some important milestones. A major step forward has just been taken with Sydney, Melbourne, Perth and recently Brisbane all switching over to the new integrated civil-military voice communication system that will be the core of OneSKY. The benefits of this will be felt by all users of Australian air space from major airlines and their passengers to the smallest ultralight aircraft.

And we are now well and truly into the detailed design phase of the OneSky project.

A-CDM and LR-ATFM

In tandem with OneSky, Airservices has two major programs to improve the flow of air traffic into and out of airports.

First, information sharing with airports will ensure that we and all our industry partners can take full advantage of this 'Industry 4.0' era and use operational data effectively, in real time, to cut delays and costs. Airport collaborative decision-making (A-CDM) is on track for service readiness by the end of next year.

Second, plans to improve the management of air traffic flow over long distances (LR-ATFM) are also on track, with implementation in Melbourne scheduled for next year, with Brisbane, Sydney and Perth airports to follow. Again, this will lead to better traffic management overall and cost savings achieved through minimising fuel-burn in the air and on landing.

This probably all sounds very 'capital city' focused, and that's inevitable, given that Airservices has management of some of busiest city-pairs on this planet. But it's worth remembering that 90% of all Australia's regional flights go into or out of a major capital city airport. So this is all highly relevant to the cost efficiency and performance of regional aviation too.

More efficient airports, with more sophisticated air traffic control mechanisms, are safer and more secure. They can handle greater capacity. They have fewer delays, which is a really important benefit for those passengers who might be flying in and out of regional centres for short, purposeful trips. And, of course, they help airlines fly their aircraft more efficiently, thus increasing the opportunities for airfare reductions for passengers.

Digital Aerodrome Services

And we intend for the benefits of this wide-scale investment in new technologies to keep flowing. Right now we have a big opportunity in this country to explore the benefits of digital air traffic control towers, also known as Digital Aerodrome Services. This allows controllers to manage traffic from a remote location by replicating the view they would have from a conventional tower by using high definition cameras and surveillance sensors. Digital air traffic control towers have been fully operational in Europe for some time.

They can fulfil several really important functions:

- To provide back-up facilities where there are service issues with a control tower
- To provide interim and back-up facilities where an existing control tower service needs to be replaced, as in Canberra
- And for the first time, to provide a service at an aerodrome that does not have a control tower at all.

Trials are underway. If they are successful, as I expect they will be, it will be extremely positive for regional and rural Australia – it will be far more cost effective and efficient to put in a service at aerodromes that are currently unmanned. This ties in with a trend that we are noticing for the emergence of direct flights to regional centres as local economies flourish and grow. For example, Jetstar recently announced direct flights from Melbourne to Busselton in Western Australia near the beautiful wine country around Margaret River.

Airlines are prepared to be innovative and create new routes into regional centres where there is a strong business case and where the air traffic infrastructure is in place. Every step we take in creating a more agile, lower cost air traffic system creates more opportunities for regional, rural and remote Australia.

Airspace Modernisation

Let me now turn to another big agenda item for Airservices; our airspace modernisation program, which will enable more aircraft to operate safely within the same volume of airspace.

It's based on the principle that each class of airspace should align with the service level required to manage the level of risk. This will secure a future in which all users can get the appropriate access and freedoms.

The airspace modernisation program is good news in particular for General Aviation. In an increasingly crowded airspace, this will secure General Aviation's access and freedoms into the future. And it will cater for new airspace entrants such as drones, without curtailing freedoms for other users.

The program will deliver a series of enhancements over the next five years to improve safe and efficient service outcomes and increase airspace access for all in the aviation industry. It will be primarily achieved through national standardisation and leveraging the benefits of increased surveillance coverage with ADS-B, while ensuring that the safety of air navigation remains the most important consideration.

Drones

Drones, unmanned aerial vehicles, remotely piloted aircraft, call them what you like. They are here and will become a regular feature of Australian airspace. At Airservices we are taking a positive and proactive role in this development which again has the potential to be of disproportionate benefit to rural and remote Australia.

I suspect we are just at the beginning of this particular flying revolution. Drones are now a feature of mining and can simplify the creation of stockpile reports, or assist in drill and blast planning, or facilitate the inspection of buildings and equipment. In agriculture, precision farming will be enabled by data captured by drone-based multispectral sensors that can map and manage the health of crops and inform decisions on irrigation management. No doubt there will wonderful uses for tourism promotion and experiences as well.

Our work on this new area is already underway. We have partnered with CASA to deliver a core UAV surveillance platform at each of the 29 airports where we provide an air traffic control service. This will result in greater safety for airspace users and strengthen CASA's capacity to investigate and enforce regulations.

Priorities and Collaboration

At Airservices, our priority is always our customers. You are our focus. But Airservices is, of course, just one part of the national aviation ecosystem. To deliver for you, we need to work closely and well with our colleagues in the Department of Infrastructure, CASA, Defence and other relevant agencies. Managing the complex transformation of Australia's airspace is going to be challenging but as a nation we are very well positioned to respond over the coming years.

Creating strong alignment between government and industry, and maintaining it over time, is an essential piece of the puzzle as we manage the complex transformation of Australia's airspace.

Conclusion

On that note, now I will conclude.

Airservices and the entire Australian aviation industry is now well into a period of wide-ranging and fundamental technological change. The benefits are already starting to be apparent and there is more to come.

But you can be assured that, as we progress, Airservices will always have the specific needs and interests of regional Australia in mind. And over the coming months you will see a stronger effort from us not only to hear your views but also to provide you with information that is specific and useful to your particular needs.

I have no doubt that great opportunities for Australian aviation lie ahead. And we will all have a chance to shape, innovate, participate in, and benefit from the new era that is coming into view.