



Parliament of the Commonwealth of Australia

## **Airspace 2000 and Related Issues**

**Report by the  
Senate Rural and Regional Affairs  
and Transport References Committee**

April 2001

© Commonwealth of Australia 2001  
ISBN 1326 - 9372

This document was prepared by the Senate Rural and Regional Affairs and Transport Legislation Committee, and printed by the Senate Printing Unit, Department of the Senate, Parliament House, Canberra.

---

## MEMBERS OF THE COMMITTEE

### *Members*

Senator John Woodley	AD, Queensland	Chairman
Senator Winston Crane	LIB, Western Australia	Deputy Chairman
Senator Jeannie Ferris	LIB, South Australia	
Senator Michael Forshaw	ALP, New South Wales	
Senator Sue Mackay	ALP, Tasmania	
Senator Kerry O'Brien	ALP, Tasmania	

### *Participating Members*

Senator Abetz	Senator Eggleston	Senator McGauran
Senator Bartlett	Senator Faulkner	Senator McKiernan
Senator Boswell	Senator Ferguson	Senator McLucas
Senator Brown	Senator Gibson	Senator Murphy
Senator Brownhill	Senator Harradine	Senator Payne
Senator Calvert	Senator Mason	Senator Tchen
Senator Chapman	Senator Hutchins	Senator Tierney
Senator Coonan	Senator Knowles	Senator Watson
Senator Crossin	Senator Lightfoot	Senator West

---

### Committee Secretariat

Mr Andrew Snedden	(Secretary)
Mr Stephen Frappell	(Acting Principal Research Officer)
Ms Emma Will	(Executive Assistant)
Ms Ruth Clark	(Executive Assistant)

The Senate  
Parliament House  
Canberra ACT 2600

Telephone (02) 6277 3510  
Facsimile (02) 6277 5811  
Internet [www.aph.gov.au/senate](http://www.aph.gov.au/senate)  
Email [rrat.sen@aph.gov.au](mailto:rrat.sen@aph.gov.au)

## **TERMS OF REFERENCE**

On 22 March 1999, the Senate referred the following terms of reference to the Senate Rural and Regional Affairs and Transport References Committee for report by 30 September 1999:

- a) the impact of Airspace 2000 on airspace users, operators and providers, including its safety implications;
- b) the application of competition policy to services provided by Airservices Australia;
- c) the impact of location specific pricing; and
- d) the examination of air safety, with particular reference to cabin air quality in BAE-146 aircraft.

## CONDUCT OF THE INQUIRY

On 22 March 1999, the Senate referred Airspace 2000 and related matters to the Senate Rural and Regional Affairs and Transport References Committee for inquiry and report by 30 September 1999. This reporting date was subsequently deferred to 7 December 2000, to 29 March 2001, and to 5 April 2000.

The Committee advertised its terms of reference widely in the press in mid-July 1999. A total of 30 written submissions were received from a range of individuals and organisations. In particular, the Committee received submissions from the responsible government authority, Airservices Australia; unions such as Civil Air, the Community and Public Sector Union and the United Firefighters Union of Australia; industry associations such as the Perth Air Transport Operators Group and the Australian and International Pilots Association; and representatives of particular airports such as the Bankstown Airport Users and Coffs Harbour City Council. A list of the submissions is at Appendix 1.

The Committee conducted a hearing in Canberra on 1 May 2000. Oral contributions were taken from 6 witnesses or groups of witnesses (see Appendix 2), and 75 pages of evidence were taken. The *Hansard* of the hearings is available at the Hansard site at [www.aph.gov.au](http://www.aph.gov.au).



---

## TABLE OF CONTENTS

<b>MEMBERS OF THE COMMITTEE .....</b>	<b>iii</b>
<b>TERMS OF REFERENCE .....</b>	<b>iv</b>
<b>CONDUCT OF THE INQUIRY .....</b>	<b>v</b>
<b>TABLE OF CONTENTS.....</b>	<b>vii</b>
<b>ABBREVIATIONS .....</b>	<b>xi</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>xiii</b>
<b>RECOMMENDATIONS.....</b>	<b>xv</b>
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>BACKGROUND .....</b>	<b>1</b>
Introduction .....	1
The Airspace 2000 Model .....	1
Initial Implementation of Airspace 2000.....	5
The Class E and G Demonstration Trials .....	9
<b>CHAPTER TWO.....</b>	<b>13</b>
<b>AIRSPACE 2000 .....</b>	<b>13</b>
Introduction .....	13
The Operation of Direct Traffic Information in Class G airspace.....	13
The Operation of MBZs .....	18
The Operation of Class E Airspace .....	20
The Operation of Class C and D Airspace .....	22

---

<b>CHAPTER THREE .....</b>	<b>23</b>
<b>COMPETITION POLICY.....</b>	<b>23</b>
Introduction .....	23
National Competition Policy and the Net Community Benefit Test.....	23
The Application of National Competition Policy by Airservices Australia.....	25
Competition Policy and the Provision of Services to GA and Regional Airports.....	30
Competition Policy and Air Safety.....	31
<b>CHAPTER FOUR.....</b>	<b>33</b>
<b>LOCATION SPECIFIC PRICING.....</b>	<b>33</b>
Introduction .....	33
The Implementation of Location Specific Pricing .....	33
Location Specific Pricing of Aviation Rescue and Firefighting Services .....	34
Location Specific Pricing of Terminal Navigation Services.....	36
The Impact of Location Specific Pricing on Airport Operations .....	40
Costing of Location Specific Prices .....	42
<b>CHAPTER FIVE.....</b>	<b>45</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>45</b>
The Airspace 2000 Model .....	45
Competition Policy.....	47
Location Specific Pricing .....	48
<b>DISSENT BY SENATOR WINSTON CRANE AND SENATOR JEANNIE FERRIS .....</b>	<b>53</b>
<b>ADDITIONAL COMMENT BY SENATOR KERRY O'BRIEN AND SENATOR SUE MACKAY .....</b>	<b>55</b>
<b>APPENDIX ONE.....</b>	<b>57</b>
<b>LIST OF SUBMISSIONS .....</b>	<b>57</b>
<b>APPENDIX TWO .....</b>	<b>59</b>
<b>LIST OF WITNESSES.....</b>	<b>59</b>



**APPENDIX THREE ..... 61**  
**AIRSPACE 2000: PROGRAM DEFINITION PLAN..... 61**



---

## ABBREVIATIONS

AFAP	Australian Federation of Air Pilots
AFIS	Aerodrome Flight Information Service
AIPA	Australian and International Pilots Association
ARFF services	Aviation rescue and fire fighting services
ASCDP	<i>Airway Service Costs – Discussion Paper</i>
ATC	Air traffic control
ATCs	Air traffic controllers
BASI	Bureau of Air Safety Investigation
CAA	Civil Aviation Authority
CAGRO	Certified Air Ground Radio Operator
CASA	Civil Aviation Safety Authority
CPSU	Community and Public Sector Union
CTAF	Common traffic advisory frequencies
DTI	Direct traffic information
FIS	Flight information services
FSO	Flight service officers
GA airport	General aviation airport
HF radio	High frequency radio
HMI	Human/machine interface
ICAO	International Civil Aviation Organisation
IFER	In-flight emergency response
IFR aircraft	Instrument flight rule aircraft
LSP	Location specific pricing

MBZs	Mandatory broadcast zones
NAF	National advisory frequency
NATS	National Air Traffic Services (UK)
NOTAM	Notices to Airmen
NPRM	Notice of Proposed Rule Making
PATOG	Perth Air Transport Operators Group
RAPAC	Regional Airspace Advisory Committee
SAR	Search and rescue
TAAATS	The Australian Advanced Air Traffic System
TN service	Terminal navigation service
UFUA	United Firefighters Union of Australia
VHF radio	Very high frequency radio
VFR aircraft	Visual flight rule aircraft

---

## EXECUTIVE SUMMARY

The two Commonwealth agencies responsible for the management of Australian airspace are Airservices Australia and the Civil Aviation Safety Authority (CASA). Both were formed in July 1995 following the passage of the *Air Services Act 1995* and the restructuring of the former Civil Aviation Authority (CAA).

Under the *Air Services Act 1995*, Airservices Australia is responsible for the delivery of airspace control services, airspace procedures and airspace design. In turn, CASA is responsible for the regulation of the industry, including the setting of airspace design and safety standards in accordance with the *Civil Aviation Act 1988*.

Significantly, Airservices Australia is an off-budget agency operated as a commercial authority under the *Commonwealth Authorities and Companies Act 1997*. Its revenue base of approximately \$600 million is funded by air navigation and other charges that it levies on the aviation industry.

Since their formation, Airservices Australia and CASA have jointly implemented three significant reforms to the management of Australian airspace and airports. They are the adoption of the so-called Airspace 2000 model of airspace design, the application of competition policy to services provided by Airservices Australia, and location specific pricing (LSP) of terminal navigation (TN) and firefighting services.

However, in some instances these reforms have been controversial. Aspects of the Airspace 2000 model have been criticised by members of the aviation industry for reducing the safety of air travel in Australia by placing unrealistic expectations upon pilots and air traffic controllers (ATCs). Similarly, LSP and the application of competition policy has been criticised for increasing the costs faced by rural and regional airlines using smaller Australian airports, in turn leading to pressure for reduced services and safety standards.

This report is in five chapters. Chapter One provides a background to the features and development of the Airspace 2000 model. Chapter Two examines the major concerns arising from the implementation of Airspace 2000 (Terms of Reference A). Chapter Three examines the application of competition policy to services provided by Airservices Australia (Terms of Reference B). Chapter Four examines the impact of LSP of TN and firefighting services (Terms of Reference C). Chapter Five presents conclusions and recommendations.



## RECOMMENDATIONS

### **Recommendation 1**

The Committee recommends that Airservices Australia ensure that there is an extensive and rigorous consultation process with all sectors of the aviation industry on the provisions of the Lower Level Airspace Plan.

### **Recommendation 2**

The Committee recommends that Airservices Australia establish clear guidelines how CAGRO services interrelate and operate in conjunction with surrounding air traffic service sectors.

### **Recommendation 3**

The Committee recommends that Airservices Australia seek formal legal advice on whether CAGRO services constitute an ATC service within the provisions of the *Civil Aviation Act (1988)*.

### **Recommendation 4**

The Committee recommends that the Minister for Transport and Regional Services appoint an independent consultant to assess any impact that the application of competition policy may have had on the delivery of aviation services to rural and regional communities. In particular, the Committee recommends that the independent consultant assess how the net community benefit test has been applied by Airservices Australia.

### **Recommendation 5**

The Committee recommends that the Government consider funding ARFF services at GA and regional airports through some degree of cross-subsidisation where a demonstrable community benefit can be shown.

### **Recommendation 6**

The Committee recommends that the Government consider funding TN services at GA and regional airports through some degree of cross-subsidisation where a demonstrable community benefit can be shown.

### **Recommendation 7**

The Committee recommends that Airservices Australia conduct a detailed costing of services at GA and regional airports, again with the view to possible cross subsidisation of costs where a demonstrable community benefit can be shown.





# CHAPTER ONE

## BACKGROUND

### Introduction

1.1 This chapter summarises the features and development of the Airspace 2000 model. Airspace 2000 follows the International Civil Aviation Organisation (ICAO) system whereby high performance passenger aircraft fly in corridors of controlled airspace with high quality service, and pay the cost, while smaller non-commercial aircraft fly outside those corridors in low-density traffic areas without cost.

1.2 Subsequently, the chapter considers the steps in the implementation by Airservices Australia and CASA of Airspace 2000, including the simultaneous implementation of The Australian Advanced Air Traffic System (TAAATS), Australia's new airspace management and air traffic control (ATC) system.

### The Airspace 2000 Model

1.3 Australian airspace has historically been managed using a system of controlled and uncontrolled airspace. In controlled airspace, all users (high-level en-route commercial aircraft) were subject to the direction of ATCs. In uncontrolled airspace, flight service officers (FSOs) provided direct traffic information (DTI), a low level non-control service informing pilots of the location of other aircraft in their vicinity, thereby facilitating self-separation.<sup>1</sup>

1.4 In addition to DTI, FSOs have also traditionally provided a number of other flight information services (FIS) including weather and hazard alerting, search and rescue (SAR) and in-flight emergency response (IFER) services, and NOTAM services (notification of pilots that aviation facilities are either unserviceable or limited in their availability).

1.5 Proposals for reform of Australian Airspace date back to 1984, and the then Department of Aviation's *Review of the Future Role of the Flight Service Officer in the Provision of Air Traffic Services*. Essentially, the review envisaged the integration of FSO and ATC functions.

1.6 Subsequently, in 1990, the then CAA, under the Chairmanship of Mr Dick Smith, developed an airspace model called AMATS, again envisaging a reduction in FSO functions in uncontrolled airspace. In addition, the AMATS model extended the concept of controlled and uncontrolled airspace by further delineating controlled airspace into levels of service according to the ICAO airspace model.

---

1 *Submission 20, p 5*

1.7 The ICAO model of airspace design delineates airspace into categories A – G.<sup>2</sup> According to these airspace classifications (and contingent upon the category of flight), aircraft operators may pay for full ATC services in controlled airspace, or may elect to use uncontrolled airspace at minimal cost.<sup>3</sup>

1.8 The AMATS model for a reduction in FSO functions in uncontrolled airspace was not implemented. However, in accordance with the ICAO airspace model, various categories of airspace were introduced between late 1995 and mid-1996. Notably, class G airspace was introduced on 7 December 1995, replacing the previous low level uncontrolled airspace.<sup>4</sup>

1.9 In early 1996, the newly formed Airservices Australia established an Airspace Steering Group to work on further proposals for airspace reform, again under the chairmanship of Mr Smith. The group included representatives from Airservices Australia, CASA, the Department of Defence and the aviation industry.

1.10 In August 1996, the Airspace Steering Group released *A Plan for the Future Management of Australia's Airspace* – the so-called Airspace 2000 proposal – for public comment. A summary of the original Airspace 2000 specifications, as detailed in *A Plan for the Future Management of Australia's Airspace*, is set out in Table 1.1 below.<sup>5</sup>

---

2 *Submission 1*, pp 1-2. See also Appendix 4 of ICAO Annex 11, *Air Traffic Services – International Standards and Recommended Practices*.

3 *Submission 1*, pp 1-2

4 Airservices Australia, Response to Questions on Notice, 9 March 2001, 16 March

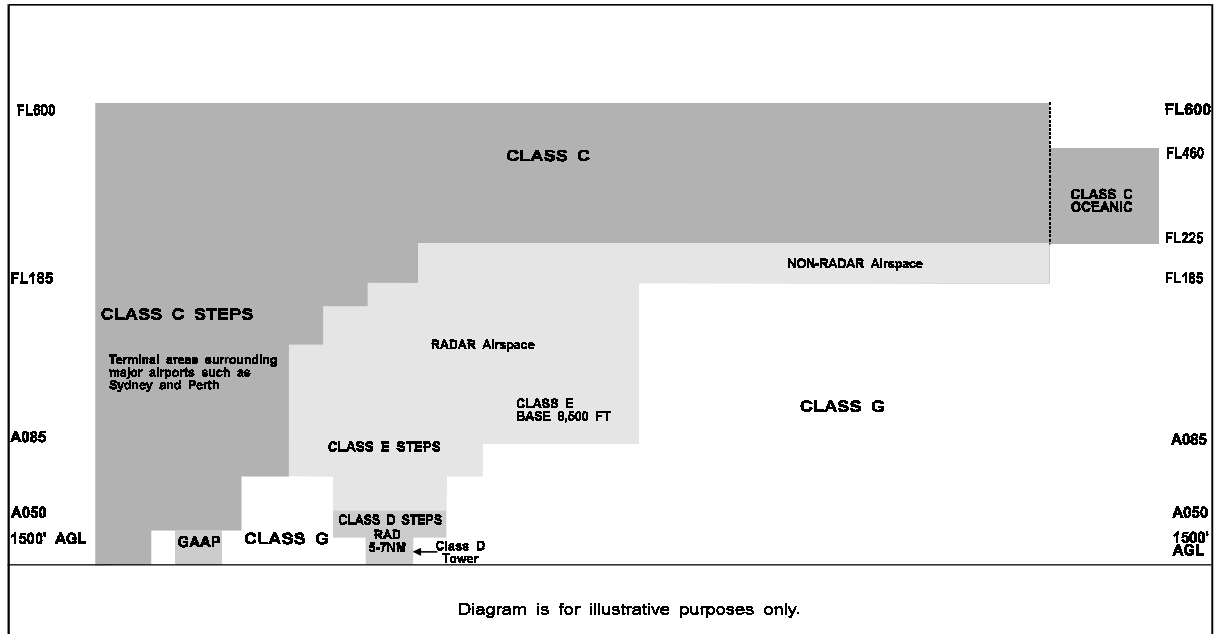
5 *Submission 24*, p 3, see also *Submission 19*, p 1

Table 1.1: Airspace 2000 Specifications

<i>Class C airspace</i>	<ul style="list-style-type: none"> <li>• Oceanic and continental en route airspace between 24,00 feet and 60,000 feet (see figure 1.1 over). In areas where it is required, class C airspace to commence at FL 200.</li> <li>• Stepped airspace around major airports with radar towers.</li> </ul>
<i>Class D airspace</i>	<ul style="list-style-type: none"> <li>• Airspace around airports with non-radar towers</li> </ul>
<i>Class E airspace</i>	<ul style="list-style-type: none"> <li>• Airspace between 8,500 feet and the overlying class C airspace</li> <li>• Where required, class E airspace to be stepped down in corridors where traffic levels are high, or to the underlying class D airspace around airports.</li> </ul>
<i>Class G airspace</i>	<ul style="list-style-type: none"> <li>• All other airspace outside the J curve (see figure 1.2 over)</li> <li>• Instrument Flight Rules (IFR) aircraft operating in class G airspace to use self-announcement/self-separation procedures on the national advisory frequency (NAF). A third party traffic information service to be provided in terminal areas by a (1) Unicom or (2) by ATC on a workload permitting basis.</li> <li>• DTI abolished.</li> </ul>
<i>Mandatory broadcast zones (MBZs)</i>	<ul style="list-style-type: none"> <li>• To be changed to common traffic advisory frequencies (CTAFs) to comply with ICAO recommendations. Where safety requires a guarantee that all aircraft are on the aerodrome frequency, a minimum of class D airspace is to be provided.</li> </ul>
<i>Upgrading from Class G to E</i>	<ul style="list-style-type: none"> <li>• Class G airspace to be upgraded to class E airspace if there is a peak of 5 IFR movements in one direction in one hour, or an intersection on the route has a peak of 5 IFR movements in one hour, and these peaks re-occur more than twice a month. Upgrading to be subject to a specific safety analysis.</li> </ul>
<i>Upgrading from Class E to C</i>	<ul style="list-style-type: none"> <li>• Class E airspace to be upgraded to class C by Airservices Australia if a route is required between overlying class C airspace and class D terminal airspace, again subject to a safety analysis using actual and forecast traffic data.</li> </ul>
<i>Radar services</i>	<ul style="list-style-type: none"> <li>• All transponder equipped aircraft within radar coverage to directly contact the radar controller and receive, on a workload permitting basis, a radar service. The service may be terminated by the controller at any time.</li> </ul>
<i>Unicom</i>	<ul style="list-style-type: none"> <li>• To benefit from the major safety improvement provided by third party services at non-towered airports, private air/ground unicom services to be encouraged by allowing straight-in approaches at airports with an operating unicom.</li> <li>• A standard Australia wide frequency of 126.7 to apply to all non-unicom airports. Airports with high traffic levels, either permanently or temporarily, will operate on a unique frequency.</li> </ul>
<i>Transponder requirements</i>	<ul style="list-style-type: none"> <li>• All aircraft in class C airspace.</li> <li>• All aircraft operation IFR in radar airspace.</li> <li>• All aircraft in “transponder mandatory” class E airspace approaching class D towers.</li> </ul>

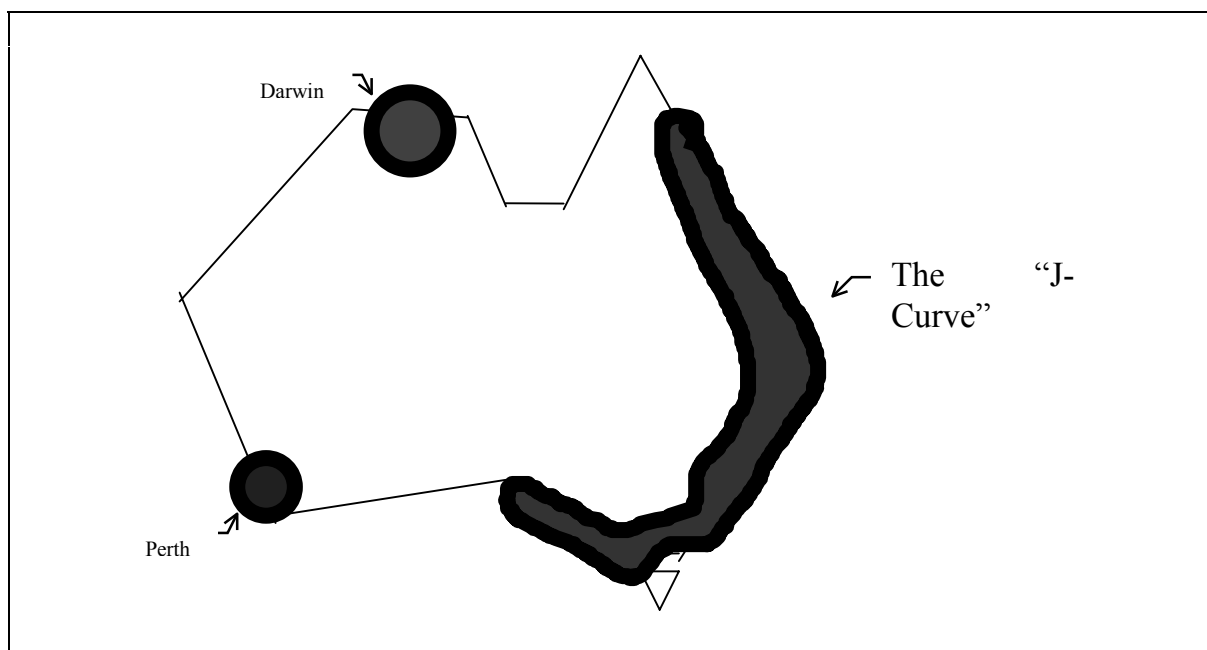
1.11 An illustration of the original Airspace 2000 design is provided in Figures 1.1 below.

*Figure 1.1: Airspace 2000 – Basic Model*



1.12 Significantly, low level radar coverage in Australia is largely restricted to the eastern seaboard, the so called J curve. Outside of this coverage, aircraft have traditionally been provided with DTI. This is shown in Figure 1.2 below.

*Figure 1.2: The Radar J-Curve*



1.13 The Airspace Steering Group listed a number of potential safety benefits arising from the implementation of Airspace 2000, including an increase in the provision of air/ground unicom services, facilitating straight-in aircraft approaches.<sup>6</sup>

1.14 The Airspace Steering Group also nominated the removal of DTI in low-density airspace as a potential safety benefit, resulting in additional resources being available to improve safety in higher traffic density airspace. Under the proposal, the provision of other FSO services such as weather and hazard alerting, SAR and IFER and NOTAM were retained.

### *Aviation Charging*

1.15 It is important to note that while the Airspace Steering Group largely focused on airspace design and designation, *A Plan for the Future Management of Australian Airspace* also foreshadowed a new charging regime based on the cost of services provided to recipients at specific locations.

1.16 Historically, Airservices Australia has recovered its costs through levies based on an average network pricing policy, expressed as a standard unit charge for each service. However, in Part 3 of *A Plan for the Future Management of Australian Airspace*, the Airspace Steering Group indicated that it is inequitable that pilots learning to fly at non-controlled airports pay exactly the same as pilots learning to fly at controlled airports through the imposition of a universal Avgas levy. As stated by the Steering Committee:

This results in an inefficient provision of services at tower airports with a large cross subsidy for non users and little incentive to make savings. A different charging system in this situation would quickly place pressure on the service provider to make efficiency gains or lose business.<sup>7</sup>

1.17 The alternative to average network pricing nominated by the Aviation Steering Group is now known as LSP. LSP is a user-pay pricing model that aligns the costs to Airservices Australia of providing a particular service to its pricing.<sup>8</sup>

### **Initial Implementation of Airspace 2000**

1.18 Following the release of *A Plan for the Future Management of Australian Airspace*, the Airspace Steering Group met in February 1997 to discuss industry concerns relating to the Airspace 2000 model. A number of issues was raised at the meeting including the retention of DTI in class G airspace, and whether it could be provided at a reasonable cost; the retention of MBZs in favour of CTAF zones; and the operation of Unicom services.

---

6 Airspace Steering Group, *A Plan for the Future Management of Australian Airspace*, pp 14-15

7 Airspace Steering Group, *A Plan for the Future Management of Australian Airspace*, p 17

8 *Submission 24*, p 7

### *The Airspace 2000 Safety Case*

1.19 In early 1997, the Board of Airservices Australia adopted the Airspace 2000 model for implementation by 4 December 1997.<sup>9</sup> To advance the proposal, Airservices Australia prepared a ‘safety case’ entitled the *Airspace 2000 Safety Case*. The first version was published on 7 February 1997.<sup>10</sup>

1.20 The safety case identified a number of hazards associated with the Airspace 2000 proposal, and categorised the risks associated with each hazard according to their likelihood and severity. In turn, mitigation and safety requirements were also identified. Airservices Australia assessed the risk from the removal of DTI as follows:

The level of IFR to IFR collision risk within the existing Class G airspace is extremely low, given the current traffic loadings. The removal of the FS [flight service] direct traffic information service does not significantly increase the level of risk within Class G airspace, and overall the level of risk remains extremely low.<sup>11</sup>

1.21 Subsequently, Airservices Australia contracted the UK National Air Traffic Services (NATS) to conduct an audit of the *Airspace 2000 Safety Case*. That audit led to the incorporation of a number of amendments to the safety case, with revised versions of the document published on 27 February, 25 March, and 5 June, and the final version on 10 July 1997. In its *Report on the Airspace 2000 Safety Case* (5 June), NATS endorsed the safety case:

We believe that the Safety Case has now become a ‘living document’ which should serve Airservices Australia well going forward with Airspace 2000 and should facilitate the safe transition of the new system to operation and beyond.<sup>12</sup>

1.22 With regard to the removal of DTI and its replacement with the NAF, the NATS report stated that the level of risk was assessed as ‘very low’ or ‘extremely low’, but that such words were not qualified or defined. As NATS stated, ‘Using words like low, without qualification, could be a hostage to fortune’.<sup>13</sup>

### *Review of the Safety Case by CASA*

1.23 Based on the safety case and NATS’ report, the Director of CASA provided advice to the CEO of Airservices Australia in June 1997 on preparations for the implementation of Airspace 2000. The advice stated:

---

9 Summary of Discussion from the Airspace Steering Group, Canberra, 11 February 1996

10 *Airspace 2000 Safety Case*, July 1997

11 *Airspace 2000 Safety Case*, p 73

12 United Kingdom National Air Traffic Services, *Report on the Safety Case*, July 1997, p 2

13 *Ibid*, p 5

In general the Safety Case is a comprehensive and useful document which has been considerably improved as a result of cooperative efforts between our organisations. Nevertheless, in a few areas it does not yet provide sufficient justification for some of the proposed changes. Our assessment is that with a little further work it could be refined to a stage where CASA would have a sound basis on which to consult with industry on the changes to the Minimum Airspace Safety Criteria needed to implement the Airspace 2000 system. The principal area where some further work is required is in the removal of directed traffic information from G airspace as well as the action on Radar E airspace which I am proposing in this letter.<sup>14</sup>

1.24 In its report attached to the letter, CASA found that the benefits of DTI were perhaps understated, although CASA agreed that a cost/benefit analysis would probably show that provision of DTI was not cost beneficial. Nevertheless, CASA indicated that further work was required on the proposed discontinuation of DTI in class G airspace.<sup>15</sup>

1.25 In addition, CASA also noted that the safety case did not provide sufficient justification for the replacement of other classes of airspace with class E airspace (for example, class C airspace in approaches over class D tower airspace).<sup>16</sup> Accordingly, CASA advised that Airservices Australia establish a panel to review class E airspace.

1.26 In the meantime, CASA agreed that the implementation of class E airspace proceed, provided that both visual flight rules (VFR) and IFR aircraft operating in class E airspace operate transponders. CASA indicated that where radar E airspace was to replace uncontrolled class G airspace, the level of safety would be improved.<sup>17</sup>

1.27 Finally, CASA did not accept the reclassification of MBZs as CTAF zones, again pending the provision of further information by Airservices Australia to allow additional criteria to be developed.<sup>18</sup>

1.28 Subsequently, the Australian Air Transport Association and the Regional Airlines Association of Australia commissioned a risk engineering consultant to review the safety case. The report, published on 6 August 1997, questioned the qualitative evaluation of hazards on the basis of their likelihood and severity, but accepted that the risk model was based on a well accepted methodology.<sup>19</sup>

---

14 CASA, *Interim Report on CASA Assessment of the A2000 Proposed Changes*, June 1997

15 *Ibid*

16 *Ibid*

17 *Ibid*

18 *Ibid*

19 Australian Transport Safety Bureau, *Systemic Investigation into the Class G Airspace Demonstration*, November 1999, pp 20-21.

### *Class G Working Group*

1.29 Following the CASA review of the *Airspace 2000 Safety Case*, Airservices Australia established a Working Group to discuss outstanding issues relating to class G airspace. The group comprised representatives of CASA, Airservices Australia, the Australian Air Transport Association and the Regional Airlines Association of Australia. It met twice, in June and July 1997.

1.30 At its second meeting, the group endorsed the abolition of DTI, but recommended in compensation that the provision of radar information be mandatory (rather than on a workload-permitting basis). The group also recommended that MBZs be retained in preference to CTAF zones on the basis that they reduce aircraft mix by excluding non-radio aircraft, and that they operate on a discrete frequency. To facilitate the retention of MBZs, the group also advocated the development of establishment criteria for MBZs.<sup>20</sup>

### *Airspace Technical Expert Panel*

1.31 Subsequently, to resolve the outstanding issues arising from the *Airspace 2000 Safety Case*, CASA convened a panel of technical experts, which met three times in July and August 1997. The panel comprised industry, defence force, CASA and Airservices Australia representatives. Its brief was to conduct hazard analysis of the major outstanding issues from the *Airspace 2000 Safety Case*: namely the operation of class E airspace and the removal of DTI from class G airspace.<sup>21</sup>

1.32 However, on 25 September 1997, a meeting of the CASA Board decided to suspend the implementation of Airspace 2000. This decision was taken due to concerns regarding the qualitative risk analysis of non-radar class E airspace, on which the technical expert panel had been divided. In particular, CASA was concerned that there were many more VFR flights in class E airspace than had been advised to the technical expert panel.<sup>22</sup>

### *TAAATS*

1.33 The delay in implementation of Airspace 2000 enabled Airservices Australia to focus upon the implementation of TAAATS, Australia's new airspace management and ATC system. The TAAATS project was initiated in February 1994 when the Board of the then CAA approved a contract with Airsys ATM for the delivery of the TAAATS system by the end of 1997. Commissioning of TAAATS by Airservices Australia began in mid 1998, with final implementation achieved in January 2000.<sup>23</sup>

---

20 Airspace 2000 G Class Airspace Working Group Meeting, Melbourne, 14-15 July, summary of discussion

21 Minutes of the First Meeting of the Expert Panel to Assess the Risks of the Airspace 2000 Proposal, 16-17 July 1997

22 CASA, Media Release: *CASA Statement on Airspace 2000*, 12 September 1997

23 *Submission 24*, p 12



1.34 It was the original intention of Airservices Australia that Airspace 2000 be implemented well in advance of the commissioning of TAAATS, to allow a reasonable period of airspace stability.<sup>24</sup> In the event this did not happen. In *A Plan for the Future Management of Australia's Airspace*, the Airspace Steering Group stated:

The risks involved with the commissioning of the complex TAAATS system will be reduced if the Airspace 2000 proposals are implemented. Delays in commissioning the system will affect safety.<sup>25</sup>

1.35 Using TAAATS, air traffic management control in Australia has been concentrated in Brisbane and Melbourne, together with four remote terminal control units at Sydney, Cairns, Adelaide and Perth. The final cost is estimated by Airservices Australia at \$377 million, including the cost of training ATCs.<sup>26</sup>

### **The Class E and G Demonstration Trials**

1.36 Following the decision of the CASA board on 25 September 1997 to delay the further implementation of Airspace 2000, and Airservices Australia's subsequent decision to focus upon the implementation of TAAATS, CASA assumed the lead in the development, management and implementation of Airspace 2000.<sup>27</sup>

1.37 In February 1998, the Chairman of CASA contacted the Chairman of Airservices Australia requesting the transfer of appropriate personnel to assist with implementation of Airspace 2000. In response, Airservices Australia argued that implementation should be delayed for at least 12 months until the after the implementation of TAAATS. Nevertheless, Airservices Australia agreed to provide certain staff to supplement the Airways and Airspace Standards Branch within CASA.<sup>28</sup>

1.38 In April 1998, CASA released *Airspace 2000: Program Definition Plan*, in which CASA reaffirmed its commitment to implementing Airspace 2000. The plan listed ten elements in the successful incremental implementation of Airspace 2000 by 31 December 1999, listed in Appendix 3.<sup>29</sup>

1.39 In June 1998, CASA commenced a trial of class E airspace between Canberra and Balina from 8,500 feet to 12,500 feet. As a result of the trial, CASA considered

---

24 L. James, *Airspace Safety: Air Traffic Control and Airline Operations In Australia*, Background Paper No. 10 97-98, Information and Research Service, Department of the Parliamentary Library, 1 December 1997, p, 11.

25 Airspace Steering Group, *A Plan for the Future Management of Australia's Airspace*, p 14

26 *Submission 24*, p 12

27 *Submission 24*, p 3

28 Australian Transport Safety Bureau, *Systemic Investigation into the Class G Airspace Demonstration*, November 1999, pp 27-28

29 *Ibid*, p 26

that the safety justifications for the introduction of class E airspace within the *Airspace 2000 Safety Case* had been adequately addressed. Radar class E airspace was subsequently introduced on 26 February 1999, but without the mandatory requirement for both VFR and IFR aircraft to carry radio transponders.

1.40 CASA also began preparations for a class G airspace trial. The trial incorporated the removal of DTI, but with radar based traffic information provided on a workload permitting basis. During the lead up to the trial, it was argued that radar based information should be available on demand, not according to workload. In response, Airservices Australia indicated that this would not be available until after TAAATS was implemented. In addition, Airservices Australia indicated that there were areas, particularly at lower altitudes near Williamstown and Taree, where radar coverage could not be provided.<sup>30</sup>

1.41 The trial commenced on 22 October 1998 in airspace between Canberra and Ballina below 8,500 feet, the highest traffic density area of class G airspace in Australia. However, after receipt of over 70 air safety incident reports, the Bureau of Air Safety Investigation (BASI) commenced an investigation on 5 November 1998. Following an interim recommendation issued by BASI on 8 December 1998, the trial was terminated by CASA on 13 December 1998.<sup>31</sup>

1.42 BASI found that the class G trial suffered from significant operational safety problems due to:

- a) Airwave frequency congestion, over-transmissions, and pilots experiencing difficulties interpreting information on the NAF;
- b) Inconsistent availability of the radar information service associated with limitation in radar coverage;
- c) Increased pilot workload associated with frequency management tasks; and
- d) Limited pilot knowledge of the trial procedures.

1.43 Significantly, BASI indicated that where a radar information service was not available during the trial, the NAF did not provide as high a safety standard as would have been provided by DTI.<sup>32</sup>

1.44 The Senate Rural and Regional Affairs and Transport Legislation Committee was subsequently referred terms of reference by the Senate in March 1999 to inquire into the circumstances surrounding the decision to terminate the class G airspace trial;

---

30 Airservices Australia, Submission to the SRRAT Committee Inquiry into the CASA Class G Airspace Trial, pp 5-6

31 *Ibid*, p x

32 *Ibid*, p 106

and the roles and responsibilities of CASA, Airservices Australia, BASI and the Department of Transport and Regional Services in the regulation, design and management of Australian airspace.

1.45 However, at the same time, the Australian Transport Safety Bureau also undertook an inquiry into the class G trial, on which it presented a comprehensive report in November 1999. Accordingly, the Committee decided to take no further action on the management of the class G trial.



# CHAPTER TWO

## AIRSPACE 2000

### Introduction

2.1 This chapter examines the current status of the three most controversial aspects of the Airspace 2000 model. They are the provision of DTI in class G airspace, the operation of MBZs, and certain aspects of the operation of class E airspace. The operation of class C and D airspace has been largely uncontroversial.

2.2 As noted in Chapter One, on each of these issues, there have been a number of developments since 1996, designed to address industry concerns. In particular, following the original Airspace 2000 proposal to discontinue the provision of DTI in class G airspace, Airservices Australia extended the provision of DTI using the TAAATS platform. However, it is now proposed under the Lower Level Airspace Plan that the provision of DTI be discontinued.

### The Operation of Direct Traffic Information in Class G airspace

#### *The Proposal to Remove DTI*

2.3 As indicated in Chapter One, the original Airspace 2000 proposal was for the abolition of FSO provided DTI, with all aircraft operating in class G airspace to utilise the NAF to facilitate self-announcement/self separation see-and-avoid procedures. The provision of weather and hazard alerting, SAR services and NOTAM services (notification of pilots that aviation facilities are either unserviceable or limited in their availability) was to be maintained.<sup>1</sup>

2.4 The Committee received a great deal of evidence highly critical of this original proposal to discontinue the provision of DTI. Fundamentally, it was argued that the see-and-avoid principle is not suitable for use by high-speed commercial IFR aircraft operating in class G airspace because of their window size, body angle and speed of climb and descent. The Australian and International Pilots Association (AIPA) cited a BASI research report entitled *Limitations on the See-and-Avoid Principle*, which states:

Unalerted see-and-avoid has a limited place as a last resort means of traffic separation at low closing speeds but it is not sufficiently reliable to warrant a greater role in the air traffic system.<sup>2</sup>

---

1 *Submission 11*, p 2. See also *Evidence*, RRAT, 1 May 2000, p 74.

2 *Submission 15*, p 5

2.5 In addition, the Community and Public Sector Union (CPSU) argued that self-separation using the NAF in class G airspace is likely to be inhibited by airwave frequency congestion. The CPSU noted two incidents during the class G trial in late 1998 when pilots followed the proper procedure for broadcasting radio advice, but those broadcasts were not heard by other pilots due to congestion on the frequency.<sup>3</sup>

2.6 Given these concerns, various submissions also highlighted the increasing use of class G airspace being made by high-speed commercial IFR aircraft. For example, AIPA noted that commercial aircraft flying in and out of Alice Springs fly through class G airspace in order to access Uluru airport. Typical daily traffic would include two BAe 146 aircraft from Alice Springs, two 737s from Sydney, and associated Uluru sight seeing traffic.<sup>4</sup> Similarly, the Australian Federation of Air Pilots (AFAP) noted that:

In the Australian operating environment, we currently operate high performance turbo-prop and, more recently, turbo-fan aircraft with seating capacity for up to 120 passengers into airports within Class G airspace. ... It is reprehensible to propose that these aircraft and other airspace users should operate in an environment where traffic management relies on 'self-announce, self separation' procedures, with radio transmission made 'in the blind'.<sup>5</sup>

2.7 Finally, it was also noted that ICAO requires in Annex 11, Appendix 4 of *Air Traffic Services – International Standards and Recommended Practices* that aircraft operating in class G airspace should be in 'continuous two-way communication' with ATC officers, and should be provided with flight-following and information services if requested.

#### *Revised DTI Provision from TAAATS*

2.8 In July 1999, Airservices Australia announced that the DTI service would continue to be provided using the TAAATS platform.<sup>6</sup>

2.9 In turn, various parties expressed concern in submissions to the Committee in late 1999 about the ability of Airservices Australia to provide DTI from the TAAATS platform. Fundamentally, it was argued that TAAATS is designed for the provision of en-route ATC and separation services for aircraft in radar coverage – it is not designed to provide a non-radar DTI service.

2.10 Nevertheless, Airservices Australia has completed the implementation of DTI from the TAAATS platform. Under the first stage completed on 2 December 1999, DTI was provided in non-radar areas to the west of Cairns and Townsville, although

---

3 *Submission 28*, p 12

4 *Submission 15*, p 5

5 *Submission 28*, p 15

6 *Submission 24*, p 4

this area was small and contained little traffic. Under the second stage completed on 23 March 2000, sectors to the north of Sydney and the Hunter Valley were transferred to the Brisbane DTI TAAATS platform, and areas over Tasmania and between Sydney and the Hunter Valley were transferred to the Melbourne DTI TAAATS platform.

2.11 The third-stage in the implementation of DTI from the TAAATS platform transferred the remaining, mainly non-radar areas of regional Australia beyond the eastern seaboard to the TAAATS platform. On 15 June 2000, all class G airspace in the Northern half of Australia was transferred to the TAAATS platform, followed by the remaining class G airspace in the southern half of Australia in November 2000.<sup>7</sup>

2.12 In hearings, Mr Dumsa from Airservices Australia indicated that the cost of providing DTI in class G airspace using the TAAATS platform, together with the cost of providing services in class E airspace, has been reduced from \$38 million to in the order of \$20 million. This saving largely accrues from the replacement of approximately 160 FSOs and around 40 support staff with 40 ATCs using the capabilities of TAAATS.<sup>8</sup>

2.13 In its supplementary submission of May 2000, Civil Air acknowledged that Airservices Australia successfully implemented stages one and two of the provision of DTI from the TAAATS platform within the proposed timeframe. However, Civil Air indicated that certain concerns arose during implementation of those first two stages:

- a) As identified in earlier submissions, the TAAATS system is cumbersome for ATCs when processing aircraft in class G airspace, mainly because the human/machine interface (HMI) was not designed for the provision of DTI.
- b) TAAATS lacks a frequency reject facility, which acts to reduce the volume of unwanted transmissions so that important information on other frequencies can be heard.<sup>9</sup>

2.14 While raising these concerns, Civil Air argued that the completed stages one and two did not involve significant changes to the work carried out by ATCs. By contrast, the provision of DTI in non-radar areas across Australia following the implementation of stage three raises significant additional concerns, discussed below.

### The Human Machine Interface

2.15 To provide DTI in non-radar areas, ATCs are currently required to make up to 20 keystrokes to call up onto the TAAATS screen an aircraft operating in non-radar class G airspace. This is because the aircraft's positioning is based on deductions

---

7 *Submission 20A*, p 2. See also Airservices Australia, Response to Questions on Notice, 9 March 2001

8 *Evidence*, RRAT, 1 May 2000, p 61

9 *Submission 20A*, p 1, see also *Evidence*, RRAT, 1 May 2000, p 32

from other available information (eg radio reports and flight advice) rather than exact radar positioning. As stated by Mr Lang from Airservices Australia in hearings:

At the present time, a controller, if he does not have the information on the aircraft presented in front of him, can take up to about 20-odd mouse clicks—the computer mouse—to actually get the information in front of him.<sup>10</sup>

2.16 Given this concern, Civil Air argued that significant redesign of the TAAATS HMI (ie the mouse and keyboard) is required so that information on the location of aircraft in non-radar airspace is made available at a single mouse click.<sup>11</sup>

2.17 In response, Mr Dumsa from Airservices Australia indicated the difficulties of providing accurate information on aircraft movements in class G airspace outside of radar coverage. For example, a lot of flight plans are submitted with an estimated time of departure of say, midday, but may not actually depart until 5 in the afternoon. Should this occur, the data is likely to ‘drop off’ the database and go into a storage bin, requiring a number of key strokes to retrieve it.<sup>12</sup>

2.18 However, despite acknowledged HMI issues, Airservices Australia argued in response to questions taken on notice that TAAATS is significantly more effective in the provision of DTI than procedural flight service methods. In particular, TAAATS allows a pictorial provision of flight information allowing greater situation awareness for controllers, and allows the upgrading of services at short notice if it becomes clear that higher services are required in certain areas.<sup>13</sup>

### High Frequency Radio Coverage

2.19 The provision of DTI and FISs by FSOs has traditionally been via a network of very high frequency (VHF) and high frequency (HF) radio outlets. HF radio is the only assured means of communication to every landing point within Australia, since altitude and terrestrial barriers (ie hills) can limit VHF radio.<sup>14</sup>

2.20 Under the revised TAAATS arrangements, DTI is continuing to be provided using both VHF and HF radio. High-density Australian airspace is covered by VHF radio that allows a controller to talk directly to pilots in the air. However, in other areas, because the TAAATS system does not have HF radio facilities, ATCs are required to relay information to pilots through third party FIS operators.<sup>15</sup>

---

10 *Evidence*, RRAT, 1 May 2000, p 34

11 *Evidence*, RRAT, 1 May 2000, p 34

12 *Evidence*, RRAT, 1 May 2000, pp 70-71

13 Airservices Australia, Response to Questions on Notice, 22 June 2000

14 *Submission 28*, p 10

15 *Submission 20A*, p 2



2.21 In hearings, Mr Waters from the CPSU claimed that Airservices Australia intends to reduce the number of HF outlets from 17 to eight, with associated reductions in coverage, having originally intended to dispense with HF radio coverage entirely.<sup>16</sup>

2.22 In response, Mr Smith, the Chief Operating Officer of Airservices Australia, indicated that the number of HF radio outlets will be reduced from 17 to 16 following the final implementation of the end state Airspace 2000 model, with further reductions the subject of future review.<sup>17</sup>

### Air Traffic Controller Workloads

2.23 A further concern is the workloads faced by ATCs under the current arrangements. An ATC operating in a single TAAATS sector is simultaneously required to provide class C IFR separation services, class E separation services between IFR aircraft, class E traffic advisory services to VFR aircraft, class G FIS to VFR and IFR aircraft upon request, and class G DTI.<sup>18</sup>

2.24 Civil Air indicated in its supplementary written submission that the predicted workload of ATCs following implementation of stages one and two was underestimated by 40 per cent. In addition, Civil Air argued that the necessity of HF radio communication through third party FSOs, and the difficulties associated with the HMI, also adds to workloads.<sup>19</sup>

2.25 In response, Mr Dumsa from Airservices Australia noted that the size of group operating sectors has been adjusted so that workload distribution is equitable across the board.<sup>20</sup> Airservices Australia is continuing to monitor ATC and FIS officer workloads through the development of safety cases for each sector.<sup>21</sup>

### *Future Provision of DTI*

2.26 Given the above concerns, Airservices Australia has indicated that the provision of DTI from the TAAATS platform in class G airspace will cease on implementation of the new Lower Level Airspace Plan. Implementation of the plan is proposed to commence in late 2001 and to be completed by mid-2002.<sup>22</sup>

2.27 In compensation for the loss of DTI, it is proposed that the base of class E controlled airspace be lowered to 7,500 feet in the higher density easy coast areas, and

---

16 *Evidence*, RRAT, 1 May 2000, p 22

17 *Evidence*, RRAT, 1 May 2000, p 57

18 *Submission 14*, p 10

19 *Submission 20A*, p 3

20 *Evidence*, RRAT, 1 May 2000, p 74

21 Airservices Australia, Response to Questions on Notice, 22 June 2000

22 Airservices Australia, Response to Questions on Notice, 9 March 2001

FL 125 in all other continental areas. On request FIS will continue to be available in class G airspace, as will SAR under certain circumstances. Flight notification will continue to be routinely required in class G airspace.<sup>23</sup> In its assessment of the Lower Level Airspace Plan safety case, Airservices Australia states:

Whilst the removal of DTI from residual Class G airspace may increase risk levels in that residual airspace [although mitigation strategies will be aimed at limiting risk as far as practicable], the introduction of large areas of Class E airspace will arguably reduce risk levels below those currently present in Class G airspace.

2.28 The Committee notes that the Lower Level Airspace Plan received industry endorsement at a meeting of the principal representatives of aviation stakeholders on 10/11 January 2001.<sup>24</sup>

### **The Operation of MBZs**

2.29 As indicated in Chapter One, under the Airspace 2000 model, MBZs were originally to be changed to CTAF zones, in line with ICAO standards. However, following from the recommendation of the class G working group, this change did not occur, although “Beepback” units have been installed at major airports, to ensure that aircraft intending to land at an airport are operating on the correct MBZ frequency.

2.30 In regard to the operation of MBZs, the Committee notes the findings of the May 1999 BASI Regional Airline Safety Study Project Report. The report identified density of air traffic at airfields serviced by a MBZ as a significant air safety issue, with over 63% of pilots nominating non-controlled airports where they had found it difficult to maintain separation from other aircraft. Those airports included Port Macquarie, Bundaberg, Wagga Wagga, Dubbo and Davenport.<sup>25</sup>

2.31 The Airspace 2000 model also facilitates the provision of certified air ground radio operator (CAGRO) or Unicom services by a third party at non-towered airports, using a standard Australia wide frequency of 126.7 (airports with high traffic levels will operate on a unique Unicom frequency).

2.32 A CAGRO service provides pilots with operational information such as weather information and local conditions designed to assist them with operation in and around the airport. At airports where a CAGRO service is provided, the Airspace 2000 model permits the use of straight-in approaches because of ground control’s capacity to advise the pilot of wind direction and runway use.<sup>26</sup>

---

23 Airservices Australia, Response to Questions on Notice, 9 March 2001

24 Airservices Australia, Response to Questions on Notice, 9 March 2001

25 *Submission 28*, p 14

26 *Submission 12*, p 10

2.33 Perth Air Transport Operators Group (PATOG) described in its written submission the requirement that straight-in approaches only be permitted at airports where a Unicom is operating as ‘blackmail’ – an attempt to impose Unicom services upon the industry, given that straight-in approaches are safer than circling prior to approach. PATOG further argued that in most Unicom scenarios in the world, a Unicom operator cannot provide a meaningful traffic advisory service.<sup>27</sup>

2.34 An additional problem with Unicom services perceived by the CPSU is that Unicom services operating on the 126.7 frequency are not coordinated with the surrounding Airservices Australia air traffic service sectors, increasing the possibility of unalerted see-and-avoid incidents when aircraft transfer to class G airspace from another class of airspace.<sup>28</sup>

2.35 Accordingly, both the CPSU and PATOG recommended the adoption of Aerodrome Flight Information Service (AFIS) procedures as an alternative to MBZs/Unicom services. Essentially, AFIS procedures replicate at an airport the FIS currently provided by FSOs such as DTI, aerodrome weather conditions and SAR. AFIS procedures may be provided at individual airports, or remotely from a central point coordinating AFIS procedures for a number of airports.<sup>29</sup>

2.36 AFIS procedures operated in Australia for forty years until the services ceased in December 1991 at the direction of the CAA. They comply with ICAO standards, and are employed in countries such as the United States, Britain and South Africa, where they are used at airports that are busy, but do not warrant a control tower.<sup>30</sup>

2.37 The CPSU foreshadowed its proposal for a trial of AFIS at a meeting of the Regional Airspace Advisory Committee (RAPAC)<sup>31</sup> for Victoria and Tasmania in February 1999. Subsequently, the proposal was presented to Airservices Australia and CASA at the meeting of the South Australian RAPAC in March 1999. In response, Airservices Australia has stated that it is technically too difficult to provide AFIS procedures from the TAAATS platform.<sup>32</sup>

2.38 The CPSU was very critical of Airservices Australia for failing to consult with the industry on a trial of AFIS:

Over the past 5 months the original AFIS proposal and much of the associated documentation has been widely distributed throughout Australia,

---

27 *Submission 12*, p 9

28 *Submission 28*, p 14, see also *Evidence*, RRAT, 1 May 2000, p 26

29 *Submission 28A*, p 2

30 *Submission 28A*, pp 2-3, see also *Evidence*, RRAT, 1 May 2000, p 26

31 RAPACs are the forums for consultation by Airservices Australia with the industry on matters associated with airspace and airway procedures. Representatives upon the RAPACs include the major airlines and recreational and sport airspace users.

32 *Submission 28A*, p 3

much of it via the Internet. The proposal has met with wide in-principle support across the vast majority of the aviation industry. ... Airservices has repeatedly avoided any discussion of the proposal.<sup>33</sup>

## **The Operation of Class E Airspace**

### *See-and-Avoid Separation*

2.39 As indicated in Chapter One, under the original Airspace 2000 proposal, ATC was to be provided within radar range to larger IFR aircraft operating in class E airspace, to allow them to avoid other IFR aircraft. However, avoidance of smaller VFR aircraft was to be based on see-and-avoid separation.

2.40 This original proposal was again the subject of industry criticism for its reliance on the see-and-avoid principle. In its written submission, AIPA argued that it is 'unmistakably dangerous' for VFR aircraft to fly unannounced in the same airspace as high capacity high performance passenger aircraft, either operating in class E or on their way up to class C:

A well-known example that supports this claim is an incident that claimed the lives of 144 people on September 25, 1978. It was between a Pacific Southwest Boeing 727 (N533PS) and a Cessna 172 Skyhawk (N7711G). The final statement from the findings of the investigation was 'proof positive, if any more were needed, that the concept of "see and avoid" separation of modern high speed jet aircraft is simply asking too much of human capacity'.<sup>34</sup>

2.41 Under revised arrangements subsequently advised by CASA and adopted by Airservices Australia on 19 June 1998, both VFR and IFR aircraft are now required to operate radar transponders in class E airspace. Within radar range, this will allow ATCs to see VFR aircraft, and provide IFR aircraft with relevant avoidance information. Outside of radar coverage, all high-capacity aircraft are required to use the Traffic Collision and Avoidance System, which will allow IFR aircraft to detect VFR aircraft in their path.<sup>35</sup> As stated by CASA:

... mandatory transponder requirements have effectively brought VFR operations, which have been transparent since Amats, back into the system. Now VFR aircraft in Class E will paint on the controller's display when in radar coverage and can be given as traffic.<sup>36</sup>

---

33 *Submission 28A*, p 5

34 *Submission 15*, p 4

35 *Submission 12*, p 12

36 *CASA Flight Safety Guide*, p 4

2.42 In its written submission, the AFAP argued that the expansion of class E airspace should have a beneficial effect on air safety because it has the capacity to provide IFR aircraft with radar observed traffic information about VFR aircraft.<sup>37</sup>

2.43 However, AFAP did raise concerns that the detection of VFR aircraft depends upon the operation of their transponders, and that some VFR operators are becoming complacent about the requirement to operate the transponder in all classes of airspace. Indeed, some aircraft operators failed to operate their transponders even during the early 1998 trial of class E airspace.<sup>38</sup>

2.44 A similar concern was expressed in the written submissions of AIPA, which noted that at the NSW RAPAC meeting held on 16 August 1999, CASA advised that many aircraft were still not continuously operating transponders.<sup>39</sup> On this basis, PATOG recommended that a check of transponders be made mandatory each time a plane is flown.<sup>40</sup>

#### *Class E and Uncontrolled Terminal Airspace*

2.45 The problems of see-and-avoid separations are most pronounced during operations in and around terminal airspace. Both the AFAP and PATOG noted in their written submissions that class E airspace does not extend down to the top of MBZs/Unicom around uncontrolled airports. Rather, class G airspace is interposed in between.<sup>41</sup>

2.46 The result is that the pilots of aircraft descending from class E airspace to land are required to make three broadcasts in short succession on the class E airspace frequency, the abutting class G airspace frequency, and the MBZ/Unicom frequency, to ensure that VFR aircraft are alerted to their presence. This can lead to loss of communication due to over-transmission and high cockpit workload.<sup>42</sup> As stated by PATOG:

A typical scenario under the current proposal would require a crew to, while operating on the Radar E frequency, make a broadcast on the Class G frequency that they are about to enter, and then make a broadcast on the MBZ frequency which they will enter shortly thereafter. Since most aircraft do not carry 3 radios, the crew is forced into making broadcasts later than desirable.<sup>43</sup>

---

37 *Submission 26, p 2*

38 *Submission 26, p 2*

39 *Submission 15, p 6*

40 *Submission 12, p 12*

41 *Submission 12, pp 13-14. Submission 26, p 2*

42 *Submission 26, p 2*

43 *Submission 12, p 13*

2.47 Equally, the Coffs Harbour City Council noted that:

The Class E trial also highlighted the additional workload placed on aircrews in having to deal with additional radio broadcasts. This is being further exacerbated by increased radio traffic making it more difficult to get position reports out of other aircraft in the time available. This is expected to happen at the busiest time for aircrew, as they are setting up to land.<sup>44</sup>

2.48 In its written submission advocating the adoption of AFIS in preference to MBZs/Unicom, the CPSU argued for the AFIS to be extended up to the bottom of the class E airspace, thereby eliminating intervening class G airspace.<sup>45</sup>

2.49 Given these concerns, the Committee understands that under the Lower Level Airspace Plan to be adopted by mid-2002, a number of uncontrolled terminal areas currently designated as MBZs will be linked with the overlying controlled airspace, removing the intervening class G airspace.

### **The Operation of Class C and D Airspace**

2.50 The implementation of classes C and D airspace appears to have been widely accepted across the industry. In their written submission to the inquiry, AFAP noted that with regard to class C and D airspace:

These changes seem to be functioning satisfactorily and can be considered safety neutral.<sup>46</sup>

2.51 PATOG argued in its written submission that the distinction between class C and class D tower airspace (ie. radar and non-radar control towers) was essentially a wasted concept, given that 'they cost exactly the same until traffic levels become very high'. Nevertheless, PATOG acknowledged Civil Air's support for the class D concept, and accordingly supported the retention of class D airspace.<sup>47</sup>

---

44 *Submission 18*, p 2

45 *Submission 28*, attachment B

46 *Submission 26*, p 1

47 *Submission 12*, pp 11-12

# **CHAPTER THREE**

## **COMPETITION POLICY**

### **Introduction**

3.1 This chapter initially provides a background on the application of competition policy to services provided by Airservices Australia, and examines the requirements of the Net Community Benefit Test, which is designed to ensure that the application of competition policy by government agencies, including Airservices Australia, is in the community's interest.

3.2 Secondly, the chapter examines the moves by the Government, blocked in the Senate, to apply competition policy in the provision of ATC services. It also examines the application of competition policy to the provision of CAGRO services, and the proposed application of competition policy to ATC training. In addition, it considers the process of market contestability being applied to Airservices Australia's internal support services.

3.3 Finally, the chapter examines two issues raised with the Committee as examples of the adverse effects of competition policy when misapplied. They are the perceived reduction in the provision of ATC services at general aviation (GA) airports (that is, secondary major city airports) and regional airports, and the perceived reduction in safety standards in the provision of ARFF services to BAe – 146 aircraft.

### **National Competition Policy and the Net Community Benefit Test**

3.4 National Competition Policy was instituted under three inter-governmental agreements between the Commonwealth, States and Territories in April 1995 with the objective to 'review and, where appropriate, reform all laws which restrict competition, and to ensure that any new restrictions provide a net community benefit'.<sup>1</sup> However, an important rider to this objective is described by the Productivity Commission as follows:

(NCP) aims not only to facilitate effective competition to promote economic efficiency, but also to accommodate situations where competition conflicts with social objectives.<sup>2</sup>

3.5 To assess the impact of competition policy on social objectives, the National Competition Council has developed a mechanism for assessing whether reform is in the interests of the community as a whole. This is the net community benefit test. The

---

1 NCP Second Tranche Assessment, p 45

2 *ibid*, p xxviii

net community benefit test is based on the assumption that competition is of benefit to the public. Importantly however, it acknowledges that restrictions on competition may be necessary if there are demonstrated benefits to the community as a whole. This is set out in Box 3.1 below.

*Box 3.1 Net Community Benefit Test under NCP<sup>3</sup>*

Under clause 1(3) of the Competition Principles Agreement, governments should take into account the following factors when assessing the merits, or appropriateness, of reforms:

- . government legislation and policies relating to ecologically sustainable development;
- . social welfare and equity considerations, including community service obligations;
- . government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity;
- . economic and regional development, including employment and investment growth;
- . the interests of consumers generally or of a class of consumers;
- . the competitiveness of Australian businesses; and
- . the efficient allocation of resources.

The list is non-exhaustive, meaning that any other relevant matter may also be considered when assessing the case for competition reform.

3.6 In its written submission, the CPSU argued that there is general confusion in the community and government in interpreting the net community benefit test and identifying the public benefit and community service obligations applying to it. In this regard, the CPSU highlighted the August 1999 findings of the Interim Report of the Senate Select Committee on the Socio-Economic Consequences of the National Competition Policy:

The Committee has found that there is general confusion over what constitutes the 'public interest'. This confusion then translates to confusion on how to apply the 'public interest' test.

3.7 By comparison, Airservices Australia indicated that it is aware of its obligations under the community benefit test. As stated, 'great care must be exercised in implementing competitive forces lest the adverse impact on regions and isolated communities overwhelm the efficiency gains'.<sup>4</sup>

---

3 NCP Second Tranche Assessment Report, 30 June 1999, p 47

4 Submission 24, p 5



## The Application of National Competition Policy by Airservices Australia

3.8 On 8 March 1999, the Senate disallowed regulations moved by the Government amending the *Civil Aviation Act 1988*, as contained in Statutory Rules 1998 No. 234, on the basis that they allowed for ATC services to be provided by organisations other than Airservices Australia. As stated by Senator Mackay in the chamber:

What we should be saying to the government is: if you want to privatise these services, come back into this place and put your specific plans on the table. You tell us exactly what you are planning to do, what the government's timetable is, what the standards will be, what guarantees there are that prices for services by private providers will be regulated, what the impact on aviation costs will be and how the government is ultimately going to go about it.<sup>5</sup>

3.9 In response, on 23 March 1999, the Minister for Transport and Regional Services, the Hon. John Anderson MP, released *A Measured Approach to Aviation Safety Reform*, which set out in detail the Commonwealth Government's proposals for applying national competition policy to airspace management in Australia. In his accompanying media statement, Mr Anderson stressed that the Government 'does not intend to privatise Airservices Australia', but went on to comment:

We do, however, intend to introduce some measured competition in some areas of operation and to corporatise the organisation as a Government Business Enterprise. Its remaining regulatory responsibilities, with the exception of airspace management, will be transferred to other portfolio bodies.<sup>6</sup>

3.10 To facilitate the application of national competition policy to airspace management, *A Measured Approach to Aviation Safety Reform* directed CASA to establish by 30 June 2000 a regulatory framework for the provision of ATC and ARFF services.<sup>7</sup> This framework is yet to be completed.<sup>8</sup>

### *The Application of Competition Policy to Air Traffic Control Services*

3.11 In its written submission, Civil Air argued that the standard of ATC service provided by Airservices Australia means that there is little case for its privatisation:

- a) In 1999, Airservices Australia won the International Air Transport Association "Eagle Award" as the world's best ATC service provider.

---

5 *Senate Hansard*, 8 March 1999, p 2354

6 The Hon John Anderson MP, 'A Measured Approach to Aviation Safety Reform', 23 March 1999, at [http://www.dotrs.gov.au/media/anders/archive/1999/nov\\_99/a164\\_99.htm](http://www.dotrs.gov.au/media/anders/archive/1999/nov_99/a164_99.htm)

7 The Hon John Anderson MP, 'A Measured Approach to Aviation Safety Reform', 23 March 1999, at [http://www.dotrs.gov.au/media/anders/archive/1999/nov\\_99/a164\\_99.htm](http://www.dotrs.gov.au/media/anders/archive/1999/nov_99/a164_99.htm)

8 Airservices Australia, Response to Questions on Notice, 9 March 2001

- b) A recent benchmarking study by the Civil Air Navigation Service Organisation found that Australia's air traffic procedures were among the best in the world, with costs per movement well below international standards and close to world's best practice.

3.12 In addition, various submissions also opposed the contracting out of ATC services on the basis that the service would remain a monopoly, and would simply transfer the income stream from one monopoly provider to another. As stated by Mr Mulherin (private written submission):

The introduction of competition for [ATC] services is not feasible because there is no real market. An airline can not choose to buy its air traffic control from one service provider one day, or another one the next.<sup>9</sup>

3.13 Similarly, the AIPA argued in its written submission that:

... enabling [air traffic control] services to be privatised involves a major change from a monopoly provider promulgated on safety to many providers based on commercial requirement.<sup>10</sup>

3.14 However by contrast, Mr Ward, Ms Hennessy and Mr Tippet representing Bankstown Airport Users argued that the lack of competition in the provision of TN services 'removes any incentive for them [Airservices Australia] to be more efficient and cost effective'. 'If competition were introduced, the overheads of a private operator would be tightly controlled resulting in greatly reduced cost'.<sup>11</sup>

3.15 The Committee agrees with those witnesses who argued that privatisation of ATC services would simply transfer the income stream from airport operations from one monopoly provider to another.

#### *The Application of Competition Policy to CAGRO Services*

3.16 On 27 March 2000, CASA released a Notice of Proposed Rule Making (NPRM) 0006AS, setting out standards for the contracting out of CAGRO services within Australia, and indicating that both Uluru Airport and Broome International Airport had been classified as suitable for CAGRO services. Responses were sought by 12 May 2000.<sup>12</sup>

3.17 In its response to NPRM 0006AS, Civil Air argued that CAGRO services constitute an ATC service under the definition of Annex 11 of the Chicago Convention, the ICAO document used as the basis of Australia's ATC service provision. As discussed above, the Senate has previously moved to prohibit

---

9 Submission 11, p 5

10 Submission 15, p 9

11 Submission 6, p 6

12 Submission 20B, pp 1-2

organisations other than Airservices Australia from providing ATC services in Australia. Annex 11 of the Chicago Convention defines:

Air Traffic Control Services as:

A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Flight Information Services as:

A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Alerting Services as:

A service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required.

Air Traffic Advisory Services as:

A service provided within advisory airspace to ensure separation, in so far as practical between aircraft which are operating on IFR flight plans.

3.18 Similar to Civil Air, the CPSU also argued in its written submission that the service provided by Ambidji at Uluru Airport constitutes an ATC service, placing CASA in breach of its own act.

3.19 In support of this argument, the CPSU cited the Aeronautical Information Publication Supplement H48/99, dated 9 September 1999, which set out the arrangement for Ambidji's provision of a CAGRO service at Uluru airport. Paragraph 3.1 of the Supplement indicates that Ambidji is to provide an "advisory" air traffic service. This is defined at paragraph 5.1(e) of the Supplement, which states that 'on request by a pilot, or when the operator considers it prudent, a course of action may be suggested by the operator'.<sup>13</sup> As stated by Mr O'Connell from the CPSU in hearings:

The service as described in CASA's own publications is clearly an air traffic service and a flight advisory service within the meaning of annex 11 of the Chicago convention, the ICAO document used as the basis for Australia's air traffic service provisions. In our view, Airservice's refusal to provide such a service flies in the face of Airservice's legislative responsibility to make all decisions on the basis of safety first.<sup>14</sup>

3.20 Mr Waters subsequently indicated in hearings that since raising its concerns in relation to the CAGRO service at Uluru Airport, the CPSU has received

---

13 Submission 28, p 13

14 Evidence, RRAT, 1 May 2000, p 23

correspondence from both Mr Toller and the Minister indicating that they do not consider the CAGRO service at Uluru airport to constitute an ATC service.<sup>15</sup>

3.21 The CPSU has subsequently obtained legal advice which it claimed indicates that the service provided at Uluru does fall within the definition of an air traffic service, and as such should be provided ATCs with Airservices Australia.<sup>16</sup>

3.22 Given these conflicting arguments, the Committee notes that a CAGRO service is currently operated in Australia at Uluru airport during scheduled airline operations, and at Janderkot after the close of the tower each day for approximately two hours. Airservices Australia also informed the Committee that a CAGRO service will commence soon at Broome International Airport.<sup>17</sup>

#### *The Application of Competition Policy to Air Traffic Control Training*

3.23 During debate in the House of Representatives on 17 February 1999 on the application of competition policy to services currently provided by Airservices Australia, the Minister for Transport and Regional Services indicated that there is the potential to expand the provision of ATC training for international students in Australia. In particular, the Minister nominated the UK-based Serco as a company that could provide an international training centre in Australia.<sup>18</sup>

3.24 In its written submission, Civil Air argued that Airservices Australia already operates an ATC Training College that has previously provided courses for international students. Indeed, with the commissioning of the TAAATS system, Airservices Australia is currently the world leader in using computerised ATC systems, and has the opportunity to export this expertise.<sup>19</sup>

#### *Contestability of Maintenance Services*

3.25 In addition to the Government's requirement for the application of national competition policy to ATC services, Airservices Australia has also sought to achieve increased contestability in the provision of its own internal support services.<sup>20</sup>

3.26 Accordingly, Airservices Australia has restructured into two groups: the Commercial Operations Group and the Operational Support Group. The Commercial Operations Group is split into three major business centres and the Terminal Operations Group, which is currently responsible for the running of all towers in Australia with the exception of Unicom style operations. The Operational Support

---

15 Evidence, RRAT, 1 May 2000, p 25

16 Evidence, RRAT, 1 May 2000, p 25

17 Airservices Australia, Response to Questions on Notice, 16 March 2001

18 House Hansard, 17 February 1999

19 Submission 20, pp 17-18

20 Evidence, RRAT, 1 May 2000, p 5

Group is responsible for the provision of maintenance and installation of aircraft navigation aids used by the Commercial Operations Group.<sup>21</sup>

3.27 In its written submission, Airservices Australia stated its intention to apply a process of contestability to its Operational Support Group functions such as installation and maintenance of navigation aids, payroll, financial services and so forth from 1 July 2000:

However, it must be understood that strict criteria will apply to ensure that support services critical to the delivery of Airservice's core business, the provision of safe air traffic management, will not be contracted out if loss of control compromises the organisation's ability to comply with safety standards and regulations.<sup>22</sup>

3.28 Airservices Australia did not meet its implementation date of 1 July 2000, but has since indicated to the Committee that it is currently preparing a proposal for the application of contestability to internal support services which will be issued shortly.<sup>23</sup>

3.29 In response to the possible contracting out of Operation Support Group functions, Civil Air noted in its written submission that Airservices Australia's technical staff, through in-house training, have built up an 'unsurpassed knowledge' of the radar, radio and aircraft navigation aids maintained by Airservices Australia. In addition, they are aware of the organisation's 'safety culture'. Accordingly, Civil Air argued that contracting out of air support services would lead to a reduction of safety due to a loss of knowledge, skills and culture.<sup>24</sup>

3.30 Similarly, the CPSU argued in its written submission that the contracting out of Operational Support Group functions will lead to the breaking down of the integrated "national airways system" through variations in procedures and practices between providers. In turn this would lead to lower levels of safety and increased costs through the potential for unsafe procedures and practices:

The contracting out and privatisation proposals do not increase competition through the provision of alternative systems. They increase the pressure and likelihood of breakdown by imposing multiple procedures and operators on a single system.<sup>25</sup>

3.31 Mr Waters from the CPSU also presented this evidence in hearings on 1 May 2000, noting that the new structure of Airservices Australia has led to significant breakdowns in management communication within the organisation:

---

21 Evidence, RRAT, 1 May 2000, p 5, see also Evidence, RRAT, 1 May 2000, p 57

22 Submission 24, p 5

23 Airservices Australia, Response to Questions on Notice, 9 March 2001

24 Submission 20, pp 18-19

25 Submission 28, pp 24-25

The levels of tension within the organisation are palpable because the whole organisation, with the exception of TAAATS, has basically been told that it is subject to competition or contracting out. People are worried about their futures and their jobs. That flows right from most senior management levels down through the organisation. The structure is damaging to the organisational health of Airservices.<sup>26</sup>

3.32 Nevertheless, were contracting out of support services to proceed, the CPSU advocated that it should be done on a national or organisation wide basis, thereby maintaining the integrity of the “national airways system”.<sup>27</sup> In this regard, the CPSU indicated that it is not aware that CASA has developed any regime for regulating contestability of Airservices Australia’s maintenance services.<sup>28</sup>

### **Competition Policy and the Provision of Services to GA and Regional Airports**

3.33 The Committee notes that Airservices Australia is currently undertaking cost-benefit analysis of the provision of TN services at individual GA and regional towered airports such as Coffs Harbour and Archerfield. In turn, the results of this process are the subject of consultation with airport users and other stakeholders.<sup>29</sup> When questioned in hearings about the process undertaken by Airservices Australia in conducting a cost-benefit analysis, Mr Smith from Airservices Australia stated:

The cost-benefit analysis does not in itself take into account the economic impact on the local community. ... The process is such that once the cost-benefit analysis is completed that gives us an indication of whether we ought to proceed with withdrawal or otherwise. Then we go out into a further consultation process, because the cost-benefit analysis in itself needs some input from local stakeholders.<sup>30</sup>

3.34 In its written submission, Civil Air argued that Airservices Australia’s income from the provision of TN services is currently insufficient to cover costs at most of the GA airports, and probably some of the regional airports. GA airports in particular are likely to be unprofitable because although they service a large number of aircraft, the weight of those aircraft is generally low.<sup>31</sup>

3.35 As a result, Civil Air argued that Airservices Australia are only providing ‘affordable safety’ at GA and regional airports. For example, Civil Air noted that Airservices Australia recently proposed that tower hours at Bankstown Airport, Australia’s busiest airport with multiple parallel runways, be restricted to eight a day. Although this proposal has not been implemented, Civil Air notes that at other GA

---

26 Evidence, RRAT, 1 May 2000, pp 27-28

27 Submission 28, p 25

28 Submission 28, p 26

29 Evidence, RRAT, 1 May 2000, pp 64-65

30 Evidence, RRAT, 1 May 2000, p 63

31 Submission 20, pp 20-21

airports such as Moorabbin in Melbourne and Jandakot in Perth, hours have been reduced, although traffic levels outside of operating hours remain unchanged.<sup>32</sup>

3.36 At present, the shortfall in GA and regional airport funding is being partly covered by an \$11 million subsidy provided by the Commonwealth Government (see Chapter Four). However, as part of the provision of competition in ATC, Airservices Australia has indicated that loss making GA and regional ATC towers may be transferred to other operators.

3.37 The CPSU argued that this would adversely affect the interests of local communities, which would face the option of either a lower standard of ATC and reduced safety, or ‘pay for themselves the public benefit of maintaining a safe aviation system.’ Accordingly, the CPSU argued for a review of the public benefit and community service obligations of Airservices Australia, consistent with the net community benefit test.<sup>33</sup>

3.38 Similarly, Civil Air argued in its written submission that Airservices Australia has placed too much emphasis on recouping costs from aviation operators, and has not taken into account the broader benefits of ATC services at an airport. Accordingly, Civil Air argued that the Government should provide a community service obligation subsidy to certain airports.<sup>34</sup>

3.39 Alternatively, Civil Air advocated that the current prohibition of cross subsidy of GA and regional airports by more profitable airports be lifted:

Cross-subsidy within Airservices Australia would mean that an Air Traffic Control service is provided at a proper standard and level of availability at all locations where an Air Traffic Control service is required, due to traffic levels, at no cost to the Government.<sup>35</sup>

3.40 The Committee notes that there are essential community benefits from ensuring that proper ATC services are maintained at GA and regional airports. The most cost-effective way of doing this is to allow for appropriate cross subsidisation.

### **Competition Policy and Air Safety**

3.41 In its written submission, Airservices Australia indicated to the Committee that its primary consideration in the application of competition policy is the maintenance of air safety:

---

32 Submission 20, p 21, Submission 20B, p 1

33 Submission 20, p 28

34 Submission 20, p 16

35 Submission 20, p 23

Airservices philosophically supports the application of competition policy to the service it provides, but only in circumstances where safety is not compromised.<sup>36</sup>

3.42 In hearings, Senator Woodley raised a concern held both within the community and Commonwealth Parliament that competition policy, by definition, interferes with the maintenance of air safety. In response, Mr Smith from Airservices Australia indicated that the Board of Airservices Australia does not see the two as conflicting, but that maintaining air safety is of paramount importance to the Board.<sup>37</sup>

3.43 However, in its written submission and during hearings, the United Firefighters Union of Australia (UFUA) cited the decision by Airservices Australia to re-categorise the BAe 146 – 200 series from category 6 to category 5 when flying into regional airports as an example of reduced safety standards. Category 6 aircraft require the provision of two fire engines, one officer and four fire fighters. By contrast, category 5 aircraft only require the provision of one fire engine, one fire officer and two fire fighters.<sup>38</sup>

3.44 The categorisation of aircraft under ICAO standards is based on the aircraft's length and width. Accordingly, the BAe 146, 200 series falls clearly within category 6, although the BAe 146, 100 series, which is only 0.6 metres shorter, falls into category 5. Mr Griggs argued in hearings that the categorisation of the BAe 146 aircraft has been determined by Airservices Australia according to the destination of the aircraft – whether it is a domestic or international airport.<sup>39</sup>

3.45 In response, Mr Roberts from Airservices Australia indicated in hearings that the categorisation of BAe 146 – 200 series aircraft is not determined according to whether the destination is an international or domestic airport. Hobart airport is being upgraded to category 7 simply because it is required to service regular 767 size aircraft.<sup>40</sup> However, this does not explain the downgrade in the provision of services at an airport such as Launceston to category 5, even though it services BAe 146 – 200 series aircraft.

3.46 The Committee finds the analysis of the reasons given for the re-categorisation of the BAe-146 – 200 series aircraft by the UFUA convincing.

---

36 Submission 24, p 5

37 Evidence, RRAT, 1 May 2000, p 8

38 Evidence, RRAT, 1 May 2000, p 13. See also Submission 22, p 5.

39 Evidence, RRAT, 1 May 2000, pp 18-19

40 Evidence, RRAT, 1 May 2000, p 69



## CHAPTER FOUR

### LOCATION SPECIFIC PRICING

#### Introduction

4.1 This chapter initially examines the implementation of LSP by Airservices Australia, and contrasts LSP with the previous system of average network pricing. Airservices Australia's decision to implement LSP reflects a number of factors, including the adoption of national competition policy and decisions of the High Court on the legality of network pricing.

4.2 Secondly, the chapter examines the impact of LSP on the delivery of services by Airservices Australia. LSP was adopted in the delivery of ARFF services in July 1997 and in the delivery of TN services in July 1998. The application of LSP to the delivery of TN services has raised particular issues relating to air training schools and invoicing.

4.3 Finally, the chapter examines the impact of LSP on the operation of certain airports, notably GA and regional airports, which have generally been required to levy higher charges under LSP than the major international and domestic airports. It also examines claims that the pricing by Airservices Australia of its services is inaccurate and inequitable.

#### The Implementation of Location Specific Pricing

4.4 As indicated in Chapter One, the application by Airservices Australia of LSP was foreshadowed in *A Plan for the Future Management of Australian Airspace*. It was subsequently adopted in September 1996, with the publication of the *Airways Service Costs* discussion paper.<sup>1</sup>

4.5 In its written submission, Airservices Australia indicated that its support for LSP reflects various considerations, including the 1993 Hilmer report on National Competition Policy, and the general approach advocated by the Australian Competition and Consumer Commission to the pricing of monopolistic services. In addition, in *Airservices Australia v Monarch Airlines Ltd* (Compass litigation) of 18 February 1998, the High Court effectively ruled that charges imposed by Airservices Australia on an average network basis are invalid, on the grounds that they effectively amounted to taxation.<sup>2</sup>

---

1 Submission 24, p 7

2 Submission 24, pp 6-7

4.6 That position has subsequently been reversed by the High Court on appeal in *Airservices Australia v Canadian Airlines International* handed down in December 1999. Decisions handed down at the same time were *Airservices Australia v Monarch Airlines Ltd* and *Airservices Australia v Polaris Holding Company*, which raised the same issues and were heard concurrently. The High Court ruled that Airservices Australia is entitled to use network pricing on the basis that its charges are not in the nature of taxation.<sup>3</sup>

4.7 In hearings, Senator O'Brien suggested that the decision taken in 1996 to pursue LSP was influenced by the Compass litigation, and the possibility that network pricing would be found illegal. The alternative option of modifying the existing scheme of network pricing, which could potentially have been more favourable to small operators, was not considered because it was not believed that network pricing would be found legal. This subsequently proved not to be the case.<sup>4</sup>

4.8 Notwithstanding the legal decisions of the High Court, Mr Smith indicated in hearings that Airservices Australia continues to favour LSP over network pricing. Significantly, Mr Smith argued that this is not because Airservices Australia has been directed by the government to implement LSP, but because Airservices Australia finds it 'a better way to work':

Using a contractual process means that we have the opportunity to determine what the customers want, get their input to it and have an agreement, finally, that suits both parties.<sup>5</sup>

4.9 Importantly, the beneficiaries of lower prices from the implementation of LSP have been the large domestic and international airlines operating out of the major international airports. By contrast, higher prices at GA and regional airports have been borne by regional and rural airlines. This is examined in the following sections on the implementation of LSP of ARFF and TN services.

### **Location Specific Pricing of Aviation Rescue and Firefighting Services**

4.10 Following the release of the *Airway Service Costs* in September 1996, LSP of ARFF services in Australia was introduced in July 1997. In its written submission, Airservices Australia noted that prior to July 1997, ARFF costs were recovered through an average network charge of \$1.80 per tonne. Following the introduction of LSP, prices at the large international airports dropped considerably (the low in 1997 was \$0.69 per tonne at Sydney), while prices at regional airports increased considerably (the high in 1997 was \$15.59 per ton at Port Hedland).<sup>6</sup>

---

3 Evidence, RRAT, 1 May 2000, p 3. See also Australian Government Solicitor, Legal Briefing No 53, 14 December 1999

4 Evidence, RRAT, 1 May 2000, p 60

5 Evidence, RRAT, 1 May 2000, p 8

6 Submission 24, p 7, Attachment B

4.11 The Committee notes that in early 2000, Airservices published revised charges for facilities and services to apply from 1 July 2000. Under the revised contract, the cost of provision of ARFF services ranges from lows of \$0.64 per tonne at Sydney Airport and \$1.02 per tonne at Melbourne Airport to highs of \$12.02 per tonne at Karratha Airport and \$17.14 per tonne at Port Hedland Airport.

4.12 In hearings, Mr Griggs from UFUA argued that with the increase in the cost of ARFF services at GA and regional airports, there is pressure to reduce the provision of ARFF services. However, any such reductions would follow already significant declines in the availability of ARFF services at rural and regional airports over the past 20 years.<sup>7</sup>

4.13 Prior to 1985, ARFF services were mandatory at all commercial airports in Australia which processed 150,000 passengers or more a year, and all secondary airports which processed 200,000 passengers or more a year. However, in 1985, the requirement for ARFF services at secondary airports processing 200,000 passengers or more a year was removed, resulting in a decline in the number of airports with ARFF services from 27 to 18.<sup>8</sup> Airports that lost ARFF services included Maroochydore, Parafield, Archfield and Bankstown, which is the busiest airport in Australia. With regard to Bankstown, Mr Felton stated in hearings:

There are an awful lot of 12-seaters and light commercial aircraft that operate out of that airport, and I would suggest that well over a million people each year fly in and out of that airport, without any doubt whatsoever. But there is no fire service provided because of government decisions over the years that continually removed them and reduced them in the name of cost benefits.<sup>9</sup>

4.14 Today, on site ARFF services are provided at 16 Australian airports. Airservices Australia requires that ARFF services be available to cover 90 per cent of all passengers handled throughout Australia. However, because an increasing proportion of traffic is handled through Sydney, Melbourne and Brisbane, this raises the possibility of further reduction in the provision of ARFF services.<sup>10</sup>

4.15 The Committee notes in this regard that in the UK, every airport that has a commercial passenger flight must have a rescue and fire fighting service. In the US, firefighting services are soon to be available at every airport that services aircraft with a capacity of over 12 passengers.<sup>11</sup>

---

7 Submission 28, pp 31-32

8 Submission 22, p 3

9 Evidence, RRAT, 1 May 2000, p 12

10 Submission 22, p 4

11 Submission 22, p 6

4.16 Given the decline in the provision of ARFF services across Australia over the last two decades, Mr Griggs from the UFUA expressed reservations in hearings at any further reductions in ARFF services. Currently, airports that do not have an ARFF service rely on the local fire brigade to respond if there is an emergency. However, Mr Griggs argued that this is unsatisfactory if lives are to be saved:

ICAO, the International Civil Aviation Organisation, demands that a fire service at an airport has to respond and be at any part of the airport within three minutes, absolute maximum. The reason for that is because an aircraft is a firefighter's nightmare. It is an aluminium tube which burns quickly and breaks up easily; it is cramm packed with 100 people all sitting in tiny little seats with the very minimum of exits and surrounded by fuel.<sup>12</sup>

4.17 In this regard, the UFUA noted in its written submission that over the last 10 years there have been over 2,800 aircraft accidents or incidents in Australia, with over 14 per cent involving commercial aircraft. This represents about 40 commercial incidents a year.<sup>13</sup> At the 16 airports where ARFF services are provided, ARFF officers have turned out on over 3,000 occasions in the 12 months to May 2000.<sup>14</sup>

4.18 To improve the provision of ARFF services at Australian airports, UFUA argued in its written submission that some element of network pricing be reintroduced through a \$1 surcharge on the price of a ticket:

If it was a government regulation that, for example, all tickets included \$1 per passenger per flight, you would be able to provide a fire service in every major airport in Australia—and I mean major rural airports like Mackay and places like that—without any troubles at all. Places like Albury would be able to afford a fire service. .... That could all be achieved very easily, but the regulations do not allow that as they stand today.<sup>15</sup>

4.19 At the same time, the UFUA recognised that it would be exorbitantly expensive to provide ARFF services at all 120 or so airports across Australia. Even if Australia were to follow the standard in the USA, where a fire service is provided at every airport which services aircraft carrying 30 or more passengers, up to 90 airports would require ARFF services.<sup>16</sup>

### **Location Specific Pricing of Terminal Navigation Services**

4.20 Airservices Australia introduced LSP of TN services in July 1998. Prior to that, TN services were funded through two means. First, avgas (gasoline) powered aircraft paid an excise on each litre of fuel – the so-called avgas levy (set at 16.3 cents

---

12 Evidence, RRAT, 1 May 2000, p 13

13 Submission 22, p 6

14 Evidence, RRAT, 1 May 2000, p 16

15 Evidence, RRAT, 1 May 2000, p 18

16 Evidence, RRAT, 1 May 2000, p 17

per litre). Second, turbine powered aircraft paid an average network levy set at \$5.19 per tonne.<sup>17</sup>

4.21 In July 1998, the avgas levy, which previously raised \$14 million a year, was removed, and avgas powered aircraft were treated similarly to turbine powered aircraft. The previous average network charge of \$5.19 for turbine powered aircraft was replaced with charges ranging from \$3.65 to \$8.61 per tonne for aircraft greater than 5.7 tonnes.

4.22 As an interim arrangement for aircraft less than 5.7 tonnes, Airservices Australia implemented a cap on charges at \$6.75 per tonne. This cap was primarily funded by a government subsidy of \$11 million in 1998/99 and 1999/00. Airservices Australia also reduced its profit target over the transition period to 2001.<sup>18</sup>

4.23 Under the revised charges for facilities and services applying from 1 July 2000, the cap on TN services was increased to \$7.42, partly reflecting the GST and the reduction in the government subsidy to \$7 million in 2000/01. The rate at Uluru Airport only increased to \$7.15, reflecting the profitability of the airport.<sup>19</sup>

4.24 In its written submission, Airservices Australia argued that the removal of the avgas levy has benefited operators of avgas powered aircraft. Airservices Australia cited estimates that the avgas levy raised \$14 million per annum in revenue, whereas under the revised arrangements, operators of avgas powered aircraft pay only \$5 million for the delivery of the same services. In addition, the interim cap of \$6.75 per tonne has benefited operators of avgas powered aircraft.<sup>20</sup>

4.25 However, the Committee also received evidence that the increase in the cost of TN services for avgas powered aircraft from \$5.19 per tonne to \$6.75 per tonne has exceeded the reduction in costs associated with the removal of the avgas levy for some operators. This is because the cost of providing TN services is levied only on operators at towered airports, in lieu of all aircraft operations (avgas levy) across Australia.<sup>21</sup>

4.26 For example, the SA Minister for Transport and Urban Planning, the Hon Ms Laidlaw MLC cited a regional airline operating between Adelaide and Kingscote. Previously it paid an air traffic service charge of \$25.10 per round trip through the avgas levy. Under the \$6.75 cap, it must pay \$39.27 per round trip, which amounts to an additional cost of \$52,000 on an annual turnover of \$3 million.<sup>22</sup>

---

17 Submission 24, p 6

18 Submission 24, pp 7-8

19 Airservices Australia, *Charges for Facilities and Services: Standard Contact Terms 1 July 2000*, pp 4-5

20 Submission 24, p 8

21 Submission 7, p 3

22 Submission 28, p 3

### *Air Training Schools*

4.27 The Committee became aware during hearings that air training schools have been particularly affected by the revised arrangements for the provision of TN services. By its nature, air training requires frequent take off and landing – so-called “touch and go” practice. Accordingly, air training schools, operating small avgas powered aircraft, are heavy users of TN services at GA airports.

4.28 As LSP was originally implemented, air training schools attracted a separate landing charge for each “touch and go”. However, in January 1999, Airservices Australia implemented revised LSP arrangements under which a single landing charge would be levied for each session of circuits, as opposed to each “touch and go”, at all airports excluding Sydney, Melbourne, Perth, Adelaide and Brisbane.<sup>23</sup>

4.29 Despite this measure, air training schools have faced considerably higher costs since the introduction of LSP for TN services. The following table compares the decrease in the avgas levy with the increase in cost for TN service for a range of popular small training aircraft.

**Table 1: Changes in TN and Avgas Costs under LSP**

Type	Weight	Fuel Use (Litres/Kg)	Reduction in Fuel Excise	Landing Costs @ \$6.75	Total Price Increase
C152	757	23	\$3.00	\$5.10	\$2.10
C172	1089	34	\$4.40	\$7.35	\$2.95
MO2J	1250	41	\$5.35	\$8.44	\$3.09
PN68	1960	84	\$10.90	\$13.23	\$2.33
C310	2500	108	\$14.05	\$16.88	\$2.83

4.30 Given the increased costs faced by the air-training industry, the Royal Aero Club of WA stated in its written submission:

... international aviation training, which has been developed into a major export earner for Western Australia, is tumbling over the edge of visibility as a result of location specific charging, privatisation costs and other cost-price squeezes.<sup>24</sup>

4.31 Similarly, in their written submission, Mr Ward, Ms Hennessy and Mr Tippet representing the Bankstown Airport Users Group argued that since the introduction of LSP, the level of flying training activity has dropped noticeably at Bankstown. They also cited anecdotal evidence suggesting that a significant proportion of training

23 Submission 24, p 10

24 Submission 4, p 2

activity has been moved to non-towered airfields such as Hoxley Park airport, which does not have a control tower, and Camden airport, where the control tower is open for reduced hours each day.<sup>25</sup>

4.32 The Bankstown Airport Users Group also argued in its written submission that Airservices Australia failed adequately to consult with air training schools prior to the introduction of LSP of TN services. In particular, operators at Bankstown airport, the busiest airport in Australia, were not consulted. The only group consulted was British Aerospace at Tamworth, which it was argued is not representative of the air training industry. On this basis, the Bankstown Airport Users Group contended that the decision not to consult with the industry was a deliberate decision on behalf of Airservices Australia, in recognition of the impact of LSP on air training schools.<sup>26</sup>

4.33 In addition, the Hon Ms Laidlaw MLC also expressed concern in her written submission that following the removal of the government subsidy, the one charge for “touch and go” training may also be removed.<sup>27</sup>

### *Cost Invoicing*

4.34 A further concern arising from the implementation of LSP of TN services has been the paperwork involved in invoicing costs, where previously these overheads were met through the avgas levy. For example, in his written submission, Mr Candler from McGee Aerial Services noted that from July 1998 to June 1999, he received 38 invoices, of which 25 were incorrect. As he stated:

The cost to this business of reconciling aircraft flights with Airservices invoices is an unnecessary and unwelcome impost.<sup>28</sup>

4.35 Similarly, in their written submission, Mr Ward, Ms Hennessy and Mr Tippett representing Bankstown Airport Users argued that the invoicing system involves an error rate of 30-40 per cent, and that there is no means of verifying charges later on. As Mr Tippett stated during hearings:

I would suggest to you that any private enterprise that introduced a system that operated like this one does, that had not been bedded down prior to its introduction, would no longer be in business.<sup>29</sup>

4.36 Conversely, Mr O’Dea from Civil Air also questioned in hearings whether the levying of LSP of TN costs is economical for Airservices Australia, given the administrative overheads:

---

25 Submission 7, p 3. See also Evidence, RRAT, 1 May 2000, pp 46-47

26 Submission 7, p 2. See also Evidence, RRAT, 1 May 2000, p 45

27 Submission 25, p 4

28 Submission 2, p 1

29 Evidence, RRAT, 1 May 2000, p 43

It is fine if you are sending out a bill to 30 customers at Sydney who are all flying 747s and the bills are in terms of tens of millions of dollars per month. That is fine if your admin cost for that bill is somewhere between \$5 and \$12. If your admin costs for Airservices is somewhere between \$5 and \$12 and you are sending out a bill for \$6.75, it does not seem to make a great deal of sense.<sup>30</sup>

4.37 A further aspect of this problem is the high proportion of movements at GA and regional airports made with aircraft rented from clubs or flying schools, meaning that the owner or certificate of registration holders do not necessarily know what charges are incurred during the flight.<sup>31</sup> In his written submission, Mr Camage from Gosturn Pty Ltd also argued that it is inequitable that certificate of registration holders should be required to operate as ‘unpaid debt collectors of Airservice’s accounts’.<sup>32</sup>

4.38 Given these problems, Mr Camage proposed in his written submission that operators be billed at the time they request a service by talking to the tower or submit a flight plan, using their aviation reference number. However, he indicated that Airservices Australia has refused to use this method of invoicing on the basis that it does not have access to CASA held aviation reference numbers.<sup>33</sup>

4.39 In response to these problems, the Committee notes that Airservices Australia has implemented the option for invoicing only once every three months where the cumulative value of flights in a month does not exceed \$55.<sup>34</sup> In addition, Airservices Australia has also instituted a new Light Aircraft Option for Certificate of Registration Holders of small aircraft making less than 200 flights a year under which they may pay a one off annual charge for TN services.<sup>35</sup>

## **The Impact of Location Specific Pricing on Airport Operations**

### *General Aviation and Regional Airports*

4.40 The impact of LSP has been most keenly felt at towered GA and regional airports at which control services are provided. In particular, charges at GA airports have increase significantly, because they generally service a high number of avgas powered planes of only limited weight. This is despite the fact that the majority of GA airports with control services are not provided with ARFF services, only TN services. In its written submission, the Royal Aero Club of Western Australia stated:

Location specific charging, allegedly introduced to right the claimed inequity suffered by rural aviators who paid navigation charges through an

---

30 Evidence, RRAT, 1 May 2000, p 36

31 Submission 3, p 2, Submission 6, p 5

32 Submission 3, p 1

33 Submission 3, p 2

34 Airservices Australia, *Charges for Facilities and Services: Standard Contract Terms 1 July 2000*, p 20

35 Airservices Australia, *Light Aircraft Option Leaflet*, 2001



Avgas levy even though they seldom used the system has become a *bete noir* to those who have the misfortune to fly out of GA airports.<sup>36</sup>

4.41 Following the increase in costs at controlled GA and regional airports, the Committee received many submissions noting that aircraft had ceased to use these airports in favour of non-controlled airports. For example, Mr Edwards from the Coffs Harbour City Council indicated that since LSP was introduced, there has been a 30 per cent decline in GA traffic movements at Coffs Harbour airport on a tonnage basis.<sup>37</sup> Indeed in hearings, Mr Ward from the Bankstown Airport Users Group indicated that airports are now advertising on the basis that there are no landing fees at the airport.<sup>38</sup>

4.42 The increased use of non-tower airports raises safety concerns. In hearings, Mr O’Dea from Civil Air indicated that the *Air Safety Digest* has recently highlighted a number of incidents that have occurred at airports such as Camden outside of tower hours.<sup>39</sup> Similarly, PATOG stated in its written submission:

strict user-pays will encourage people to avoid services that contribute to the safe conduct of aviation operations both by themselves and others.

4.43 However, the Committee also received evidence from Mr Secomb (private capacity) arguing that the increased use of non-control airports would not reduce safety standards, as all pilots understand the see and avoid rules. Indeed, Mr Secomb advocated that many GA and regional control tower services should be removed, on the basis that they are not cost effective.<sup>40</sup>

4.44 In this regard, the Coffs Harbour City Council, operator of the Coffs Harbour Regional Airport, pointed to a “catch 22” situation whereby higher prices at regional airports would encourage operators to switch aircraft to other non-controlled airports. This reduction in traffic could possibly lead to the removal of the control tower, in turn promoting an increase in traffic (due to lower costs), an increase in risk, and the reinstatement of the control tower.<sup>41</sup>

### *Adelaide Airport*

4.45 The Committee received little evidence on the impact of LSP on larger international airports. The one exception was evidence provided by the Hon Ms Laidlaw, on the adverse effect of LSP on the competitive position of Adelaide Airport.

---

36 Submission 4, p 1

37 Evidence, RRAT, 1 May 2000, p 51

38 Evidence, RRAT, 1 May 2000, p 47

39 Evidence, RRAT, 1 May 2000, p 36

40 Submission 5, p 2

41 Submission 18, p 2

4.46 In her written submission, the Minister cited evidence that the cost to an operator of a Boeing 747 using the TN and ARFF services provided at Adelaide Airport in September 1999 was \$4,128, compared to \$2,241 at Brisbane, \$1,709 at Melbourne and \$1,843 at Sydney. The only higher charge at a major Australian airport was at Cairns (\$4,140).<sup>42</sup>

4.47 The Minister submitted that the fact that charges are more than double those in Sydney and Melbourne runs contrary to the Commonwealth Government's policy offering foreign airlines virtually unlimited access to airports other than Sydney, Melbourne, Brisbane and Perth. This policy is designed to reduce congestion at the primary gateways (notably Sydney) and facilitate regional development.<sup>43</sup>

### **Costing of Location Specific Prices**

4.48 In its written submission, Civil Air argued that VFR aircraft operating into controlled airports pay a charge that takes into account the cost of providing radio navigation aid (navaids) such as instrument landing systems. These navaids are expensive to operate and maintain, but are used primarily by IFR aircraft. The result is that the use of navaids by IFR aircraft is being subsidised at controlled airports by VFR aircraft.<sup>44</sup>

4.49 Mr O'Dea, representing Civil Air, substantiated this argument in hearings. Mr O'Dea presented a paper analysing the provision of services and pricing of GA services by Airservices Australia. This analysis was presented in response to the paper released by Airservices Australia entitled *Airway Service Costs – Discussion Paper* (ASCDP).

4.50 Mr O'Dea indicated in his paper that the cost of systems such as radar, satellites, corporate finance and TAAATS is allocated by Airservices Australia to airports, including GA and regional airports, on an average basis across the board. However, Mr O'Dea argued that the cost of maintaining these systems at GA or regional airports should not be added to their bottom line. This is because such costs are necessary to cater for international and domestic airlines, regardless of what happens with GA and regional airports.

4.51 As an example, Mr Bramich from Civil Air cited the case of Cairns airport, which has approximately 20 technical staff. While those staff are responsible for maintenance at Cairns Airport, they also service radar installations on the surrounding tablelands which are necessary for en-route services into Brisbane.<sup>45</sup> As Mr O'Dea stated in hearings:

---

42 Submission 25, p 2

43 Submission 25, p 2

44 Submission 20B, pp 2-3

45 Evidence, RRAT, 1 May 2000, p 40

... I am suggesting that some of the people have tried to set up a system whereby they would price those services as if they were running the services as an individual business, and that is simply not the case. Those services can be run much cheaper as part of a large Airservices Australia. ... There are huge economies of scale that mean the cost of providing services at Archerfield, Camden, Bankstown, Parafield, Tamworth and Albury are significantly reduced when they are calculated accurately inside a large organisation with economies of scale rather than separating them and duplicating all the associated fixed costs.<sup>46</sup>

4.52 On this basis, Mr O'Dea argued that the only costs that should be allocated to the GA and regional airports are incremental costs relating to the provision of services exclusively at that airport.<sup>47</sup> As an example, Mr O'Dea cited the example of Camden airport in his paper. The ASCDP estimated that the average cost of running Camden airport is \$1.17 million, however Mr O'Dea argued that the incremental cost of running Camden is only \$0.355 million.<sup>48</sup> In evidence before the Committee, Mr O'Dea reiterated his belief that service level agreements at individual airports inflate prices by 300 or 400 per cent.<sup>49</sup>

4.53 To increase the accuracy and public confidence in costing of services provided by Airservices Australia, Mr O'Dea recommended that responsibility for costing be removed from Airservices Australia, and given to CASA or the Bureau of Transport Economics, in recognition of the technical nature of a lot of the analysis.<sup>50</sup>

4.54 In hearings, Senator O'Brien raised with representatives from Airservices Australia the example of Cairns airport technical staff. In response, Mr Flemming indicated:

In that case, the costs of those employees should be allocated to the en route service that we are providing, not the terminal navigation service at Cairns.<sup>51</sup>

4.55 Airservices Australia subsequently reaffirmed this in response to a question from Senator O'Brien taken on notice.<sup>52</sup>

4.56 Furthermore, Mr Smith from Airservices Australia indicated in hearings that even were the smaller airports with control towers costed on a marginal basis, taking

---

46 Evidence, RRAT, 1 May 2000, p 40

47 G.O'Dea, 'ASA and GA: A Brief Microeconomic and Financial Analysis of the Allocation of Costs, Provision of Services and Pricing of General Aviation Services by ASA', pp 1-3. See also Evidence, RRAT, 1 May 2000, p 33

48 *Ibid*, p 33.

49 Evidence, RRAT, 1 May 2000, p 40

50 Evidence, RRAT, 1 May 2000, p 37

51 Evidence, RRAT, 1 May 2000, p 68

52 Airservices Australia, Response to Questions on Notice, 22 June 2000

away the cost of the overheads of the organisation, many of them would still make significant losses. 'They are not just losing a bit of money; they are losing a great deal of money'.<sup>53</sup>

---

53 Evidence, RRAT, 1 May 2000, p 57

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATIONS

#### The Airspace 2000 Model

5.1 The Airspace 2000 model was developed in early 1996 by a steering group chaired by Mr Dick Smith. Under the model, aircraft may fly in corridors of controlled airspace with high quality service, and pay the cost. Alternatively, they may fly outside those corridors in low-density traffic areas, without cost. Following various trials, many aspects of the Airspace 2000 model have now been fully implemented.

5.2 The implementation of the Airspace 2000 model has coincided with the implementation of Airservices Australia's new airspace management and ATC system known as TAAATS. Originally it was intended that Airspace 2000 be implemented well in advance of TAAATS, however the delay in the implementation of Airspace 2000 has meant that the two have been implemented concurrently.

5.3 The most controversial aspect of the Airspace 2000 model relates to the availability of DTI in class G or uncontrolled airspace. Traditionally, DTI has been provided in Australia by a separate category of FSOs, distinct from ATCs. However, as the Airspace 2000 model was originally proposed, DTI was to be replaced by self-announcement/self separation see-and-avoid procedures in class G airspace.

5.4 This proposal for see-and-avoid separation in class G airspace provoked significant industry concern, leading Airservices Australia subsequently to revise its decision and continue the provision of DTI in class G airspace, this time from the TAAATS platform.

5.5 The third and final stage in the provision of DTI from the TAAATS platform was implemented on 15 June 2000. However, the revised arrangements for the provision of DTI in class G airspace using TAAATS have provoked concern:

- a) The HMI is not ideal for the provision of DTI in areas of Australia not covered by radar (essentially everywhere outside the eastern seaboard).
- b) The provision of DTI to pilots by ATCs using TAAATS must be relayed through third party FIS officers using the HF radio network.
- c) The workload of ATCs using TAAATS has increased significantly as a result of the additional provision of DTI services.

5.6 Given these concerns, it is significant to note that under the Lower Level Airspace Plan, Airservices Australia is proposing to discontinue the provision of DTI

in class G airspace in late 2001 or early 2002. The Committee notes that the Plan received industry endorsement at a meeting of the principal representatives of aviation stakeholders on 10/11 January 2001. However, it is important that all industry representatives, including staff of Airservices Australia, who will be required to operate within the new system, are all properly consulted.

### **Recommendation 1**

**The Committee recommends that Airservices Australia ensure that there is an extensive and rigorous consultation process with all sectors of the aviation industry on the provisions of the Lower Level Airspace Plan.**

5.7 The Committee believes that an extensive and rigorous consultation process is essential to ensure that the changes proposed in the Lower Level Airspace Plan are acceptable, efficient and safe and are introduced in an orderly manner.

5.8 A second aspect of the Airspace 2000 model that has caused concern is the operation of MBZs around non-towered airports, and the safety issues arising from lack of separation procedures.

5.9 In certain instances, a CAGRO service has been provided at non-towered airports. However, various submissions to the inquiry noted that CAGRO services are not coordinated with air traffic services provided by Airservices Australia. Accordingly, it was argued that an alternative AFIS be reintroduced at busy non-controlled airports.

### **Recommendation 2**

**The Committee recommends that Airservices Australia establish clear guidelines how CAGRO services interrelate and operate in conjunction with surrounding air traffic service sectors.**

5.10 A third controversial aspect of the original Airspace 2000 model has been the operation of class E airspace. Under the original model, ATC separation services for aircraft operating in class E airspace were only available to larger IFR aircraft. Separation from smaller VFR aircraft was to be based on the see-and-avoid principle.

5.11 Under revised arrangements, VFR aircraft are now required to operate radar transponders in class E airspace to allow ATCs and IFR aircraft to detect them. However, the concern was raised in hearings that many VFR aircraft are not operating their transponders as required.

5.12 Another aspect of class E airspace which has caused concern is that the operation of MBZs around non-controlled airports does not extend up to the base of class E airspace – rather class G airspace is interposed in between. The result is that pilots descending from class E airspace to land at a non-controlled airport must make three broadcasts in rapid succession on the class E airspace frequency, the abutting

class G frequency and the MBZ frequency, leading to high cockpit workloads and potential losses of communications.

5.13 The Committee understands that under the Lower Level Airspace Plan to be adopted by mid-2002, a number of uncontrolled terminal areas, currently designated as MBZs, will be linked with the overlying controlled airspace, removing the intervening class G airspace.

### **Competition Policy**

5.14 The Government's application of competition policy to ATC services has been the subject of considerable contention between the Government and the Legislature. In March 1999, the Senate disallowed regulations moved by the Government amending the *Civil Aviation Act 1988*, as contained in Statutory Rules 1998 No. 234, to prevent ATC services being provided by organisations other than Airservices Australia.

5.15 In response, the Minister for Transport and Regional Services, The Hon. John Anderson MP, has directed CASA to develop a regulatory framework for the provision of ATC services. In addition, the Committee notes that Airservices Australia has outsourced the provision of CAGRO services at some regional airports, on the basis that CAGRO services do not constitute an ATC service.

### **Recommendation 3**

**The Committee recommends that Airservices Australia seek formal legal advice on whether CAGRO services constitute an ATC service within the provisions of the *Civil Aviation Act (1988)*.**

5.16 Airservices Australia is also currently moving to apply a process of contestability to its internal support services such as installation and maintenance of navigation aids, payroll, financial services and so forth. The Committee received a range of evidence expressing concern at the break up of the national airways system and the loss of internal knowledge, skill and culture within Airservices Australia that this may entail.

5.17 In assessing the impact of competition policy, Airservices Australia is required to observe the net community benefit test. This test acknowledges that restrictions on competition may be necessary if there are acknowledged community benefits. One factor to be taken into account is social welfare and equity considerations, including the community service obligation. Airservices Australia's community service obligations were cited widely in submissions.

5.18 In hearings, Airservices Australia indicated that it is aware of its obligations under the net community benefit test, and that it is taking great care that the application of competition policy does not adversely affect regions or isolated communities.

5.19 However, concern was expressed during hearings that Airservices Australia is already under-funding the provision of ATC services at loss-making GA and regional airports. In addition, concern was expressed that competition policy as applied has led to a reduction in safety through the downgrading of ARFF services available for BAe-146 aircraft flying into regional airports.

5.20 In this context, the Committee notes recent comments by the Prime Minister and Deputy Prime Minister in the media that in some instances, the application of competition policy in Australia has been to the disadvantage of certain groups in Australia, particularly in rural and regional Australia. The Committee believes that the application of competition policy to the funding of services at some GA and regional airports can be characterised in such terms.

#### **Recommendation 4**

**The Committee recommends that the Minister for Transport and Regional Services appoint an independent consultant to assess any impact that the application of competition policy may have had on the delivery of aviation services to rural and regional communities. In particular, the Committee recommends that the independent consultant assess how the net community benefit test has been applied by Airservices Australia.**

#### **Location Specific Pricing**

5.21 Historically, Airservices Australia has recovered its costs through industry levies based on an average network pricing policy, expressed as a standard unit charge for individual services. However, reflecting various factors such as the Hilmer report on national competition policy and decisions of the High Court, Airservices Australia has been progressively implementing LSP of its services since 1996.

5.22 Clearly, the beneficiaries of LSP have been the large domestic and international airlines operating out of the major international airports. By contrast, LSP has meant higher prices generally for smaller operators based out of GA and regional airports.

5.23 LSP of ARFF services was introduced in July 1997 at 16 separate locations around Australia. The most dramatic reduction in cost was at Sydney Airport, where the price of supplying ARFF services was reduced to 69 cents per landed tonne in 1997, compared to the previous average network cost of \$1.80 per tonne. The largest increase in cost was at Port Headland airport, where the price of ARFF services increased to \$15.59 per tonne in 1997.

5.24 The large increase in the price of supplying ARFF services at GA and regional airports has led to pressure for a reduction of some ARFF services. However, any such reductions would follow already significant reductions in the provision of ARFF services since the mid-1980s. The provision of ARFF services in Australia is below the standards applied in countries such as the UK and US.



## **Recommendation 5**

**The Committee recommends that the Government consider funding ARFF services at GA and regional airports through some degree of cross-subsidisation where a demonstrable community benefit can be shown.**

5.25 Following the implementation of LSP of ARFF service in July 1997, Airservices Australia implemented LSP of TN services in July 1998. Prior to July 1998, TN services were funded through an avgas levy on gasoline-powered aircraft and an average network levy on other aircraft.

5.26 As an interim arrangement applying after July 1998 to aircraft less than 5.7 tonnes, Airservices Australia implemented a cap on TN charges at \$6.75 per tonne. This was primarily funded by a government subsidy of \$11 million in 1998/99 and 1999/00, and was designed to minimise the impact of LSP on small operators. However, despite this measure, various issues arose:

- a) Air training schools were originally particularly affected by the application of LSP because of the nature of their training, which requires frequent take-off and landing. In January 1999, Airservices Australia revised its LSP arrangements to levy a single charge for each session of circuits, rather than a charge for each “touch and go”. Despite this change however, air training schools, like all operators of small aircraft, have faced increased costs.
- b) The invoicing of TN services by Airservices Australia has been inaccurate in many instances. In addition, in many cases, movements at GA or regional airports are in aircraft rented from clubs of flying schools. As a result, such clubs and schools are often not able to ascertain what charges were incurred during a rental period.

5.27 Given these problems, it was argued during hearings that LSP has had a very detrimental impact on towered GA and regional airports, especially GA airports which generally service a high number of avgas powered aircraft of only limited weight. This is partly because many small aircraft operators are electing to use non-towered airports, where there are no costs, in preference to controlled airports. This in turn raises safety concerns.

5.28 From 1 July 2000, the interim cap on TN charges was raised from \$6.75 to \$7.42. This partly reflected the reduction in the government subsidy from \$11 million in 1999/00 to \$7 million in 2000/01, and also the impact of the GST. The capped rate at Uluru Airport was only increased to \$7.15 due to its profitability.

## **Recommendation 6**

**The Committee recommends that the Government consider funding TN services at GA and regional airports through some degree of cross-subsidisation where a demonstrable community benefit can be shown.**

5.29 A final issue relating to LSP is the costing by Airservices Australia of its services. In hearings, the Committee heard claims that the costing of services at GA airports is based on an average across the board rate, whereas many costs which are allocated to GA airports would need to be borne by the large international airports, even were those GA airports to close.

5.30 In response to the Committee on this matter, Airservices Australia indicated that costing of services at GA airports is not based on an average across the board rate. In addition, Airservices Australia noted that even were the smaller airports with control towers costed on a marginal basis, taking away the cost of the overheads of the organisation, many of them would still make significant losses.

### **Recommendation 7**

**The Committee recommends that Airservices Australia conduct a detailed costing of services at GA and regional airports, again with the view to possible cross subsidisation of costs where a demonstrable community benefit can be shown.**

**Senator John Woodley  
Chairman  
April 2001**





## **DISSENT BY SENATOR WINSTON CRANE AND SENATOR JEANNIE FERRIS**

We do not support the majority recommendations of the Committee, with the exception of Recommendation 4, which states:

The Committee recommends that the Minister for Transport and Regional Services appoint an independent consultant to assess any impact that the application of competition policy may have had on the delivery of aviation services to rural and regional communities. In particular, the Committee recommends that the independent consultant assess how the net community benefit test has been applied by Airservices Australia.

We are of the view that the other recommendations are totally uncostered and would impose a hidden tax on the hundreds of thousands of Australians who can now afford commercial airline travel.

The majority report notes that landing charges at regional and general aviation airports are capped at \$7.42 per tonne, and that the cap is partly funded through a Government subsidy. The subsidy has amounted to \$18 million over the last two years, and can be clearly identified in the Portfolio Budget Statements.

The present system is open and honest. The subsidy is clear to all of the participants in the aviation industry. The terms of the subsidy establish clear procedures that hold Airservices accountable for changes in the level of service and hours of coverage at subsidised locations.

The Government has been criticised heavily by some groups in the aviation industry for paying the subsidy. It is to the Government's credit that it continues with a system that ensures that everyone – including its critics – can understand how much it costs the public to subsidise the control towers at regional and general aviation airports.

The majority recommendations propose to replace this honest system with a hidden cross-subsidy. The Parliament would not be able to find out the level of the subsidy, because it would be buried within Airservices Australia's other charges.

The majority recommendations would result in a charging regime that would be less accountable, less transparent, and less honest than the present one.

**Senator Winston Crane  
Senator Jeannie Ferris  
April 2001**



## **ADDITIONAL COMMENT BY SENATOR KERRY O'BRIEN AND SENATOR SUE MACKAY**

While supporting the recommendations contained in the majority report, we consider that the Minister for Transport and Regional Services, the Hon. John Anderson MP, has a responsibility to ensure the effective delivery of aviation services to regional Australia.

We are of the view that the Minister should oversee, and be held accountable for, the implementation of all the recommendations contained in the majority report.

**Senator Kerry O'Brien  
Senator Sue Mackay  
April 2001**





## APPENDIX ONE

### LIST OF SUBMISSIONS

1	Mr Dick Smith	NSW
2	McGee Aerial Services	ACT
3	Gosturn Pty Ltd	ACT
4	Royal Aero Club of Western Australia	WA
5	Mr Roger Secomb	NSW
6	Mr Graham Bailey	NSW
7	Bankstown Airport Users Group	NSW
8	Mr John Naughton	NSW
9	Board of Airline Representatives of Australia Inc	NSW
10	Archerfield Airport Chamber of Commerce	QLD
11	Mr Dan Mulherin	QLD
12	Perth Air Transport Operators Group	WA
13	Jandakot Airport Holdings Pty Ltd	WA
14	Mr Stephen Mahoney	QLD
15	Australian & International Pilots Association	NSW
16	Confidential	
17	Mr Jason Armistead	NSW
18	Coffs Harbour City Council	NSW
19	National Airspace and Procedures Advisory Council	VIC
20, A, B	Civil Air	VIC
21	Mr Richard Gower	VIC
22	United Firefighters Union of Australia	QLD
23	Ansett Australia	VIC
24	Airservices Australia	ACT
25	The Hon Diana Laidlaw MLC	SA
26	The Australian Federation of Air Pilots	VIC
27	Qantas Airways Limited	NSW
28, A	The Community and Public Sector Union	VIC

29 Name withheld

30 Confidential

**APPENDIX TWO**  
**LIST OF WITNESSES**

**CANBERRA, 1 May 2000**

**Airservices Australia**

Mr Bernard Smith, Chief Operating Officer  
Mr Andrew Selby, Chief Financial Officer  
Mr Adrian Gerard, Head Air Traffic Controller

**United Firefighters Union of Australia**

Mr Kenneth Griggs, Branch Secretary, Government Employees Branch

**The Community and Public Sector Union**

Mr Adrian Gerard, Secretary, Communications Section  
Mr Alister Waters, National Organiser, Communications Section

**Civil Air**

Mr James Bramich, Vice-President Administrative  
Mr Edward Lang, Vice-President Professional  
Mr Gerard O'Dea, Camden Tower representative

**Bankstown Airport Users Group**

Mr Darrin Ward, Co-convenor  
Mr Alan Tippet, Co-convenor  
Ms Aminta Hennessy, Co-convenor

**Coffs Harbour City Council**

Mr Bevan Edwards



## APPENDIX THREE

### AIRSPACE 2000: PROGRAM DEFINITION PLAN

No.	Element	Nominal Implementation Date
1	Demonstration of increased use of radar in Class G airspace below current trial of Class E airspace between Canberra & Ballina <ul style="list-style-type: none"> <li>• Provision of radar information service to aircraft climbing to/descending from Class E airspace and to other aircraft operating in Class G airspace</li> <li>• National Advisory Frequency (NAF)</li> </ul>	Aug 1998
2	Changed provisions for carriage of VHF radio above 5,000 in G & E airspace	Aug 1998
3	Demonstration of E airway in non-radar environment within G airspace <ul style="list-style-type: none"> <li>• Establishment of criteria</li> <li>• Determination of dimensions</li> </ul>	Dec 1998
4	Introduction of new terminal area designations and procedures <ul style="list-style-type: none"> <li>• Establishment criteria</li> <li>• Alerting provisions</li> <li>• Dimensions to relate to aircraft operations in a more practical and realistic manner</li> <li>• Improved radio procedures</li> <li>• Third party communications (unicom &amp;/or certified air/ground operators)</li> </ul>	Dec 1998
5	Replacement of A and B with C airspace	Dec 1998
6	Rollout of Class E airspace in the "J curve", including radar E above D, with radar information service and NAF beneath E airspace	June 1999
7	Removal of DTI and replacement with E airways wherever criteria requires, or wherever required by industry.	Dec 1999
8	Introduction of Class E airspace above Class D terminal areas in non-radar environment	Dec 1999
9	Consideration for ACC assessment further changes to military airspace, to include: <ul style="list-style-type: none"> <li>• Review of dimensions necessary</li> <li>• Evaluation of introducing Military Operations Areas for specific military operations</li> <li>• Assessment of merits in establishment of Alert Areas to replace Danger Areas where promulgated for flying training purposes</li> </ul>	Start no later than June 1998

---

10	Safety Promotion and pilot education with regard to: <ul style="list-style-type: none"><li>• Increased pilot awareness of the alerted see-and-avoid environment at non-tower airports (including an awareness of operating schedules of RPT services to non-controlled aerodromes)</li><li>• Encourage VFR aircraft to be more aware of, and avoid where possible, routes or areas likely to have IFR traffic</li><li>• Encourage suitably equipped (ie GPS) IFR aircraft to fly up to 0.1 NM to the right of track.</li></ul>	June 1998 – Jan 1999
----	--	----------------------