Australian Government

Department of Transport and Regional Services

File Reference: P2007/0199

The Secretary
Senate Rural and Regional Affairs and Transport Legislation Committee
Suite SG.62
Parliament House
CANBERRA ACT 2600

Dear Secretary

EXAMINATION OF THE AIRSPACE BILL 2006 AND THE AIRSPACE (CONSEQUENTIAL AND OTHER MEASURES) BILL 2006

I am writing in response to the Committee's inquiry into the Airspace Bill 2006 and the Airspace (Consequential and Other Measures) Bill 2006 (the Bills) and I have attached the submission by the Department of Transport and Regional Services.

These Bills transfer the function of airspace regulation from Airservices Australia to the Civil Aviation Safety Authority and establish the requirement for an Australian Airspace Policy Statement. The Bills are aimed at strengthening Australia's planning and administration of airspace and addressing any perception of a conflict of interest within Airservices in its roles as both a commercial air navigation service provider and the regulator of the level of service to be provided in particular volumes of Australian-administered airspace.

The Department welcomes the opportunity to further clarify the Bills through the attached submission and through evidence at the hearing. We would be happy to provide additional information if it would assist the Committee.

The contact officer for this matter is Letresha Martin, Office of Airspace Management, ph 02 6274 7373. A copy of the submission has been provided to you electronically.

Yours sincerely

John Doherty
Executive Director
Aviation and Airports Division
Department of Transport and Regional Services
January 2007

SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT LEGISLATION COMMITTEE CONSIDERATION OF THE

AIRSPACE BILL 2006

AND THE

AIRSPACE (CONSEQUENTIALS AND OTHER MEASURES) BILL 2006

SUBMISSION FROM THE DEPARTMENT OF TRANSPORT AND REGIONAL SERVICES

1. INFORMATION ABOUT THE INQUIRY

Airspace Bill 2006

The Airspace Bill 2006 provides for the transfer of airspace regulation and administration from Airservices Australia to the Civil Aviation Safety Authority (CASA).

The object of the Airspace Bill is to ensure that Australian-administered airspace is administrated and used safely, taking into account the following matters:

a. protection of the environment;

b. efficient use of that airspace;

c. equitable access to that airspace for all users of that airspace; and

d. national security.

Airspace (Consequentials and Other Measures) Bill 2006

The purpose of this Bill is to make a number of consequential amendments to the *Civil Aviation Act 1988.* These amendments are necessary to allow the effective introduction of the Airspace Bill 2006.

Amendments to the *Civil Aviation Act 1988* ensure that airspace regulation is a clear and separate function for the Civil Aviation Safety Authority (CASA) and that CASA act consistently with the Australian Airspace Policy Statement.

The Bill also makes a number of technical amendments to the *Air Services Act 1995* and the *Civil Aviation Act 1988* to accommodate amendments made to the functions of Airservices Australia by the *Civil Aviation Legislation Amendment Act 2003.*

2. BACKGROUND

Australia is responsible for the airspace above 11% of the world's surface (Australian-administered airspace), in part through the exercise of sovereignty over the airspace above Australian territory and in part through the International Civil Aviation Organization (ICAO) allocating airspace over the high seas adjacent to Australian territory.

Australia is responsible for the air navigation services provided to aircraft in Australian-administered airspace and, in particular volumes of that airspace, it is responsible for controlling the movement of those aircraft to reconcile safety, efficiency, national security, environmental protection and equity of access for all airspace users.

This task is performed on Australia's behalf by Airservices Australia (Airservices) and, in certain circumstances, by the Department of Defence. While Australian legislation does permit more than one civil air navigation service provider, provided that it has a relationship with Airservices, Airservices is the only one at present.

The Department of Defence has independent Acts and Regulations that govern Defence aviation including, in some instances, designation of areas for military activities. There are no planned changes to these Acts and Regulations in relation to Defence authority, responsibility and accountability concerning airspace.

Airservices is also currently the airspace regulator, which means that it decides the type and level of service to be provided in particular levels of airspace and, as necessary, the appropriate amount of control it should exercise over the operation of the aircraft in that airspace. The Government has clearly identified that it is not appropriate for a commercial service provider such as Airservices to also have a regulatory role, particularly when its decisions about the designation of air routes and the classification of airspace could have profound effects on the costs borne by users. Airservices understands the necessity of separating the regulatory function from service provision and has done this internally in anticipation of the regulatory function being transferred to another entity.

Airspace administration in Australia will also face a number of key challenges over the next decade and it is important that a regime be put in place that offers the best chance to properly address these challenges and to maximise the benefits that can flow from them without any perceived conflict of interest.

The Government proposes moving the airspace regulation function to CASA as part of a broader strategy to ensure that Australian airspace is administered to the public benefit in what will be a period of substantial change.

The Ministerial Statement released on 14 September 2006 describes this broader strategy and a copy of the Statement is attached. The strategy includes the creation of the Office of Airspace Regulation as a separate unit within CASA to administer Australian airspace, and the integration of Defence personnel into that Office to ensure that civil and Defence administration of airspace is optimised.

3. KEY DRIVERS FOR CHANGE IN AIRSPACE ADMINISTRATION

This legislation will establish CASA as the airspace administrator and provide mechanisms to manage the following key drivers for airspace change.

Shifts in airspace usage

The continual change in traffic mix and density, including the increasing use of high capacity aircraft to accommodate growth in air traffic at secondary and regional airports, the growth in sports aviation and the introduction of new military platforms is leading to substantial changes in cost and risk for both airspace users and service providers. This will need to be accounted for by the airspace administrator in decisions on service levels to be provided by air navigation service providers in particular volumes of Australian-administered airspace.

Government policy and aviation community involvement in airspace change

The Government has its own preferred model for airspace reform – the National Airspace System (NAS) introduced in 2002. NAS is a reworking of Australian regulation and airspace architecture to be consistent with the airspace model currently used in the United States. Many of the major elements of the NAS have been implemented and the Government remains committed to the NAS reform objectives.

The key lesson from NAS implementation to date is that reconciling safety, efficiency and equity of access in particular is a policy issue for Government that needs to be resolved publicly through greater involvement by the aviation community in the transparent analysis of potential changes to Australian-administered airspace.

Future stages of the NAS will be implemented subject to the results of an enhanced analytical process, including cost:benefit analysis and the application of a common risk framework. They will also be the subject of closer consultation with stakeholders and account for the impact of upcoming technological developments and developments in the airspace of other jurisdictions.

Technology and its effect on airspace efficiency and safety

New technologies, including the global shift from ground-based service provision (radar and radio) to satellite-based service provision, including Automatic Dependent Surveillance-Broadcast (ADS-B), require new standards and offer new opportunities for reducing costs and improving safety, efficiency, environmental protection and equity of access for airspace users. They also require substantial capital investment and compatible application across all classes of airspace user together with suitable back up systems.

Global system requirements

Airspace administration is coordinated globally through a series of regional and world-wide arrangements, generally administered under treaty through ICAO. These manage:

- the development and application of global standards and procedures for air navigation;
- the smooth global integration of new air communications, navigation and surveillance technologies; and
- the relationships at the borders of airspace administration between one country and another.

Australia is normally obliged to either conform to standards and procedures developed by ICAO now and in the future or lodge a difference with ICAO. Australia will also need to act consistently with ICAO concepts like the Air Traffic Management Operational Concept, which underpins the global approach to the future of air traffic management.

Shifts in relations between civil and military use and administration of airspace

Both Defence and civil users of Australian-administered airspace expect to make increasing demands on this finite resource and it is likely that both civil and military users will need to be far more flexible in their use of airspace.

New technologies and a rationalisation of effort between Australia's civil and military air traffic service providers is also leading to an integration of airspace administration by Australian civil and military authorities. This was formalised in arrangements between the Department of Defence and Airservices in May 2005, aimed at pursuing opportunities to achieve operational and economic benefits through increasing efficiency and flexibility while reducing duplication of effort.

4. LEGISLATIVE CHANGE REQUIRED TO BRING THE AIRSPACE STRATEGY INTO EFFECT

The Ministerial Statement notes that there are three key legislative changes required:

- The creation of the basis for CASA to become the airspace regulator through legislation;
- The transfer of the regulation function from Airservices; and
- Bringing CASA under the umbrella of the *Public Service Act 1999* and the *Financial Management and Accountability Act 1997*.

The *Airspace Bill 2006* and the *Airspace (Consequential and other Measures) Bill 2006* deal with the first two of these three key legislative changes, with the transfer of the existing airspace regulations from Airservices to CASA to be completed by 01 July 2007. Legislation to bring CASA under the umbrella of the *Public Service Act 1999* and the *Financial Management and Accountability Act 1997* will be introduced later this year.

5. COMPONENTS OF THE *AIRSPACE BILL 2006* AND THE *AIRSPACE (CONSEQUENTIAL AND OTHER MEASURES) BILL 2006*

The Bills establish airspace administration as an additional function within CASA, subject to the same obligations to safety, the environment and Australia's

international obligations as CASA's other functions. This is reflected in the object of the *Airspace Bill 2006*.

Components of the Bills: The regulation power

The Bills have two key regulatory components:

- A regulation making power as an umbrella for the smooth transfer of the airspace regulation function from Airservices to CASA; and
- A grandfathering provision that preserves previous decisions made by Airservices as if they had been made by CASA.

The intent is to ensure that the transfer of the regulation function is smooth from the perspective of airspace users. This extends to cost recovery for airspace regulatory activity, where CASA will charge Airservices for the cost of airspace administration who will in turn recover it from industry in the same way it does now.

Components of the Bills: Policy guidance

The second element of the Bills is a mechanism for providing guidance from the Government to both the industry and CASA on how it intends Australia's response to the key drivers to be integrated into airspace administration to deliver the maximum public benefit. This will be done through the Australian Airspace Policy Statement (the Policy Statement) that will set out the strategic direction for airspace management (referred to as the Australian Airspace Policy Plan in the Ministerial Statement of 14 September 2006). The Policy Statement will be made by the Minister in consultation with CASA, Airservices, the Minister for Defence and other parties as identified by the Minister.

The Airspace Bill 2006 obliges CASA to act consistently with this statement unless, in doing so, it would be in breach of its overall obligation to the safety of air navigation.

Components of the Bills: Review

The third element of the Bills is to make explicit the review function that is implicit in the regulations currently administered by Airservices. CASA is expected to establish a regular program for reviewing the existing classifications of particular volumes of Australian-administered airspace and the services and facilities found within them to ensure that they remain appropriate. The objective is to optimise safety, cognisant of efficiency, equity of access, environmental protection and national security. CASA is also expected to review Australian-administered airspace generally to ensure overall consistency with Government objectives, international developments and system safety, efficiency, equity of access, environmental protection and national security.

Components of the Bills: The approach of CASA to the role of airspace administration

The fourth element of the bills is the expectation that CASA will be active through both the review program and through its ongoing work program in encouraging the

efficient use of Australian-administered airspace and equitable access to it. The Government expects CASA to take the lead on airspace system change as a proponent, designer and implementer, consistent with its obligations under the Policy Statement.

Components of the Bills: Community involvement

The fifth element of the Bills provides a platform for building airspace stakeholders into the future of airspace in two ways:

- Consultation on the development of the Policy Statement

The Minister will consult widely on the development of the Policy Statement, and the Bill anticipates at least one review of the Policy Statement every three years.

- The process for airspace decision making

The Ministerial Statement of 14 September 2006 noted that major decisions taken by the airspace administrator will be subject to three tests: a cost/benefit analysis, a risk analysis and consistency with the Policy Statement. Interested parties will be given the opportunity to have their views taken into account through this process either as individuals or through a reference group that CASA is expected to establish from a broad cross section of the aviation community.

Attachment: Ministerial Statement on Australian Airspace
Minister for Transport and Regional Services, Warren Truss
Better Australian Airspace Management
14 September 2006

Australian Government

MINISTERIAL STATEMENT ON AUSTRALIAN AIRSPACE

Minister for Transport and Regional Services, Warren Truss

Better Australian Airspace Management

Aviation is a global industry. This industry is vitally important to our economy and to our way of life.

As a nation, Australia manages and provides air traffic services to eleven per cent of the airspace over the Earth's surface.

Aviation relies on the safe and efficient management of airspace. A variety of airspace management systems apply across the world.

In 2002 the Australian Government instituted a process where Australian airspace management would be modelled on the National Airspace System, or NAS. In part this was to align Australia's airspace classification system with the International Civil Aviation Organisation's (ICAO's) internationally recognised system. It was also aimed at modelling our airspace system on the proven US system, which has an excellent track record.

There have been important developments since the 2002 decision to adopt the NAS. These developments are a driver of this statement. Seventeen NAS Characteristics have already been implemented in Stage 1 and Stages 2a, 2b, 2c, and an additional June 2005 stage. The key changes to date have included:

- improved services for VFR aircraft in Radar Class G and E airspace;
- providing increased flexibility for IFR flights in Class E airspace;
- in radar coverage, lowering the base of Class A airspace to 18000 feet;
- more airspace designated as Class E;
- air traffic control procedures in Class D airspace standardised to follow ICAO rules;
- mandatory transponder carriage expanded to include all aircraft operating in Class G above 10000 ft and all controlled classes of airspace; and
- new uniform operating procedures at all non-towered aerodromes.

Ongoing change will be a feature of airspace management. In 2003 ICAO released its global Air Traffic Management Operational Concept. This is ICAO's vision for an integrated, harmonised and globally interoperable Air Traffic Management system up to and beyond the year 2025. The operational concept describes how an integrated global Air Traffic Management system should operate, providing States and industry

with clearer objectives for designing and implementing Air Traffic Management and supporting Communications, Navigation and Surveillance systems.

ICAO's vision acknowledges the need for a global, seamless, safe and efficient system for air navigation and identifies that Global Navigation Satellite Systems are most suitable to meet a large part of such need. It is now possible to contemplate a move from reliance upon ground based navigation and surveillance systems, some of which date back to the 1950s, to a space–based system that is capable of handling significant increases in traffic densities. At the same time, the world is gradually moving away from a system of country specific national air traffic management systems.

The issue is not whether Australia will participate in this global concept, but when and how. Of key importance will be identifying what systems will be required to ensure continued safe, secure and efficient aviation.

Related to this has been the rise of a series of new technologies. For example, while Automatic Dependent Surveillance – Broadcast (ADS-B) has been in use in various parts of the world for some years now, it is only in relatively recent times that it has become a serious option for widespread use as a surveillance and traffic management tool. Future airspace reforms will need to be responsive to the introduction and refinement of such technologies and changes in air traffic management. This will necessitate changes to how we consider and implement airspace reforms.

The Australian Government has given its final response to the Banks Taskforce report *Rethinking Regulation: Report of the Taskforce on Reducing Regulatory Burdens on Business*. The Government has committed itself to addressing the regulatory burden across a wide range of sectors and business activities. Action in specific areas includes tougher rules for making new regulation, including rigorous cost-benefit and risk analysis of regulatory options. These are issues that apply as much to airspace and aviation as they do to taxation and health.

A further development is that the Government has been consulting closely with industry on airspace. We have received clear messages. Throughout industry there are supporters of, and those with reservations about, the NAS reforms. But regardless of their views of the NAS, industry wants to be a closer partner in the policy development process, with more genuine consultation on future reforms. Industry also wants reform proposals to be better backed by solid analysis, including cost-benefit and risk analysis.

The Government is responding positively to this feedback.

A feature of most areas of public policy is that there is never an end state. There will always be room for improvement so as to ensure that policy and its implementation meet the expectations of the community and help ensure Australia's competitiveness. New challenges and opportunities will continue to arise. Reforms being announced in this statement reflect the issues mentioned above, and the Government's decision as to the best way to proceed.

Airspace Management – Moving Forward

The National Airspace System

The Government is committed to seeing the best possible airspace system implemented for Australia: an airspace system that will help Australia meet its

international obligations as a member of the International Civil Aviation Organization, an airspace system that will be recognised as world's best practice and, most importantly, an airspace system that will best meet this country's needs.

The implementation of the National Airspace System has been undertaken in stages over recent years, as it is neither safe nor practicable to change an airspace system overnight. Many of the major elements of the National Airpace System have now been implemented.

The National Airspace System has brought benefits to aviation in Australia, and the Government remains committed to its reform objectives, particularly greater flexibility and the allocation of air traffic management services on the basis of risk. But if we are to maximise the benefits of future stages, we will need to change how we approach its implementation.

Future stages will be implemented subject to the results of an enhanced analytical process, including cost–benefit and a single common risk management framework. This will include the use of an Australian Standard Risk Management Framework that is being formulated between relevant aviation agencies. Future reforms will also be subject to the results of closer consultation with stakeholders and take account of the impact of upcoming technological developments. The analysis will take account of developments in the airspace regimes of other jurisdictions, including within the United States and the European Union, to challenge our systems and approaches, and to help decide future changes in Australia.

The application of better analysis and consultation should reduce unproductive controversy. Better analysis and consultation on reforms may ultimately see future reforms put in place sooner than otherwise.

Institutional arrangements

The Government has decided to transfer the airspace regulatory function from Airservices Australia to the Civil Aviation Safety Authority (CASA). This will address any perceived conflict of interest between Airservices Australia's service delivery functions and its role as the airspace regulator.

It has previously been announced that the function would be shifted from Airservices Australia to the Department of Transport and Regional Services. The decision to transfer the function to the Civil Aviation Safety Authority (CASA) was taken after careful note of industry views – especially that a dedicated new unit within the safety regulator is the best home for the airspace regulator. The decision reflects the Government's confidence in the reform program currently underway in CASA and CASA's focus on improved regulatory outcomes.

This function will become the responsibility of a distinct operational unit within the Civil Aviation Safety Authority. This unit will be called the Office of Airspace Regulation (OAR) and will have the decision making powers for regulating civil airspace. The primary objective of the airspace regulator is to put in place decisions that ensure the safe, orderly and efficient flow of air traffic, cognisant of national security, the protection of the environment, and the equitable use of Australian airspace. It will:

- be required to make airspace decisions in accordance with an Australian Airspace Policy Plan (the Airspace Plan) which would set the Government's policy for the longer term objectives for airspace;

- determine standards for airspace classification and service provision, decide the levels of service to be provided according to a common risk management framework and regulate service delivery; and
- continue to be funded through the existing system of navigation charges with a review within three years.

Until the function is transferred Airservices Australia, through its Airspace and Environmental Regulation Unit (AERU), will remain the airspace regulator. AERU will be undertaking an enhanced risk assessment process at regional airports. This process will boost safety by ensuring all risks are identified and that appropriate air traffic management services are in place.

In addition, Airservices Australia has advised me that it is introducing new technology to assist with the enhanced risk assessment and monitoring process. This new platform will integrate internal and external sources of information such as:

- aircraft type and movements;
- fare paying passenger numbers;
- airline schedules and changes;
- regular passenger transport jet and turbo prop destinations outside controlled airspace;
- industry trends and intelligence; and
- incident reports such as Airservices' Electronic Submitted Incident Reports and those reports submitted and available from the ATSB.

The integration of this information will improve knowledge and understanding of aviation activities across Australia. It will enable Airservices Australia to undertake more rigorous analysis of airspace operations thus providing earlier notice of possible emerging risks, which will deliver a significant improvement in anticipating and planning for immediate and future airspace needs.

Airservices will be presenting this process to industry in coming weeks.

Any significant risks that are identified as a result of this assessment and monitoring process will be addressed under the Common Risk Framework and will be dealt with by relevant portfolio agencies together with Defence.

Legislation to implement the functional shift from Airservices to CASA will be introduced into the Parliament as soon as possible. The Government's intention is that the OAR will be fully established by 1 July 2007.

The Australian Airspace Policy Plan

It is also important that Government provide clear guidance to airspace regulators of the policy frameworks under which they operate so that the broad suite of regulatory and other decisions of the regulator are consistent with the Government's policy intent.

A crucial part of the shift in the airspace regulation function to CASA will be the Airspace Plan. This Plan will be a legislative instrument and will help improve our management of airspace.

Much of the guidance in the Airspace Plan will be very straightforward, such as requirements with respect to ICAO guidelines. Other sections will describe the current classification system for Australian airspace, and will include the key minimum service level requirements for air traffic services to protect fare paying passengers.

Importantly the Plan will outline the common risk management framework for assessing risks in airspace and airspace change proposals.

A notable change is that the Government proposes to set out guidance for the new airspace regulator CASA in terms of the factors to take account of when assessing airspace classification.

- Government policy is that safety has primacy and will always have primacy when assessing airspace changes.
- However, the Government also believes that the regulator should take account of other factors when considering airspace changes – including the environment, national security, access and efficiency. This approach is also supported by ICAO in its Global Air Traffic Management Operational Concept.
- We believe that spelling this out in the Airspace Plan will enable CASA to protect safety while also providing benefits in other areas. Even in a country as large as Australia, airspace is a scarce resource with competing demands, and better use of this airspace can yield returns to the community as a whole.

The Airspace Plan will require that major changes to Australian airspace only follow assessment of the results of risk analysis, detailed examination of the potential costs and benefits, and inclusive consultation with all stakeholders to rigorously test proposed changes to Australia's airspace before they are implemented. This process will apply to the currently unimplemented NAS characteristics, requiring a more structured approach to reviewing and implementing these changes. Major proposals that are outside the NAS framework may also be considered if they pass the requisite tests.

The Airspace Plan will provide airspace users, regulators and service providers with medium and long–term guidance on how Australia's airspace will be managed. It will provide information on international and regional guidance related to strategic airspace requirements and a vision of airspace management technologies that may be deployed. This in turn will aid decision makers in both the public and private sectors in the planning of air traffic management and investment and infrastructure requirements.

An interim Airspace Plan will be issued for CASA to use from the time the function is officially transferred, i.e. upon the legislative changes coming into effect. This will be replaced within 12 months by a more comprehensive Plan that will be in effect for up to three years. We believe that the presence of an Airspace Plan, drafted in close consultation with stakeholders, will help provide an added measure of certainty for industry.

The Government is looking forward to active stakeholder involvement in the preparation of the Plan. To assist discussion of the issues, and the preparation of the Interim Plan, I am today releasing a draft discussion paper prepared by Airservices Australia on Australia's airspace architecture for the next 5-7 years. I am releasing

this paper by Airservices so as to generate impetus for discussion on change for Australia's airspace as it incorporates NAS and new technologies. I am also keen to expose agency thinking to public scrutiny.

I encourage industry to provide comment on the draft paper to my Department to assist the development of Australia's Airspace Plan. My Department will be contacting industry to formalise the appropriate consultation arrangements.

Governance Arrangements for Agencies

In 2003 the Government abolished the Board of CASA to make it more directly accountable to the Minister for its performance. CASA's governance arrangements have since been reviewed against the recommended directions of the Uhrig template for administrative agencies. As a result of that review the Government has decided to further improve CASA's accountability and performance by making it subject to the *Public Service Act 1999* and the *Financial Management and Accountability Act 1997*. This legislative framework recognises that CASA is a government regulator and not a commercial business.

Airservices Australia's governance arrangements have also been assessed against the Uhrig template and there are no changes proposed to the commercial Board structure. The Government is confident that with the removal of the airspace regulatory functions, the Board and management of Airservices will be able to focus on their core business of delivering safe and efficient air navigation services.

In line with the Uhrig recommendations I will be issuing CASA and Airservices with Statements of Expectation which will provide strategic direction to both agencies as they move forward under the new arrangements.

Developments in Technology

Technological developments are also impacting on aviation operations. Of note are the ICAO recognition of Automatic Dependence Surveillance – Broadcast (ADS-B) as a preferred surveillance technology, development of Approach with Vertical Guidance (APV) for landing procedures and technology standards which will facilitate improved data sharing for Australia's Aeronautical Information Service (AIS).

It is natural that any airspace management changes take account of current and prospective technological developments. The key technology elements of this package, Automatic Dependent Surveillance–Broadcast (ADS–B) and Global Navigation Satellite Systems (GNSS) for sole use navigation, have been the subject of consultation with the aviation industry for some time through the Australian Strategic Air Traffic Management Group (ASTRA)[1] and the CASA discussion papers.

ADS–B is an air traffic surveillance technology being implemented in Australia that could contribute substantially to improved air traffic control surveillance coverage and separation at a lower cost than radar. Airlines support ADS-B as one of the main surveillance tools of the future: Boeing and Airbus already routinely fit ADS-B to their aircraft. Many of the newer aircraft engaged in Regular Public Transport

[1] ASTRA, the Australian Strategic Air Traffic Management Group, is Australia's whole of industry Air Traffic Management (ATM) planning body. ASTRA includes Airlines, Airports, Regional Aviation, Pilots, GA and various government organisations.

operations (both international and domestic) are fitted with ADS–B as standard equipment. Around 25% of the Australian jet airliner fleet is already equipped.

Airservices, with the agreement of the airlines, has started the roll out of ADS-B services in our upper airspace to provide better tracking and less restrictive air traffic control separation standards for aircraft in range of the system that have compatible avionics installed.

With the promise of higher accuracy, lower cost and greater surveillance capability and efficiency, this new air traffic management system may allow aircraft to fly more efficient tracks. By being able to fit more traffic in the same amount of airspace, aircraft operators will also be able to reduce costs and minimise delays whilst freeing up airspace and increasing capacity.

The Australian application of ADS–B is consistent with ICAO standards and recommended practices. Full implementation of these new technologies (ADS-B and the use of GNSS as the sole means of navigation) may provide the potential to replace some secondary surveillance radar by cheaper, more effective ADS–B ground stations, and also allows for the gradual reduction in the number of ground based navigation aids. This in turn could lead to savings and efficiencies being passed on to the aviation industry without reducing safety levels. Also, increased fitment of ADS-B "in" equipment has the potential to greatly enhance collision avoidance capability generally and more specifically in areas currently outside radar coverage.

There is strong international interest in ADS-B, with the US having announced that it will move to full adoption by around 2014. Australia is also having a close look at moving beyond the upper airspace program for ADS-B. The Australian Government supports the work being done to extend ADS-B as a civilian surveillance and separation tool for Australia's lower level airspace. However, this does not mean that the Government will take ADS-B, or any other new technology, at face value. We will make sure that new technologies are safe and add value by improving efficiency, our surveillance and separation capability, and our airspace.

Our decision about when and how to move to a wider use of ADS-B will be informed by a careful analysis of risk and a clear understanding of the benefits and costs for all sectors of the industry.

Implementation will also need support from the aviation industry, as the new technologies will not only require new approaches to air traffic services and flying operations, but will also mean new equipment in aircraft.

The world is changing and the Government is ensuring that Australia is in a position to take advantage of the benefits that new technologies offer. We are keen to do so in a way that is inclusive of stakeholders and allows them to understand and embrace these changes.