

CAPITAL WORKS PROCESSES

Overview

There are two broad layers of governance over the development and delivery of Airservices capital works. The first relates to the overall Capital Works Program development, the second to the development and delivery of individual Capital Projects.

Capital Works Program

Program Development

Airservices applies a Strategic Asset Management Framework to develop its Capital Works Program.

The Capital Works Program is reviewed annually to set out project priorities on a rolling five year basis. The Program is driven by Airservices Strategic and Corporate Plans for broad corporate priorities and the Strategic Services Roadmap and Master Asset Management Plans for priorities in each major asset class.

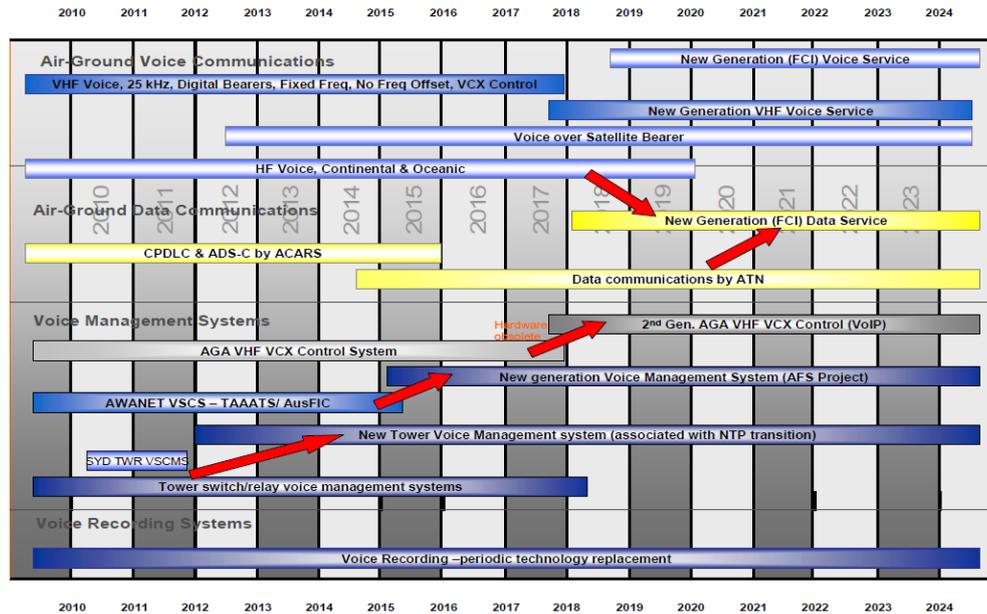
Strategic Services Roadmap and Master Asset Management Plans map the current and projected internal and external strategic influences on Airservices to the short-term and long-term investment actions required to enable the development of appropriate organisational and service capabilities.

These documents look out 5 to 15 years (depending on asset type) across each of Airservices asset service portfolio and at a strategic level plot the drivers of asset replacements and upgrades across the following asset portfolios:

- ATM automation services
- Demand & Capability balancing
- Airport services
- Meteorological services
- Aeronautical Decision Information services
- Communication services
- Navigation services
- Surveillance services
- Support Infrastructure
- Business Systems

For each of these portfolios, a road map highlights the major programs of work required. The following example road map sets out the Communications Services programs over the next 15 years:

Communications Services Road Map – 2010 to 2024



Specific plans for acquisition, maintenance and disposal for each of the portfolios are contained in individual Asset Management Plans.

Approval & Governance Processes

The overall program is governed by Airservices Board who review and approve the five year program on an annual basis having regard to the strategic priorities (safety enhancement, operational excellence and creating value for industry) and regulatory requirements.

At an Executive level, the Investment Committee (IC), comprising members of Airservices Executive, including the CEO, oversees the works program.

For new projects, the IC consider strategic priorities for how new projects are to be added into the program. For existing projects in the Program, the IC monitors scope, schedule management and cost management.

For all major projects, the IC monitors the planning and delivery of all expenditure (both CAPEX and OPEX) including the formal agreement of projects at the initiation phase, agreeing project budgets, and resource allocation as necessary. It also reviews business cases, ensuring that benefits (quantitative and qualitative) are identified and realised.

Airservices Project Management

Project Management Gate Processes

Airservices governance of specific projects follows a gate management process that is set out in our Standard Project Management Methodology (SPMM). The SPMM provides the contextual legislation and policies, and the guidelines, templates and tools required to effectively manage projects.

The SPMM is underpinned by The Guide to the Project Management Body of Knowledge Fourth Edition (The PMBOK® Guide). Airservices project management

processes are grouped into knowledge areas and have been strategically placed throughout the seven phase project life cycle.

Figure 1: Seven phase project lifecycle



Project Management Improvement Program

With the recent growth in Airservices capital works program, we recognised the need to improve our project delivery capability. This has included some collaborative work with UK NATS to understand large and complex project delivery in an ANSP environment.

In essence the Integrated Project Delivery (IPD) initiative aims to have the whole organisation functioning as an integrated team, with resources and specialist input provided when they are needed, to deliver projects and realise substantial and measurable benefits from these projects. This integrated approach ensures there is early visibility and input to project considerations allowing value to be added more productively in the initiating and planning phases of the projects.

Airservices External Project Reporting

In addition to its own internal reporting processes Airservices also produces reports on capital works performance to external stakeholders.

Airservices reports on capital works performance to the Minister on a quarterly basis.

Through its Services Charter Airservices provides capital works reporting to Industry on a quarterly basis. As well as discussing key milestones and risks, project reports to Industry provide financial performance analysis. Through the development of performance indicators and agreed performance baselines the Charter will also track projects benefits over time.

To support the pricing development process Airservices Chief Engineer has made ongoing presentations the Pricing Consultative Committee (PCC) on Airservices capital works program. These presentations have provided information on project performance, the developing five year capital works program, and have provided Industry an opportunity to ask questions and discuss capital works related issues.

Recently there has been some apprehension in the industry regarding the growth in Airservices capital works program. With this they have requested that they be afforded a greater role in program formulation and project scoping with oversight over costs and identified benefits for significant projects to improve the alignment of our capital investments with their requirements and investment schedules.

To improve transparency around decision making and improve Airservices accountability for service delivery, Airservices has agreed to present summary business cases for all projects greater than \$10m to the PCC. This is aimed at

providing Industry with more oversight on and input to Airservices options analysis and decision making.

ATM Future Systems Project

In line with the Australian Government's 2009 Aviation White Paper, ASA and Defence are currently exploring possible arrangements for a single national air traffic management system recognising the need for the further harmonisation of civil and military ATM systems and services. This system will address the end-of-life of Airservices current ATM system, TAAATS/Eurocat which will not be supported by the vendor, Thales, in its current version beyond 2015.

Three options are currently being explored include:

- a. Upgrade – upgrade hardware and system functionality
- b. Modernisation – incrementally modernise Eurocat Flight Data Processors (FDP) and Human Machine Interfaces (HMI) and upgrade hardware and system functionality.
- c. Replacement – replace the entire ATM system through an open tender process.

Across each of these options consideration is given to how the system will be harmonised/integrated across Airservices and Defence ATM platforms.

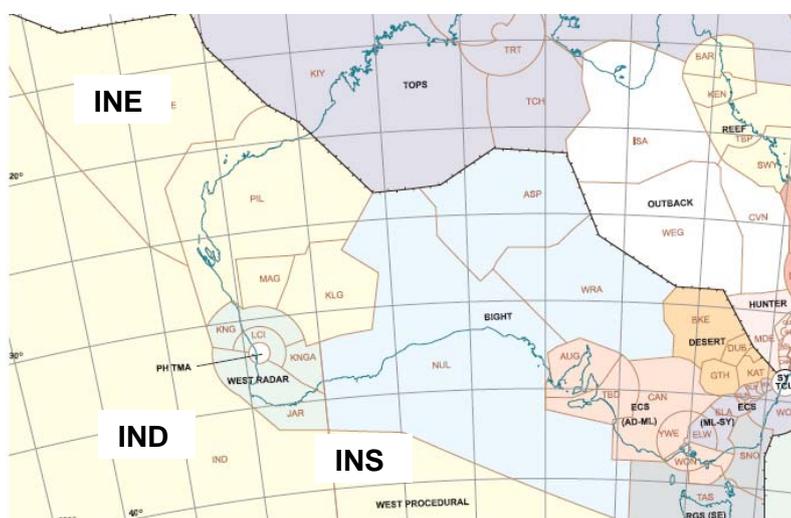
COMPARATIVE EFFICIENCY

Enroute Charging

Options for disaggregation of enroute charging

Where Airservices levies a single network charge for enroute services other ANSP's often disaggregate the charges recognising different levels of service provided across different airspace segments (e.g. oceanic sectors versus continental sectors). This separation largely reflects discrete operations and ATM systems in those ANSPs. In the Australian context where there is a single integrate system, there are no discrete operations for oceanic airspace.

Australian flight information region covering Indian Ocean sectors



As part of the development its pricing proposal in 2008 Airservices discussed the notion of disaggregating enroute charges where different levels of service are provided. Given the integrated nature of Airservices systems and operations, this could only be achieved through a cost allocation exercise.

The Australian Flight Information Region is segmented into airspace sectors. To simplify the allocation process, the Indian Ocean sectors were identified as potential airspace where different levels of service were provided and there is limited surveillance and navigation infrastructure (see above airspace chart – sectors INE, IND and INS).

In preliminary discussions with the PCC Airservices presented a disaggregated charge for enroute Indian Ocean sectors. The cost per chargeable unit was calculated at approximately half the rate of current enroute network charge.

This analysis polarised opinion as operators mainly operating through this airspace were supportive, while those operating to the North and East opposed the option. Those operating to the North and East did support a charge where supporting infrastructure and services were distinctly lower, but they believed this extended beyond the Indian Ocean, to include the large open spaces across the country, and across the oceanic sectors to the North and East.

Airservices is transitioning to new service delivery environments that broadly reflect different services (described as upper airspace services, east coast services and regional services) and this would be a more appropriate basis for differential charging, with each of the service environments clearly targeting a different level of service supported by differing infrastructure requirements. Until this transition is complete, the distinction between fixed common costs and variable costs for each environment is not clear as the detailed service and infrastructure requirements have not been defined. This makes the cost allocation process problematic and potentially subject to arbitrary allocations.

As a consequence, Airservices believed that it would be more appropriate to disaggregate enroute service charges over the course of this pricing period in line with the detailed definition of the new service delivery environment.

International Comparisons

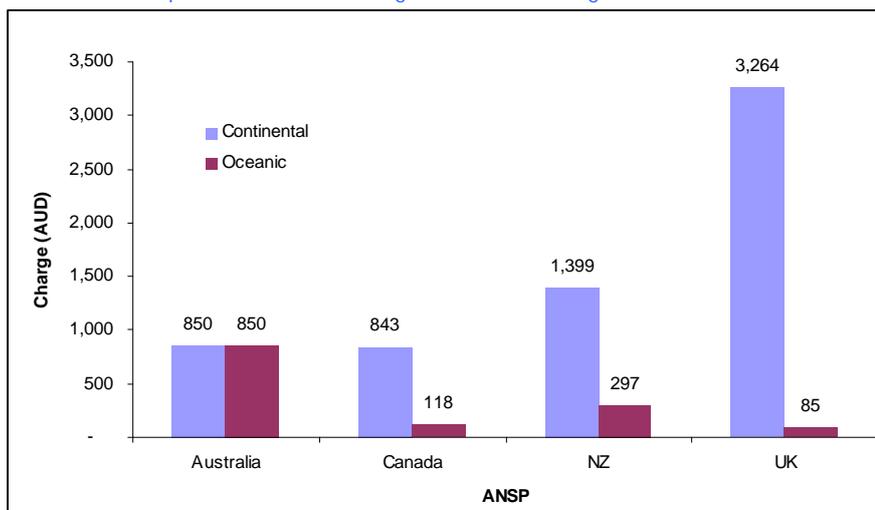
Because of the way different ANSPs structure pricing it is difficult to make meaningful international comparisons.

In a non-competitive market, the basis of charges can be substantially different. There may be partial or full recovery of operating costs, and there may be no, partial or full recovery of a return on assets that sustains infrastructure in the long term. This may occur at a whole of business level or at a price segment level.

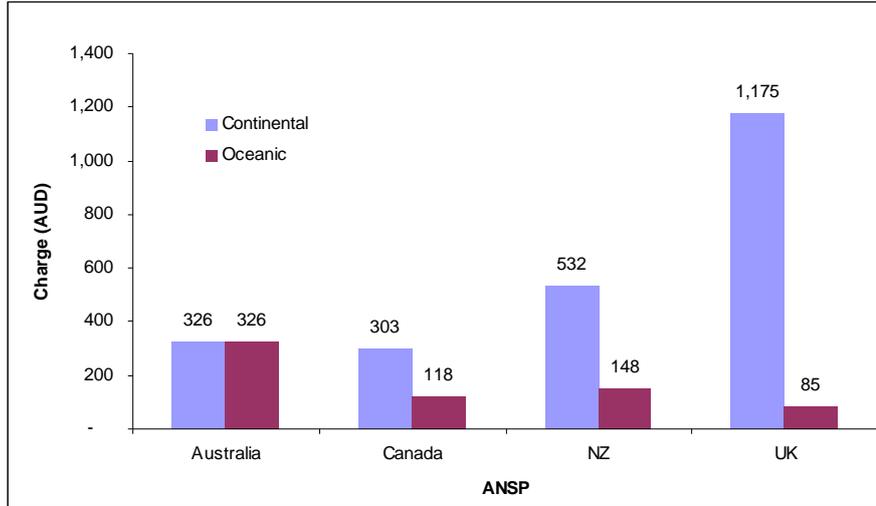
Added to this, ANSPs segment their prices differently and provide different levels of service in different pieces of airspace based on geography and airspace complexity.

The charts below highlight these issues, showing segments, but not whole of flight costs for both an A380 and an A320 travelling 1,000kms/540NM. Despite these issues, we actively engage in benchmarking to understand these differences and make changes were it is appropriate.

International comparison of enroute charges – A380 travelling 1,000kms/540NM



International comparison of enroute charges – A320 travelling 1,000kms/540NM



TERMINAL NAVIGATION PRICING

Basin Approach to Terminal Navigation Pricing

The operation of secondary airports in capital city basins has a significant positive impact on reducing congestion and improving safety at major basin airports. It effectively segregates traffic, minimising airspace complexity and maximising regular passenger transport (RPT) operations efficiency.

If the full services cost was priced for secondary basin airports (up to \$130 per tonne landed), it is argued that Airservices charges would have a distortionary impact on the airport market, making them too costly to use and ultimately unviable. In this instance Airservices would disestablish its services.

With no alternate aerodrome, Airservices would no longer be able to operate priority sequencing programs, making it feasible for non-RPT operations to use the major capital city airport. Noting that there are specific access provisions at Sydney for regional operators, it is likely that there would be pressure to extend these provisions to smaller operators displaced from Bankstown and Camden if these were to shut due to distortionary charges at those locations.

A further risk is that where price sensitive flying schools and recreational operators have alternative non-towered locations where they can relocate to, it is likely their shift in demand to a new aerodrome would drive the need to establish a new tower service at that location at considerable cost. This would lead to a costly counterproductive cycle of services establishment and disestablishment.

Where less price sensitive small aircraft business, freight or second tier airline operators are no longer provided a secondary capital city aerodrome option their move to the major city port would reduce airport efficiency. The increased mix of fleet and airspace complexity would also lead to increases in airline delays and cost.

Quantifying the impact of these relocations is difficult. However, as an indicative estimate of the cost of increased congestion, a study completed in 2009, suggested that an increase in delay of 15 minutes per day across each of the primary airports would cost airlines up to \$11 million per annum. This takes into consideration cost impacts on aircraft fuel burn, airline pilot, cabin and maintenance crew and costs to passengers.

In addition to this, it is likely that other costs to airlines would be incurred due to reduced airport capacity. With the lowering of air traffic volumes diseconomies would give rise to an increased per unit service cost. By comparison the proposed cost of the basin subsidy to be provided by major capital city airports users is approximately \$24 million per annum.

If it is argued that major capital city airport users receive no positive externalities from the operation of secondary basin airports, an alternate pricing model is unlikely to achieve a preferable economic outcome. By maintaining pricing cap increases and funding service cost shortfalls across all un-capped ports on the basis of traffic volumes users of Sydney airport would be disadvantaged the most and be required to pay up to \$5m more per annum. Brisbane and other locations that are not capped like Hobart, Canberra, Gold Coast and Darwin would also be disadvantaged. Adelaide and Perth due to lower traffic volumes relative to total

basin costs would benefit the most. Other locations would be largely indifferent to the change.