
The Parliament of the Commonwealth of Australia

Finding the right balance

Cabin crew ratios on Australian aircraft

**House of Representatives
Standing Committee on Infrastructure and Communications**

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Canberra

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Contents

Membership of the Committee	v
Terms of reference	vii
List of recommendations	ix
1 Context of the inquiry	1
A brief explanation of cabin crew ratios	1
The current proposal to alter Australia’s cabin crew ratio	2
The history of proposed ratio changes and prior parliamentary consideration.....	3
Origins of the current cabin crew ratios	3
Earlier consideration of a 1:50 cabin crew ratio in Australia	4
Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005	5
2007 Senate Estimates	7
Granting of exemptions to the 1:36 rule	7
The rationale behind the proposal.....	10
International harmonisation	10
Aircraft design and certification	11
World’s best practice?	11
Cost savings	14
Committee comment	16
2 Issues arising from the inquiry	19
The role of crew in maintaining safety and security	19

Measuring ratios and safety through evacuation demonstrations	21
The role of passengers in emergency evacuations	25
The role of passengers in security incidents	28
Committee comments.....	28
CASA’s review processes	30
Training.....	32
Crew Fatigue.....	34
Airside security and ASIC passes	35
Committee’s overall conclusions	37
Dissenting Report – Mr Paul Fletcher MP.....	41
Appendix A – List of submissions.....	47
Appendix B – List of witnesses	49



Membership of the Committee

Chair Ms Sharon Bird MP

Deputy Chair Mr Paul Neville MP

Members Mr Paul Fletcher MP

Mr Ed Husic MP

Mr Stephen Jones MP

Mr Robert Oakeshott MP

Mrs Jane Prentice MP

Mr Mike Symon MP

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Terms of reference

The Committee is to inquire into the assignment and ratio of cabin crew to those aircraft that require the carriage of cabin crew under current regulations.

The Civil Aviation Safety Authority (CASA) is currently considering a regulatory proposal that addresses the assignment of cabin crew members to aircraft that require that carriage of cabin crew. Under the current arrangements, operators of Australian domestic aircraft carrying more than 15 but not more than 216 passengers are required to carry at least one cabin crew member for each 36 passengers or part thereof (1:36).

Since 2006, CASA has permitted a number of Australian operators to operate certain aircraft with a ratio of one cabin crew member up to a maximum of 50 passenger seats.

CASA has proposed to implement the 1:50 cabin crew-passenger seat ratio for aircraft configurations of between 20 and 216 passengers with the gaining of approval conditional upon on an operator having in place a CASA-approved safety management risk plan.

In response to this proposal, a number of issues have been raised, which would benefit from further consideration.

The Standing Committee on Infrastructure and Communications will inquire into and report on:

- the current aviation safety regulatory system for aircraft operators in relation to the application of the cabin crew to passenger ratio including current exemption provisions;
- the role of cabin crew in managing both passenger safety and security;
- the factors that determine the cabin crew to passenger ratio;

- domestic and international practice in respect of cabin crew to passenger ratios; and
- measures to enhance aviation safety that may be considered in future requirements on aircraft operators for a safety risk management plan covering the cabin crew to passenger ratio.



List of recommendations

Recommendation 1

That the Civil Aviation Safety Authority and the Office of Transport Safety work together to determine an appropriate level of passenger compartment security for Australian domestic flights, taking into account previous incidents both in Australia and abroad.

Recommendation 2

That the Civil Aviation Safety Authority consider passenger compartment security in any future review of cabin crew ratios.

Recommendation 3

That, prior to finalising the process, the Civil Aviation Safety Authority publish on its website all non-confidential submissions made to it through the Notice of Proposed Rule Making process.

Recommendation 4

That the Civil Aviation Safety Authority advertise Notices of Proposed Rule Making that directly affect passengers in publications that are widely read by the travelling public, such as in-flight magazines, and that CASA seek submissions from the public into the advertised Notices of Proposed Rule Making.

Recommendation 5

That the Civil Aviation Safety Authority ensure that Australia becomes compliant with the International Civil Aviation Organization's Standards and Recommended Practices relating to cabin crew flight and duty time limitations as a matter of priority.

Recommendation 6

That the Civil Aviation Safety Authority cease providing new exemptions to the 1:36 cabin crew ratio currently mandated by Civil Aviation Order 20.16.3, and that all exemptions to the Order currently in place not be renewed upon expiry.

Recommendation 7

That the 1:36 ratio be retained until such a time that it can be demonstrated that a change to a 1:50 cabin crew ratio in Australia will not result in reduced levels of safety or security.

Context of the inquiry

- 1.1 On 3 March 2011, the House of Representatives Standing Committee on Infrastructure and Communications resolved to inquire into the ratio of cabin crews on aircraft following a request from the Minister for Infrastructure and Transport, the Hon. Anthony Albanese MP.
- 1.2 Individuals and organisations were invited to prepare submissions and the inquiry was included in the fortnightly House of Representatives advertisement in *The Australian* on 9 March 2011. Details of the inquiry were made available on the Committee's website.
- 1.3 The inquiry received 17 written submissions, including four supplementary submissions. These are listed at Appendix A.
- 1.4 The Committee held public hearings in Sydney and Canberra. Details of the hearings and witnesses are listed at Appendix B.

A brief explanation of cabin crew ratios

- 1.5 The term 'cabin crew ratio' refers to the minimum number of cabin crew members (also known as flight attendants) required to be present on an aircraft as a proportion of either the number of passengers or passenger seats, depending on the context. Currently, the Australian cabin crew ratio on single aisled aircraft with 36 to 216 seats is one member of crew per 36 passengers (1:36). Aircraft with more than 216 seats, or twin aisles, require a minimum of one member of crew for each floor level exit.¹
- 1.6 In Canada, the ratio is one member of crew for every 40 passengers. Most other developed nations, including New Zealand, the United States and

¹ Civil Aviation Safety Authority, *Submission 5*, p. 8.

the European Community, use a ratio of one member of crew to 50 passenger seats.

The current proposal to alter Australia's cabin crew ratio

- 1.7 The Civil Aviation Safety Authority (CASA) has proposed a regulation change to allow Australian airlines to operate aircraft with a ratio of one cabin crew member for every 50 *passenger seats* (1:50), instead of the current 1:36 *passenger* ratio.²
- 1.8 CASA has also proposed to:
- allow aircraft to be operated with one less cabin crew member in the event of illness or injury, as long as a ratio of 1 cabin crew member per 50 *passengers* can be maintained;
 - to make cabin crew mandatory for aircraft with more than 19 *passenger seats*, instead of the current requirement of more than 15 *passengers*; and
 - require operators to submit a safety risk management plan (SRMP) to assess, treat and monitor the risks associated with changing the cabin crew ratios.³
- 1.9 The changes require amendments to a Civil Aviation Order administered by CASA under authority of the Civil Aviation Regulations 1988. The Regulations specify that the number of crew on an aircraft must not be less than that specified in the aircraft's certificate of airworthiness or flight manual,⁴ and this will remain in effect under CASA's proposed changes.
- 1.10 On 9 February 2010, CASA issued a Notice of Proposed Rule Making – NPRM 0905OS – notifying the public of proposed changes to Cabin Crew Ratios through the amendment of Civil Aviation Order 20.16.3. The document outlined the key proposals and their rationale, and invited comments from individuals and organisations with a stake in the changes. This period for comments closed on 6 April 2010.
- 1.11 CASA indicated that it would analyse, evaluate and consider the submissions it received before a Notice of Final Rule Making (NFRM) was prepared, which would be made publicly available in conjunction with the
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2 Civil Aviation Safety Authority, 'Notice of Proposed Rule Making: Cabin Crew Ratios', Document NPRM0905OS, February 2010, p. 8.

3 Civil Aviation Safety Authority, 'Notice of Proposed Rule Making: Cabin Crew Ratios', Document NPRM0905OS, February 2010, p. 8.

4 Civil Aviation Regulations 1988, s. 208.

making of the Final Rule.⁵ The NFRM would also incorporate a Summary of Responses containing a consolidation of the comments received, CASA's comments, and a disposition of the comments.⁶

- 1.12 As delegated legislation, once the revised Civil Aviation Order has been finalised by CASA it must be registered in the Federal Register of Legislative Instruments and then tabled in both houses of parliament within six sitting days of registration. A motion for disallowance may then be made by any member of parliament within 15 days of it being tabled.
- 1.13 The Committee understands that the cabin crew ratio rule making process has not progressed since December 2010, with the Regional Aviation Association of Australia suggesting this may have been because of industrial concerns, rather than safety concerns.⁷

The history of proposed ratio changes and prior parliamentary consideration

Origins of the current cabin crew ratios

- 1.14 While the origins of the 1:36 ratio in Australia are unclear, it is widely believed to be connected to the introduction of the Fokker F-27 Friendship in the late 1950s,⁸ or possibly the earlier introduction of the Douglas DC-3.⁹ Both models of aircraft contained approximately 36 passenger seats.
- 1.15 Since this time, the 1:36 cabin crew ratio appears to have been extrapolated to cater for larger and more modern aircraft.¹⁰ The Committee heard that this ratio pre-dates the requirement for demonstrated and measurable safety outcomes in aviation.¹¹

5 Civil Aviation Safety Authority, 'Notice of Proposed Rule Making: Cabin Crew Ratios', *Document NPRM0905OS*, February 2010, p. 7.

6 Civil Aviation Safety Authority, 'Consultation Process': <http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_91146> last viewed on 29 September 2011.

7 Regional Aviation Association of Australia, *Submission 6*, p. 3.

8 Civil Aviation Safety Authority, *Submission 5*, p. 8; Qantas Group, *Submission 4*, p. 4; Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 44.

9 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 22; Mr John McCormick, *Committee Hansard*, 1 June 2011, Canberra, p. 4.

10 Qantas Group, *Submission 4*, p. 4.

11 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 44.

- 1.16 It is equally unclear how long the 1:50 ratio has been in place in other jurisdictions. The CASA noted that preliminary research into the issue has indicated that a 1:50 ratio was adopted in the United States no later than 1994, but perhaps as early as 1965.¹²

Earlier consideration of a 1:50 cabin crew ratio in Australia

- 1.17 The current NPRM is not the first instance in which a change to Australia's 1:36 cabin crew ratio has been proposed.
- 1.18 The Committee heard that a regulatory review undertaken by CASA in 1997-98 considered cabin crew ratios, with the review panel recommending retention of the 1:36 ratio. CASA accepted the findings of that review, and retained the rule.¹³ Beverley Maunsell, a retired air safety investigator, participated in the review, and described the process as follows:

... the previous review ... was extremely comprehensive. When I found out that they had been giving dispensations [exemptions to the 1:36 ratio] I was absolutely floored because everyone in the industry was involved in that. Those of us who looked at the one for 50 comparison did six months of research on it. We went everywhere. I spoke to all of my colleagues in the [United] States, Canada and everywhere else looking for some sort of justification for us to drop our standards, and we could not find anything.¹⁴

- 1.19 A move to change the required cabin crew ratio to 1:50 was then proposed in a CASA discussion paper in 2000.¹⁵ In 2002, following representations from the Flight Attendants' Association of Australia (FAAA) and the Australian Transport Safety Bureau, and influenced by Canada's recent rejection of a similar proposal, CASA abandoned the proposal to change the ratios.¹⁶
- 1.20 The subject of cabin crew ratios has been canvassed several times by the Parliament in a variety of forums, including in the House itself and through parliamentary committees.
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12 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 65.

13 Ms Beverley Maunsell, *Submission 2*, p. 1.

14 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 16.

15 Civil Aviation Safety Authority, 'Discussion Paper: Commercial Air Transport Operations - Large Aeroplanes: Civil Aviation Safety Regulation (CASR) Part 121A', *Document DP 0001OS*, April 2000, p. A26.

16 Civil Aviation Safety Authority, 'Notice of Proposed Rule Making: Air Transport Operations - Large Aeroplanes: Proposed Part 121A of the Civil Aviation Safety Regulations (CASR)', *Document NPRM 0211OS*, April 2002, p. A41.

- 1.21 Following a well-publicised security incident on QantasLink Flight 1737 from Melbourne to Launceston on 29 May 2003,¹⁷ the then Transport Minister, the Hon. John Anderson MP, ruled out any changes to the cabin crew ratio:

Mr CREAN (2.01 p.m.) ... In light of last week's events, can the Minister confirm that CASA is considering changing its regulations to permit fewer flight attendants after being lobbied by airlines to do it as a cost-saving measure? Will the minister today acknowledge the critical safety and security role of flight attendants and rule out any reduction in the Australian minimum crew to passenger ratio?

Mr ANDERSON – Yes.¹⁸

- 1.22 The move to change cabin crew ratios was also strongly opposed by the then opposition:

A reduction in the crew to passenger ratio should never have been entertained in the first place. The shocking events of last week and the important safety and security role of the crew drove this point home.¹⁹

Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005

- 1.23 Consideration of legislation regarding mutual recognition arrangements with New Zealand again brought the issue of cabin crew ratios to the attention of the Parliament. Legislation was first introduced in 2003, and reviewed by a Senate Committee which reported in 2004,²⁰ but lapsed at the end of the 40th Parliament. The Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005 was introduced during the 41st Parliament and again reviewed by a Senate Committee, which reported in September 2005.²¹ Although recommending that the

17 Qantas, 'Qantas flight 1737', *Media Release*, 1 June 2003: <<http://www.Qantas.com.au/regions/dyn/au/publicaffairs/details?ArticleID=2003/may03/2916>> viewed 8 April 2011.

18 *House of Representatives Hansard*, 2 June 2003, p. 15 579.

19 Martin Ferguson MP, 'Anderson back on track on crew numbers, but still in denial about regional security', *Media Release*, 2 June 2003.

20 The Senate, Rural and Regional Affairs and Transport Legislation Committee, *Provisions of the Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand and Other Matters) Bill 2003*, June 2004.

21 The Senate, Rural and Regional Affairs and Transport Legislation Committee, *Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005*, September 2005.

legislation be passed, concerns were raised during the inquiry process that recognising New Zealand's standards, and allowing New Zealand operators to operate in Australia under their own standards, would allow planes crewed at the 1:50 ratio to operate in Australia.

- 1.24 The Senate Committee noted in its concluding remarks to the 2005 report its concerns about the unintended impact that the bill could have on Australian aviation practices, and suggested that any subsequent changes to CASA's regulations in this context should be subject to parliamentary scrutiny:

The Committee believes that however unintended, it is inevitable that the proposed legislation will encourage Australian operators to either reduce standards of employment or employment opportunities for cabin crew and pilots or encourage operators to move offshore. The Committee believes that this may not be in the best interests of the industry or the travelling public, particularly if it results in the reduction of the standard of safety Australian passengers enjoy.

...

Further, CASA, in making any changes to the regulatory regime relating to large aircraft, should be required to provide to the Minister for tabling in the Parliament a statement of reasons for the changes supported by relevant material.²²

- 1.25 A dissenting report from the Committee's Opposition Senators expressed particular concern about the potential impact of the legislation on Australian cabin crew ratios, noting:

Labor Senators believe that this report fails to recognise the importance of cabin crew to operational safety.

...

The report also fails to recognise that the Australian Government, following a Civil Aviation Safety Authority review of regulations relating to crew ratios, determined that crew ratios in Australia should not change.²³

22 The Senate, Rural and Regional Affairs and Transport Legislation Committee, *Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005*, September 2005, p. 14.

23 The Senate, Rural and Regional Affairs and Transport Legislation Committee, *Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005*, September 2005, p. 16.

2007 Senate Estimates

1.26 In May 2007, the Senate Standing Committee on Rural and Regional Affairs and Transport also discussed cabin crew ratios during a Budget Estimates hearing. Taking place after the New Zealand mutual recognition legislation had passed into law, the Senate Committee expressed disappointment that CASA had already granted an exemption to the 1:36 regulation to allow Virgin Blue to operate some of its aircraft under the 1:50 ratio, and that subsequent applications for exemptions for other airlines were also being processed.²⁴ Senator Kerry O'Brien noted:

So what the Committee was told during the inquiry, about the New Zealand measures not automatically coming in here was demonstrably wrong.²⁵

Granting of exemptions to the 1:36 rule

1.27 The Committee heard that in 2006, Virgin Australia (then Virgin Blue) approached CASA seeking an exemption to fly its Boeing 737-800 aircraft with four members of crew, instead of the five crew members required under the 1:36 ratio.²⁶

1.28 Ms Jane McKeon, of Virgin Australia, advised the Committee that Virgin Blue had approached CASA for an exemption:

... on the basis of the aircraft's design and manufacture being capable of operating at a one to 50 standard, and also based on our experience of operating Pacific Blue, which is our wholly-owned New Zealand-based subsidiary. Those services operated with a one to 50 ratio.²⁷

1.29 Virgin advised the Committee that it had fully evaluated the safety issues surrounding a move to the 1:50 ratio, conducting extensive consultations with staff and encouraging them to confidentially come forward with any safety concerns during the initial stages of operating with a 1:50 ratio:

... we tracked reports from the cabin crew from launch and trended and tracked the issues that they were reporting specifically to the one to 50 issue. We did not pick up any issues or

24 Senate Standing Committee on Rural and Regional Affairs and Transport, *Committee Hansard*, 22 May 2007, pp. 21, 27.

25 Senate Standing Committee on Rural and Regional Affairs and Transport, *Committee Hansard*, 22 May 2007, p. 27.

26 Ms Jane McKeon, *Committee Hansard*, 19 May 2011, Sydney, p. 37.

27 Ms Jane McKeon, *Committee Hansard*, 19 May 2011, Sydney, p. 38.

concerns around security or safety. We did pick up issues around some processes that were not quite working in terms of rest breaks and some other things around interface with the airport. We have diligently gone about working on and fixing those.²⁸

- 1.30 CASA evaluated the case presented by Virgin Australia, taking into account the certification of the United States Federal Aviation Administration that the aircraft was able to be operated with four members of cabin crew, and Virgin's operational procedures. CASA accepted the application, and granted an exemption.²⁹
- 1.31 As at 19 May 2011, CASA had given exemptions to a total of 11 operators for 13 models of aircraft. CASA explained that its exemptions are not provided to operators, but to particular aircraft types operated by them.³⁰
- 1.32 In considering granting an exemption, CASA requires applicants to provide satisfactory operational procedures including emergency procedures, and to substantiate claims of capability to safely conduct operations at a ratio of 1:50, including a risk management plan. This requirement was criticised by the Regional Aviation Association of Australia as superfluous, given the aircraft were approved for operations at the 1:50 ratio overseas.³¹ CASA also requires the operator to conduct a partial evacuation demonstration for the aircraft type concerned.³²
- 1.33 The Committee took an interest in the procedures used by CASA to verify that operators were complying with the operational procedures agreed upon following the granting of an exemption.
- 1.34 The Committee asked whether operators are re-tested by CASA several years after the granting of an exemption to confirm that they are still able to effectively evacuate an aircraft at the 1:50 ratio. The Committee was informed that this re-testing did not take place, but that CASA regularly observed cabin crew training and simulators to support their satisfaction with the original evacuation demonstration.³³
- 1.35 The Committee was also interested to hear whether CASA undertook a live, on-board audit to determine whether operators were performing at the level demonstrated in the evaluation process. It was informed that CASA could perform a scheduled audit, giving advance notice, or conduct
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28 Mr Stuart Aggs, *Committee Hansard*, 19 May 2011, Sydney, p. 39.

29 Mr Grant Howard, *Committee Hansard*, 19 May 2011, Sydney, p. 2.

30 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 2.

31 Regional Aviation Association of Australia, *Submission 6*, p. 2.

32 Civil Aviation Safety Authority, *Submission 5*, p. 6.

33 Mr Grant Howard, *Committee Hansard*, 19 May 2011, Sydney, p. 10.

an unannounced, undercover audit of an operator's safety procedures. The Committee was advised that an unannounced audit had been conducted approximately three weeks prior to its public hearing, and that the operator's performance had been deemed satisfactory.³⁴

- 1.36 The other primary area of interest for the Committee was the process undertaken by CASA to provide exemptions to the 1:36 rule. Mr Grant Howard, of CASA, explained that a committee, made up of representatives of CASA regulatory services, some industry stakeholders including major operators, and staff associations, had been established to discuss the proposed changes to cabin crew ratios. Mr Howard noted the meetings were conducted professionally, and the issues identified would be part of the consultation process once the Director of CASA considers the NPRM.³⁵
- 1.37 In its appearance before the Committee, the FAAA argued that CASA's committee was a forum created to agree on a form of words to give effect to the change, rather than to debate the merits of changing or retaining existing cabin crew ratios.³⁶
- 1.38 In a supplementary submission, the FAAA informed the Committee that there had been no consultation regarding exemptions throughout the process of operators applying for and being granted exemptions to the 1:36 rule. A consultation process only commenced when the proposal to make exemptions permanent through the NPRM had commenced.³⁷
- 1.39 The Committee was concerned as to whether CASA was granting exemptions too freely, and inquired whether CASA had rejected any applications for an exemption, and the grounds under which the rejection had been made. CASA advised of a circumstance in late 2010 when a request made by an operator was rejected due to an insufficient risk assessment, and of a separate instance in mid-2011 in which an operator had applied for an exemption and had not provided a safety risk management plan. CASA advised that in both cases, the operator had not yet attempted again to seek an exemption.³⁸

34 Mr Grant Howard, *Committee Hansard*, 1 June 2011, Canberra, pp. 9–10.

35 Mr Grant Howard, *Committee Hansard*, 19 May 2011, Sydney, p. 61.

36 Ms Jo-Ann Davidson, *Committee Hansard*, 25 May 2011, Canberra, p. 4.

37 Flight Attendants' Association of Australia, *Supplementary Submission 10.1*, p. 1.

38 Mr Grant Howard, *Committee Hansard*, 19 May 2011, Sydney, p. 63.

The rationale behind the proposal

International harmonisation

- 1.40 In explaining the rationale behind its proposal to alter cabin crew ratios, CASA cited several reasons, including harmonisation with international standards:
- Since the early 1990s, Australia's air transport operators have been turning to international practice to continuously improve cabin safety standards. Australian operators are regular attendees at international and local symposia for cabin safety. A study of 'lessons learnt' in major US aircraft accidents by the US National Transportation Safety Board (NTSB) and resulting recommendations to the Federal Aviation Administration (FAA) have largely been adopted in Australia by regulation or voluntary conformance.³⁹
- 1.41 Since 2009, CASA has been conducting a regulatory development project to bring Australian regulations into line with 'international best practice'. This project has required consultation with specialists and industry stakeholders, and consideration of cabin crew ratios has been part of the project.⁴⁰
- 1.42 The Regional Aviation Association of Australia identified harmonisation of Australian regulations with United States and European safety authorities to be a 'desirable outcome'.⁴¹ This argument was also supported by the Qantas Group, who suggested that it would bring Australia's regulations into line with global standards, and remove 'unnecessary complexity and cost to Australian operations'.⁴²
- 1.43 From the evidence received by the Committee, it is clear that the only real basis behind the current cabin crew ratio of 1:36 is that it was used in the early days of civil aviation in Australia, and has since been extrapolated as passenger aircraft have increased in size.
- 1.44 The Committee sought information on the basis for the 1:50 ratio in the United States, but was unable to ascertain that it was based on any clear case for greater safety. Indeed, witnesses noted difficulty in determining
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39 Civil Aviation Safety Authority, *Submission 5*, p. 4.

40 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 2.

41 Regional Aviation Association of Australia, *Submission 6*, p. 2.

42 Qantas Group, *Submission 4*, p. 5.

when the ratio was adopted in the United States, and the rationale behind it.⁴³ In its supplementary submission CASA advised that the 1:50 ratio had been adopted in the United States in 1965, the same year as mandatory evacuation demonstrations were also adopted in that country.⁴⁴

Aircraft design and certification

1.45 Several witnesses noted that modern aircraft constructed by Boeing and Airbus were designed and certified to operate safely with a ratio of 1:50.⁴⁵ CASA granted exemptions to the 1:36 rule on the basis of these manufacturer's certifications.

1.46 Several witnesses noted that improvements to the design of commercial passenger aircraft since the late 1960s had enhanced survivability and had reduced the threat of fire in the passenger cabin. The Qantas Group noted that:

Compared to 30 to 40 years ago, and under the same accident circumstances, passengers would now have less severe injuries, more time available to exit the aircraft before being overcome by heat, smoke or fumes, be able to find exits more readily, and have less debris blocking their path. The life saving role of cabin crew in emergencies has therefore been reduced by the aircraft improvements as many of the functions cabin crew had to perform previously to save lives are no longer as relevant or likely to be required.⁴⁶

World's best practice?

1.47 The Qantas Group suggested that a ratio of 1:50 constituted world's 'best practice'.⁴⁷ This approach was criticised by the Australian Airline Pilots' Association, who noted there was no documentation to suggest a ratio of 1:50 actually enhanced safety, and instead suggested that a ratio of 1:50 could only be considered to be 'world's accepted practice'.⁴⁸

43 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 65.

44 Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 1.

45 Civil Aviation Safety Authority, *Submission 5*, p. 12; Alliance Airlines, *Submission 1*, p. 10; Ms Susan D'Ath-Weston, *Committee Hansard*, 19 May 2011, Sydney, p. 24.

46 Qantas Group, *Submission 4*, p. 6.

47 Ms Susan D'Ath-Weston, *Committee Hansard*, 19 May 2011, Sydney, p. 24.

48 Australian Airline Pilots' Association, *Submission 9*, p. 1.

- 1.48 The Flight Attendants' Association of Australia (FAAA) identified a ratio of 1:50 as a minimum standard, and describes Australia's 1:36 ratio as 'the global best-practice standard'.⁴⁹
- 1.49 In a public hearing, retired air safety investigator Beverley Maunsell cautioned against the 1:50 ratio, as it was a standard primarily developed by the United States Federal Aviation Administration, which, she suggested, is primarily focused on promoting aviation, rather than having safety as a first priority.⁵⁰
- 1.50 Through the course of the inquiry, the Committee was interested in whether there had been any qualitative studies undertaken to compare operations at 1:36 and 1:50, and whether those studies demonstrated a difference in outcomes when operating at one ratio or the other. John McCormick of CASA advised that it would be 'difficult to quantify' whether one ratio provided more or less safety than the other. He explained:
- What is required is to meet an acceptable level of safety as a bare minimum. One in 50 does not in my opinion just meet a bare minimum; it exceeds a bare minimum. Whether one in 36 provides anything better than one in 50, we were unable to quantify that and prove that case.⁵¹
- 1.51 The Qantas Group also noted the global acceptance of a 1:50 ratio, describing it as 'a ratio that the majority of the world accepts is safe.'⁵² Qantas agreed with the Committee that formal studies into cabin crew ratios were an objective way of determining which ratio would be more appropriate, but was not aware of any studies into the 1:36 ratio.⁵³
- 1.52 Qantas also noted a US study into the factors influencing the survivability of passengers in aircraft accidents which indicated the level of risk reduction in having a lower cabin crew ratio was minimal, and that it was 'one of the least effective ways of reducing the fatality rate'.⁵⁴ However, Qantas also indicated in a public hearing that there were no other studies conducted into the issue, and that the study was not performed specifically considering Australian cabin crew ratios or standards.⁵⁵

49 Flight Attendants' Association of Australia, *Submission 10*, p. 4.

50 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 17.

51 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 3.

52 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, p. 25.

53 Ms Susan D'Ath-Weston, *Committee Hansard*, 19 May 2011, Sydney, p. 25.

54 Qantas Group, *Submission 4*, p. 11.

55 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, p. 31.

- 1.53 The FAAA indicated to the Committee that the burden of proof to alter cabin crew ratios should fall upon those who advocate for the 1:50 ratio, suggesting:

It is the responsibility of those proposing an alternative safety standard to demonstrate that their proposal provides an equivalent (or higher) safety outcome. Quite simply, they must demonstrate that less crew members are as safe or safer than more crew members. The FAAA contends that this is incorrect, and has not been demonstrated.⁵⁶

- 1.54 The Committee sought more information on the relative merits of the 1:36 and 1:50 ratios, asking CASA for their opinion on which ratio was safer, and whether there were any problems in Australia having a different ratio to the United States and Europe. John McCormick of CASA explained:

I am not convinced that one in 36 provides a higher standard of safety than one in 50 ...

I agree with you that there is absolutely no reason why Australia cannot have a higher safety standard in some areas, or any area for that matter. We should have the best safety that we can, commensurate with commercial reality and what that level is ...

To get to the basis of your question of whether there is a problem with Australia having a different safety standard; no, not intrinsically.⁵⁷

- 1.55 Airline safety advisor Mr Ken Lewis discussed the risk assessment process he regularly undertook, and spoke about applying the same process to the assessment of cabin crew ratios:

The other thing you do with a risk assessment is that you take the existing system and work out what the level of risk is in that existing system and what you do to mitigate it. Then you do a risk assessment of what you propose, work out what there is to mitigate it, and then compare the two risks. So you are comparing with what you had and what you want. That has not been done.⁵⁸

- 1.56 Given the lack of data, and the questionable value of partial evacuation demonstrations as a representation of a real life evacuation (as explored further in the following chapter), the Committee finds it extremely

56 Flight Attendants' Association of Australia, *Submission 10*, p. 11.

57 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 14.

58 Mr Ken Lewis, *Committee Hansard*, 25 May 2011, Canberra, p. 7.

difficult to ascertain whether the 1:50 ratio is as safe as a 1:36 ratio, and whether the 1:50 ratio should be enshrined as the Australian standard.

Cost savings

- 1.57 In its appearance before the Committee, Virgin Australia freely acknowledged that cost savings had been behind their application to CASA for the initial exemption to the 1:36 rule that had started the process of applications for exemptions by other operators.⁵⁹
- 1.58 Mr John McCormick of CASA advised that once the Civil Aviation Legislation Amendment (Mutual Recognition with New Zealand) Bill 2005 had been enacted, enabling a New Zealand airline to operate in Australia with a 1:50 ratio, Australian airlines began requesting exemptions to the 1:36 rule:
- ... [once an operator] was allowed to operate here at one to 50, I think in my opinion the commercial imperative kicked in. Then, of course, as soon as one person gets it, we look other ways and the next person is going to come around.⁶⁰
- 1.59 The Qantas Group advised the Committee that they did not take advantage of the exemption on all flights, and that flights through the main carrier (Qantas) maintained larger crew numbers for reasons of passenger amenity and due to an enterprise agreement requiring higher numbers of crew,⁶¹ meaning there were no cost savings to Qantas.
- 1.60 When asked about Jetstar, the Qantas Group informed the Committee that there were cost savings involved in reducing the number of crew on Jetstar flights.⁶² As a low cost carrier, Jetstar seeks to reduce costs and, as a result, places less emphasis on passenger amenity than Qantas.
- 1.61 Other witnesses identified that competitive pressures had also driven them to seek exemptions to the 1:36 ratio. Cobham Aviation, a charter airline, noted that international operators, including those operating out of New Zealand and Papua New Guinea, were operating at the 1:50 ratio, creating what they described as unfair conditions for Australian operators.⁶³

59 Mr Stuart Aggs, *Committee Hansard*, 19 May 2011, Sydney, p. 38.

60 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 64.

61 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, p. 28.

62 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, p. 27.

63 Cobham Aviation, *Submission 3*, p. 1.

- 1.62 The Committee considered smaller operators further in its public hearing. When asked what had prompted Alliance Airlines, another charter airline, to seek exemptions to the 1:36 rule, Tony Maddern, Projects Manager of Alliance's Flight Operations division, noted that 'CASA published the fact that other operators had it, and we saw the cost benefit in doing it.'⁶⁴
- 1.63 Further, Mr Maddern indicated that Alliance had removed four seats from each of their Fokker 100s to make them 100 seat aircraft, rather than 104 seat aircraft. This enabled the aircraft to be flown with just two cabin crew members as long as an exemption to the 1:36 ratio was maintained.⁶⁵ If the aircraft had remained with 104 passenger seats, it would require three members of cabin crew to operate.
- 1.64 In its submission to the inquiry, Virgin Australia indicated that it 'would be quite difficult' for additional costs to be absorbed by the airline were the 1:36 rule to be reinstated.⁶⁶ Evidence was sought from witnesses to assist the Committee to understand whether cost savings had been gained through operating at a ratio of 1:50. Qantas indicated to the Committee that the cost savings, at a per passenger rate, were negligible.⁶⁷
- 1.65 This view was supported by some modelling provided by the FAAA, who calculated that with an average passenger load of 80 per cent, the cost per passenger would be between \$0.80 and \$1.56 for an additional member of cabin crew.⁶⁸
- 1.66 The Committee explored other cost pressures in the aviation industry in an attempt to determine the impact a change to the cabin crew ratio may have on operators. Tony Maddern of Alliance Airlines indicated that salary costs were approximately 30 per cent of Alliance's total costs, and agreed that the volatility of fuel prices could 'wipe out' some of the savings made through a reduction in crew.⁶⁹
- 1.67 Beverley Maunsell, a retired air safety investigator and former cabin crew member, advised that an increase in the cabin crew ratio and subsequent reduction of cabin crew on an aircraft would also have an impact on employment in the sector.⁷⁰

64 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 47.

65 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 48.

66 Virgin Australia, *Submission 7*, p. 12.

67 Ms Susan D'Ath Weston, *Committee Hansard*, 19 May 2011, Sydney, p. 28.

68 Flight Attendants' Association of Australia, *Supplementary Submission 10.1*, p. 2.

69 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 51.

70 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 21.

- 1.68 Virgin Australia supported this view, with representatives noting that it did not currently employ enough cabin crew to operate under the 1:36 rule. The Committee asked about the financial impact on Virgin Australia of removing exemptions to the 1:36 rule, and heard:

It would have an impact in terms of a shortage of crew initially. It would probably take us six to nine months to recruit and train additional crew. Obviously there would be a cost impact as well. In terms of our willingness to comply with that – of course, if that is the decision made, we are very comfortable. If that is the decision made on safety grounds, certainly we will comply with that. Will it have a business impact? Yes it will.⁷¹

- 1.69 The Regional Aviation Association of Australia also noted in its supplementary submission that airlines would have to increase their cabin crew complement if the 1:36 rule was re-enforced.⁷²
- 1.70 Similarly, CASA agreed with the Committee's suggestion that exemptions granted to regional carriers would naturally lead to a loss of jobs in areas where regional airlines operated.⁷³

Committee comment

- 1.71 The Committee considers that discussion of these issues highlights the challenges in assessing operators' motivations in seeking exemptions to the 1:36 ratio, and the consequent possible impacts on passenger safety. No operator indicated to the Committee that they sought exemptions to the 1:36 rule because the 1:50 rule was safer, or had been proven to be safer. They all agreed that the primary reason had been for cost purposes, or to prevent their rivals from gaining any competitive advantage. This was supported by CASA, who displayed an understanding and acceptance that financial benefits were the key driver for operators to seek exemptions.
- 1.72 The Committee was concerned to hear of operators, particularly regional airline operators, altering their aircraft seating configurations to take full advantage of exemptions and this caused significant concern to the Committee. Members noted that a number of regional airlines with Dash 8 200 and 300 Series currently operating with two cabin crew could be reduced to one under a 1:50 ratio.

71 Ms Jane McKeon, *Committee Hansard*, 19 May 2011, Sydney, p. 40.

72 Regional Aviation Association of Australia, *Supplementary Submission 6.1*, p. 3.

73 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 13.

- 1.73 Through its public hearings, the Committee sought to determine the cost impact on passengers if the 1:36 ratio were to be enforced. While submissions suggested the costs may be significant, during public hearings, operators seemed to indicate that the costs may not be as significant as expected. Indeed, while the Qantas Group held exemptions, it only used them on its low-cost carrier.
- 1.74 The Committee notes that some witnesses were unable to readily identify whether the cost savings obtained through operating with an exemption had been passed through to passengers,⁷⁴ which also suggests to the Committee that these cost savings may have been minimal.

74 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, pp. 27–38.

Issues arising from the inquiry

The role of crew in maintaining safety and security

- 2.1 CASA described the role of cabin crew in safety and security as ‘a vital link’ that maintains and applies the operational procedures of aircraft operators, and calls on law enforcement where required.¹ The Department of Infrastructure and Transport’s Office of Transport Security agreed with the description of cabin crew as ‘one strand in a multi-stranded approach to security’.²
- 2.2 Alliance Airlines noted that crew members have the primary role of dealing with emergency or abnormal conditions in the passenger cabin, and were responsible for the control and evacuation of passengers in an emergency.³
- 2.3 The FAAA expanded on this role, suggesting the crew are the ‘eyes and ears in the cabin’ for pilots now that flight deck doors are locked.⁴ Although the Committee heard different perspectives on the historical role of pilots during security incidents,⁵ it was agreed that now that cockpit doors are locked at all times during flight, pilots have no role in managing incidents in the cabin. Mr Tony Maddern, representing Alliance Airlines and the Regional Aviation Association of Australia, advised that ‘in the past, we used to be able to send the flight engineer back to look after any

1 Civil Aviation Safety Authority, *Submission 5*, p. 8.

2 Mr Peter Robertson, *Committee Hansard*, 19 May 2011, Sydney, p. 57.

3 Alliance Airlines, *Submission 1*, p. 8.

4 Flight Attendants’ Association of Australia, *Submission 10*, p. 12.

5 Flight Attendants’ Association of Australia, *Submission 10*, p. 12; Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 46.

trouble-makers. We do not have flight engineers there anymore, so it is up to the cabin crew.’⁶ Mr Ken Lewis confirmed the Committee’s observation that a reduction in the number of crew who may be able to assist if required had already occurred, when ‘the engineer was replaced by a computer’.⁷

2.4 The FAAA’s supplementary submission cited numerous reports from cabin crew members of instances in which their safety and security tasks had been rushed or not completed due to low staffing levels and time pressures before takeoff while operating under the 1:50 ratio.⁸ The FAAA also noted that ‘dealing with an incident is only one aspect, *controlling* 50 passengers single-handedly is not feasible from either a security or safety perspective’.⁹

2.5 Also addressing security, the Transport Workers Union noted:

Cabin crew are trained to monitor passengers in respect to the security and safety of an aircraft and its occupants. The risks are substantially increased when a smaller overall cabin crew is involved.¹⁰

2.6 The Regional Aviation Association of Australia indicated that the 1:36 ratio did not provide any substantive safety or security benefit when compared to operations under a ratio of 1:50.¹¹ This view was supported by Alliance Airlines, who suggested the 1:36 rule required more crew than are demonstrably required to meet the safety requirements for the aircraft.¹² Cobham Aviation also indicated that it was:

... unreasonable to think that even at a 1:36 passenger ratio that the Cabin Crew team could completely control a security event without passenger intervention.¹³

2.7 Addressing the use of explosive devices on aircraft, Alliance Airlines suggested crew were poorly placed to identify and intervene against such threats.¹⁴ Alliance suggested that passengers are now the ‘front line’ of defence against explosive devices on aircraft, and were better placed to

6 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 46.

7 Mr Ken Lewis, *Committee Hansard*, 25 May 2011, Canberra, p. 8.

8 Flight Attendants’ Association of Australia, *Supplementary Submission 10.1*, pp. 4-5.

9 Flight Attendants’ Association of Australia, *Submission 10*, p. 12.

10 Transport Workers Union, *Submission 11*, p. 4.

11 Regional Aviation Association of Australia, *Submission 6*, p. 2.

12 Alliance Airlines, *Submission 1*, p. 7.

13 Cobham Aviation, *Submission 3*, p. 1.

14 Alliance Airlines, *Submission 1*, p. 9.

identify aberrant behaviour, and that passengers were now also willing to actively intervene to prevent threats such as these.¹⁵

- 2.8 The Australian Airline Pilots' Association noted the lack of focus on cabin security in CASA's proposal to alter cabin crew ratios:

The issue of security is one which seems to have been bypassed in the decision regarding a change of cabin crew ratio. All of the justification to date has been centred on the ability to evacuate the aircraft in the required time as determined by the manufacturer or the state. There is no indication of the effect of a reduction in cabin crew numbers on the security of the aircraft or on the handling of an inflight security incident.¹⁶

- 2.9 The Committee asked Mr Peter Robertson of the Office of Transport Security whether there was any evidence to indicate whether one ratio was superior to another in terms of security. Mr Robertson replied that there was no evidence one way or the other, and that no assurances one way or the other could be given without evidence.¹⁷
- 2.10 As was noted earlier, advice from the Australian Transport Safety Bureau (ATSB) was cited by CASA as a particular reason for its 2002 decision to retain the 1:36 cabin crew to passenger ratio.¹⁸ The Committee regrets that the ATSB chose not to participate in the current inquiry.¹⁹

Measuring ratios and safety through evacuation demonstrations

- 2.11 Throughout the inquiry, the Committee heard about the use of partial evacuation demonstrations to demonstrate the effectiveness of aircraft evacuations under reduced cabin crew numbers. CASA requires an operator seeking a 1:36 exemption to 'prove' that a partial evacuation can be achieved with 'an acceptable level of safety (or better)'.²⁰

15 Alliance Airlines, *Submission 1*, p. 9.

16 Australian Airline Pilots' Association, *Submission 9*, p. 4.

17 Mr Peter Robertson, *Committee Hansard*, 19 May 2011, Sydney, p. 55, 57.

18 Civil Aviation Safety Authority, 'Notice of Proposed Rule Making: Air Transport Operations – Large Aeroplanes: Proposed Part 121A of the Civil Aviation Safety Regulations (CSAR)', *Document NPRM 02110S*, April 2002, p. A41.

19 The ATSB wrote to the Committee to advise that it would not be able to make a contribution directly relating to the inquiry's terms of reference, and that its investigations to date had not raised issues relating to cabin crew ratios.

20 Civil Aviation Safety Authority, *Submission 5*, p. 6.

- 2.12 A partial evacuation demonstration requires part of an aircraft to be populated with passengers, crew placed on board, and 50 per cent of the doors to be made unavailable for evacuation. Lights are also switched off to replicate a possible evacuation scenario. Passengers and crew are not aware ahead of time which doors are unavailable. During the demonstration, the airline is required to demonstrate that the aircraft can be evacuated safely within 90 seconds.²¹ For safety purposes, passengers disembark via stairs, rather than through the deployment of slides.
- 2.13 The purpose of this style of evacuation demonstration is to replicate the worst case scenario, in which an aircraft is on the ground and on fire.²² Where required, airlines also conduct a demonstration simulating a ditching.²³
- 2.14 In its submission, CASA advised that demonstrations are conducted under pass/fail criteria, and that in the event of a failed first attempt, airlines are given a second opportunity to conduct an evacuation demonstration on the same day using new crew and passengers.²⁴
- 2.15 CASA's submission noted that one operator had failed at both attempts, and was able to try again several months later after a full investigation of the unsatisfactory result, and amendment to procedures and crew training. This second demonstration was deemed successful.²⁵
- 2.16 On further investigation, the Committee learned from CASA that there were deficiencies in crew performance, as the simulation was one of a ditching, and a life raft was left on board.²⁶ The Committee was further informed that an airline had recently failed a demonstration twice due to insufficient crew awareness of procedures.²⁷
- 2.17 The Committee asked whether there had been any full aircraft evacuations undertaken in Australia. While Mr Lewis recalled that a full evacuation exercise had been conducted in 1972, CASA, in its supplementary submission, advised the last full evacuations were conducted in 1988, with one demonstration considered to be a failure due to cabin crew training

21 Mr Terry Farquharson, *Committee Hansard*, 19 May 2011, Sydney, p. 9.

22 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 9.

23 Civil Aviation Safety Authority, *Submission 5*, p. 11.

24 Civil Aviation Safety Authority, *Submission 5*, pp. 6–7.

25 Civil Aviation Safety Authority, *Submission 5*, p. 7.

26 Mr Grant Howard, *Committee Hansard*, 19 May 2011, Sydney, p. 10.

27 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 10.

deficiencies.²⁸ A second evacuation was then undertaken several weeks later and was deemed to be successful.²⁹

- 2.18 Evacuation trials were criticised by several witnesses and submitters. The FAAA said of the trials:

Emergency evacuation trials are conducted in very controlled environments and do not reflect an actual emergency evacuation as emergency conditions are not duplicated. The crew are tutored, prepared and practiced prior to the demonstration. The 'passengers' are fit, prepared, do not include children, the elderly, the frightened, injured, disabled or panicked. Cabin crew incapacity/redundancy is not factored into an evacuation trial. There is no smoke or fire and the aircraft is upright and intact. If a failure occurs, there is a re-run.³⁰

- 2.19 Ms Beverley Maunsell was also critical of evacuation trials, noting in her submission:

They are not a legitimate representation of the typical passenger load on a commercial flight or a real emergency evacuation. There are no elderly passengers, no wheelchairs, no physical, mental, hearing, or sight impaired passengers, no mothers with multiple children and infants. All of the above mentioned people are excluded from evacuation trials for litigation and safety reasons.³¹

- 2.20 Ms Maunsell described evacuation trials as unrepresentative of real life evacuations, noting that in a major accident in 1985 in Manchester, United Kingdom, in which an aircraft caught fire on the tarmac after a failed take off, it took the last passenger five and a half minutes to evacuate the aircraft. A previous evacuation demonstration had seen the aircraft cleared in 75 seconds.³²

- 2.21 In citing the Manchester accident, Tony Maddern noted that no recommendation had been made to alter the UK cabin crew ratio of 1:50 that was in place at the time and remains in place to this day.³³ The Committee notes, however, that in the Manchester accident the aircraft had 131 passengers and four members of cabin crew, operating at a

28 Mr Lewis, *Committee Hansard*, 25 May 2011, Canberra, pp. 9-10; Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 3.

29 Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 3.

30 Flight Attendants' Association of Australia, *Submission 10*, p. 7.

31 Ms Beverley Maunsell, *Submission 2*, p. 5.

32 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 18.

33 Mr Tony Maddern, *Committee Hansard*, 19 May 2011, Sydney, p. 45.

nominal ratio of 1:33. In this accident, the two members of cabin crew at the rear of the aircraft died, and the two crew members at the front of the aircraft directed the evacuation.³⁴

2.22 In criticising live evacuation trials, Ms Maunsell instead noted the value of computer modelling:

I do not think the trials mean anything. They are meaningless. If you were serious about wanting to know whether people could get out then you need to do computer modelling – they take it and put [in] old people and people with children. They put baggage all over the place. They simulate.³⁵

2.23 Ms Maunsell continued, noting that evacuation trials were used as a basis for detailed computer modelling for the Airbus A380:

They [Airbus] did both. They do the evacuations where they use all the people from the Hamburg gym or whatever it was and all the staff from Airbus and then use that as the basis for setting up the computer program to model. They then put in all the problems. Those evacuation trials have a basis if they are used with computer modelling, but they have no basis on their own.³⁶

2.24 The Committee understands that a full evacuation demonstration requiring evacuation via emergency slide is unduly dangerous, having heard evidence of serious injuries and even death occurring through the use of slides.³⁷

2.25 While the Committee understands the need to reduce risks in evacuation trials by using fit and healthy people, it is also of the belief that these trials fail to take into account the actual demographic makeup of Australian domestic passenger flights.

2.26 The Committee notes evidence received about the changing nature of passenger demographics in recent years. Beverley Maunsell noted that demographic changes in the travelling passenger cohort have included many more passengers with disabilities.³⁸

34 Air Accidents Investigation Branch, United Kingdom Department of Transport, 'Report on the accident to Boeing 737-236, G-BGJL, at Manchester Airport on 22 August 1985', *Report No: 8/1988*, 15 December 1988, p. 9.

35 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 20.

36 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 21.

37 Mr Stuart Aggs, *Committee Hansard*, 19 May 2011, Sydney, p. 41; Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 20.

38 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 22.

- 2.27 In its submission, the FAAA cited the higher numbers of passengers (such as disabled, elderly, unaccompanied children or parents with infants) requiring more help than the average passenger, and argued that a reduction in cabin crew on the aircraft would impact on the efficiency of evacuation.³⁹ Ms Carol Locket, representing the FAAA, noted that there had been an increase in carry-on luggage,⁴⁰ which would make evacuation of an aircraft even more difficult in the event of an emergency.
- 2.28 The Committee also heard that the behaviour of passengers had changed:
- ... we are seeing a lot more aggression. I think we see that in the general public, but it is very much so on an aircraft where people are not in control. They have great trouble taking direction sometimes and the aggression is there. We have a lot more instances of drug related behaviour; that is much more common.⁴¹
- 2.29 Evidence supplied by the Qantas Group indicated that there had been an increase in reported incidents aboard Qantas flights between January 2007 and May 2011. While the majority of cases concerned passenger use of mobile phones and personal electronic devices, there were also increases in passenger non-compliance with cabin crew directions.⁴²

The role of passengers in emergency evacuations

- 2.30 The Committee received several submissions that discussed the role of passengers in the opening of emergency exits, which may be more likely to be required during the evacuation of an aircraft crewed at the 1:50 ratio.
- 2.31 The FAAA noted in its submission that knowing the correct circumstances in which a door should be opened for evacuation was of critical importance. It advised that passengers were not trained to recognise the potentially fatal consequences of opening a door into fire, smoke or water.⁴³ This point was supported by the Transport Workers Union, which described a reliance on untrained passengers, who may have language and communication difficulties, to assess and operate emergency exits as 'a diminished level of safety and an unacceptable risk'.⁴⁴

39 Flight Attendants' Association of Australia, *Submission 10*, p. 9.

40 Ms Carol Locket, *Committee Hansard*, 25 May 2011, Canberra, p. 9.

41 Ms Carol Locket, *Committee Hansard*, 25 May 2011, Canberra, p. 9.

42 Qantas Group, *Supplementary Submission 4.1*, p. 7.

43 Flight Attendants' Association of Australia, *Submission 10*, p. 8.

44 Transport Workers Union, *Submission 11*, p. 5.

- 2.32 Beverley Maunsell cited several documented cases from the United States National Transport Safety Bureau of passengers opening doors into flames or allowing smoke into the cabin when operating doors in an emergency.⁴⁵
- 2.33 In its submission, the Australian Airline Pilots' Association chronicled several incidents in which passengers had acted contrary to instructions or, in the absence of crew supervision, had inappropriately opened exits or failed to find exits during an evacuation.⁴⁶
- 2.34 The FAAA also noted research conducted at the University of Greenwich that indicated that passengers travelled further to deplane, and chose non-optimal exits, without the guidance of crew members.⁴⁷
- 2.35 Examining the role of cabin crew in an evacuation, Beverley Maunsell suggested it would not be physically possible for one member of crew to control an evacuation at two adjacent doors at the same time, describing the notion as 'farcical'.⁴⁸ Evidence provided by the FAAA from cabin crew members illustrated the possibility of passengers being responsible for both front doors on the A321 if the single crew member was incapacitated in an accident.⁴⁹
- 2.36 Countering this concern, CASA cited research carried out by Cranfield University which had resulted in 'virtually identical' mean evacuation times whether there was one member of cabin crew or two members of cabin crew controlling passenger exit from adjacent doors.⁵⁰
- 2.37 Airline safety advisor Ken Lewis also expressed concern about an unattended main entry door, even in a non-emergency situation, noting a catastrophic incident was possible even as an aircraft taxied after landing if a passenger successfully opened a door at the front of an aircraft.⁵¹
- 2.38 Looking at the role and responsibility of passengers in an evacuation, CASA expressed an understanding that Boeing and Airbus had increasingly 'put some dependence on able-bodied passengers being able to assist in the evacuation'.⁵² This provision relates to passengers seated in the over-wing exit row. The FAAA advised that over-wing 'self-help' exits

45 Ms Beverley Maunsell, *Submission 2*, p. 7.

46 Australian Airline Pilots' Association, *Submission 9*, p. 2.

47 Flight Attendants' Association of Australia, *Submission 10*, p. 8.

48 Ms Beverley Maunsell, *Submission 2*, p. 5.

49 Flight Attendants Association of Australia, *Supplementary Submission 10.1*, p. 4.

50 Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 5.

51 Mr Ken Lewis, *Committee Hansard*, 25 May 2011, Canberra, p. 8.

52 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 5.

are the sole responsibility of passengers, and crew did not assist in opening these exits.⁵³

- 2.39 In its public hearing, the Committee heard evidence that passengers would experience difficulties in opening exit doors, with Beverley Maunsell suggesting ‘most people’ could not open them.⁵⁴ This evidence was supported by Carol Locket, who noted that using the correct technique in opening a door was important, because ‘there are certain types of doors where it would not matter how hard you pushed them; if you had not put the handle in the correct position in the first place, they will not open’.⁵⁵ When asked directly about whether a passenger with no training would be able to successfully open a door, she replied ‘I would say that they would have a very reduced chance of opening that successfully’.⁵⁶
- 2.40 Addressing this issue in its supplementary submission, CASA noted that in the case of the Airbus A321, the capability of able-bodied passengers to open floor level exits was considered a safety enhancement. Passengers require a safety briefing that includes instructions on how to assess conditions outside of the aircraft, including fire and smoke.⁵⁷
- 2.41 The Committee discussed the issue of exit row seating, noting that airlines had been known to charge more for exit row seating due to their extra leg room available. It asked witnesses about the assessments performed on potential exit row passengers to determine whether they were able-bodied, and procedures for moving passengers who were not deemed suitable to sit in the exit row.⁵⁸
- 2.42 The Committee also discussed briefings provided by cabin crew to exit row passengers, noting that the briefings they had witnessed through their travel had on some occasions been insufficient. Virgin Australia described their instructions on operating over-wing exits as ‘very detailed’, and noted that the passenger is required to confirm that they had understood the briefing.⁵⁹

53 Flight Attendants’ Association of Australia, *Supplementary Submission 10.1*, p. 1.

54 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 21.

55 Ms Carol Locket, *Committee Hansard*, 25 May 2011, Canberra, p. 10.

56 Ms Carol Locket, *Committee Hansard*, 25 May 2011, Canberra, p. 10.

57 Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 6.

58 Mr Robert Wood, *Committee Hansard*, 19 May 2011, Sydney, p. 36.

59 Mr Stuart Aggs, *Committee Hansard*, 19 May 2011, Sydney, p. 41.

The role of passengers in security incidents

- 2.43 As discussed earlier in this chapter, the Committee was advised that passengers have been increasingly willing to intervene in security incidents in the post-September 11 environment.⁶⁰
- 2.44 The Committee's attention was also drawn to a recent incident aboard Qantas Flight 768 from Perth to Melbourne, in which a passenger is alleged to have assaulted a member of cabin crew, and twice attempted to open the right rear door while in flight.⁶¹
- 2.45 The Committee was informed by the Department of Infrastructure and Transport that the number of disruptive passenger events onboard an aircraft in Australia is very low, with an incident on 0.001% of flights per year over the 2008-10 period. The majority of these incidents did not involve attempts to interfere with aviation, and were instead related to alcohol, not following crew instructions, or mental illness. Further, the Department noted in some of these cases, passengers had assisted crew in restraining a disruptive passenger.⁶²

Committee comments

- 2.46 The Committee observed that all sectors of the industry appreciate the role cabin crew members play in both safety *and* security, and considers that cabin security is an important issue that needs to be considered when evaluating cabin crew ratios. Cabin crew are trained professionals who are skilled at evaluating possible security threats at the time of boarding,⁶³ and access to this expertise should not be reduced without clear evidence that there would be no diminution of passenger safety.
- 2.47 The Committee considers that the failure of CASA to consider the role cabin crew play in securing the cabin and passengers is unfortunate. The Committee understands that CASA's responsibility is to consider aviation safety; however, the Committee is also of the belief that cabin security is intimately related to cabin safety.

60 Qantas Group, *Submission 4*, p. 11.

61 Steve Butcher, 'Detox for airline accused', *The Age*, 24 May 2011, p. 6.

62 Department of Infrastructure and Transport, *Submission 8*, p. 2.

63 Virgin Australia, *Submission 7*, p. 9.

- 2.48 This lack of clear consideration of security issues by CASA must be addressed by the regulator. The Committee acknowledges the view of Beverley Maunsell that '... in this business you cannot separate occupational safety, operational safety and security because they are all so intertwined'.⁶⁴ Safety and security are different, though closely related matters, and a secure aircraft is a safer aircraft. There needs to be more interaction between CASA and the OTS to determine what constitutes an adequately secure aircraft, and for this determination to be used by CASA in any future review of cabin crew ratios. Accordingly, the Committee recommends:

Recommendation 1

That the Civil Aviation Safety Authority and the Office of Transport Safety work together to determine an appropriate level of passenger compartment security for Australian domestic flights, taking into account previous incidents both in Australia and abroad.

Recommendation 2

That the Civil Aviation Safety Authority consider passenger compartment security in any future review of cabin crew ratios.

- 2.49 When considering evacuation demonstrations, the Committee understands the reasons that partial evacuations only involve fit and physically able people. However, the Committee has concerns about the significant differences between a controlled demonstration and a real-life emergency, where a more accurate reflection of a population's demographics is included. The Committee considers that the findings of these partial evacuation demonstrations should not be relied upon as accurate representations of an emergency evacuation.
- 2.50 The Committee sees value in the use of computer modelling to simulate evacuations, and encourages operators to explore using this technology further to demonstrate the effectiveness of their safety procedures.

64 Ms Beverley Maunsell, *Committee Hansard*, 19 May 2011, Sydney, p. 18.

- 2.51 The Committee was concerned to hear that there is an increasing reliance being placed on passengers to open doors in the case of an emergency, given the relative complexity of the task and the expertise required to assess the situation outside the aircraft.
- 2.52 It notes the vast majority of casualties in the aforementioned Manchester accident of 1985 died of smoke inhalation, and believes any increased reliance on passengers to operate doors presents potentially hazardous circumstances in the event of an onboard emergency involving fire. It notes in the official report into the accident that passengers operated the over-wing exits incorrectly, leaving them trapped inside the aircraft.⁶⁵
- 2.53 While Airbus may consider the capability for doors on the A321 to be able to be operated by properly briefed passengers to be a safety enhancement, the Committee is exploring exemptions to a range of aircraft, not just the A321, and notes that briefings on how to operate doors can vary in quality.
- 2.54 The Committee also notes evidence regarding the higher charges levied for passengers wishing to have extra legroom in exit row seats. The Committee is concerned that any automation of check-in procedures does not reduce the capacity for cabin crew members to assess, before takeoff, the suitability of passengers to occupy an exit row.
- 2.55 Addressing the issue of passengers and security, the Committee is unconvinced by suggestions that passengers should be relied upon to take part in ensuring the security of the cabin. While it is entirely probable that passengers would assist in ensuring the security of the cabin, including assisting cabin crew to restrain unruly passengers, the Committee remains concerned about an overall reduction of cabin crew numbers based on anecdotal evidence that, post-September 11, passengers are increasingly willing to intervene in security threats.

CASA's review processes

- 2.56 The Committee inquired about the level of consultation undertaken by CASA before embarking on the NPRM process in relation to cabin crew ratios and expressed concern that consultation with the public may not have been sufficient. CASA replied that they conducted more public consultation than other high-capacity public transport bodies, and that it
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65 Air Accidents Investigation Branch, United Kingdom Department of Transport, 'Report on the accident to Boeing 737-236, G-BGJL, at Manchester Airport on 22 August 1985', *Report No: 8/1988*, 15 December 1988, p. 9.

has a Standards Consultative Committee in place which includes operators, unions, and other organisations, including the Australian Passenger Safety Association, as members.⁶⁶

- 2.57 Other evidence presented to the Committee suggested that there had been no stakeholder or public consultation prior to the granting of exemptions, and that CASA had granted exemptions via delegated legislation in contravention of the previously expressed views of the Parliament.⁶⁷
- 2.58 In its supplementary submission, CASA advised that it had advertised the NPRM in newspapers and on the CASA website, and that should the NPRM proceed, a report would be prepared and made publicly available to advise of the decision.⁶⁸
- 2.59 While the Committee makes no comment on the use of delegated legislation to grant exemptions, it does have concerns about the lack of coverage and processes employed by CASA to consult with flight attendants, stakeholders and the general public.
- 2.60 The Committee notes the submission from the FAAA which urges the public release of hazard identification, risk assessment and mitigation strategies that were performed before the granting of exemptions.⁶⁹ The Committee believes it is in the best interests of all, especially the flying public, that CASA's decisions, and the rationale behind them (including submissions made to CASA), are made publicly available in a timely manner. The Committee notes that CASA publishes information after a decision is taken, but believes a more open consultative approach could be taken.

Recommendation 3

That, prior to finalising the process, the Civil Aviation Safety Authority publish on its website all non-confidential submissions made to it through the Notice of Proposed Rule Making process.

- 2.61 Further, the Committee believes the public consultation mechanism surrounding NPRMs should be expanded when they relate to issues that

66 Mr Greg Hood, *Committee Hansard*, 1 June 2011, Canberra, p. 8.

67 Flight Attendants' Association of Australia, *Submission 10*, pp. 4-5.

68 Civil Aviation Safety Authority, *Supplementary Submission 5.1*, p. 8.

69 Flight Attendants' Association of Australia, *Submission 10*, p. 5.

directly affect passengers, such as cabin crew ratios. The Committee believes that advertising in newspapers and placing information on the CASA website constitutes a minimum level of publicity, and believes CASA could do more to raise the travelling public's awareness of issues that directly affect their flying experience. Accordingly, the Committee recommends:

Recommendation 4

That the Civil Aviation Safety Authority advertise Notices of Proposed Rule Making that directly affect passengers in publications that are widely read by the travelling public, such as in-flight magazines, and that CASA seek submissions from the public into the advertised Notices of Proposed Rule Making.

Training

- 2.62 The Committee was interested in the level of safety and security training provided to cabin crew and other workers connected to aircraft safety and security.
- 2.63 The Department of Infrastructure and Transport reported the security requirements contained in the Aviation Transport Security Regulations 2005 in its submission:
- The requirement for aircraft with over 30 seats that are operating a Regular Public Transport or open charter service to have a hardened cockpit door that is locked during flight.
 - The requirement for an operator of a prescribed air service to establish and maintain a security training program for crew covering topics such as deciding the seriousness of an occurrence, crew communication and coordination, and appropriate self defence. This satisfies Australia's obligation under Annex 6 of the Chicago Convention in respect of minimum security training topics that an aircraft operator must include in their crew training program.
 - The requirement for an aircraft operator's transport security program to address matters including: measures and procedures for handling suspect behaviour by a passenger; procedures for raising the awareness

and alertness of staff to security threats and their responsibility to report aviation security incidents and breaches; how security awareness training will be given to operational staff; and duties and responsibilities of personnel with security roles.⁷⁰

- 2.64 The Committee inquired into the role of the Office of Transport Security (a division of the Department of Infrastructure and Transport) in airline staff training. The Department advised that operators were responsible for submitting their transport security programs, including cabin crew training programs, to the Office of Transport Security for approval.⁷¹
- 2.65 The Qantas Group noted in its submission that Jetstar cabin crew only receive annual refresher and recurrent emergency procedure training, whilst Qantas cabin crew received twice yearly training in emergency procedures and normal operations, that training was competency based, and that crew were assessed in theoretical and practical knowledge.⁷²
- 2.66 The Qantas Group reported that cabin crew training, rather than numbers, is the determining factor in performing an efficient and safe evacuation.⁷³
- 2.67 Ms Carol Locket of the FAAA reported that security training was being conducted once every two years, rather than yearly, and that the major airlines had been reducing or dispersing the amount of training provided to members of cabin crew.⁷⁴
- 2.68 The Transport Workers Union noted in its submission:
- ... in terms of cabin crew at present there is no one mandated standard of accreditation, qualification and licensing system currently in place. In practical terms this means that the skill, qualification and capacity of cabin crew to handle an in flight emergency or security situation is currently different depending on who you fly with.⁷⁵
- 2.69 Expanding on the TWU submission, Tony Sheldon advised that there had been an increase in training of his members, but suggested it was inadequate, and that employees had been reprimanded for raising security

70 Department of Infrastructure and Transport, *Submission 8*, p. 2.

71 Mr Peter Robertson, *Committee Hansard*, 19 May 2011, Sydney, p. 57.

72 Qantas Group, *Submission 4*, p. 9.

73 Qantas Group, *Submission 4*, p. 10.

74 Ms Carol Locket, *Committee Hansard*, 25 May 2011, Canberra, p. 8.

75 Transport Workers Union, *Submission 11*, p. 5.

issues such as unattended baggage that may interfere with the efficient operation of aircraft.⁷⁶

Crew Fatigue

- 2.70 The FAAA suggested that any reduction in crew should also properly consider flight and duty time limitations, and that Australia did not currently comply with the International Civil Aviation Organization's (ICAO) Standards and Recommended Practices.⁷⁷
- 2.71 The Australian Airline Pilots Association noted in its submission that there were currently no legislated flight and duty time limits for cabin crews. They suggested this was a shifting of responsibility from CASA to the operators, and noted the ICAO audit of Australia from 18–28 February 2008 had identified this issue. CASA had agreed with the findings of the audit, noting rest periods were 'only subject to workplace agreements and State-based legislation in relation to occupational health and safety'.⁷⁸
- 2.72 In the Committee's public hearing, CASA discussed the ICAO fatigue risk management guidelines, noting it had received a draft of the guidelines. Further, CASA advised it had the intention to produce fatigue risk management guidelines, noting there would be wide industry consultation, including with the general public. CASA expressed optimism that the process would cover cabin crews by 2012.⁷⁹
- 2.73 The Committee inquired whether CASA was satisfied with the fatigue management systems currently put in place by Australian operators. John McCormick of CASA responded:

If I take that across the whole board as a yes or no question I would say at the moment what we are seeing would lead us to indicate yes. There are certainly fatigue issues out there. There certainly are patterns of flights which are not very user friendly. I think they can be improved. We have done this extensive work with major operators in Australia about some of the patterns that they roster their crew on. That is an ongoing process ...⁸⁰

76 Mr Tony Sheldon, *Committee Hansard*, 25 May 2011, Canberra, p. 7.

77 Flight Attendants' Association of Australia, *Submission 10*, pp. 6, 15.

78 Australian Airline Pilots Association, *Submission 9*, p. 4.

79 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, pp. 4–5.

80 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, pp. 8–9.

- 2.74 Virgin Australia was asked about its fatigue management system, advising that its crew could do up to four sectors per day, but that their duty time limitation was nine hours and 45 minutes operating time.⁸¹
- 2.75 Cobham Aviation identified security training and fatigue risk management appraisals as measures to enhance aviation security.⁸²
- 2.76 In its submission, the Transport Workers Union suggested addressing fatigue and risks through mandatory:
- operator commitment to enforceable independent third party risk assessments and compliance audits;
 - crew roster patterns, rest and fatigue management systems and enforceable protections;
 - operator commitment to whistleblower protections; and
 - crew training, accreditation and qualification systems, including mandatory safety security training.⁸³

Recommendation 5

That the Civil Aviation Safety Authority ensure that Australia becomes compliant with the International Civil Aviation Organization's Standards and Recommended Practices relating to cabin crew flight and duty time limitations as a matter of priority.

Airside security and ASIC passes

- 2.77 While not specifically relating to the issue of cabin crew ratios, the Committee took a broad approach to issues of passenger safety and security, including safe operations at airports. The Committee received evidence at its public hearing of 25 May 2011 held in Canberra relating to airside security practices. Witnesses from the Transport Workers Union (TWU) expressed concern that security screening of employees working airside had not been adequately undertaken.

81 Ms Sophie O'Ferrall, *Committee Hansard*, 19 May 2011, Sydney, p. 42.

82 Cobham Aviation, *Submission 3*, p. 2.

83 Transport Workers Union, *Submission 11*, p. 4.

- 2.78 Tony Sheldon of the TWU advised the Committee that the process for issuing ASIC (Aviation Security Identification Card) passes is slow, and workers are allowed to work airside without a card until it has been issued. Mr Sheldon noted that the Office of Transport Security endeavoured to issue an ASIC pass within five days, but took up to 20 days to consider those with unclear security histories. He described the concept of a person working airside without security clearance for up to 20 days as 'ludicrous', and noted the potential not just for acts of terror, but also for drug trafficking.⁸⁴ Mr Sheldon suggested this issue had arisen because companies did not wish to apply for ASIC passes prior to engaging employees.
- 2.79 Witnesses from the TWU noted a recent instance at Canberra Airport in which eight employees of a cleaning company were working airside without ASIC checks, including near passenger and VIP aircraft (including the Prime Minister's aircraft).⁸⁵ After the witnesses persuaded the Australian Federal Police to investigate the issue further, it was found that a number of the workers were illegally working on student visas.⁸⁶ After AFP involvement, the employees were removed from the premises and did not return to work at Canberra Airport.
- 2.80 In its submission, the TWU suggested the implementation of mandatory safety and security training for all ASIC pass holders, and a security and safety accreditation and portable licensing system for all aviation industry employees, commencing with cabin crew.⁸⁷
- 2.81 These matters are outside the terms of reference for this inquiry, but the Committee feels they should be recorded for consideration by the Minister.

Committee's overall conclusions

- 2.82 A central concern for this inquiry was the difference between ratios of 1:36 (crew to passengers) and 1:50 (crew to passenger *seats*), and the difficulties in adequately comparing these, where data is not readily available. Throughout the course of its inquiry, the Committee sought any clear evidence available that compared operations under a cabin crew ratio of
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84 Mr Tony Sheldon, *Committee Hansard*, 25 May 2011, Canberra, p. 6.

85 Mr Tony Sheldon, *Committee Hansard*, 25 May 2011, Canberra, p. 8.

86 Mr Grant Smith, *Committee Hansard*, 25 May 2011, Canberra, p. 13.

87 Transport Workers Union, *Submission 11*, p. 4.

1:36 with those under a ratio of 1:50. It sought data for comparison based on Australian operations, and when it became clear this was not available, sought to determine whether there was data comparing Australia to other countries, including Canada, which also has a cabin crew ratio different to the 1:50 used elsewhere.

- 2.83 Having discussed the issue comprehensively with operators, employee organisations, experts, and the regulator itself, it is clear to the Committee that there are no direct or indirect comparisons that measure the effectiveness of an evacuation exercise using both ratios.
- 2.84 While it is clear that partial evacuations are of some use in demonstrating the training and operational procedures of operators, the inquiry process has brought forth evidence that suggests partial evacuation demonstrations are, at best, an imprecise measure of the effectiveness of an aircraft evacuation.
- 2.85 The Committee notes the two separate issues of cabin safety and cabin security. The focus of CASA's proposal on cabin safety is understandable, given that CASA's primary role is one of safety. However, cabin security is a separate, though closely related responsibility of members of cabin crew, and the Committee believes that a security incident can very quickly impact on the safety of an aircraft.
- 2.86 Further, the Committee notes the criticism of CASA's handling of security issues, and the role played by the Office of Transport Security in assessing the role of cabin crew in security.⁸⁸ It understands the demarcation of duties between CASA and the Office of Transport Security, but believes at there is considerable scope, and need, for the agencies to work more closely when assessing the links between safety and security, and the impacts of their respective decisions on these factors.
- 2.87 The Committee notes with concern the suggestion that passengers are being relied on to be more involved in the safety and security of the cabin, and considers that passengers should not be expected to perform these roles as a matter of first resort. There is no substitute for trained professionals working in the field of safety and security, and there are many reported incidents in which passengers have behaved inappropriately or ineffectively.
- 2.88 The Committee considers that an increased rate of survivability in the case of air crashes does not justify a reduction in the number of cabin crew on an aircraft. It agrees with the conclusion drawn by the FAAA that greater

88 Mr Tony Sheldon, *Committee Hansard*, 25 May 2011, Canberra, p. 4.

survivor rates make efficient and effective evacuations even more important,⁸⁹ and given the likelihood of cabin crew being incapacitated in the event of a crash, a ratio that provides more potential for able crew to effect an evacuation should be supported.

- 2.89 The Committee believes that any decision to change Australia's cabin crew ratio must be supported by the weight of evidence that there is no diminution of passenger safety and security. Australia has a strong record in aviation safety and security, a record that has been preserved through strong and effective regulation.
- 2.90 While harmonisation with overseas aviation standards is a desirable outcome, it should not come at the expense of a higher standard. Based on the limited evidence it received, the Committee is not able to support the claim that 1:50 ratio is not a downgrade in safety and security. It cannot therefore support adoption of a 1:50 ratio to fall into line with the United States and European regulators. In short, the Committee believes the case has not been made.
- 2.91 The Committee acknowledges the concerns of operators about costs, however, it also notes the low cost imposition on a per passenger basis and the evidence presented by the Qantas Group that the cost impacts of the cabin crew ratio are in fact minimal.
- 2.92 Further, the Committee notes that the issue of cabin crew ratios has been evaluated by the Parliament in various ways over the last ten years, from bipartisan agreement in the House of Representatives Chamber, to Senate reports and discussions in other parliamentary forums. The Committee was very disappointed to hear that CASA had not taken the wishes of the Parliament into account by continuing to grant exemptions despite the Parliament expressing a clear preference for the retention of the 1:36 ratio.
- 2.93 The Committee was pleased to hear that CASA would fully implement its recommendations,⁹⁰ and welcomes CASA's willingness to remove the exemptions were it to be directed to do so.⁹¹ The Committee believes that until the NPRM process is conducted with openness and transparency, that no further exemptions should be granted. The Committee will continue to observe the NPRM processes with interest.

89 Flight Attendants' Association of Australia, *Submission 10*, pp. 9–10.

90 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 14.

91 Mr John McCormick, *Committee Hansard*, 19 May 2011, Sydney, p. 64.

Recommendation 6

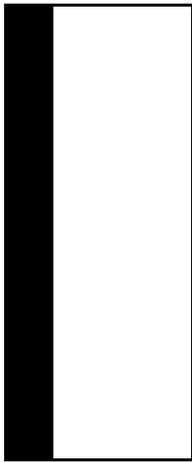
That the Civil Aviation Safety Authority cease providing new exemptions to the 1:36 cabin crew ratio currently mandated by Civil Aviation Order 20.16.3, and that all exemptions to the Order currently in place not be renewed upon expiry.

Recommendation 7

That the 1:36 ratio be retained until such a time that it can be demonstrated that a change to a 1:50 cabin crew ratio in Australia will not result in reduced levels of safety or security.

Sharon Bird MP

Chair



Dissenting Report—Mr Paul Fletcher MP

1) Introduction

1. This Dissenting Report sets out my conclusions following the inquiry of the House of Representatives Standing Committee on Infrastructure and Communications into Cabin Crew Ratios on Australian Aircraft.
2. I disagree with the conclusion of the Chair's Report. In my view the evidence received by the Committee offers no satisfactory basis for Australia persisting with a 1:36 cabin crew ratio when a 1:50 ratio is recommended by major aircraft manufacturers Boeing and Airbus and is the regulatory requirement in the United States, Europe and other jurisdictions.

2) The right way to frame the question

3. The Committee has been asked to consider a serious question of public policy, raising issues of public safety, security and cost. That question is whether the legal minimum requirement for the number of cabin crew in certain passenger aircraft should be a ratio of 1:50 or 1:36.¹
4. Several points bear upon this question:
 - The relevant specialist Commonwealth government regulatory body, the Civil Aviation Safety Authority (CASA), proposes a 1:50 ratio.
 - Single aisle aircraft in the relevant size range (such as the Airbus 320 and Boeing 737) are designed on the basis of a 1:50 ratio.²

¹ The question concerns aircraft with between 16 and 216 seats.

² CASA, Submission 5, p 12

- In the US, Europe and in fact in all International Civil Aviation Organization (ICAO) jurisdictions except Australia and Canada, 1:50 is the ratio used.³
 - While the existing Australian ratio is based on the number of passengers, the ratio used internationally (and the one proposed by CASA) uses the number of seats.
5. The right way to frame the question facing the Committee is to ask whether there is any good reason for the cabin crew ratio used in Australia to diverge from the 1:50 ratio which is used in other developed nations, and recommended by the aircraft manufacturers (“**International Standard Ratio**” or “**ISR**”).
 6. If there is persuasive evidence that countries which use the ISR have inferior aviation safety or security outcomes to those in Australia, or that Australia’s use to date of the 1:36 ratio (“**Legacy Australian Ratio**” or “**LAR**”) has delivered tangible practical benefits for safety or security, then we should have no hesitation in continuing to diverge from the ISR. If there is no such evidence, we should adopt the ISR.
 7. The Chair’s Report seems to assume that adopting the ISR will result in there being more passengers for each cabin crew member than is the case today. A similar assumption was made by some witnesses, such as the Flight Attendants’ Association of Australia (FAAA). That assumption is not universally correct.
 8. If we start with the simplifying assumption of a fully loaded aircraft, then the number of seats equals the number of passengers. Even with this assumption, when we consider the range from 16 passengers to 216 passengers, using the ISR will produce no reduction in cabin crew when there are
 - Between 19 and 36 passengers
 - Between 50 and 71 passengers
 - Between 100 and 107 passengers.
 9. A more important point is that the ISR is calculated on a *per seat* basis; the LAR is calculated on a *per passenger* basis. There is limited discussion in the Chair’s Report of this point, but it makes a significant difference whenever an aircraft is not fully loaded. If the load factor is less than 72 per cent (that is, 36 divided by 50), using the ISR will produce a minimum required number of cabin crew which is equal to, or *higher than*, the LAR.

³ CASA, Submission 5, p 9

3) No persuasive evidence that ISR produces inferior safety or security outcomes

10. The committee heard no persuasive evidence that using the ISR produces inferior safety or security outcomes.
11. Australia has very high aviation safety standards. Since 1966 we have had no fatal accidents on transport category aircraft where cabin crew were carried.⁴
12. Of course that reflects many factors including maintenance practices, pilot training and quality, aircraft age and quality, air traffic control systems and weather. The number of cabin crew is one factor in a complex mix. It is relevant in certain circumstances, particularly where there is an accident requiring a rapid evacuation.
13. CASA informed the Committee that there is no evidence, to its knowledge, of systematic differences between aviation safety in Australia and other countries due to the different cabin crew ratios. In its submission CASA noted the absence, to its knowledge, of any:
 - accident or incident investigation in a country that operates at a 1:50 ratio that has recommended an increase in cabin crew;
 - studies into cabin safety that have recommended an increase in cabin crew numbers;
 - evidence supporting a link between the Australian requirement for 1 cabin attendant to 36 passengers and Australia's aviation safety record;
 - any situation where the effective management of an event was enhanced as a consequence of a cabin crew ratio on that flight of being (up to) 1:36.⁵
14. Since 2006, CASA has given exemptions to a number of operators allowing them to operate using the 1:50 ratio. The committee received no persuasive evidence of any materially adverse safety consequences having flowed from these exemptions.
15. The evidence received by the Committee from the Office of Transport Security indicated that adopting the ISR will make no difference to aviation security.

Mr FLETCHER: I would like to ask one further question based on that. In other words, as we deliberate on the view we should form on this

⁴ CASA Supplementary Submission 5.1, pp 7-8

⁵ CASA Supplementary Submission 5.1, pp 7-8

proposed change, the aviation security considerations, in practical terms, do not assist us and do not point in either direction?

Mr Robertson: On the evidence that is available that would be a fair assessment, yes.⁶

4) Other Arguments

16. A number of other arguments were put. I did not find they offered persuasive support for Australia continuing to diverge from the ISR.

a) Because Australia has historically had a higher ratio

17. As the Chair's Report notes at paragraph 1.43, the main reason that Australia has used the 1:36 ratio is historical:

From the evidence received by the Committee, it is clear that the only real basis behind the current cabin crew ratio of 1:36 is that it was used in the early days of civil aviation in Australia, and has since been extrapolated as passenger aircraft have increased in size.⁷

18. Self-evidently, this is not a sufficient reason to continue to diverge from the ISR.

b) Arguments from the TWU and the FAAA

19. The Chair's Report extensively quotes the views of the Transport Workers Union (TWU) about the role of cabin crew in maintaining in flight security. I do not understand why. Neither cabin crew ratios, nor in-flight safety and security, are issues about which the TWU has particular expertise. Its National Secretary told the Committee that the TWU does not represent cabin crew or any workers who have a role when an aircraft is in flight.

Mr FLETCHER: Mr Sheldon, what roles do your members perform on aircraft?

Mr Sheldon: They are baggage handlers, so they come into contact with the aircraft by putting bags in. They are freight loaders. A large proportion of passenger flights carry freight. They are catering staff that will truck the catering to the plane and load the plane with the catering shells.

Mr FLETCHER: Are any of your members in the aircraft in their occupation?

⁶ *Committee Hansard*, Canberra, 19 May 2011, p.57

⁷ Chair's Report, para 1.43

Mr Sheldon: I am sorry; we also have aircraft cleaners—they go in and out.

Mr FLETCHER: What about when the aircraft is in flight?

Mr Sheldon: No, we do not have people who are engaged in the work while in flight.⁸

20. In my view the opinions of the TWU should be given no particular weight in considering this question.
21. The FAAA were strongly in support of Australia continuing to diverge from the ISR. The FAAA exists to advance the interests of its members, who are flight attendants on Australian airlines. It is unsurprising that the FAAA opposes a change which it perceives as reducing the mandated minimum number of flight attendants on aircraft. However, the criteria for this decision are safety and security; they are not maximising employment prospects in the airline industry.
22. I acknowledge that the FAAA presented arguments based on safety and security considerations. I found those arguments less persuasive than the evidence provided by CASA and the Office of Transport Security.

c) **Because the ISR would bring cost savings and these are a bad thing**

23. The Chair's Report at paragraph 1.71 speaks of the 'challenges in assessing operators' motivations in seeking exemptions to the 1:36 ratio' and notes that operators agreed that it had been primarily for cost reasons.⁹
24. This paragraph implies that it is prima facie a matter for concern that operators have been motivated by cost savings. I disagree. Of course safety must be the primary objective and operators must not do anything which compromises safety. However, if cost savings can be obtained without compromising safety, I see no objection at all to operators pursuing them. It is a question to be assessed on the evidence: does diverging from the ISR delivers safety and security benefits?
25. The evidence provided to the Committee has not demonstrated material safety and security benefits. That being so, it makes good sense to pursue cost savings. After all, if adopting the ISR delivers cost savings, the benefits may potentially include:

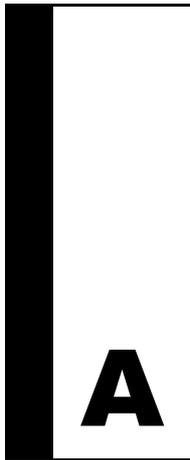
- Lower airfares making it more affordable for Australians to fly

⁸ *Committee Hansard*, Canberra, 25 May 2011, p.11

⁹ Chair's Report, para 1.71

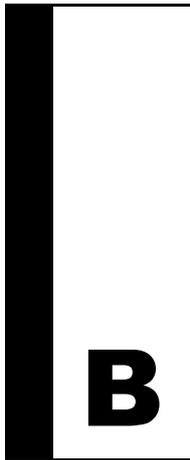
- Improving the breakeven economics of routes to particular destinations (especially in rural areas), allowing them to receive services which would not otherwise be possible
- Using the savings to fund other initiatives which have a greater safety and security benefit than is gained from diverging from the ISR.

Paul Fletcher MP
Member for Bradfield
October 21, 2011



Appendix A – List of submissions

- 1 Alliance Airlines
- 2 Ms Beverley Maunsell
- 3 Cobham Aviation Services Australia
- 4 Qantas Group
- 4.1 Qantas Group (SUPPLEMENTARY)
- 5 Civil Aviation Safety Authority
- 5.1 Civil Aviation Safety Authority (SUPPLEMENTARY)
- 6 Regional Aviation Association of Australia
- 6.1 Regional Aviation Association of Australia (SUPPLEMENTARY)
- 7 Virgin Australia
- 8 Department of Infrastructure and Transport
- 9 Australian Airline Pilots' Association
- 10 Flight Attendants' Association of Australia
- 10.1 Flight Attendants' Association of Australia (SUPPLEMENTARY)
- 11 Transport Workers Union of Australia
- 12 Confidential Submission
- 13 Mr John Webb



Appendix B – List of witnesses

Thursday, 19 May 2011 – Sydney

Civil Aviation Safety Authority

Mr John McCormick, Director of Aviation Security

Mr Terry Farquharson, Deputy Director of Aviation Security

Mr Greg Hood, Executive Manager, Operations Division

Mr Grant Howard, Safety Systems Inspector, Operations Division

Department of Infrastructure and Transport

Mr Peter Robertson, General Manager, Aviation Security Branch, Office of Transport Security

Ms Beverley Maunsell

Qantas Group

Mr Robert Wood, Head of Government and International Relations

Ms Samantha Taranto, Executive Manager, Cabin Crew

Ms Susan D’Ath-Weston, Head of Safety

Regional Aviation Association of Australia and Alliance Airlines

Mr Tony Maddern, Projects Manager, Flight Operations, Alliance Airlines

Virgin Australia

Ms Jane McKeon, Group Executive, Government Relations

Ms Sophie O’Ferrall, Manager, Cabin Standards and Quality

Mr Stuart Aggs, Acting General Manager, Safety Systems

Wednesday, 25 May 2011 - Canberra

Flight Attendants' Association of Australia

Ms Jo-Ann Davidson, Secretary

Ms Carol Locket, National Convenor, Occupational Health and Safety

Mr Ken Lewis, Airline Safety Advisor

Transport Workers Union of Australia

Mr Tony Sheldon, National Secretary

Mr Ben Sweaney, Organiser

Mr Grant Smith, Delegate

Wednesday 1 June 2011 - Canberra

Civil Aviation Safety Authority

Mr John McCormick, Director of Aviation Security

Mr Greg Hood, Executive Manager, Operations Division

Mr Grant Howard, Safety Systems Inspector, Operations Division