



Back on track

ASTRA plans for Australia's ATM future

by Terry Wesley-Smith, immediate past chairman, ASTRA

The recently released National Aviation Policy White Paper *Flight Path to the Future* detailed the considerable contribution of the aviation industry to the social and economic well-being of our nation.

It is a dynamic industry, and notwithstanding the savage, but hopefully temporary setback resulting from the global financial crisis, passenger numbers are expected to keep growing.

BITRE statistics show that the domestic airline industry in Australia has more than doubled on average every 20 years since the end of World War 2, and current projections have passenger numbers doubling again over the next 20 years. Even after allowing for the current trend towards the use of larger aircraft on domestic routes, a question remains over the ability of existing infrastructure to handle the massively in-

creased traffic that a doubling of passenger numbers would entail. Sydney-Melbourne is already one of the busiest city pair routes in the world, and Sydney Airport in particular is already very close to its artificially limited capacity, at least during the periods when most of the travelling public currently wants to travel. And since Sydney is the major hub in our system, problems there or on the Sydney-Melbourne route tend to have major repercussions in other parts of the country.

Clearly, if we are to be able to provide safe and efficient air travel to the expected number of passengers wanting to fly 20 years from now, something must be done to significantly increase the capacity, and the efficiency, of the air traffic management (ATM) system, while still preserving our current high safety standards.

Major changes to the ATM system can be expected to require major changes to aircraft equipment and operation, and to infrastructure. Such changes are expensive and require time to either update or replace

existing equipment, and complete associated training. Poor decisions can therefore have very costly repercussions.

Consequently it is in everyone's interest that such changes be carefully planned well in advance. To enable such careful and timely planning, the industry (including government agencies) needs a national ATM strategic plan. The development and implementation of such a plan requires a vast amount of coordinated work by all of the various stakeholders who may be affected by changes in the current ATM system, including the federal government.

This then was the *raison d'être* for the formation of the Australian Strategic Air Traffic Management Group (ASTRA): to develop a National Air Traffic Management Strategic Plan, and to facilitate its implementation.

ASTRA was launched in 1998 by a number of key people from CASA, Airservices Australia, and the industry, who recognised the need for a national ATM strategic plan, to use as the basis for long



CAPACITY CONSTRAINTS Sydney Airport in particular is already very close to its artificially limited capacity. (Andrew McLaughlin)

By formalising the role of ASTRA, the government has given the industry a unique opportunity to demonstrate that the various industry sectors can work together and produce useful, coherent, whole of industry advice.

term decision making by both industry and the regulator. ASTRA went on to produce such a plan, which was endorsed by the then Minister for Transport and Regional Services, in 2003. This was a very significant achievement, and one in which Australia led the world, with the result that much of the plan was adopted by ICAO as the basis for its Global Air Traffic Management Operational Concept and Global Air Navigation Plan.

ASTRA's self-appointed role also included a lot of detailed coordination of implementation action related to ATM changes, such as facilitating the development of the regulatory framework, standards and operating procedures for the very successful introduction of GPS and ADS-B. Yet for all its foresight and significant achievements, ASTRA had one major weakness: it had no formal standing within the government's decision making process, and this came to a head with the failure of Project ATLAS.

Project ATLAS proposed replacing the existing en route radars with the significantly less expensive ADS-B option instead of new radars. This was a very practical proposal, apart from the fact that very few aircraft were then fitted with the ADS-B OUT equipment necessary for an aircraft to be observed by an ADS-B surveillance system. Project ATLAS therefore proposed using some of the cost savings which would accrue from replacing the en route radar system with ADS-B to fund the fitment of ADS-B OUT equipment, together with a GPS navigator, to all aircraft of less than 5700kg. Owners of larger aircraft were expected to fund the fitment themselves, in order to gain the benefits that such fitment offered.

With the benefit of hindsight, it seems clear that what Project ATLAS attempted to achieve was a very innovative and practical development which had the potential to significantly improve safety and efficiency across the whole industry, while substantially reducing long term costs. Nevertheless, it did fail, despite the enormous amount of resources that were put into it by industry, Airservices and CASA.

The failure of Project ATLAS created much confusion and a loss of confidence in ASTRA within the industry, as many had not previously understood that despite its leading role in this and other projects, ASTRA was just an informal group which had no formal place in the government's decision making process and no implementing responsibilities. Nevertheless, the government recognised the considerable value that a truly representative industry body, capable of providing it with genuine whole of industry advice, would bring to its decision making processes, and the 2008 National Aviation Policy Green Paper committed the government to:

"improving coordination across government agencies and consultation with industry on directions in air traffic policy, including:

- using the Aviation Policy Group (APG), chaired by the Secretary of the Department of Infrastructure, Transport, Regional Development and Local Government, to coordinate the development and implementation of the air traffic management plan; and*
- formalising the role of the Australian Strategic Air Traffic Management Group (ASTRA) as the industry advisory group on air traffic management directions."*

For the first time this gave the industry the opportunity to have a formally recognised place in the government's decision

making process through ASTRA. But the failure of Project ATLAS made it clear that some changes would be required. The government made a number of observations about ASTRA, including its view that the new ASTRA should:

- clarify and strengthen its role;*
- be representative of the whole of industry;*
- show greater involvement of industry at more senior levels; and*
- show greater focus and control of its work plan.*

What this meant in effect was that ASTRA should be transformed from an informal and primarily technically oriented body into a formally established industry body, with a formal structure and a set of business rules to ensure that its advice would truly represent the collective view of the entire industry (at the senior executive levels). To be able to do this would be no small achievement, since it was recognised that consensus would not be possible in all cases, as the needs and aspirations of some sectors were, and remain, quite different from those of other sectors.

While the language relating to ASTRA in the December 2009 White Paper was less emphatic than that of the preceding Green Paper, the Department has since made it clear that no diminution of its support for ASTRA's now formalised advisory role was intended, and it has recently reiterated its strong support for ASTRA as the primary industry advisory body for ATM matters. The significance to industry of ASTRA's new status should not be underestimated.

It was seen that the first step in the transformation of ASTRA should be the appointment of an industry chairman who would be acceptable to all sectors, and

who would be seen to be independent of both Airservices and CASA. The second step would be the production of a new charter to clearly define the intended role of the new organisation, and to detail the operating rules to give it the best chance of fulfilling that role.

While the primary role of the new ASTRA is to advise the government on future ATM directions, it also has a secondary role, which is to facilitate the implementation of the plan. However, it is important to understand that ASTRA has no actual implementing responsibilities, which remain with the various agencies. Nevertheless, because it brings together all of the various ATM stakeholders, it provides a unique and invaluable forum for the coordination and facilitation of implementation activity.

The formal structure has three levels – the governing council, a number of working groups, and a secretariat, currently provided by Airservices Australia.

While the council has to represent all industry sectors, there is a limit to how big such a body can be if it is to be useful and remain accountable to the industry. Membership of the council has therefore been carefully controlled to ensure that it represents all industry sectors at an appropriate level, while still remaining small enough to be effective and accountable. This has proven to be perhaps the most controversial issue faced by ASTRA to date, but a firm stand was taken despite it causing understandable disappointment in some organisations. The test applied to any organisation seeking membership of the council is “who do you represent who is not already represented?”

The council is headed by an independent chairman and a deputy chairman, both of whom are appointed by the council. The council may choose people to fill these two positions regardless of their membership of the council or even the industry. The first chairman of the new ASTRA, Terry Wesley-Smith, is a recent retiree from the industry, and the current chairman, Bruce Gemmell, is a fairly recent retiree from CASA. The deputy chairman, Ian Mallett, is a current CASA officer, which, as the regulator, is not a member of the ASTRA council.

In writing the charter, it was recognised that there are a number of organisations which are not able to be members of the council, but who have particular expertise which should be available to council during its deliberations. Consequently it was decided that provision should be made for their attendance at council meetings as permanent observers. Provision has also been made for a limited number of guests to be invited to attend council meetings where appropriate. The aim has been to ensure



UNDER CONSIDERATION ASTRA is evaluating a proposal to introduce a series of ‘hard triggers’ to determine the level of ATM services required in any given airspace. (Paul Sadler)

that the council has genuinely whole of industry representation, and makes best use of the industry’s resources, while keeping the numbers down to a manageable size. It currently meets quarterly, but considers many issues out of session via email and telephone.

The working groups are composed of individuals appointed from throughout the industry and the regulator. The working groups carry out most of the technical work involved in developing recommended positions and facilitating the implementation of new procedures and technologies. They are tasked by the council, via a formal work program, which defines each task and sets associated timelines. As with the council, membership of the working groups is also carefully structured and controlled to ensure that all affected sectors are represented

by people with technical or other expertise to offer at an appropriate level. The working groups meet as frequently as is necessary to achieve their allotted tasks, with much of the work expected to be completed out of session by email and telephone hookup to reduce the cost to industry.

When one considers the extent of government support for the aviation industry compared with, for example, the railway industry, it is clear that it needs its own whole of industry representative body, based in Canberra, to represent the overall interests of the industry as a whole, not just in relation to future ATM directions. If the new Aviation Industry Associations Forum can be developed sufficiently to adequately represent all sectors of the industry, then perhaps the role of ASTRA might be subsumed by that organisation. In the mean-

WHOLE OF INDUSTRY ASTRA’s council seeks to feature ‘whole of industry’ representation. (Paul Sadler)





SEAT AT THE TABLE For the first time ASTRA gives the industry a formally recognised place in the government's decision making processes. Could this point the way for the new Aviation Industry Associations Forum? (Seth Jaworski)

time, ASTRA is the only whole of industry body advising government on future ATM directions. Currently it is funded (to the relatively limited extent necessary at this stage) by Airservices Australia on behalf of the industry, but whether this arrangement should continue indefinitely is a question that the industry should consider carefully over the next year or so.

In the year since its rebirth, ASTRA has been restructured and is fully operational again with strong support from the industry. Among the projects currently underway are the preparation of formal industry positions and advice on:

- the White Paper's proposed ATM road map;
- a Departmental proposal to introduce a series of 'hard triggers' to determine the level of ATM services required in any given airspace;
- the transition to performance based navigation (PBN), including the nature and composition of the required terrestrial navaid backup network;
- the introduction of approaches with

vertical guidance (APV), and specifically the introduction of a space based augmentation system (SBAS) to provide APV at regional and remote aerodromes;

- the extension of surveillance where required (for example in the Western Australia mining areas);
- the need for a national OLS database within AIS/AIM;
- the need to provide more effective regulatory protection of airspace and ATM infrastructure;
- and above all, the review, development and publication of the National ATM Strategic Plan.

The outcome of each of these projects clearly has the potential to impact significantly on the operating costs and operating efficiencies of all operators, whether they be commercial or recreational, so it is in industry's interest that the government acts on advice which is well considered, is supported throughout the industry, and is well presented.

By formalising the role of ASTRA, the government has given the industry a

unique opportunity to demonstrate that the various industry sectors can work together and produce useful, coherent, whole of industry advice. Bringing all of the relevant stakeholders together through ASTRA as a government recognised forum should enable the nation to achieve an ATM system which is capable of meeting the expected growth in the industry, which will make best use of limited resources, and which will meet the needs of all sectors of the industry. But this will require all of the industry sectors to forget their individual differences and work together for the good of the industry as a whole, something which has (perhaps surprisingly given its recent history) been very evident in the new ASTRA's first year. If the industry can continue to make ASTRA work as planned, then it might also provide the model for it to work together in other ways. This might turn out to be one of ASTRA's greatest legacies. ■

Terry Wesley-Smith has had a long career in aviation, firstly as an Army aviator and subsequently in sales, marketing and senior management positions with a number of aerospace companies. He is probably best known for his time as chairman and CEO of the Regional Aviation Association of Australia (RAAA). He retired in 2008, but in February 2009 he accepted the challenge of rebuilding and relaunching ASTRA as a government recognised industry advisory body. He handed over the chair of ASTRA to Bruce Gemmell, the retired former Deputy CEO of CASA, on February 24 this year in order to return to touring some of the more remote parts of the country as a 'grey nomad'.

ASTRA COUNCIL MEMBER

Airports Association of Australia (AAA)
Aerial Agricultural Association of Australia (AAAA)
Aircraft Owners and Pilots Association (AOPA)
Australian Business Aircraft Association (ABAA)
Australian Sport Aviation Confederation (ASAC)
Regional Aviation Association of Australia (RAAA)
Recreational Aviation Australia (RA-Aus)
Board of Airline Representatives of Australia (BARA)
Qantas Group
Virgin Group
Airservices Australia
Bureau of Meteorology

DELEGATE

Graham Giddey
Phil Hurst
Andrew Andersen
Wal Gascoigne
Bob Hall
Paul Tyrrell
Robbie Costmeyer
Warren Bennett
Walter Dollman
Rick Howell/John Crane
Sue Keey
Sue O'Rourke