AIRSERVICES AUSTRALIA

Draft Price Notification

March 2011

1 – EXECUTIVE SUMMARY

Airservices Australia has developed a new long term pricing proposal that is planned to commence on 1 July 2011 for each of its service lines of Enroute Navigation (Enroute), Terminal Navigation (TN) and Aviation Rescue and Fire Fighting (ARFF).

This proposal is founded on our pricing objectives of:

- continuously improving the efficiency of service delivery by both Airservices and the industry as a whole;
- achieving the transition to a pricing structure which better aligns prices with costs, recognises demand interdependencies and minimises demand distortions;
- providing pricing certainty for Airservices and its customers that will support their investment programs and avoid destabilising price shocks; and
- ensuring prices signal the right investment at the right time.

The proposal delivers an average real price reduction of more than 8 per cent over the next five years across the range of services provided by Airservices. It follows a two year price freeze that was implemented at the expiry of the 2005 Long Term Pricing Agreement (LTPA) in December 2009 while the economy recovered from the effects of the Global Financial Crisis.

By the time this new LTPA has been implemented, it will have been three years since Airservices has increased any of its prices and on average across all services lines prices last increased 0.4% in July 2007.

Airservices costs and productivity already compare well against international air traffic service provider benchmarks and at the end of the proposed 5 year price path, Airservices will have reduced prices in real terms by 40 per cent from 2001 levels.

In putting forward this proposal to the Australian Competition and Consumer Commission (ACCC), Airservices has taken into account stakeholder feedback received on the proposal as well as incorporating the outcomes of the TN pricing review undertaken last year and other consultations on price structures over the last two years.

The pricing proposal was developed applying the ACCC's building block model. The proposed nominal price changes are set out in the following table. Enroute charges will be maintained at current levels implying significant real reductions as the contribution of enroute services to common overhead costs and under-recovery in other service lines is reduced so as to achieve a more efficient and equitable balance of contributions across services. Nominal price increases for TN services will also be held at or near expected levels of inflation thus achieving a level that recovers their service-specific costs as well as making greater contributions to common costs. ARFF charges though require a more significant price increase reflecting that current charges do not recover their service-specific costs because during the price freeze new services and service upgrades have been added without any compensating change in prices. Nonetheless,

ARFF charges tend to be the smallest component of end-user charges so that the increases are not expected to impact activity levels.

Table 1 – Weighted Average Price Increases

Service	2011-12	2012-13	2013-14	2014-15	2015-16
Enroute	0.0%	0.0%	0.0%	0.0%	0.0%
Terminal Navigation	1.9%	0.8%	0.1%	(0.1%)	0.2%
ARFF	7.8%	8.6%	6.6%	5.1%	2.5%
Weighted Average (nominal)	1.8%	1.6%	1.0%	0.8%	0.5%
Weighted Average (real)	(1.0%)	(1.4%)	(2.0%)	(2.2%)	(2.5%)

To balance the risks associated with pricing over a long period, the proposal includes risk sharing in relation to three major factors: flight activity; capital expenditure; and regulatory change. These risk sharing arrangements are intended to reduce excessive over or under cost recovery, hold Airservices accountable for delivering appropriate capital investment, and make provision for cost changes associated with currently unknown regulatory changes.

The proposed prices in each year for each service and location are set out in Section 2. Section 3 provides an overview of the general methodology and main features of the proposal. Section 4 then explains the economic pricing principles that have guided the development of the proposal and Section 5 sets out how these principles have been applied to determine the specific prices for each service and location. Section 6 shows how the proposal would impact the prices for different aircraft type. Section 7 outlines the consultation process undertaken as well as summarising the issues raised in the consultation and Airservices response.

2 – DRAFT NOTIFICATION

The following tables set out Airservices proposed prices for the next five financial years.

Current	Service Price (inc GST)	2011-12	2012-13	2013-14	2014-15	2015-16
Enroute						
$4.18	20 tonnes or more	$4.18	$4.18	$4.18	$4.18	$4.18
$0.93	Up to 20 tonnes	$0.93	$0.93	$0.93	$0.93	$0.93

Current	Service Price (inc GST)	2011-12	2012-13	2013-14	2014-15	2015-16
Terminal Navigation						
$11.43	Adelaide	$11.66	$11.83	$11.95	$12.01	$12.07
$5.83	Brisbane	$6.12	$6.18	$6.21	$6.21	$6.21
$10.95	Cairns	$11.50	$11.90	$12.32	$12.75	$13.07
$12.66	Canberra	$12.28	$12.03	$11.91	$11.80	$11.80
$10.82	Gold Coast	$10.28	$9.77	$9.28	$8.81	$8.50
$5.06	Melbourne	$5.31	$5.50	$5.51	$5.53	$5.54
$8.63	Perth	$8.20	$8.03	$7.87	$7.72	$7.70
$5.57	Sydney	$5.58	$5.59	$5.60	$5.61	$5.62
$12.69	Albury	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Alice springs	$13.32	$13.79	$14.27	$14.77	$15.29
$4.70	Avalon	$4.70	$4.86	$5.03	$5.21	$5.39
-	Broome	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Coffs Harbour	$13.32	$13.79	$14.27	$14.77	$15.29
$9.20	Hamilton Island	$9.66	$10.00	$10.35	$10.71	$11.09
$9.54	Hobart	$9.64	$9.73	$9.78	$9.78	$9.78
-	Karratha	$13.32	$13.79	$14.27	$14.77	$15.07
$12.22	Launceston	$12.83	$13.28	$13.74	$14.23	$14.72
$12.69	Mackay	$12.44	$12.31	$12.19	$12.07	$11.95
$12.69	Rockhampton	$12.94	$13.20	$13.33	$13.47	$13.60
$12.69	Sunshine Coast	$13.32	$13.79	$14.14	$14.28	$14.42
$12.69	Tamworth	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Archerfield	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Bankstown	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Camden	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Essendon	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Jandakot	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Moorabbin	$13.32	$13.79	$14.27	$14.77	$15.29
$12.69	Parafield	$13.32	$13.79	$14.27	$14.77	$15.29
$2.26	Darwin	$2.15	$2.04	$1.94	$1.84	$1.75
$2.94	Townsville	$2.79	$2.65	$2.52	$2.39	$2.27

Charging Formula for Enroute Services:

For IFR aircraft with an MTOW of 20 tonnes or more: $price \times \frac{distance}{100} \times \sqrt{MTOW}$

For IFR aircraft with an MTOW up to 20 tonnes: $price \times \frac{distance}{100} \times MTOW$

Charging Formula for Terminal Navigation Services:

For all aircraft: $price_{Location} \times MTOW$

Note: MTOW shall not exceed 500 tonnes.

Current	Service Price (inc GST)	2011-12	2012-13	2013-14	2014-15	2015-16
Aviation Rescue & Fire Fighting						
Category 6 Aircraft & below						
$1.81	Brisbane	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Melbourne	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Sydney	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Perth	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Adelaide	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Cairns	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Darwin	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Gold Coast	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Canberra	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Hobart	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Karratha	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Townsville	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Alice Springs	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Avalon	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Ayers Rock	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Broome	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Hamilton Island	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Launceston	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Mackay	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Rockhampton	$1.99	$2.19	$2.33	$2.39	$2.41
$1.81	Sunshine Coast	$1.99	$2.19	$2.33	$2.39	$2.41
Current	Service Price (inc GST)	2012	2013	2014	2015	2016
Category 7 Aircraft						
$1.93	Brisbane	$2.12	$2.34	$2.45	$2.57	$2.57
$1.89	Melbourne	$2.08	$2.29	$2.40	$2.52	$2.52
$1.86	Sydney	$2.05	$2.25	$2.36	$2.48	$2.48
$2.01	Perth	$2.21	$2.43	$2.61	$2.75	$2.81
$2.33	Adelaide	$2.56	$2.82	$2.96	$3.11	$3.26
$2.29	Cairns	$2.52	$2.77	$3.05	$3.35	$3.69
$3.39	Darwin	$3.73	$4.10	$4.51	$4.96	$5.46
$4.01	Gold Coast	$3.97	$3.93	$3.89	$3.85	$3.79
$7.91	Canberra	$8.31	$8.51	$8.73	$8.94	$9.08
$6.73	Hobart	$7.40	$8.14	$8.96	$9.85	$10.00
$7.40	Karratha	$7.77	$7.96	$8.16	$8.37	$8.37
$8.47	Townsville	$9.32	$10.25	$11.27	$12.40	$13.64
Current	Service Price (inc GST)	2012	2013	2014	2015	2016
Category 8 Aircraft						
$2.62	Brisbane	$2.88	$3.17	$3.33	$3.41	$3.41
$2.29	Melbourne	$2.52	$2.77	$2.91	$2.98	$3.01
$2.08	Sydney	$2.29	$2.52	$2.64	$2.64	$2.64
$3.01	Perth	$3.31	$3.64	$4.01	$4.41	$4.85
$9.12	Adelaide	$8.12	$7.22	$6.50	$5.85	$5.27
$4.76	Cairns	$5.24	$5.76	$6.34	$6.97	$7.67
$16.06	Darwin	$17.67	$19.43	$20.40	$21.42	$21.75
$4.01	Gold Coast	$4.41	$4.85	$5.34	$5.87	$6.46
Current	Service Price (inc GST)	2012	2013	2014	2015	2016
Category 9 & 10 Aircraft						
$3.70	Brisbane	$4.16	$4.58	$5.04	$5.54	$6.09
$3.03	Melbourne	$3.41	$3.75	$4.12	$4.54	$4.99
$2.45	Sydney	$2.76	$3.03	$3.34	$3.67	$3.67
$5.08	Perth	$5.72	$6.29	$6.92	$7.61	$8.37

ARFF Call-out charges are set out on page 52.

Charging Formula for ARFF Services:

For all aircraft >15.1 tonnes and target aircraft between 5.7 and 15.1 tonnes

$$price_{Category\ Location} \times MTOW$$

Note: MTOW shall not exceed 500 tonnes.

3 – OVERVIEW OF THE NOTIFICATION

Airservices has developed its new price proposal on the basis of the prices surveillance framework and the ACCC's stated position that the statutory criteria will generally be met by economically efficient prices. In particular it reflects a number of previous precedents established by the ACCC for the pricing of infrastructure services, the Government's competitive neutrality guidelines and the basic principle of cost-reflectiveness contained in guidance provided by International Civil Aviation Organisation (ICAO) and endorsed by IATA. The new proposal builds on the previous LTPA in better aligning prices with costs and reducing the existing cross-subsidy between services.

The new proposal continues Airservices whole-of-business cost reform. Significant real decreases in unit costs for each of the three major services over the pricing period have been incorporated into the proposal.

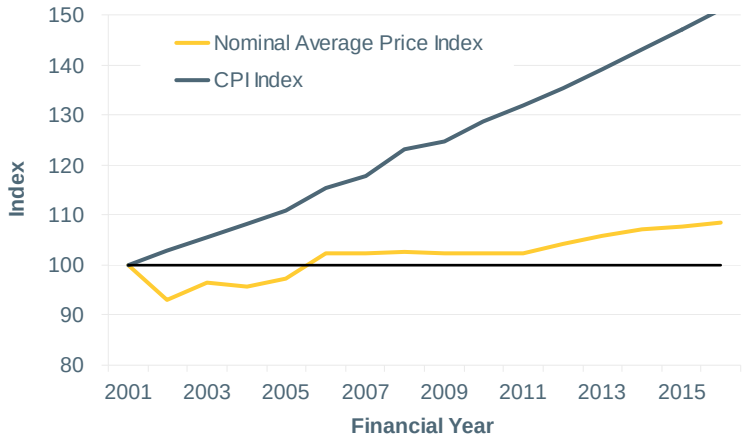
Airservices already compares favourably to international air traffic service providers in terms of financial cost effectiveness and air traffic controller productivity and under this proposal, this outcome is expected to be maintained (see Section 4).

The price strategy provides a five year price path, funds scheduled prioritised investment, helps to minimise demand distortions by recovering a greater proportion of common costs from relatively price insensitive demand, reflects closely located airport externalities, limits price increases to affordable year-on-year changes at or around inflation and ensures that administration costs are proportionate to revenues being collected.

Over the next five years proposed prices will provide real price reductions of more than 8 per cent against general inflationary pressures of costs rising at about 3 per cent per annum. This follows Airservices previous pricing arrangements that have continued to pursue improvements to meet the changing shape of the industry.

At the end of this price path, Airservices will have reduced prices in real terms by 40 percent from 2001 levels:

Chart 1 – Nominal Average Price Change 2001 - 2016



The proposal rebalances service prices to address shifts in cross-subsidies that have occurred over the life of the 2005 LTPA. These shifts have arisen due to differences between actual and forecast flight activity, the introduction of new services and additional costs to meet regulatory requirements.

Nominal price increases in the first two years are required to fund the introduction of new ARFF and Terminal Navigation services as well as higher costs associated with recent Civil Aviation Safety Authority (CASA) regulatory changes at regional and general aviation locations.

As set out in the following table, based on 2005 LTPA services, prices would have reduced by 1.0% on 1 July 2011. However, after adding new services and implementing changes to meet new regulatory requirements, a net increase of 1.8% is now required.

Table 2 – Components of Price Change 2011/12

Service	Based on 2005 LTPA Service Levels	Add New Services	Add Regulatory Changes	Total Price Change 1 July 2011
Enroute	0.0%	0.0%	0.0%	0.0%
Terminal Navigation	(2.8%)	1.9%	2.8%	1.9%
ARFF	(0.3%)	8.1%	0.0%	7.8%
Weighted Average (nominal)	(1.0%)	1.7%	1.1%	1.8%

BACKGROUND

In 2003, following the terrorist attacks on 11 September, the Ansett collapse, SARS and the Iraq war, industry sought a fundamental shift in pricing arrangements to improve long term price certainty. With this objective Airservices replaced annual price setting arrangements in 2005 by entering a longer term pricing agreement (2005 LTPA) that set a price path for each service until 31 December 2009.

The prices under the 2005 LTPA were established to:

- Set a five year pricing path to transition prices toward required levels, replacing the temporary pricing arrangement that was established in response to the collapse of Ansett and the events of September 11;
- Fund known new services and regulatory changes;
- Support agreed capital investment requirements over the period;
- Reduce cross-subsidisation between service lines; and
- Adjust pricing levels in line with the removal of the government's tower subsidy.

Since the establishment of the 2005 LTPA, Airservices has undertaken extensive consultation with industry on the structure of its prices. This engagement with industry identified that:

- the 2005 agreement has been largely successful in providing certainty;

- the structure of prices could be improved in terms of the way weight is applied in charging formulas;
- there was a need to simplify charging for General Aviation (GA);
- the structure of prices needs to retain incentives for efficient investment in new services and facilities; and
- a growing capital investment program needed to meet industry priorities and minimise whole of life costs for the existing asset base.

DEVELOPMENT OF THE 2011 LTPA

The 2005 LTPA was originally intended to expire on 31 December 2009, however due to the Global Financial Crisis, the Board of Airservices decided to defer a new set of pricing arrangements until 1 July 2011. This time has allowed Airservices to give considerable thought in shaping this proposal and to extensively engage with industry on its prices over the last few years.

2008 Pricing Options Paper

Consultation was undertaken in 2008 and included a comprehensive public and private program of meetings around Australian cities and some overseas locations.

In response to this discussion paper Airservices received 15 formal submissions discussing the structure of price. Most of the responses reflected polarised views on who should fund aviation services and infrastructure reflecting differing views on the relative importance of economic efficiency and the distribution of the charging burden on non-efficiency grounds.

Through this process, the following major pricing issues were identified:

ARFF Prices

The current category based structure was supported by major domestic, regional and smaller operators, but opposed by international airlines. However, given the extensive consultation process undertaken in 2005, there was general acceptance that the existing structure would be likely to continue into future agreements. There had also been support for the proposition that responses to non-airside non-aviation call-outs be charged on a call-out fee basis, with any revenues collected returned to airways customers in an annual rebate at the end of the year.

Enroute Prices

Three structural issues were raised for review: international airlines requested the removal of weight from the charging formula; questioned whether enroute price signals would be improved if there were different prices for different service delivery environments; and how the current basis of charging could be changed to minimise the impact of prices affecting the choice of whether General Aviation (GA) operators choose to fly by instrument flight rules (IFR).

Terminal Navigation Prices

The concerns about Terminal Navigation prices related to the use of weight as the basis of charging and the removal of any residual cross-subsidisation from enroute for regional locations and from major capital city airports to closely located general aviation airports.

General Aviation

Noting that the cost of charging low volume customers (i.e. the bottom 2,000 customers) exceeds the revenue collected from them, an alternative arrangement is needed to improve the administrative efficiency of these charges, or to remove charges for these operators.

2009 Price Freeze

In 2009, as the Global Financial Crisis emerged, Airservices decided that rather than pursue a new pricing agreement it would freeze prices to address concerns of severely depressed aviation activity and the significant pressures on airline profitability. At the same time, Airservices was required to make a significant contribution (in the order of $30 million) to the defined benefit superannuation fund that supports the retirement incomes of current and past employees. The Board of Airservices has decided not to seek to recover this contribution from users. Similarly, it has decided not to increase its contribution rate in this next pricing round, a cost which is normally passed through as part of Airservices normal labour cost.

This freeze provided time for markets to stabilise and, as is now evident, allowed pessimistic flight activity forecasts at the time to return to a more normal growth outlook.

2010 Terminal Navigation Pricing Review

As part of its obligations set out in the Aviation White Paper, last year Airservices reviewed its Terminal Navigation prices and received 37 formal responses to its discussion paper. After further discussion and consideration, Airservices has decided upon the following principles for adoption in this pricing proposal:

- Location specific costs should be recovered from that location as a key efficiency driver;
- Non-location specific support and overhead costs could be recovered on a basis such as total tonnage across all terminal navigation service locations. By recovering non-location specific costs across as wide a base as possible the efficiency loss arising from the need to recover these costs can be minimised. Non-location specific costs are to be taken to mean those costs that are network wide and driven by overall air traffic volumes;
- Prices at GA airports in a capital city basin will be capped (the Basin Cap). The shortfalls from price capping these services are funded from the major airport in the capital city basin in recognition of the fact that the safe and efficient management of traffic at these GA airports improves the safety and efficiency of the management of traffic at relevant major airports. This cross subsidy is estimated at $24 Million in 2010/11;

- Prices at regional locations will be capped (the Regional Cap). The shortfall from price capping these services will be recovered through enroute services where the distortionary impact is likely to be low. This cross subsidy is estimated at $6 Million in 2010/11;
- Any location's price would not exceed either cap (Basin and Regional) and all caps would be increased over time in line with or near normal levels of inflation in the consumer price index;
- Where the price for a new terminal navigation service is significantly above the average terminal navigation price, the price will initially recover the forecast incremental operating and annualised capital costs at the location of the service in the first year, then increase the price to a fully allocated basis over the following two years. Any shortfall in the first three years will be recovered through prices in later years;
- Activity forecasts for new service locations could be reviewed after 12 months and prices amended for significant variations from original forecasts; and
- Administration costs relating to low volume general aviation operators could be minimised through fixed pricing arrangements that reflect broad volumes of usage.

Pricing Consultative Committee (PCC) Meetings

Over this same time period Airservices has maintained regular discussions on pricing through Pricing Consultative Committee (PCC) forums. These meetings have been important in helping to establish and agree pricing frameworks. The PCC comprises representatives from the major domestic and regional carriers, international airlines and associations, and GA operators. The committee played an important role in developing prices for the current LTPA and more recently has discussed the core pricing inputs such as the forward capital works program; weighted average cost of capital; and forecast activity and costs for the proposed LTPA.

Consultation on the new proposal

The consultation on the new proposal is summarised in Section 7.

Issues Noted in the 2005 LTPA Price Review

A number of issues were noted by the ACCC in its review of the 2005 LTPA which Airservices has adopted or addressed in the development of this pricing proposal.

Efficiency Targets

"The ACCC's views on opex stated in its preliminary view remain. While the ACCC shares …concern with the lack of formal efficiency targets, and considers that Airservices could further develop this aspect of its pricing in future pricing proposals, the long-term pricing model does contain some incentive properties for reductions in opex. It will also provide a benchmark

against which Airservices' customers can assess Airservices' performance throughout the life of this agreement."[1]

Airservices has reduced prices by more than 30% in real terms over the last 15 years and will reduce real prices by a further 8% over the five years of this proposal.

Airservices also continues to benchmark itself against comparable Air Navigation Service Providers internationally through both participation in the annual CANSO co-ordinated benchmarking and through specific reviews being undertaken by or for other ANSPs. Airservices will provide the output of these activities separately to the ACCC in accordance with the terms and conditions of the studies.

Asset Baseline

"The ACCC confirms its preliminary view that this value of Airservices' asset base can now be used as a reference point for future notifications, taking into account new and efficient investment."[2]

Airservices has adopted the previous asset valuation as the point of original reference for this proposal and has extended the asset value balances and depreciation forecasts into the next pricing period. Assets have not been revalued and any additions to asset register from the original baseline have been added at cost.

"the ACCC … reiterates the comments made in the preliminary view on aspects which it considers are important to ensure that Airservices' capex decision-making is effective. In assessing any future pricing proposal, the ACCC will want to be satisfied that the processes Airservices has in place are effective."[3]

Airservices operates in a complex highly regulated and dynamically changing technological environment. In this environment, decision making and procurement of new capital assets requires continuous consultation with the regulator and industry in a limited market. Airservices will separately provide the ACCC with detailed examples of how it undertakes efficient investment.

Activity Forecasts

"The ACCC reaffirms its preliminary view that the use of generalised growth rates is a reasonable method of developing aggregate activity forecasts across Airservices' network. However, the ACCC also considers that these activity forecasts are likely to be more accurate at the aggregate level than at an individual airport level. It therefore welcomes Airservices' commitment

[1] ACCC, 'Final Decision Airservices Australia— price notification, December 2004' p. 9

[2] Ibid p. 10

[3] Ibid p. 11

to consult with airports and customers on individual risk-sharing arrangements."[4]

Airservices has undertaken a similar approach to its last price notification in developing aviation forecasts that underpin this draft notification. Working from an aggregate level of growth that is linked to national economic growth, implied location forecasts have then been derived. This recognises that the inherent volatility in location growth is tempered by growth in aggregate demand. The detail of Airservices activity forecasts is set out in the separate report by IATA Consulting.

Airservices has also consulted extensively on the issue of location risk sharing. In the case of new services, Airservices has identified a post implementation review mechanism that is set out in Section 5. However, for existing services, a suitable alternative to the current activity risk sharing arrangement has not been identified. While most airlines and airports supported a price adjustment if activity levels were in excess of forecast levels, there was no support for a price adjustment or a bilateral underwritten agreement for the shortfall if activity levels failed to meet forecast levels.

Closely-located Airports

"While Airservices has not provided extra information as part of this notification, the ACCC welcomes Airservices' commitment to continue to work with customers and airports to further clarify the interdependencies and benefits of the basin approach."[5]

Further substantiation of the interdependencies and benefits of cost sharing across closely-located airports is provided in Section 4 below.

Cost Allocation

"The ACCC has been provided with additional information as part of this [2004] notification process which confirms its preliminary view that Airservices' approach to the allocation of distributed costs between locations on the basis of activity is a reasonable and transparent approach to allocating costs when there is no clear (causal) basis for apportioning these costs between services."[6]

Airservices has retained its 2004 approach that allocates common costs on the basis of activity.

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[4] ACCC, 'Final Decision Airservices Australia— price notification, December 2004'p. 14

[5] Ibid p. 25

[6] Ibid p. 25

STRUCTURE OF PRICES IN THE LTPA

The features and structure of this proposal include some important changes to our existing price framework. These changes are the outcome of consultation work noted above and take into account the ACCC criteria for assessing the concerns of industry over different aspects of pricing. Airservices application of the ACCC's framework and objective criteria for assessing price notifications is set out in the next Section.

The proposal also considers the impact of different options and adopts transitional pricing paths where larger increases or more dramatic structural changes would be dislocating for the industry.

The structure for prices in the proposal is as follows:

Terminal Navigation

Terminal Navigation charging is based on the principles derived from the TN Pricing Review. The proposed pricing structure is largely in line with current arrangements. To limit the impact of any year on year price increase, where applicable, price caps have been applied across all service locations.

Aviation Rescue & Fire Fighting (ARFF)

ARFF category-based charging will continue as is, with the introduction of a combined Category 9/10 price to reflect the entry of the A380 into the fleet. A uniform price will continued to be charged for category 6 services at all locations. This cross subsidy is estimated at $31 million in 2011/12.

ARFF domestic response services for attending alarms and incidents in non-aviation and non-aerodrome areas will be charged to the relevant lessee on an attending basis, with the revenue this generates rebated to industry. Non-aviation and non-aerodrome areas does not include the aerodrome itself, passengers and freight terminals, hangars, flight kitchens and similar aviation related buildings that access the aerodrome. The precise scope of these will be determined on a case-by-case basis by Airservices and the airport operator as part of wider Memorandum of Understanding (MOU) discussions that are currently under way.

Enroute

Enroute charging will continue broadly as is.

Consideration of options that may provide greater service granularity for enroute by, for example, splitting airspace along functional service lines have been deferred until the next LTPA.

As the conversion of the organisation into these functional service lines is not complete, there are a number of issues that significantly impact the attribution of costs among these service lines and consequently any related charging arrangement. These will be resolved as the service lines and supporting infrastructure are transitioned to the new environment.

In addition, the planning for the next generation of new ATC system that will be implemented at the end and shortly after this pricing period may require further changes to this operating model and these changes are likely to commence within the pricing period.

Enroute charges could be split into the functional service lines of Upper Airspace, Regional Airspace and East Coast Airspace or simply between Oceanic and Continental Airspace. The final configuration though will be determined once the reforms to the service delivery environment are complete.

General Parameters

Charging will be based on Maximum Take-off Weight (MTOW) and capped at 500 tonnes as a maximum charging point.

Average MTOW's will be applied to aircraft types greater than 15.1 tonnes in weight (e.g. as set out in Appendix 2, all Boeing 737-800 will be charged at an average MTOW weight of 77.8 tonnes). This will simplify the currently complex identification of MTOW based on individual airframe and engine configurations. Variations in MTOW within aircraft classes are relative small but more importantly these variations do not impact or reflect changes in Airservices costs.

General aviation pricing will also be simplified with charges only being applied once a $500 threshold has been passed. This threshold will be determined from the previous year's activity and advised to aircraft owners prior to the year commencing.

Service costs have been calculated using standard unit costs to ensure that the price of services does not vary from place to place as a result of non-traffic related factors such as the relative age of the workforce or infrastructure.

Overall price increases have been capped at or near normal levels of inflation.

A summary of proposed changes is contained in the table below.

Table 3 – Proposed Changes to Charges

Service	Current Charges	Proposed Charges
Enroute Services	• Levied on IFR flights only • Based on aircraft weight (MTOW) and distance flown	*As per current charging arrangements*
		• Weight capping for large aircraft • Average MTOW of aircraft if >15.1t
Terminal Navigation Services	• Levied on IFR and VFR full stop landings and practice instrument approaches • Based on aircraft weight (MTOW) • Capital city basin pricing • Price capping at GA and regional locations	*As per current charging arrangements*
		• Weight capping for large aircraft • Average MTOW of aircraft if >15t.1 • Price capping across ALL locations
Aviation Rescue & Fire Fighting Services	• Applies to aircraft with MTOW >15.1t, or "target" aircraft with MTOW between 5.7t and 15.1t • Levied on full stop landings and practice instrument approaches • Based on aircraft weight (MTOW) and aircraft ARFF category	*As per current charging arrangements*
		• Weight capping for large aircraft • Average MTOW of aircraft if >15.1t • Call-out charge for non-aviation alarms and incidents.
General Aviation	• Charges under standard contract or light aircraft option (LAO)	• Cessation of LAO • Simplification of charging • Free access for low volume general aviation users • Fixed price option available

RISK SHARING

Risk sharing arrangements have been an important feature of the current long term pricing agreement. Whilst a long term pricing agreement provides price certainty, risk sharing has been important in mitigating some of the risk inherent in accurately estimating costs and flight activity volumes over longer periods.

In line with the current agreement it is proposed that risk continue to be shared across three pricing elements:

- Where flight activity volumes result in surpluses or deficits that exceed 5 per cent of the proposed revenues;
- where shortfalls in capital expenditure are either less than 20 per cent of agreed expenditure in a single year, or less than 10 per cent of agreed expenditure on a cumulative basis. This compares with ranges of 50 per cent and 25 per cent respectively that operate under the current arrangement; and
- where regulatory changes lead to operating cost changes or require new investment.

The proposal also provides for the introduction of new services with a three month grace period from the services commencement date before charging begins. This will enable volumes to be assessed which will then also be reviewed after 12 months to ensure prices reflect unit costs.

SERVICES CHARTER

Measuring and Monitoring Performance

Airservices has recently published a Services Charter aimed at improving the measurement and monitoring of its performance.

In determining how its services are provided, Airservices is guided by ICAO key result areas: safety, access and equity, capacity, cost-effectiveness, efficiency, environment, flexibility, global interoperability, participation, predictability and security.

Through its Services Charter, Airservices is seeking to engage stakeholders in a common understanding and agreement of current and future service delivery requirements. To this end, the Charter was developed through consultation with key stakeholders in the Pricing Consultative Committee, including a number of operational performance workshops.

The Charter also aligns with Airservices Just Culture where the information is being provided openly and honestly to the aviation industry with the objective of improving service performance for the industry as a whole.

It sets out a Schedule of Services and Facilities, provides a Quality of Service Framework, establishes Performance Measurement metrics and identifies how Airservices will be reporting performance outcomes.

It was implemented on 1 July 2010 as a work in progress and will be reviewed annually as more data becomes available and there is a better understanding of the connection between performance measures and actual service quality.

Further details on Charter performance measurement metrics is provided at Appendix 3. A copy of the Services Charter is also available on Airservices website, www.airservicesaustralia.com.

4 – PRICING PRINCIPLES

This Section sets out the pricing principles that we have relied upon in developing this new pricing proposal. First, we discuss the general criteria applied by the ACCC to ensure that Airservices prices are consistent with the legislative framework. Next, we examine key aspects of Airservices costs and operating environment as relevant to the ACCC's criteria. We then explain the general approach we applied in determining the cost base to be recovered and proceed to set out evidence on the relative efficiency of this cost base. Finally, we discuss the role for risk sharing arrangements by which prices will be adjusted upwards or downwards where certain parameters impacting costs/revenues turn out significantly differently than forecast at the time of the pricing proposal.

THE ACCC'S EFFICIENCY TEST

Airservices Australia is subject to prices surveillance under s.95X of the *Competition and Consumer Act 2010.* Under this Act, the ACCC must determine whether or not it objects to any proposal to increase the price of a declared service.[7] In undertaking its assessment, the ACCC must have regard to a number of statutory criteria set out in subs.95G(7). As discussed in the ACCC's *Statement of regulatory approach to assessing price notifications* (June 2009), the ACCC considers that the statutory criteria will generally be met by economically efficient prices that reflect an efficient cost base and a reasonable rate of return on capital.

Economic efficiency comprises three components:

- Productive efficiency so that firms produce at least cost. This requires that Airservices maintains an efficient overall cost base which is generally calculated on the basis of a 'building block' approach which takes into account the efficient cost components or 'building blocks' that are required to supply a service.
- Allocative efficiency so that society's resources are allocated to the goods and services that provide the greatest value. The structure of prices across the individual services supplied is critical to the achievement of allocative efficiency. In theory, prices for individual services should generally reflect the marginal cost of supplying those services as well as making an efficient contribution to the recovery of the fixed and common costs that are also necessarily incurred by Airservices. The efficient recovery of fixed and common costs requires taking into account information about the demand for the relevant services so as to maintain the level of overall demand as much as possible while ensuring that fixed and common costs are recovered. Economic theory ('Ramsey-Boiteux pricing') shows that recovering a greater proportion of fixed and common costs from services for which demand is relatively price insensitive promotes allocative efficiency. In practice, as discussed below, where marginal costs are low and services

[7] Airservices charges are also subject to certain international guidelines established by the International Civil Aviation Organisation.

are provided at a range of locations, efficiency is maximised by recovering the specific costs of providing services at the location for the users at the location. Both the Productivity Commission and the ACCC have previously recognised the efficiency benefits of pricing based on Ramsey-Boiteux considerations.[8]

- Dynamic efficiency so that firms have the right incentives to invest, innovate and improve quality and reduce costs over time. Dynamic efficiency will also be impacted by the level and structure of prices determined, as well as by other factors affecting Airservices operating decisions including the impact of regulation. One implication of dynamic efficiency is that regulation should not prevent businesses from recovering sunk costs if doing so would discourage them from making future investments that are irreversible (e.g. a service specific investment such as the construction of a TN tower, where the investment is of little or no value except in the provision of the specific service in question).

These three components are integral to Airservices pricing proposal. As discussed further in this section and Section 5, the efficiency components are reflected in the overall cost base to be recovered, the structure of prices by which costs are recovered as well as in mechanisms to ensure efficient costs and prices over time.

Before turning to discuss the specific design of Airservices pricing proposal, it is useful to consider a number of related considerations in the setting of prices. These are the implications of externalities, the role of price stability in regulation and its relationship to efficiency, the desirability of administrative simplicity and considerations of fairness and equity.

The implications of externalities

Economic theory recognises that departures from cost-based pricing are sometimes justified where an economic activity gives rise to costs (negative externalities) or benefits (positive externalities) to parties other than those directly engaging in the activity. The ACCC has previously noted that Airservices pricing should reflect "…*relevant externality effects (such as the reduction in efficiency from congestion which may result from GA operating out of major airports)*".[9]

Airservices charges for TN services have recognised that there is a positive externality between closely-located airports in a capital city in that the safe and efficient management of traffic at secondary airports located near major airports improves the safety and efficiency of the management of traffic at major airports.

Following World War II primary capital city airports experienced a significant increase in airways activity that placed pressure on the safety and efficiency

[8] For instance, see the Productivity Commission, *Price regulation of airport services,* pages199-200 and 284 and the ACCC, *Aviation rescue and fire fighting service price notification – Final decision,* December 2005, p.8-9.

[9] The ACCC, Airservices Australia Price notification – Final decision", December 2004, p.150.

of aircraft operations in and out of capital city ports. In response, incentives were provided to operators to move flying training and smaller operations to secondary airfields. The incentive program helped shift smaller private and training aircraft operations to secondary capital city ports and provided Regular Passenger Transport (RPT) services prime access to capital city ports, improving safety for airport users and increasing operational efficiency.

Today the operation of secondary airports in capital city basins continues to have a significant positive impact on reducing congestion and improving safety at major basin airports. Reflecting this, Airservices ATC services run priority sequencing programs at major capital city ports (Aeronautical Information Package – Enroute 1.4.10). This program provides priority to RPT operations over other aircraft operations at the major capital city airports.

These programs are important in high traffic environments, characteristic of capital city airports, where there would otherwise be capacity constraints as a result of increased fleet mix complexity. These rules ensure RPT schedules are given priority without interference from non-RPT operations. They also have the potential to impose indefinite delays on any non-RPT operations wishing to use major capital city airports. This ultimately makes it infeasible for non-RPT operations to use major capital city ports and the priority sequencing program can only operate if there was a viable closely located alternative.

Whilst it is possible for training operations to occur at major capital cities, they are planned well in advance with times heavily constrained by prioritised RPT schedules.

In addition to the priority sequencing, the proximity of major and secondary capital city airports result in significant air traffic control interdependencies across the services operating into and out of those locations.

Secondary airports typically extend under and adjoin major capital city terminal control areas. Because of this, the requirement for ATC co-ordination across the services is significantly higher compared to other regional terminal navigation services.

For these closely-located airports, aircraft operations are also handled by the same terminal airspace control service. This compares to regional terminal navigation services which typically do not have more than one airport to service. Because of this secondary airport location, departures and arrivals are closely coordinated with major capital city airport operations. In some cases (e.g. Essendon airport) this can delay smaller aircraft operations as they make way for higher priority RPT services operating out of the major airport.

The existence of this positive externality can mean that it is efficient for charges for TN services at the smaller airports to be partly funded from users of the closely located major airports who are the beneficiary of the externality. However, as noted in the next section, the imposition of closely-located airport pricing does not have a material effect on prices at most locations.

The role of price stability

Measures to promote price stability and avoid price shocks are common in price regulation. For example, the *ACCC pricing principles for price approvals and determinations under the water charge (infrastructure) charge rules –Draft January 2011* states that: "*A key factor that has informed the ACCC's approach has been the need to safeguard against any unnecessary price shocks in the transition to the new regulatory framework under the WCIR*."[10] Electricity regulation in Australia has also reflected a similar concern to moderate the impact of tariff restructuring: "*To protect customers from unacceptable price shocks, the Tribunal has imposed limits on the amount by which individual tariffs can increase in any one year*."[11]

Moderating price increases is of particular relevance to Airservices pricing because prices for terminal navigation and ARFF services have historically made a relatively small contribution to the recovery of fixed and common costs. When the current LTPA was being negotiated, overall cost recovery was low and required a net price increase of around 6% over the five years to move towards an appropriate rate of return. Looking forward, there will continue to be a need to balance overall and service-specific fully allocated cost recovery with the desirability of avoiding price shocks to customers of particular services.

Administrative simplicity

The costs of designing and implementing a price structure for the organisation together with the costs for customers in understanding the structure and making appropriate decisions based on that structure is also relevant to determining an efficient charging structure. For example, adopting a more complex pricing approach which might be closer to a theoretically efficient pricing structure may be counter-productive if it requires substantial effort and information to implement or if the costs of collecting charges from smaller operators are high relative to the revenues that would be raised.

The relevance of fairness and equity considerations

While fairness and equity can encompass a range of considerations, certain matters that are often considered to be in line with fairness and equity are related to economic efficiency and will be consistent with the statutory criteria. For instance, competitors acquiring the same service at the same location should expect to pay the same level of charges. If this is not the case, then the charges might be considered unfair and inequitable as well as potentially harming efficiency through distorting competition between those users. On the other hand, some concepts of 'fair' pricing might be inconsistent with efficiency. For instance, efficiency can require that services at different locations make different levels of contribution to the recovery of common costs or that charges at one location contribute to the

[10] *ACCC pricing principles for price approvals and determinations under the water charge (infrastructure) charge rules –Draft, January 2011, p.10.*

[11] IPART, NSW Electricity Distribution Pricing 2004/05 to 2008/09, p.149.

recovery of fixed costs arising from the provision of a service at another location. While such charging arrangements may conflict with particular notions of fairness, they can lead to higher overall service levels and higher overall benefits to customers.

NATURE OF AIRSERVICES COSTS AND OPERATING ENVIRONMENT

Airservices provides three main types of services: Terminal Navigation (TN), enroute and ARFF services. In considering the efficient pricing of these services, it is important to recognise the nature of the different types of costs that are incurred in supplying the services.

Efficient recovery of fixed and common costs

Allocative efficiency is promoted where prices are set as close to marginal cost as possible, while recognising that a firm will nonetheless need to recover its total levels of costs from the revenues of all the services it provides. The marginal cost, in particular, is the extent to which costs change with the last unit provided.[12]

Ramsey-Boiteux pricing involves recovering a greater proportion of fixed and common costs from services for which demand is relatively price insensitive and promotes allocative efficiency. In short, the challenge is to find the best way to allocate the fixed and common costs to the different services so as to minimise the loss in demand and overall customer benefits arising from the need to set prices sufficiently high to ensure overall cost recovery. As the ACCC has previously found Airservices "*needs to achieve cost recovery while minimising the attendant distortion to allocative efficiency*".[13]

In the case of Airservices, the presence of substantial fixed labour and capital costs and common costs means that limiting prices to the level of marginal costs would leave Airservices unable to fund its overall activities.

Overheads or head-office costs, such as the cost of the Airservices business systems, provide a typical example of common costs. These are costs that are incurred by the business as a whole and are not caused by a specific activity. Overheads account for around 18 per cent of Airservices costs.

It has long been acknowledged that the Ramsey-Boiteux approach needs to be varied for infrastructure industries where marginal costs, say for

[12] One complication is that the demand for air traffic services provided for flights between two airport pairs is ultimately a derived demand from the demand for a flight between those two locations. Hence for efficiency, it will be the relationship between the price for that flight and the marginal cost of the flight matters, where marginal cost includes the wholesale charges levied at both airports. This means that considering charges simply on an airport by airport basis may be misleading.

[13] ACCC, *Final decision on Airservices Australia price notification*, December 2004, p.110.

providing services to the marginal flight, are effectively zero and fixed cost (be they capital or labour) are dominant. In particular, in relation to services that are provided at multiple locations, the approach has been to recover locational or (incremental) costs from activity at the location concerned and then distribute non-location specific costs as discussed above.

In relation to postal services the Commission argued

> "*The following principles provide a starting point for considering efficient prices:*
> - *revenues generated by any subset of services provided should not exceed those based on cost from sole provision of that set of services (that is , stand alone cost); and*
> - *total revenues for any subset of services should not be less than the incremental cost of providing those services*
>
> *This indicates a minimum price based on incremental costs, and a maximum price based on stand alone costs.*[14]"

When the Prices Surveillance Authority (PSA) examined the uniform pricing structure of the Federal Airports Corporation (an organisation whose scope and spatial economics were very similar to that of Airservices today) it argued

> "*On efficiency grounds, the incremental costs of specific services should at least be recovered by charges for the specific services and any joint costs allocated in a way that reflects (in an inverse manner) the elasticities for the demand for individual services.*"[15]

The PSA went on to say

> *"… where most costs are separable – as is the case here, there are not large joint costs between airports, in the sense that costs occurring at one airport are the causal responsibility of traffic at that airport only – then there is a solid equity argument for saying that the revenue from charges for the use of airport A should not be used to cover expenditure at airport B"*[16]
>
> *Setting prices below the avoidable cost of provision can only be justified if demand at different locations was dependant (indeed, the services would need to be compliments in consumption), something the Commission has correctly ruled out*[17]*.*

Certain services are not expected to cover their fully allocated service-specific costs and the price rises that would be required for these services to

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[14] ACCC (2002a) *Australian Postal Corporation. Price Notification. Decision,* p96.

[15] PSA (1993) *Inquiry into the Aeronautical and Non-Aeronautical Charges of the Federal Airports Corporation ,* p xxix.

[16] Ibid, p127.

[17] ACCC (2005) *Airservices Australia: Draft Price Notification Aviation rescue and fire fighting services: Preliminary View, November,* p39.

reach cost recovery at the start of the upcoming pricing period would be unacceptable large. As noted above, limiting severe price increases can efficiently promote investment. The need for Airservices to meet these revenue shortfalls does give rise to an additional funding requirement. Ramsey-Boiteux pricing principles can also be used to determine how to most efficiently meet this funding requirement.

Ramsey-Boiteux pricing requires the relative contribution to the recovery of common costs from each service to vary inversely with the elasticity of demand for that service. In other words, services for which demand is more price sensitive should make a relatively smaller contribution. Firms across the economy take account of general Ramsey-Boiteux pricing principles in determining the structure of their prices (such as where firms earn higher margins from business customers than from residential customers). Even though precise market elasticity of demand[18] calculations are rarely undertaken for price setting, a pricing structure that generally reflects Ramsey-Boiteux principles is likely to deliver higher overall consumer outcomes than more simple, uniform prices.

There are a number of indicators of differences in demand elasticities for different services and different locations. The Productivity Commission has previously noted reasons as to why services that are wholly or mainly used for regular passenger transport can be expected to be relatively price insensitive:

> "…*while increases in airport charges will obviously have some effect on demand for air travel…the recent sizable fuel surcharges added to ticket prices as a result of an increase in oil prices (and many times higher than any plausible airport overcharging) do not seem to have had much effect on the demand for air travel – a point which the airlines did not contest at the public hearings.*
>
> *The impact of any overcharging on demand will also be mitigated by the capacity of airlines to price discriminate — that is, to charge higher prices for less price sensitive business travel, and lower prices for private and holiday travel. Thus, airport charges need not be, and in practice are not, allocated uniformly to fares, but can be primarily recovered from those passengers less sensitive to the cost of travel, with a correspondingly reduced impact on demand*."[19]

Drawing on analysis of the Productivity Commission, the ACCC has previously found that services provided at the four largest airports (Brisbane, Melbourne, Perth and Sydney) are likely to be relatively price inelastic given the lack of close substitutes to their airports and their major hub and core attractor role.[20]

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[18] The market elasticity of demand relates to how overall market demand changes in response to changes in the market level of prices and is distinct from firm-specific demand elasticities which shows how the demand for a firm's output changes when that firm changes its price while all other firms hold their prices constant.

[19] Productivity Commission, *Review of Price Regulation of Airport Services,* 14 December 2006, p.29-30.

[20] ACCC, *Airservices Australia price notification,* December 2004, p.119.

The ACCC has also previously taken the view that services at regional airports will be more price sensitive on the basis of general properties of demand and that a given amount of costs is likely to represent a greater proportion of ticket prices at smaller, lower volume airports with the risk of a larger impact on usage.[21] In addition, for services provided at locations with a relatively high share of non-regular passenger transport, demand is likely to be more price sensitive as such services can be expected to have a lower valuation per landing on the part of the aircraft (especially for flight training schools) compared with regulator passenger transport flights.

In response to the consultation on the proposed pricing agreement, some respondents submitted estimates of the elasticities of demand for different combinations of aerodromes calculated by averaging the relevant city-pair elasticities using passenger volume weights and airfares. Whilst interesting these elasticity estimates are not based on actual price data but on the assumption that average airfares between two locations can be approximated by the great circle air distances between the cities. It is unclear whether the extent to which this assumption holds as airfares are likely to be impacted by a range of factors in addition to distance, such as the level of competition on a particular route. Further, distance itself is likely to impact demand (for instance, leisure travellers between Canberra and Sydney may be more likely to choose land-based travel than for leisure travellers between more distant city pairs). Thus, it is unclear how reliable any elasticities calculated in this way really provide information on the extent to which demand for an airfare between two aerodromes is likely to change as the airfare for that route varies and certainly not at the level at which Airservices costs represent a component of the overall ticket price.

As we explain further in Section 5, the general considerations discussed in this Section have played a role in the design of Airservices new pricing proposal alongside the other pricing principles. For example, under the proposal users of major airports would make a larger contribution to the recovery of common costs and make-up any shortfalls from other compared with the more elastic demand of users of smaller airports. In addition, the relatively large contribution of enroute services to the recovery of common costs and revenue shortfalls will also effectively result in regular passenger transport making a larger contribution to cost recovery than other airport users whose demand can be expected to be more price sensitive. Again, it should be noted that these reflect general expectations of relative price elasticities. Airservices remains of the view that it is unlikely to be practical to attempt to apply precise Ramsey-Boiteux prices given the need for robust estimates of a large number of demand elasticities.

Airservices has no ability to signal higher costs in higher prices prior to being required by CASA to actually incur those costs.

An important feature of Airservices operations are that there can be large step changes in service delivery and costs when activity levels at a particular location cross particular thresholds. In particular, Civil Aviation Safety Authority regulations, based on International Civil Aviation

[21] ACCC, *Final decision on Aviation rescue and fire fighting services price notification*, December 2005, p.8-9.

Organisation (ICAO) Standards, require the provision of particular TN and ARFF services when passenger or aircraft movements exceed certain thresholds. For instance, an increase in activity may lead to a large increase in costs if air traffic tower or ARFF services and facilities are required at an airport where these services were not previously required.

The large step changes in costs create a problem where traffic levels just exceed a threshold requiring a higher class of TN or ARFF service. In such cases, setting charges at that location so as to recover the cost of the higher level service can result in very high charge levels which would be likely to lead to a significant loss in activity with the potential that the higher class of service is no longer required. Indeed, a very high charge level may dramatically curtail activity at these smaller airports.

This problem around the threshold for upgrading TN and ARFF service risks large price shocks and an inefficient cycle where the level of activity remains inconsistent with the level of services and charges.

For example, an airport which currently does not have a TN service but for which activity levels were expected to rise so that a basic TN service was required may result in aircraft going from paying no TN charge to paying a charge level around $129 per Maximum Take-off Weight Tonne (using Camden Airport's TN charges as an illustration) – this could represent a substantial impost for a non-regular passenger transport user based at that airport.

It is conceivable that, at this price, there would be a large reduction in traffic at the aerodrome (and even that the aerodrome would not be viable at that level of traffic). This large reduction in traffic would reduce the complexity of traffic at the aerodrome such that the TN services would very likely fail a cost benefit test – noting that the CASA direction to provide TN services is based on traffic levels prior to the $129 per MTOW tonne full cost recovery price being implemented.

In economic terms, this would likely mean that Airservices would be providing a service that was wasteful (benefits lower than costs) primarily due to the reduction in demand associated with Airservices own prices. This would ultimately, but with a lag, be recognised by CASA and the requirement to provide a service would likely be rescinded.

However, at that time Airservices would also have to stop charging for the service (as it would cease to provide the service) and, consequently, demand would likely return to its previous level. At which point, CASA would re-regulate for a service to be provided and Airservices would have to respond. This cycling between having and not-having a service would be highly inefficient with Airservices incurring wasteful 'start up' costs multiple times and only ever providing a service that has limited value (due to the low demand when the service is being charged at fully allocated costs).

Ultimately, provided CASA maintains the same activity thresholds for new services, this problem can only be alleviated by one of two means:

- Airservices does not attempt to recover its fully allocated costs at that location once a service is put into place; or

- some other body rations flights at that location to a level that is less than the threshold at which CASA will require a new service to be provided.[22]

No such body currently exists that could implement the second solution. Consequently, the only solution available to Airservices is the first. That is, while this cycle could be prevented through rationing activity at the airport so that activity remains below the threshold, Airservices has no ability itself to ration activity in this way.

Given this, the required level of TN and ARFF services in locations subject to this sort of inefficient cycling is effectively a fixed cost for a range of demand. Avoiding the inefficient cycle provides an additional reason as to why the cost of services at some smaller, regional airports should be funded from other services.

It is also relevant to note that part of the reason that CASA may require a service to be provided despite most users being unwilling to pay for that service is that CASA's cost benefit analysis[23] may be capturing externality benefits. For example, the value of life that CASA applies to avoiding accidents may include the value to people other than the users who pay the charges (eg, probability of loss of future income to be earned by passengers on board). CASA may also take the view that the aviation industry generally benefits from reductions in air traffic accidents – not just users at the locations where accidents are avoided.

In this context, it would be efficient if Airservices treats the value of such external benefits (benefits not directly attributable to those paying for the service) as a common cost to be recovered from all users in the least distorting manner. Any distortions will be further minimised if such cross subsidies are transitional.

Standard costing

Another feature of Airservices costs is that even where similar services are provided in similar locations, there can be differences in the specific costs incurred in a specific year due to factors such as the timing of asset replacement projects. The pricing proposal applies a principle of standard costing under which assets and staff of a similar category of service output will be costed to a service at the same rate. Standard costing can be thought of aligning prices more closely with what would occur in a competitive market where a common price is established for similar services even when some firms may have temporary differences in the timing of asset replacement projects and in staff mix.

[22] Under this solution, activity would only be allowed to exceed this threshold when demand for landings at the aerodrome could be demonstrated to be sufficient for users to be willing to pay for Airservices full costs at that location without demand falling below the level at which the service would be removed.

[23] Analysis done prior to regulating for the introduction of a service.

Smoothing out the impact of asset replacement cycles has been accepted by the ACCC in other industries where annuity approaches have been used which smooth out depreciation costs recovered in each year. For instance, in relation to regulation of Telstra's charges, the ACCC has stated:

> "*To promote a smooth price path, and facilitate price certainty and stability, the ACCC may decide to smooth the prices estimated by the BBM or to adopt a glide path to ease the adjustment to a new level of prices. If such an approach is taken, this will effectively alter the profile of depreciation over the regulatory period (or longer if a glide path that extended across more than one regulatory period was adopted) since depreciation is effectively a residual. In this case, the depreciation received in any particular year would not strictly conform to a straight line methodology. However, the total amount of depreciation over the life of the access provider's assets would be set to ensure that the full costs of investing in those assets would be recovered*."[24]

The annuity approach adopted by the ACCC in other industries addresses differences in the value of assets over time by smoothing out depreciation costs. Standard costing is a similar approach to smoothing out differences in the value of assets but applied across different locations rather than across different time periods.

BUILDING BLOCK APPROACH APPLIED TO REVENUES PER SERVICE

Airservices proposed prices have been developed using a building block model in line with previous price notifications. The building block model aims to estimate the amount of revenue required to cover the costs of an efficient service. The aggregate level of revenue is calculated as the sum of operating and maintenance expenditure, depreciation, return on capital and an allowance for tax, which is then translated into individual prices using cost attribution, activity forecasts and transitional price paths.

The structure of relative prices is broadly set to reflect their relative costs. This requires attribution of direct costs to specific services. However, as explained above, there will also be fixed and common costs and the need to fund any revenue shortfall resulting from the objective to prevent severe price shocks in relation to any particular service so as to support efficient investment by airport users. These common or fixed costs need to be allocated to services on a transparent and reasonable basis. This additional funding requirement requires a further allocation of costs which is undertaken in a reasonable and transparent manner and taking into account the demand elasticities of the services provided.

Pricing period

Prices under this proposal will be set for the five year period from 1 July 2011 until the 30 June 2016 (so that the start and end dates are aligned with financial years). The period is consistent with the previous long term price

[24] The ACCC, Review of the 1997 telecommunications access pricing principles for fixed line services, Draft report, September 2010, p. 31.

notification as well as the ACCC's stated preference for longer term pricing arrangements to provide the industry with price certainty over a reasonable period of time and to promote productive efficiency by creating incentives for Airservices to achieve even higher cost reductions than forecast as its prices will not be immediately reduced to the lower level of costs.

Estimated Allowable Revenues

Proposed prices are derived from Airservices assessment of allowable revenues as calculated under the ACCC building block model and are set out in the following table:

Table 4 – Allowable Revenues

Service Costs ($mil)	2012	2013	2014	2015	2016
Operating Costs	759	803	848	883	923
Return on Assets	92	102	110	117	123
Tax Allowance	10	12	12	13	14
Maximum Allowable Revenue	862	917	970	1,013	1,060

Operating costs

One of the building blocks in the building block model is operating costs. To estimate operating costs it is necessary to undertake activity forecasts and project the costs associated with these forecasts. It is also important that the forecasted operating costs are efficient. In developing its new price proposal, Airservices have forecast its operating costs to reflect the required level of Enroute, TN and ARFF services over the next five years. In practice, this is done using a dual-till accounting process which segregates regulated service costs from the costs and risks of commercial activities, based on a fully allocated cost approach. These other commercial activities account for around $20m of Airservices annual operating costs.

The projected costs are set out in the following table:

Table 5 – Service Costs

Service Costs ($mil)	2012	2013	2014	2015	2016
Staff Costs	512	535	562	587	607
Supplier Costs	159	167	171	175	187
Staff & Supplier Costs	671	702	732	762	794
Depreciation	89	102	116	120	128
Total Operating Costs	759	803	848	883	923
Staff & Supplier Cost Growth		*4.6%*	*4.4%*	*4.1%*	*4.2%*
Total Cost Growth		*5.8%*	*5.6%*	*4.1%*	*4.5%*

Since the 2005 LTPA, Airservices cost base has changed. Over the period pay increases have occurred at the rate of around 4.2% per annum, a significant increase in the training amenity and recruits has been required to

cater for a rapidly aging workforce and five new ARFF and ATC services have been introduced. Regulatory changes have also increased ATC service requirements at General Aviation Aerodrome Procedures (GAAP) aerodromes[25] and investment has grown to support industry expansion and renewal of key infrastructure, as can be seen in the following table.

Table 6 – Changes in Service Costs 2008/09 to 2011/12

Maximum Allowable Revenue ($mil)	2009 LTPA + new services	+3yrs	2012
Total OPEX (exc depn)	561	➡	671
Payrises:			62
Inflation:			9
Ops Recruit/Training/Age Profile:			10
Project Delivery/Opex:			9
New Services/Upgrades:			20
Regulation Change:			7
Efficiencies:			(8)
TOTAL CHANGE:			110

There are number of further cost base changes that have recently occurred or are projected over the next five years:

- new terminal navigation services at Broome and Karratha;
- new ARFF services at 2 regional locations (such as Ballina, Coffs Harbour or Port Hedland due to increased traffic);
- ARFF service category 10 upgrades for Brisbane and Perth;
- continued investment growth and associated impact on depreciation; and
- further regulatory changes including the provision of approach services into current Class D regional tower locations.

Asset values, capital expenditure and depreciation

Another building block is asset values, which encompasses not only existing assets but also capital expenditure and depreciation. Airservices has developed an approach to ensuring that the treatment of asset values is consistent with the Government's requirements of price monitored airports. This includes valuing existing assets on the basis of either the 2004 LTPA pricing decision, or at cost if they have been commissioned since the

[25] Archerfield, Bankstown, Camden, Essendon, Jandakot, Moorabbin and Parafield

commencement of the 2005 LTPA[26]. New assets, including upgrades, replacements and new technology are valued as included in the capital expenditure program to 2015-16. New assets included in any capital expenditure program are valued by taking into account both the timing of the investment, the size of the investment and the expected commissioning dates.

The level of depreciation is based on the estimated useful life of both existing and new assets acquired through the capital expenditure program. Consistent with other regulatory regimes (such as for gas and electricity) Airservices opening asset base for the new pricing period is calculated on the basis of the 2004 opening asset base plus actual capital expenditure less actual depreciation over the last pricing period.

The following tables set out the asset values by year:

Table 7 – Asset value movements 2012 - 2016

Asset Values ($mil)	2012	2013	2014	2015	2016
Opening Asset Bal	865	981	1,066	1,144	1,209
CAPEX	205	186	193	186	185
Depreciation	89	102	116	120	128
Closing Asset Bal	981	1,066	1,144	1,209	1,266

Over the last five years the majority of investment has targeted asset renewals. This has addressed a large part of Airservices asset base which was approaching end of life.

In addition to renewing Airservices asset base the organisation has invested in some key infrastructure upgrades which include improvements to the air traffic management system, the rationalisation and digitisation of the telecommunications infrastructure and the introduction of satellite based technologies to improve surveillance and navigation. This has improved surveillance, introduced user preferred routes and consequently yielded improved aircraft operation efficiency.

Return on Capital (WACC)

In addition to the recovery of operating costs and depreciation, the ACCC's building block model provides for a return on capital. This provides a return to equity and debt holders for the opportunity cost of capital invested in the business.

It is calculated by applying the weighted average cost of capital (WACC) to the average written down value of assets.

[26] This means that Airservices asset base does not include any asset revaluations that have been recognised as part of normal statutory financial reporting as a result of indexation or re-lifing.

Whilst some market rates may be subject to re-assessment at the time of the final price notification a WACC of 9.95 per cent has been used in the formulation of the prices in this proposal.

This estimation takes the previous ACCC decision and updates it with the prevailing market Government Bond rates and debt margins based on parameter estimates over the 40 business days to 21 February 2011.

Table 8 – WACC Parameters

Measure	Proposed	2004 ACCC Decision
Nominal Risk Free Rate	5.58%	5.41%
Debt Margin	2.37%	0.55%
Market Risk Premium	6.00%	6.00%
Corporate Tax Rate	30.00%	30.00%
Dividend Imputation	50%	50%
Gearing	45.00%	45.00%
Debt Beta	0.00	0.00
Asset Beta	0.55	0.55
Equity Beta	1.00	1.00
WACC Analysis		
Cost of Debt	**7.95%**	**5.96%**
Cost of Equity (post tax nom)	**11.58%**	**11.39%**
Nominal Vanilla WACC	**9.95%**	**8.95%**

Measures for the market risk premium of 6.0 per cent and an asset beta of 0.55 are consistent with the 2004 LTPA ACCC decision. The risk free rate applies a current 10 year government bond rate of 5.58 per cent. This is an increase of 0.17 per cent from the rate used in the 2004 decision of 5.41 per cent.

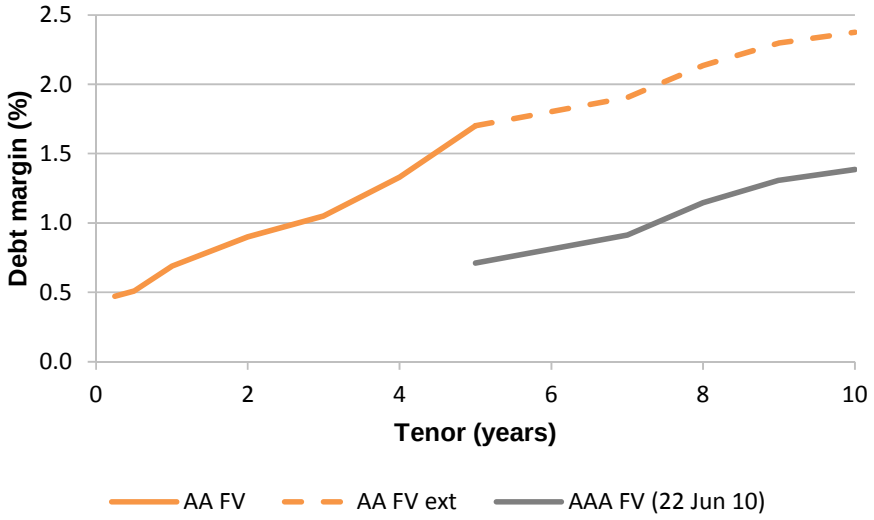
Methodology for updating the debt margin

Regulatory practice in Australia has been to use fair value estimates from sources such as Bloomberg and CBASpectrum to estimate the debt margin. This task has become more difficult since CBASpectrum ceased reporting fair value estimates in 2010, and Bloomberg has steadily reduced the number of long-dated fair values estimates that it provides.

The most recent ten year corporate fair value estimate provided by Bloomberg was for AAA rated bonds on 22 June 2010. The increase in debt margin between five and ten years to maturity for that fair value curve was 0.67%. Airservices current ‘stand-alone’ credit rating is AA and the current ten year AA debt margin is estimated by adding this to the current five year AA debt margin giving an estimate of 2.37%, as shown by the dashed line in the figure below.

Airservices notes that the procedure illustrated in the chart below is the same as used by the Australian Energy Regulator in its most recent decision to extrapolate forward the Bloomberg BBB fair value curve.[27]

Chart 2 – Corporate bond fair value estimates



INCENTIVES TO OPERATE EFFICIENTLY

Airservices number one priority is safety. This is evident from Airservices enviable safety record and international comparisons of safety performance which put the organisation in the category of world-leading air navigation service providers (ANSP's). An indicator of safety performance is the number of incidents of breakdowns in separation standards per 100,000 flight hours or 100,000 movements:

Table 9 - Air Traffic Services (ATS) attributed breakdown of separation standards

	2007	2008	2009	2010
Enroute	1.02	1.05	1.31	0.60
Terminal	1.46	1.31	0.92	1.03
Tower	1.07	0.98	0.90	0.55

Rate per 100,000 flight hours or movements

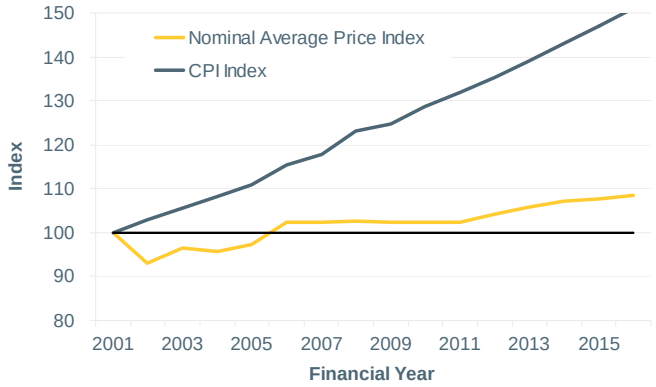
Airservices is also committed to improving efficiency and service delivery. This is challenging in a highly regulated environment and where the expansion of the industry with increasing volumes and customer diversity, must also consider impacts on the environment from emissions and noise.

However, through continuous business improvement and efficiency initiatives Airservices is now managing more traffic and we have improved

[27] AER, Victorian electricity distribution network service providers: Distribution determination 2011-15, pp. 510-11

our cost effectiveness, as ultimately measured by price, delivering real price reductions of 40 per cent relative to 2001.

Chart 3 – Nominal Average Price Change 2001 - 2016



A reduction in real prices of 40% implies that Airservices has increased productivity by more than 40% relative to the average firm represented in the CPI. This is because general productivity gains are already captured in the CPI – with higher productivity more generally giving rise to lower inflation (other things equal). In the context of the particular period in question a 40% reduction in costs relative to CPI is even more remarkable.[28]

Airservices has managed to achieve substantial improvements in efficiency over time driven by whole-of-business cost reform and is basing the new pricing proposal on significant real decreases in unit costs for each of the three major services over the pricing period. These achievements are being made despite a number of factors creating upward pressure on costs.

Low-cost carriers seeking to open new low-cost leisure market destinations and developments in the resources sector are leading to new tower and ARFF services at locations with relatively low volumes.

Over the next price period, another key factor impacting costs will be the need to manage a significant increase in retirements of the organisation's skilled workforce. Around 50% of air traffic controllers (ATCs) are over 45 years, with 11% being over 55 (previously regarded as retirement age). ATC group is the major operational delivery arm of Airservices representing about 34% of the organisation's workforce. This will require an increase in the recruitment of trainees and the provision of training to them, consideration given to recruiting overseas ATCs (even though there is strong international demand for ATCs) and increased automation of processes.

[28] Over this period, the value of the Australian dollar has almost doubled against the US dollar and the availability of inexpensive manufactured imports, particularly from China, has grown rapidly. Both of these effects have caused import prices to fall and depress the CPI relative to a level of inflation excluding imports. The fact that Airservices prices are projected to be still 40% lower than the CPI over this period is a testimony to Airservices productivity gains relative to the average Australian supplier of goods and services.

To further improve efficiency, Airservices has acquired a new rostering tool, Quintiq. Quintiq is a proven Air Traffic Control rostering solution and is in use by NavCanada and DFS in Germany. The FAA has also recently purchased Quintiq to provide their ATC rostering solution. Quintiq has advanced rostering capabilities such as optimising roster solutions for what-if scenarios as well as current rosters. These capabilities along with many others will enable Airservices Australia to better utilise staff resources.

Airservices is also undertaking a number of interdependent ATC projects & activities designed to contribute to enhanced service delivery and an improved ATC resource management capability. The combined benefits of Transition to Service Delivery Environments (TSDE), implementation of National Standardisation and improved Operational Training Delivery will lead to changes to the ATC operational environment. This will increase ATC staff flexibility & efficiency by allowing each controller to be authorised to perform the ATC function across more operating volumes or controller positions.

Similar demographics and increased targeted training activities are also underway for ARFF and technical engineering and maintenance staff.

More generally, Airservices has managed to achieve its air safety duties at least costs. Further, as the ACCC has noted the 5 year price period acts to promote productive efficiency in that it *"allows Airservices to retain the gains associated with improvements in the efficiency of its operations, and requires Airservices to cover any increase in its forecast costs."*[29]

INTERNATIONAL BENCHMARKING

Further evidence on Airservices efficiency is provided by benchmarking Airservices performance against similar agencies internationally.

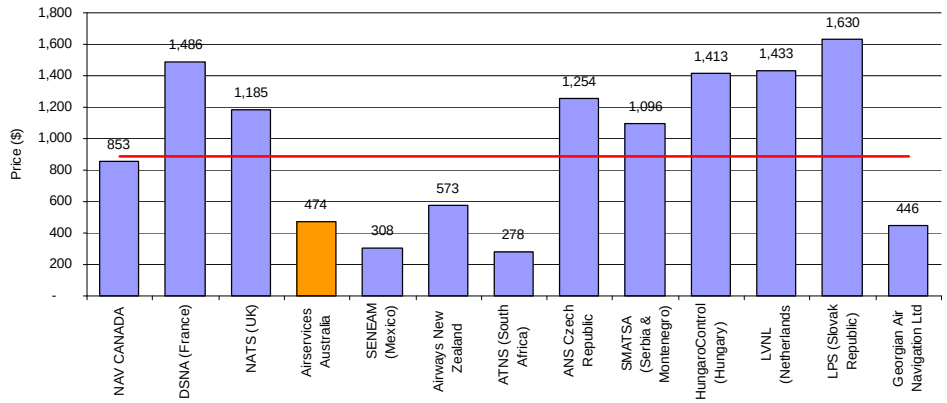
In 2010, the Civil Air Navigation Services Organisation (CANSO) released a benchmarking study comparing the performance of selected air navigation service providers. The charts below compare Airservices to other providers from a price/cost perspective.

A number of performance indicators were measured in the report. Whilst each ANSP operates in a unique environment, comparators to Australia in terms of the operating environment are likely to be Canada, New Zealand and South Africa, although even for these countries differences in the operating environment with Australia imply that weight should only be given to large differences in outcomes (i.e. small differences may simply reflect the different operating environment rather than any actual difference in the efficiency of the service provider).

Chart 5 compares the total charge (both Terminal Navigation and Enroute charges) levied by ANSPs for an A320 aircraft travelling 1,000kms. Here Airservices ranks 4th.

[29] ACCC, *Final decision on Aviation rescue and fire fighting services price notification*, December 2005, p.28.

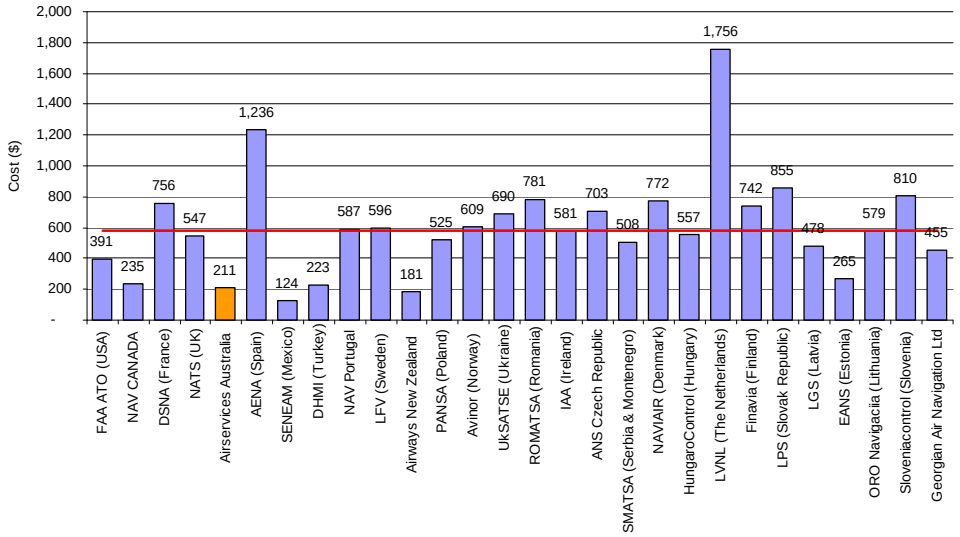
Chart 4 – Consolidated price (USD) per 1,000km flight for A320 by ANSP 2009



Source: Based on CANSO Global ANS Performance Report 2010

Chart 5 below shows how Airservices Australia compares in terms of cost effectiveness – cost per IFR flight hour. The Figure shows that Airservices Australia has amongst the lowest financial costs per flight hour with only Airways New Zealand and SENEAM (Mexico) having a slightly lower figure.

Chart 5 – Cost (USD) per IFR flight hour (continental and oceanic) by ANSP 2009



Source: Based on CANSO Global ANS Performance Report 2010

RATIONALE FOR RISK SHARING ARRANGEMENTS

Risk sharing arrangements have been a feature of Airservices pricing and will continue to be under the new proposal. As discussed in Section 5, the new proposal provides for prices to be adjusted within the price period where certain key factors turn out differently than forecast. In particular, the proposal provides for price changes where there are significant differences in flight activity volumes, capital expenditure, regulatory change and new services.

Essentially, these arrangements recognise that where Airservices faces higher or lower costs as a result of an unexpected change in a key factor impacting on costs then the costs or benefits of such changes should be shared with Airservices customers. Where a change in these factors falls below certain thresholds or there is a change in other factors then Airservices will bear the full impact of those changes in its bottom line. This provides an incentive for Airservices to seek to minimise any resulting upward impact on costs. Only where there is a change in one of the risk sharing factors that is so large as to be unreasonable to expect Airservices to be able to absorb the change or to gain a windfall reward from the change is a risk sharing event triggered.

The ACCC has previously noted one efficiency-enhancing property of the risk sharing arrangements including that "*by sharing with users the risks associated with changes in demand, Airservices should face better incentives to time investments efficiently*".[30]

[30] ACCC, *Final decision on Aviation rescue and fire fighting services price notification*, December 2005, p.28.

5 - IMPLEMENTATION OF THE PROPOSED MODEL

This Section sets out how the pricing principles and approach described in Section 4 has been implemented so as to determine the specific prices for each service and location.

DESCRIPTION OF PRICING METHODOLOGY

On the basis of the building block model, attribution of costs to specific services and location and forecast flight activity volumes, specific prices have been determined which establish a transition path from current prices to prices in 2015/16 at the end of the pricing period while also ensuring recovery of total costs.

Overall revenue levels provide for significant decreases in average prices across the pricing period. Average prices for enroute and TN services are also capped at or near inflation although charges for ARFF services rise in real terms as a result of the initial low level of cost recovery of ARFF services. Nonetheless, ARFF services generally account for a small share of Airservices total charges for aircraft so that the increases in ARFF charges are unlikely to represent a substantial burden for users.

Table 10 – Weighted Average Price Increases

Service	2011-12	2012-13	2013-14	2014-15	2015-16
Enroute	0.0%	0.0%	0.0%	0.0%	0.0%
Terminal Navigation	1.9%	0.8%	0.1%	(0.1%)	0.2%
ARFF	7.8%	8.6%	6.6%	5.1%	2.5%
Weighted Average (nominal)	1.8%	1.6%	1.0%	0.8%	0.5%
Weighted Average (real)	(1.0%)	(1.4%)	(2.0%)	(2.2%)	(2.5%)

The new pricing proposal has also been impacted by whether the actual cost and flight activity volume changes under the 2005 LTPA matched the forecast. For example, in some cases, flight activity volumes exceeded the forecast and as a consequence prices under this proposal will reduce. In other cases, the volumes were lower than the 2005 LTPA forecast and prices will increase.

The following table compares the expected revenues from each service to the expected building block costs by service, the surplus, or shortfall generated and the effective contribution to overheads derived from this comparison.[31] The table indicates that proposed revenue for each service is

[31] Building block costs already include an allocation of overheads. The effective contribution shown in the table takes into account this contribution in addition to further any additional recovery above or below cost.

sufficient to cover its service-specific costs, with the only exception being for ARFF in 2011-12.

Table 11 – Service revenues, allowable revenues, surplus/(shortfalls) and overhead contributions

Service ($mil)	2011-12	2012-13	2013-14	2014-15	2015-16
Proposed revenues by service					
Enroute	416.6	430.8	447.6	467.5	484.1
Terminal Navigation	333.1	344.8	358.9	373.8	388.5
ARFF	126.4	140.9	155.9	170.6	181.1
Building block costs by service					
Enroute	383.8	407.1	432.6	453.1	475.7
Terminal Navigation	328.8	349.1	368.6	382.9	397.0
ARFF	148.9	160.5	169.2	177.0	187.0
Service surplus/(shortfall)					
Enroute	32.8	23.8	15.0	14.4	8.5
Terminal Navigation	4.3	(4.4)	(9.7)	(9.1)	(8.5)
ARFF	(22.5)	(19.6)	(13.3)	(6.4)	(5.9)
Effective contribution to overheads					
Enroute	99.7	95.3	90.4	93.0	90.2
Terminal Navigation	61.1	56.4	54.3	57.7	60.8
ARFF	(2.1)	2.3	9.7	17.7	19.3

* Combined revenues for enroute and TN services in 2011-12 more than recover their service-specific costs and total overheads as they also provide additional funding to cover the shortfall between the revenues and specific costs of ARFF services.

A formal definition of a cross subsidy, as noted by the ACCC, comprises two tests:

- "*A service is a potential source of subsidy if the revenue generated by that service is greater than the stand-alone cost of the service. Whether or not such a service is an actual source of subsidy depends on whether or not the second test is satisfied. That is, revenue greater than stand-alone cost is not, of itself, evidence of a cross-subsidy.*
- *A service is the recipient of a subsidy if the revenue generated by that service is not sufficient to cover the incremental cost of providing it*."[32]

Each service does make a different contribution to overheads – with Enroute making the greatest contribution to overheads and ARFF the smallest. The contributions from TN and ARFF services do rise significantly over the pricing period from recovering one third to almost one half of fixed and common costs.

[32] ACCC, *Assessing cross-subsidy in Australia Post*, July 2006, p.1.

The cross subsidy in the first year to ARFF services and the different contributions to fixed and common costs by service reflect a combination of the objective of avoiding large price shocks in the transition to a more efficient pricing structure as well as the recognition that the price sensitivity of demand for three major types of services differ. A more rapid shift in contributions towards TN and ARFF services would risk a significant impact on demand at some regional airports and among non-regular passenger transport users while the lower enroute charges would have less impact on usage so that overall customer benefits and efficiency is reduced.

In the design of the specific prices, the underlying objective has been to move the average charges for TN and ARFF services towards levels consistent with their fully allocated cost levels over the pricing period where fixed and common costs are allocated to each service in proportion to their share of direct costs and, in some cases, activity level. It should be noted that for TN services, the initial shortfall below Fully Allocated Cost levels is attributable almost entirely to regional airports (with airports in capital city basins effectively recovering their overall TN costs).

Enroute prices

Enroute prices are applied to IFR aircraft based on distance flown and the square root of MTOW (or just MTOW when this is less than 20 tonnes, with price adjusted accordingly). Currently the same price is applied across Australia. Airservices will determine over the course of this pricing arrangement how to efficiently differentiate enroute charges on a functional airspace basis.

Unlike ARFF and TN services, enroute services are recovered through a single price that is independent of location. Unit costs are calculated each year as the building block revenue for enroute, divided by the expected enroute activity (measured in square root tonnes kilometres) in that year.

The price for enroute services is currently higher than its average unit cost, with the excess revenue used to fund the major share of common costs. Airservices objective is to increase the share of common costs paid by the other services. In doing so, Airservices aims to balance the need for overall cost recovery whilst not necessitating excessive price increases for TN and ARFF services, as described above. Prices will remain above a measure of expected fully allocated costs at the end of the upcoming pricing period, but by substantially less than is currently the case.

Given forecasts of future enroute activity, the efficient unit cost of providing enroute services is expected to increase steadily toward the current price over the pricing period. Airservices considers that maintaining the enroute price at its existing level will therefore:

- serve to move towards fully allocated costs;
- provide some relief to enroute customers by allowing price decreases in real terms; and
- limit the price increases required for ARFF and TN services to reasonable levels as these services move toward full cost recovery under a fully allocated cost measure.

ARFF prices

ARFF stations are rated for different categories of aircraft, starting at category 6, and up to category 10 for Airbus A380s. ARFF prices vary by airport and the category of aircraft landing, and are charged based on the MTOW of the aircraft.

The principles underlying ARFF prices reflect a combination of incremental cost pricing with larger aircraft bearing greater costs as well as network-based pricing for category 6 ARFF services such that the same prices for this service are levied at each airport with an ARFF capability. Prices for landing higher categories of aircraft at stations providing those services are calculated based on the costs incurred at that location that are not already recovered in category 6 prices.

Network based pricing for category 6 ARFF services is consistent with the ACCC's earlier finding that it considers "*the nature of ARFF costs to be fixed for a given category of service, because changes in the number of aircraft landings do not appear to affect the level of Airservices costs*."[33] Further, ARFF services can also be considered fixed in the sense that Airservices is unable to impose a higher charge on the additional activity that would cross a CASA threshold requiring a higher class of ARFF service without causing the inefficient cycling problem discussed in Section 4.

Building block costs are calculated for each airport, with allocated overheads separated out.[34] A cost pool for category 6 prices is formed, which includes:

- all overhead costs from all airports, since these costs are regarded as fixed in nature and therefore should be recovered in category 6 network prices;
- 100% of direct costs from category 6 airports, since these costs can by definition only be recovered in category 6 prices;
- 75% of direct costs from category 7 airports, derived on the basis that the average building block revenue for a category 6 airport is approximately 75% of a category 7 airport, and so the incremental cost to be recovered in category 7 prices is only the remaining 25% of these costs;
- 55% of direct costs from category 8 airports, derived on the basis that the average building block revenue for a category 6 airport is approximately 55% of a category 8 airport, and so the incremental cost to be recovered in category 7 and 8 prices is only the remaining 45% of these costs; and
- 30% of direct costs from category 9 and10 airports, derived on the basis that the average building block revenue for a category 6 airport

[33] ACCC, *Final decision on Aviation rescue and fire fighting services price notification*, December 2005, p.8.

[34] The calculation of building block costs is described below.

is approximately 30% of a category 9 or 10 airport, and so the incremental cost to be recovered in category 7, 8 and 9/10 prices is only the remaining 70% of these costs

This cost pool is divided by the total of all tonnes landed at category 6 and above to form the target category 6 ARFF landing price, which is applied equally across all airports.[35]

The remaining costs at airports of category 7 and above are recovered at those locations, with these costs split between categories using allocation factors derived each year from the relationship between average building block costs at each category of airport.

For example, in 2011-12, the average building block costs at category 6, 7 and 8 stations are estimated to be $3.6 million, $4.8 million and $6.7 million respectively. The proportion of costs to be recovered in category 7 and category 8 prices at a category 8 station is respectively set as:

$$\frac{AverageCategory7Cost - AverageCategory6Cost}{AverageCategory8Cost - AverageCategory6Cost}$$

and

$$\frac{AverageCategory8Cost - AverageCategory7Cost}{AverageCategory8Cost - AverageCategory6Cost}$$

These allocation factors for 2011-12 are set out in the table below. Separate allocation factors are calculated for each year of the pricing period, but are substantially similar on each occasion to those in the table below.

Table 12 – Service category increment allocations over category 6 operations

Station type	Category 9/10	Category 8	Category 7
Category 9/10	63%	23%	14%
Category 8		62%	38%
Category 7			100%

Notwithstanding the description above of how unadjusted prices are formed, in practice it is not possible for Airservices to set ARFF prices at exactly these levels, since this would entail very high levels of price increases in the short term. For example, to follow unadjusted prices, category 6 prices would need to increase by approximately 20% in 2011-12, and the gap is even more extreme for category 7 to 9/10 prices at individual airports.

Furthermore, in general ARFF services are currently at a level that is 16% less than a measure of fully allocated costs. Airservices intends to close this gap, and proposes to do so by applying relatively high increases to ARFF

[35] It is not divided by just category 6 activity because the category 6 price is also included in the calculation of higher category price.

charges where these are currently priced beneath fully allocated cost. Increases are applied to close this gap but subject to not exceeding the caps set out in the table below. By the final year of the pricing period, the overall level of ARFF under-recovery is expected to be 5%.

Table 13 – ARFF service maximum price change by category

Charge type	2011-12	2012-13	2013-14	2014-15	2015-16
Category 6	10.0%	10.0%	6.5%	2.5%	1.0%
Categories 7-10	12.5%	10.0%	10.0%	10.0%	10.0%

It is important to note that ARFF charges form about 20% of Airservices overall revenue, and hence increases of 10% to 15%, whilst high, amount to around 2% to 3% increases in charges paid by airlines in nominal terms, other things held constant. These proportions are correspondingly lower for the end users of airline services.

TN prices

TN costs are recovered with a single price at each airport, which is charged according to the MTOW of aircraft that the price is applied to.

The costs of providing TN services are considerable and at current prices are not able to be recovered at many smaller airports without severe price increases at these locations. As discussed in Section 4, avoiding severe price instability can efficiently promote higher levels of investment over time through reducing risks to Airservices customers. The rate of increase in TN charges at specific locations is capped at the levels set out in the table below, which results in an effective cap based on the highest level of price currently charged for TN services.

Table 14 – Terminal Navigation service maximum price change and price cap

Charge type	2011-12	2012-13	2013-14	2014-15	2015-16
TN price increases	5.0%	3.5%	3.5%	3.5%	3.5%
TN capped price	$13.32	$13.79	$14.27	$14.77	$15.29

Although these capped levels of charge increases are generally lower than those permitted for ARFF services, TN prices are generally a much larger percentage of Airservices revenue and thus a larger component of end-user prices than ARFF prices. They are also paid by a larger number of users.

The shortfall in funding at locations which, constrained by these price increases, are unable to recover their costs through prices will be met over the pricing period by pricing for general aviation airports that are closely-located near capital city major airports. As explained at Section 4 above, this cross-subsidy is motivated by the presence of positive externalities in terms of safety and the avoidance of congestion at the major capital city airports.

In addition to shortfalls at general aviation airports within near major airports, there are also revenue shortfalls at some regional airports where costs are significantly higher than prices. Airservices intends this shortfall to

be recovered predominantly by the remaining cross-subsidy from enroute services over the pricing period.

The list of closely-located airports is set out in the table below. At the general aviation locations that support capital city airports, price increases are limited to the capped rates outlined above, with the capital city airport recovering the remaining costs for that location.

Table 15 – Terminal Navigation capital city ports and closely located general aviation ports

Airport / location	Sydney	Brisbane	Melbourne	Adelaide	Perth
Capital City	Sydney	Brisbane	Melbourne	Adelaide	Perth
Closely located general aviation airport	Bankstown	Archerfield	Essendon	Parafield	Jandakot
Closely located general aviation airport	Camden		Moorabbin		

The effect of this approach on pricing at major airports depends on their size and the number and cost of the general aviation airports that are funded by their activity. It is proportionately greatest at Adelaide, where Parafield's under-recovery is supported by activity that is half of that at Perth. Brisbane and Sydney share the lowest proportional cost. The table below shows the margin between price and the building block cost at each capital city airport where basin pricing is required.

Table 16 – Capital city port price contribution to closely located general aviation ports

Service	2011-12	2012-13	2013-14	2014-15	2015-16
Adelaide	19.7%	18.7%	19.1%	20.0%	20.0%
Brisbane	5.7%	5.3%	6.1%	8.0%	8.9%
Melbourne	14.4%	13.0%	13.0%	14.6%	15.4%
Perth	18.5%	14.9%	13.1%	13.3%	14.4%
Sydney	11.4%	9.2%	8.5%	9.3%	8.9%

If Airservices were not to apply this approach, there would still be a large quantum of costs that could not be recovered from general aviation airports and small regional airports given the desirability of limiting price shocks (and the desire to avoid the inefficient cycle in service delivery discussed at Section 4 above). Alternative methods to recovering these costs include:

- Raising the contribution from enroute services by a considerable level to cover revenue shortfalls at general aviation airports. Airservices does not consider that increasing contributions from enroute above the already relatively high contribution levels is a desirable outcome from an efficiency perspective, where it is possible for the funding to come in a more balanced way from terminal navigation services.

- Sharing revenue shortfalls in terminal navigation services at those locations where prices are 'capped'[36] across all other 'uncapped' locations that are able to recover their costs. Relative to the currently proposed prices, this would involve price increases at Sydney and Brisbane (as they would share more of the cross-subsidy burden than under basin pricing) and at several major regional airports.

Airservices does not consider that either of these methodologies is superior to its proposed prices in terms of sending efficient price signals to customers.

DESCRIPTION OF METHODOLOGY FOR COST ATTRIBUTIONS

Standard costing

In calculating the building block costs, standard costings have been applied. This approach provides for the standardisation of costs for similar cost inputs, smoothing any cost anomalies that are not location driven, and providing a cost base that better reflects the level of service and types of assets employed at a particular location

The effect of standard costing is twofold:

- to smooth variation in standard cost inputs across locations; and
- to smooth variation in standard cost inputs across time.

This means that inputs such as staff and assets, providing the same functionality, have been costed to services at the same rate. For example, a standard salary cost for an air traffic controller and a standard asset value and depreciation cost per facility type. This contrasts to actual costs where air traffic controller salaries will vary from location to location based on length of tenure.

The effect over time on the recovery of an asset is important because it implies that recovery is the same regardless of the remaining life of the asset. This differs from the use of straight line depreciation with return on capital calculated off the written down value, where total recovery per year decreases with remaining life. However, it is consistent with annuity concepts used by the ACCC to price telecommunications assets, and avoids price shocks caused by the timing of the replacement program which may roll out over a number of years

It is important to note that standard costing as applied by Airservices does not increase or decrease the quantum of costs across all services. Standard costs have been calculated to ensure that total recovery is unchanged.

[36] That is, locations where further price increases are not possible without breaching the general caps on the annual rate of increase or absolute level of prices.

Cost allocation across activity

Airservices applies an activity based approach in determining the cost of each service at each location. This methodology provides for location specific pricing, underpinning the principle of 'user pays' and supports efficient resource allocation, particularly around capital investment decision making.

In order to appropriately allocate costs an inventory of services and key cost statistics was undertaken. These cost statistics have then been used as the basis for allocating costs and asset values to service lines to the following broad functions:

- Direct operational functions; and
- Non-operational functions.

Direct operational functions are attributed to services using location and service specific key cost statistics. These include direct ATC and ARFF service costs and asset costs.

Non-operational functions are attributed to services at an aggregated level using broad attribution statistics. These include operational support and safety, environment and corporate management costs.

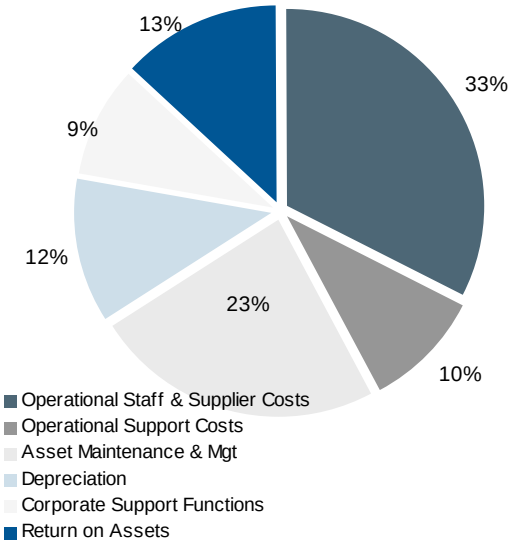
Cost allocation to location

Service costs have been broadly categorised as:

- Location specific (i.e. operational staff, supplier costs, asset maintenance, depreciation and management costs consumed at a location
- Non-location specific (i.e. operational support costs, corporate support functions, asset maintenance, depreciation and management costs attributed to a location but not consumed at a location.)

The costs at a location comprise both the location specific and non-location specific costs that are attributed to a location's cost base by a range of different allocation methods. The main cost components and how they are allocated are discussed below.

Chart 6 - Composition of Service Costs



Operational Staff and Supplier Costs

Service line (ATC, ARFF and Enroute) location costs are operational staff and supplier costs relating to air traffic controllers and firefighters that are incurred at a location. These costs are attributed to service locations based on staff numbers and the standard staffing and supplier costs relating to the different categories of ATC or firefighter.

For each category there are different salary and associated cost structures. A standard cost is then attributed to a location based on the number of staff in each of the categories that are working at that location.

Operational Support Costs

Operational support costs are specialist support costs that are service specific, but do not directly relate to the provision of ATC or ARFF services at a specific location, or airspace sector. These costs include such things as operational training, safety compliance and standardisation as well as some network management services such as aeronautical charting, flight information services and the National Operations Centre.

These costs are allocated to service locations in proportion to the locations share of location specific costs.

Asset Maintenance and Management Costs

Asset costs include Airservices technical maintenance staff costs, third party support contracts, asset support services, non-capital expenses relating to asset renewals and upgrades and property services such as rents, utilities and security. They also include return on assets.

They comprise both location and non-location specific Asset Maintenance and Management costs, with the majority relating to location based operational assets and equipment.

Location specific Asset Maintenance and Management costs reflect the costs of assets that are typically involved in the provision of ATC and ARFF services at a location. These include airways technical equipment and infrastructure (e.g. radars, navigation aids, towers, operational software and communication equipment) and rescue and fire fighting equipment and infrastructure (e.g. fire vehicles, water rescue equipment, alarm monitoring equipment, fire stations and communications equipment).

These location specific based costs are standardised so that the cost of a similar piece of equipment is the same across all locations and is attributed to each service based on the number of units installed at that location. Standard costs take into account asset type as well as the level of service the asset supports.

Non-location specific Asset Maintenance and Management costs relate to assets that are not involved in the provision of a specific ATC or ARFF service, or are not service specific (e.g. Safety Management Reporting Systems). These assets are more network in nature and the costs for these assets are allocated to service locations in two steps. Firstly, to services based on their proportional share of total location costs, then secondly, to individual service locations based on overall demand (i.e. the chargeable units underpinning the service such as tonnes landed).

Depreciation

Depreciation costs are allocated in the same way as Asset Maintenance and Management costs. Location specific depreciation costs are attributed on a standard cost basis to a location. Non-location specific depreciation costs are attributed applying the same two-step process as that used for non-location specific Asset Maintenance and Management costs.

Corporate Support Functions

Non-location specific service costs include functions such as safety, environmental monitoring, human resources, finance and administrative support.

These costs have been allocated to service locations in two steps. Firstly, to services based on their proportional share of location costs, then secondly, to individual service locations based on overall demand (i.e. the chargeable units underpinning the service such as tonnes landed).

DERIVATION OF FORECAST ACTIVITY LEVELS

Airservices engaged IATA Consulting to undertake a forecast of flight activity over the next five years as the basis for this proposal.

Their approach was to analyse the interaction between the prospects for future demand by the customers of domestic and international air transport services on the one hand, and the supply of these services by the airlines

on the other. The forecasts of aviation activity that result from this analysis are set out in Appendix 1.

These demand forecasts for air travel are dependent on factors such as oil prices, international and domestic income levels and airfares. At a global level, income is represented by Gross Domestic Product (GDP) — for Australia and for the world. Trends in these measures have a powerful effect on demand. Regression analysis of the impact of GDP and airfares on traffic demand was undertaken for most of the markets.

The estimated relationships, together with assumptions about the future development of the causal factors, were used as a basis for forecasting passenger numbers.

Assumptions about airline pricing and aircraft deployment strategies to meet future customer demand were then incorporated into the forecasts. This process took into account the aircraft types in the existing airline fleets, the numbers and types of aircraft on order and the flexibility of the airlines to adjust delivery schedules.

Passenger forecasts were translated into aircraft movement forecasts using assumptions about average load factors and aircraft size. These assumptions were influenced by airline response to developments in passenger demand.

PROPOSED RISK SHARING ARRANGEMENT

The new proposal incorporates risk sharing arrangements in relation to three main pricing elements.

It is important to note that at present there appears to be an asymmetry in the nature of risk sharing under this arrangement. Whereas Airservices returns earnings to customers where activity is higher, or costs lower, than expected, there is no agreed-upon mechanism for how Airservices could be compensated in the reverse scenario. Airservices regards it as unlikely that it would be able to secure higher prices in this scenario. For example, during the recent global financial crisis prices were held constant for two years.

In many other regulated industries, asymmetric risks such as these are compensated for by allowing an increment over the normal WACC. Airservices is not proposing such an increment at this time.

Flight Activity Volumes

The flight activity volumes that underpin the recovery of service costs under this proposal have been projected to grow at three to five percent per annum. Where flight volumes grow at a rate significantly different to this there is a risk of excessive over or under recoveries. To mitigate this risk, it is proposed that surpluses and deficits greater or less than five per cent of the proposed revenues will trigger a risk sharing event. This event will result in either a rebate to customers for the revenue above the 5% threshold, or provide an opportunity to re-price services (subject to ACCC review) if revenues fall by more than 5%.

Table 17 – Risk sharing thresholds for flight activity volumes

Revenues ($mil)	2012	2013	2014	2015	2016
- 5% risk threshold	832	871	914	961	1,001
Revenue	876	916	962	1,012	1,054
+ 5% risk threshold	920	962	1,011	1,063	1,106

Note: revenue targets and thresholds for risk sharing are subject to adjustment, pending the outcome of the final ACCC pricing decision.

Airservices noted the ACCC request to review options to improve the sharing of activity volume risk at individual airports. Consultation on this issue was held through one-on-one meetings, the Pricing Consultative Committee meetings and the 2008 discussion paper.

These discussions identified that while there was support for adjusting for high growth, there was no support for increasing prices if the activity fell significantly below forecast. This position was noted under both a general industry wide agreement or, as an alternative, under a bilateral agreement with an individual airport. As a consequence, no viable alternative to the existing arrangement has been identified.

Capital Expenditure

As well as recovering operating costs, charges help fund capital investment. With this there is an undertaking that funding levels for capital investment will be utilised appropriately. To manage this undertaking, risk sharing also covers capital investment levels.

In accordance with the current price agreement, a risk sharing event will be triggered that will consider re-pricing services where shortfalls in capital expenditure are either less than 20 per cent of agreed expenditure in a single year, or less than 10 per cent of agreed expenditure on a cumulative basis.

Table 18 – Risk sharing thresholds for capital expenditure

Capital Expenditure ($mil)	2012	2013	2014	2015	2016
Annual CAPEX Plan	206	187	194	186	185
20% Annual risk threshold	185	168	174	168	166
Cum CAPEX Plan	206	392	586	773	958
10% Cum risk threshold	n/a	353	528	695	862

Note: capital expenditure targets and thresholds for risk sharing are subject to adjustment, pending the outcome of the final ACCC pricing decision.

Regulatory Change

To promote service productivity and efficiency there is no risk sharing to mitigate risks associated with changes in operating costs under the LTPA. However, where changes in costs are associated with regulatory change, and outside Airservices control, the LTPA provides that risk will be shared.

Under the current agreement costs incorporated into the ARFF charge for forecast regulatory changes were subject to this risk sharing provision.

Where these regulatory changes did not eventuate and costs were not incurred, funds were returned to industry.

Under this pricing proposal costs have been included for regulatory change, relating to two new ARFF service locations and category 10 service upgrades at ARFF Brisbane and Perth. Costs have also been included for proposed ATC tower service upgrades at 11 regional ports. As with the current LTPA where projected regulatory changes do not occur or are delayed, cost savings will be returned to industry through annual risk sharing rebate arrangements.

New Services

Any new services that arise which have not been included in this proposal will have a three month grace period, from the services commencement date before charging begins.

Prices for new services will then be reviewed after 12 months to determine whether there has been a significant change in flight activity volumes. If activity levels have varied by more than five per cent from the initial forecast, then after adjusting for demonstrated demand driven cost changes, prices will be varied accordingly.

Based on the Building Block elements set out above, prices on a service and location are based on:

- cost attributions to those locations;
- the forecast activity levels; and
- transitional price caps where larger price increases would be dislocating for the industry.

BASIS OF CHARGES

MTOW (Maximum Take-Off Weight)

Maximum Take-Off Weight (MTOW) will continue to be used as the basis of charges for TN, ARFF and Enroute service charging calculations.

Average MTOW to be applied

To simplify the determination of MTOW for larger aircraft between different operational configurations of very similar aircraft, an average MTOW will be applied. Variations within aircraft types are small and in no way reflect Airservices costs.

This average will only apply to aircraft weighing greater than 15.1 tonnes. The average MTOW will be aircraft type specific (e.g. B747-400). A table of MTOW's applicable for each aircraft type greater than 15.1 tonnes is shown at Appendix 2.

Weight Capping

To reflect the strong consultation feedback on the need to move away from a pure weight based charge this proposal includes a cap on the maximum

weight to be used of 500 tonnes. This is intended to support the operational efficiencies that large aircraft provide with regard to capacity, fuel efficiency and noise. It also recognises international policy which discourages the direct relationship between aircraft weight and charges.

Charging for General Aviation

To improve efficiency and cost, the structure of charging for General Aviation is to be changed. This addresses the administrative burden of recovering less than 0.02 per cent of revenue from 4,000 low volume users. It applies to any aircraft weighing less than 5.7 tonnes as follows:

- users who incur annual charges of $500, or less will not be liable for Airservices charges.
- users incurring charges greater than $500 in value will be liable for the total amount of charges. To pay these charges:
    - users may pay them normally as they are incurred, or
    - users may elect to pay a fixed annual charge based on prior year usage, calculated from April to March which can be paid on an annual or quarterly basis, depending on the value of the fixed charge. Under this option users will receive a 2.5 per cent discount.

Under these new charging arrangements the light aircraft option (LAO) will no longer be available as a payment option for General Aviation users.

ARFF Charges for Non-Airside Call-Outs

ARFF callouts for non-aviation or non-aerodrome fire alarms are increasing. This is particularly true at airports where there has been substantial non-aviation related development.

To the extent that aviation charges are intended to recover the cost of aviation related activities, charging for these services is to be amended such that services for incidents to non-airside, or non-aerodrome events will attract a call-out fee. This fee will be $500 per call out.

Because of the difficulties in forecasting the demand for non-airside call outs, it is proposed to return to aviation customers who use ARFF services all revenues collected from call-outs to non-airside, or non-aerodrome events. This rebate will be paid on an annual basis.

Charging for Out-Of-Hours services

For non-24-hour TN and ARFF services ‘out of hours’ charges will continue to apply where services are required before services commence, or after services close. As per the current agreement operational service times will be based on information as contained in current ERSA’s or NOTAM’s.

Table 19 – Call out charges for Terminal Navigation Services

Before or after normal hours	Charge (inc GST)				
	2012	2013	2014	2015	2016
Up to 15 minutes	n/a	n/a	n/a	n/a	n/a
Over 15 up to 60 minutes	$190	$196	$202	$208	$214
Each additional hour or part hour	$190	$196	$202	$208	$214

Table 20 – Call out charges for Aviation Rescue & Fire Fighting Services

ARFF Service Category	If only 15 minutes before/ after normal hours	Greater than 15 minutes before/ after normal hours & every 15 minutes thereafter (or part thereof)				
		2012	2013	2014	2015	2016
6	n/a	$85	$87	$90	$93	$96
7	n/a	$103	$107	$110	$113	$116
8	n/a	$136	$140	$144	$148	$153
9/10	n/a	n/a	n/a	n/a	n/a	n/a

Table 21 – Recall of staff charges for Aviation Rescue & Fire Fighting Services

ARFF Service Category		Recall of Staff Flat Charge (inc GST)*				
		2012	2013	2014	2015	2016
6		$1,019	$1,049	$1,081	$1,113	$1,147
7		$1,241	$1,278	$1,317	$1,356	$1,397
8		$1,631	$1,679	$1,730	$1,782	$1,835
9/10		n/a**	n/a**	n/a**	n/a**	n/a**

*Recall of Staff Charges apply only where the timing of the out of hours service requires staff to be called in from home to work.

** These are 24 hour locations.

6 - IMPACT OF PRICES

ESTIMATED IMPACT BY AIRCRAFT TYPE

To understand the impact of the proposed price changes the table below provides a comparison of current services charges to those proposed for selected aircraft operations and routes.

Aircraft & Route		Current Charge				Proposed 2012 Charge				Passenger Impact		
From	To	Enroute	Terminal Navigation	ARFF	Total	Enroute	Terminal Navigation	ARFF	Total	Change in total charge	Ave PAX Fare	% Impact on Ticket Price
AIRBUS A380		($)	($)	($)	($)	($)	($)	($)	($)	(per pax)	(per pax)	(per pax)
SINGAPORE	SYDNEY	3,670	3,169	1,394	8,233	3,450	2,791	1,378	7,619	*($1.82)*	*$737*	*-0.2%*
DUBAI	SYDNEY	6,708	3,169	1,394	11,271	6,288	2,791	1,378	10,457	*($2.41)*	*$871*	*-0.3%*
DUBAI	PERTH	4,541	4,910	2,891	12,342	4,257	4,099	2,858	11,214	*($3.34)*	*$742*	*-0.5%*
BOEING B747												
SINGAPORE	SYDNEY	3,073	2,210	972	6,255	3,073	2,214	1,094	6,381	*$0.43*	*$499*	*0.1%*
TOKYO	CAIRNS	377	4,301	1,870	6,548	377	4,516	2,057	6,950	*$1.36*	*$1,062*	*0.1%*
BOEING B737												
MELBOURNE	BRISBANE	424	449	149	1,022	424	471	164	1,059	*$0.32*	*$460*	*0.1%*
BRISBANE	MELBOURNE	424	390	146	960	424	409	160	994	*$0.29*	*$460*	*0.1%*
SYDNEY	GOLD COAST	191	843	312	1,347	191	801	309	1,301	*($0.39)*	*$279*	*-0.1%*
GOLD COAST	SYDNEY	191	435	145	772	191	436	160	787	*$0.13*	*$279*	*0.0%*
AIRBUS A320												
SYDNEY	GOLD COAST	187	806	135	1,127	187	765	148	1,101	*($0.20)*	*$109*	*-0.2%*
BRISBANE	CAIRNS	420	816	135	1,371	420	857	148	1,425	*$0.41*	*$698*	*0.1%*
AUCKLAND	CAIRNS	780	835	138	1,752	780	877	152	1,808	*$0.42*	*$836*	*0.1%*
CAIRNS	BRISBANE	420	434	135	989	420	456	148	1,024	*$0.27*	*$698*	*0.0%*
SAAB 340												
WAGGA	SYDNEY	38	73	24	135	38	73	26	138	*$0.09*	*$111*	*0.1%*
MELBOURNE	ALBURY	18	167	-	185	18	175	-	194	*$0.31*	*$143*	*0.2%*
SYDNEY	COFFS HARBOUR	41	167	-	208	41	175	-	216	*$0.31*	*$386*	*0.1%*
SYDNEY	HOBART	114	125	24	263	114	127	26	267	*$0.13*	*$575*	*0.0%*

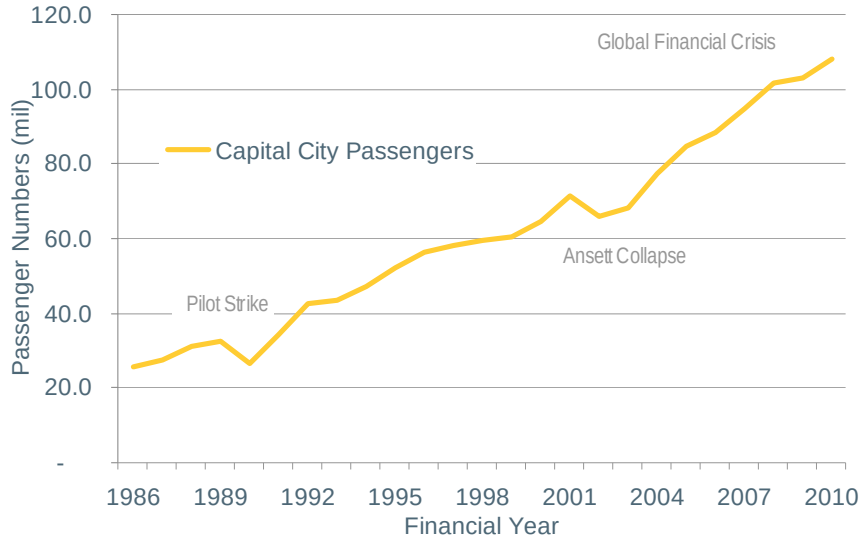
PASSENGER DEMAND IMPACT

The following charts show passenger numbers for the last 15 years across capital cities (plus Cairns and Coolangatta) and regional ports where Airservices services are provided. Over this period passenger numbers have tripled, with growth averaging between 5% and 6% per annum.

In the five years to 2009 where regional Terminal Navigation prices have increased by 10% per annum, passenger growth across these locations has averaged 10% per annum (see Chart 8). At the commencement of the current LTPA in 2005 when capital city Terminal Navigation price increases were in the order of 15% passenger growth across these ports averaged 10% (see Chart 7). Airservices also notes that the price increases that followed the removal of airport price controls in 2001/02 (increases which in many cases exceeded 50%) similarly do not appear to have impacted passenger demand

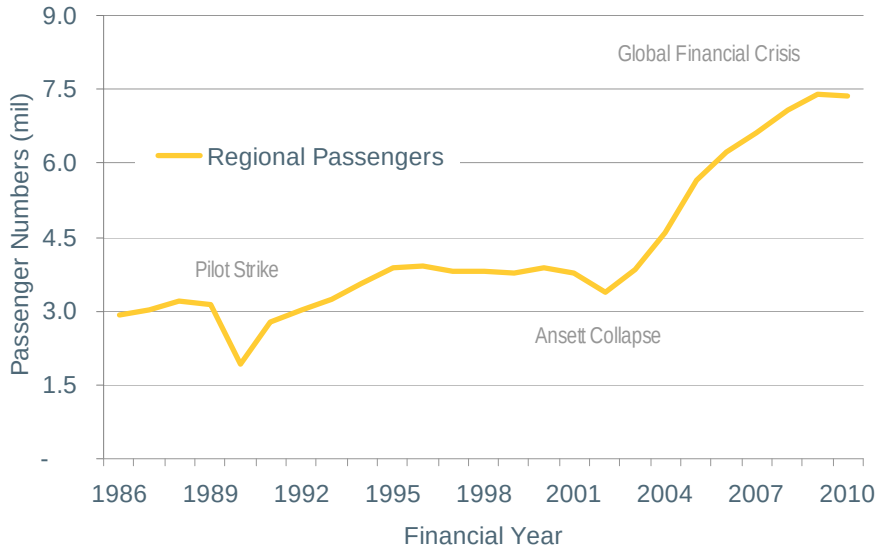
Given this experience of rising nominal prices and rising demand, Airservices has not detected any evidence of its prices having a material impact on demand. With real reductions in prices proposed in its notification Airservices would not expect this notification would have a material impact on demand in regional or capital city markets.

Chart 7 – Capital City Passenger Numbers*



* Airports: Adelaide, Brisbane, Cairns, Canberra, Gold Coast, Melbourne, Perth, Sydney. Source: BITRE

Chart 8 – Regional Passenger Numbers*



*Airports: Albury, Alice Springs, Coffs Harbour, Hamilton Island, Hobart, Launceston, Mackay, Rockhampton, Sunshine Coast, Tamworth. Source: BITRE

7 - CONSULTATION ON THE PROPOSAL

CONSULTATION PROCESS

Following formal consultation on price structures in 2008 and Terminal Navigation prices in early 2010, Airservices published its Draft Pricing Proposal at the start of December 2010. The proposal was based on continuing the transition to more cost-reflective pricing initiated in the previous Long Term Pricing Agreement as well as incorporating the outcomes of consultations on specific pricing elements undertaken since that Agreement. Information relating to previous discussion papers and reviews, including industry responses can be found on our website at:

http://www.airservicesaustralia.com/pricingproposal/

Airservices asked for industry comment and feedback on the proposal by no later than 24 January 2011 which was subsequently extended to early February.

Airservices also established a public meeting program for interested stakeholders in January 2011 at the locations listed in the table below.

Table 22 – Public consultation meetings

Location	Location
Adelaide	Perth
Brisbane*	Rockhampton*
Cairns	Sydney
Hobart	Tamworth
Melbourne	

* - public sessions at Brisbane and Rockhampton were cancelled due to the severe flooding those communities were experiencing at the time. Separate consultation for major users at those locations was held instead.

The proposed implementation date for the new pricing agreement is 1 August 2011. Implementation is dependent on the ACCC's view of the notification which will take into account the ACCC's own consultation process.

ISSUES RAISED IN THE CONSULTATION

Following is a summary of the main issues raised in responses to Airservices consultation on the new proposal together with Airservices response.

Overall view of the long term pricing plan

View of interested parties

Responses have expressed differing views on the long-term pricing plan proposed by Airservices in the Draft Pricing Proposal.

British Airways (BA) notes that although it welcomes that the Draft Proposal is expected to deliver year-on-year reductions in prices in real terms, Airservices is still asking airlines to pay more in nominal terms during each year of the five-year agreement.

The Board of Airline Representatives of Australia Inc (BARA) states that it is generally critical of Airservices lack of justification for the efficiency of its level of underlying costs. BARA comments that Airservices has not, in their opinion, implemented key recommendations made by the ACCC in its 2004 Final Decision including justifying basin city pricing, improving transparency over its capital program nor has it examined ways to introduce formal operating efficiencies over its operating costs.

Cathay Pacific argues that the cross subsidies between enroute and terminal services should be reduced more rapidly. Emirates argues for an end to the overcharging of enroute oceanic services.

IATA argues that cross subsidies should be eliminated as well as a number of other changes to the structure of prices being implemented. IATA also made a number of comments about the overall level of charges including that insufficient information had been provided in the consultation to demonstrate the efficiency of Airservices costs including the asset lives and depreciation assumptions. IATA argues historic depreciation was less than assumed and this requires an adjustment to the opening asset base.

The Qantas Group notes the challenges in developing prices, but believes that the overall plan will significantly disadvantage regional services. The Qantas Group is also concerned with the rate of increase in ARFF charges as well as noting various problems with the model and assumptions used to set prices.

SACL strongly advocates for location specific pricing and the removal of cross subsidies implied by network pricing.

Other airport owners have raised concerns over the impact of the location specific price changes on their airports. Regional Express argues that an element of cross subsidy of regional air traffic services is necessary as otherwise such services would become unaffordable for many regional air services and General Aviation activity would also suffer.

Virgin Blue Airlines is particularly concerned with the increase in planned CAPEX activity which will impact fares and consumer demand.

Northern Territory Airports states that it supports the Draft Price Proposal as the basis for the Airservices Long Term Pricing Agreement from 1 July 2011, including the ACCC building block approach, retention of the hybrid pricing model, caps for regional airports, non-location specific costs recovered on a network wide basis, risk sharing proposal and simplification of GA charging.

The Royal Federation of Aero Clubs of Australia (RFACA) also states that it is generally supportive of the Draft Pricing Proposal.

Airservices view

Airservices notes the concerns of some that believe efficiency, price structure elements and previous ACCC recommendation had not been

adequately addressed in its Draft Pricing Proposal. In this Draft Notification and supporting materials provided to the ACCC, it has set out further substantiation of these issues, including benchmarking, real price efficiency targets and a more detailed analysis of price structure.

Airservices also notes that it is proposing price changes in the new LTPA that will largely eliminate cross subsidies between the three main services with the aim of improving efficiency. While these changes will have differing impacts on various stakeholders, Airservices has tried to moderate the impact of the changes through caps to prevent large price shocks. Further, we note that as many users will acquire a range of services, the changes for these users will offset each other to an extent so that the overall impact is likely to be affordable. Affordability is also supported by the fact that Airservices charges will often represent a relatively small component of the final end-user's price.

In terms of transparency, Airservices has held regular meetings with the Pricing Consultative Committee to analyse price structure, provided ongoing detailed operational and capital investment information through its Chief Engineer and National Operations Centre Manager and developed a performance based Services Charter that will focus on providing tangible benefits to airlines and operators. Airservices has also offered through these meetings further briefings by senior project managers to explain the detail of individual projects.

TN pricing and regional impacts

View of interested parties

There was a significant difference in views over the extent to which location specific pricing for TN services should be applied so that costs at a particular location are recovered only through charges for services provided at that location.

Several submissions, including Cairns Airport, raised concerns that location specific TN pricing encourages more traffic at higher volume airports which are already subject to more congestion. They argued that this also discourages the use of smaller airports with potentially unused capacity and in particular would disadvantage regional airports. These submissions also argued that location specific pricing is in conflict with the December 2009 National Aviation White Paper which aimed to improve aviation access to regional Australia and encourage international airlines to increase services through Australia's secondary international gateways.

Hobart Airport notes that the proposal results in an overall price increase for carriers flying into Hobart, and believes that the scheme will lead to airlines allocating additional services and capacity elsewhere. Hobart Airport suggests an equalisation scheme between airports which could take the form of a subsidy towards marketing to develop new routes.

Tourism Tasmania is concerned that the proposal would make Tasmanian Airports less competitive and this is likely to result in a large economic loss given their relatively elastic demand. The impact on Tasmania is made worse because Tasmania's island status makes it heavily reliant on aviation with some 840,000 visitors each year arriving by air. Tourism

Tasmania proposes that combining operating and capital expenditure for all Tasmanian airports and applying the same price across all airports for TN, as this would a more comparable pricing structure with the top eight airports in terms of fees generated for Airservices.

AAL requests that Airservices provide additional information as to why Adelaide TN charges appear very high compared with smaller regional airports with lower aircraft volumes, such as Gold Coast, Cairns and Canberra. AAL also noted that Airservices should be indifferent to whether a service is provided remotely or at a location and also indifferent to the level of cost at each location if it can recover location costs on a location basis rather than ensuring the efficiency of the network and the lower network cost. AAL finds that the TCU based at Adelaide should be regarded as a national responsibility and should be recovered on an operationally efficient cost basis.

The Government of South Australia states that the efficiency and productivity of the Australian aviation industry should be measured by the accessibility of all regions in Australia. They argue that higher pricing at low-volume airports may reduce, rather than increase, allocative efficiency particularly where there is congestion at higher volume airports. The Government of South Australia supports network charging and, in the absence of full network charging, it supports the initiatives aimed at reducing price differences between airports.

QAL argues that the rate of over recovery at Gold Coast airport is 53 per cent, which is the highest rate of over-recovery in Australia. QAL also notes that although the pricing proposal foreshadows a reduction in charges at the Gold Coast airport, the reductions are modest compared with the rate of over recovery. QAL argues that this outcome places the Gold Coast airport at a significant cost disadvantage relative to the competing airports at Brisbane (where charges are closer to the location specific price) and Ballina (which has no Airservices charges levied on its users).

QAL suggests that the TN tonnage charge for users at Gold Coast airport should not exceed the 2010 PLSP given the significant increase in volumes since those calculations were prepared. In relation to Townsville airport, QAL finds it difficult to reconcile the level of charges proposed in relation to the airport specific facilities and services provided by RAAF, which QAL comment appear high compared with Darwin airport charges. QAL requests more insight be provided into the costs incurred by ASA at Townsville airport.

Regional Express highlights the economic importance of ensuring viable regional air services and notes that the ICAO guidelines caveat the move to a user pays system with the words “any charging system should take into account the cost of providing air navigation services, the effectiveness of the services, and the financial situation of the users and the providers. Regional Express generally supports the approach to TN services but questions the inclusion of the cost of new approach surveillance control services at 10 regional Class D towers.

The Qantas Group argued for the continuation of a subsidy from enroute to TN. In terms of the cost allocation between TN services, Qantas provided a substantial submission and accompanying economic paper to

argue that the structure of TN pricing will significantly disadvantage regional airports. Qantas noted that charges at relatively small airports are significantly higher than at major city aerodromes and that a reduction in air passenger demand will significantly impact regional economies.

Qantas also argues in favour of an extension of basin pricing to include Gold Coast and Sunshine Coast in Brisbane and Avalon in Melbourne. Qantas argues that this expansion of the basins is justified by the evidence on statistically significant demand switching effects between these aerodromes as well as sharing of common costs between the aerodromes.

Essendon Airport Pty Ltd (EAPL) argues that the approach from Airservices to balance network and location specific charging is appropriate. However, EAPL argues that the proposed model for TN pricing does not work where growth at a subsidised airport results in Airservices collecting more revenue than what is expected to be generated at that airport. EAPL suggests that a similar mechanism as the risk sharing regime should be in place for TN charges at airports where revenue is beyond what is forecast. Essendon Airport argues that the benefit of such a mechanism is that it would act as an incentive for smaller airports and operators to develop new aviation business opportunities and would help reduce cross subsidisation in the medium to long term. It would also act as an inbuilt pricing review.

RAAA notes that Airservices appears to have come to a reasonable balance with its basin and regional cap proposals. RAAA further finds that the full cost recovery for TN at any location is a worthy goal for Airservices; however, RAAA finds that that the use of arbitrary annual increases at capped locations creates a large disparity between same services at different locations.

RAAA estimates that the Airservices methodology has resulted in costs of Airservices services increasing by 46.4% at regional airports between 2005 and 2010, compared to 4.5% for capital city airports. RAAA also calculates that ASA charges will increase by an additional 21% for regional airports between 2010 and 2015, compared to 1.6% for capital city airports.

Cathay Pacific notes that integrated network pricing could be considered where the cost of service provision at a location as well as alternative locations are bundled if this would provide overall industry fuel cost savings from extended hours of service of air traffic control and fire fighting services. Cathay Pacific objects to the weight cap which effectively applies to only one type of aircraft and is therefore discriminatory and introduces cross subsidies between operators.

BA and BARA strongly support a move to location specific pricing. BA notes that Airservices method of price capping on the basis of city basins and regional airports results in prices diverging from costs and leading to cross-subsidies. BA objects to cross subsidisation and requests that Airservices commences a process to remove all cross subsidies to be completed during the term of the next LTPA so as to achieve more sustainable models for airlines, airports and Airservices.

BA states that it is widely accepted that aircraft size has minimal, if any impact on providing ATC services. BA therefore suggests Airservices give

due consideration to migrating from ATC services based on aircraft weight to charges based on aircraft movements. BA notes that applying a weight cap at 500 tonnes amounts to discriminatory pricing which is unacceptable, unless it is clearly part of a path to a single unit rate irrespective of weight. BA asks for greater clarification on which aircraft types fall into each category. In relation to average MTOW, BA also asks Airservices to clarify what administrative cost saving it achieves by using average MTOW and that it should remove weight from the charging formulae.

BARA comments that while TN prices increases at regional locations are limited to 3.5% annually, prices at major city towers will move in line with activity levels and costs including costs of some GA towers. BARA is concerned that regional tower cost increases for the next 5 years do not appear to be matched by increased revenues from those locations.

BARA also argues that Airservices has made no effort to justify basin city pricing with evidence, and BARA will be providing its evidence and analysis on basin city pricing as part of the ACCC review. In addition, BARA argues that there should not be any price increases on international airlines during an unplanned downturn.

IATA argues that most of the terminal areas do not generate enough revenue to even cover their operating costs and that this situation does not improve over time. IATA considers it unfair to the users of Sydney, Melbourne, Adelaide and Perth airports that they are being required to fund these cross-subsidies.

SACL objects to the cross subsidies resulting from basin pricing and instead recommends that the costs at basin airports should be lowered including by amending service provision at those airports.

Airservices view

Airservices has determined its proposed TN prices taking into account a number of relevant considerations including the desirability to ensure prices cover at least service-specific costs, the objective of avoiding large price shocks, general recognition that demand at major airports is likely to be relatively price inelastic and that smaller airports can provide benefits to larger airports in a basin by reducing congestion and other costs.

Airservices believes its approach is consistent with a long history of practice in setting infrastructure prices in Australia and is keeping with the general ICAO endorsed principle that charges should be cost related.

Airservices does not believe that the regulatory framework that governs its pricing would allow it to go beyond its current structure to set regional airport prices even lower as proposed in some responses.

ARFF pricing

Views of interested parties

Responses commented on various aspects of the Pricing Proposal in relation to ARFF pricing.

AAL argues that it sees no reason for price reductions to be phased in over time, especially for Category 8 charges which are a very sensitive category for Adelaide as it includes most of its international services. AAL notes that it would be preferable that the decrease be implemented in 2011 and not phased in over time as this would assist with the promotion of international services and should not affect ASAs revenue over the period of this pricing agreement.

BARA comments that weighted average ARFF prices are proposed to increased by over 40 per cent over the next five years, a large portion of which is attributable to ARFF Category 6. BARA states that it is against network pricing of Category 6 ARFF across Australia. BARA further requests that Airservices puts forward its proposed method of pricing for the new fire stations and the impact of any shortfall on category 6 prices. BARA also requests that Airservices justify any difference in the approach to pricing new ARFF stations compared with new towers at regional airports.

BA requests that Airservices justifies why it uses different unit rates for different aircraft categories for ARFF services and to justify higher percentage increases for heavier aircraft.

The Qantas Group argues that the rate of increase in ARFF charges is unreasonably high and that the increases in the first two years should be moderated.

RAAA notes that the ARFF charges have increased substantially. RAAA finds that ARFF charge increases should be minimal in future years given the substantive increases in recent times.

IATA are concerned that the network pricing of category 6 aircraft generates a significant level of cross subsidy from large to smaller regional locations.

SACL objects to the subsidies resulting from network based charges for Category 6 aircraft and the exclusion of non-passenger GA aircraft less than 15.1 tonnes Maximum Takeoff Weight.

Regional Express question the fairness of the proposed ARFF charges for new services which they will end up paying without receiving any benefit

Airservices view

Airservices notes that while the percentage increases for ARFF charges are relatively high, ARFF charges currently do not cover the overall cost of providing ARFF services. Further, ARFF charges tend to be a smaller share of Airservices charges than enroute and TN for which charges will be decreasing in real terms so that the impact on end-users will be moderate. The structure of ARFF charges has been determined recognising that there is a fixed and common element to their costs and that this element can be efficiently recovered through spreading cost recovering across different locations and aircraft categories.

Enroute services

View of interested parties

IATA argues that separate charges should be implemented for enroute oceanic services and even for different continental services to reflect the higher costs of providing services at more complex areas. IATA also objects to weight being used as the driver for Air Navigation costs and that the weight cap is meaningless as only one aircraft type will surpass such the weight level. IATA calls for a lower cap or the use of a cube root of MTOW formula to reduce the impact of weight on charges. Emirates supported IATA's proposal, adding that they were disappointed that no price differentiation was provided to low cost service sectors (such as the Indian Ocean).

VBA notes that it has been investing in new navigation technology but that it is yet to see the full efficiency benefits from doing so including in terms of a reduction in air traffic controllers required.

Regional Express supports the enroute charge proposal.

Airservices view

Airservices notes that while enroute services make a relatively large contribution to common overhead costs, demand for enroute services is likely to be relatively price inelastic so that this structure of cost recovery is likely to be more efficient overall than a structure with an even allocation of overheads across the services. Nonetheless, Airservices has sought to reduce the extent of the imbalance in common cost recovery over the three main services.

Airservices also intends to develop a revised approach to enroute services over the life of this pricing period, with the aim of implementing a functionally based pricing of enroute services in the next period.

Overall efficiency of costs

View of interested parties

A number of submissions argued that Airservices has not adequately justified its level of underlying costs. VBA has also put forward a number of questions or tests to be applied to ensure efficiency in the provision of services.

Airservices view

Airservices has sought to provide evidence of the efficiency of its costs in the Section on the 'Incentives to operate efficiency' under Pricing Principles above.

In particular, and with an emphasis on maintaining safety as its first priority, the benchmarking, along with real reductions in Airservices pricing and the development of a performance based Services Charter demonstrates a genuine desire and track record in improving efficiency.

Activity levels

View of interested parties

Several responses raised concerns over the forecast activity levels relied on in the Draft Pricing Proposal, based on IATA data.

AAL argues that the traffic forecasts for Adelaide appear conservative and its own forecasts are around 15% higher.

QAL argues that the negative growth forecast by IATA for 2011 is inconsistent with the rapid growth of Gold Coast airport over the last five years and with its own forecasts. The expected underestimates by Airservices will, according to QAL, amplify the over-recovery at Gold Coast airport and result in a significant cost impost on users. Cairns Airport raised similar concerns regarding recent rapid growth.

The Qantas Group believes that the domestic and regional traffic forecasts are too low, when compared with historical growth rates. Qantas believe that IATA international average air passenger forecast growth rate is reasonable. The Qantas Group also make a more general argument ('Circularity of the Building Block Model) that the activity levels included in the model do not take into account the impact of changes in prices for the services.

Tourism Australia is concerned that the passenger forecasts are too low for Tasmania given recent capacity increases and the growth achieved in late 2010.

Airservices view

Airservices notes the recent strength in some domestic traffic levels and has increased the activity levels in Gold Coast and Cairns. The updated forecasts are included in Appendix 1.

In relation to Qantas' argument that the model does not factor changes in prices into the forecasts, we note the modelling presented in the next Section, that the changes in Airservices charges will account for only a small per cent (generally at or less than 0.2%) of the air fares paid by passengers. Thus, even if there were an in-principle case for incorporating the impact of the price changes in the forecasts, they would be expected to have only a very minor impact on those forecasts. However, it is not clear whether there is even an in-principle case for such a change as the forecasts may already implicitly incorporate some changes to Airservices prices. For instance, changes in Airservices prices over the last LTPA will have affected historical traffic growth rates which will then be taken into account in developing forecasts.

Exception for General Aviation aircraft

Views of interested parties

AOPA argues that the $500 threshold for GA aircraft is arbitrarily chosen, and that it is incongruous to have an arrangement under which $499 worth of services can be obtained for free while an additional $2 of services

would result in the need to pay $501. AOPA lists a number of alternative solutions and requests that ASA consider, as a transitional option for the life of the charging period to increase the threshold to a higher figure from $500 – to say $999 – wherein the first $500 is free to all but the second $499 discount is dependent upon accounts of $1000 or more being paid in a timely manner. AOPA suggests that this temporary answer would "almost guarantee" timely payments of relatively small amounts and reduce number of invoices for ASA to process. AOPA argues that the switch from the fuel levy to aircraft specific charges was disproportionately costly for businesses that rent aircrafts.

Cathay Pacific supports the GA exception in principle and believes a cost/benefit analysis should be undertaken to demonstrate that it would not be proportionate to collect these charges.

Dr Stewart Graham notes that frequency of usage of the services in a given class probably provides the best basis for a fee. He also notes that a uniform fee could be charged for a given class based on the average cost for that class.

IATA argues that the business case for the $500 threshold needs to be presented.

RFACA is concerned with three aspects of the $500 exemption: the exemption's application to operators rather than aircraft; the accounting difficulties it creates for a flying club or organisation; and the exemption level is too low. RFACA instead suggests that TN and EN charges should be assessed and charged on a per aircraft basis for GA aircraft not exceeding 5,700 kg MTOW, with billing to the registered owner of the aircraft. In addition to this RFACA suggests that for GA aircraft not exceeding 5,700 kg MTOW the first $1,000 per annum should be free. If an aircraft exceeds $1000 per annum, then these charges will be billed but discounted when payment is made within 21 days.

Airservices view

Airservices has determined the $500 threshold to balance the objective of user-based charging with the need to avoid disproportionate administration costs from collecting relatively small amounts from a large number of users. Airservices considers that the alternative proposals would add complexity while the issues of distortions around the threshold are likely to be overstated.

However, to improve the administrative efficiency in managing the threshold, Airservices intends to assess the threshold for each aircraft based on the previous year's level of activity. If the assessment is less than $500, then the aircraft will not be charged in the following year. Alternatively, if the assessment is greater than $500, the aircraft will be charged based on normal charging arrangements or offered a fixed annual charge.

Transparency and accountability

View of interested parties

BA requests that ASA provides greater cost transparency for both direct and allocated costs by location and/or service. BA also requests a

breakdown of employee numbers split by ATCOs, support staff and administration staff, split by location and/or service.

BARA believes that Airservices has not justified its level of underlying costs or basin city pricing or provided sufficient transparency over its capital program.

The Qantas Group also argues that the capital expenditure program lacks transparency, particularly the $90m in medium and minor projects. Qantas argues that these projects should be excluded from the pricing model until they have been properly assessed, costed and agreed by all industry stakeholders. Qantas also argues that the LTPA should include a mechanism to ensure there is commercial accountability and rigour underpinning the capital expenditure program.

VBA also raised concerns over the size and transparency of planned CAPEX and argues that a business case should be presented for all expenditures over $10 million.

Airservices view

Airservices has provided comprehensive information packs on capital expenditure, detailed forecast operating costs by service and a detailed report supporting the activity forecasts. These will be provided to the ACCC if required. This has been supported by regular Pricing Consultative Committee meetings and the offer for more detailed briefings on individual projects in the capital expenditure program by senior engineering and operational staff. These offers have not been taken up to date, but remain available.

Rate of Return

View of interested parties

British Airways argues that the proposed weighted average cost of capital (WACC) of 9.42% is overly generous and would be even for a business in a competitive environment exposed to real commercial risk. BA states that a WACC in the range 6.5% to 7.5% would be more reflective of the risk profile of an ANSP, particularly as the risk sharing mechanisms in the Draft Proposal helps reduce the level of risk.

IATA argues that Airservices should amend its assumptions in relation to the risk free rate, debt margin and gearing and notes in particular that Airservices is not using its current AAA credit rating.

The Qantas Group argues that the debt margin included in the WACC is too high and that an appropriate funding rate for an AAA+ business should be between 40-50bp.

VBA queries whether the debt margin reflects a long term view of the cost of debt.

Airservices view

Airservices has explained the basis for its WACC approach in Section 3. It should be noted that Airservices has sought to align its approach with the approach used by the ACCC in estimating the cost of capital. This includes applying a notional debt margin for a stand alone business which effectively removes the impact of the implicit Government guarantee of debt of a Government agency.

It has also taken a conservative view on the debt margin, updated only the risk free rate and held all other variables constant from 2005.

Airservices notes that a range of recent precedents exist that support a higher debt margin, including AER decisions providing BBB+ rated debt margins and the ACCC's recent Australia Post (which has a similar credit rating to Airservices) decision that provided a debt margin of 2.70%.

Potential new services, prefunding of capex and risk sharing

View of interested parties

The Qantas Group objects to the LTPA's prices providing for the cost of unconfirmed potential new TN and ARFF services such as in Brisbane, Perth, Coffs Harbour, Port Hedland, Ballina and Gladstone. Qantas also objects to the LTPA including approximately $200m of prefunded capital expenditure which will result in passengers and airlines paying for assets when they are not receiving any benefit from them. Qantas instead suggest that the LTPA charges should only take into account projects that have been fully reviewed, costed and approved with a separate mechanism developed for consultation on new projects with adjustments to charges then being made when and if they proceed.

Qantas further argues that the risk sharing arrangements do not effectively share the risk for activity and capital expenditure and could result in airline and passengers prefunding significant capital expenditure before the trigger point for a refund is reached. Qantas argues instead for a lower unit cost from the outset of the agreement and for consideration of risk sharing arrangements at individual locations.

BARA is critical of the three month grace period to be imposed on any new service included in the proposal, except to the extent that the present value of costs are fully recovered over time.

IATA argues that capex for the ATM future systems project and "contingency" costs for potential new service locations should be removed until better information is available or that the services are actually needed. IATA notes that the current revenue sharing arrangements are adequate although it believes that the capital expenditure sharing arrangement should ensure that users are able to claim adjustments at the end of the period even if the threshold is not reached and that the cumulative threshold should be implemented from the first year.

Essendon Airport (EAPL) further notes that the risk sharing regime channels excess revenue generated by the proposed charges to major airports and airlines.

Cathay Pacific supports the risk sharing arrangements but believes the threshold for capital expenditure should be reduced to 10%.

VBA does not support any CAPEX pre funding being included prior to receiving the benefits.

Airservices view

Airservices acknowledges that providing long term price certainty requires the inclusion of projects and costs based on probable outcomes that are, to a degree, contingent on future events. If Airservices was to remove projects that are yet to be fully substantiated, then add them every year as the business cases were completed, this would have an upward ratchet effect on prices every year and price certainty over the longer term would not be possible. This would lead to significant addition administrative and consultation costs for both Airservices and its customers. Instead of price certainty, this would return the pricing model to an annual price-resetting process.

Airservices has noted the concerns interested parties have regarding capital expenditure risk sharing and agrees that the current risk sharing thresholds of +/-25% should be reduced to +/- 10% on a cumulative basis.

Airservices has also noted concerns on pre-funding. The capital program presented in this proposal does not incorporate any significant pre-funding with commissioning of capital expenditure expected to occur within 18 months of spending. This includes the upgrade of the ATC system which is expected to be progressively commissioned as the components of the system are implemented. Ultimately, however, it is inevitable that the approach of having a five year price path that seeks to smooth prices will involve an element of prefunding.

Inflation forecast

View of interested parties

BARA states that ASA has adopted unrealistically high inflation forecasts, exceeding those usually adopted by economic regulators such as the Australian Energy Regulator. VBA also object to the use of inflation indexes that not consistent with official Australian inflation forecasts.

Airservices view

Airservices has adopted inflation forecasts by RBA as the basis of its inflation forecasts in this proposal.

SUMMARY CHANGES TO PROPOSAL FOLLOWING CONSULTATION

Maximum Price Increases

Maximum price increases have been moderated to smooth TN and ARFF price changes over a longer period.

Operating Costs

The timing of category 10 ARFF upgrades for Brisbane has shifted from 2012 to 2014 and for Perth from 2014 to 2016

The costs associated with the Minister's Radar Direction have been realigned with the latest implementation plan. The previous proposal assumed that these services would be established in 2012 and 2013. The current plan spreads the implementation over a longer period of 2012 to 2015)

The timing of the two new ARFF services has been adjusted such that the second new service has been moved out 1 year to 2013.

Capital Expenditure & Assets

The capital expenditure has been reviewed to reflect revised prioritisation following internal and external consultation, and further cost optimisation has been incorporated. The net effect of these changes is a reduction of $42m across the five years.

Recognising the need to improve Airservices accountability for service deliver, the risk sharing trigger for capital expenditure has been reduced from a +/- 25% cumulative threshold to a +/-10% cumulative threshold.

WACC

The WACC has been updated to include the current bond rate and debt margin. Based on a bond rate of 5.58% and a AA debt margin of 2.37%, the WACC has increased from to 9.42% to 9.95%.

Airways Activity & MTOW

Reviewing feedback on activity forecasts, the most significant changes were identified for Cairns and the Gold Coast. As a consequence, the forecasts for those locations have been adjusted. The revised forecasts are shown in Appendix 1.

An analysis of military operations at civilian operated terminal navigation airports has identified significant operations at Canberra. Based on current military activity levels, $0.2m has been deducted from the Canberra location cost base and recovered across the network.

General Aviation

To meet the concerns of potential administrative inefficiencies in the proposed GA charging, the proposal has been amended. Under the revised proposal, the $500 charging threshold for low volume aircraft operations will be calculated on an annual basis using prior year levels of

usage. If this estimate is less than $500, that aircraft will not incur charges, if it is greater than $500 then normal charges will apply. As an option, an fixed annual charge based on prior year activity and current year prices (less a 10% discount) will be offered.

Future Changes

Airservices is committed to continuously improving the efficiency of its pricing structures and will establish a new pricing structure for enroute services for the next agreement in five years. The new price structure will provide an improved link between the cost of service delivery environments and the pricing framework.

APPENDIX 1 – ACTIVITY FORECASTS

Forecasts in chargeable units for the pricing period

The following tables have been developed by IATA Consulting showing the activity growth forecasts that underpin this pricing proposal:

Table 23 – Aviation activity forecasts

Major Domestic Enroute Traffic

Year ending	PAX numbers (mil)		MTOW-Km (mil)	
30 June	Level	Growth	Level	Growth
2007	48.9		31.7	
2008	52.8	8.1%	34.8	9.5%
2009	53.9	2.0%	36.5	5.1%
2010	54.8	1.8%	37.0	1.2%
2011	56.7	3.4%	38.5	4.1%
2012	59.6	5.0%	40.3	4.7%
2013	62.7	5.3%	41.4	2.8%
2014	66.1	5.3%	43.1	4.1%
2015	69.6	5.3%	44.8	3.9%
2016	73.3	5.3%	46.5	3.8%

Major Internat'l Enroute Traffic

Year ending	PAX numbers (mil)		MTOW-Km (mil)	
30 June	Level	Growth	Level	Growth
2007	22.1		43.9	
2008	23.3	5.1%	46.9	6.8%
2009	23.5	1.0%	50.4	7.5%
2010	25.5	8.7%	55.1	9.4%
2011	27.0	5.7%	57.0	3.4%
2012	28.6	6.2%	59.8	5.0%
2013	30.3	5.7%	62.1	3.9%
2014	32.0	5.7%	64.5	3.8%
2015	33.9	5.7%	67.7	4.9%
2016	35.8	5.7%	69.9	3.4%

8 Major Airports (aggregated)

Year ending	PAX numbers (mil)		MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	47.6	7.2%	35.4	
2008	50.9	6.9%	41.6	17.6%
2009	51.6	1.5%	42.1	1.3%
2010	53.8	4.2%	43.2	2.5%
2011	55.4	3.0%	45.2	4.7%
2012	57.8	4.4%	47.5	5.0%
2013	60.4	4.4%	49.0	3.2%
2014	63.1	4.4%	51.0	4.0%
2015	65.9	4.4%	53.2	4.3%
2016	68.8	4.5%	55.2	3.9%

Regional Airports (aggregated)

Year ending			Total MTOW	
30 June			Level	Growth
2007			3.3	
2008			3.9	18.1%
2009			4.1	5.1%
2010			4.1	0.2%
2011			4.4	7.7%
2012			4.5	1.9%
2013			4.6	3.4%
2014			4.8	3.6%
2015			5.0	3.5%
2016			5.1	3.4%

Brisbane Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	8.7	8.4%	5.8	-5.9%
2008	9.2	5.2%	6.8	16.7%
2009	9.4	2.3%	7.0	3.2%
2010	9.4	-0.1%	6.9	-1.9%
2011	9.7	3.8%	7.2	4.9%
2012	10.2	5.3%	7.7	6.0%
2013	10.8	5.0%	7.9	3.7%
2014	11.3	5.1%	8.3	4.7%
2015	11.9	5.1%	8.7	5.0%
2016	12.5	5.1%	9.1	4.4%

Melbourne Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	11.1	5.5%	8.1	-9.3%
2008	12.0	7.9%	9.6	18.5%
2009	12.3	2.2%	9.7	1.7%
2010	12.9	4.8%	10.1	4.1%
2011	13.3	3.2%	10.6	4.5%
2012	13.9	4.6%	11.1	5.3%
2013	14.5	4.5%	11.5	3.3%
2014	15.2	4.6%	12.0	4.2%
2015	15.9	4.6%	12.5	4.4%
2016	16.6	4.6%	13.1	4.5%

Perth Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	4.0	13.8%	3.3	4.2%
2008	4.5	12.4%	4.0	21.0%
2009	4.7	4.6%	4.3	5.9%
2010	5.0	5.9%	4.5	4.4%
2011	5.1	3.3%	4.6	4.2%
2012	5.4	5.0%	4.9	5.7%
2013	5.7	5.4%	5.1	4.2%
2014	6.0	5.5%	5.4	5.1%
2015	6.3	5.5%	5.7	5.4%
2016	6.7	5.5%	5.9	4.7%

Sydney Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	15.6	7.1%	13.1	-7.5%
2008	16.4	5.5%	15.1	16.0%
2009	16.2	-1.2%	15.0	-1.2%
2010	17.1	5.5%	15.5	3.8%
2011	17.7	3.2%	16.2	4.1%
2012	18.4	4.2%	16.9	4.5%
2013	19.1	3.7%	17.4	2.8%
2014	19.8	3.7%	17.9	3.4%
2015	20.6	3.7%	18.6	3.8%
2016	21.3	3.7%	19.2	3.0%

Adelaide Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	3.1	7.5%	2.0	-3.8%
2008	3.3	7.0%	2.3	16.6%
2009	3.4	2.5%	2.3	0.6%
2010	3.5	2.8%	2.2	-2.3%
2011	3.6	2.4%	2.3	3.8%
2012	3.7	3.6%	2.4	4.7%
2013	3.8	4.0%	2.5	2.6%
2014	4.0	4.1%	2.6	3.8%
2015	4.2	4.1%	2.7	3.7%
2016	4.3	4.1%	2.8	3.4%

Canberra Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	1.3	5.3%	0.8	-4.5%
2008	1.4	6.5%	1.0	22.1%
2009	1.5	7.3%	1.1	14.2%
2010	1.6	6.9%	1.1	-1.0%
2011	1.7	1.8%	1.1	3.2%
2012	1.7	3.1%	1.2	4.0%
2013	1.8	3.8%	1.2	2.3%
2014	1.9	3.9%	1.2	3.6%
2015	1.9	3.9%	1.3	3.5%
2016	2.0	3.9%	1.3	3.3%

Cairns Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	1.9	1.8%	1.4	-11.5%
2008	1.9	-0.2%	1.6	13.5%
2009	1.8	-3.4%	1.4	-10.8%
2010	1.7	-4.4%	1.3	-8.3%
2011	1.8	2.6%	1.5	14.5%
2012	1.9	3.4%	1.6	4.4%
2013	1.9	3.0%	1.6	1.7%
2014	2.0	3.0%	1.6	2.7%
2015	2.0	3.0%	1.7	2.7%
2016	2.1	3.0%	1.7	2.3%

Gold Coast Airport

Year ending	Passengers (mil)		Total MTOW (mil)	
30 June	Level	Growth	Level	Growth
2007	1.9	7.1%	0.9	-10.4%
2008	2.2	14.9%	1.2	27.5%
2009	2.3	6.8%	1.3	12.7%
2010	2.6	12.0%	1.5	14.9%
2011	2.6	-0.3%	1.7	9.4%
2012	2.6	2.0%	1.7	3.1%
2013	2.8	5.6%	1.8	4.2%
2014	2.9	5.8%	1.9	5.5%
2015	3.1	5.8%	2.0	5.6%
2016	3.3	5.8%	2.1	5.1%

Note: Passenger numbers represent inbound passengers only (source: BITRE airport traffic data 1985-86 to 2009-10.

APPENDIX 2 – AVERAGE MTOWS

The following table sets out the proposed average MTOW for aircraft with a MTOW of greater than 15.1 tonnes that will apply under this proposal:

Table 24 – Aircraft average maximum take off weights (MTOWs)

Aircraft Type	Aircraft Description	Maximum Take Off Weight
DHC7	DE HAVILLAND CANADA DASH 7	16.0
DH8A	DE HAVILLAND CANADA CC-142 DASH 8	15.7
AT43	ATR ATR-42-300	16.2
G200	AKROTECH G-200	16.2
C750	CESSNA 750 CITATION 10	16.3
DH8B	DE HAVILLAND CANADA DASH 8 (200)	16.5
HA4T	HAWKER BEECHCRAFT 4000 HAWKER 4000	17.0
CL30	BOMBARDIER BD-100 CHALLENGER 300	17.5
AT45	ATR ATR-42-500	18.6
F2TH	DASSAULT FALCON 2000	19.0
DH8C	DE HAVILLAND CANADA DASH 8 (300)	19.5
CL60	CANADAIR C-143 CHALLENGER 604	20.3
CRJX	BOMBARDIER CL-600 REGIONAL JET CRJ-1000	20.5
S64	SIKORSKY CH-54 TARHE	20.5
F27	CONAIR F-27 FIREFIGHTER	20.8
F50	FOKKER 50	20.8
CVLP	CONVAIR C-131	21.4
CVLT	CANADAIR CC-109 COSMOPOLITAN	24.8
E135	EMBRAER EMB-135	22.4
AT72	ATR ATR-72-200	22.8
H47	BOEING CH-47 CHINOOK	23.1
CRJ2	CANADAIR CHALLENGER 800	24.5
F900	DASSAULT FALCON 900	20.9
FA50	DASSAULT FALCON 50	18.2
DH8D	DE HAVILLAND CANADA DASH 8 (400)	28.2
GLF3	GULFSTREAM AEROSPACE C-20A GULFSTREAM 3	31.6
FA7X	DASSAULT FALCON 7X	31.7
GLF4	GULFSTREAM AEROSPACE C-20F GULFSTREAM 4	33.3
P2	LOCKHEED L-426 NEPTUNE	36.3
E170	EMBRAER 170	37.2
B461	BRITISH AEROSPACE BAE-146-100	37.8
RJ70	AI(R) AVROLINER (RJ-70)	40.8
GLF5	GULFSTREAM AEROSPACE C-37 GULFSTREAM 5	41.1
B462	BRITISH AEROSPACE BAE-146-200	42.2
GL5T	BOMBARDIER BD-700 GLOBAL 5000	42.2
F100	FOKKER 100	43.2
GLEX	BOMBARDIER BD-700 GLOBAL EXPRESS	43.5
F28	FOKKER F-28 FELLOWSHIP	30.2
B463	BRITISH AEROSPACE BAE-146-300	44.2
RJ1H	AI(R) AVROLINER (RJ-100)	44.3
E190	EMBRAER 190	51.8

Aircraft Type	Aircraft Description	Maximum Take Off Weight
B732	BOEING 737-200	52.6
B712	BOEING 717-200	53.5
CONI	LOCKHEED C-121 CONSTELLATION	59.0
A318	AIRBUS A-318	59.0
B733	BOEING 737-300	62.2
B737	BOEING 737-700	70.0
B734	BOEING 737-400	67.3
MD82	BOEING MD-82	67.3
MD87	BOEING MD-87	67.8
C130	LOCKHEED AC-130 SPECTRE	70.3
A319	AIRBUS A-319	71.3
MD83	BOEING MD-83	72.6
A320	AIRBUS A-320	73.5
B721	BOEING 727-100	76.9
B738	BOEING 737-800	77.8
B722	BOEING 727-200	90.2
A321	AIRBUS A-321	91.9
B752	BOEING 757-200	115.6
B703	BOEING 707-300	149.6
DC87	DOUGLAS DC-8-70	156.1
DC86	DOUGLAS DC-8-60	158.9
B762	BOEING 767-200	166.8
B763	BOEING 767-300	171.5
A333	AIRBUS A-330-300	229.6
A310	AIRBUS A-310	164.0
A332	AIRBUS A-330-200	230.4
DC10	BOEING MD-10	261.9
A342	AIRBUS A-340-200	258.4
A343	AIRBUS A-340-300	274.2
MD11	BOEING MD-11	281.8
B772	BOEING 777-200	284.8
B773	BOEING 777-300	293.4
B743	BOEING 747-300	377.8
B77L	BOEING 777-200LR	345.0
B77W	BOEING 777-300ER	349.8
A345	AIRBUS A-340-500	371.2
A346	AIRBUS A-340-600	372.3
B742	BOEING 747-200	372.9
A124	ANTONOV AN-124 RUSLAN	392.0
B744	BOEING 747-400 (INTERNATIONAL, WINGLETS)	398.2
A388	AIRBUS A-380-800	500.0

Note: weight cap of 500 tonnes has been applied in the list above.

APPENDIX 3 – SERVICES CHARTER PERFORMANCE MEASUREMENT METRICS

ATM PERFORMANCE INDICATORS

Key performance indicator	Methodology	Target Jul 10 – Jun 11
Safety		
ATS attributed en route BoS rate	ATS attributed number of en route breakdowns of separation (BoS) per 100,000 flight hours (12-month moving average)	<1.25
ATS attributed terminal area (TMA) BoS rate	ATS attributed number of terminal area breakdowns of separation per 100,000 movements (12-month moving average)	<1.50
ATS attributed tower BoS rate	ATS attributed number of tower breakdowns of separation per 100,000 movements (12-month moving average)	<1.50
ATS attributed runway incursions	Number of ICAO Class A or B Airservices ATS attributable runway incursions	<3
Cost-effectiveness		
ATS attributable flight delays (total)*	Number of total ATS attributable flight delay events (where delay is greater than 10 min) per quarter for: whole of system Sydney Melbourne Brisbane Perth	*Under Development*
ATS induced delay (average minutes of delay per flight)*	The collection and categorisation of delay information does not currently support routine reporting. The parties will review systems, data exchange and resource requirements to establish a routine KPI for delay measurement.	*Under Development*
Capacity		
Air navigation services availability	Hours of service availability (normal operations, not restricted access such as non provision of notified service) as a % of total hours of coverage for: whole of system East Coast Services Regional Services Upper Airspace Services	 99.90% 99.90% 99.90% 99.90%
% of declared runway capacity achieved*	% of declared peak runway capacity achieved when demand is greater than runway capacity for: Sydney Melbourne Brisbane Perth	*Under Development*

Capacity improvement*	% improvement of maximum hourly theoretical airport capacity. Improvement in airport capacity through new initiatives (e.g. reduced separation and wake standard procedures, ACE, high speed taxi ways, CAT III etc)	*Under Development*
Mean time between outages	Mean time between outages for: radar ILS AGA VHF	 >9000 hrs >1000 hrs >9000 hrs
Flight efficiency/environment noise		
Noise complaints	Number of annual complainants per 100,000 movements	2% reduction
Consultation on noise issues	Number of procedural changes implemented without consultation in accordance with Airservices Communication and Consultation Protocol	0 (excluding those implemented to address immediate safety issues)
Noise abatement* (note: an allowance will be made in the target against 100% compliance for uncontrollable events such as weather.)	Adherence to noise abatement procedures at all controlled aerodromes	*Under Development*
Flight efficiency/emissions		
CO_2 emissions*	Annual improvement in overall fuel efficiency	*Under Development*
Aircraft holding*	Percentage reduction in total airborne holding delay Percentage of airborne holding compared to ground holding	*Under Development*
Continuous descent arrival*	Percentage of Required Navigation Performance (RNP) approaches provided for RNP capable flights at those aerodromes where RNP has been implemented after community consultation in accordance with Airservices Communication and Consultation Protocol	*Under Development*
Flexible routes*	Percentage of flexible routing accessible to long haul international flights	*Under Development*

* These measures are to be considered trial indicators to allow time for proper monitoring, feedback and assessment of potentially more appropriate targets. The parties will review systems, data exchange and resource requirements to establish a routine KPI for these elements. Additionally, for those measures "under development" current trends will be reported and analysed to establish a target for these KPIs over the next 12 months

ARFF PERFORMANCE INDICATORS

Key performance indicator	Methodology	Target Jul 10 – Jun 11
ARFF availability		
% ARFF operational preparedness	Percentage of time ARFF resources were available to meet required capacity according to regulated ARFF service category (level) for the aerodrome	98%
ARFF response		
% ARFF responsiveness	Percentage of total responses to aircraft incidents on the aerodrome movement area within three minutes	100%

APPENDIX 4 – DRAFT PRICING PROPOSAL SUBMISSIONS

Adelaide Airport Ltd

AOPA

BARA

British

Cairns Airport

Cathay Pacific Airways

Emirates

Essendon Airport

Government of South Australia

Hobart Airport

IATA

Northern Territory Airport

Qantas

Queensland Airports Limited

RAAA

Regional Express

RFACA

SACL

Stewart Graham

Tourism Tasmania

Virgin Blue Airlines

APPENDIX 5 – GLOSSARY

AC-MAC	Australian Civil–Military Air Traffic Management Committee
ACCC	Australian Competition and Consumer Commission
ADS-B	Automatic Dependent Surveillance—Broadcast
AER	Australian Energy Regulator
Air Services Act	Air Services Act 1995
ANSP	Air Navigation Service Provider
AOPA	Aircraft Owners and Pilots Association of Australia
ARFF	Aviation Rescue And Fire Fighting
AsA	Airservices Australia
ATC	Air Traffic Control
ATCO	Air Traffic Controllers In Operation
ATM	Air Traffic Management
ATS	Air Traffic Service
ATSB	Australian Transport Safety Bureau
BA	British Airways
BARA	Board of Airline Representatives of Australia
Capex	Capital Expenditure Program
CAA	Civil Aviation Authority
CAC Act	Commonwealth Authorities and Companies Act 1997
CANSO	Civil Air Navigation Services Organisation
CASA	Civil Aviation Safety Authority
Cat	Category
CEO	Chief Executive Officer
CPI	Consumer Price Index
Department, the	The Department of Infrastructure and Transport

EAPL	Essendon Airport Pty Ltd
EBIT	Earnings Before Interest and Tax
ER	Enroute
ERSA	En Route Supplement Australia
FIR	Flight Information Region
FOI Act	Freedom of Information Act 1982
GA	General Aviation
GAAP	General Aviation Airport Procedures
GDP	Gross Domestic Product
Government, the	The Australian Government
GST	Goods and Services Tax
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IPART	Independent Pricing and Regulatory Tribunal
ISO	International Organization for Standardization
KPI	Key Performance Indicator
LAO	Light Aircraft Option
Learning Academy	Airservices Learning Academy
LSP	Location Specific Pricing
LTPA	Long Term Pricing Agreement
MOU	Memorandum of Understanding
MTOW	Maximum Take Off Weight
NEU Airservices	Noise Enquiry Unit
NFPMS	Noise and Flight Path Monitoring System
NOTAM	Notice to Airmen
OHS	Occupational Health and Safety

PCC	Pricing Consultative Committee
RAAA	Regional Aviation Association of Australia
RBA	Reserve Bank of Australia
REX	Regional Express
RFACA	The Royal Federation of Aero Clubs of Australia
RNP	Required Navigation Performance
ROA	Return on Assets
SACL	Sydney Airport Corporation Limited
SMS	Safety Management System
TN	Terminal Navigation
TSDE	Transition to Service Delivery Environments
VBA	Virgin Blue Australia
VFR	Visual Flight Rules
WACC	Weighted Average Cost of Capital
White Paper	The Government's National Aviation Policy White Paper