The Auditor-General
Audit Report No.29 2006–07
Performance Audit

Implementation of the *Sydney Airport Demand Management Act 1997*

Australian National Audit Office

ISSN 1036–7632

ISBN 0 642 80948 8

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Australian National
Audit Office

Canberra ACT
7 March 2007

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit across agencies in accordance with the authority contained in the Auditor-General Act 1997. Pursuant to Senate Standing Order 166 relating to the presentation of documents when the Senate is not sitting, I present the report of this audit and the accompanying brochure. The report is titled Implementation of the *Sydney Airport Demand Management Act 1997.*

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—http://www.anao.gov.au.

Yours sincerely

Ian McPhee
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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Glossary

ACA	Airport Coordination Australia Pty Ltd
AGS	Australian Government Solicitor
ANAO	Australian National Audit Office
Archives Act	*Archives Act 1983*
BTRE	Bureau of Transport and Regional Economics
Curfew Act	*Sydney Airport Curfew Act 1995*
DOTARS	Department of Transport and Regional Services
DPP	Commonwealth Director of Public Prosecutions
FMA Act	*Financial Management and Accountability Act 1997*
ICAO	International Civil Aviation Association
IATA	International Air Transport Association
JCPAA	Joint Committee on Public Accounts and Audit
LTOP	Sydney Airport long-term operating plan
NFPMS	Noise Flight Path Monitoring System
OPC	Office of Parliamentary Counsel
PAES	Portfolio Additional Estimates Statements
PBSs	Portfolio Budget Statements
PRM	Precision Radar Monitoring
SACF	Sydney Airport Community Forum
SACL	Sydney Airport Corporation Limited

SADM Act	*Sydney Airport Demand Management Act 1997*
SARS	Severe Acute Respiratory Syndrome
SODPROPS	Simultaneous opposite direction parallel runway operations
TAAATS	The Australian Advanced Air Traffic System

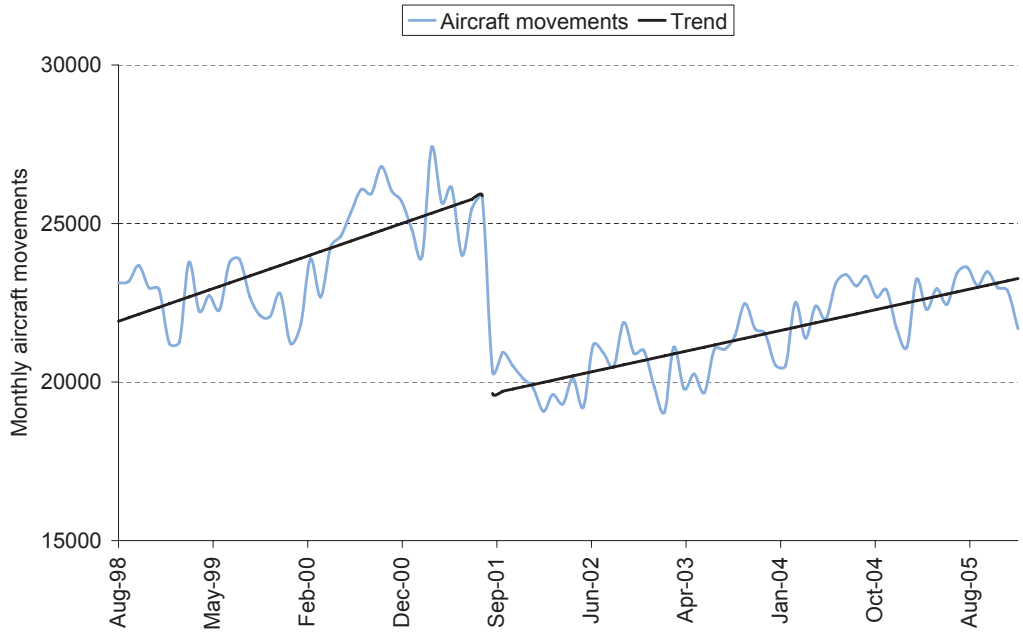
Summary and Recommendations

Executive summary

Background

1. Sydney Airport is a major international gateway and cargo airport and a key element of Australia's economic and transport infrastructure. It is set amid densely populated urban areas, relatively close to the city centre.

2. The following figure outlines monthly aircraft movements at Sydney Airport since 1998. It highlights the volatile nature of aviation demand, with the effects of the September 2001 terrorist attacks in the United States exacerbated in Australia by the collapse of Ansett Airlines. While aircraft movement growth at Sydney Airport has resumed, it is at a slower rate than prior to the events of September 2001 such that monthly movements have only recently returned to the levels observed before the Sydney 2000 Olympic Games.



3. Within the civil aviation industry, approaches to managing airport demand have evolved to improve the use of tightly constrained airport facilities. In this context, the International Air Transport Association (IATA) has developed procedures (called the *Worldwide Scheduling Guidelines*) to

provide guidance on the allocation of available capacity and coordination of airline schedules. However, IATA has acknowledged that, where sovereign nations have in place legislation to govern the management of demand, this legislation takes precedence over the Worldwide Scheduling Guidelines.

4. The *Sydney Airport Demand Management Act 1997* (SADM Act) provides the framework for the long-term management of demand at Sydney Airport. The SADM Act is intended to meet the commitment made by the Government prior to the March 1996 Federal election that aircraft movements at Sydney Airport would be capped at 80 per hour. In this respect, the requirements of the SADM Act take precedence over voluntary coordination practices advocated by IATA, and in place at other major Australian airports.[1]

5. In the second reading speech for the legislation, Parliament was advised that the demand management arrangements would:

- help alleviate delays caused by congestion at Sydney Airport;
- spread aircraft movements more evenly within hours;
- safeguard the levels of access that regional New South Wales has to Sydney Airport;
- provide for any potential new entrants to have equal access with their established competitors to slots at Sydney Airport; and
- ensure a workable and effective means of administering the movement limit.

6. The demand management scheme for Sydney Airport comprises the SADM Act and legislative instruments made under the Act. The SADM Act limits aircraft movements at Sydney Airport to a maximum of 80 per hour. Each arm of the operational requirements created by the SADM Act is put into effect by legislative instruments made under the Act. The two most important are:

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[1] The voluntary coordination of scheduled movements between Australian Airports is a long-standing practice. International terminal coordination commenced at Sydney and Melbourne in 1971. Brisbane, Perth and Darwin airports followed suit, as have Adelaide, Townsville and Cairns as their international arrivals have grown.

- the Slot Management Scheme, under which aircraft operators are required to seek a slot (a permission to undertake an aircraft movement) from the Slot Manager;[2] and
- the Compliance Scheme, which requires operators to carry out authorised aircraft movements within a prescribed tolerance period before or after the scheduled slot time. The Compliance Scheme also deals with certain matters concerning the application of penalties to aircraft operators who operate aircraft without a slot or outside of the prescribed tolerances.

7. The combined action of these two instruments is intended to implement the movement limit, by controlling the scheduling of aircraft movements under the Slot Management Scheme and requiring timely performance through the Compliance Scheme.

8. The SADM Act commenced on 17 November 1997, with the movement limit and penalties for unauthorised aircraft movements coming into effect on 17 May 1998. Both the Slot Management and Compliance Schemes were made by determination of the then Minister for Transport and Regional Services during 1998. The Slot Management Scheme commenced operation on 25 March 1998, and the Compliance Scheme on 25 October 1998. Since the commencement of the scheme, there have been over 190 000 regulated hours and approximately two million aircraft movements.

9. The Department of Transport and Regional Services (DOTARS)[3] is responsible for the implementation and administration of the SADM Act. Airservices Australia is responsible for monitoring and reporting on compliance with the aircraft movement limit.

Audit approach

10. The objective of the audit was to assess the implementation and administration of the movement limit and the Slot Management Scheme at Sydney Airport.

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2 The Slot Manager, Airport Coordination Australia Pty Ltd (ACA), was appointed by the Minister and is a proprietary company registered in New South Wales. At June 2006, the holders of its 1 000 issued shares were the Sydney Airport Corporation Limited (10 per cent), Qantas Airways Limited (41 per cent), Virgin Blue Airlines Pty Ltd (35 per cent) and the Regional Aviation Association of Australia (14 per cent).

3 The Transport and Regional Services Portfolio was formerly the Transport and Regional Development Portfolio. The name change occurred as part of revised administrative arrangements in 1998. For consistency, all references in this report are to the Minister for Transport and Regional Services (the Minister) and the Department of Transport and Regional Services (DOTARS).

11. The scope of the audit included the development and administration of the SADM Act. The scope also included the development and administration of the relevant legislative instruments and determinations, particularly those which put in place the monitoring and compliance frameworks that support the legislation.

Overall audit conclusion

12. The primary purpose of the SADM Act was to give effect to the Government's commitment to limit aircraft movements at Sydney Airport to 80 per hour. DOTARS had primary responsibility for the development of the delegated legislation that gives effect to the SADM Act. In doing so, the Department consulted with a range of parties, including airlines and representative groups. This approach was necessary to meet the underlying policy goals that the slot management arrangements be workable in the industry's interests and be developed and implemented by the industry in a cooperative manner. In this respect, DOTARS has advised ANAO that the scheme is held in high regard by industry and that there is a high degree of voluntary cooperation. However, ANAO's analysis is that elements of the legislative scheme are unclear, do not operate in the way intended or are ineffective.

13. Slot allocation is a complex process that, for international airports, has to fit within a world-wide structure. Slots at Sydney Airport are currently allocated and managed in a manner that aligns closely with the Worldwide Scheduling Guidelines issued by IATA. The Worldwide Scheduling Guidelines acknowledge that, where sovereign nations have in place legislation to govern the management of demand, this legislation takes precedence over the Worldwide Scheduling Guidelines. However, the allocation and management of slots at Sydney Airport does not accord with the SADM Act and its subordinate legislative instruments.

14. Under the SADM Act, almost all aircraft operators who wish to land at, or take off from, Sydney Airport must apply for and be granted a slot under the Slot Management Scheme. Slot allocation has the capacity to ensure that movement limit breaches do not occur, depending on the number of slots allocated in any given period, and the timeliness of the subsequent aircraft operations. However, the Slot Management Scheme does not include an express limit on the number of slots that can be allocated, and there has been at least one occasion on which more than 80 slots were allocated in a regulated hour. In an environment of increasing aircraft movements, there is also a risk

to future compliance with the movement limit in circumstances where slot allocations are made at or near 80 movements per regulated hour.

15. The intent of the Sydney Airport Compliance Scheme is that aircraft operators comply with the requirement to obtain a slot for a proposed aircraft movement and, having done so, take reasonable measures to ensure the proposed movement occurs as planned. The SADM Act established a system of penalties for unauthorised aircraft movements so as to protect the integrity of the movement limit, and establish clear guides for airport users as to the range of sanctions that may be levied in the form of an infringement notice or civil prosecution.[4]

16. There is evidence of a high number of unauthorised aircraft movements (movements without a slot and movements outside the slot tolerances) having occurred at Sydney Airport. However, since the scheme commenced in 1998, no infringement notices have been issued to operators or other penalties applied.

17. In addition, there are other factors which indicate that the demand management scheme is not being administered as intended. These include:

- the Compliance Committee chaired by DOTARS has not effectively applied the Compliance Scheme's provisions for identifying unauthorised aircraft movements; and
- some operators that have not been exempted by the legislation are, nevertheless, not required to submit data on their aircraft movements thereby enabling them to operate outside the jurisdiction of the scheme.

18. Further, the SADM Act requires Airservices Australia to monitor and report breaches of the movement limit to the Parliament through its Minister. However, reliable and accurate records do not exist to evidence past monitoring of compliance with the movement limit, and support the reports made to the Parliament. The available data indicates that some of the 61 reported breaches may not, in fact, have occurred. This data also indicates that there may have been many other, unreported, breaches of the movement limit. This position should be considered in the context of approximately two million aircraft movements since the commencement of the scheme. The available data shows that breaches occurred prior to September 2001 when there were higher overall numbers of aircraft movements at Sydney Airport. The risk of future

[4] *Sydney Airport Demand Management Bill 1997*, second reading speech, House Hansard, 25 September 1997, p. 8536.

breaches will increase when the scheduled numbers of aircraft movements at Sydney Airport return to pre-September 2001 levels.

19. Against this background, the management of aircraft demand at Sydney Airport needs to give more emphasis to the legislative requirements put in place specifically to manage aircraft movements. In this respect, Airservices Australia and DOTARS have already taken steps in a number of areas to improve administration of the demand management scheme. These steps include:

- Airservices Australia is planning to introduce new technology to enhance its ability to meet its obligations to monitor aircraft movements at Sydney Airport. This is at least three years away and, in the meantime, other steps are underway to improve data collection, processing and reporting; and
- DOTARS has written to the Slot Manager and Airservices Australia reinforcing the primacy of the legislation over industry guidelines, emphasising the importance of delays being managed through the Compliance Scheme and stressing the need for operators to obtain a new slot where they are unable to use a slot on the day for which it was allocated.

20. Having regard to the improvement initiatives already underway, ANAO has made six recommendations relating to:

- the development and implementation of performance information and performance reporting that addresses the demand management scheme's objectives;
- addressing deficiencies in the legislative framework, including the fundamental issue of clear and effective aircraft movement definitions;
- implementation of slot allocation and management processes that comply with legislative requirements (rather than industry-preferred procedures) and promote adherence to the movement limit; and
- effective and equitable compliance arrangements that address all unauthorised aircraft movements.

Key Findings

Performance information and reporting (Chapter 2)

21. The demand management scheme was introduced more than eight years ago. DOTARS has advised ANAO that it considers the broad policy objectives for the demand management scheme have been largely met. However, the Department has not established performance measures for any of the objectives for the scheme that were advised to the Parliament. In addition, since 2001-02, there has been an absence of any performance reporting on the management of the scheme and the extent to which its objectives have been achieved.

22. In this context, the extent to which the demand management scheme objectives have been achieved is not well demonstrated by supporting information. Indeed, in some key areas nominated as important in the second reading speech for the legislation, the available data indicates that administration of the demand management scheme has yet to deliver the intended outcomes. In particular, ANAO found that:

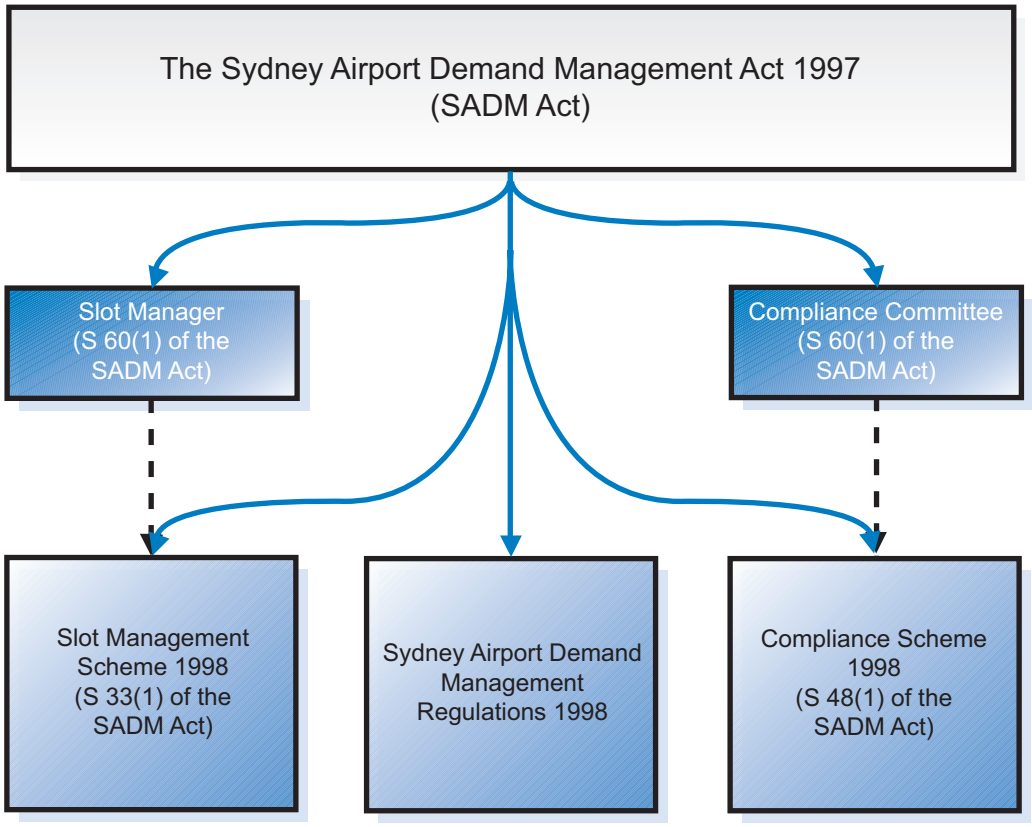
- after the introduction of the Slot Management Scheme, aircraft movement timeliness at first deteriorated, returning to 1998 levels by 2004;
- in terms of improving the distribution of scheduled aircraft movements, there has been little, if any, significant change in the overall distribution of allocated slots within the day; and
- there has been a significant reduction in the number and share of slots allocated to regional operators. In this respect, ANAO was advised by DOTARS that the decline in the regional airline share of the total traffic at Sydney Airport has been in line with market changes and conditions and that there has been a move to larger aircraft.

The legislative framework (Chapter 3)

23. The SADM Act prescribes Parliament's intention to limit aircraft movements through a Slot Management Scheme, in combination with penalties to encourage compliance. This intention is then given effect by determinations and regulations made under the SADM Act. The operation of the SADM Act is outlined primarily in legislative instruments. The most significant of these are:

- the Sydney Airport Slot Management Scheme, which outlines the processes for the allocation and management of aircraft movement slots;[5] and
- the Sydney Airport Compliance Scheme, which sets out how compliance with the slot management arrangements under the SADM Act and the Slot Management Scheme are to be enforced.[6]

24. The following figure summarises the delegated legislation that was intended to give effect to the demand management scheme.



[5] Sydney Airport Demand Management Act 1997 – Slot Management Scheme 1998, *Explanatory Statement issued by the authority of the Minister for Transport and Regional Development*, pp. 1 & 2.

[6] Sydney Airport Demand Management Act 1997 – Compliance Scheme 1998, *Explanatory Statement issued by the authority of the Minister for Transport and Regional Development*, p. 1.

Procedural issues

25. The SADM Act sets out requirements for the development of the Slot Management Scheme and the Compliance Scheme, including the processes to be followed. ANAO found that, in neither case, did the available records demonstrate that the procedural requirements have been met. Specifically:

- rather than the Slot Manager being appointed and then developing a draft Scheme for submission to the Minister as required under the SADM Act, the available records show that the Scheme was both developed and submitted for Ministerial approval prior to the appointment of a Slot Manager; and
- the SADM Act assigns to the Compliance Committee the responsibility for developing, administering and amending the Compliance Scheme. However, at the time that members of the Compliance Committee were being appointed, development of the Compliance Scheme was largely complete and the Compliance Committee did not meet until after the Compliance Scheme was made into law.

26. Adherence to the procedural requirements when the Schemes are amended, or re-made, will provide greater assurance about their validity.

Definition of aircraft movement

27. The concept of 'aircraft movement' underpins the operation of the demand management scheme. In this respect, valid and effective definitions of aircraft movement are necessary to underpin:

- the allocation of slots;
- the enforcement of compliance with the requirement to have a slot and operate in accordance with the allocated slot time; and
- incumbent aircraft operators retaining historical precedence to slots they have previously operated.

28. The definition of aircraft movement in the SADM Act relates to movements of aircraft on and off runways. Airservices Australia's monitoring of the movement limit accords with this definition.

29. A different definition is used to administer the Slot Management Scheme and the Compliance Scheme. This definition relates to movements from gates, and was adopted for ease of administration by the industry. During the course of the audit, ANAO drew attention to this inconsistency in

the definition/interpretation of aircraft movement, which is fundamental to the effective operation of the demand management scheme. Legal advice subsequently obtained by DOTARS was that:

> In so far as the definitions in the Compliance Scheme are inconsistent with the Act, they are invalid and of no effect. However, while this invalidity has important consequences for the administration of the SADM Act, the Slot Management Scheme and the Compliance Scheme, I do not think that it necessarily makes the Act unworkable or the Schemes as a whole invalid or otherwise unworkable.

30. DOTARS advised ANAO in February 2007 that the Slot Management Scheme and the Compliance scheme are premised on definitions of 'take off' and 'land' consistent with worldwide practice.

Slot allocation (Chapter 4)

31. The Slot Management and Compliance Schemes were to give effect to the government's commitment to cap aircraft movements at Sydney Airport at 80 movements per hour through the implementation of a slot system.[7] This system was to require an aircraft operator to both have a slot *and* conduct their authorised aircraft movement within a certain period of time before or after the scheduled slot time. Hence, the movement limit would be implemented by controlling the scheduling of aircraft movements and by encouraging timely performance.

32. Under the SADM Act, almost all aircraft operators who wish to land at, or take off from, Sydney Airport must apply for and be granted a slot under the Slot Management Scheme. Slots may be allocated singly, as a group for a special event, or as a series for a regular scheduled service. The slot gives permission for a specified aircraft movement at Sydney Airport at a specified time on a specified day. Accordingly, an effective Slot Management Scheme is a prerequisite for:

- operators to obtain a slot to take off or land at Sydney Airport; and
- action to be possible against operators that land or take off without a slot, or outside their slot.

[7] A slot is not required for movements during the curfew period. Nor is a slot required for a movement for which the Slot Coordinator gives a dispensation (in exceptional circumstances), nor for emergency aircraft or for state aircraft.

The Slot Manager

33. The allocation of slots is undertaken by a Slot Manager, who is to receive applications for slots, assess applications against the priorities set out in the Scheme and allocate slots accordingly. The Slot Manager is a proprietary company registered in New South Wales whose shares are owned by the lessee of Sydney Airport and the airline industry.[8] ANAO found that DOTARS' ability to oversight the allocation and management of aircraft movement slots at Sydney Airport has been adversely affected by the absence of appropriate arrangements for the Commonwealth to access the records of the Slot Manager.

Slot allocation practices

34. ANAO found that the allocation and management of aircraft movement slots at Sydney Airport has not complied with the requirements of the demand management scheme. During the course of the audit, action was taken to address most of these issues, as outlined below.

Authorisation of Airservices Australia to allocate and manage slots

35. Outside of the Slot Manager's business hours, Airservices Australia allocates and manages slots on behalf of the Slot Manager. However, Airservices Australia had not been effectively authorised to undertake these functions.

36. Airservices Australia and the Slot Manager entered into a new deed of agreement on 22 August 2006. The new deed runs until terminated by the parties. Airservices Australia advised ANAO on 24 August 2006 that the new deed now allowed Airservices Australia to manage slots already allocated by the Slot Manager, as well as those allocated by Airservices Australia for short notice, unscheduled flights on the day of operation. However, Airservices Australia recognises that there is scope to remove some remaining ambiguity in this new authorisation to make the extent of the authorisation clear.

Cancelling slots and requesting a new slot when aircraft are in transit

37. A practice has been adopted of allowing operators to cancel a slot and request a new slot for an aircraft delayed in transit or delayed on the ground at

[8] In addition to administering the slot allocation arrangements legislated for Sydney Airport, the Slot Manager provides airport coordination services for all major Australian airports.

Sydney Airport. In December 2006, DOTARS wrote to the Slot Manager[9] in the following terms:

> The practice of some operators to request a new slot while the aircraft is in transit is inappropriate and may circumvent accountability under the compliance scheme. I would appreciate the assistance of ACA in reminding operators that it is not in the spirit of the slot management regime to change the on-time compliance requirements for an aircraft already in transit by requesting a new slot. Any delay in the arrival time at Sydney Airport needs to be managed through the compliance regime.

Reinforcing the primacy of the SADM Act over industry guidelines

38. Slots have been allocated in the manner advocated by the IATA Worldwide Scheduling Guidelines rather than in accordance with the priorities and processes set out in the Slot Management Scheme. DOTARS' December 2006 correspondence with the Slot Manager reinforced the principle that, where there is inconsistency between the slot management regime established by the SADM Act and the IATA Worldwide Scheduling Guidelines, the legislative arrangements are to prevail.

Historical precedence

39. One intention of the Slot Management Scheme was that an aircraft operator that operates a scheduled aircraft movement using a slot gains historical precedence to being allocated this slot in future scheduling seasons (so long as allocation of the slot does not conflict with the movement limit or lead to an unacceptable degree of clustering of aircraft movements). However:

- the historical precedence provisions of the Slot Management Scheme are unclear; and
- the historical precedence provisions are not being fully applied in the slot allocation process. In particular:
  - a 'use-it-or-lose-it' test exists to ensure that operators that have been allocated slots operate aircraft movements using those slots. However, there was no evidence of this test being applied in the allocation of slots. Further, some movements that did not occur have been deemed to have occurred so that the operator retained historical precedence to the slot; and

[9] As Airservices Australia is authorised to perform certain of the Slot Manager's duties, DOTARS provided Airservices Australia with a copy of its correspondence to the Slot Manager.

- a 'size of the aircraft' test exists to produce efficiency gains at Sydney Airport by addressing whether the size of aircraft being used accords with the size of the aircraft which the operator stated it would be using in its application for a slot. However, there was no evidence of this test being applied in the allocation of slots.[10]

40. DOTARS has obtained legal advice that agrees there is room for clarifying the operation of the historical precedence provisions in the Slot Management Scheme. ANAO Recommendation No.3 proposes that these provisions be clarified and that DOTARS take steps to oversight the slot allocation process in order that the statutory rules governing historical precedence are applied in full.

Compliance and enforcement (Chapter 5)

41. The intent of the Compliance Scheme is that aircraft operators comply with the requirement to obtain a slot for a proposed aircraft movement and, having done so, take reasonable measures to ensure the proposed movement occurs as planned. Accordingly, the Compliance Scheme prohibits an aircraft operator knowingly or recklessly operating:

- without a slot (referred to as a no-slot movement); or
- outside the set tolerances for the allocated slot (referred to as an off-slot movement).

42. In the second reading speech for the legislation, Parliament was informed that:

> Under the compliance system airlines will be liable to fines and other penalties for poor on-time performance. This is a crucial element of the slots system which will provide airlines with an additional incentive to perform on-time. Because off-slot movements may involve fines unless an acceptable reason exists, the system will also bring transparency and accountability to a process of explaining why delays occur into and out of Sydney Airport.[11]

[10] The 'size of the aircraft test' applies to those slots for which the size of aircraft was decisive in granting the application for the slot.

[11] House Hansard, Sydney Airport Demand Management Bill 1997, second reading speech, 25 September 1997, pp. 8536 and 8537.

43. Revenue from penalties is to be used to offset the costs of administering the slot management scheme. To achieve this, fines are to be paid to Slot Manager on behalf of the Commonwealth. An equivalent amount is then appropriated (through a Special Appropriation at section 27(4) of the SADM Act) from the Consolidated Revenue Fund back to the Slot Manager for the purposes of the Slot Manager carrying out its functions under the SADM Act.

44. DOTARS advised ANAO in February 2007 that anecdotal advice from airlines suggests that internal airline practices have been improved as a result of the compliance provisions of the slot management arrangements.

Compliance Committee

45. The enforcement of the demand management system is undertaken by a Compliance Committee that is chaired by DOTARS and includes representatives from Airservices Australia, the Sydney Airport lessee and the airline industry. The Slot Manager attends as an observer.

46. During the course of the audit, DOTARS advised ANAO that it would take action to address concerns raised by ANAO about records of the Compliance Committee's operations and decisions. In addition, ANAO found there are opportunities to enhance the quality of decision making by improving the quality and relevance of information referred to the Committee for assessment.

Identifying, assessing and responding to unauthorised movements

47. Neither the SADM Act nor the Compliance Scheme compel aircraft operators to provide the relevant movement data to support the current Compliance Scheme. ANAO found that this data was missing for some 18 per cent of all aircraft movements. The Slot Manager advised ANAO that it seeks to follow up with aircraft operators to obtain missing data. Nonetheless, infrequent or irregular visitors to Sydney Airport (referred to as 'itinerant' aircraft) often do not provide movement data. These operators, who have been responsible for many thousands of aircraft movements over the life of the demand management scheme, effectively avoid being assessed in terms of their compliance with the demand management scheme.

48. Penalties for unauthorised aircraft movements were included in the SADM Act so as to protect the integrity of the movement limit and establish clear guides as to the range of sanctions that may be levied if an infringement occurred. Specifically, the second reading speech informed the Parliament that:

- The most serious breaches relate to no-slot movements, where an aircraft lands or takes off without having permission to do so. This was viewed as a fundamental breach of the slot system which jeopardises the movement limit and disrupts other airport users who have applied for a slot. No-slot movements were to be punishable by a maximum penalty of $220 000 per infringement.
- The maximum penalty for an off-slot movement is $110 000 for a corporation or $22 000 for an individual. It was proposed that the Compliance Scheme would provide initially for relatively small fines, but persistent offenders would find an exponential increase in the level of fines for the second and third offences, up to the maximum. It was noted that fines would not be triggered unless a flight was outside tolerance,[12] and off-slot movements that are outside the control of the operator would not count.

49. The data that is available shows that since the scheme commenced, there have been at least 600 no-slot movements and at least 8 000 off-slot movements at Sydney Airport. However, there have been no infringement notices issued to operators or other penalties applied since the scheme commenced.

50. The SADM Act defines a no-slot movement as a movement occurring on a day for which the operator has not had a slot permitting the movement allocated. In this respect, operators need to be aware that unless a new slot is obtained where a slot is not able to be used on the day for which it has been allocated (while the aircraft is on the ground), the operator may be prosecuted for a no-slot movement. However, 600 of these no-slot movements were mistakenly identified as off-slot movements.

51. The 8 000 off-slot movements which occurred (according to the terms of the Compliance Scheme) were also not identified. The Compliance Committee's practice has been to apply alternative rules based on IATA procedures. Consequently, the Committee has identified few of the off-slot movements which occurred under the terms of the Compliance Scheme.

[12] The Compliance Scheme provides for a tolerance of 15 minutes around the allocated slot time for flights with a block time of less than three hours (block time, for a flight, means the time elapsed between the flight's scheduled departure time and its scheduled arrival time), and of 30 minutes around the allocated slot time for flights with a block time of three hours or more.

52. Effectively responding to unauthorised aircraft movements requires:

- closer adherence by the Compliance Committee to the legislated requirements for identifying and assessing unauthorised aircraft movements;
- examination of options for verifying, on a risk management basis, the veracity of reasons given by operators for movements occurring outside their slot tolerances;
- more equitable and effective treatment of slots that are allocated as part of a slot group or series;
- an assessment of the merits of extending the infringement regime to no-slot movements;[13]
- the introduction of procedures to assess and document operators' compliance with the requirement that they use their allocated slots as a prerequisite to retaining historical precedence to such slots in subsequent scheduling seasons; and
- an assessment of the merits of seeking to obtain the investigatory powers that would be necessary to establish whether offences have been committed by operators.

The movement limit (Chapter 6)

53. Whether the movement limit might be breached is affected by the number of slots allocated in any regulated hour (the higher the number allocated, the greater the likelihood of a potential breach) and the timeliness of aircraft movements. For total actual aircraft movements to remain below the movement limit, slot allocations should allow for unforeseen circumstances which might otherwise increase aircraft movements above the limit.

54. In this context, ANAO found there has been at least one instance in which the Slot Manager has allocated more than 80 slots in a regulated hour.[14] In an environment of increasing aircraft movements, there is also a risk of future non-compliance with the movement limit in circumstances where slot allocations are made at or near 80 movements per regulated hour.

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[13] The Compliance Scheme specifies a rate of fine for *off-slot* movements, at section 5. However, there is no provision setting fines for *no-slot* movements. While infringement notices may be issued for no-slot movements, no fine can apply, effectively negating the intention of section 20 of the SADM Act in respect of no-slot movements.

[14] See further at paragraph 6.7.

Breaches of the movement limit

55. Section 9 of the SADM Act requires Airservices Australia to monitor compliance with the movement limit and provide quarterly reports to the Minister on the extent of infringements (if any) of the limit in the quarter. The Minister must table any report received in each House of the Parliament within 15 sitting days of that House after the day on which the Minister received the report.

56. A total of 61 breaches of the movement limit have been reported to the Minister and tabled in Parliament as having occurred between March 1998 and March 2006. The last reported breached occurred in May 2001.

57. In aggregate, 64 per cent of all reported breaches involved the movement limit being breached by one or two movements. However, accurate and reliable records do not exist to support past monitoring of compliance with the movement limit on which the reports made to the Parliament were based. The available records indicate both that some of the reported breaches may not have occurred, and that there may have been as many as 357 additional breaches of the movement limit that were not reported to the Minister and Parliament. This position should be considered in the context of approximately two million aircraft movements since the commencement of the scheme.

58. Airservices Australia has commenced action to improve the accuracy of its monitoring and reporting of breaches of the movement cap.

Agency responses

59. Detailed responses to the audit report were provided by DOTARS and by the Slot Manager and are included in Appendices 3 and 4 respectively. DOTARS and Airservices also provided summary responses as follows:

DOTARS' response

> The ANAO findings highlight the complex nature of aircraft operations and the need for flexibility in order to maintain certainty for airline schedules, maximise operational efficiency and avoid unnecessary disruption of scheduled passenger services, while implementing arrangements designed to alleviate the impact of aircraft noise on the community.
>
> The Department acknowledges the ANAO's finding that working definitions for key terms in both the *Sydney Airport Demand Management Act 1997* and the slot and compliance schemes associated with the Act are inconsistent and that

criteria for the allocation of slots are not sufficiently clear. The Department has advanced its consideration of the issues raised by the audit and has, amongst other things, initiated action to seek agreement to the passage of legislative amendments to address this. Amendments to the slot and compliance schemes as a consequence of the ANAO Report will be progressed in accordance with the procedures set out in the Act.

Sydney Airport is Australia's major international and domestic airport and the efficiency of its airport operations at Sydney Airport are critical to national economic performance. There have been more than 2 million aircraft movements over approximately 190 000 regulated hours since the commencement of the demand management scheme at Sydney Airport in 1998. A key underpinning of the Slots Scheme is that actual movements may exceed 80 movements on occasion due to the fundamental requirement for Airservices to manage aircraft operations safely. Movements in excess of 80 are to be reported to Parliament. Within this context, and in the absence of any breach of the maximum movement limit since 2001, the Department considers that airport slots should continue to be allocated up to the current statutory maximum movement limit.

Finally, the ANAO report estimates that there may have been some 357 unreported breaches of the movement limit. The Department considers that the requirement for Airservices Australia to report on the maximum movement limit provides an independent validation of the actual aircraft movements. As the potential unreported breaches are not able to be verified, the Department has no basis for taking the matter further.

60. In addition, the Department advised ANAO in February 2007 that it is preparing a Discussion Paper to present, in broad terms, its response to the audit recommendations and outline a range of proposals (including possible legislative and procedural changes) intended to clarify elements of the SADM Act and the slot and compliance regimes. The Department further advised ANAO that, to ensure that the appropriate process improvements are discussed and agreed early thereby taking advantage of the momentum generated by the audit, it would be discussing these issues with the Slot Coordinator, Airservices Australia, Sydney Airport Corporation Limited and representatives of airlines and airline groups that use Sydney Airport at the next quarterly meeting of the Sydney Airport Compliance Committee.

Airservices Australia's response

Airservices Australia takes its responsibilities in relation to the *Sydney Airport Demand Management Act 1997* very seriously. Considerable effort has been

directed at meeting those obligations as well as improving the ways in which Airservices records and reports on aircraft movements at Sydney Airport.

These efforts will continue and Airservices Australia has a high degree of confidence in our ability to provide accurate movement cap reports to the Minister and through him, the Parliament.

Airservices Australia does not accept that there have been more cap breaches at Sydney Airport than the 61 already reported to the Parliament, although we do acknowledge that our past administrative practices have resulted in an absence of documentary evidence to support our processes. That is, whilst data analysed by the ANAO indicates a higher number of instances where more then 80 movements were recorded, this data was legitimately verified and modified by reference to the tower flight strips (that were not retained by Airservices). The absence of contemporaneous flight strips therefore makes it impossible to determine the final status of those instances.

In response to this audit, Airservices now retains strips indefinitely even though International Civil Aviation Organisation regulations still do not require flight strips to be retained beyond 30 days.

This audit represents the first time this legislation has received external scrutiny since it received Royal Assent a decade ago. As the Audit Office has found, the issues and processes the legislation covers are complex and involve several organisations.

For its part, Airservices Australia welcomes any initiatives taken as a result of this audit to ensure that the legislation meets the Government's objectives and enables agencies to better meet their stated accountabilities.

Recommendations

Recommendation No 1 Para 2.36

ANAO recommends that the Department of Transport and Regional Services promote the efficient and effective implementation of the demand management scheme for Sydney Airport by:

(a) establishing performance measures for each of the scheme's objectives; and

(b) reporting to the Parliament on the administration of the demand management scheme, including the extent to which the scheme's objectives have been achieved.

DOTARS' response: *Agreed.*

Recommendation No 2 Para 3.23

ANAO *recommends* that, in view of the importance of valid and effective aircraft movement definitions to the demand management scheme, the Department of Transport and Regional Services take steps to ensure consistency between the Compliance Scheme and the *Sydney Airport Demand Management Act 1997*.

DOTARS' response: *Agreed.*

Recommendation No 3 Para 4.62

ANAO *recommends* that the Department of Transport and Regional Services seek to improve its ability to oversight the allocation and management of aircraft movement slots at Sydney Airport by working with the Slot Manager to:

(a) implement arrangements that provide the Commonwealth with appropriate access to, and protection of, the records of the Slot Manager;

(b) clarify the process for prioritising slot applications;

(c) clarify the operation of the historical precedence provisions in the Slot Management Scheme so as to provide a sound basis for the allocation of movement slots to existing operators at Sydney Airport; and

(d) oversight the slot allocation process in order that all the statutory rules governing historical precedence are applied.

DOTARS' response: *Agreed.*

Recommendation No 4 Para 5.69

ANAO *recommends* that the Department of Transport and Regional Services work with the Slot Manager to enhance the rigour and effectiveness of the demand management scheme by:

(a) identifying and evaluating options for obtaining movement data from all operators that use Sydney Airport, except those that are exempted from the scheme;

(b) establishing and applying the necessary authority for varying, suspending or cancelling the Slot Management and Compliance Schemes in the event of major disruptions to the operations of Sydney Airport;

(c) developing operational procedures for the Compliance Committee that apply the legislative requirements for identifying and assessing unauthorised aircraft movements; and

(d) assessing options for obtaining greater assurance, on a risk management basis, as to the veracity of reasons given by operators for movements operating outside of their slot tolerances.

DOTARS' response: *Agreed.*

Recommendation No 5 Para 5.95

ANAO *recommends* that the Department of Transport and Regional Services examines options for improving the Compliance Scheme so as to:

(a) protect the integrity of the movement limit by providing for a graduated system of penalties for off-slot movements, including an increase in fines for persistent offenders;

(b) assess the merits of extending the infringement notice regime to no-slot movements so as to better reflect that these unauthorised movements represent the most serious breaches of the slot allocation and management arrangements; and

(c) introduce procedures to transparently assess and document operators' compliance with the requirement that they use their allocated slots as a necessary prerequisite to retaining historical precedence to such slots in subsequent scheduling seasons.

DOTARS's response: *Agreed.*

Recommendation No 6 Para 5.105

ANAO *recommends* that the Department of Transport and Regional Services examine options for addressing the difficulties that the absence of investigatory powers pose to the Compliance Committee in circumstances where it needs to establish whether offences have been committed by operators.

DOTARS' response: *Agreed.*

Recommendation No 7 Para 6.22

ANAO *recommends* that, in an environment of increasing aircraft movements at Sydney Airport, the Department of Transport and Regional Services:

(a) assess and manage the risks to future compliance with the movement limit that arise from slot allocations at or near the movement limit; and

(b) assess the merits of expressly limiting the maximum number of slots that can be allocated for any regulated hour, consistent with the movement limit.

DOTARS' response: *Agreed.*

Audit Findings and Conclusions

1. Introduction

This chapter provides an overview of the management of demand at Sydney Airport and outlines the audit objectives and scope.

Background

1.1 Sydney Airport is a major international gateway and cargo airport. It is Australia's busiest passenger airport, handling over 29 million passengers a year, including 9.5 million international passengers.[15] It also handles over 14 million tonnes of freight annually.[16]

1.2 As part of the airports privatisation program,[17] Sydney Airport was privatised in June 2002. For a purchase price of $4.233 billion,[18] Southern Cross Airports Corporation Pty Ltd acquired all the shares in Sydney Airport Corporation Ltd (SACL), the company that holds the long-term lease over the airport site.[19] The sale agreement also granted the purchaser a 30 year right of first refusal over the development and operation of a second Sydney airport, if Government decides it is needed.[20]

1.3 Figure 1.1 outlines monthly aircraft movements at Sydney Airport since 1998. It highlights the volatile nature of aviation demand, with the effects of the September 2001 terrorist attacks in the United States exacerbated in Australia by the collapse of Ansett Airlines. While aircraft movement growth at Sydney Airport has resumed, it is at a slower rate than prior to the events of September 2001, such that monthly movements have only recently returned to the levels observed before the Sydney 2000 Olympic Games.

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15 Southern Cross Airports Corporation Holdings Limited, *Annual Report 2006*, p. 12.

16 ibid.

17 A total of 22 Federal Airports were privatised between 1997 and 2003 raising more than $8.5 billion.

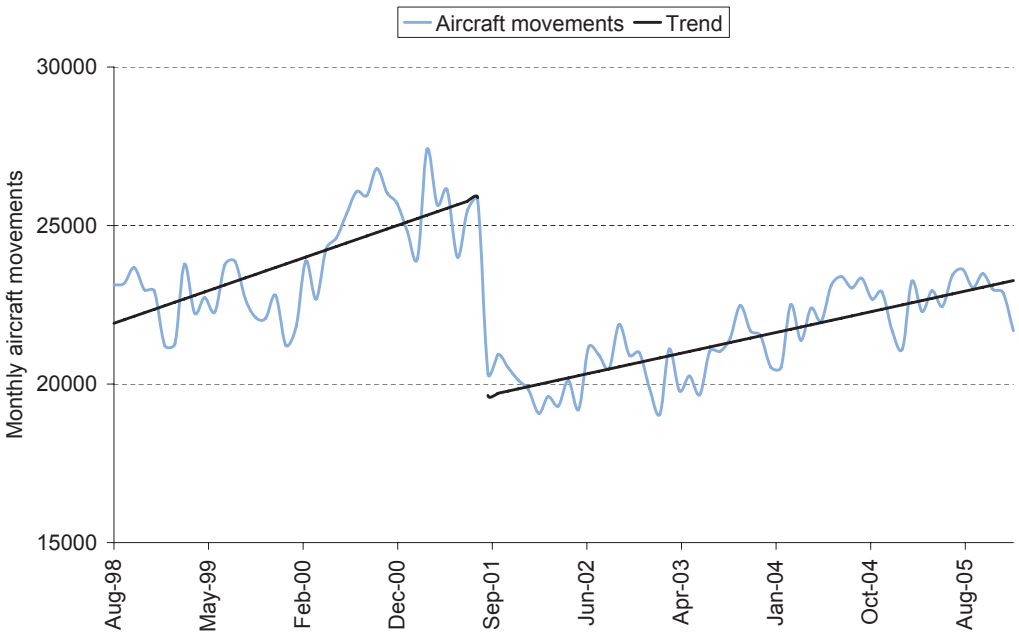
18 The sale process was managed by the Department of Finance and Administration and its advisers, in consultation with DOTARS. ANAO's audit of the sale concluded that it had maximised financial returns on a risk-adjusted basis while achieving optimal outcomes in relation to the other sale objectives.

19 ANAO Audit Report No. 43 2002-03, *The Sale of Sydney (Kingsford Smith) Airport*, May 2003, p. 9.

20 ibid, p. 21.

Figure 1.1

Sydney Airport monthly aircraft movements



Source: ANAO analysis of Airservices Australia's monthly reports of *Sydney Airport Operational Statistics*, August 1998 to January 2006.

1.4 Constrained by its surroundings, Sydney Airport has expanded its capacity through improvements to infrastructure on its existing site. These improvements have included extensions to runways during the 1970s and 1980s, the 1994 opening of a third runway on land reclaimed from Botany Bay and, since 1999, the progressive introduction of Precision Radar Monitoring (PRM) to mitigate the decrease in capacity caused by adverse weather conditions.[21] Government policy is that:

> We will not allow the lessee of Sydney Airport to undertake major infrastructure developments that would increase the runway capacity of the airport.[22]

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[21] There have also been improvements to taxiways, to staging and apron areas, to terminals, to baggage and cargo handling facilities, to ground transport links, and to facilities for aircraft maintenance. In particular, before PRM was installed, deteriorating weather conditions could cause arrival rates to fall progressively to as low as 28 per hour. PRM now enables fully independent operations and a landing rate in the order of 46 arrivals per hour, the rate available in the best weather conditions.

[22] *Putting People First - The Coalition's Policy on Sydney Airport and Sydney West Airport*, 29 January 1996.

1.5 Any major increase in runway capacity in the Sydney region is to be achieved by building an additional airport in the Sydney basin.[23] Badgery's Creek has been identified as a suitable site and the Commonwealth has purchased land to that end. In the interim, Sydney Airport's operators have endeavoured to maximise its capacity by making more efficient use of its facilities. In this regard, in September 2006 DOTARS advised ANAO that:

> The Sydney Airport Master Plan indicates that the airport will be able to cope with Sydney's air traffic needs for at least the next 20 years. The Australian Government is therefore still of the view that a second Sydney Airport will not be needed in the foreseeable future.

Managing airport demand

1.6 Within the civil aviation industry, approaches to demand management have evolved to improve the use of tightly constrained airport facilities. The term 'demand management' refers to any set of regulations or other measures aimed at constraining the demand for access to a busy airfield and/or modifying the temporal characteristics of such demand.[24] In practice, it involves aircraft movement restrictions and airport pricing schemes aimed at discouraging the scheduling of flights during peak traffic hours and encouraging airlines to shift some operations to off-peak hours.

1.7 According to IATA:[25]

> Due to an imbalance between the demand for worldwide air transport and the availability of adequate airport facilities/infrastructure and airspace systems to meet such demand, the number of congested airports worldwide is growing. As a result, the airline industry is increasingly subjected to serious operational disruptions, with a significant number of delayed departures and arrivals, which result in significant economic penalties.
>
> This adverse situation, which negatively impacts passengers, shippers, air traffic control agencies throughout the world as well as airports, has been the subject of intense consideration by Governments in recent years. Some have

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[23] Parliament of Australia Parliamentary Library, *Background Paper 20 1997-98 Second Sydney Airport - A Chronology*, 29 June 1998, p. 1.

[24] The discussion in this report focuses on strategic demand management, achieved by allocating scheduled slots on a seasonal basis. It does not address air traffic flow management, achieved by controlling the minute to minute flow of air traffic into a congested air space on a dynamic 'real time' basis. To illustrate the latter, air traffic controllers may, via the Central Traffic Management System, postpone for some time the departure of a flight from Canberra to Sydney if they expect that, once airborne, it will be subject to a long delay. This process is distinct from that of allocating slots so as to observe the Sydney Airport movement limit, which the focus of this audit.

[25] IATA, *Worldwide Scheduling Guidelines*, 12th edition, December 2005, p. v.

considered the introduction of various traffic distribution formulae to help relieve the congestion at busy airports. IATA is opposed in principle to the imposition of such rules because they can be impractical in the context of an international air transport system. Airline schedules, by their nature, involve more than one airport, often in different countries or continents. Any solution that is likely to ease the problem in one location must therefore be considered in an international context, with the active involvement of airlines and others directly involved in the air transport industry.

1.8 In this context, IATA has prepared Worldwide Scheduling Guidelines to provide guidance on the allocation of available capacity and coordination of airline schedules. Nevertheless, IATA has acknowledged that, where sovereign nations have in place legislation to govern the management of demand, this legislation takes precedence over the Worldwide Scheduling Guidelines.

1.9 The coordination of scheduled movements between Australian Airports is also a long-standing practice. International terminal coordination commenced at Sydney and Melbourne in 1971, initially performed by Qantas on behalf of the industry. Brisbane, Perth and Darwin airports followed suit, as have Adelaide, Townsville and Cairns as their international arrivals have grown.

1.10 For Sydney Airport, the *Sydney Airport Demand Management Act 1997* (SADM Act) provides the framework for the long-term management of demand at Sydney Airport. The SADM Act is intended to meet the commitment made by the Government prior to the March 1996 Federal election that aircraft movements at Sydney Airport would be capped at 80 per hour.[26] In this respect, as acknowledged in the Worldwide Scheduling Guidelines, the requirements of the SADM Act take precedence over voluntary coordination practices advocated by IATA, and in place at other major Australian airports.

The demand management legislation

1.11 The SADM Act commenced on 17 November 1997. The movement limit and penalty regime for unauthorised aircraft movements came into effect on 17 May 1998, six months after Royal Assent. It operates in conjunction with the *Sydney Airport Curfew Act 1995* (the Curfew Act) and other relevant laws.

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[26] 'The Coalition will implement a slot system at Sydney Airport to reduce congestion and to ensure that movements do not exceed the airport's current maximum capacity of 80 movements per hour. The introduction of a slot system is the only effective way of capping the capacity of the airport,' in *Putting People First - The Coalition's Policy on Sydney Airport and Sydney West Airport*, 29 January 1996.

1.12 The central provision of the SADM Act is section 6, which restricts aircraft movements to a maximum of 80 in any *regulated hour*, defined as a period of 60 minutes starting on the hour and then at every fifteen minutes thereafter. Each day comprises a curfew period ending at 6:00 am, and then a rolling series of regulated hours starting at fifteen minute intervals from 6:00 am until 10:00 pm, an hour before the curfew re-commences at 11:00 pm each evening.[27] The intended effect of the rolling regulated hours is to discourage the scheduling of clusters of aircraft movements within the hour.

1.13 To put the movement limit into effect, the SADM Act provides for a Slot Management Scheme to authorise aircraft movements,[28] which came into effect for the scheduling season beginning 29 March 1998. Slots are allocated by the Slot Manager, first appointed under the SADM Act by the Minister on 24 March 1998.

1.14 While the Slot Manager controls the *scheduling* of aircraft movements, *actual* aircraft movements are directed and recorded by Airservices Australia, the Commonwealth statutory authority that provides air traffic services at Sydney Airport. Under the SADM Act, Airservices Australia is also charged with monitoring adherence to the movement limit and reporting any breaches to the Minister.[29] At the time of this audit, the Minister had tabled in Parliament reports on 61 breaches of the limit in the eight years since it came into effect. The last reported breach occurred in May 2001.

1.15 The SADM Act also provides for a Compliance Scheme, which requires operators to carry out authorised aircraft movements within a prescribed period before or after the scheduled slot time. The Compliance Scheme came into effect for the scheduling season after the commencement of the Slot Management Scheme. This allowed aircraft operators a seven month trial of the new arrangements. The Compliance Scheme is administered by the Compliance Committee appointed by the Minister on 22 April 1998. The Compliance Committee scrutinises aircraft movements to ensure that they meet the terms of the Compliance Scheme.

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[27] Section 6(3) of the SADM Act provides that a period is not a regulated hour if it starts during, or less than 60 minutes before, a curfew period.

[28] A slot is not required for movements during the curfew period. Nor is a slot required for a movement for which the Slot Coordinator gives a dispensation (in exceptional circumstances), nor for emergency aircraft or for state aircraft, as provided for in Division 5 of Part 3 of the SADM Act.

[29] The role of Airservices Australia is explicitly restricted to monitoring. Specifically, Section 9(4) of the SADM Act states that the Act 'does not authorise or require Airservices Australia to take any action to enforce compliance with the [*aircraft movement*] limit'.

1.16 In this report, the SADM Act, together with the delegated legislation comprising the Slot Management Scheme and the Compliance Scheme and other associated legislative instruments, are collectively referred to as the demand management legislation.

Audit approach

1.17 The objective of the audit was to assess the implementation and administration of the movement limit and the Slot Management Scheme at Sydney (Kingsford Smith) Airport.

1.18 The scope of the audit included the development and administration of the SADM Act. The scope also included the development and administration of the subordinate determinations and regulations, particularly the monitoring and compliance frameworks that support the legislation. This was achieved through discussion with, and the examination of records held by:

- DOTARS, which is responsible for the administration of the SADM Act, including the Special Appropriation at section 27(4). DOTARS also the chairs the Compliance Committee (appointed by the Minister);
- The Slot Manager, Airport Coordination Australia Pty Ltd (ACA), whose responsibilities include the allocation of aircraft movement slots at Sydney Airport. A representative of the Slot Manager also attends meetings of the Compliance Committee and furnishes aircraft movement compliance reports for the Committee's consideration; and
- Airservices Australia, which is responsible for monitoring compliance with the legislated movement limit, and reporting the results to the Parliament.

1.19 The audit was conducted in accordance with ANAO Auditing Standards, at a cost of $425 000.

2. Scheme Objectives and Outcomes

This chapter provides an overview of the broad objectives set for the demand management scheme and the arrangements in place to measure and report to the Parliament on the administration of the demand management legislation, and the outcomes that have been achieved.

Introduction

2.1 Sydney Airport's peak periods are governed by matters largely outside its direct control. For instance, the morning peak of international flight arrivals is driven mainly by departure times from their ports of origin, principally in Europe and North America. The morning peak is exacerbated during the northern hemisphere summer season, when daylight saving is in effect but Sydney has reverted to Eastern Australian Standard Time. During the Summer scheduling season, flights therefore depart their northern hemisphere ports earlier relative to Australian time zones. The Summer scheduling season (during the Australian winter) contributes to higher morning peaks than during the Winter scheduling season (Australian summer), especially during the 5:00 am to 6:00 am curfew shoulder period.[30]

2.2 Passengers on incoming international flights frequently require connections to other domestic flights (including regional services), adding to the morning domestic peak. Conversely, the evening domestic peak includes passengers connecting to evening international departures from Sydney Airport, which must also be timed to suit early morning domestic and international connections in the northern hemisphere.

2.3 International scheduling constraints aside, spreading peak period flights is also limited by noise sharing measures introduced in response to the concerns of the airport's local residents and businesses. Community objections to noise escalated significantly after the November 1994 opening of the third runway, which increased aircraft movements over one of the most densely populated urban areas in Australia. To ameliorate the impact of aircraft movements on local residents, successive governments have purchased the properties of those worst affected, embarked on extensive sound-proofing of

[30] Section 12 of the Curfew Act authorises up to 14 international aircraft movements per week in the evening 'shoulder' hour of the curfew (11:00 pm until midnight) and up to another 35 international aircraft *landings* per week in the morning 'shoulder' hour (from 5:00 am until 6:00 am). It also permits movements by certain freight aircraft, propeller aircraft under 34 000 kg, some jet aircraft under 34 000 kg that meet a specified noise standard, and emergency operations.

buildings at public expense,[31] legislated curfew arrangements (which had been the operational practice of aircraft operators since the early 1960s),[32] and actively sought to maximise the use of flight paths over Botany Bay. [33]

2.4 On 20 March 1996, the Minister directed Airservices Australia to prepare a long-term operating plan for Sydney Airport (LTOP) and its associated airspace, observing the limit of 80 aircraft movements per hour. The direction, made under section 16 of the *Air Services Act 1995,* required Airservices Australia to:

> Use all three runways; maximise flight paths over water and non-residential areas; and where over water operations are not possible, to ensure over flight of residential areas is to be minimised, and that noise arising from these flight paths is fairly shared.[34]

2.5 After considering the proposals developed by Airservices Australia in consultation with industry and community groups, including with the Sydney Airport Community Forum (SACF),[35] in July 1997 the Minister directed Airservices Australia to progressively put in place 'noise sharing' arrangements by December 1999, shown in Figure 2.1 overleaf.

2.6 The arrangements partition the day into a four hour morning core period and a five hour evening core period to handle Sydney Airport's peak demand. Immediately adjacent to the core periods are *noise sharing periods* totalling eight hours, during which the preferred runway modes have a maximum capacity of 66 movements per hour.

2.7 From 23 January 1998, Airservices Australia was directed to use noise-sharing runway modes irrespective of traffic delays. Traffic permitting, runway modes which reduced and/or shared noise over residential areas were to be used during the core periods as well as noise-sharing periods.

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31 Estimated at more than $270 million at 1996, House Hansard, 6 June 1996, p. 383 and 384.

32 The 11:00 pm to 6:00 am curfew was voluntarily introduced by aircraft operators in 1963, when jet aircraft first began operating at Sydney Airport. See: Sydney Airport Corporation Limited, *Sydney Airport Master Plan 03/04,* March 2004, p. 29.

33 ANAO 1997, *Sydney Airport Noise Amelioration Program,* Audit Report No 17 1997–98, ANAO Canberra

34 op. cit., Sydney Airport Corporation Limited 2004, p. 30.

35 Established by the Federal Government in July 1996 as part of its commitment to addressing the noise impacts from Sydney Airport in consultation with affected residents, SACF is the main body for consultation on LTOP. SACF includes representatives from the local community, local Councils, industry, and State and Federal Parliaments.

Figure 2.1

Sydney Airport's maximum hourly capacity under noise-sharing modes

Time period	Noise mode	Conforming runway mode(s)	Maximum nominal capacity
6:00 am to 7:00 am	Noise sharing (early morning)	Allowing use of the east-west runway (modes 5,7 and 14a)	53, 64 and 66 movements respectively
7:00 am to 11:00 am	Core period (morning)	All, including heavy use of the parallel north-south runways	80[A] movements
11:00 am to 3:00 pm	Noise sharing (afternoon)	Allowing use of the east-west runway (modes 5,7 and 14a)	53, 64 and 66 movements respectively
3:00 pm to 8:00 pm	Core period (evening)	All, including heavy use of the parallel north-south runways	80[A] movements
8:00 pm to 11:00 pm	Noise sharing (evening)	Allowing use of the east-west runway (modes 5,7 and 14a)	53, 64 and 66 movements respectively
11:00 pm to 6:00 am	Curfew	Most arrivals and departures over Botany Bay (SODPROPS)	43

Note A: While parallel runway modes 9 and 10 have maximum hourly capacities of 82 and 87 movements respectively, these levels of movement are prohibited by the SADM Act aircraft movement limit.

Source: Sydney Airport Community Forum, *Long Term Operating Plan: Review of LTOP Performance*, March 2005, pp. 10 and 22.

2.8 The LTOP arrangements reduce Sydney Airport's *theoretical* regulated maximum capacity of 496 000 aircraft movements per annum (80 movements per hour for 17 hours per day for 365 days per year) by 8 per cent to approximately 455 000 movements per annum.[36] This constitutes a long-term cap on Sydney Airport's movement capacity (albeit at a level well above current demand) and also limits the spread of aircraft movements into the afternoon noise-sharing period from the morning and evening peak periods.

[36] Both estimates exclude aircraft movements during the curfew hours. Airservices Australia chairs the LTOP Implementation and Monitoring Committee, charged with monitoring the operation of LTOP, reporting to SACF and commenting on potential changes to operation procedures which could affect LTOP.

Legislative objectives

2.9 The primary purpose of the SADM Act was to give effect to the Government's commitment to limit aircraft movements at Sydney Airport at 80 movements per hour through the implementation of a slot system. On 25 September 1997, Parliament was informed[37] that the slot system would:

- help alleviate delays caused by congestion at Sydney Airport;
- spread aircraft movements more evenly within hours;
- safeguard the levels of access that regional New South Wales has to Sydney Airport;
- provide for any potential new entrants to have equal access with their established competitors to slots at Sydney Airport; and
- ensure a workable and effective means of administering the movement limit.

2.10 In terms of the demand management arrangements introduced in 1998, in October 2006, DOTARS advised ANAO that:

> Overall, the Department considers that the broad policy objectives outlined in the second reading speech have been largely met including the cooperative and non-discriminatory nature of the schemes, spreading planned aircraft movements, guaranteed access for regional airlines and meeting the movement cap. The Department notes that the scheme is held in high regard by the industry who, in our view, need to be more extensively consulted during the audit field work. In our view, traffic management at Sydney Airport today would be unlikely to be as orderly and efficient without slot management.

2.11 However, the extent to which the demand management scheme objectives have been achieved is not well demonstrated by supporting information. Indeed, as outlined further below, in some key areas nominated as important in the second reading speech for the legislation, the available data indicates that administration of the demand management scheme has yet to deliver the intended outcomes.

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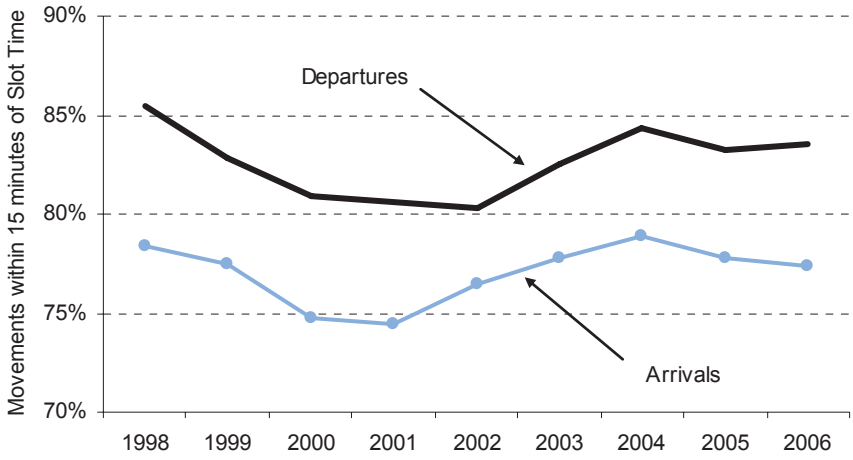
[37] House Hansard, Sydney Airport Demand Management Bill 1997, second reading speech, 25 September 1997, pp. 8536-7.

Aircraft movement timeliness

2.12 In order to determine if there have been any significant changes to the timeliness of aircraft movements over the life of the demand management legislation, ANAO examined records of aircraft movement times relative to allocated slot times. ANAO found that, after the introduction of the Slot Management Scheme, aircraft movement timeliness at first deteriorated, returning to 1998 levels by 2004, as shown in Figure 2.2 below.

Figure 2.2

Timeliness of aircraft movements, 1998 to 2006



Source: ANAO analysis of Airservices Australia's aircraft movement and slot data.

2.13 The relatively better performance of departing aircraft appears to reflect the effect of the definition of aircraft movement in the Compliance Scheme. As per those definitions, arrival and departure times can be taken as the reported times at which aircraft connected to or pushed back from the terminal airbridge (respectively). In the case of departures, the data do not therefore show (for instance) any subsequent effects of air traffic control or other operational delays. However, recorded arrivals include *all* such effects, with a consequent reduction in apparent timeliness. In this respect, the arrival data may better correspond to runway landing times than might the departure data.

Improving the distribution of scheduled aircraft movements

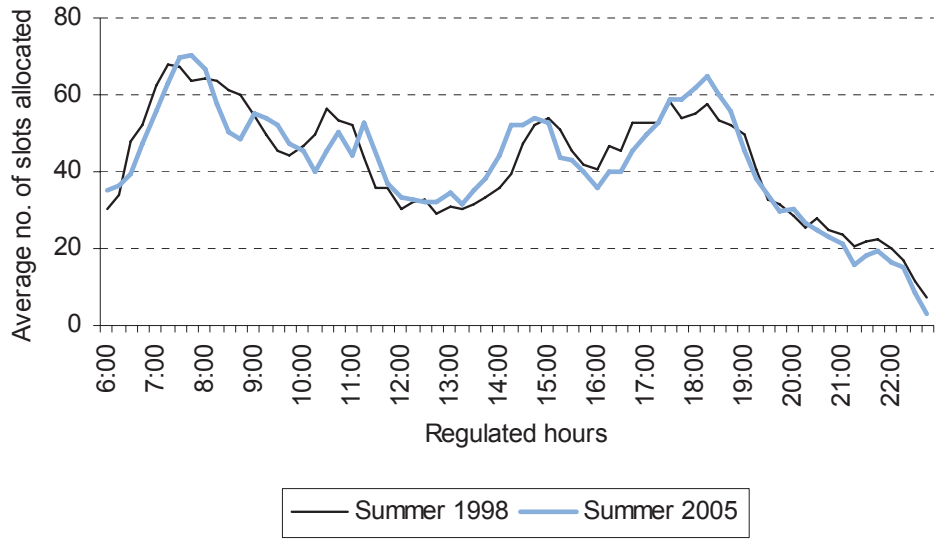
2.14 In October 2006, the Slot Manager commented to ANAO that:

> The scheme has actually been very successful, considering that prior to the introduction of the scheme the Civil Aviation Authority complained about extreme cluster scheduling (1992) and uncoordinated growth reached 80 movements per hour already in April – October 1995. Slot allocation under the scheme has spread peak hour movements without exceeding allocations of more than 80 planned movements and also accommodated a growth of 6.8 per cent in movements between 1998 and 2006. All this has been achieved in accordance with the Second Reading Speech.

2.15 In this context, ANAO examined the slot allocation data provided by Airservices Australia and by the Slot Manager so as to assess whether slots are now allocated more evenly throughout the day than before the demand management legislation, particularly the Slot Management Scheme, came into effect. The Summer scheduling seasons for 1998 and 2005 are compared in Figure 2.3 below, showing little difference in slot allocations between the two years.

Figure 2.3

Comparative daily slot allocations, Summer 1998 and Summer 2005 scheduling seasons



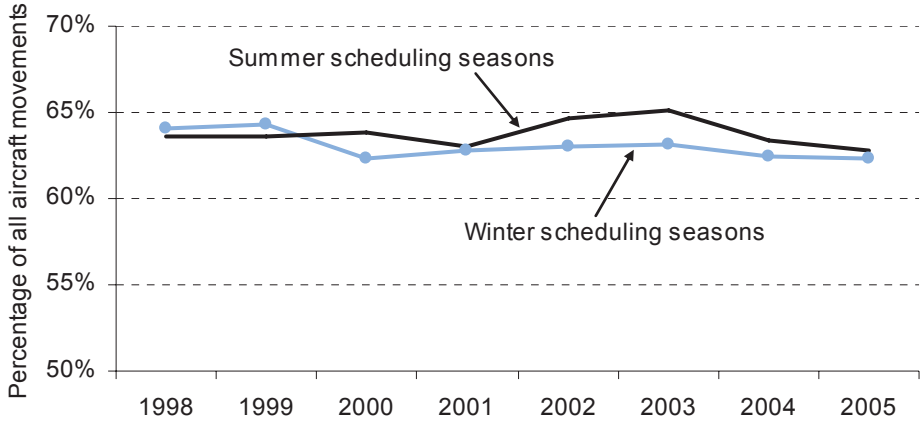
Source: ANAO analysis of slot allocation data provided by the Slot Manager.

2.16 The minor differences in slot allocations between the two scheduling seasons are not statistically significant. Rather, the slot allocations in Summer 1998 are remarkably good predictors of slot allocations in Summer 2005. This is also true in respect of the Winter 1998 and Winter 2005 scheduling seasons.[38]

2.17 ANAO also examined the proportion of slots that are allocated for aircraft movements during the daily peak periods (7:00 to 11:00 am and 3:00 to 8:00 pm) over the life of the Slot Management Scheme. This analysis revealed that, with small variations, the proportion of slots allocated for aircraft movements in the peak periods has remained steady, averaging 64 per cent over life of the scheme and shown in Figure 2.4 below.

Figure 2.4

Proportion of slots allocated in peak periods



Source: ANAO analysis of slot allocation data provided by Airservices Australia.

2.18 In the absence of comparable data for aircraft schedules and movements prior to the introduction of the demand management legislation, the constant proportion of slots allocated to peak periods is consistent with there being little, if any, significant change in the overall distribution of slots within the day. Nor was there any statistically significant variation in the pattern of allocation within peak periods.

[38] For the sample data, ANAO calculated the correlation coefficient between the Summer 1998 and Summer 2005 slot allocations at 0.93 and 0.94 for the Winter 1998 and Winter 2005 slot allocations.

2.19 In February 2007, the Slot Manager advised ANAO as follows:

> In respect of the measuring the success of the stated objectives of the Act, data prior to 1998 should be used as the base case for comparisons rather than 1998 post SADM data. [*However*], as there is limited data easily available on scheduling within hours prior to 1998, it is difficult to demonstrate that the SADM scheme has been effective in its aim to eliminate cluster scheduling.

Maintaining regional access to Sydney Airport

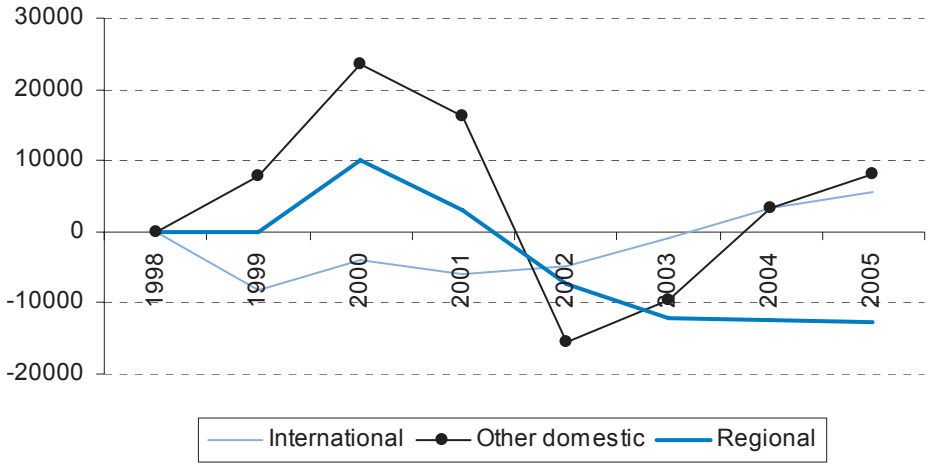
2.20 In February 2007, DOTARS advised ANAO that:

> In relation to regional access to Sydney Airport, the Government has repeatedly made public its commitment that regional airlines would be guaranteed continued access to Sydney Airport. Consistent with this, slots for regional airlines continue to be guaranteed under the slot management arrangements even though a number of regional airlines have ceased to operate. The unused regional slots are still available for regional services, should operators emerge.

2.21 While the daily scheduling pattern has been largely unchanged over the life of the Slot Management Scheme, its internal composition has changed markedly. This is shown in Figure 2.5 below, which illustrates a significant reduction in the number and share of slots allocated to regional operators.

Figure 2.5

Cumulative changes in international, regional and other domestic slots, 1998 to 2005



Source: ANAO analysis of the Slot Manager's data. The changes in slots allocated to general aviation operators, which are not shown, mirror those for other domestic operators, but at much reduced levels. They have been omitted to improve the clarity of the Figure.

2.22 In the first full year of operation of the Slot Management Scheme (the summer and winter 1998 scheduling seasons), regional operators were allocated 69 978 slots (26.9 per cent of all slots allocated). In the last full year of operation (the summer and winter 2005 scheduling seasons), regional operators were allocated 57 215 slots (21.9 per cent of all slots), a reduction of 12 762 slots (18.2 per cent) or nearly 35 fewer slots per day.

2.23 While slots allocated to all classes of operators reduced after the events of September 2001, regional operators are the only group that has not recovered at least part of their original share.

2.24 In terms of regional access, in October 2006 the Slot Manager commented to ANAO that:

> The level of NSW Regional services was set with the adjustment of the SADM in June 2001, adding aircraft size and peak period limitations and a sunset clause for unused slots (two years). The collapse of Ansett, Kendall and Hazelton, as well as the termination of services by most small aircraft operators (such as Country Connections, Yanda, Impulse and others) has reduced the use of NSW Regional slots outside the peak periods due to a lack of demand. However, these unused slots are still protected by directive from the Minister for Transport and Regional Services and can only be allocated to *ad hoc* movements if required. It should be noted that since the introduction of the scheme, there have been at least eight new domestic new entrant airlines that obtained allocation of slots.

2.25 Much of the reduction in regional access has occurred during the peak, or core, operating periods (7:00 to 11:00 am and 3:00 to 8:00 pm daily). Regional operator share of peak period slots has declined from 31 per cent (nearly 150 slots daily) to 25 per cent (less than 120 slots daily). Overall, the reduction in access for regional operators has been offset by increased access for international, domestic and general aviation operators.

2.26 In this respect, DOTARS advised ANAO in October 2006 that:

> The Bureau of Transport and Regional Economics (BTRE) has advised that although the regional airline share of the total traffic at Sydney Airport has been declining in line with market changes and conditions, the level of slot demand and volatility in growth is not an effect of the slot management arrangements. BTRE has advised that the declining number of aircraft movements combined with higher growth in passenger movements over the last three years indicates a move to larger aircraft.

Performance information and reporting

2.27 Performance information forms an essential part of the Australian Government's outcomes and outputs management framework for the activities of all government agencies. The Australian Government has promulgated a set of performance management principles to identify the main features of good practice in performance reporting and management. ANAO has published guides to *Performance Information in Portfolio Budget Statements* (May 2002) and *Better Practice in Annual Performance Reporting* (April 2004).[39]

Performance information

2.28 The foundation of agency accountability and transparency is performance information, presented initially in Portfolio Budget Statements (PBSs) with results being reported later in annual reports. Effectiveness indicators are necessary to demonstrate the extent to which outputs and/or administered items make positive contributions to specified outcomes. In addition, agencies are required by guidelines issued by the Department of Finance and Administration to develop price, quantity and quality indicators for outputs to be reported in their PBSs and annual reports.

2.29 In this regard, ANAO notes that DOTARS' PBSs for 1999–2000 and 2000–2001 stated that policy advice to the Minister on the management of air traffic demand at Sydney Airport contributed to the Outcome 'Linking Australia through transport and regional services' and 'A better transport system for Australia' (respectively). However, in neither year were specific performance measures provided against which these contributions could be measured. Later years' PBSs make no mention of DOTARS' role in administering the SADM Act, or the expected outcomes, or the measures of performance to apply. DOTARS' performance information for the demand management regime is summarised in Figure 2.6 overleaf.

[39] See: <http://www.anao.gov.au/WebSite.nsf/Publications/>.

Figure 2.6

DOTARS' outcomes allocation and activity reporting for demand management at Sydney Airport

Year	Outcome	Activity reported as contributing to the outcome	Performance information
1999–00	Linking Australia through transport and regional services	Policy advice to the Minister on the management of air traffic demand at Sydney Airport.	None
2000–01	A better transport system for Australia	Policy advice to the Minister on the management of air traffic demand at Sydney Airport.	None
2001–02	Not specified	None	None
2002–03	Not specified	None	None
2003–04	Not specified	None	None
2004–05	Not specified	None	None
2005–06	Not specified	None	None
2006–07	Not specified	None	None

Source: ANAO analysis of DOTARS' PBSs and Annual Reports.

Performance reporting

2.30 The Joint Committee of Public Accounts and Audit (JCPAA) has approved a set of annual reporting requirements for departments. One of these requires Annual Reports to include 'reporting of actual results against the specific standards for the outcomes and outputs set out in the PBS/PAES'.[40]

2.31 To date, however, DOTARS' reporting of its performance in administering the SADM Act has been minimal. In its 1997–98 Annual Report, DOTARS reported that the Slot Management Scheme had commenced on 29 March 1998 and was delivering:

- less clustering of flights in airline schedules;
- greater predictability for investment;
- fewer delays, and as a consequence fewer delays at other airports;
- reduced time spent by Airservices Australia rescheduling airlines, thereby increasing resources available for core responsibilities;
- guaranteed access for NSW regional communities; and

[40] Department of the Prime Minister and Cabinet, *Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies* (Approved by the JCPAA under subsections 63(2) and 70(2) of the *Public Service Act 1999*), June 2005, p. 6.

- less fuel waste leading to savings in costs and reduced emissions.[41]

2.32 These statements were made after the new arrangements had been in place for three months, and no research or performance data were provided or identified to quantify or elaborate on these claims. DOTARS was unable to advise ANAO of the basis on which these improvements were measured and reported to Parliament.

2.33 In its 1998–99 Annual Report, DOTARS reported that it had convened seven meetings of the Sydney Airport Slot Management Compliance Committee to assess compliance with the system and to review the effectiveness of compliance data collection.[42] DOTARS was not able to advise ANAO as to whether this review had occurred or of any outcomes.

2.34 While DOTARS reported in its 2000-01 Annual Report amendments to the Slot Management Scheme[43] and its ongoing chairing of the Compliance Committee,[44] it has not made reference to the Slot Management Scheme or Compliance Scheme in subsequent Annual Reports**.**

2.35 ANAO found no evidence that DOTARS put in place mechanisms to measure the success of the Slot Management Scheme in meeting the remaining objectives outlined in the Second Reading Speech. In particular, the ANAO found:

- no evidence of a performance information or evaluation strategy being developed as part of the policy development process;
- no evidence of base-line data collection or systematic and ongoing reporting or relevant performance information; and
- no evidence that the Department has formally evaluated the administration of the program or the outcomes that have been achieved.

[41] DOTARS Annual Report 1997–98, p. 33.

[42] DOTARS Annual Report 1998–99, p. 37.

[43] DOTARS Annual Report 2000–01, p. 20.

[44] ibid., p. 59.

Recommendation No.1

2.36 ANAO *recommends* that the Department of Transport and Regional Services promote the efficient and effective implementation of the demand management scheme for Sydney Airport by:

(a) establishing performance measures for each of the scheme's objectives; and

(b) reporting to Parliament on the administration of the demand management scheme, including the extent to which the scheme's objectives have been achieved.

DOTARS' response

2.37 DOTARS agreed to the recommendation and commented as follows:

> The Department will review its performance reporting for the Slots Scheme and establish performance measures for the Scheme's objectives as appropriate. Performance information will be included in the Department's Annual Report starting with the 2006–07 report.

2.38 In respect of the recommendation, the Slot Manager commented as follows:

> ACA has provided the Department and industry with performance data for each scheduling season since 1998. If there is a need for further information, ACA will cooperate with the Department to improve reporting of performance.

3. The Legislative Framework

This Chapter examines the demand management legislation, including the processes for making legislative instruments under the SADM Act.

Introduction

3.1 In October 2006, DOTARS advised ANAO that:

> The Government's underlying policy goals *[are]* that the slot management regime would be workable in the industry's interests and developed and implemented by the industry in a cooperative manner. The slot management arrangements need to be flexible in order to operate effectively in the international context.

3.2 On 13 June 1996, the Minister announced the formation of working groups to examine options for slot allocation systems at Sydney Airport.[45] Comprising industry representatives and Commonwealth officials, the working groups were to examine economic instruments and committee-based slot allocation processes, with the aims of ending peak period cluster scheduling and eliminating delays caused by this practice, and capping movements at Sydney Airport.

3.3 On 4 November 1996 (before DOTARS sent the Minister the outcomes of the working groups on 6 November) the Member for Grayndler introduced a private member's Bill to limit aircraft movements at Sydney Airport. The *Sydney Airport (Regulation of Movements) Bill 1996* set a limit on aircraft movements of 80 per hour, with significant fines applying to persons convicted of contravening the limit.[46] It also provided for Federal Court injunctions to prevent movements in excess of the limit. The Bill had its second and final reading on 18 November 1996.[47]

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[45] Media statement TR51/96 by the Hon. John Sharp MP, *Slot Controls to Cap Sydney Airport,* 13 June 1996. On 30 September 1996, industry representatives met with DOTARS officials to discuss the key elements of any slot control scheme.

[46] Section 4(2) of the Bill provided that, 'If any person knowingly or recklessly allows an aircraft to take-off or land at the airport in contravention of [*the movement limit*] the person is guilty of an offence punishable, on conviction by a fine not exceeding 200 penalty points.' At the time, the proposed fines for an individual were up to $20 000, and up to $100 000 for a body corporate.

[47] On 19 June 1997, the House of Representatives voted 'That the member [*for Grayndler*] be not further heard' in relation to the Bill. Subsequently, on 23 June 1997, the Bill was removed from the House Notice Paper.

3.4 Also on 18 November 1996, the Minister announced the Government's intention to enshrine the movement limit in legislation.[48] DOTARS circulated outlines of slot management proposals to the Federal Airports Corporation and to the major airlines in December 1996 and early in 1997. On 1 April 1997, the Minister released slot management proposals for public consultation. The main features of the proposals were:

- provision for a slot coordinator;
- 'grandfather' rights for existing scheduled regular passenger transport flights or charter flights;
- eligibility criteria for new entrants to the aviation industry who wished to obtain slots;
- the protection of slots already allocated to regional services; and
- proposals to legislate compliance measures. These were to include a 'use-it-or-lose-it' rule (removing operators' access to slots which they had failed to use at least 80 per cent of the time during a season) and fines for the operators of aircraft moving outside authorised slot times.

3.5 Public consultations concluded on 23 May 1997, with the chief matters of concern being the preservation of slots for regional carriers and the proposed compliance arrangements. On 26 May 1997, DOTARS commenced meetings with major aviation industry players to develop operational and administrative structures to implement a Slot Management Scheme as soon as possible.

3.6 On 25 June 1997, DOTARS provided drafting instructions to the Office of Parliamentary Counsel (OPC) for the *Sydney Airport Demand Management Bill 1997.* The intention was to introduce legislation in the 1997 Spring sittings of Parliament and to commence allocating slots by March 1998.

3.7 The SADM Act received Royal Assent and commenced on 17 November 1997, with the movement limit and the penalties for unauthorised movements commencing on 17 May 1998.

3.8 The operation of the SADM Act is outlined primarily in legislative instruments (in this case, determinations and regulations) as follows:[49]

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[48] Media statement TR140/96 by the Hon. John Sharp MP, *Sydney Airport Aircraft Movements Cap to be Legislated,* 18 November 1996.

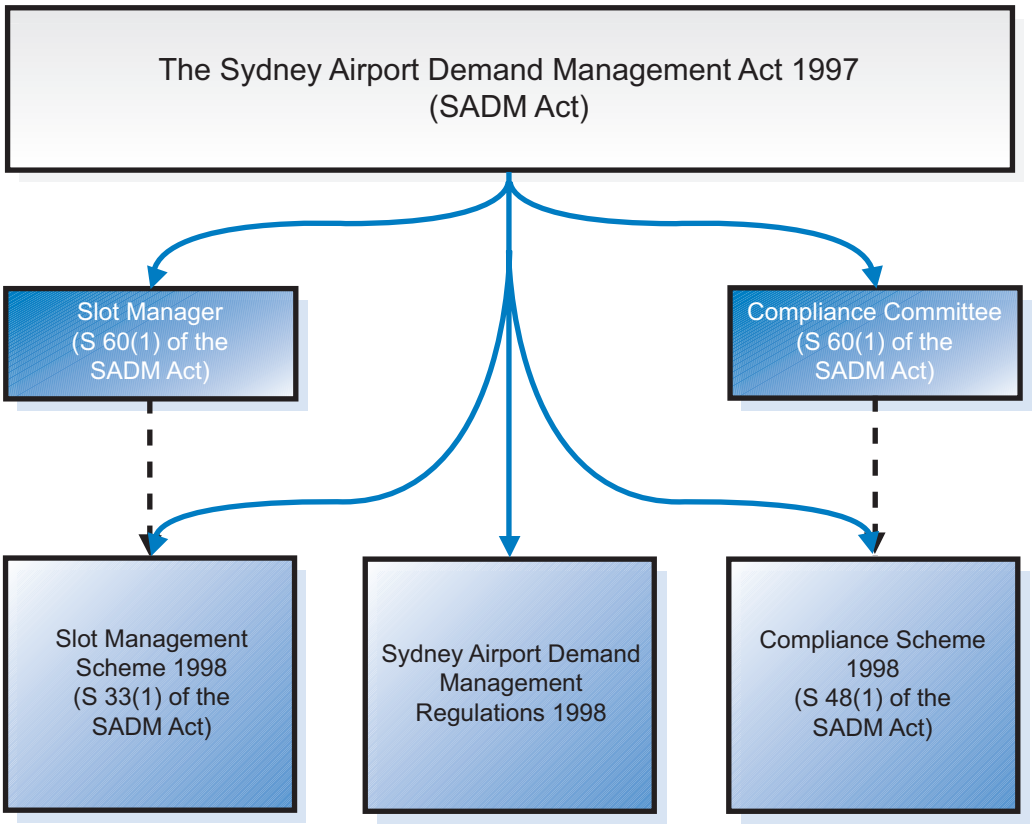
[49] The SADM Act also provides the power to make regulations in respect of the Compliance Committee (section 67) or in respect of other matters under the SADM Act (section 74).

- the *Slot Management Scheme 1998* (determined on 24 March 1998);
- the appointment of a Slot Manager for up to three years (under section 61), who must develop a Slot Management Scheme for submission for the Minister's approval (section 38 of the SADM Act) and who is responsible for the ongoing administration and development of the Scheme (section 60);
- the *Sydney Airport Compliance Scheme 1998* (determined on 25 May 1998);
- the appointment of a Compliance Committee to develop a compliance scheme for the Minister's approval and which is responsible for the ongoing administration and development of the Compliance Scheme (under section 66); and
- the *Sydney Airport Demand Management Regulations 1998* (which commenced on 9 June 1998) which set out the membership and procedures of the Compliance Committee.

3.9 The relationships between the key elements of the demand management legislation are set out in Figure 3.1 overleaf.

Figure 3.1

The elements of the Sydney Airport demand management legislation



Source: ANAO analysis.

Defining 'aircraft movement'

3.10 The concept of 'aircraft movement' underpins the operations of the SADM Act. In particular, section 34(1) provides that 'a permission for an aircraft movement is known as a slot' and the basic purpose of the Slot Management Scheme[50] is to provide a system for the allocation of permissions for aircraft movements. It is a definition crucial to the effective operation of the SADM Act and, along with definitions of other important terms, is set out in Schedule 1 to the SADM Act. *Aircraft movement* is defined as:

> the landing of an aircraft on a runway; or the taking off of an aircraft from a runway.

[50] At section 33 of the SADM Act.

3.11 In this regard, Airservices Australia advised ANAO in March 2006 that, for the purposes of monitoring aircraft movements for adherence to the movement limit, it records radar data which closely approximates the time at which an aircraft's wheels leave the runway (for take-off) or first touches the runway (for landing).

3.12 The expressions *land* and *take off*[51] are not explicitly defined in the SADM Act.[52] Instead they are defined in Schedule 1 as having the meaning given by the Compliance Scheme.[53] Section 10 of the Compliance Scheme relevantly provides that:

> An aircraft 'takes off' when it first moves after all external doors have been closed in preparation for flight; and
>
> An aircraft 'lands' when, after a flight, it comes to a standstill and the engines are turned off.

3.13 These terms, set out in Figure 3.2 overleaf, are to be used for the purposes of the SADM Act, the Slot Management Scheme and the Compliance Scheme.

---

[51] The definition of aircraft movement refers to *landing* and *taking off*. While these terms are not explicitly defined, section 18A of the *Acts Interpretation Act 1901* provides that, 'In any Act, unless the contrary intention appears, where a word or phrase is given a particular meaning, other parts of speech and grammatical forms of that word or phrase have corresponding meanings'. Accordingly, in the absence of a contrary intention, the meaning of 'landing' and 'taking off' can be derived from the definitions of 'land' and 'take off' in the Compliance Scheme.

[52] These are key terms that would usually be defined in the principal legislation. For instance, the *Financial Management and Accountability Act 1997* (the FMA Act) provides a framework for the proper management of public money and public property and both public money and public property are defined in the Act.

[53] In this context, ANAO draws attention to the guidance offered in the Department of Prime Minister and Cabinet's *Legislation Handbook*, which would place matters that go to the essence of the legislative scheme, such as the definition of aircraft movement, in the SADM Act rather than in legislative instruments made under the Act.

Figure 3.2

Defining 'aircraft movement'

'Aircraft movement' means:		Authority	Usage	Validity
the *landing* of an aircraft *on a runway*	the *taking off* of an aircraft *from a runway*	SADM Act, Schedule 1	Airservices Australia - to monitor movement limit	✓ Meets the terms of the SADM Act
land has the meaning given to it by the Compliance Scheme	*take off* has the meaning given to it by the Compliance Scheme	SADM Act, Schedule 1		
an aircraft *lands* when, after a flight, *it comes to a standstill* and the engines are turned off	an aircraft *takes off* when *it first moves* after all its external doors have been closed in preparation for flight	Compliance Scheme, section 10	Compliance Committee - to assess slot compliance	✗ Fails the terms of the SADM Act[1]

1. In July 2006, ANAO was advised that, 'The concept of the taking off and landing of an aircraft being when the aircraft first moves or when it becomes stationary is incompatible with the notion of the aircraft being on a runway'.

Source: ANAO analysis and Phillips Fox legal advice.

3.14 In this respect, the Slot Manager and Airservices Australia advised ANAO in March 2006 that, for the purposes of monitoring compliance with the Slot Management Scheme, they use daily data provided to Airservices Australia by aircraft operators, denoting:

- landing time as the time an airbridge is connected to an aircraft (*airbridge on*) and take-off time as the time an airbridge is removed from an aircraft (*airbridge off*); or
- where an airbridge is not utilised, landing time as the time an aircraft's wheels are chocked (*chocks on*) and take-off time as the time the chocks are removed from an aircraft's wheels (*chocks off*); or
- where neither an airbridge nor chocks are suitable indicators, other data available from the aircraft operator.

3.15 These operational arrangements were developed by DOTARS in April 1998 during consultations with industry on draft provisions of the Compliance Scheme. ANAO notes that, while they are intended to put into effect the definitions provided by the Compliance Scheme, they suffer significant limitations.

3.16 In particular, the data produced by these procedures is inconsistent with the principal legislation. In the SADM Act, aircraft movement turns on the landing and taking off of an aircraft **on a runway.** However, the Compliance Scheme definitions turn on the first movement of an aircraft or on it coming to a standstill, neither of which occurs **on a runway**. The concept of the taking off and landing of an aircraft being when the aircraft ceases to be stationary or becomes stationary (respectively) is incompatible with the notion of the aircraft being **on a runway,** when the term is given its ordinary meaning.[54]

3.17 The usual rule of statutory interpretation is that the provisions of an Act of Parliament cannot be undone by regulations or other instruments made under that Act. This rule reflects the primacy of the Parliament and is intended to guide officials drafting and administering any instruments, including any determinations or regulations, made under the authority of an Act. A definition that is used in delegated legislation must comply with the requirements of the empowering Act unless the Act provides otherwise. In this

[54] There are also likely to be many occasions when there is a difference in time between when the airbridge is disconnected and the time when an aircraft first moves (as referred to in section 10 of the Compliance Scheme). Likewise (although less frequently) there can be differences in time between when the aircraft comes to a standstill and when the airbridge is connected.

case the definitions of 'land' and 'take off' in the Compliance Scheme do not accord with the requirements of the SADM Act.

3.18 In this regard, in March 2006 ANAO's legal advisor noted that:

> The operational definition used by Airservices Australia for the purposes of monitoring the movement cap complies with the legislation, albeit not the definition in the Compliance Scheme. The definition used to administer the Slot Management Scheme does not comply with the legislation. The Compliance Scheme definitions cannot be applied to the definition of 'aircraft movement' and therefore to the definition of 'slot'.
>
> It seems probable that the definitions in the Act may well be unworkable for the management of the Slot Schemes, at least as they are presently administered.

3.19 In this respect, DOTARS was advised in October 2006 by the Deputy Chief General Counsel of the Australian Government Solicitor (AGS) that in so far as the definitions in the Compliance Scheme are inconsistent with the SADM Act, they are invalid and of no effect, though this does not necessarily make the SADM Act unworkable or the Schemes as a whole invalid or otherwise unworkable.

> I think that a court would probably conclude that, in the absence of valid definitions in the Scheme, Parliament probably intended the definition of 'aircraft movement' to operate by reference to the ordinary meaning of those words, when used in association with a runway.
>
> If the [*Compliance Scheme*] definitions are invalid because of their inconsistency with the Act and are severable (as I think they are), I see no reason why the definitions of 'aircraft movement ' in the Act would not flow through to the Compliance Scheme and the Slot Management Scheme, thus affecting the meaning of expressions such as 'slot'.

3.20 AGS further advised DOTARS that, if a court found that the ordinary meaning of 'aircraft movement ' was to apply, a decision to prosecute for an off-slot movement using the Compliance Scheme definition would be problematic, as would the prospects of success:

> This is because of the potential delay between the first movement of an aircraft and its takeoff from a runway and between the landing aircraft's first contact with a runway and its coming to a standstill for the purposes of disembarkation. It appears that such delays could be so substantial as to make an aircraft movement potentially 'off-slot', for example, if the slot time was 10:00 am, the aircraft left the terminal at 10.20 am and did not take off until 10:40 am. Presumably many such delayed movements may be 'beyond the

operator's control' within the meaning of section 4 of the Compliance Scheme and therefore deemed not to be an 'off-slot' movement. However, there may be other movements that would need to be regarded as 'off-slot' movements.

Presumably there are practical reasons why special definitions of 'land' and 'take off' are required for the purposes of the administration of the Slot Management Scheme. If special definitions are required and those definitions need to operate by reference to events that would normally take place off a runway, then the SADM Act would need to be amended.

3.21 Similarly, in October 2006, the Slot Manager commented to ANAO that: the definitions in the legislation were ambiguous. On the one hand, the definition in the SADM Act 'was to enable Airservices Australia to measure the number of movements' while, on the other hand, slot allocation and compliance 'use the time an aircraft moves to and from a gate position, as this is the time that can be measured by the industry and also reflects the time that is published in airline timetables and is expected by the travelling public. As discussed, we agree with ANAO that we need a more precise definition of a slot.' Notwithstanding the ambiguities in the current definitions, in February 2007, the Slot Manager advised ANAO as follows:

> Since 1998, ACA has accepted the definitions of slots in respect of compliance and the slot schemes as outlined in the current Act and has operated the schemes in accordance with these definitions.
>
> For both slot allocation and compliance purposes, aircraft movement times have been defined as arrival time or departure time to/from gates. This is in accordance with worldwide industry practice.

3.22 However, as outlined above, whilst the use of gate times for slot allocation and compliance purposes may accord with worldwide industry practice, it does not accord with the requirements of the SADM Act.

Recommendation No.2

3.23 ANAO *recommends* that, in view of the importance of valid and effective aircraft movement definitions to the demand management scheme, the Department of Transport and Regional Services take steps to ensure consistency between the Compliance Scheme and the *Sydney Airport Demand Management Act 1997*.

DOTARS' response

3.24 DOTARS agreed to the recommendation and commented as follows:

> The Department has initiated action to seek agreement to the passage of legislative amendments to improve consistency between the Act and the Compliance Scheme.

3.25 In respect of the recommendation, the Slot Manager commented as follows:

> ACA will support DOTARS in amending the scheme as required, provided that slots continue to be defined and published as gate times which are then used for compliance purposes. The use of runway times for publication and then for compliance would be misleading to the public and impossible for industry to deliver.

ANAO comment

3.26 As noted above, the inconsistencies in definitions have also been reflected in inconsistent practices. Specifically, whilst gate times are used for slot allocation and compliance scheme purposes, Airservices Australia uses radar data which closely approximates the time at which an aircraft's wheels leave the runway (for take-off) or first touch the runway (for landing) in its role of monitoring and reporting breaches of the movement limit. In relation to the Slot Manager's comments, the adoption of gate times for all elements of the demand management legislation would raise issues for Airservices Australia's monitoring of the movement limit. It would also mean that the data being used from the scheme would be provided by the industry being regulated by the scheme. The risks associated with this approach would require careful management, similar to those that are the subject of ANAO Recommendation 4(d). In this respect, DOTARS advised ANAO in February 2007 that it is not considering the adoption of gate times as the basis for measurement of both the slot allocation and the movement limit.

The Slot Management Scheme

3.27 Under the SADM Act, almost all aircraft operators who wish to land at, or take off from, Sydney Airport must apply for and be granted a slot under the Slot Management Scheme.[55] The slot gives permission for a specified aircraft movement at Sydney Airport at a specified time on a specified day (section 34(1) of the Act). Accordingly, an effective Slot Management Scheme is a prerequisite for:

[55] A slot is not required for movements during the curfew period, which are governed by the Curfew Act. Nor is a slot required for a movement for which the Slot Coordinator gives a dispensation (in exceptional circumstances), nor for emergency aircraft or for state aircraft, as provided for in Division 5 of the SADM Act.

- operators to obtain a slot to take off or land at Sydney Airport; and
- enable action to be taken against operators that land or take off without a slot, or outside their slot.

3.28 The Department submitted a proposed Slot Management Scheme to the Minister on 23 March 1998 as part of a submission that also recommended to the Minister the appointment of ACA as the Slot Manager. On the basis of that submission, on 24 March 1998 the Minister approved the proposed Slot Management Scheme by annotating the submission from DOTARS and by signing a determination under section 40(2) of the SADM Act. On the same day, and on the basis of the same submission, the Minister approved the appointment of ACA as the Slot Manager.

3.29 Section 38 of the SADM Act requires that:

> (1) The Slot Manager is to develop a Slot Management Scheme (the draft scheme) for Sydney Airport that is consistent with section 35.
>
> (2) The draft scheme is to be submitted to the Minister for approval.

3.30 The process of developing the Scheme had occurred largely during 1997. It was led by DOTARS, in consultation with a range of parties, including airlines and representative groups.

3.31 The Minister's approval of the draft scheme is subject to section 40(1), which provides that 'The Minister may, in writing, approve the draft scheme (as originally developed or as amended by the Slot Manager or the Minister) if, and only if, the Minister is satisfied that the scheme is consistent with section 35.' The intention is to ensure that Ministerial approval can only be given after the Minister is satisfied that any draft scheme meets the essential criteria set out at section 35, such as adherence to the movement limit and consistency with the Curfew Act. However, DOTARS' documentation disclosed no evidence of the Minister's satisfaction that the proposed Scheme was consistent with section 35 of the SADM Act. In this regard, ANAO's legal advice of July 2006 was that:

> We do not think that there can be any doubt that the Scheme would be found invalid because of the failure of the Minister to address the question whether the draft scheme was consistent with section 35 of the SADM Act.
>
> Sub-section 40(1) states that the Minister is to approve a draft scheme 'if, and only if,' satisfied that it is consistent with section 35. The Minute to the Minister of 23 March makes no mention of the requirements of section 35.

> Accordingly, on the face of the material before the Minister, it is clear that no such state of satisfaction was reached.
>
> The 'if, and only if' formula used in sub-section 40(1) makes it difficult to think that attaining the state of satisfaction was other than a mandatory precondition to the approval of a scheme. If the matter were tested it would be necessary for the Minister's satisfaction to be established once the issue of validity were raised.
>
> In the absence of material indicating that the Minister made a decision under sub-section 40(1) to approve a scheme and the further concern about the Minister failing to address the satisfaction requirement of that sub-section, we consider that there is grave doubt whether the validity of the Slot Management Scheme could be maintained.

3.32 DOTARS also could not demonstrate adherence to the prescribed procedure for making the Scheme. Rather than the Slot Manager being appointed and then developing a draft Scheme for submission to the Minister as required under the SADM Act, the available records show that the Scheme was both developed and submitted for ministerial approval prior to the appointment of a Slot Manager. In this regard, AGS advised DOTARS in October 2006 that:

> I am not in a position to assess what contribution the Slot Manager made in the formulation of the draft scheme prior to its appointment as the Slot Manager. However, assuming that it had played an instrumental role, I think that it would be reasonably open to conclude that it had 'developed' the scheme.
>
> It is possible that the Minister was orally briefed on this matter by his Departmental officers and formed a view on the basis of such a briefing. Such a briefing would not necessarily have been mentioned in the 'material before the Minister' or in a written record. Alternatively, he may have independently satisfied himself on this matter.
>
> When the scheme is next amended (for example, to substitute new definitions of landing and take off) the processes laid down in section 40 should be expressly followed and fully documented. This will eliminate any doubts about the validity of the Scheme, at least for the future.

The Compliance Scheme

3.33 On 25 September 1997, Parliament was advised that the SADM Act was to provide for a compliance system under which airlines would be liable to fines and other penalties for poor on-time performance, as follows:

> This is a crucial element of the slots system which will provide airlines with an additional incentive to perform on-time. Because off-slot movements may involve fines unless an acceptable reason exists, the system will also bring transparency and accountability to a process of explaining why delays occur into and out of Sydney Airport.[56]

3.34 Development of the Compliance Scheme was commenced by DOTARS in the second half of 1997. On 19 March 1998, DOTARS distributed a 'draft final' version of the Compliance Scheme to the industry and other groups. The Compliance Scheme was approved by the Minister for Transport and Regional Services on 25 May 1998, notified in the Gazette of 5 June 1998 and commenced operation on 25 October 1998.[57]

3.35 The SADM Act assigns to the Compliance Committee the responsibility for developing, administering and amending the Compliance Scheme (section 66). Committee members were appointed by the Minister in April 1998, with DOTARS notifying members in writing of their appointment on 1 May 1998.

3.36 The Compliance Committee met for the first time in December 1998, almost two months after the Compliance Scheme commenced operation and five months after its Gazettal. Accordingly, at the time that members of the Compliance Committee were being appointed, development of the Compliance Scheme was largely complete. The Compliance Committee did not meet until after the Compliance Scheme was made law. ANAO found no record of Compliance Committee consideration and ratification of the Compliance Scheme. In this regard, AGS advised DOTARS in October 2006 that:

> Providing that the Compliance Committee could be said to have been instrumental in bringing the Scheme into existence, the involvement of other persons in the development of the Scheme is not inconsistent with the Scheme having been developed by the Compliance Committee.

3.37 While DOTARS, as Chair of the Compliance Committee, consulted with parties, including some of the industry representatives who were

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[56] House Hansard, Sydney Airport Demand Management Bill 1997, second reading speech, 25 September 1997, pages 8536 and 8537.

[57] The Compliance Scheme is a disallowable instrument, to be placed before Parliament for its consideration. The House *Votes & Proceedings* record that, on 1 June 1998, the Determination of the *Sydney Airport Compliance Scheme 1998* was 'deemed to have been presented' to the House. The Determination was subsequently gazetted on 3 June 1998 (Gazette Number 22) and tabled in the Senate by the Clerk on 22 June. The 1998 Senate *Journals* show no notice of disallowance of the Compliance Scheme, which therefore 'passed' the Senate at the expiration of the fifteenth sitting day after it was tabled, becoming law at midnight on 12 October 1998.

subsequently appointed to the Committee, during the drafting of the Compliance Scheme, they were not consulted in their capacity as Compliance Committee members. Accordingly, there is a risk that the scheme approved by the Minister may not have been developed or submitted by the Compliance Committee, as required by the SADM Act.

Amendments to the Compliance Scheme

3.38 The Compliance Committee has only once sought to amend the Compliance Scheme. The Compliance Scheme provides for a tolerance of 15 minutes around the allocated slot time for flights with a block time of less than three hours (block time, for a flight, means the time elapsed between the flight's scheduled departure time and its scheduled arrival time), and of 30 minutes around the allocated slot time for flights with a block time of three hours or more. At its 15 April 1999 meeting, the Compliance Committee agreed to recommend to the Minister that the Compliance Scheme be amended to adopt a uniform tolerance of 15 minutes, regardless of block time.

3.39 It was not clear, from the records of the Committee or DOTARS, whether the proposal was put to the Minister. ANAO found no record of the Committee recommending any further amendments to Compliance Scheme. In September 2006, DOTARS advised ANAO that:

> No proposed amendments to the Compliance Scheme have been submitted to the Minister. The Compliance Scheme remains unchanged since it commenced in 1998.

4. Slot Allocation

This chapter describes the role of the Slot Manager and examines the statutory provisions governing slot allocation. It compares these to current practice, with reference to IATA's Worldwide Scheduling Guidelines. It identifies difficulties inherent in the statutory provisions and substantive differences between the statutory provisions and current practice.

The Worldwide Scheduling Guidelines

4.1 As the demand for worldwide air transport has increased faster than the capacity of airports and airspace resources, there has been a rise in the number of congested airports worldwide.[58] IATA has worked for many years with airlines, airports, coordinators and industry experts to develop procedures to help manage these scarce resources, the current procedures for which are embodied in the 12th edition of IATA's *Worldwide Scheduling Guidelines*. The Guidelines are intended:

> to foster the fair and transparent allocation and efficient utilisation of scarce airport infrastructure to the acceptance of all parties concerned and to ensure that the requirements of civil aviation are met, mainly through the actions of the airlines themselves acting fairly and responsibly towards the public, airport managing bodies and one another.[59]

4.2 By their nature, airline schedules involve more than one airport. These may be in different countries or continents. To reach coordinated solutions, IATA convenes twice-annual international Scheduling Conferences. These have become worldwide forums for reaching consensus on schedule adjustments. The Scheduling Conferences also discuss and resolve problems of airport congestion, since any solution that is likely to ease a problem in one location must be considered in the context of other locations, especially where other airlines, airports and countries are involved. In this regard, in October 2006, the Slot Manager advised ANAO that:

> The process of slot allocation is extremely complex and has to fit within a world-wide structure to ensure that all operators that require slots are being treated equally, not only for their Australian operations, and on the same principles used at any fully coordinated airport in the world.

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58 IATA, *Worldwide Scheduling Guidelines*, 12th edition, December 2005, p. v.

59 ibid.

4.3 To assist in this task, the Worldwide Scheduling Guidelines outlines and defines key terms and procedures for scheduling aircraft movements. In some cases, the demand management legislation and the Worldwide Scheduling Guidelines definitions and procedures closely mirror one another, as illustrated by the definitions of 'slot' and 'slot series' in Figure 4.1.

Figure 4.1

Comparative definitions of 'slot' and 'slot series'

Worldwide Scheduling Guidelines	Demand management legislation
A slot is defined as the scheduled time of arrival or departure available for allocation by, or as allocated by, a coordinator for an aircraft movement on a specific date. Worldwide Scheduling Guidelines, 5.3 Definition of Slots	A permission for an aircraft movement is known as a slot. A slot allocated under the Slot Management Scheme will permit a specified aircraft movement at a specified time on a specified day. SADM Act, section 34(1)
A series of slots is defined as at least five slots, having been requested for the same time on the same day of the week regularly in the same scheduling period and allocated in that way or, if that is not possible, allocated at approximately the same time. Worldwide Scheduling Guidelines, 5.3 Definition of Slots	***Slot series*** means five or more slots that authorise the same kind of aircraft movement at the same time on the same day of the week within one scheduling season (for example, a takeoff slot at 5:00 pm every Monday during a specified period). *Slot Management Scheme 1998*, section 2(1)

Sources: IATA, *Worldwide Scheduling Guidelines*, 12th edition, December 2005, page 11, and relevant Commonwealth legislation.

4.4 Similar comparisons may be made for other key definitions and procedures included in the Worldwide Scheduling Guidelines, such as the priorities for allocating slots, the circumstances in which an operator can claim historical precedence, 'use-it-or-lose-it' tests and calculations, and the exchange, return or transfer of slots. IATA also cautions operators that:

> Although the procedures outlined in [*the Worldwide Scheduling Guidelines*] are intended as best practice for worldwide application, it is possible that some States or Regions may have legislation covering this area, in which case that legislation will have precedence over the procedures shown in this document.[60]

[60] ibid.

The Slot Manager

4.5 The functions of the Slot Manager are to develop, administer and amend the Slot Management Scheme and to carry out any other functions conferred by the SADM Act or its regulations, the Slot Management Scheme, or the Compliance Scheme.[61] Under the Slot Management Scheme, the Slot Manager is to receive applications for slots, assess applications against the priorities set out in the Scheme and allocate slots accordingly (among other matters).[62]

4.6 The Slot Manager was appointed by the Minister and is a proprietary company registered in New South Wales. At June 2006, the holders of its 1 000 issued shares were the SACL (10 per cent), Qantas Airways Limited (41 per cent), Virgin Blue Airlines Pty Ltd (35 per cent) and the Regional Aviation Association of Australia (14 per cent).

4.7 Operating funding for the Slot Manager is provided by the users of Sydney Airport. The funding mechanism is the application of a slot charge, levied on all aircraft operators to whom slots are granted in proportion to the number of slots granted. In September 2006, DOTARS advised ANAO that:

> Operating funding for the Slot Manager is provided by SACL (10 per cent) and Australian regular public transport operators (90 per cent). The amount of the fee invoiced to the Australian airlines is calculated on the basis of the number of slots allocated to those airlines.[63]

4.8 The Slot Manager currently provides coordination services for all major Australian airports. In February 2007 DOTARS advised ANAO that, in addition to its role as Slot Manager under the SADM Act, ACA provides terminal slot management services for Sydney Airport and both terminal and slot coordination services for other airports under separate commercial arrangements. DOTARS further advised ANAO that there is no legislation covering these activities and the Department has no role in these arrangements. On a daily basis, the Slot Manager receives and processes requests from airlines and general aviation aircraft for arrival or departure slots at all of the major airports in Australia, including Sydney Airport. In the

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61 SADM Act, section 60.

62 The Slot Manager's duties in respect of the Compliance Committee and enforcement functions are discussed in the next Chapter of this report.

63 In October 2006, the Slot Manager advised ANAO that the current fee is between $2.00 and $2.30 per slot including Goods and Services Tax. The Slot Manager further advised that foreign airlines are exempt from the administration fees following world-wide practice to avoid unnecessary proliferation of charges to airlines.

case of slots at Sydney Airport, the allocation and compliance processes are governed by Commonwealth legislation. In this respect, in February 2007, DOTARS advised ANAO that it does not have the expertise or the resources to take on the role of the Slot Manager.

Status of the Slot Coordinator

4.9 Part 3 of the Slot Management Scheme introduces the *slot coordinator* as 'the person responsible for making the day to day decisions of the Slot Manager' (in section 36). It does so without specifying the relationship between this person and the Slot Manager, how this person is appointed, or their duties. However, as provided for by section 61 of the SADM Act, the Slot Manager is a body corporate and, under Corporations Law, operates solely through its officers. Its officers are taken to be acting on its behalf and the Slot Manager will be responsible for their actions, whether for slot allocation, for compliance and enforcement purposes or for developing and proposing amendments to the Scheme. ANAO's June 2006 legal advice was that:

> The responsibility for taking decisions relating to the Slot Management Scheme fall on the Slot Manager. If the Slot Manager is intending to pass this responsibility to a person that it appoints as Slot Coordinator, it is acting without power. It may authorise the performance of its tasks by one of its officers and it can, if it wishes, designate that person as Slot Coordinator. However, it cannot abrogate its statutory obligations.

4.10 This state of affairs applies whether it is an officer of the Slot Manager or another authorised person (such as Airservices Australia) exercising powers to assist the Slot Manager's carry out their duties. Any legal action would be taken against the company. In this regard, section 37 provides for decisions of the slot coordinator to be reviewable by the Board of the Slot Manager, 'provided that an application is made in writing within 14 days of the decision to which objection is taken'. ANAO's June 2006 legal advice was that the provision is probably invalid:

> The Slot Manager remains responsible for the management of the Scheme and cannot prevent an operator from raising issues with it by imposing time limits and other procedural hurdles. Section 37 ignores the fact that the decision of the Slot Coordinator is the Slot Manager's decision and that in effect, when an operator requests a review of the Coordinator's decision, it is inviting the company to reconsider its own decision.

4.11 In particular, ANAO's legal advice was that an operator's entitlement to judicial review remained unimpaired:

> As far as the operation of the *Administrative Decisions (Judicial Review) Act 1977* is concerned, an operator would bring action against the Slot Manager regardless of the fact that the actual decision was taken by the Slot Coordinator. As noted previously, the Slot Manager is responsible for its employee's actions.

4.12 Accordingly, the Slot Manager is accountable for decisions relating to the Slot Management Scheme. In terms of whether the current provisions relating to the lodging of objections to decisions of the Slot Manager serve a useful purpose, DOTARS advised ANAO in February 2007 that:

> The Department considers that the review provisions in relation to decisions of the Slot Coordinator are appropriate and provide a form of internal review of decisions that are the legal responsibility of the Slot Manager.

Allocation of slots by Airservices Australia

4.13 In 1999, the Slot Manager sought to enter into an agreement with Airservices Australia (pursuant to section 41(1) of the Slot Management Scheme) to allow Airservices Australia to respond to requests to allocate slots to operators.

4.14 The agreement was to be made by way of a deed between the parties. Notwithstanding the requirements of section 127 of the *Corporations Act 2001* that the signatures of two directors are required for the valid execution of such an agreement, only one director has signed on behalf of the Slot Manager. In July 2006, ANAO was advised that:

> As far as Airport Coordination Australia is concerned, you are correct in thinking that the deed has probably not been correctly executed. However, this probably has little practical effect as Airservices Australia has acted on behalf of the Slot Manager and its actions have been accepted by the Slot Manager as being performed under the deed. The Slot Manager is now probably estopped from denying that it authorised Airservices Australia to act on its behalf. The agency will have been established by conduct.

4.15 Thus, in the event of a challenge to the validity of a slot allocated by Airservices Australia, whether in the context of prosecuting an offence under the SADM Act or deciding entitlement to a slot, it would first be necessary to validate the deed and then to ensure that the allocation met the terms of the deed.

4.16 In this regard, ANAO notes that the authority to be granted by the deed was explicitly limited to granting slots for short notice, unscheduled flights on the day of operation. The term of the deed expired in 2001 and no action was

taken by either party to extend or renew the authorisation. Airservices Australia's practice of 'granting' slots to operators has nonetheless continued unabated, albeit without any legal authority. In August 2006, Airservices Australia advised the ANAO that:

> The only authorisation under section 41 of the Slot Management Scheme made since the SADM Act came into effect is the Deed between Airservices Australia and Airports Coordination Australia.

4.17 Furthermore, the actions taken by Airservices Australia in respect of the granting of slots, or in respect of slots that have been granted, exceed the authority granted by the Slot Manager. Specifically, the ANAO was advised by Airservices Australia in March 2006 that:

> Airservices Australia would grant slots to operators prior to the day of operation if the Slot Manager was not able to be contacted.

4.18 ANAO notes that the Slot Manager is only available during business hours. At other times, Airservices Australia processes requests to cancel slot allocations after the scheduled day of movement if the movement has not occurred, notwithstanding that:

- at no stage has Airservices Australia ever been authorised to exercise powers of the Slot Manager in respect of slots that have already been granted; and
- the practice of allowing operators to cancel slots after the scheduled movement time, if the movement has not occurred, allows operators to avoid the intended impact of the 'use-it-or-lose-it' test, set out in section 7 of the Slot Management Scheme.

4.19 The arrangement with Airservices Australia also saw incidents of aircraft operators cancelling a slot and requesting a new slot for an aircraft delayed in transit or delayed on the ground at Sydney Airport. This practice was noted by the Compliance Committee at its 15 July 1999 meeting. This practice:

- relied upon Airservices Australia purporting to exercise powers in relation to slots already granted and in relation to slots for scheduled services, clearly beyond any authority granted to it; and
- undermines the integrity of the Compliance regime.

4.20 The Compliance Committee expressed the view that there would be 'no change to the original time' in future slot allocations. However, the Committee's authority to make such a determination is uncertain. The Slot Management Scheme still provides for an operator to return a slot at any time

(section 32) and to apply for a slot at any time (section 12(1)). As Airservices Australia has not maintained records of its slot allocation decisions for longer than 30 days, the ANAO was unable to confirm that this practice no longer occurred.

4.21 In December 2006, DOTARS took action to address ANAO's findings in this area. Specifically, DOTARS wrote to both the Slot Manager and Airservices Australia in the following terms:

> The practice of some operators to request a new slot while the aircraft is in transit is inappropriate and may circumvent accountability under the compliance scheme. I would appreciate the assistance of ACA [*and Airservices Australia*] in reminding operators that it is not in the spirit of the slot management regime to change the on-time compliance requirements for an aircraft already in transit by requesting a new slot. Any delay in the arrival time at Sydney Airport needs to be managed through the compliance regime.

Scope of the Slot Manager's authorisation of Airservices Australia

4.22 ANAO was advised in July 2006 of the extent to which the Slot Manager's powers may be exercised by another person, as follows:

> The SADM Act places responsibility for the performance of the various functions referred to in the Act on the Slot Manager. There is no provision in the Act allowing it to pass on those functions to another. However, [*under section 41*] the Slot Manager can authorise the exercise of powers by another person in aid of the performance by the Slot Manager of its functions, provided that the Slot Manager recognises that it has continuing responsibility for the way in which that other person exercises the Manager's powers.

4.23 Airservices Australia and the Slot Manager entered into a new deed of agreement on 22 August 2006. The new deed runs until terminated by the parties. Airservices Australia advised ANAO on 24 August 2006 that the new deed now allowed Airservices Australia to manage slots already allocated by the Slot Manager, as well as those allocated by Airservices Australia for short notice, unscheduled flights on the day of operation. However, on 7 September 2006, Airservices Australia received legal advice, as follows:

> At the outset, it should be noted that the drafting is ambiguous. I believe the preferred interpretation is that [*Airservices Australia's*] authorisation of slots is limited to [*short notice, unscheduled flights on the day of operation*].
>
> Given the ambiguity of the language it would be advisable to request the Slot Manager to execute a deed of variation which amends [*section 4.1(a) of the new deed*] to make the extent of the authorisation clear.

Ownership of records

4.24 In 1997, AGS provided general advice to agencies entering into contractual arrangements for the performance of services. To take account of developments in government policy, in the Parliament and in the courts, AGS advised agencies to make arrangements to provide for (among other things):

> inspection of the performance of the services and any material or records in the possession of the provider relating to the services.[64]

4.25 Access to such records is necessary for the Commonwealth to satisfy itself that functions it confers on other parties are carried out in accordance with the law. However, neither the SADM Act nor its legislative instruments make clear provision for the ownership of the records of slot allocations. In addition, it is possible that section 62(3) of the SADM Act removes the application of relevant Commonwealth laws to the Slot Manager, including the Archives Act. This is a consequence of achieving the broad exemptions from the application of Commonwealth laws intended by DOTARS' instructions for the drafting of the SADM Act.[65] In this regard, National Archives of Australia advised ANAO in August 2006 that:

> As discussed, the general principles used to define 'Commonwealth records' are not easily applied in the circumstances described. We agree that the s.62 provisions of the SADM Act excluding the Slot Manager from definition as a Commonwealth authority solely on that ground would appear to have the effect that the Slot Manager may not be subject to the *Archives Act 1983*, although we could not conclusively confirm this interpretation.
>
> However, it seems to us also that records created by Airservices Australia as agents of the Slot Manager may not be so easily defined as being beyond the reach of the Archives Act. Commonwealth records for the purposes of that Act are based on their being the property of the Commonwealth or a of Commonwealth institution. In this case, in the absence of definitive evidence of ownership such as provisions in legislation or legal agreements, the Commonwealth could make an argument that because they are physically created and held by a Commonwealth institution, the records created by Airservices Australia for any public function it performs are Commonwealth records.

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64 AGS, *Competitive tendering and contracting*, Legal Briefing 35, 20 August 1997.

65 ANAO notes that section 68(1) of the SADM Act makes similar provisions in respect of the Compliance Committee. The Compliance Committee's records are discussed in detail, commencing at paragraph 5.15.

4.26 The National Archives of Australia agreed with the ANAO that it would be difficult to see how the Commonwealth could be assured of appropriate discharge of responsibilities by the Slot Manager if the Slot Manager was exempt from the controls provided for under the Archives Act.

The statutory slot allocation mechanism

4.27 Section 35 of the SADM Act mandates the contents of the Slot Management Scheme. In particular:

> 35 Contents of Scheme
>
> (1) The Slot Management Scheme must provide a system for the allocation of slots for aircraft movements at Sydney Airport (other than movements during curfew periods). In addition to allocation, the Scheme may deal with associated matters such as the variation, suspension, cancellation, surrender or swapping of allocated slots, and the conditions that may be imposed on slots.

Overview

4.28 The Slot Management Scheme provides that, subject to certain limitations, an aircraft operator may apply[66] for an individual slot, a number of individual slots, a slot series[67] or a slot group.[68] Section 11(1) of the Slot Management Scheme limits the situations in which an operator may apply for a slot to provide a regional service. Section 11(3) limits the situations in which an operator can apply for a slot series or group to operate a service that will be provided using an aircraft with less than 18 passenger seats.

4.29 An aircraft operator can apply for a slot at any time. However, if the Slot Manager invites operators to apply for slots and specifies a day on or before which applications must be made, he must not include applications made after that day in the allocation process. This process of invitation to apply for slots in the coming scheduling season has been a feature of the operation of the Slot Management Scheme since its inception.

4.30 The Slot Management Scheme provides two mechanisms for allocating slots to operators, as follows:

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[66] An application for a number of individual slots that are not part of a slot series or group is taken to be as many applications as the number of slots sought.

[67] Five or more slots that authorise the same kind of aircraft movement at the same time on the same day of the week within one scheduling season.

[68] Two or more slots that together authorise aircraft movements for flights operated over a nominated period for a specific event.

- Division 4 of the Slot Management Scheme describes the process for allocating slots *before* a scheduling season commences. A slot allocated under this process is a slot for the following scheduling season.
- Division 5 of the Slot Management Scheme provides for the Slot Manager to allocate a slot *at any time* to an operator who applies for it. A slot allocated in this manner is a slot in the scheduling season in which the application is made.

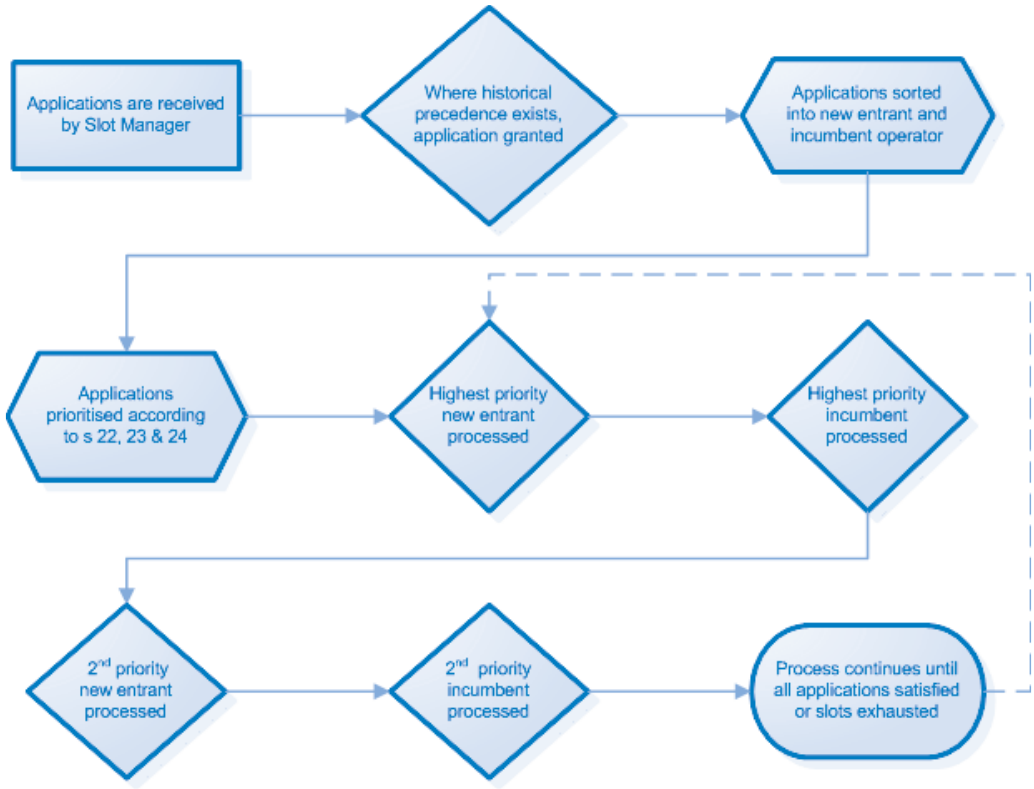
4.31 Before deciding whether to offer a slot to an operator, the Slot Manager must take into account any advice from Airservices Australia about the likely effect of the allocation, if made, on the operational efficiency of the airport (section 16(4) of the Slot Management Scheme). A slot is allocated to an operator when the Slot Manager offers the slot to the operator and the operator accepts the offer.

4.32 When allocating slots, the Slot Management Scheme requires that the Slot Manager, after first dealing with applications to which historical precedence attaches[69], must classify applications for slots as either new entrant or incumbent operator applications and then rank the applications in each classification in order of priority. Sections 22, 23 and 24 of the Scheme prescribe the factors that are to be applied in determining priority. The application of the provisions is illustrated in Figure 4.2 overleaf.

[69] Generally, an operator has historical precedence to a slot if the operator was allocated the slot, and operated an aircraft movement using the slot, in the preceding equivalent scheduling season (Division 2 of the Slot Management Scheme). If an operator has historical precedence to a slot and applies for that slot, the Slot Manager must offer the slot to the operator unless it would conflict with the maximum movement limit or produce an unacceptable degree of clustering in aircraft movements (section 18 of the Slot Management Scheme).

Figure 4.2

Slot allocation under the *Slot Management Scheme 1998*



Source: ANAO analysis.

4.33 The Slot Manager is also required to apply the rules in these sections to allocating slots during the course of the scheduling season, assuming that more than one application needs to be determined at a given time.

Statutory rules for allocating priority to applications for slots

4.34 The effective operation of the Slot Management Scheme turns upon the allocation of priorities to applications. The Scheme anticipates that, for both incumbent operators and new entrants, a definite priority will be able to be allocated to all but a small number of applications, in which case a slot lottery will determine the final allocation. The valid allocation of slots is also the premise on which operators can gain and retain historical precedence to slots and the basis of operation of the Compliance Scheme.

4.35 However, neither section 22 nor section 23 of the Scheme is prescriptive as to the manner in which the criteria are to be applied to establish the order of

priority of the applications. Ordinarily, the Slot Manager might reasonably assume that rules should be applied sequentially, following the order of listing of the categories. However, this procedure readily produces anomalous results, particularly if the potential impact of section 23(a) is realised. This is best illustrated by example.

- Assume that a peak period slot becomes available from the commencement of a scheduling season. Applicant A is an incumbent regional operator who only wants to use the slot every fourth week (once a month) in place of an existing service that presently operates off-peak. Applicant B is an incumbent international operator seeking to offer a year round service from a curfew constrained foreign airport. Applicant B is ranked ahead of Applicant A by virtue of section 23(b).[70]
- However, a third application can result in the requirement to consider section 23(a) and change the outcome of the process. Applicant C also applied for the slot. Applicant C is also an incumbent regional operator who also wants to use the slot every fourth week (once a month) in place of an existing service that presently operates off-peak. The application for the slot is now decided between the two regional operators on the basis of the application of section 23(a).[71]

4.36 Given the anomalous outcomes which arise from this approach, it may therefore be open to the Slot Manager to instead consider assessing each application in relation to *each and every one* of the criteria listed, to determine whether this distinguishes which applications should receive priority. This accords with AGS' October 2006 advice to DOTARS:

> In my view, before the process of allocating slots commences, *all* of the applications are to be ranked according to *all* of the priority rules set out in the specified sections, including those that apply where priorities are otherwise equal (section 25) before an allocation is to take place.
>
> While the process of prioritising the applications, applying all the priority rules, would undoubtedly be complex, I see no reason why it would fail to produce an order of priorities, especially having regard to the availability of a mechanism for prioritising applications that otherwise have an equal priority (section 25, which provides for a random slot lot).

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[70] Section 23(b) provides that an application for a slot to provide an international service takes priority over one for a slot to provide an interstate of a regional service.

[71] Section 23(a) provides that, if each of two incumbent operators has historical precedence to a slot that was not allocated to it, and each applies for another slot, the higher in priority of the two applications is the application from the operator that applies for the slot that is closer in time to the slot to which it had historical precedence.

4.37 ANAO notes, however, that the priority rules set out in section 23 do not have a strict hierarchy, so that two contradictory rules can simultaneously apply. This gives rise to ambiguous results, compounded by the fact that one rule (at section 23(g)) allocates no relative priority. Applying all the priority rules does not, therefore, always or even necessarily deliver an unambiguous order of outcomes. In this regard, ANAO received legal advice in July 2006 that:

> It is difficult to see how the method of allocation of priorities set out in sections 22 and 23 is meant to work. There is insufficient guidance provided by the sections.

4.38 After ranking the applications in order of priority, the Slot Management Scheme provides that the Slot Manager must first consider the highest-priority application from the class of new entrants, then the highest-priority application from the class of incumbent operators, and so on alternately, until there are no more applications left in one of the classes or there are no more slots to be allocated (as per section 26). In particular, section 26(3) provides that:

> The Slot Manager must then continue alternately taking the highest-priority remaining application from each class of applicant, and if the slot applied for is available, offering it to the applicant, or (if not) consulting the applicant about another slot, until:
>
> (a) there are no more applications left in one of the classes (whether or not all the applicants in the class have had slots allocated); or
>
> (b) there are no more slots left to be allocated.

4.39 In this case, AGS advised DOTARS in October 2006 that the intention appears to have been to provide first for alternating selections from classes of applicants, to be followed by priority allocation to any remaining applicants. In this regard, ANAO was advised that:

> the better way to treat the operation of the subsection is to disregard paragraph (a) and apply paragraph (b). This brings about a workable result in that it ensures that all available slots are allocated. To cease allocation when one of the classes of applicants is exhausted would seem to result in available slots not being allocated when there are eligible applicants in the other class.

4.40 In view of the multiple difficulties presented by these arrangements, whether considered individually or as a whole, the outcomes of the Slot Management Scheme are so uncertain that no consistent result may occur when applied to the allocation of slots. On this issue, the ANAO received legal advice in July 2006 that:

Sections 22 and 23 may also be invalid as failing to comply with sub-section 35(1) of the SADM Act in that they fail to 'provide a system for the allocation of slots for aircraft movements'. If no certain system is prescribed, the Act has not been complied with.

We note that section 37 of the SADM Act says that inconsistency with section 35 of the Act does not affect the validity of the Scheme. However, what is suggested is not that the Scheme is inconsistent with section 35 but rather that it does not carry out the *purpose* of the provision that permits the Scheme to be made.

Slot allocation in practice

4.41 In practice, the Slot Manager takes all slot applications up until the day before operation and passes these onto Airservices Australia. General aviation flights requiring a slot on the day of operation request these directly from Airservices Australia. As discussed at paragraph 4.20, ANAO was advised by Airservices Australia in July 2006 that no records are kept of these direct applications.

4.42 The Slot Manager advised ANAO in March 2006 of the process utilised by it for allocating slots at Sydney Airport. This entails an initial allocation of slots to which there is historical precedence, followed by the allocation of slots for:

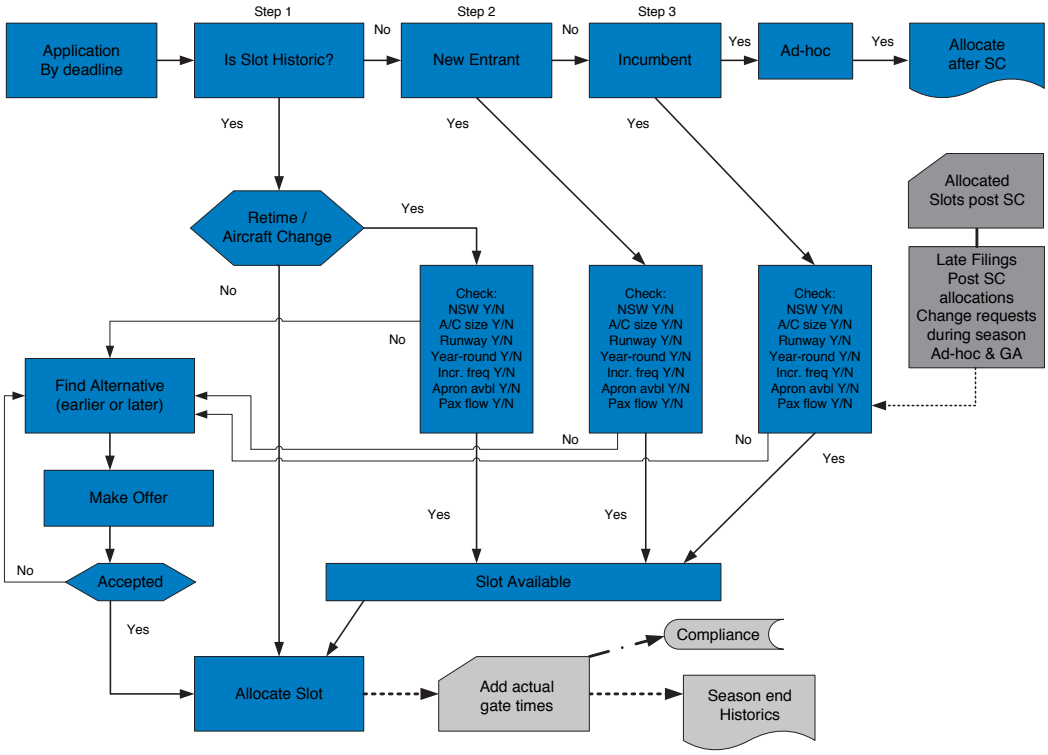
- all 'retimed historical' applications (applicants wishing to 'give up' a slot to which they had historical precedence in exchange for a slot to which they do not have precedence); then
- all new entrant applications; and then
- all other incumbent operator applications.

4.43 The resulting sequence of processes is represented in Figure 4.3 overleaf. This process aligns closely with the process for slot allocation described in the Worldwide Scheduling Guidelines.[72] It also accords with the general description of the slot allocation process outlined in the introductory pages of the Explanatory Statement for the Scheme, presented to Parliament in March 1998. However, it does not accord with the process actually legislated for by the Parliament.

[72] Op. cit, IATA 2005, pages 22 to 24. Section 6.8 of the Worldwide Scheduling Guidelines ('Priorities for Coordination') first applies historical precedence, then considers applications for 'retimed historicals'. Remaining slots are then pooled and applications from new entrants are then considered. In each category, applications for year-round services are accorded priority (as per section 6.8.1.5).

Figure 4.3

Slot allocation in practice



Source: Airport Coordination Australia Pty Ltd

4.44 The Slot Manager further advised ANAO that, in practice, the factors prescribed for determining priority are rarely applied. Where applicants seek the same slot, the Slot Manager initiates a negotiated settlement process as a first step. In effect, the priority of applicants is settled by negotiation. Only if negotiations are unsuccessful would the Slot Manager consider the legislated priorities, which would then be treated as being sequential and exclusive: that is, the Slot Manager would determine priority based on the first criterion if possible and disregard subsequent criteria; if settlement on the basis of the first criterion was not possible, the Slot Manager would determine priority based on the second criterion and disregard subsequent criteria, and so on until priority was settled. The Slot Manager advised that they had never conducted a slot lot, which they are required to do by section 25 of the Slot Management

Scheme whenever, after applying the rules, two or more applications are considered to have equal priority.

4.45 In summary, the approach being taken by the Slot Manager shows little consideration for the slot allocation priorities and processes set out in the Slot Management Scheme. Instead, the Slot Manager has adopted allocation methods that are consistent with international practice. In respect to slot allocation, DOTARS advised ANAO in February 2007 that:

> Efficiently administered, the *Slot Management Scheme* would allow the Slot Manager to resolve potentially conflicting applications by negotiating outcomes which are mutually acceptable prior to utilising priority rules. The inclusion of priority rules should not prevent the cooperative approach to resolving issues where possible. It is worth noting that the allocation of a slot not only depends on the availability of a time slot, but also depends on the availability of appropriate airport infrastructure such as aprons, gates and baggage facilities which also require coordination.

4.46 However, notwithstanding the difficulties inherent in allocating slots in accordance with the legislated Scheme, if the purported allocation of a slot did not accord with the Scheme, that allocation has no effect and no slot has been allocated. From this it follows that:

- an aircraft movement made in reliance upon such an allocation would be a no-slot movement (but the operator would probably not incur a penalty because they would not have acted knowingly or recklessly);
- as far as an aircraft operator is concerned, they are entitled to rely upon the presumption of regularity if a question arises whether they have acted in accordance with their slot allocation; and
- historical precedence would not be capable of being given effect because no slot would have been validly allocated.

4.47 In December 2006, DOTARS wrote to the Slot Manager and Airservices Australia in response to findings in the course of ANAO's audit indicating that there may have been occasions when the management and allocation of slots, while in keeping with the Worldwide Scheduling Guidelines, may not have been in strict accordance with the legislative framework established by the Act. DOTARS' correspondence stated that:

> Whilst the slot allocation process in place at Sydney Airport generally aligns with the IATA guidelines, there are some areas of divergence. Where there is inconsistency between the slot management regime established by the SADM Act and the guidelines, the legislative arrangements are to prevail.

Statutory provisions for historical precedence

4.48 Division 2 of the Slot Management Scheme gives an aircraft operator historical precedence for a slot if the operator operates an aircraft movement using the slot.[73] This historical precedence lasts only for the next equivalent scheduling season. Therefore, an operator must operate an aircraft movement using a slot during that next season if it wishes to retain the historical precedence for the equivalent season after that, and so on.

4.49 Section 16(1) of the Slot Management Scheme provides that the Slot Manager must first allocate the slots to operators which have historical precedence. In this respect, the effective application of historical precedence depends on precise specification of the slot application. However, the Slot Management Scheme is silent as to how an allocated slot is to be described. This causes administrative difficulties, as outlined in the following example.

- Assume that, in accordance with section 14(2)(b) of the Slot Management Scheme, an aircraft operator applies for and is granted a slot for the 9:00 am slot for every Sunday of the Winter 2004 Scheduling Season. Assuming that the aircraft operator did indeed operate at these slot times, ANAO's legal advice of July 2006 was that this would entitle the operator to historical precedence to all the 9:00 am Sunday slots in the Winter 2005 Scheduling Season.
- Alternatively, assume that the operator had instead applied for the slot at 9:00 am on 7 November 2004. This is the second Sunday of the Winter 2004 Scheduling Season. The Slot Manager grants the slot, the aircraft operator carries out the aircraft movement authorised by that slot and is thus entitled to historical precedence.
  - *Prima facie*, the entitlement is to the slot at 9:00 am on 7 November 2005, which is the second *Monday* of the Winter 2005 Scheduling Season.

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[73] Section 6(4) provides that 'historical precedence to a slot acquired during a scheduling season has effect only for the next equivalent scheduling season'. The definitions of these expressions are to be found in section 2. 'Scheduling season' is defined as 'northern summer' or 'northern winter'. 'Northern summer' is defined as the period that begins at the beginning of the last Sunday in March and ends at the end of the last Saturday in the following October. 'Northern winter' is defined in such a way as to embrace the rest of the year. Section 2 also provides 'equivalent scheduling season to a northern summer season means another northern summer and to a northern winter means another northern winter'.

– It does *not* appear to entitle the operator to the slot 9:00 am on *6 November 2005*, which is the second Sunday of the Winter 2005 Scheduling Season.

4.50 Under the terms of section 14 of the Slot Management Scheme, either slot application would be valid, but each would produce different entitlements to historical precedence. In this respect, ANAO received legal advice in July 2006 that:

> To take the view that the slot date is to carry over to the equivalent day as distinct from calendar date in the equivalent scheduling season requires too complex a transposition of the precedent date to be what the Scheme will support.

4.51 ANAO notes that, both forms of application, whether for 'the 9:00 am slot for every Sunday' or for '9:00 am on 7 December, 9:00 am 14 December' and so on, are valid and sufficient for the purposes of allocating slots. However, they produce different outcomes when deciding historical precedence.

4.52 It is relevant that the Slot Management Scheme requires aircraft operators to apply for a slot by specifying the date and time of the slot sought.[74] This gives rise to historical precedent on the same date (ie. 7 May) of the following equivalent scheduling season. It does not give rise to historical precedent on the equivalent day (ie. second Monday) of the subsequent scheduling season. It has been the practice of the Slot Manager to accord historical precedence on the equivalent day. However, this approach is not supported by the legislation.

4.53 After considering the issues raised by ANAO, in October 2006, AGS advised DOTARS that it agreed with ANAO's analysis and also agreed with ANAO that there was room for clarifying the operation of the historical precedence provisions in the Slot Management Scheme.

Historical precedence in practice

4.54 In March 2006, the Slot Manager advised ANAO that, in practice, it advises operators of slots for which they may claim historical precedence at the time it calls for applications for slots for a scheduling season. However, the Slot Manager provided no evidence of the application of important aspects of the historical precedence arrangements, as follows.

[74] Section 14 (2) (b) of the Slot Management Scheme.

The 'use-it-or-lose-it' test

4.55 Section 7 of the Slot Management Scheme provides that, if an operator had been granted that slot as part of a slot series or group, the operator **must** schedule aircraft movements in 100 per cent of the slots in the slot series or group and conduct movements in at least 80 per cent of the slots in the slot series or group; otherwise the Slot Manager may declare that the operator does not have historical precedence to the slot.

4.56 This 'use-it-or-lose-it' test was designed to ensure that operators that have been allocated slots operate aircraft movements using those slots.[75] In this respect, it was recognised that the non-use of allocated slots would reduce the efficiency gains expected to be derived from the scheme.[76]

4.57 However, there was no evidence of this test being applied in the allocation of slots. Further, the Slot Manager advised ANAO in March 2006 that, where operators have cancelled scheduled flights and not used an allocated slot, it may deem the movement to have occurred so that the operator retains historical precedence to the slot. The Slot Manager advised ANAO that this was especially necessary in respect of holiday seasons, when many regularly scheduled flights do not occur.

4.58 The Slot Manager's approach of deeming movements to have occurred during holiday seasons is consistent with guidance on certain *ad hoc* and holiday cancellations included in the Worldwide Scheduling Guidelines. However, the Worldwide Scheduling Guidelines also provide that:

> In some areas there may be local legislation, requiring that certain elements of [*historical precedence*] be handled differently, in which case that legislation will have precedence.[77]

4.59 In this context, ANAO's analysis was that there was no provision in the demand management legislation that permits the Slot Manager or any other entity or person to deem an aircraft movement to have occurred.[78] In October 2006, AGS advised DOTARS that it agreed with this conclusion.

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[75] Sydney Airport Demand Management Act 1997 – Slot Management Scheme 1998, *Explanatory Statement issued by the authority of the Minister for Transport and Regional Development*, p. 4.

[76] ibid.

[77] op. cit., IATA 2005, pages 48 and 49.

[78] Section 11(4) of the SADM Act permits the Slot Manager to declare, in relation to all or part of a day, that aircraft movements do not have to take place in accordance with their slots. However, section 39 of the Slot Management Scheme restricts such declarations to periods when Sydney Airport's movement capacity is reduced to less than 85 per cent of the allocated slots. This may not include periods of public holidays.

The 'size of aircraft' test

4.60 Sections 8 and 9 of the Slot Management Scheme address the 'size of aircraft' test as follows:

- section 8 provides that, if the size of the aircraft proposed to be used was decisive in the operator being given priority for the granting of a slot, the operator must use an aircraft of at least the size proposed; otherwise the Slot Manager may declare that the operator does not have historical precedence to the slot; and
- section 9 provides that, if the size of the aircraft proposed to be used was decisive in the operator being given priority for the granting of each slot in a slot series or group, the operator must use an aircraft of at least the size proposed in at least 80 per cent of the slots in the slot series or group; otherwise the Slot Manager may declare that the operator does not have historical precedence to the slot.

4.61 The 'size of aircraft' test was expected to be an important factor in the effectiveness of the slot scheme in producing efficiency gains at Sydney Airport by addressing whether the size of aircraft being used accords with the size of the aircraft which the operator stated it would be using in its application for a slot.[79] In February 2007, DOTARS advised ANAO that:

> The size of aircraft test provisions apply only if the size of the aircraft was decisive in allocating a slot between competing applications. The Department understands that the size of aircraft test has not been decisive in slot allocations and therefore the test has not been required.

[79] Sydney Airport Demand Management Act 1997 – Slot Management Scheme 1998, *Explanatory Statement issued by the authority of the Minister for Transport and Regional Development*, p. 4.

Recommendation No.3

4.62 ANAO *recommends* that the Department of Transport and Regional Services seek to improve its ability to oversight the allocation and management of aircraft movement slots at Sydney Airport by working with the Slot Manager to:

(a) implement arrangements that provide the Commonwealth with appropriate access to, and protection of, the records of the Slot Manager;

(b) clarify the process for prioritising slot applications;

(c) clarify the operation of the historical precedence provisions in the Slot Management Scheme so as to provide a sound basis for the allocation of movement slots to existing operators at Sydney Airport; and

(d) oversight the slot allocation process in order that all the statutory rules governing historical precedence are applied.

DOTARS' response

4.63 DOTARS agreed to the recommendation and commented as follows:

> The Department is currently able to access records kept by the Slot Manager on request and has not experienced any difficulties with any requests. The Department will examine appropriate measures, in consultation with National Archives of Australia, to formalise these arrangements so as to maintain appropriate access to, and protection of, the records of the Slot Manager.
>
> The Department considers that the broad intention of the Scheme has been followed in the prioritising of slot applications and recognising historical precedence, but will, in consultation with the Slot Manager and the Sydney Airport Coordination Committee, review the Slot Management Scheme and seek changes as appropriate to improve alignment with the provisions of the SADM Act.

4.64 In respect of the recommendation, the Slot Manager commented as follows:

> Given that runway slot management is a complex process and is further complicated by other capacity limitations, ACA would welcome improvements to the legislation that simplify the priority system

5. Compliance and Enforcement

This Chapter examines the operation of the Compliance Scheme including the responsibilities and activities of the Compliance Committee.

Introduction

5.1 The Compliance Scheme sets out how compliance with the slot management arrangements under the SADM Act and subsidiary Slot Management Scheme are to be enforced. The intent is that aircraft operators comply with the requirement to obtain a slot for a proposed aircraft movement at Sydney Airport and, having done so, take reasonable measures to ensure that the proposed aircraft movement occurs as planned. Accordingly, the Compliance Scheme includes prohibitions:

- against an aircraft operator from knowingly or recklessly allowing an aircraft to engage in a **no-slot movement**; and
- against an aircraft operator from knowingly or recklessly allowing an aircraft to engage in an **off-slot movement**.[80]

5.2 In this respect, the penalty provisions of the SADM Act apply to unauthorised aircraft movements, rather than directly to breaches of the movement limit. No-slot and off-slot movements can attract fines[81] and pecuniary penalties, set out in the SADM Act and the Compliance Scheme. Both are civil penalty provisions for which the Slot Manager may institute prosecution before the Federal Court. The Court then has the power to order offenders to pay a penalty of up to $222 000 (in sections 14 and 15). At the time of this audit, no court actions had been undertaken or penalties applied.

5.3 The most significant penalties were to apply to no-slot movements. Off-slot movements were to be subject initially to relatively small fines, with persistent offenders facing exponentially increasing fines for the second and third offences, up to a maximum. Consistent with this, section 5 of the Compliance Scheme provides for successive increases in penalties for up to eight offences in a scheduling season.

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[80] Section 4(b) of the *Sydney Airport Compliance Scheme 1998*.

[81] Fines are to be paid to the Commonwealth and received by the Slot Manager. An equivalent amount is then appropriated from the Consolidated Revenue Fund back to the Slot Manager for the purposes of carrying out its functions under the SADM Act.

No-slot movements

5.4 An aircraft movement is a **no-slot movement** if no slot permitting the movement on the day on which it occurs has been allocated. No-slot movements can arise in situations such as:

- no slot has been granted for the movement; or
- the movement occurs on a day other than the day for which the slot was granted.

5.5 There is no authority in the demand management legislation to excuse a no-slot movement. All no-slot movements are offences under section 12 of the SADM Act and could attract pecuniary penalties or fines.

Off-slot movements

5.6 In respect of **off-slot movements**, Section 3(1) of the Compliance Scheme applies a strict rule to single slots which are not part of a group or series. Unless the Compliance Committee declares otherwise, a movement outside the interval 30 minutes either side of the one-off slot time is *off slot.* If the block time[82] is greater than three hours (as for long haul interstate and international flights) this is extended to 45 minutes either side of the slot time. The sole reason available for a Compliance Committee declaration that such movements outside the slot interval are *not* off-slot is that:

> the circumstances that caused the movement to take place at the time it did were beyond the operator's control.[83]

5.7 For slots which are part of a group or series, section 3(1)(b) applies different criteria. The slot interval is smaller, being 15 minutes either side of the slot time for flights with a block time of less than three hours, 30 minutes otherwise. However, rather than all movements outside these intervals being (potentially) off-slot (as for single slots) only specific movements falling outside of these prescribed intervals can be off-slot. For a movement to be considered off-slot, it must also be the first movement that results in:

- more than 20 per cent (but less than 30 per cent) of the flights in that series being outside of the relevant tolerance interval; or

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[82] Section 2 of the Compliance Scheme defines block time as the 'time elapsed between the flight's scheduled departure time and its scheduled arrival time'.

[83] Compliance Scheme, section 4(a).

- 30 per cent or more (but less than 40 per cent) of the flights in that series being outside of the relevant tolerance interval; or
- 40 per cent or more (but less than 50 per cent) of the flights in that series being outside of the relevant tolerance interval; or
- 50 per cent or more of the flights in that series being outside of the relevant tolerance interval.

5.8 Any aircraft movement that meets these criteria is an off-slot movement. It is prohibited by the legislation and may attract pecuniary penalties or fines, *unless* the Compliance Committee declares that aircraft movement not to be off-slot (under section 4). In this respect, the Slot Manager commented to ANAO in October 2006 as follows:

> Off-slot movements are those that have an allocated slot but exceeded the tolerances of 15, 30 or 45 minutes. For such movements operators have to provide detailed reasons for the operation out of tolerance, which will be reported to the Compliance Committee. The Committee will consider whether such off-slot movements are within or outside an operator's influence, and after evaluation and consensus will be excused or not excused. A movement that is not excused will count towards a penalty if the flight during the entire season falls below 80 per cent of being within tolerance or excused. It should be noted that in 1998 about 18 per cent of movements were out of tolerance and now 11 – 12 per cent are out of tolerance which shows a considerable improvement in the operation of the Compliance Scheme, bearing in mind that movements have increased by 6.8 per cent.

The Compliance Committee

5.9 The enforcement of the slot management system is undertaken by the Compliance Committee. The *Sydney Airport Demand Management Regulations 1998* set out the membership and procedures of the Compliance Committee. Its major functions are:

- the development, administration and amendment of the Compliance Scheme;
- the issuing of recommendations to the Slot Manager concerning varying, suspending or cancelling slots allocated under the Slot Management Scheme;
- the issuing of directions to the Slot Manager concerning the issuing and/or the withdrawal of infringement notices;

- the issuing of declarations that an aircraft movement that would otherwise be off-slot is not off-slot;[84] and
- assessing operators' compliance with the 'use-it-or-lose-it' test set out in the Slot Management Scheme and making recommendations to the Slot Manager about action that should be taken against an operator that does not comply with that rule.

5.10 Section 47 of the SADM Act also provides that the Compliance Committee may recommend to the Slot Manager that the Slot Manager should vary, suspend or cancel slots allocated under the Slot Management Scheme.

Membership and procedures

5.11 The Minister may appoint up to seven members, comprising at least three representatives of airlines that regularly use Sydney Airport (including at least one nominated by regional air service operators), at least one nominee of the Sydney Airport lessee (SACL), and a member to represent the body providing air traffic control services (Airservices Australia). Appointments are for three years and members may be re-appointed for further three year terms. The SADM Act regulations allow the Slot Manager to attend meetings of the Compliance Committee.

5.12 From its inception, a DOTARS officer has been identified as the chair of the Compliance Committee. The Committee's quorum is four members and its decisions are made by simple majority vote. Each member is entitled to one vote, with the Chair of the Committee entitled to an *additional* casting vote. Section 15 provides for Committee resolutions without meetings.

5.13 When, as is frequently the case, the Compliance Committee is examining the conduct of an airline in which a Committee member has a direct or indirect interest (for example, as an employee of that airline) they must disclose the interest to the other members as soon as possible after they become aware of the relevant facts, excuse themselves from the meeting unless all other Committee members agree otherwise, and may not vote on the matter.[85]

5.14 In many respects, the functions and membership of the Compliance Committee are modelled closely on IATA's suggestions for airport slot

[84] The SADM Act empowers the Slot Manager (rather than the Compliance Committee) to commence Federal Court proceedings against aircraft operators. It also requires than any penalties, including from infringement notices, are to be paid to the Slot Manager.

[85] Regulations 13 and 14 of the *Sydney Airport Demand Management Regulations 1998*

performance committees. Where the Compliance Committee differs is that its role extends to infringement and enforcement matters.[86]

5.15 In terms of the operation of the Compliance Committee, DOTARS advised ANAO in February 2007 that:

> The decisions of the Compliance Committee are determined after considering the reasons provided by the operators. Over time, the Committee has established guidelines for the level of detail to be provided by operators sufficient to enable the Compliance Committee to consider the delay reasons. In addition, the Committee has established precedents for circumstances that members agree are prima-facie beyond the control of the operator.
>
> Consistent with the announcement of the regime, the Compliance Committee operates on a cooperative and educative basis. New operators are provided with the delay reasons paper and representatives are invited to attend a Compliance Committee meeting as an observer in order to gain a greater appreciation of the detailed information required.

Records of meetings

5.16 In December 1998, the Regulations were amended to require the Compliance Committee to arrange for minutes to be taken of all its meetings and for their retention for at least seven years.[87] The amendment occurred after the Chairman of the Senate Standing Committee on Regulations and Ordinances wrote to the Minister for Transport and Regional Services on 1 July 1998 expressing concern that, under the regulations as originally formulated 'the Compliance Committee does not need to keep minutes of its meetings if it does not wish to do so'.

5.17 The Compliance Committee is formally established by legislation, its members are appointed by the Minister for Transport and Regional Services and it is required by legislation to maintain minutes of all meetings. The matters that are the subject of Committee deliberations are of significant commercial and financial interest. As such, the ANAO considers it reasonable to expect a high level of accuracy, comprehensiveness and diligence be applied to the recording of Committee meetings.

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[86] op. cit., IATA 2005, pp. 59 and 60.

[87] Section 9B was inserted on 16 December 1998 by statutory rule No. 337 of 1998.

5.18 The ANAO examined the records of twenty seven Compliance Committee meetings and found:

- no record of Committee members declaring their interests in proceedings, being excused from proceedings or excluded from voting;
- four instances in which the record of the meeting failed to record any of the decisions taken by the Committee during the meeting;
- only four instances where records of a previous meeting had subsequently been ratified by the Committee and this decision included in the meeting record;
- only one instance of the Compliance Committee having taken any decisions in respect of the majority of early/late aircraft movements between September 2000 and October 2006; and
- four instances in which the Chair of the Committee was not identified.

5.19 Examining other relevant records, ANAO found:

- reference to a Committee meeting having taken place on 9 July 2003 but no official record; and
- a draft record of a meeting that may have taken place in March 2004.

5.20 ANAO's findings are consistent with the October 2004 observation of the Committee Chair that 'we no longer seem to do an agenda or Minutes but just a note for file'. In this respect, the Regulations (as amended in December 1998) are not being complied with.

5.21 In September 2006, DOTARS advised ANAO that:

> The Department is implementing revised procedures for the recording of minutes of the Compliance Committee meetings to take effect from the next Compliance Committee meeting on 26 October 2006. It is proposed that the Department will circulate an agenda to members one week prior to the meeting and seek any additional items for discussion.
>
> The minutes will records attendees, apologies, actions from previous meetings, declarations of interest, a vote on whether members or alternate members must be excused from the proceedings, consideration of movement data, other business and the next meeting date.

Records of assessments

5.22 To assess aircraft movement compliance, the Committee relies upon movement reports provided by the Slot Manager. The reports provide the Compliance Committee with information regarding all aircraft movements

that fall outside of the standard tolerance intervals. The intervals used by the Slot Manager are 15 minutes before or after the allocated slot time (where the block time is less than three hours) or 30 minutes before or after the allocated slot time (where the block time is three hours or more).

5.23 In this respect, ANAO notes that, although the Slot Manager's records presumably record details of all slots allocated, the standard tolerance intervals used in the Slot Manager's reports to the Compliance Committee do not allow for single slots allocated to flights with block times greater than three hours. In that case, the tolerance interval is 45 minutes either side of the allocated slot time.[88] In September 2006, DOTARS advised ANAO that:

> During the deliberations of a Compliance Committee meeting, airline representatives are able to identify single slot movements by the flight numbers and provide this information to the members of the Committee for consideration.
>
> The Compliance Committee will, nevertheless, consider ways in which single slot flights may be identified in the movement data that is provided to Compliance Committee members.

5.24 The movements are categorised by the Slot Manager according to the aircraft operator's explanation as to why the aircraft movement took place when it did. The Slot Manager advised ANAO that it categorises all aircraft movements outside the slot tolerances according to the basic IATA delay standards and has adopted the IATA reasons and codes. Flights are then grouped for evaluation by the Compliance Committee as follows:

- **Group 1** comprises movements outside the slot tolerances for reasons that are outside an airline's influence (such as bad weather and other matters covered by IATA compliance codes A to C) and are generally not questioned by the Committee; and
- **Group 2** comprises movements covered by IATA compliance codes D to I and code P, which will generally not be questioned by the Committee, except for Code I (consequential delays for turnaround services where the departure delay must not be greater than the arrival delay) and Code P (covering block time variations that may require airline proof that the flight departed on schedule from the previous port).

[88] Single slots with block times under three hours are allowed a tolerance interval of 30 minutes.

5.25 **Group 3** comprises all other movements outside the slot tolerances (IATA compliance codes J to O). Most movements that the Slot Manager considers may have occurred when they did for reasons *within* the control of the operator are allocated to Group 3.[89]

5.26 Aircraft movements categorised as either Group 1 or 2 comprise the majority of early/late aircraft movements since this approach to categorisation was adopted at the commencement of the Compliance Scheme in 1998. ANAO found that, over time, the Committee has progressively narrowed the scope of its considerations, as follows:

- minutes of Compliance Committee meetings up to and including the meeting of 9 April 1999 record that the Compliance Committee considered the reasons for early and late aircraft movements in Groups 1, 2 and 3;
- Compliance Committee meetings of 15 July 1999 to 8 September 2000 record only that the Compliance Committee considered movements in Groups 2 and 3, except for the meeting of 6 April 2000, when only Group 3 consideration was recorded; and
- From September 2000 until October 2006, records of all but one of the subsequent meetings of the Compliance Committee only record consideration of movements categorised as Group 3.

Declarations of the Compliance Committee

5.27 ANAO found that, where the Compliance Committee considered the circumstances that caused the movement to take place when it did, its subsequent declaration took one of two forms:

- up to and including the Compliance Committee meeting of 15 April 1999, the Compliance Committee declared certain identified aircraft movements to be 'on-slot' and others to be 'off-slot'; or
- since April 1999, the Compliance Committee has either declared certain movements to be 'off-slot' or has failed to record any decision regarding early/late movements.

[89] The division of records of aircraft movements into Groups 1, 2 and 3 is an administrative process undertaken by the Slot Manager intended to improve the efficiency of Compliance Committee operations, with most scrutiny being given to movements in Group 3 (that is, movements that may have occurred when they did for reasons within the control of the operator). Whether a particular movement is categorised as Group 1 or 2 depends on the reason put forward by the operator.

5.28 Neither the SADM Act nor the Compliance Scheme provide authority for the Committee to declare an aircraft movement to be 'on-slot'. It is not clear that such declarations have any effect on the status of an aircraft movement in relation to the SADM Act or Scheme.

5.29 Neither is the Committee empowered to declare an aircraft movement to be off-slot. Rather, an aircraft movement is off-slot if it meets certain conditions prescribed in the legislation and is not declared by the Compliance Committee to be 'not off-slot'. All off-slot movements are prohibited by the Act and may attract infringement notices or civil proceedings, unless the Committee declares them to be 'not off slot' for the sole allowable reason that the circumstances that caused the movement to take place at the time it did were beyond the operator's control.

5.30 In October 2006, AGS observed to DOTARS that while the Compliance Committee may have been merely making informal categorisations of movements for administrative and decision-making purposes, nonetheless 'the Compliance Committee has no general power to make binding declarations as to whether aircraft movements are 'on-slot' or 'off-slot'.'

5.31 ANAO further found that:

- the records of Compliance Committee meetings provide no evidence of any Compliance Committee declarations that particular aircraft movements, which would otherwise be off-slot, are not off-slot;
- where the records indicate that the Compliance Committee has considered the reasons for early/late aircraft movements and determined that the reasons for the aircraft movement taking place when it did were within the control of the operator, the reasons for individual decisions are not recorded; and
- where a Compliance Committee's decision to declare the flight to be 'on-slot' or 'off-slot' is recorded, the reason underlying the Committee decision (that is, why this instance is within the operators control while another is not) does not form part of the official record.

5.32 The proper documentation of the decisions of the Compliance Committee is important for regulatory, operational and legal reasons. Accordingly, ANAO considers that the records of Compliance Committee proceedings should clearly demonstrate that Compliance Committee decisions accord with the relevant provisions of the legislation and are based on the facts of the case, including inquiries made by the Slot Manager and any additional

information provided by operators or their representatives. At a minimum, the record should set out the reasons for decisions, along with the material facts and any relevant evidence or other material.

5.33 In this regard, DOTARS advised ANAO in September 2006 that:

> The Compliance Committee will revise the records of meetings commencing on 26 October 2006 to reflect decisions consistent with the Compliance Scheme: that is, relevant aircraft movements will be deemed 'not off-slot'.
>
> The Compliance Committee will continue to list those aircraft movements that are off-slot as this information is used by the Slot Manager in compiling the 'use-it-or-lose-it' analysis.

Compliance Committee jurisdiction

5.34 ANAO analysis of the data provided to the Compliance Committee estimated that, for those seasons where complete data was available, nearly 90 per cent of the aircraft movements referred to the Compliance Committee could not have been off-slot and could not have been within the Committee's jurisdiction.[90]

5.35 ANAO found that the reports to the Compliance Committee included, but did not highlight, 526 aircraft movements that reportedly occurred during the curfew period (that is, between 11:00 pm and 6:00 am). These movements are governed by the Curfew Act and could not possibly have contravened the provisions of the SADM Act.

5.36 The data also included 639 aircraft movements in respect of which the allocated slot was during the curfew period. If the proportion of reported movements to actual slots granted during the curfew were similar to the overall pattern and, adjusting for missing data, it is likely that between 9 000 and 10 000 slots have been allocated to aircraft operators for aircraft movements during the curfew period over the life of the Slot Management Scheme. It is open to an aircraft operator to apply for, and open to the Slot Manager to grant, a slot for a movement inside the curfew period. However, the allocation of a slot within the curfew period does not authorise an aircraft movement that is not otherwise permitted under the provisions of the Curfew

[90] The flights could not have been off-slot because either the threshold conditions for an off-slot movement were not breached, or the movement occurred during the curfew period or the movement was a no-slot movement. ANAO has been unable to undertake a precise assessment as DOTARS have been unable to provide a complete set of the data referred to the Committee and because the data provided to the Committee does not identify whether slots form part of a slot series or group.

Act and no movement that occurs within the curfew period can be an offence under the SADM Act.

5.37 The Compliance Committee meets, at most, four times a year and its members are presently required to consider more than 25 000 movements each year. There is a strong correlation between increases in the volume of movements referred to the Compliance Committee and decreases in the likelihood that an aircraft movement will be considered to have occurred when it did for reasons within the control of the aircraft operator. In view of this, ANAO considers that improving the Committee's focus on its statutory role and improving the quality and relevance of information referred to the Committee has the potential to enhance its effectiveness and efficiency.

Compliance Scheme data

5.38 To assist in the management of the Compliance Scheme, Airservices Australia collects information from domestic aircraft operators and from Sydney Airport (in respect of international operators) that details:

- for aircraft using airbridges, the time at which the airbridge was connected after the aircraft had landed and come to a halt or disconnected in preparation for flight; and
- for aircraft not using airbridges, the time at which wheel chocks were put in place after the aircraft had landed and come to a halt or removed in preparation for flight.

5.39 On the basis of this data, Airservices Australia seeks to match the information on the timing of aircraft movements with information on slot allocations provided by the Slot Manager. This information is then returned to the Slot Manager for consideration of any compliance issues. The combined data set includes almost 3 million records, covering the eight years of operation of the SADM Act up until the end of March 2006.

5.40 There was no data provided for 114 days (or approximately 4 per cent) of the period since demand management was introduced. There were also numerous duplicate records. After removing duplicate records, ANAO found that, of the 2.2 million records remaining, 400 000 (or 18 per cent) failed to record either a slot or a time of movement (as shown in Figure 5.1 overleaf). Without both, it is not possible to apply the terms of the Compliance Scheme.

Figure 5.1

Proportion of aircraft movement records able to support compliance provisions of the SADM Act

		Pushback time recorded ?	
		Yes	**No**
Slot time recorded ?	**Yes**	**81.9% ✓** (1 819 872 movements)	**12.6%✗** (279 443 movements)
	No	**3.9%✗** (86 300 movements)	**1.7%✗** (37 731 movements)

Source: ANAO analysis of Airservices Australia's combined aircraft movement and slot data.

5.41 Airservices Australia advised ANAO in March 2006 that it does not receive information in respect of all aircraft movements for which slots have been allocated. So-called 'itinerant' aircraft (that is, infrequent or irregular visitors to Sydney Airport) often fail to provide details of actual movement times. In March 2006, the Slot Manager advised ANAO that, to the extent possible, he requests missing data from operators prior to providing his report to the Compliance Committee.

5.42 Both Airservices Australia and the Slot Manager observed that neither the SADM Act nor the Compliance Scheme compelled operators to provide movement data to support the Compliance Scheme and that this prevented the Compliance Committee from assessing whether all operators met the terms of the Scheme.

5.43 One effect of incomplete information is that certain operators, responsible for up to 18 per cent of all aircraft movements, are potentially excluded from the application of the Compliance Scheme, including the relevant penalty provisions of the SADM Act.

5.44 The Slot Manager advised ANAO in February 2007 that, using information provided by the operator of Sydney Airport, aircraft operators and through data matching, he could account for most of the data missing from the Airservices Australia records examined by ANAO, such that:

ACA considers that the only data missing from the Compliance System over the period of the SADM is in respect of the temporary suspension of the system after September 2001 and the itinerants.

5.45 However, ANAO's analysis of Airservices Australia's records shows that, following the first year of the Scheme's operation, missing records relating to aircraft movements have steadily declined from 20 per cent in 1999 to 10 per cent in 2006 and that 2001 was unexceptional in this regard.

5.46 ANAO's analysis shows that, allowing for the Slot Manager's data matching successfully accounting for all missing slot allocation data, there would remain some 14 per cent of records for which independently recorded aircraft movement times were not available. Although the Slot Manager follows up aircraft operators to obtain a proportion of the missing aircraft movement data, 'itinerant' aircraft in particular are effectively able to avoid being assessed in terms of their compliance with the demand management legislation.

Assessment outcomes

5.47 In September 2006, DOTARS provided ANAO with all available Compliance Committee reports in order for ANAO to assess the completeness of the information supporting the operations of the Committee. The available reports covered 11 of the 14 completed scheduling seasons from the commencement of the Compliance Scheme through to 29 October 2005 (that is, the end of the Summer 2005 Scheduling Season). In regard to the partial or missing reports for the other three scheduling seasons, DOTARS advised ANAO that these related to:

- the Winter 1998 scheduling season, in which there are substantive gaps in the records. This was the first scheduling season in which both the Slot Management and the Compliance Schemes were both in operation;
- the Summer 2001 scheduling season; and
- the Winter 2003 scheduling season, for which DOTARS advised that the records were being re-built by the Slot Manager.

5.48 ANAO notes that Compliance Committee reports are important records. They are the main subject of the Committee's deliberations and the chief evidence that the Committee has discharged its statutory duties. The reports form the basis of any compliance decisions which the Committee may make and may, therefore, be subject to review or challenge in a court. In this

respect, ANAO considers that incomplete Compliance Committee records potentially undermine the effectiveness of the Committee's operations.

5.49 DOTARS advised ANAO in September 2006 of the gaps in data for the Winter 1998 scheduling season and the absence of any data for the trial of the Compliance Scheme during the Summer 1998 scheduling season. The absence of baseline data for these periods prevents an accurate assessment of the changes in aircraft movements and timeliness achieved by the introduction of the Slot Management and Compliance Schemes.

5.50 In September 2006, DOTARS advised that the gaps in the Compliance Committee's records for the Summer 2001 scheduling season were due to the suspension of the Compliance Scheme during September and October 2001, following the collapse of Ansett Airlines.

5.51 In this regard, DOTARS was not able to advise ANAO of the authority for suspending the Compliance Scheme, nor could DOTARS advise who had authorised the suspension. In the absence of such authority, the Slot Management and Compliance Schemes necessarily continued in effect, although their terms were not applied.

Compliance assessment reports

5.52 ANAO's analysis of compliance assessment outcomes is based on a large sample of Compliance Committee reports. DOTARS provided ANAO with the sample reports in July 2006, covering 73 per cent of the total period of operation of the scheme up to 29 October 2005. The sample includes data in respect of nearly 166 000 aircraft movements.

5.53 On the basis of this large sample, ANAO found that the reports provided to the Compliance Committee were deficient in a number of critical respects, as follows:

- the data did not identify potential no-slot movements.
- the data did not identify single slots, which have strict criteria for determining off-slot movements and which are allowed larger slot tolerances.
- the data did not identify whether the slot allocated for a particular movement was part of a series or group of slots or the number of movements in that group or series. This information is critical for determining whether an aircraft movement is an off-slot movement.

- no advice was provided to the Compliance Committee, nor was any assessment apparent, in respect of which of the aircraft movements referred may have been off-slot, rather than simply early or late. This is important as the Compliance Committee is only empowered to make declarations in respect of aircraft movements that would otherwise be off-slot (section 4(b) of the Compliance Scheme). It has no power to make declarations in respect of early or late flights that are not off-slot flights within the meaning of section 3 of the Compliance Scheme.

No-slot movements

5.54 In respect of no-slot movements, ANAO found that the data included, but did not highlight, more than 600 aircraft movements which were reported to the Committee as taking place on a day other than the day on which a slot permitting the movement had been allocated under the Slot Management Scheme. These movements are no-slot movements and offences under section 12 of the SADM Act.

5.55 However, the Compliance Committee did not recognise the movements as no-slot movements and took no action in regard to these movements being offences. Instead, it mistakenly processed them as potential off-slot movements. Neither the SADM Act nor the Compliance Scheme empower the Committee to make any declaration that will affect the status of an aircraft movement that is a no-slot movement. All such movements remain offences under the Act and liable to pecuniary penalty. As noted at paragraph 5.28 above, neither is there any apparent authority for the Committee to declare an aircraft movement to be 'on-slot'. Accordingly, such declarations may have no effect on the status of an aircraft movement in relation to the Act or Scheme.

5.56 On the basis that the sample records (comprising 73 per cent of compliance records for the period of operation of the Compliance Scheme up to October 2005) are representative, its is possible that more than 800 no-slot movements may have been referred to, but not recognised or acted on, by the Compliance Committee.

5.57 DOTARS has taken action to address these findings. Specifically, in December 2006, DOTARS wrote to both the Slot Manager and Airservices Australia in the following terms:

> There appears to have been an inadvertent treatment of aircraft movements that are delayed until the following day. The SADM Act defines a no-slot movement as a movement occurring on a day for which the operator has not

had a slot permitting the movement allocated. Operators need to be aware that unless a new slot is obtained where a slot is not able to be used on the day for which it has been allocated (while the aircraft is on the ground), the operator may be prosecuted for a no-slot movement.

Off-slot movements

5.58 In respect of off-slot movements, ANAO found that the sample Compliance Committee reports provided by DOTARS included more than 8 000 off-slot movements. On the basis that the sample records are representative, between 1999 and 2005, it is possible that there may have been more than 11 000 off-slot aircraft movements. However, on the basis of the Compliance Committee's procedures, the Compliance Committee has applied the terms of the Compliance Scheme to a small proportion of these movements.

5.59 The Compliance Committee procedure for dealing with those flights which it has 'deemed' to be off-slot involves a construct described to the ANAO as the 'penalty box'. The penalty box maintains a record of all slot series where one or more of the movements associated with the series have been 'deemed' off-slot by the Compliance Committee. Where more than 20 per cent[91] of the movements associated with a particular series have been 'deemed' off-slot by the Compliance Committee, sanctions (either through an infringement notice or civil prosecution) could be imposed. The ANAO was advised by the Slot Manager in March 2006 that, since the commencement of the Compliance Scheme, no operator has breached the 20 per cent threshold.

5.60 While the operation of the penalty box is well established, it does not constitute an effective or accurate implementation of the relevant legislative provisions. In particular:

- Section 3 of the Compliance Scheme requires that the performance of all movements in slot series be considered in determining whether a particular movement has breached one of the critical thresholds that may result in an offence – at present, only those movements 'deemed' off-slot by the Compliance Committee are considered.
- The penalty box relies on the dual assumptions that all slots are part of a slot series and that all slot series are for the length of the scheduling season. These assumptions are not supported by ANAO's examination

[91] That is, seven or more movements in a 31 or 32 week scheduling season or five or more movements in a 21 or 22 week scheduling season. While the greater tolerances apply to movements in respect of single slots (as distinct from slots which are part of a group or series), there is no record of the Committee ever considering off-slot movements other than those in groups or series.

of the evidence. For example, the Summer 2005 scheduling season included slots that were not part of a slot series in every category of air movement and included at least 15 878 slots (more than 10 per cent of all slots allocated for the season) which were not part of slot series that ran for the entire scheduling season.[92] In this context:

– movements relating to slots that are not part of a slot series are subject to different legislative prohibitions than those that relate to slots that are part of a series; and

– slot series comprised of fewer slots have a commensurably lower threshold that, if breached, may result in a late/early movement being off-slot.

5.61 ANAO analysed aircraft movements for the 2005 Summer scheduling season, including the compliance outcomes. Taking into account the Compliance Committee assessments of which movements were within the control of the operator (see Figure 5.2 overleaf), ANAO found that:

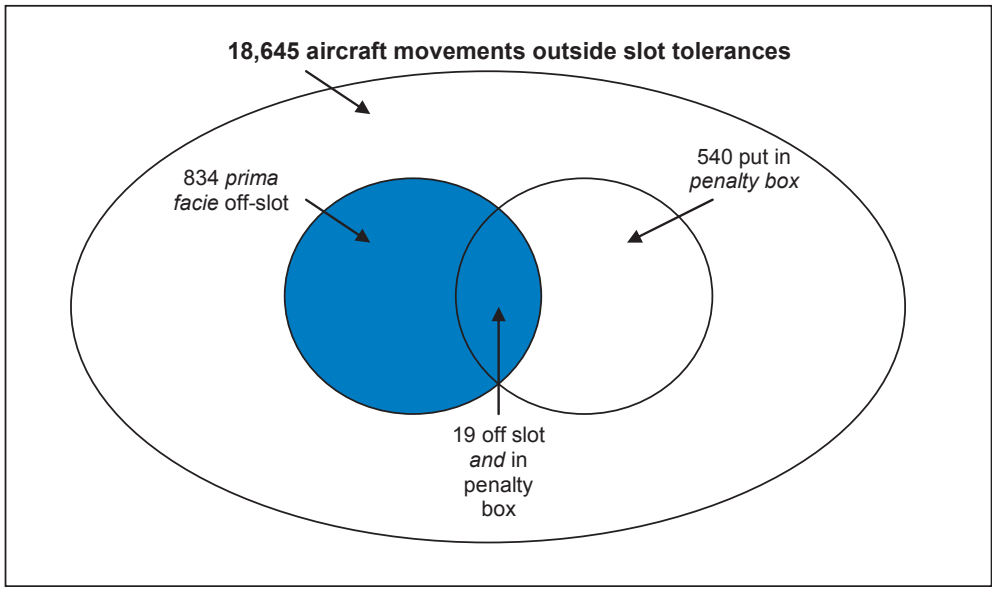
- more than 18 600 aircraft movements were outside of the tolerance provided for in the Scheme and were referred to the Compliance Committee (around 11 per cent of all aircraft movements);
- the Committee correctly identified 19 of these as off-slot movements, although it also mistakenly identified another 521 movements as potentially off slot. It placed all 540 movements in the 'penalty box'; and
- in addition to the 19 movements correctly identified as off-slot by the Committee, ANAO found a further 815 off-slot movements under the terms of the Compliance Scheme that were not identified as such by the Committee and were therefore not placed in the 'penalty box' (but should have been). This meant that there was a total 834 of the 18 600 movements (4.5 per cent) that were off-slot movements under the Compliance Scheme.[93]

[92] A slot series may be of less than the maximum number of slots possible by virtue either of nature of the granting of the original application (for example, the operator did not apply for a slot for each week of the scheduling season) or because the operator has returned a slot in the course of a scheduling.

[93] The method of analysis which indicated 834 off-slot movements for the 2005 Summer scheduling season is the same method which applied the terms of the Compliance Scheme to the sample of Compliance Committee reports and found more than 8 000 off-slot movements.

Figure 5.2

ANAO analysis of Compliance Committee outcomes, Summer 2005 scheduling season



Source: ANAO analysis of Compliance Committee reports.

Operator control of aircraft movements

5.62 In October 2006, the Slot Manager commented to ANAO that:

> The compliance scheme is one of the best in the world. It requires the airlines to provide detailed responses for all movements out of tolerance at great cost to the airlines. The categories of delays in the scheme provide detailed information about the type of delays that are experienced and allow remedial action to be taken. Schemes that operate in the European Union only require airlines to provide reasons when a flight in a season falls below 80 per cent of the tolerance that applies to the airport.

5.63 The SADM Act prohibits an aircraft operator from, knowingly or recklessly, allowing an aircraft to engage in either a no-slot or an off-slot movement.[94] Section 11 enables the Compliance Scheme to provide for the circumstances in which a movement can be declared off-slot. Specifically, section 4 of the Compliance Scheme allows the Compliance Committee to declare a movement is taken not to have been off-slot if:

[94] Sections 12 and 13 (respectively) of the SADM Act.

> the circumstances that caused the movement to take place at the time it did were beyond the operator's control.

5.64 To similar effect, section 8 of the Compliance Scheme provides that an infringement notice for a civil contravention (that is, either a no-slot or an off-slot movement) may be withdrawn:

> if the contravention occurred because of circumstances outside the control of the operator concerned.

5.65 For sanctions to apply to an aircraft operator, the no-slot or off-slot movement must not only have been knowing or reckless (as provided for in the SADM Act), but must **also** have occurred when it did due to circumstances within the control of the operator. ANAO's legal advice of July 2006 was that:

> For an act to be done knowingly and recklessly, it seems that it would have to be an action over which the operator has control. The intention to perform the proscribed conduct must be freely obtained. If a flight is off-slot because, for example, the aircraft has been hijacked, it could not be said that the operator has acted knowingly or recklessly.
>
> If the provisions in the Compliance Scheme relating to actions within the control of the operator are doing no more than recognising this element of the knowingly or recklessly formula, they may be otiose but do not lead to invalidity…
>
> The identification of circumstances that are within or outside of the control of the operator will pose difficulties in particular cases. For example, delay in departure of an aircraft because of the late arrival of a passenger may be claimed to be outside of the operator's control. However, it would be possible for the aircraft to depart leaving the passenger behind. The departure time is within the operator's control. It is just that there may be good commercial or other reasons why it chooses to act in a particular way.

5.66 AGS advised DOTARS in October 2006 that section 4 of the Compliance Scheme accorded with the intention of section 11 of the SADM Act. Accordingly, this gives the Compliance Committee, if it wishes, the capacity to apply the term 'within the operator's control' to a wide range of circumstances, as it sees fit.

5.67 ANAO's observation of Compliance Committee proceedings and examination of Compliance Committee records demonstrated that a broad interpretation is applied. Commercial considerations, such as passenger delays, are accepted by the Compliance Committee as valid reasons for

operators not complying with slot times. However, ANAO's legal advice of July 2006 was that:

> We can understand that this may not be what was intended when the legislation was being drafted. If that be so, the Act needs to make the position clear. It cannot be left for the delegated legislation to put some gloss on the operation of the Act.

5.68 The outcome of this approach has been that, of those aircraft movements referred to the Compliance Committee, the Committee placed 2.6 per cent in the penalty box. That is, the Committee considered less than three in every 100 flights that operated outside of their slot interval had done so for reasons within the control of the operator, based on the unverified claims of the operator.

Recommendation No.4

5.69 ANAO recommends that the Department of Transport and Regional Services work with the Slot Manager to enhance the rigour and effectiveness of the demand management scheme by:

(a) identifying and evaluating options for obtaining movement data from all operators that use Sydney Airport, except those that are exempted from the scheme;

(b) establishing and applying the necessary authority for varying, suspending or cancelling the Slot Management and Compliance Schemes in the event of major disruptions to the operations of Sydney Airport;

(c) developing operational procedures for the Compliance Committee that apply the legislative requirements for identifying and assessing unauthorised aircraft movements; and

(d) assessing options for obtaining greater assurance, on a risk management basis, as to the veracity of reasons given by operators for movements operating outside of their slot tolerances.

DOTARS' response

5.70 DOTARS agreed to the recommendation and commented as follows:

> The Department understands that the Slot Manager and Airservices Australia are considering measures that can be implemented to better and more consistently capture and match movement data of operators, including

examining options in relation to itinerant aircraft operators that currently may not report the details of their arrival or departure to the Slot Manager.

The Department, in consultation with the Slot Manager and the Sydney Airport Coordination Committee will review both the Slot Management Scheme and Compliance Scheme to ensure alignment with the provisions of the SADM Act.

The Department considers that the peer review by members of the Compliance Committee is appropriate in most cases. The Department will assess other options for obtaining greater assurance as to the veracity of the reasons given by operators as appropriate.

5.71 In respect of the recommendation, the Slot Manager commented as follows:

ACA agrees that some adjustments to the SADM Act and the Compliance Scheme are required to clarify the processes.

In respect of the proposal that the SADM Act be amended to require data from the itinerants ACA suggests that this be reconsidered for the following reasons:

1. itinerants are only approximately two per cent of all SADM operations;

2. many of these flights are ad hoc and may not use the airport again e.g. a private or chartered jet;

3. these flights get no priority in the operational environment so are subject to more operational delays than scheduled services so would regularly be outside the compliance windows; and

4. given the itinerant nature of the flights, the companies involved will be difficult and time consuming to follow up if data is not provided.

The Compliance Scheme was designed to prevent aircraft operating without a slot and to improve performance of scheduled operators. The current system ensures that they operate with a slot so the first objective is served but enforcing compliance on non-scheduled operators has the potential to waste time and money without enhancing the delivery of the performance objective of the original scheme.

Slot groups and series

5.72 Slots in a scheduling season are frequently allocated as part of a slot series. A series typically comprises between 21 and 32 aircraft movements, but could comprise many more. As discussed at paragraph 5.7, Section 3 of the Compliance Scheme specifies only four critical thresholds for slots in groups or series and that, as a consequence, only four flights in any slot series or group can possibly be off-slot. For a series comprising 32 slots, it is therefore possible that:

- if all 32 aircraft movements were more than 30 minutes late for reasons within the control of the aircraft operator, only four movements (12.5 per cent of the movements in the series) could be off-slot movements; or
- if the same four movements corresponding to the critical thresholds (but no others) occurred when they did for reasons outside of the control of the aircraft operator, **and** were declared by the Compliance Committee not to be off-slot, then no movements in the series would be off-slot, although the remaining 87.5 per cent of the aircraft movements in the series were late for reasons within the control of the operator.

5.73 The result would be that, in respect of flights other than the four which relate to the four critical thresholds, the operator is effectively beyond sanction.[95]

Off-slot movements

5.74 To determine whether the potentially anomalous outcomes allowed by section 3 of the Compliance Scheme eventuate in practice, ANAO examined the Compliance Committee's aircraft movement records for the Summer 2005 scheduling season.

5.75 ANAO drew directly on Compliance Committee data for the sixteen slot series during the Summer 2005 scheduling season where more than 50 per cent of the movements take place outside of the prescribed tolerance (shown in tabular form at Appendix 2). After taking into account the deliberations of the Compliance Committee as to whether the movements were within the operator's control, ANAO found that only two of the 16 series involved aircraft movements which might give rise to a sanction against the operator.

[95] Assuming that the slot series comprised 32 slots.

5.76 The Summer 2005 scheduling season data also showed examples where an operator's superior performance outcomes could lead to sanctions the same as or even greater than those applying to an operator in equivalent circumstances but with inferior performance outcomes (shown in tabular form at Appendix 2). Selected examples from the Summer 2005 season included:

- an operator with nine flights outside of tolerance, only one of which was for reasons within their control, is subject to sanction, in comparison to another operator who also had nine flights outside of tolerance, two of which occurred when they did for reasons within their control but who was not liable for any sanction;
- an operator with 11 flights outside of tolerance, five of which occurred when they did for reasons within their control, liable for sanction for only one aircraft movement, compared to an operator with nine flights outside of tolerance, only one of which was for reasons within their control but which is subject to sanction;
- an operator with 29 flights outside of tolerance, two of which occurred when they did for reasons within their control but who is not liable to any sanction; and.
- three operators, each with 13 movements outside of tolerance, including one which occurred when it did for reasons within the operator's control, though only one operator is potentially subject to sanction.

5.77 The same impact is apparent for other performance levels, with the result that the Compliance Scheme provisions do not produce consistent, complete and equitable outcomes. In this context, ANAO's legal advice is that there is a risk that Section 3 of the Compliance Scheme may be invalid, which in turn may have an effect on the operation of the entire Compliance Scheme. However, DOTARS has obtained legal advice that whilst Section 3 produces a 'surprising result', this is not a result that is so manifestly contrary to the purposes of the SADM Act as to result in the invalidity of Section 3 of the Compliance Scheme. Nevertheless, the implementation of the demand management scheme would benefit from DOTARS clarifying the operation of Section 3 of the Compliance Scheme.

5.78 In this regard, DOTARS advised ANAO in February 2007, as follows:

> The ANAO has identified an obviously unintended definition of off-slot movements. It is apparent that the infringement penalty regime was intended

to apply once out-of-tolerance movements resulted in less than 80 per cent of movements occurring in accordance with the slot allocation or excused by the Compliance Committee. This intention has inadvertently been transferred to the notion of off-slot.

Infringement notices

5.79 The SADM Act provides for two levels of enforcement action, namely prosecution before the Federal Court (at Part 3, Division 2 of the SADM Act) and the alternative remedy of infringement notices (at Division 3). This arrangement provides the flexibility to proceed to Court to seek stronger penalties in the case of serious offences, while allowing lesser offences to be dealt with by the payment of a fine.

5.80 The Justice Minister's *Guide to Framing Commonwealth Offences, Civil Penalties and Enforcement Powers* enunciates long-standing principles and precedents relevant to the framing of offences and enforcement provisions.[96] It specifies the criteria to apply to penalty, enforcement and infringement provisions to ensure that they meet the minimum standards of Commonwealth legislation. The Guide draws attention to the need for care to be taken in framing infringement notice provisions, as they involve a departure from the traditional doctrine that only a court may impose a penalty.

5.81 Nonetheless, providing certain key principles are observed, infringement notices can be justified where they achieve cost savings for enforcement agencies as well as a low key means for a potential defendant to atone for wrong doing.[97] The key principles are that infringement notices should apply to relatively minor offences where a high volume of contraventions is expected, where a penalty must be imposed immediately to be effective, and where the offences are *strict liability* or *absolute liability* offences. The last criterion excludes, in particular, offences for which it is necessary to establish the defendant's state of mind in order to obtain a conviction.

5.82 Infringement notices are best suited when the occurrence of an offence can be reliably assessed by enforcement officers. Such assessments will be consistently accurate if they turn on straightforward and objective criteria rather than on complex legal distinctions. The offences should not require

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[96] Compiled by the Criminal Justice Division of the Attorney-General's Department and first issued in consolidated form in February 2004.

[97] ibid.

proof of fault and should rely instead on physical elements (for example, electronically recorded flight data) which are readily capable of assessment by an enforcement officer.

5.83 As they are currently framed, the SADM Act offences do not satisfy the evidential criteria for infringement notice regimes set out in *Guide to Framing Commonwealth Offences, Civil Penalties and Enforcement Powers*. They also do not satisfy the other criteria set out in the Guide, in that:

- off-slot movements cannot be properly determined until after the completion of a scheduling season (failing the requirement that penalties should be subject to immediate imposition); and
- there does not appear to be a large volume of offences (there have been no infringement notices after eight years of operations involving nearly two million aircraft movements).

5.84 Section 19 of the SADM Act provides for infringement notices for both off-slot and no-slot movements, while sections 6 and 7 of the Compliance Scheme provides for the issuing of such notices in respect of no-slot and off-slot movements respectively. Section 20 of the SADM Act provides for the fines to be specified in the infringement notice at the rate specified in the Compliance Scheme.

5.85 To this end, the Compliance Scheme specifies a rate of fine for *off-slot* movements, at section 5. However, there is no provision setting fines for *no-slot* movements. While infringement notices may be issued for no-slot movements, no fine can apply, effectively defeating the intention of section 20 of the SADM Act in respect of no-slot movements. In this regard, AGS advised DOTARS in October 2006 that:

> It is not apparent why the Compliance Scheme fails to make provision for fines in respect of no-slot movements. This could be remedied by an amendment of the Compliance Scheme.

Issue and withdrawal of infringement notices

5.86 Section 19 of the SADM Act empowers the Compliance Committee to direct the Slot Manager to issue an infringement notice and the Slot Manager must issue the notice accordingly. The Compliance Committee may also direct the Slot Manager to withdraw an infringement notice that has been issued to a person. The Slot Manager is required to comply with a direction of the Compliance Committee on these matters.

5.87 While the Act provides for the Compliance Committee to issue directions to the Slot Manager regarding the issuing of infringement notices, it does not prohibit the Slot Manager acting of its own accord to issue an infringement notice. Furthermore, the Act contains no provision for the Compliance Committee to direct the Slot Manager to pursue a matter in the Federal Court, indicating that the initiation of any such action would be the responsibility of the Slot Manager.

5.88 The *Guide to Framing Commonwealth Offences, Civil Penalties and Enforcement Powers* also sets out the requirements for full public sector accountability for officers authorised to issue infringement notices, as follows:

> If a person outside the Australian Public Service is to be authorised to issue an infringement notice or exercise any other power under an infringement notice scheme, exercise of the power should attract the same accountability as if done by an Australian Public Service employee. In particular, non-public employees should be subject to the same level of accountability as in the *Administrative Decisions (Judicial Review) Act 1977*, the Archives Act, *Freedom of Information Act 1982*, *Ombudsman Act 1976, Privacy Act 1988*, and the requirements of the *Public Service Act 1999* Code of Conduct should be applicable. This can be achieved through legislation and/or the terms of the contract for service.[98]

5.89 Under the SADM Act and the Compliance Scheme, infringement notices are issued by the Slot Manager, who is defined in the SADM Act as being outside the Commonwealth. Accordingly, the Slot Manager is not subject to the requirements of the Justice Minister's Guide.

Directions relating to Infringement Notices

5.90 As noted above, the Compliance Committee has no power to make declarations in respect of aircraft movements that are no-slot movements. No-slot movements are offences under the Act and may attract pecuniary penalties. However, there is no evidence that the Compliance Committee has issued any directions to the Slot Manager in respect of the numerous no-slot movements included in the Slot Manager's reports to the Committee.

5.91 The record of the Compliance Committee meeting of 6 December 2000, which was attended by the Slot Manager, includes a decision by the Compliance Committee that the Slot Manager was to issue an infringement notice to an operator, along with a letter giving the operator the opportunity to address the Compliance Committee and advising that the notice could be

[98] ibid., p. 48.

withdrawn if the Committee's concerns were addressed. However, the Slot Manager did not issue the notice. In September 2006, DOTARS advised ANAO that:

> The infringement notice referred to at the 6 December 2000 meetings was not issued and consequently the Compliance Committee did not need to direct the Slot Manager to withdraw the notice.

The 'use-it-or-lose-it' test

5.92 The Slot Management Scheme provides that, if an operator is allocated each slot in a slot series or slot group, the operator must actually schedule, at the time of each slot, an aircraft movement of the kind permitted by the slots, and must actually conduct at least 80 per cent of the movements. If the operator fails to comply with this provision, the Slot Manager may issue a declaration that the operator does not gain historical precedence to some or all of the slots in the series or group. This is known as the 'use-it-or-lose-it' test.

5.93 Notwithstanding that the Slot Management Scheme does not provide for the Compliance Committee to play a role in respect of the 'use-it-or-lose-it' test, section 9 of the Compliance Scheme gives the Compliance Committee the additional function of assessing operators' compliance with the 'use-it-or-lose-it' test set out in the Slot Management Scheme. In this regard, in September 2006, DOTARS advised ANAO that,:

> The Slot Manager has prepared 'use-it-or-lose-it' analyses for the consideration of the Compliance Committee members at the completion of the assessment by the Committee of a Scheduling season. DOTARS understands that this analysis is used on a progressive basis to inform operators of their status.

5.94 However, DOTARS did not provide ANAO with any record of the Compliance Committee having examined any such analyses, or otherwise assessing operators' compliance with the 'use-it-or-lose-it' test set out in the Slot Management Scheme.

Recommendation No.5

5.95 ANAO recommends that the Department of Transport and Regional Services examines options for improving the Compliance Scheme so as to:

(a) protect the integrity of the movement limit by providing for a graduated system of penalties for off-slot movements, including an increase in fines for persistent offenders;

(b) assess the merits of extending the infringement notice regime to no-slot movements so as to better reflect that these unauthorised movements represent the most serious breaches of the slot allocation and management arrangements; and

(c) introduce procedures to transparently assess and document operators' compliance with the requirement that they use their allocated slots as a necessary prerequisite to retaining historical precedence to such slots in subsequent scheduling seasons.

DOTARS' response

5.96 DOTARS agreed to this recommendation.

Investigation and prosecution

5.97 The SADM Act confers prosecution powers on the Slot Manager. Section 15 of the SADM Act enables the Slot Manager to bring proceedings in a Federal Court in respect of no-slot and off-slot movements. As the Slot Manager is not a Commonwealth officer, this is a significant departure from the usual practice under which almost all Commonwealth prosecutions are instituted by Commonwealth officers.[99]

5.98 The responsibility for commencing court proceedings generally lies with the Director of Public Prosecutions (the DPP). By arrangement with the DPP, a few Commonwealth agencies (such as the Australian Taxation Office and the Australian Securities and Investments Commissions) are permitted to conduct their own summary prosecutions, generally for high volume matters of minimal complexity.

5.99 In general, the responsibility for investigating Commonwealth offences lies with a Commonwealth agency (including the Australian Federal Police in

[99] As a general rule any person has the right at common law to institute a prosecution for a breach of the criminal law. That right is recognised in the *Crimes Act 1914* and is expressly preserved by section 10(2) of the Act.

respect of criminal matters) provided with the necessary investigatory powers. The need for such powers is emphasised by the nature of the offences set out in the SADM Act. For example, in relation to off-slot aircraft movements, section 13 of the SADM Act provides that:

> The operator of an aircraft must not, **knowingly or recklessly**, allow the aircraft to engage in an aircraft movement to which this Part applies that is an off slot movement. *[ANAO emphasis]*

5.100 Similarly, for no-slot movements, section 12 of the SADM Act provides that:

> The operator of an aircraft must not, **knowingly or recklessly**, allow the aircraft to engage in an aircraft movement to which this Part applies that is a no-slot movement. *[ANAO emphasis]*

5.101 In either case, it is necessary to prove that the defendant knowingly or recklessly undertook the unauthorised aircraft movement. In the absence of a direct statement to this effect by an operator, it may not (for instance) be sufficient to show that the reasons for the breach appeared to be within the operator's control. In addition, the Compliance Committee may exercise a discretion[100] based on its judgement that the circumstances that caused the aircraft movement to take place when it did were beyond the operator's control.

5.102 Deciding whether an offence has occurred may, therefore, turn upon matters other than those readily ascertained on the basis of the physical elements of the offence. Accordingly, off-slot movements and no-slot movements may not be strict liability or absolute liability offences but instead be *fault liability* offences, for which it is more difficult to secure a conviction without the exercise of investigatory powers.

5.103 The possible need for investigatory powers was drawn to the attention of DOTARS during the drafting of the SADM Act. OPC sought advice from the Criminal Law Division of the Attorney-General's Department on the powers necessary to investigate and enforce the SADM Act offences. In September 1997, OPC and DOTARS were advised as follows:

> The lack of investigative powers might be a problem if the person issued with an infringement notice elects to have the matter heard in court. It would have to be proved, on the balance of probabilities, that the person knowingly and recklessly allowed an aircraft to engage in an off-slot or no-slot movement.

[100] Section 4 of the Compliance Scheme.

> This involves an examination of the state of mind of the person involved. Yet, there is no power to ask questions or to seize documents. There is also no power to execute a warrant for the purpose of monitoring compliance with the Act. A person investigating an alleged contravention has no more investigative powers than a private citizen. Powers similar to those in sections 32AA and 32AK of the *Civil Aviation Act 1988* might be included in the Bill.
>
> It is proposed that such matters will appear in the [*Compliance Scheme*]. It is our view that powers of investigation should be included in the principal legislation.

5.104 DOTARS decided at that time not to include investigative provisions in the SADM Act or in any subsequent subordinate legislation made under the Act. However, the absence of such powers presents risks to the effective implementation of the demand management scheme in circumstances where the Compliance Committee needs to establish whether offences have been committed by operators.

Recommendation No.6

5.105 ANAO *recommends* that the Department of Transport and Regional Services examine options for addressing the difficulties that the absence of investigatory powers pose to the Compliance Committee in circumstances where it needs to establish whether offences have been committed by operators.

DOTARS' response

5.106 DOTARS agreed to the recommendation.

5.107 In respect of the recommendation, the Slot Manager commented as follows:

> The Compliance Scheme for Sydney Airport is considered one of the more transparent and successful schemes in the industry world-wide. The airlines provide company confidential information on a voluntary basis. ACA will support a review by DOTARS to further improve effectiveness of the compliance process.

6. The Movement Limit

This Chapter examines the relationship between slot allocation and the movement limit. It also assesses Airservices Australia's performance in monitoring compliance with the limit.

Introduction

6.1 In the second reading speech for the SADM Act, the then Parliamentary Secretary to the then Minister for Transport and Regional Development stated that:[101]

> The purpose of this bill is to give effect to the government's commitment to cap aircraft movements at Sydney Airport at 80 movements per hour through the implementation of a slot system.
>
> Unlike the earlier private member's bill of the member for Grayndler (Mr Albanese), we have been concerned when we legislated to put the cap in place to also deliver an effective tool to administer it. We have achieved this with the development of a slot allocation system.
>
> The slots system which has been developed, in cooperation with industry, will ensure that we have a workable and effective means for administering the cap.

6.2 In this context, Section 6 of the SADM Act provides that the total number of aircraft movements taking place on a runway (excluding exempt movements) is capped at 80[102] in any regulated hour.[103] The combined action of the Slot Management and Compliance Schemes was expected require an aircraft operator to both have a slot *and* conduct their authorised aircraft movement within a certain period of time before or after the scheduled slot time. Hence, the movement limit would be implemented by controlling the scheduling of aircraft movements and by encouraging timely performance.

6.3 In this respect, in February 2007, DOTARS advised ANAO as follows:

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[101] *Sydney Airport Demand Management Bill 1997*, second reading speech, House Hansard, 25 September 1997, p. 8536.

[102] Section 7 of the SADM Act provides the Minister with the power to determine a lower maximum limit. This power has not been used.

[103] A regulated hour is defined as a period of 60 minutes starting on the hour and then at every fifteen minutes thereafter. A period is not a regulated hour if it starts during, or less than 60 minutes before, a curfew period. Accordingly, each day comprises a curfew period ending at 6:00 am, and then a rolling series of regulated hours starting at fifteen minute intervals from 6:00 am until 10:00 pm, an hour before the curfew re-commences at 11:00 pm each evening.

A key underpinning of the Slots Scheme is that actual movements may exceed 80 movements on occasion due to the fundamental requirement for Airservices to manage aircraft operations safely. Movements in excess of 80 are to be reported to Parliament.

Slot allocation to support the movement limit

6.4 Slot allocation is a scheduling tool which can indirectly control the total number of actual aircraft movements, as well as spreading aircraft movements across the day. It has the capacity to ensure that limit breaches do not occur, depending on the number of slots allocated in any given period, and the timeliness of the subsequent aircraft operations. The express intention of the Slot Management Scheme presented to Parliament was that:

> The Administration of the movement limit is done by the allocation of permissions to take-off and land, there being no more than 80 such permissions allocated in the hour.[104]

6.5 In this context, when allocating slots prior to the commencement of the season, the Slot Manager must:

- take into account any advice from Airservices Australia about the likely effect of an allocation on the operational efficiency of the airport (although the Slot Manager is not required to seek the advice of Airservices Australia before making the allocation); and[105]
- where the operator has historical precedence to the slot applied for, the Slot Manager may not allocate a slot that would conflict with the maximum movement limit or would produce an unacceptable degree of clustering in aircraft movements.

6.6 However, the Slot Management Scheme contains no express limit on the number of slots that can be allocated. In this respect, in October 2006 AGS advised DOTARS that:

> While the Scheme contains no express limit on the number of slots that can be allocated, I think that it is open, and indeed incumbent upon, the Slot Manager, to exercise his powers against the background of the movement limit imposed under the SADM Act. Section 16 *[of the Slot Management Scheme]* requires the Slot Manager to allocate slots, as set out in Section 26, to new entrants and incumbent operators, *'as far as possible'*. One of the matters that

[104] Sydney Airport Demand Management Act 1997 – Slot Management Scheme 1998, *Explanatory Statement issued by the authority of the Minister for Transport and Regional Development*, p. 1.

[105] Section 16(4) of the Slot Management Scheme.

> clearly bears upon 'possibility' is the movement limit mandated by the SADM Act. I see no reason why a negative implication should be drawn from section 18, which prevents slots to which there is historical precedence from being allocated if the allocation of the slot would conflict with the movement limit. A specific reference to the movement limit is not required in that context because otherwise there is an obligation to allocate all slots to which there is historical precedence.

6.7 In this respect, ANAO's examination of a sample of the Slot Manager's records of typical slot allocations showed one instance in which more than 80 slots had been allocated. In November 2006, ANAO was advised by the Slot Manager of the circumstances of this allocation, as follows:

> The Slot Manager advised Airservices Australia on 21 February 2001 of the allocated slots for 22 February 2001. For the regulated hour in question 77 slots were allocated [*by the Slot Manager*]. Airservices Australia allocated five [*additional*] movements on [*22 February 2001*]… On the basis that three flights operated outside the regulated hour which adjusts the operated movements to 79.
>
> To ensure that flights that operate out of tolerance are not excluded from the Compliance Scheme, the Slot Manager cannot adjust the allocated slot time to the actual time of the three late flights on the database.

6.8 The advice from the Slot Manager confirms that 82 slots were allocated on 22 February 2001 for the regulated hour commencing 07:30. Subsequently, three of these movements occurred in later regulated hours such that the movement cap was not breached. Nevertheless, had all movements occurred in the regulated hour commencing 07:30 as allocated, the movement limit would have been breached.

6.9 As noted by the Slot Manager, operational allocations such as occurred on 22 February 2001 are intended to maximise the use of Sydney Airport, relying heavily on the effective application of the Compliance Scheme to maintain the integrity of the demand management arrangements. In relation to the allocation of more than 80 slots for a regulated hour, DOTARS advised ANAO in February 2007 as follows.

> The ANAO report highlights that the slot allocation process does not explicitly require adherence with the maximum movement limit. Subsection 35(2) of the SADM Act provides that the *Slot Management Scheme* must be consistent with the maximum movement limit.
>
> Further, the process for the allocation of slots to which operators have historical precedence explicitly requires consideration of the maximum

movement limit before the Slot Manager offers the slot. If an alternative slot to that for which an operator has historical precedence is to be offered there is a similar requirement to consider the cap before making an offer. There is no explicit requirement in relation to the allocation of other slots.

Legal advice to the Department holds that the *Slot Management Scheme* could not be regarded as inconsistent with the Act merely because there was no express requirement to consider the maximum movement limit when offering slots in accordance with historical precedence.

The absence of an explicit requirement does not mean that the Slot Manager or Airservices do not consider the cap when allocating all slots, not only those for which an operator has historical precedence, as a matter of practice.

Operational factors such as unforeseen delays can cause aircraft movements to "bunch up" and the aircraft movement may not occur in the hour for which it has a slot but move into the next scheduling hour. This could mean that the actual number of movements in the next hour may exceed 80, even though the number of allocated slots is still 80 or less. The overall number of movements at the airport will not be affected.

Slot allocation to prevent breaches

6.10 Whether the movement limit might be breached is affected by the number of slots allocated in any regulated hour (the higher the number allocated, the greater the likelihood of a potential breach) and the timeliness of aircraft movements. For total actual aircraft movements to remain below movement the limit, slot allocations should therefore allow for unforeseen circumstances which might otherwise increase the number of aircraft movements above the movement limit. However, neither the SADM Act nor the Slot Management Scheme prescribe how this is to be achieved. Apart from express constraints with respect to slots for which there is historical precedence, the Slot Manager may allocate any number at any frequency.[106]

[106] Section 18(1) of the Slot Management Scheme prohibits the Slot Manager from allocating a slot where the allocation would conflict with the maximum movement limit **only** in the process of allocating slots before a scheduling season commences **and** where the application is for a slot to which an aircraft operator has historical precedence. The Slot Management Scheme does not otherwise expressly constrain the Slot Manager's power to grant slot applications.

6.11 ANAO examined Airservices Australia's 3 million records relating to aircraft movements and slots allocated by the Slot Manager over the life of the scheme. After removing duplicate records and allowing for other deficiencies in the data, ANAO found that, since March 1998:

- on average, 37 slots had been allocated to each regulated hour;
- less than one per cent of all regulated hours were allocated 70 or more slots; and
- only three regulated hours were allocated precisely 80 slots.

6.12 A slot allocation of 80 in an hour separates each aircraft movement by an average of 40 seconds, placing a premium on timely aircraft movements if all are to occur near their scheduled slot time. In this respect, ANAO analysis of data from Airservices Australia and the Slot Manager found that, in recent scheduling seasons, 87 per cent of aircraft movements took place within 15 minutes of the scheduled time.

The effect of aircraft timeliness and slot allocation on the movement limit

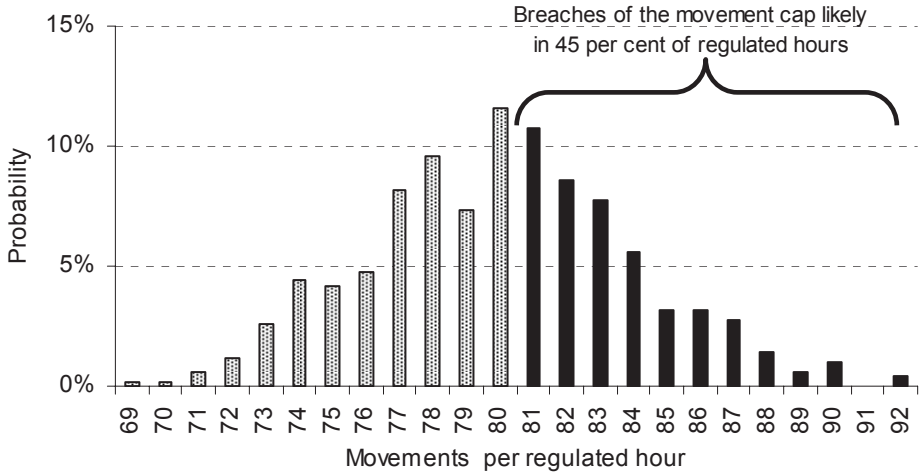
6.13 In practice, an aircraft movement is unlikely to take place at the exact time for which it is allocated a slot. Of itself, this may cause breaches of the movement limit. For instance, in the case where 80 slots are allocated in a regulated hour and all aircraft movements for this hour take place at the *exact time scheduled,* a single late aircraft movement from the *previous* regulated hour (or a single early movement from the *next* regulated hour) will result in 81 movements, one over the movement limit. Airservices Australia advised ANAO in April 2006 that such occurrences were responsible for most of the instances in which the limit was breached by one or two movements.[107]

6.14 To determine the effect of aircraft movement timeliness on potential breaches of the movement limit, ANAO modelled the likely outcome for regulated hours in which 80 slots are allocated, assuming 87 per cent of aircraft movements occur within 15 minutes of the scheduled time. On the basis of typical timeliness for recent scheduling seasons, ANAO found that there was a 45 per cent probability that more than 80 movements would occur, as shown in Figure 6.1 overleaf.

[107] As discussed in Chapter 5, the early (or late) movement which caused the breach may not necessarily be an off-slot movement, in which case the operator would not be penalised and the breach of the movement limit would pass without sanction.

Figure 6.1

Modelling of likely number of movements when allocating 80 slots per hour



Source: ANAO modelling of aircraft movements, assuming normally distributed movement times with 87 per cent occurring within 15 minutes of the scheduled time.

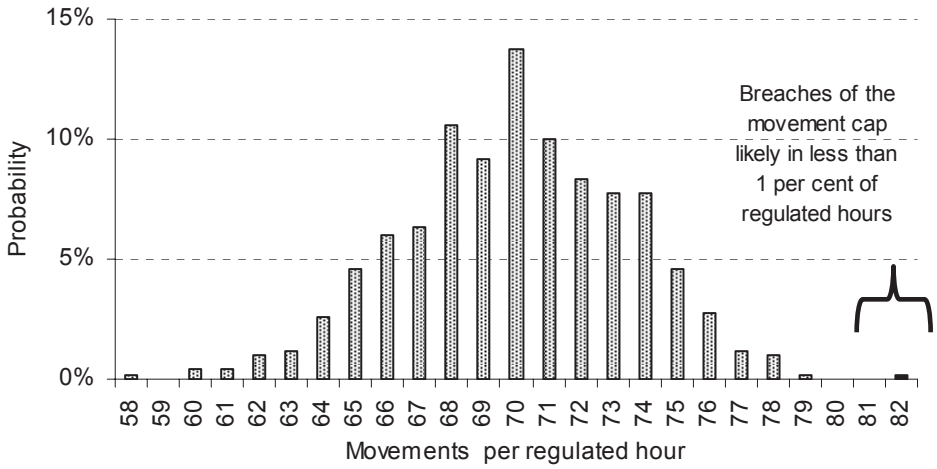
6.15 To gauge the effect of more timely aircraft movements, ANAO also modelled the outcome when 99 per cent of aircraft movements occur within four minutes of the scheduled time (the international standard for aircraft timeliness). In this case, when 80 slots are allocated the likely breach rate falls to 35 per cent, even though it would require a substantially higher degree of timeliness than is presently being achieved at Sydney Airport.[108]

6.16 Turning to the effect of slot allocation, ANAO modelled the likely outcome for regulated hours in which 70 slots are allocated, assuming 87 per cent of aircraft movements occur within 15 minutes of the scheduled time. On this basis, ANAO found that there was a less than one per cent probability that more than 80 movements would occur, as shown in Figure 6.2 overleaf.

[108] In this regard, ANAO notes that reports from the Slot Manager to the Compliance Committee show aircraft movement timeliness at Sydney Airport at consistently better levels than at major airports in the United States of America. ANAO's analysis of Airservices Australia's aircraft movement data found that, after the introduction of the Slot Management Scheme, aircraft movement timeliness at first deteriorated, returning to 1998 levels by 2004.

Figure 6.2

Modelling of likely number of movements when allocating 70 slots per hour



Source: ANAO modelling of aircraft movements, assuming normally distributed movement times with 87 per cent occurring within 15 minutes of the scheduled time.

6.17 The above analysis demonstrates that the rate of breach of the movement limit is more sensitive to the number of slots allocated in each regulated hour than it is to the timeliness of aircraft movements. The results of the modelling indicate that, even though regulated hours allocated 70 or more slots account for a very small proportion of the 190 000 regulated hours since 1998, they alone could have produced as many as 12 of the possible movement limit breaches over the life of the SADM Act.

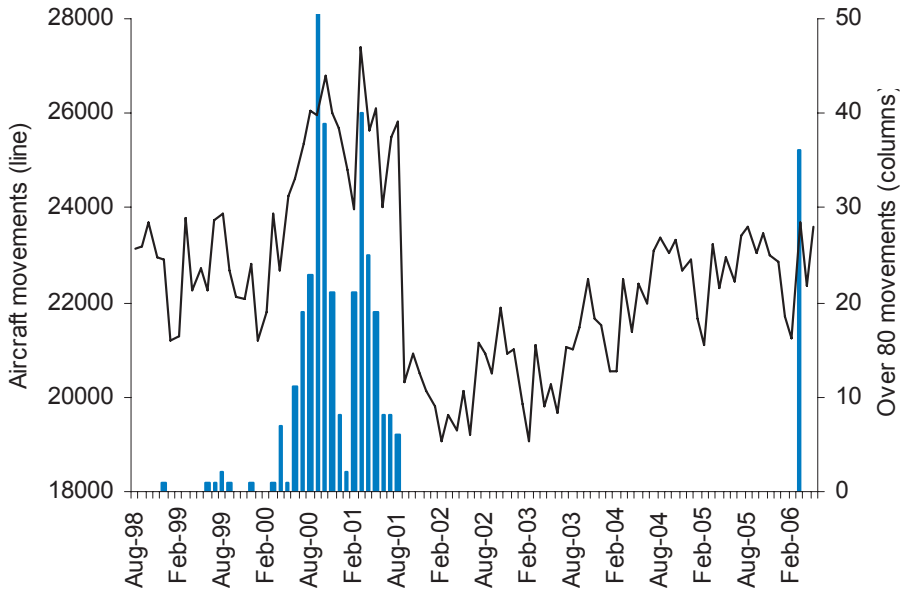
6.18 The results of the analysis also suggest that, to achieve 99 per cent rate of observance of the movement limit, slot *allocations* at Sydney Airport would need to be restricted to 70 movements per regulated hour. Increases in traffic aside, the extent of pressure on the movement limit is also likely to depend on the proportion of movements moving to the noise-sharing periods, and whether there are significant improvements in the timeliness of aircraft movements.

6.19 Lending weight to the results of ANAO modelling, the historical pattern of possible breaches recorded in Airservices Australia's Noise Flight Path Monitoring System (NFPMS) data accords with periods of higher numbers of aircraft movements, as shown in Figure 6.3 overleaf. In particular, ANAO notes that *possible* breaches cease after August 2001, shortly before the

sharp reduction in aircraft movements at Sydney Airport. The subsequent absence of breaches reflects circumstances in which 99 per cent of regulated hours have less than 70 scheduled aircraft movements. However, the risk of potential breaches increased in March 2006 when aircraft movements returned to the levels last seen in August 2001.[109]

Figure 6.3

Possible limit breaches in relation to total aircraft movements



Source: ANAO analysis of Airservices Australia's operational and NFPMS data.

6.20 In this regard, ANAO notes that the September 2001 drop in aircraft movements has significantly delayed any pressures on the movement cap which might be caused by allocating high numbers of slots an hour. However, by 2023–24 the Sydney Airport Master Plan calls for sustained allocations of 80 slots per hour across the morning peak period.[110] Accordingly, if movements at Sydney Airport continue to increase as anticipated, considerable pressure will be placed on the movement limit at much earlier dates.

[109] In this regard, Airservices advised ANAO in September 2006 that the possible breach in 2006 was due to duplicate NFPMS data.

[110] op. cit., SACL 2004, pp. 49 and 50.

6.21 In this regard, in February 2007, DOTARS advised ANAO as follows:

> The Department will continue to monitor slot allocations prior to the commencement of each scheduling season to assess the risk of breaches of the maximum movement limit.
>
> There are a number of ex-Ansett Group slots that have been quarantined since the collapse in 2001. These slots are available to new entrant and incumbent airlines but only new entrant airlines will gain historical precedence to them. While not used in every scheduling season, these slots are counted towards the slot allocations. The Department will review the continued quarantine of these slots to see if there is a need to relieve pressure on the demand for peak period slots and advise the Minister as appropriate.
>
> The Department proposes to reinforce current practice and incorporate consideration of the existing maximum movement limit in the slot allocation process established by the Slot Management Scheme.

Recommendation No.7

6.22 ANAO *recommends* that, in an environment of increasing aircraft movements at Sydney Airport, the Department of Transport and Regional Services:

(a) assess and manage the risks to future compliance with the movement limit that arise from slot allocations at or near the movement limit; and

(b) assess the merits of expressly limiting the maximum number of slots that can be allocated for any regulated hour, consistent with the movement limit.

DOTARS' response

6.23 DOTARS agreed to this recommendation and commented as follows:

> The Department considers that, in the absence of breaches of the maximum movement limit since 2001 and given the requirement to ensure the efficiency of Sydney Airport, slots should continue to be allocated up to the current statutory maximum movement limit. Sydney Airport is Australia's major international and domestic airport and the efficiency of airport operations at Sydney Airport are critical to national economic performance.
>
> The Department will assess available options for minimising the risk of breaches of the movement limit without unduly affecting the safe and efficient operation of the airport.

6.24 In respect of this recommendation, the Slot Manager commented as follows:

ACA considers that there have been no proven unreported breaches of the movement limit in the last five years nor has ACA allocated more than 80 scheduled movements; hence there is no basis to reduce the current allocation level below the current maximum movement limit.

ANAO comment

6.25 ANAO notes that the allocation of more than 80 slots in a regulated hour on 21 February 2001 has been confirmed both by the Slot Manager (in November 2006, at paragraph 6.8 above) and by DOTARS (in February 2007).

Monitoring and reporting by Airservices Australia

6.26 Section 9 of the SADM Act requires Airservices Australia to monitor compliance with the maximum movement limit and provide quarterly reports to the Minister on the extent of infringements (if any) of the limit in the quarter. The Minister must table any report received in each House of the Parliament within 15 sitting days of that House after the day on which the Minister received the report.

Reported breaches of the movement limit

6.27 To date 61 breaches of the movement limit have been reported to the Minister and tabled in Parliament. These are set out at Appendix 1. The distribution of reported movement limit breaches is outlined in Figure 6.4 overleaf. In aggregate, 64 per cent of all reported breaches involved the movement limit being breached by one or two movements.

6.28 The last reported breach was on August 2001. On this date, 81 movements were recorded in the hour commencing 8:00 am. The highest reported breach occurred on 14 May 2001, when 90 aircraft movements were recorded in the hour commencing 8:00 am.

Figure 6.4

Reported breaches of the Sydney Airport movement limit

Number of Movements	81	82	83	84	85	86	87	89	90
Number of times reported	21	18	10	4	3	2	1	1	1

Source: Airservices Australia's quarterly reports.

Data validation processes

6.29 To monitor compliance with the movement limit, Airservices Australia uses data from the Noise and Flight Path Monitoring System (NFPMS). NFPMS utilises on-board transponders to automatically record aircraft entering and leaving the runways at Sydney Airport.

6.30 In July 2006, Airservices Australia advised ANAO that the NFPMS data may contain duplicate and spurious entries. Airservices Australia also advised that the data is subject to a complex validation process. Where NFPMS data suggests the movement limit has been breached, Airservices Australia examine contemporaneous control tower strip records prepared by air traffic controllers. Airservices Australia consider the strips authoritative but do not retain them unless a breach has been confirmed. Even when a breach has been confirmed, paper strip records are destroyed by Airservices Australia after 30 days. In response to ANAO concerns, in July 2006 Airservices Australia advised ANAO that:

> Airservices Australia is legally obliged to retain these flight strips for a period of one month, however an internal policy has required these strips to be kept for three months. Airservices Australia has now introduced a policy requiring flight strips to be retained until further notice. Retention of the flight strips will ensure Airservices Australia can continue to validate the NFPMS data where a possible breach of the cap has occurred.
>
> Airservices Australia is also investigating the viability of reducing the number of movements required before the tower strips are checked in an effort to strengthen validation processes.
>
> Airservices Australia acknowledges that paper strips may not appear to be a 'modern' system of verifying movements. However, it is important to note that until the commissioning of The Australian Advanced Air Traffic System (TAAATS) in 2000, paper strips were used throughout the air traffic airspace management system as a key tool, including enroute, and are still used by many of the world's air navigation service provides.
>
> Towers are the only area in the system where the paper strips remain and the national towers upgrade project is currently investigating the introduction of technologies as a final step to a paperless Air Traffic Control environment. This project includes Sydney Tower, but is at least three years away.

6.31 However, Airservices Australia was unable to demonstrate the consistent application of rules to validate and adjust the NFPMS data, including for aircraft movements exempt from the SADM Act. In August 2006, Airservices Australia advised the ANAO that:

> The NFPMS has clearly required some modification in the early years of its operation, however it is important to understand that it is the best system available for the task required…
>
> While there is still a need for some level of human intervention in the process between data collection and reporting, I would submit that the systems and procedures that have been in place for some years now have improved data quality to the point where the information upon which the quarterly cap reports are based, is highly accurate.
>
> We therefore have a high level of confidence in the integrity of the quarterly cap reports.

6.32 However, in the absence of a documented procedure for reconciling the strips with NFPMS data and the retention of those reconciliations, the air traffic control strips for Sydney Airport appear to remain relevant Commonwealth records under the terms of the Archives Act, to be retained accordingly. In this regard, in August 2006 the National Archives of Australia expressed its agreement with ANAO's views as follows:

> The current disposal arrangements covering the flight progress strips need review if their interpretation and implementation do not currently support Airservices Australia's compliance obligations under the SADM Act. It may also be useful to suggest that Airservices Australia review its current business processes and associated record keeping practices to enable a more efficient means of monitoring and reporting compliance with the movement limit.

6.33 In this regard, Airservices Australia advised ANAO in September 2006 that it was centralising its handling of aircraft movement records and revising its handling of data relevant to the SADM Act. This included a review of data collection and recording.

The available data indicates unreported breaches

6.34 In the absence of Airservices Australia having maintained authoritative records that would enable validation of its monitoring and reporting of limit breaches, ANAO's analysis was confined to NFPMS data. The NFPMS data was initially found to support breaches on each of the 61 occasions reported to the Parliament. However, the data provided to ANAO by Airservices Australia differed from the reported figures by, on average, three movements per hour.

The variations ranged from one movement less than the number reported to 17 movements more than the number reported.

6.35 Of significance, the data also included 357 unreported instances of potentially more than 80 aircraft movements in a regulated hour. Nearly one third of all such instances involved hourly movements in excess of 100.

6.36 In this context, ANAO requested that Airservices Australia review the NFPMS data. Airservices Australia subsequently provided the ANAO with revised estimates of aircraft movements both for the 61 originally reported breaches and the potential additional breaches identified in the data first provided by Airservices Australia. The revised data revealed that, in respect of the 61 breaches notified to the Minister and tabled in Parliament:

- 14 instances were confirmed as fully correct;
- in 28 instances, the revised estimate of aircraft movements did not agree with the number of movements originally advised to the Minister and tabled in Parliament, but still suggested that a breach of the movement limit had occurred; and
- in 19 instances, the limit may not have actually been breached.

6.37 Accordingly, as illustrated by Figure 6.5, the NFPMS data provided to ANAO by Airservices Australia suggested that the number of actual breaches of the movement limit was at least 42 and was likely to be between 98 and 418.

Figure 6.5

Status of possible breaches of the movement limit, March 1998 to March 2006

	Status	Likely breaches	Possible additional breaches	Breaches which may have been incorrectly reported	Totals
Reported to Parliament	Confirmed by NFPMS data	14			**61**
	Varied by NFPMS data	28			
	Not supported by NFPMS data			19	
Not reported to Parliament	Likely breaches	56			**357**
	Possible breaches		301		
	Totals	**98**	**301**	**19**	**418**

Source: ANAO analysis of Airservices Australia's NFPMS data.

6.38 In respect of the 357 additional potential breaches of the limit, Airservices Australia advised ANAO that the revised movement data suggests that unreported breaches of the limit may have occurred on at least 56 occasions. ANAO notes that many of Airservices Australia's revisions to the movement data are substantial: for example in one case the recorded movements fell from 83 in the raw data to 51 movements in the revised data. Almost a quarter of the raw NFPMS numbers were reduced by more than half, and the average revision was downward by 27 movements. In August 2006, Airservices Australia advised the ANAO that:

> Clearly the Flight Path Monitoring System required a degree of work prior to October 2001 to rectify double counting and other problems in order to improve the quality of the raw data the system recorded. There has always been a need to modify the raw data – to exclude exempt aircraft for example.

6.39 ANAO notes that, notwithstanding improvements to Airservices Australia's data collection and processing, double-counting of aircraft movements has occurred as recently as September 2006 and that Airservices Australia is seeking further improvements to improve the reliability of its systems. In this context, the limitations of Airservices Australia's data prevents verification of the 61 breaches of the movement limit reported to Parliament. In February 2007, Airservices confirmed to ANAO that these limitations prevent a final assessment of the status of the additional potential breaches identified from the NFPMS data.

Ian McPhee
Auditor-General

Canberra ACT
7 March 2007

Appendices

Appendix 1: Reported breaches of the SADM Act movement limit compared with ANAO's assessment of raw NFPMS records and Airservices Australia's revised estimate of aircraft movements

Date	Hour Start	Hour End	Reported Number	NFPMS – raw data	Revised Airservices' estimate
14/06/2000	8:15	9:15	82	85	81
22/06/2000	8:00	9:00	81	82	80
23/06/2000	7:45	8:45	82	84	80
23/06/2000	8:00	9:00	87	90	85
20/07/2000	7:45	8:45	81	85	83
24/07/2000	7:15	8:15	81	83	82
25/07/2000	8:15	9:15	81	82	79
26/07/2000	8:00	9:00	81	85	82
31/07/2000	7:30	8:30	82	81	81
31/07/2000	7:45	8:45	82	83	82
04/08/2000	7:45	8:45	82	81	80
11/08/2000	7:45	8:45	82	87	81
15/08/2000	7:45	8:45	81	82	78
18/08/2000	7:45	8:45	81	83	81
22/08/2000	7:45	8:45	81	84	82
28/08/2000	7:45	8:45	81	81	79
01/09/2000	8:00	9:00	82	81	78
04/09/2000	7:45	8:45	82	88	80
08/09/2000	7:45	8:45	83	84	83
14/09/2000	7:45	8:45	81	85	83
19/09/2000	8:00	9:00	81	85	81
06/10/2000	7:45	8:45	81	84	82
06/10/2000	8:00	9:00	83	88	84
06/10/2000	18:00	19:00	81	86	80
16/10/2000	7:45	8:45	82	85	81
23/11/2000	7:45	8:45	83	87	84

Date	Hour Start	Hour End	Reported Number	NFPMS – raw data	Revised Airservices' estimate
23/11/2000	8:00	9:00	81	85	80
11/12/2000	7:45	8:45	86	91	86
12/02/2001	7:45	8:45	81	86	83
12/02/2001	8:00	9:00	82	87	82
22/02/2001	7:45	8:45	82	84	81
22/02/2001	8:00	9:00	81	83	81
16/03/2001	7:45	8:45	86	93	87
16/03/2001	8:00	9:00	83	86	83
19/03/2001	7:45	8:45	84	87	84
20/03/2001	7:45	8:45	83	87	82
22/03/2001	7:45	8:45	82	82	81
23/03/2001	7:45	8:45	85	88	85
29/03/2001	7:45	8:45	82	85	79
29/03/2001	8:00	9:00	82	84	82
30/03/2001	8:00	9:00	85	87	84
05/04/2001	7:30	8:30	81	85	79
06/04/2001	9:30	10:30	83	84	80
06/04/2001	9:45	10:45	83	84	80
06/04/2001	10:00	11:00	83	82	78
09/04/2001	7:45	8:45	81	85	81
12/04/2001	7:45	8:45	83	86	81
12/04/2001	8:00	9:00	82	83	80
03/05/2001	7:45	8:45	84	84	66
04/05/2001	7:45	8:45	81	98	64
14/05/2001	7:45	8:45	89	92	86

Appendix 2: Potentially off-slot movements, Summer 2005 scheduling season

Slot series with more than 50 per cent of movements outside of the prescribed tolerance

Day of the week	Slot Time	Movements outside of tolerance	Movements outside of tolerance (%)[1,2]	Off-slot[4]	Within control of operator[3]	Off-slot and within control of operator[5]
Sun	8:30	29	93.55%	4	2	0
Mon	9:25	28	90.32%	4	0	0
Thu	8:30	25	80.65%	4	0	0
Mon	8:15	25	80.65%	4	0	0
Sun	10:05	20	64.52%	4	1	0
Fri	8:30	16	61.54%	4	0	0
Sun	9:50	19	61.29%	4	0	0
Tue	7:25	18	60.00%	4	1	0
Thu	9:30	18	60.00%	4	0	0
Fri	21:00	18	60.00%	4	0	0
Tue	15:20	18	60.00%	4	0	0
Tue	9:00	18	58.06%	4	3	1
Mon	9:30	18	58.06%	4	0	0
Wed	8:15	18	58.06%	4	0	0
Fri	18:55	18	58.06%	4	0	0
Wed	9:30	17	56.67%	4	0	0
Sat	9:30	17	54.84%	4	0	0
Fri	18:55	16	53.33%	4	0	0
Tue	7:05	16	51.61%	4	1	1
Fri	7:25	16	51.61%	4	1	0

Source: ANAO analysis of Compliance Committee data, Summer 2005 scheduling season

Sample of slot series demonstrating variable outcomes

Day of the week	Slot Time	Movements outside of tolerance	Movements outside of tolerance (%)[1,2]	Off-slot[4]	Within control of operator[3]	Off-slot and within control of operator
Tue	7:05	16	51.61%	4	1	1
Fri	7:25	16	51.61%	4	1	0
Wed	21:50	13	52.00%	4	1	1
Wed	10:45	13	41.94%	3	1	1
Sun	14:20	13	41.94%	3	1	0
Sat	6:40	11	47.83%	3	1	0
Tue	8:50	11	35.48%	2	5	1
Mon	10:05	11	35.48%	2	2	1
Wed	9:00	11	36.67%	2	2	0
Fri	16:00	11	35.48%	2	2	0
Fri	9:30	11	36.67%	2	1	1
Tue	11:15	11	37.93%	2	1	0
Fri	9:00	11	36.67%	2	1	1
Tue	7:40	10	32.26%	2	3	0
Thu	8:55	10	32.26%	2	1	1
Fri	9:55	10	32.26%	2	1	0
Mon	7:45	10	38.46%	2	1	0
Sat	9:00	10	32.26%	2	1	0
Thu	7:00	10	32.26%	2	1	0
Sun	18:35	10	32.26%	2	1	0
Wed	8:20	10	32.26%	2	1	0
Sun	19:50	9	29.03%	1	3	0
Tue	6:15	9	29.03%	1	2	1
Wed	15:35	9	29.03%	1	2	0
Fri	21:40	9	29.03%	1	1	1
Thu	17:40	9	29.03%	1	1	0
Thu	19:05	9	29.03%	1	1	0
Fri	12:00	9	29.03%	1	1	0
Sun	16:00	9	29.03%	1	1	0
Wed	16:25	9	29.03%	1	1	0

Source: ANAO analysis of Compliance Committee data, Summer 2005 scheduling season

Notes to tables

1. As a proportion of actual slot series length as advised by the Slot Manager on 20 November 2006.
2. Where the block time is less than three hours, movements that are more than 15 minutes late or early; or where the block time is three hours or more, movements that are more than 30 minutes late or early.
3. As determined by the Compliance Committee.
4. ANAO analysis of Compliance Committee data, applying section 3 of the *Sydney Airport Compliance Scheme 1998*.
5. Off-slot flights that occur when they did for reasons not within the control of the operator may be deemed to be 'not off-slot' under section 4 of the *Sydney Airport Compliance Scheme 1998*.

Appendix 3: DOTARS' formal comments on the proposed report

Introduction

Overall, the Department considers that the policy objectives outlined in the second reading speech for the *Sydney Airport Demand Management (SADM) Act 1997* are being met including the cooperative and non-discriminatory nature of the schemes, spreading planned aircraft movements within hours, guaranteed access for regional airlines, equitable access for new entrants and ensuring the number of aircraft movements are, subject to safety considerations, consistent with the movement cap.

The Department notes that the scheme is held in high regard by industry and that there is a high degree of voluntary cooperation.[111] In the Department's view, it is highly unlikely that traffic management at Sydney Airport today would be as orderly and efficient without the slot management arrangements in place.

As reported by the ANAO, it is important that the ANAO's findings be seen in the context of there having been approximately 190 000 regulated hours and approximately 2 million aircraft movements since the commencement of the scheme.[112] Data held by Airservices Australia shows that the number of aircraft movements have not exceeded the maximum movement limit since the end of 2001 and there have only been 61 reported breaches of the maximum movement limit that can be verified.[113]

The ANAO report highlights the complex nature of aircraft operations and the need for flexibility in order to maintain certainty for airline schedules, maximise the efficiency of the airport and avoid unnecessary disruption of scheduled services for passengers, while implementing arrangements designed to alleviate the impact of aircraft noise on the community.

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[111] ANAO comment: This advice has been reflected in paragraph 12 of the Report Summary.

[112] ANAO comment: This context has been included in paragraph 8 of the Report Summary.

[113] ANAO comment: As outlined at paragraphs 6.27 to 6.39, reliable and accurate records do not exist to evidence past monitoring of compliance with the movement limit, and support the reports made to the Parliament. The available data indicates that some of the reported breaches may not, in fact, have occurred. This data also indicates that there may have been 357 unreported breaches of the movement limit. The available data shows that breaches occurred prior to September 2001 when there were higher overall numbers of aircraft movements at Sydney Airport. The risk of future breaches will increase when the scheduled numbers of aircraft movements at Sydney Airport return to pre-September 2001 levels.

The Department does not agree with the ANAO in relation to the potential invalidity of the *Slot Management Scheme* and the *Compliance Scheme*. Legal advice to the Department notes that while the documentation could have been more transparent, the Schemes were validly made in accordance with the SADM Act.[114]

The Department considers that the audit report provides an ideal opportunity to undertake a general review of the slot management arrangements. Such a review would normally be undertaken at an earlier stage of implementation, however the upheaval and aviation industry uncertainty generated following the events of September 11, the collapse of Ansett and further disruptions due to SARS and Bird Flu made a review inappropriate.

The Department has advanced its consideration of the issues raised by the audit. Amendments to the Schemes as a consequence of the ANAO report will be progressed in accordance with the procedures set out in the Act.

Performance Measures

The ANAO found no evidence that the Department had put in place mechanisms to measure the success of the *Slot Management Scheme* in meeting the objectives outlined in the second reading speech introducing the SADM Act. In introducing the SADM Act it was stated that congestion problems associated with peak period cluster scheduling at Sydney Airport would be reduced with the introduction of slot management. As noted in the ANAO report, the second reading speech indicated that a slot system would spread aircraft movements more evenly within hours. There was no suggestion at the time that the slot system would eliminate peak periods and spread aircraft movements more evenly throughout the day. Despite limiting the number of movements in rolling 15 minute hours, there will continue to be morning and evening peak periods in response to operational requirements of airlines (particularly international flights), curfew arrangements both at Sydney and at overseas airports, and the travelling preferences of passengers, particularly regional and business passengers. It can be expected that the middle of the day will continue to be the last hours to reach the maximum movement limit as the airline demand for slots in this period of the day is less.

[114] ANAO comment: The Department's legal advice in respect to the Slot Management Scheme is quoted at paragraph 3.32. The advice concluded that, when the scheme is next amended, the processes laid down in the SADM Act should be expressly followed and documented so as to eliminate any doubts about the validity of the Scheme. Similarly, the Department's legal advice in relation to the Compliance Scheme (quoted at paragraph 3.36) was also qualified in its conclusion.

There are a wide range of factors that influence the on-time performance of operators. While many of these factors are beyond the control of the operator, the cooperative nature of the compliance arrangements has seen a significant improvement in the response of airlines to manage the factors over which they do have control. Anecdotal advice from airlines suggests that internal airline practices have been improved as a result of the compliance provisions of the slot management arrangements.[115] The Department understands that the ANAO did not consult airlines while undertaking the performance audit.[116]

It is a matter for conjecture what the distribution of aircraft movements may have looked like without slot management arrangements in place, but we could assume that on the basis of first-in, first-served the peak periods would be severely congested with a larger number of hours representing the middle of the day and only lightly used. In concluding that the slot and compliance schemes have not been effective in spreading aircraft movements, the ANAO has compared 1998 against 2005 traffic data.[117] It is arguable as to whether the conclusions drawn are valid since the same slot management arrangements were in place at both periods. The ANAO has not included a reference point to aircraft movement trends prior to the introduction of slot management arrangements in the report for comparison.

The Department considers that 1996 data would be the relevant baseline data to assess changes in aircraft movements and timeliness achieved by the introduction of slot management arrangements rather than 1998 as suggested by the ANAO. This would facilitate, more appropriately, a comparison between trends before and after the slot management arrangements came into effect.[118]

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[115] ANAO comment: DOTARS' advice has been reflected in paragraph 44 of the Report Summary.

[116] ANAO comment: The audit scope was defined to include those responsible for implementing and administering the demand management scheme. This included consultation with, and examination of records held by, the Slot Manager (whose shares are held by the Sydney Airport lessee, Qantas Airways Limited, Virgin Blue Airlines Pty Ltd and the Regional Aviation Association of Australia). In addition, ANAO attended a meeting of the Compliance Committee, which includes representatives from the Sydney Airport lessee and the airline industry.

[117] On page 48 of the Report, Figure 2.3 compares traffic data from the Summer 1998 and Summer 2005 scheduling seasons.

[118] ANAO comment: ANAO agrees that use of 1996 data would have been preferable. However, no aircraft scheduling and movement data prior to 1998 was able to be provided to ANAO by DOTARS, Airservices Australia or the Slot Manager. The absence of such data is outlined at paragraphs 2.18 and 2.19 and the impact of the absence of such data to DOTARS' performance information and reporting obligations is explained at paragraph 2.35.

The Department will review its performance reporting for the Slots Scheme, establish performance measures for the Scheme's objectives as appropriate and include performance information starting with its 2006–07 Annual Report.

Definition of aircraft movement

Slot management arrangements were introduced at Sydney Airport to implement the Parliament's commitment to limit the number of aircraft movements to 80 per hour and to manage aircraft movements so that airlines operate in accordance with their schedules giving the airport operator and passengers more certainty about arrivals and departures and promoting compliance with the maximum movement limit.

At present, the Act uses one concept – ***"aircraft movement"***, for the purposes of monitoring compliance with the movement limit, and monitoring compliance with allocated slots. The Department is considering amending the Act to more accurately reflect the two distinct activities of scheduling and operation. This will ensure that the slot allocation and compliance scheme at Sydney Airport continues to be in step with the industry practice worldwide and the original intent of the Australian Government.

The Department has received legal advice from the Australian Government Solicitor in relation to this matter and has initiated action to seek agreement to the passage of amendments to improve consistency between the Act and the Compliance Scheme.

Slot Allocations

The responsibility for the administration of the slot management arrangements rests with the Slot Manager appointed by the Minister. A key point to make is that the Slot Manager is not a contracted position but is a statutory independent position responsible for the implementation of the *Slot Management Scheme*.

The Slot Manager performs an equivalent function to that performed by coordinators under the International Air Transport Association (IATA) Worldwide Scheduling Guidelines.

Airservices Australia performs the slot allocation function on behalf of the Slot Manager outside normal business hours.

The ANAO report suggests there may be difficulty in gaining assurances about the appropriate discharge of responsibilities in the absence of clear provisions

in relation to the ownership of slot allocation records. There is no provision in the Act requiring the Slot Manager to provide the Commonwealth with access to the records of slot allocations. Nevertheless, the Department is able to, and does, receive data from the Slot Manager on request. The Department has not experienced any difficulty in obtaining any data from the Slot Coordinator in relation to slots.

The Department will consult with National Archives of Australia to formalise arrangements so as to maintain appropriate access to, and protection of, the records of the Slot Manager.

The ANAO found that there were some areas of divergence from the *Slot Management Scheme* in the allocation of priorities between competing incumbent and new entrant applications. While legal advice provided to the Department found that there was no fundamental uncertainty as suggested by the ANAO, the provisions will be clarified in the context of the current review of the slot management arrangements.[119]

Historical Precedence

The ANAO highlighted the need for some clarification in relation to the operation of the historical precedence provisions. While the *Slot Management Scheme* does not specify all of the details required for an application and does not specify the form of the offer and acceptance, in practice, the coded application, offer and acceptance for a slot includes, amongst other things, the days of the week and period of operation.

In the circumstances, despite the absence of specific requirements for the description of an allocated slot in the *Slot Management Scheme*, the information on which the Slot Manager can determine historical precedence is available. The Department will consider clarifying this aspect of the provisions of historical precedence in light of the Department's broad review of the slot management arrangements.

The ANAO report highlights the need for closer oversight of the statutory rules governing the historical precedence provisions. In relation to the application of the use-it-or-lose-it test for historical precedence, under the *Slot Management Scheme* the Slot Manager has discretion in determining whether

[119] ANAO comment: Paragraphs 4.36 to 4.40 examine this issue. The Department's legal advice was that applying all the priority rules would be complex but ***could*** still produce an order of priorities (ANAO emphasis). However, audit analysis shows that applying all the priority rules does not deliver an unambiguous ordering of slot applications.

the operator has conducted 80 per cent of the slots in the slot series or group and whether, indeed, to make a declaration where 80 per cent of slots in a series or group are not operated.

Compliance

The Department considers that minutes and records of the Compliance Committee meetings have to date adequately, though informally, recorded the decisions of the Compliance Committee and satisfied the requirements specified in the Sydney Airport Demand Management Regulations.

As noted in the ANAO report, the Department has already implemented measures to be more specific when preparing the minutes of Compliance Committee meetings. In particular, the Department has refined the format of the minutes of Compliance Committee meetings to record the Committee's decisions of not off-slot movements in line with the terms used in the Compliance Scheme and to also record the remainder as off-slot.

The decisions of the Compliance Committee are determined after considering the reasons provided by the operators. Over time, the Committee has established guidelines for the level of detail to be provided by operators sufficient to enable the Compliance Committee to consider the delay reasons. In addition, the Committee has established precedents for circumstances that members agree are prima-facie beyond the control of the operator.[120]

Consistent with the announcement of the regime, the Compliance Committee operates on a cooperative and educative basis. New operators are provided with the delay reasons paper and representatives are invited to attend a Compliance Committee meeting as an observer in order to gain a greater appreciation of the detailed information required.[121]

Where insufficient explanations of delays are provided by operators they remain off-slot. Queries of actual slot times are finalised between Airservices and the Slot Manager. Where an aircraft movement requires subsequent consideration by the Committee it is submitted to the Committee members out of session or at the next Compliance Committee meeting.

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[120] ANAO Comment: DOTARS' advice in this paragraph has been included in Chapter 5 of the Report at paragraph 5.15.

[121] ANAO comment: DOTARS' advice in this paragraph has been included in Chapter 5 of the Report at paragraph 5.15.

The movements that are agreed by the Compliance Committee to be within the operator's control have been recorded at every meeting.

Unauthorised movements

The ANAO report identifies a misunderstanding in relation to aircraft movements that do not operate on the same day for which they have a slot.

The Compliance Committee has inadvertently considered movements that do not operate on the same day for which they have a slot as an off-slot movement, particularly given the reasonable suggestion that a no-slot movement would be a movement for which no slot was sought or allocated at all. In this way, movements occurring the next day can be assessed for the purposes of determining whether a penalty should be imposed where more than 20 per cent of the movements in a series or group have operated out of tolerance.

If the reasons for a no-slot movement occurring on a day other than the day for which the slot has been allocated are beyond the operator's control eg. curfew or mandatory crew rest, it is arguable whether justification could be made to pursue legal action as provided for by the legislation.

As acknowledged in the ANAO report, the Department has taken steps to address this issue pending the completion of the review of slot management arrangements.

In relation to off-slot movements, the ANAO has identified an obviously unintended definition of off-slot movements. It is apparent that the infringement penalty regime was intended to apply once out-of-tolerance movements resulted in less than 80 per cent of movements occurring in accordance with the slot allocation or excused by the Compliance Committee. This intention has inadvertently been transferred to the notion of off-slot.[122]

The Compliance Committee currently assesses all aircraft movements that operate outside the established tolerances ie. 15 and 30 minutes for slot series and groups and 30 and 45 minutes for single slots. The assessment of all of these movements is consistent with the objective of improving airline timeliness to facilitate compliance with the maximum movement limit.[123]

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[122] ANAO Comment: DOTARS' advice in this paragraph has been included in Chapter 5 of the Report at paragraph 5.78.

[123] ANAO comment: As outlined at paragraph 5.53, the reports provided to the Compliance Committee have not identified single slots in order for the appropriate tolerances to be applied by the Compliance Committee.

The ANAO interpretation suggests that only the late/early arrival that takes the proportion of late/early arrivals to 20 per cent, 30 per cent, 40 per cent or 50 per cent of the slot series is off-slot and needs to be considered by the Compliance Committee.

The ANAO further suggests that the absence of an explicit declaration by the Compliance Committee accepting as reasonable an operator's reason for delay (that the movement is not off-slot) means that no decision was made. As explained earlier, the Department considers that the decisions of the Compliance Committee are adequately reported and this is supported by legal advice provided to the Department. It is unreasonable for the ANAO to suggest that off-slot movements have not been excused merely on the basis that the decisions of the Committee have related to off-slot movements and not off-slot movements by exception.[124]

In considering all aircraft movements that operate outside tolerance, the Compliance Committee has also considered aircraft movements that actually operated during the curfew even though the slot had been allocated prior to the commencement of curfew. Specific approval to operate during the curfew is administered under the Curfew Act.

The Department considers that it is essential that the Compliance Committee consider all out-of-tolerance movements and will work to ensure this occurs pending the required amendment to the Compliance Scheme.

Allocation of >80 movements per hour

The ANAO reported that more than 80 slots were allocated in the 07:30 hour on 22 February 2001. In this particular instance, while additional slots were allocated by Airservices they were not done so in a manner that would have resulted in the actual occurrence of more than 80 aircraft movements.

A closer examination of the records indicate the following order of events:

ACA allocated 77 slots prior to 22 February

- on 22 February, Airservices allocated two 7:35 slots (departure), bringing the total allocated slots to 79.

[124] ANAO comment: Paragraphs 5.58 to 5.61 outline the Compliance Committee process for examining only those movements that the Committee has deemed to be off-slot. This is notwithstanding that Section 3 of the Compliance Scheme requires that the performance of all movements in a slot series be considered in deciding whether a particular movement has breached one of the critical thresholds that may result in an offence.

- Airservices has flight information regarding two delayed arrivals (7:40 and 7:45 slots). With the delay, potential aircraft movements (assuming that the rest of the slot holders operate with the regulated hour) is now 77. Airservices allocates a 7:45 slot and the number of slots is 78.
- an 8:15 departure is running late (-1), Airservices reallocates the 8:15 slot (+1).

Had all the movements occurred as planned, including additional Airservices allocations on the day, the total number of movements would still have been 79 movements.

Although this is the case, statistical records show a different picture. This is because compliance monitoring requirements require that all slot allocations are kept on the record, even where it has become apparent that they will not be used.

This practice permits the most efficient use of the airport while taking into account the operational limitations imposed on Sydney Airport by the maximum movement limit.

The ANAO reported that slot allocations at Sydney Airport would need to be restricted to 70 movements per regulated hour to achieve 99 per cent rate of observance of the movement limit. The Department does not consider that the "potential" to breach the cap is sufficient reason to adjust the planning limit particularly since in the operation of 2 million aircraft movements in 190,000 regulated hours there have been no reported breaches of the cap since 2001 and of the 61 reported breaches up to the end of 2001 only 12 (or 20 per cent) were determined by the ANAO to be sensitive to the allocation of 80 movements.

The Department proposes to reinforce current practice and incorporate consideration of the existing maximum movement limit in the slot allocation process established by the *Slot Management Scheme*.

Unreported Breaches of the Maximum Movement Limit

The ANAO report suggests that there may possibly be as many as 357 unreported breaches of the movement limit. The Department considers that the requirement that Airservices Australia report on the maximum movement limit gives independent validation of the actual aircraft movements that have operated in each regulated hour. The Department notes that the potential unreported breaches is not able to be verified, so has no basis on

which to believe the 61 reported breaches is not correct. The Department notes that Airservices now retains the flight strips indefinitely which will enable future verification of movements.

Appendix 4: The Slot Manager's formal comments on the proposed report

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Mr. Brian Boyd
Executive Director
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Dear Mr. Boyd

I refer to your letter of 2 January 2007 to the Chairman of Airport Coordination Australia (ACA) inviting comments on the Report of the Performance Audit of the Implementation of the Sydney Airport Demand Management (SADM) Act 1997. I provide the following comments on behalf of ACA.

Comments on the Audit Findings and Conclusions

Chapter 1 Introduction

Audit approach

It is noted that the audit approach included only discussions with or investigation of data held by DOTARS, Airservices Australia and ACA. No airline, airline association or airport comment or feedback was sought. Feedback from Australian airlines and other members of the Compliance Committee may have provided insight into the level of commitment by the local industry to supporting the SADM scheme.

Chapter 2 Scheme Objectives and Outcomes

Improving the distribution of scheduled aircraft movements

The objectives of the Act as stated in para 2.9 of the ANAO report include the aims to "alleviate delays caused by congestion" and to "spread aircraft movements more evenly within hours", i.e. to stop what was known, at the time the Act was introduced, as cluster scheduling. This was achieved by the requirement to allocate slots evenly over the rolling hour in 15 minutes intervals. As this re-balancing of the slots over an hour occurred in the initial scheduling seasons of the SADM Scheme in 1998, it would not be expected to change radically in subsequent years, given that Act has been consistently administered by ACA in accordance with the 15 minute rule.

Paras 2.14 to 2.18 comment on the effectiveness of the SADM scheme in spreading movements "evenly throughout the day" which is not a stated objective of the Act. This cannot then be seen as a measure of success of the Act and is not relevant in an audit of the Act.

In respect of the measuring the success of the stated objectives of the Act, data prior to 1998 should be used as the base case for comparisons rather than 1998 post SADM data. Though, as there is limited data easily available on scheduling within hours prior to 1998, it is difficult to demonstrate that the SADM scheme has been effective in its aim to eliminate cluster scheduling. However, to support ACA's view that the SADM has achieved its

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objective, I attach (Attachment A) an extract from a CAA report in 1992 which outlines the extent of cluster scheduling at Sydney Airport in that year. This situation persisted until the introduction of SADM in 1998.

Managing regional access to Sydney Airport

The objectives of the Act as stated in para 2.9 of the ANAO report include the aim to "safeguard the levels of access that regional NSW has to Sydney Airport". This was achieved by declaring the regional slots allocated at the start of the scheme in 1998 to be ringfenced and only available for use by regional airlines.

This protection was further enhanced by the amendment to the regulations in June 2001 when the already limited ability to swap regional slots was further reduced by restricting swaps to within a maximum of 30 minutes from the original allocation – defined in the DOTARS Discussion Paper on the Amendments as the "guarantee of regional peak slots".

The decline in regional slots, noted in the ANAO Report, has been related more to the financial collapse of regional airline companies then to a failure of the slot system which continues to protect and ringfence regional slots. Recently, regional aviation was examined by House of Representatives Standing Committee on Transport and Regional Services (Neville report of November 2003) which noted that "the economics of regional air services are posing a threat to their existence and creating pressure for their rationalisation".

Chapter 3 The Legislative Framework

ACA notes the ANAO comments and legal advice obtained by ANAO and DOTARS on the definition of slots.

Since 1998, ACA has accepted the definitions of slots in respect of compliance and the slot schemes as outlined in the current Act and has operated the schemes in accordance with these definitions.

For both slot allocation and compliance purposes, aircraft movement times have been defined as arrival time or departure time to/from gates. This is in accordance with worldwide industry practice.

If new legal advice indicates that the original drafting was incorrect, ACA will support DOTARS in amending the scheme as required, provided that slots continue to be defined and published as gate times which are then used for compliance purposes. The use of runway times for publication and then for compliance would be misleading to the public and impossible for industry to deliver.

Airlines publish departure and arrival times of aircraft movements as gate times (on chock/ off chock times). Passengers around the world accept that it is gate to gate times that are published. Airline punctuality performance world-wide is also reported against these scheduled arrival and departure times. All airport and airline recording systems are based on gate times. Runway movement times (i.e. take off / landing) are not collected by airlines or airports. Runway departure and arrival times are influenced by many factors beyond the control of airlines, most commonly by operational requirements on the day determining air

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traffic control direction on taxiway and runway allocation. The attached chart from ACA shows the variation in taxi times at Sydney Airport (Attachment B).

The distinction drawn by the Audit Office between gate and runway times has arisen from the practice of Airservices in reporting slot usage based solely on runway times. Measurement of runway usage by Airservices in respect of the hourly movement cap should be viewed as a complimentary process. Provided no more than 80 movements to and from gates are scheduled in any hour, and the compliance process ensures that no movement occurs without an allocated slot, then any differences between hourly movement counts based on gate times versus runway times will be very small, will be in balance from one hour to the next and will not lead to any increase in movements.

Chapter 4 Slot Allocation

Ownership of records

ACA has always provided information to DOTARS as requested and will support any changes required by DOTARS in the provision, ownership and storage of records.

Allocation of slots by Airservices

In respect of para 4.18, ACA consider that the assumptions are incorrect. Airservices staff performing functions on behalf of the Slot Manager (ACA) on the day of operation collect details from airlines and other operators that may wish to add, change or return slots on the day of operation. The information is then provided to ACA. Airservices staff will ensure that all available slots on the day are efficiently used and the scheduled movement limit is not exceeded. They will not in any way consider the impact of an airline's change on 'use-it-or-lose-it' for a series of slots.

Slot allocation in practice

ACA rejects the statement in para 4.44 that the Slot Manager shows little consideration to the slot allocation priorities and processes set out in the SADM Scheme.

The Slot Manager has consistently applied the priority system in respect of historics, new entrants and incumbents and the sub-sets of criteria that determine priorities within these groups. In particular, the current slot allocation system has facilitated several new entrant airlines (regional, domestic and international) start up and grow their operations at Sydney Airport with viable schedules, though not all have been able make these operations economically sustainable.

On the few occasions when the priority system has exhausted the differentiation process, ACA has sought to avoid conflict by negotiating mutually acceptable outcomes with the airlines involved. Airlines then re-file for slot(s) at the alternative times. To the extent that the negotiations have been effective, a ballot has not been necessary. The final option of using a ballot has always been acknowledged by ACA but if a satisfactory outcome can be achieved though discussion, it is unclear why this should be deemed inappropriate or invalid.

It should also be noted that while obtaining a runway slot under the SADM scheme is the first stage of access to Sydney Airport there are other scheduling slots that have to be obtained, i.e. an apron parking bay and at T1 a passenger processing slot. All Australian

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Airports publish scheduling guidelines prior to the filing period for slots which advise the various limitations on all common use facilities. An airline operating at Sydney Airport has to be able to get all slot requirements lined up before complete access arrangements can be finalised. ACA manages terminal slots on behalf of Sydney Airport Corporation Ltd (SACL) and other terminal operators around Australia in agreements separate to its role in respect of the SADM.

Inability to get an apron slot may well have to be considered by an airline in deciding whether or not a final filing for a particular runway slot is made. This complexity heavily influences ACA's attempts to negotiate outcomes before using the ballot system.

Given that runway slot management is a complex process and is further complicated by other capacity limitations, ACA would welcome improvements to the legislation that simplify the priority system as noted in paras 4.36 to 4.40 of the Report.

Historic precedence

The definition of historic precedence in the Scheme needs to be clarified. When an airline gains a slot for a day of the week for a series of movements, then it will want to accrue historic precedence for future movements in the same weekday; e.g., an airline holding a slot for a movement on Wednesday wishes to operate on Wednesdays in future seasons and not on the same calendar day.

If the current drafting is deemed not allow this, it should be amended as the alternative interpretation is not workable in an airline scheduling environment.

Chapter 5 Compliance and Enforcement

No slot movements

ACA has sought to make the compliance scheme capture slots not operated on the day to ensure that airlines are not excused by returning these slots. The ANAO Report shows up the conflict between an effective compliance system and current no slot definition. ACA welcomes clarity of these issues and recommends that the scheme be reviewed to adjust this conflict.

In the meantime, action has been taken to implement the current no slot provisions of the SADM and the compliance system will not capture any the returned slots.

Compliance data

ACA disputes the statement in para 5.38, that 18% of all movements under the SADM had data missing:

- the period without data predominantly covered 2001 when the Compliance Scheme was suspended after September 11 2001 and the Ansett Group collapse – 4% of the movements without records; and
- given that, for the period of the day during which the SADM Scheme applies, 06:00 to 22:59, ACA calculates that approximately 2% of the flights are General and Business Aviation – the so called itinerants referred to in the Report.

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In respect of the balance of flights that had missing data in the information provided by Airservices, ACA notes that the Airservices data is not used by the Compliance Committee in the format that was provided to the ANAO.

The Airservices computer programme can match most flights except for flights that were reported with a three letter ICAO code instead of a two letter IATA code, flights with a leading zero or an operational suffix (z) and flights at UTC midnight. ACA matches such flights and also completes any remaining missing data from files received from Sydney Airports Corporation Ltd (SACL) and the major Australian airlines. The compliance database is then updated and it is the only complete database.

To provide some insight into process that ACA undertakes to prepare the Compliance Committee reports, I have investigated in detail the report that ACA received from Airservices for 05 September 2005 as an example. Most of the flights shown in the Airservices report as without arrival or departure time could be matched with the flights shown in the same report as no slot time (NULL flights in the report). The attached spreadsheet (Attachment C) shows the Airservices arrival and departure files for this day and on the next tab ACA's matching of flight records and the source for other information is given. The result shows that the large numbers of flights without slot or without actual times are eliminated.

ACA considers, therefore, that the only data missing from the Compliance System over the period of the SADM is in respect of the temporary suspension of the system after September 2001 and the itinerants.

In respect of the proposal that the SADM be amended to require data from the itinerants ACA suggests that this be reconsidered for the following reasons:

1. itinerants are only approximately 2% of all SADM operations;
2. many of these flights are ad hoc and may not use the airport again e.g. a private or chartered jet;
3. these flights get no priority in the operational environment so are subject to more operational delays than scheduled services so would regularly be outside the compliance windows; and
4. given the itinerant nature of the flights, the companies involved will be difficult and time consuming to follow up if data is not provided.

The Compliance Scheme was designed to prevent aircraft operating without a slot and to improve performance of scheduled operators. The current system ensures that they operate with a slot so the first objective is served but enforcing compliance on non-scheduled operators has the potential to waste time and money without enhancing the delivery of the performance objective of the original scheme.

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Chapter 6 The Movement Limit

Unreported breaches

NFPMS data is not considered by ACA an appropriate data source to form a view of the existence of unreported breaches. Airservices who provided the NFPMS data also noted that it contained "duplicate and spurious entries". In para 6.33 of the Report, ANAO also notes that quarter of raw NFPMS numbers were reduced by half and average revision downwards by 27 movements.

The ANAO has provided no evidence to support the claim that there have been unreported breaches of the movement limit.

ACA agrees that up to September 2001 there were occasions where some actual movements slipped from one 60 minute period into the adjacent period, but this was always within the tolerances of allocated slots i.e. the total number of scheduled slots did not exceed the limit of 80 in all cases. However, in the period from September 2001 to September 2006 there are no proven occurrences where 80 movements per period were exceeded. There have been no instances where ACA has scheduled more than 80 movements per hour and Airservices Australia has no record of breaches of the hourly limit.

Comments on the Recommendations

Recommendation 1. ACA has provided the Department and industry with performance data for each scheduling season since 1998. If there is a need for further information, ACA will cooperate with the Department to improve reporting of performance.

Recommendation 2. As noted above, if the new legal advice confirms that the original drafting was incorrect, ACA will support DOTARS in amending the scheme as required, provided that slots continue to be defined and published as gate times which are then used for compliance purposes.

Recommendation 3. All relevant data is available and has at all times been provided to the Department. The appropriate allocation of historic precedence has been followed at all times and during the entire operation of the scheme since 1998 no complaints were received from the industry. ACA, however, agrees that the Scheme needs some adjustment to clearly spell out the criteria.

Recommendation 4. ACA agrees that some adjustments to the Act and the Compliance Scheme are required to clarify the processes.

Recommendation 5. No comment.

Recommendation 6. The Compliance Scheme for Sydney Airport is considered one of the more transparent and successful schemes in the industry world-wide. The airlines provide company confidential information on a voluntary basis. ACA will support a review by DOTARS to further improve effectiveness of the compliance process.

Recommendation 7. ACA considers that there have been no proven unreported breaches of the movement limit in the last 5 years nor has ACA allocated more than 80 scheduled

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movements; hence there is no basis to reduce the current allocation level below the current maximum movement limit.

If you wish to discuss any of these comments, please contact me on 02 9313 5469 or on ejkrolke@coordaus.com.au.

Yours sincerely

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08 February 2007

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ATTACHMENT A

Central Office

Minute

CLUSTER SCHEDULING

To ascertain the extent of cluster scheduling in Sydney during the month of February, seven day were analysed. The seven days consisted of the working week 03/02/92 - 07/02/92, Wednesday 12/02/92 and Friday 21/02/92. Only the morning schedules between 0700 and 1200 were examined. In general the worst hours were 0700, 0800 and 0900.

03/02/92
In the hour commencing 0700 there were twenty nine scheduled movements, seventeen of these were within two five minute periods, ten of which were in one five minute period. In the hour commencing 0900 there were eighteen scheduled movements, thirteen of these were in one five minute period.

04/02/92

During the hour commencing 0700, of a total of twenty eight scheduled movements fifteen were within two five minute periods. In the hours commencing 0800 and 0900 there were nine movements scheduled within ten minutes and seven within five minutes respectively.

05/02/92

During the hour commencing 0700, of a total of twenty five scheduled movements sixteen were within two five minute periods, with nine in one five minute period. In the hour commencing 0900 nine movements were scheduled within ten minutes.

06/02/92

During the hour commencing 0700, of a total of twenty seven scheduled movements fifteen were within two five minute periods, with nine in one five minute period. In the hour commencing 0900 there were eight scheduled movements within one five minute period.

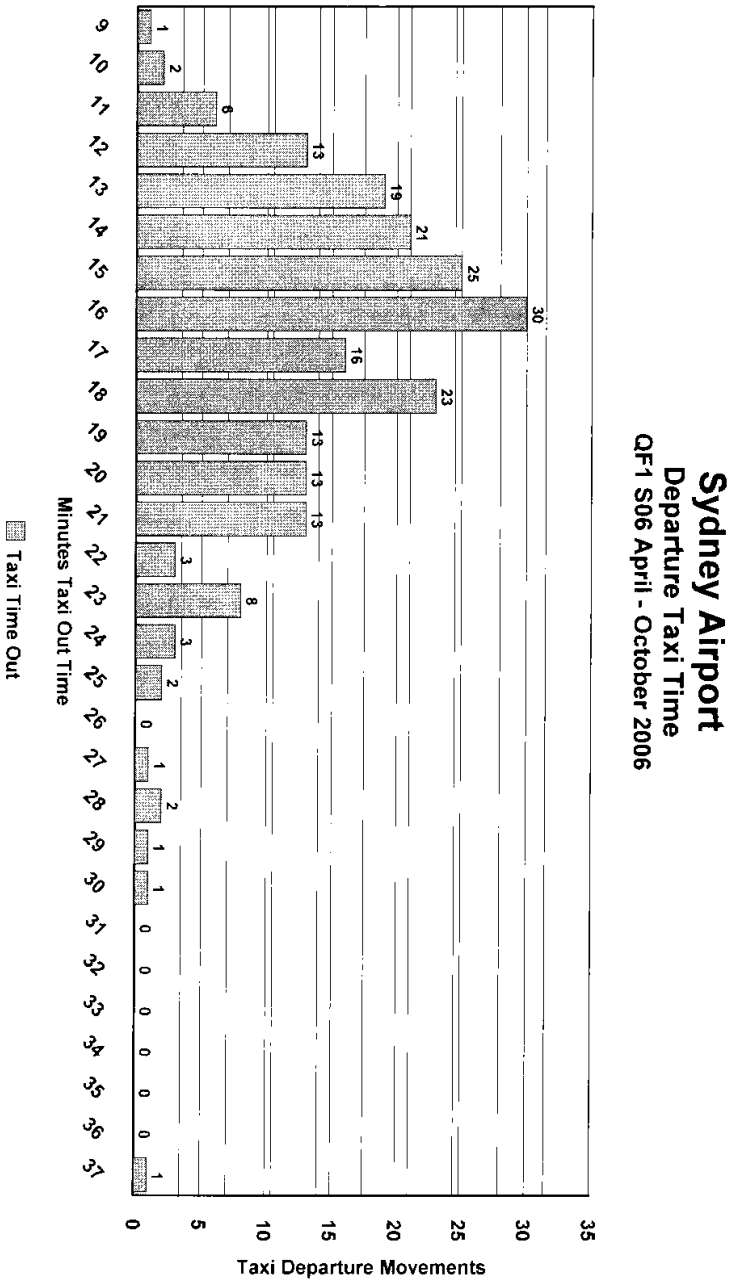
07/02/92

During the hour commencing 0700, of a total of twenty six scheduled movements sixteen were within two five minute periods, with ten in one five minute period.

12/02/92

During the hour commencing 0700 there was one five minute period with eleven scheduled movements.

ATTACHMENT B



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