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Performance Audit

Aviation Safety Compliance

Civil Aviation Safety Authority

Australian National Audit Office

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Australian National
Audit Office

Canberra ACT
22 November 1999

Dear Madam President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit in the Civil Aviation Safety Authority in accordance with the authority contained in the *Auditor-General Act 1997.* I present this report of this audit, and the accompanying brochure, to the Parliament. The report is titled *Aviation Safety Compliance.*

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

Yours sincerely

P. J. Barrett
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

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Fax (02) 6203 7798
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Audit Team

Barbara Cass
Chris Bellamy
Grant Caine
Mike Lewis

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Abbreviations/Glossary

AAT	Administrative Appeals Tribunal
AIP	Aeronautical Information Publication
AOC	Air Operator's Certificate. The *Civil Aviation Act 1988* requires an AOC to be issued for operation of an aircraft, for prescribed commercial purposes, that fly in, into or out of Australian territory and Australian aircraft flying outside Australian territory
AOCM	Air Operator Certification Manual
ASR	Aircraft Safety Report
ASSP	Aviation Safety Surveillance Program
AWI	Airworthiness Inspector
BASI	Bureau of Air Safety Investigation
CAO	Civil Aviation Order
CAR	Civil Aviation Regulation
CASA	Civil Aviation Safety Authority
Certificate Of Approval	A Certificate of Approval is issued to persons and organisations that intend to carry out the design, distribution or maintenance of aircraft, aircraft components or aircraft materials
Charter	Operation of an aircraft for the purpose of providing air transportation of people or goods or both that is provided for a fee payable by persons using the service and is not available to the general public on a regular basis
CPP	Compliance Practices and Procedures Section, Central Office
DAM	District Airworthiness Manager
DFOM	District Flying Operations Manager
DoTRS	Department of Transport and Regional Services
DPP	Director of Public Prosecutions
FAA	Federal Aviation Agency (of the USA)
FOI	Flying Operations Inspector

HCRPT	High Capacity Regular Public Transport refers to aircraft with 38 seat capacity and above operating RPT services
HORSCTI	House of Representatives Standing Committee on Transport, Communications and Infrastructure
HRO	High Risk Operator
ICAO	International Civil Aviation Organisation
LAME	Licensed Aircraft Maintenance Engineer
LCRPT	Low Capacity Regular Public Transport refers to aircraft below 38 seat capacity operating RPT services
MOU	Memorandum of Understanding
NCN	Non-Compliance Notice
NOTAM	Notice to Airmen
QIAB	Quality and Internal Audit Branch (CASA)
ROR	Risk Observation Report
RPT	Regular Public Transport is defined as the operation of an aircraft for the purpose of providing a service for a fee payable by persons using the service conducted in accordance with fixed schedules to or from fixed terminals over specific routes and available to the general public on a regular basis
SAWI	Senior Airworthinesss Inspector
SCD	Surveillance Control Document
SIS	Safety Intelligence System
SSA	Safety Systems Assessment
SSAPCO	Safety Systems Assessment of Passenger Carrying Operators

Summary and Recommendations

Summary

Introduction

1. Australia, like most advanced aviation countries, has developed a complex set of rules and regulations for aviation safety. Historically, the major catalysts to regulatory development have been the standards and recommended practices established by the International Civil Aviation Organisation (ICAO), recommendations which have arisen from the investigation of aviation accidents and incidents, and the introduction of new technologies. In Australia, it is the Civil Aviation Safety Authority (CASA) which has prime responsibility for regulating aviation safety.

2. CASA was established as a statutory authority in 1995 under the *Civil Aviation Act 1988* (the Act). The main objective of the Act[1]

> *is to establish a regulatory framework for maintaining, enhancing and promoting the safety of civil aviation with particular emphasis on preventing aviation accidents and incidents.*

Other formal regulatory controls are set out in the Civil Aviation Regulations (CARs) and Civil Aviation Orders (CAOs).

3. CASA operates under the strategic direction of a Board which is accountable to the Parliament through the Minister for Transport and Regional Services. The Director of Aviation Safety (the Director) is responsible for the day-to-day management of CASA. In 1998–99 CASA's operating expenditure was $78.9 million and it employed a staff of some 650 officers. It has a Central Office in Canberra and offices at most major regional centres and capital cities. Staff in CASA's compliance function are mainly employed in regulating flying operations and aircraft airworthiness as well as aerodrome standards and facilities and the carriage of dangerous goods.

Audit objectives and scope

4. This audit commenced in late 1998 in response to a recommendation in the *Plane Safe* report from the House of Representatives Standing Committee on Transport Communications and Infrastructure (HORSCTI) that the Australian National Audit Office (ANAO) undertake an efficiency audit of CASA in 1998. The audit

[1] The Act deals with CASA's functions and powers, the powers of the Minister, the regulation of civil aviation, (including general regulatory provisions, Air Operator's Certificates and offences in relation to breaches of regulatory requirements) and CASA's investigation powers.

objectives were to assess the efficiency and effectiveness of the management systems and procedures used by CASA to ensure compliance with regulatory controls by Air Operator's Certificate (AOC) holders operating passenger-carrying aircraft within High Capacity Regular Public Transport (HCRPT); Low Capacity Regular Public Transport (LCRPT) and charter industry sectors; and Certificate of Approval holders. Aviation safety compliance includes entry control[2], surveillance and enforcement.

5. The focus of the audit was on compliance with the procedures contained in manuals developed by CASA for issuing, re-issuing and varying certificates, the Aviation Safety Surveillance Program (ASSP) and enforcement of the regulations. The audit also examined the effectiveness of corporate governance activities in relation to planning, policy development, strategic analysis, training and quality assurance. The audit did not address the setting of standards or CASA's safety education activities.

ANAO overall conclusion

6. The ANAO concluded that CASA's regulatory regime for ensuring compliance by the aviation industry with Australia's aviation safety legislation has contributed towards Australia's highly regarded record in aviation safety. However, the potential exists for this regime to be improved and strengthened with consequential increased confidence of all stakeholders.

7. The Authority has experienced considerable turmoil with frequent top management turnover and accompanying related changes in strategic emphasis and policy direction since it was established in 1995. There is little doubt that CASA would benefit from a period of relative management stability to enable it to focus more consistently on its objectives and be fully effective in carrying out its functions.

8. A number of recommendations to improve CASA's compliance processes have been outlined in this report. The areas where priority might be given to pursuing such improvements include:

- ensuring entry control assessment and decision-making processes are properly documented and greater attention is paid to existing operators' previous compliance history;

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[2] CASA controls the entry of operators into the aviation industry through the certification process for issuing AOCs and Certificates of Approval. Subject to conditions in the Civil Aviation Act, Regulations and Orders, CASA issues, re-issues and varies certificates to those applicants who demonstrate they can comply and will continue to comply with air safety regulations.

- ensuring that surveillance is planned, conducted and reported in accordance with ASSP procedures as the audit findings indicated that these identified requirements had not always been adhered to;
- developing and implementing risk-based analysis processes that are applicable to the different industry sectors and ensuring that staff are appropriately trained in their use;
- identifying those operators with a significant history of non-compliance and developing appropriate enforcement strategies, including ensuring that the quality of the evidence collected is able to expedite any enforcement action;
- addressing corporate governance issues such as completing a corporate plan and providing it to the Minister in accordance with legislative requirements; monitoring adherence to management priorities; formal promulgation of changes in policy; systematic analyses of safety information to identify trends and risk factors involved; and developing meaningful performance indicators for management and accountability purposes;
- developing mechanisms that would provide senior management with assurance that the regulatory standards are being applied in a consistent and equitable manner and in accordance with established documented procedures; and
- enhancing procedures for examining, implementing and finalising action on all recommendations directed to CASA as a result of investigations, inquiries and reviews and to monitor and report on progress in implementing those recommendations.

9. Overall, CASA has well documented procedures which, if properly implemented, would provide a reasonable ongoing degree of assurance that safety standards are being maintained by industry. However, the ANAO found shortfalls in adherence to these procedures which need to be addressed so CASA's effectiveness and public assurance is improved and maintained.

Recommendations

10. The ANAO has made 13 recommendations to improve CASA's regulation of aviation safety in Australia.

CASA response

11. CASA agrees with all 13 recommendations, with one subject to qualification regarding the limited resources available. CASA has already commenced the process of implementing some of the recommendations.

Acknowledgments

12. The ANAO would like to express its appreciation to CASA management and staff for their assistance with the conduct of this audit. The ANAO would also like to thank the members of the Australian aviation industry for their input and assistance.

Key Findings

Entry control—Chapter 2

Assessment process

13. CASA controls the entry of operators into the aviation industry through the certification process for issuing AOCs and Certificates of Approval. CASA has well documented procedures for assessing applications for the issue and re-issue of AOCs and the issue and variation to Certificates of Approval. The ANAO examined the application of these procedures to a sample of cases in seven CASA area/airline offices (formerly district offices).[3] Of the sample operators examined, the audit found that the assessment process had been either fully or mostly documented in only 55 per cent of flying operations and 75 per cent of airworthiness cases. Although acknowledging the small size of the sample, seven out of 12 assessments involving Regular Public Transport (RPT) operations lacked appropriate documentation. In these cases, it was difficult to determine if the applications had been properly assessed or how the delegates had satisfied themselves that the operators were suitable to hold certificates and had the ability to comply with the legislated safety requirements.

Compliance history

14. An operator's compliance history is an important factor that should be taken into account when assessing applications to renew or vary certificates as it is an indication of their compliance with safety regulations. The ANAO found no evidence to suggest that the compliance history for the majority of the sample operators had been considered prior to varying or re-issuing certificates.

15. The ANAO considers that CASA should identify the key surveillance tasks that, if completed immediately prior to the re-issue of an AOC, would provide the most relevant surveillance report. To ensure that the decisions to re-issue and vary certificates are based on current information, surveillance plans should schedule such tasks to be completed within six months prior to the re-issue of an AOC. Where possible, relevant tasks should also be completed before a request for variation to a Certificate of Approval is processed.

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[3] At the time of the audit, CASA's organisational structure included three regional offices and 16 district offices. Following the recent restructure these have been replaced by seven area and three airline offices.

Financial assessments

16. It is generally recognised in the aviation industry that there is an increased risk to safety by financially marginal operators. The revised financial assessment process for new passenger-carrying AOC applicants ensures CASA has a better appreciation of the financial viability of applicants. Although it is recognised that there are not the same safety implications in relation to the financial viability of Certificate of Approval holders, the ANAO considers that the financial assessment process should be extended to include Certificate of Approval applicants where there are grounds for concern about their financial viability. It is appreciated that consideration of the financial viability of Certificate of Approval holders would require an amendment to the Regulations.

17. To ensure that the financial assessment process is assessing the financial viability of operators in the most efficient and effective manner, there would be benefit in CASA undertaking a post-implementation evaluation of the process in 12–18 months of its introduction. Performance information should be developed and data collected so that such an evaluation could be carried out effectively.

18. In many instances, financial and business plans for a new entity are based on forecasts and projections which may arise from an applicant's unrealistic expectations. The ANAO considers there would be merit in examining a new AOC holder's financial performance following the first two years of operation. The purpose of such an examination would be to compare actual performance with the financial forecasts and business information provided as part of the initial application. This could be done by requesting specific financial data as part of the application to renew their AOC at the end of the second year of operation. If financial issues are identified, conditions that will address safety requirements may then be imposed on any new certificate.

Aviation safety surveillance program (ASSP)—Chapter 3

Planning process

19. To determine whether operators and maintenance organisations are meeting their statutory requirements, CASA has developed a comprehensive Aviation Safety Surveillance Program (ASSP). As part of this program, CASA has developed and documented procedures to assist inspectors in planning surveillance for AOC and Certificate of Approval holders. However, the audit findings indicate that CASA staff are not always following these procedures. Although there was considerable variation in planning techniques across area and airline offices (formerly

district offices), surveillance plans for individual inspectors and operators are generally being developed and entered into the ASSP database. Master surveillance plans were generally not prepared and therefore only used in some offices. The ANAO considers that CASA should review the need for master surveillance plans and, and if considered necessary, ensure that they are produced as part of the planning process. Contrary to the ASSP guidelines, surveillance plans had not been based on an assessment of operators to identify those presenting the highest safety risk.

20. The ANAO examination also revealed a degree of underplanning as well as overplanning of surveillance tasks suggesting that surveillance is not being conducted in accordance with identified procedures and, as a consequence, resources are not being used to maximum effect.

Surveillance targets

21. The ANAO compared actual surveillance carried out against planned surveillance targets for the audit sample as well as nationally. The audit findings indicate that meeting planned surveillance targets is a continuing problem for CASA. Based on an analysis of the data available, it would appear that surveillance targets are not consistently achieved across all industry sectors. It was also not apparent that CASA had analysed its achievement of surveillance targets. A recent initiative to review ASSP tasks/targets and to monitor outstanding surveillance and time spent on surveillance would help CASA to identify the under-achievement of surveillance targets. However, the relative proportion of time that inspectors are devoting to regulatory services and surveillance activities should be examined.

Controlling and conducting offices

22. An office that administers an AOC or Certificate of Approval is known as the controlling office; while an office that carries out inspections or audits on behalf of the controlling office is known as the conducting office. The controlling and conducting office arrangement can be an efficient and cost-effective way of managing surveillance of the 1887 operators, many of whom are based in more than one location. However, at the time of the audit this process was not well managed by controlling offices. For example, they were not always in a position to assess the compliance of operators either at the local or national level. In some cases, the required MOUs had not been established and, in others, had not been reviewed to ensure they remained current. Tasks allocated to conducting offices were not necessarily monitored nor the results evaluated. CASA has advised that, where they continue to be applicable, MOUs will be reviewed by the recently appointed area managers.

Recording and reporting surveillance outcomes

23. Recording and reporting surveillance are integral to CASA's safety management activity. CASA has well documented procedures for recording and reporting surveillance and following-up non-compliance. However, not all surveillance data are being recorded in the ASSP database and not all surveillance documentation is being retained. Proposed electronic enhancements to the existing analytical and reporting capabilities will improve these processes, but they will not negate the need for CASA inspectors to record compliance activities; to input accurate data into the ASSP database; nor to adopt good records-management principles so that, if necessary, documentation is available as admissible evidence for enforcement action. The use of procedures for recording and reporting surveillance should be regularly brought to staff's attention.

24. The ANAO noted that a number of non-compliance notices (NCNs)[4] have not been acquitted and a number aircraft survey reports (ASRs)[5] are also outstanding. Inspectors are not implementing the procedures for following up and acquitting non-compliance notices. Although it is recognised that not all NCNs and ASRs are safety critical, there was a significant number of unacquitted NCNs and ASRs to suggest that CASA does not always know if breaches of safety regulations have been corrected.

25. The existing monthly reporting system covering compliance activities is not operating satisfactorily. CASA is currently reviewing the management reporting system. The ANAO considers that, as part of this examination, the extent of, and mechanisms for, provision of necessary feedback to area and airline offices (formerly district offices) should be assessed.

Analysis of surveillance outcomes

26. ASSP places a strong emphasis on data analysis to measure industry's compliance with regulatory requirements, to identify the impact of risk indicators on aviation safety, and to analyse the results of surveillance activities. The ANAO considers that the analytical phase of the surveillance process is not undertaken or managed as effectively as it might be by area or airline offices (formerly district offices). As a result, CASA does not always have early warning of an operator's unsafe

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[4] A non-compliance notice (NCN) is a form used to record and notify a failure to comply with a regulatory requirement. There are five grades of notices for commercial operations ranging from 1 (most serious) to 5 (least serious).

[5] An aircraft survey report (ASR) is a document used for notifying defects and/or non-compliances associated with aircraft. Reports are coded from A (most serious) to C.

practices which may result in a serious incident / accident. Proper analysis of surveillance results would allow CASA to identify unsafe operators early and develop appropriate enforcement strategies. It would also more effectively link ASSP with the other compliance processes of entry control and enforcement as well as providing input into the High Risk Operator assessments undertaken by Central Office.

Developments in the surveillance program—Chapter 4

System-based surveillance audits

27. At the time of the audit, CASA was developing a systems-based approach for surveillance of larger airline operators. The ANAO acknowledges the benefits of a systems-based approach and recognises that it has the potential to be a more efficient and cost effective method of assessing the safety management systems and levels of compliance of these operators. However, while the system was being developed, the level of surveillance for the major airlines involved had been minimal and well below ASSP requirements. Little effort appears to have been made to increase the surveillance levels even when it became apparent that the trial would not eventuate during 1998–99 as planned. CASA advised that the level of surveillance was below the ASSP targets because of resource shortages and that the subsequent review of HCRPT surveillance tasks demonstrated that some of the surveillance planning was excessive and directed at areas which were unlikely to enhance air safety. Nevertheless, the example indicates the need for appropriate contingency planning in such circumstances.

Risk assessment

28. At the time of the audit, CASA had developed a risk assessment model that is to be included in the systems-based audit trial. There are indications that the risk assessment model would present a worthwhile adjunct to CASA's surveillance program, especially in view of inspectors apparent inability to complete all planned surveillance tasks. The ANAO considers the risk assessment methodology has potential benefits both in terms of highlighting operations with a greater likelihood of unsafe practices and in achieving a more efficient use of CASA's resources. Minimal work has been carried out on the model in the past 12 months. However, CASA has advised that it expects the risk assessment tool to be available within three months to assist staff in monitoring the ongoing risk profile of operators overseen by the airline offices.

29. The trial of the risk assessment model will be directed at the larger RPT operators. It is not yet apparent whether the model will be applicable to small LCRPT operators as well as to the more numerous group of relatively small charter operators throughout the industry. The ANAO considers there would be merit in examining the need for a separate model suitable for the smaller operators. Pending the development of such a model, CASA should reinforce the need for the *Operator Selection Risk Assessment Form* currently required by the ASSP manual to be completed as part of the surveillance planning process.

Enforcement—Chapter 5

Enforcement outcomes

30. CASA is responsible for ensuring compliance with Australia's aviation safety regulations. It does this through developing and promulgating appropriate, clear and concise aviation safety standards and developing enforcement strategies to secure compliance with those standards. Where CASA has decided to apply the full range of enforcement options at its disposal, its actions have usually been successful in enforcing compliance.

Revised approach

31. The CASA Board decided on a new approach to enforcement in October 1998. However, there has been some uncertainty in area/airline offices (formerly district offices) concerning the revised approach. The ANAO considers that CASA should clarify the situation and ensure consistency of approach pending the introduction of the revised Compliance and Enforcement Manual. In the past, the management of enforcement actions has been delegated to regional managers but, because of some concerns about the lack of consistency of enforcement decisions, CASA has centralised the management of enforcement activities as part of an organisational restructuring. The ANAO considers that CASA should closely monitor these new arrangements and review their effectiveness after, say, 12 months.

Decision making

32. An ANAO analysis of a sample of operators with a history of non-compliance disclosed that no special action had been taken to address the apparent risks to safety posed by these operators, even though they have had a continuing history of non-compliance. This, in turn, highlights the absence of a formalised analysis component in CASA's surveillance process. The decision to take action was often prompted by factors external to CASA which reinforced the results of its own surveillance

program. On the other hand, external pressures have, in some cases, distracted attention from the safety issues involved and contributed to delays in taking enforcement action.

33. The Director recently wrote to all AOC holders to make CASA's position clear about their obligations to take all reasonable steps to ensure their activities are carried out safely, sending a clear message that times have changed for marginal aviation operators. CASA staff have been told to take strong enforcement action against those operators who are not meeting their safety obligations. By such action, combined with identifying operators with a significant history of non-compliance and developing appropriate enforcement strategies, CASA will be able to demonstrate a more proactive approach to enforcement. CASA should also ensure that the evidence collected during surveillance is of a quality that would be admissible in the courts.

"Borrowed AOCs"

34. CASA's Quality and Internal Audit Branch completed a report on "Borrowed AOCs" in March 1999. The report contained a number of recommendations to address the problems identified in that report. While CASA management had not, at the time of this audit, provided any direct responses to these recommendations, the Director wrote recently to all AOC holders engaged in either charter or RPT operations to advise of proposed measures to address these issues. CASA envisages that the regulatory amendments necessary to implement the proposed changes will be finalised by 2000.

Corporate Governance—Chapter 6

Corporate planning

35. Under the Act, the CASA Board must prepare a corporate plan, covering a period of three years, at least once a year and give it to the Minister. Although CASA was established in June 1995, it has produced only two corporate plans. These plans covered the periods 1995–96 to 1997–98 and 1996–97 to 1998–99. The latter plan, which contained full details of the three phase approach to rebuilding the Authority, was submitted to the Minister in August 1997, that is after the conclusion of the first year covered by the plan. The finalisation of only two corporate plans in the four years since it was established represents a clear breach of the legislation.

36. A major factor contributing to the delays in formally presenting a corporate plan to the Minister has been changes at senior management level within CASA, including the Chairman of the Board, Board members

and the Director of Aviation Safety. Draft plans have reflected, in some instances, the directions and priorities of the previous personnel and have not accurately represented the views of the present management. Difficulties beyond CASA's immediate control, such as resolution of long-term funding issues have also impacted on the finalisation of the plans. CASA has advised that the current Board has put in place arrangements to ensure corporate plans are prepared and submitted in a timely manner. The Board has undertaken to provide the Minister with a new corporate plan by the end of 1999.

37. Coincident with the failure to finalise the corporate plans has been the absence of a strategic plan and business plan to guide developments within CASA. It is understood the Board is considering the preparation of plans of this nature to underpin the corporate plan but they are dependent on completion of a suitable corporate plan.

Organisation structure

38. In April 1998, CASA announced the creation of a new top management structure as part of a proposed organisational restructure. The ANAO considers that, unless carefully managed, there is a risk that the proposed restructure could further hinder the achievement of the required level of surveillance of the aviation industry. Pending the development and implementation of improved risk analysis processes and systems-based surveillance practices, it would be appropriate to conduct an examination of the factors underlying the present situation where only a comparatively small proportion of inspectors' time is applied to planned and unplanned surveillance tasks. An analysis of the ASSP database revealed that inspectors are spending only 15–17 per cent of their time on surveillance tasks. Although CASA has indicated concern about the accuracy and consistency of the data entered into the database, it is the only national data available on surveillance activity.

39. The ASSP database does not contain information on other duties performed by inspectors such as regulatory services[6] and regulatory action which includes show cause notices, suspension and cancellation of licences and certificates and follow-up of outstanding NCNs. However a limited review, undertaken by CASA's Quality and Internal Audit Branch, suggests that a high proportion of time is spent on lower priority regulatory services to the detriment of surveillance matters. A reversal of this situation would provide greater assurance that safety surveillance is not being jeopardised.

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[6] Regulatory services is the response to requests from industry and includes assessments and approvals for certificates and licences, exemptions, examinations and advice.

Management of policy

40. A primary source of information about CASA policy is contained in the various manuals that have been produced to guide officers in the performance of their duties. All CASA manuals are issued under the signature of the Director and represent CASA's policy on the matters contained in the manuals. Subordinate staff do not have the authority to vary these manuals except by way of the documented amendment process. It was drawn to ANAO's attention that there was an increasing volume of unofficial policy changes, ie not authorised by the Director, being added to the contents of the manuals. The ANAO considers that CASA should ensure that changes in policy, especially when they relate to regulatory matters, are promulgated in accordance with the approved amendment process to reinforce the basic control system actually works.

Safety monitoring

41. The ASSP database contains a considerable amount of information relating to industry participants and the outcome of safety surveillance conducted by CASA. The ANAO found that CASA has not taken full advantage of the data. As well, there has been only limited analysis of the contents of the database. It was noted that some inspectors and managers had undertaken some analyses, on an individual basis, in respect of activities in their local area but there was little indication of structured analysis on a national basis. Information in the database could be used to identify safety issues, such as deficiencies in certain types of aircraft, recurring maintenance failures and classes or types of operations or aircraft most likely to have safety problems.

42. In May 1999, CASA initiated a Safety Intelligence System (SIS) strategy aimed at developing a comprehensive system of aviation safety monitoring. The ANAO acknowledges that the development of a comprehensive system that would enable safety performance, trends and risk indicators to be accurately determined is a difficult task. It is understood that other nations have experienced difficulty in developing a satisfactory system. The ANAO recognises the benefits of the proposed strategy but, in the past, achievements in implementing similar systems have been limited. It is important that progress with the implementation of the proposed strategy should be closely monitored and regularly reviewed.

Performance measurement

43. The Act requires CASA to include performance measures in its corporate plan, and to review its performance against previous corporate plans. In the absence of a recent corporate plan, the ANAO reviewed

the performance information relating to entry control, surveillance and enforcement contained in the two most recent Annual Reports. These reports listed a range of performance and workload indicators. However, the reports contained only a small amount of information or data relating to these indicators. The ANAO considers that there would be benefit in developing performance indicators that clearly identify productivity levels; achievement against plans for major resource areas; matters completed within assigned timeframes; and tasks outstanding. In addition, comparative data from previous years would be beneficial in assessing current performance. Such information is essential both for management and external stakeholder review purposes.

Training program

44. Since its establishment, CASA has placed considerable importance on training and staff development programs. CASA has developed a well structured training program designed to increase the skills and competencies of its staff. However, not all staff have attended the principal courses aimed at ensuring compliance with safety regulations by the aviation industry. This is a matter that requires management attention.

Quality management systems

45. Quality assurance is one of the processes used by an organisation to standardise its core procedures to ensure that its own output requirements and its customers' expectations are consistently met. Quality control involves another more traditional set of procedures aimed at having effective accountability, reporting and review procedures in place across all levels of an organisation. Although CASA has developed an infrastructure incorporating the basis of a sound quality system, it has not been used effectively. A robust system of quality management requires continuing management commitment and well developed control processes to ensure effective measurement and assessment as a guide to the improvement of systems and performance.

46. A major recurring theme throughout this report has been the absence of quality management in the performance of CASA's compliance function. Overall, CASA has well documented procedures which, if fully implemented, would provide a reasonable degree of assurance that safety standards are being maintained. However, the ANAO found a lack of consistent adherence to these procedures which puts at risk both CASA's effectiveness and the resulting public's confidence and assurance. The measures such as the establishment of the Compliance Practices and Procedures section that CASA has introduced as part of the current restructuring represent an advance on the existing arrangements.

Implementation of review recommendations

47. The ANAO observed that many of the issues raised and the recommendations arising from this audit were similar to those raised in previous reviews. The ANAO recognises that it is not incumbent on CASA to accept and implement all recommendations arising from reviews and inquiries into its activities. In some cases, decisions in response to the recommendations may have been overtaken by other events, or it is not possible to give effect to the recommendations because of resource or other constraints. However, it is considered that existing procedures should be enhanced to ensure that a structured process is in place to deal comprehensively with the examination, implementation and finalisation of action on all recommendations directed to CASA as a result of investigations, inquiries and reviews. In most cases, it would be appropriate for the Board, Director and / or Assistant Directors to endorse the proposed response, including timeframes, to these recommendations and the allocation of responsibility for implementation, where necessary, to nominated officers. A cost effective system to monitor, review and report on the status of agreed recommendations should also be introduced.

Recommendations

Set out below are the ANAO's recommendations aimed at improving CASA's management of its compliance function. Report paragraph references and abbreviated CASA responses are also included. The ANAO considers that CASA should give priority to Recommendations 4, 6, 8, 9, 10, 12, 13.

Recommendation No.1 Para. 2.36

The ANAO recommends that, to ensure recent surveillance history is taken into account, the re-issue of an Air Operator's Certificate (AOC) and variation to a Certificate of Approval should be contingent on certain key designated surveillance tasks being completed within six months prior to the re-issue of an AOC and, where possible, before a variation to a Certificate of Approval.

CASA response: Agreed

Recommendation No.2 Para. 2.57

The ANAO recommends that, to maximise the effectiveness of financial viability checks, CASA should:

(a) develop performance information strategies for monitoring the new financial assessment process and undertake an evaluation of those strategies in 1999–2000;

(b) review the financial performance of new passenger-carrying Air Operator's Certificate (AOC) holders after the first two years of operation by comparing actual performance with the financial forecasts and business information provided as part of the operator's initial application; and

(c) ensure that thorough consideration is given to an existing certificate holder's financial position when re-issuing an AOC and, where appropriate, request further financial information and assessment.

CASA response: Agreed parts (a) and (c)
Agreed with qualification part (b)

Recommendation No.3 Para. 3.45

The ANAO recommends that CASA, as part of its review of surveillance targets and resources:

(a) ensure that adequate surveillance is carried out and resources directed to the areas and operators representing the highest safety risk;

(b) develop strategies to ensure a more appropriate distribution of resources between surveillance activities and regulatory service work; and

(c) ensure regular analyses of the ASSP database is undertaken by the Compliance Practices and Procedures section to monitor the productivity of inspectors, and to ensure that priorities and procedures are being observed by area and airline office managers and inspectors in relation to aviation safety surveillance.

CASA response: Agreed

Recommendation No.4 Para. 3.64

The ANAO recommends that, to ensure the effective management of the controlling and conducting office arrangement, CASA should:

(a) review and, where appropriate, amend the procedures relating to controlling and conducting offices to include details on how controlling offices should plan, monitor and evaluate the surveillance to be carried out by conducting offices;

(b) ensure controlling offices evaluate the results of surveillance undertaken by conducting offices to provide an overall assessment of an operator's compliance with safety regulations and to identify future surveillance requirements; and

(c) monitor and evaluate the new controlling/ conducting office arrangements being trialled by airline offices.

CASA response: Agreed

Recommendation No.5 Para. 3.97

The ANAO recommends that, as part of its current review of the management reporting system, CASA examine the extent of, and mechanisms for, providing necessary feedback to area and airline offices.

CASA response: Agreed

Recommendation No.6 Para. 4.12

The ANAO recommends that, to ensure the development and implementation of the systems-based approach to surveillance is properly managed, CASA should:

(a) monitor and evaluate the development and implementation of the proposed approach against agreed timeframes and performance outcomes outlined in the project plan; and

(b) ensure adequate levels of surveillance of all airline operations are properly maintained during the development, trialling and implementation of such an approach.

CASA response: Agreed

Recommendation No.7 Para. 4.23

The ANAO recommends, that in order to improve the determination of priorities in the conduct of surveillance, CASA should:

(a) examine the feasibility of extending the trial of the risk assessment process to include the development of a model suitable for smaller operators;

(b) reinforce the need for the *Operator Selection Risk Assessment Form*, currently required by the ASSP manual, to be used in surveillance planning; and

(c) document all analytical processes in the relevant manuals and ensure staff are given appropriate training.

CASA response: Agreed

Recommendation No.8 Para. 5.35

The ANAO recommends that, to ensure appropriate and timely enforcement action is initiated, CASA should:

(a) review those operators with a significant history of non-compliance and, if considered appropriate, develop enforcement strategies specific to those operators; and

(b) ensure that the quality of the evidence collected would expedite enforcement action.

CASA response: Agreed

Recommendation No.9 Para. 6.16

The ANAO recommends that, to ensure the requirements of Section 44 (1) and (2) of the Civil Aviation Act are met and to provide information to the Parliament and appropriate guidance to the aviation industry and CASA staff, CASA should:

(a) complete the current corporate plan as a matter of urgency; and

(b) give a high priority to the development of procedures to ensure that a corporate plan is submitted to the Minister at least once a year and, preferably, before the commencement of the first financial year covered by the plan.

CASA response: Agreed

Recommendation No.10 Para. 6.44

The ANAO recommends that, to ensure the requirements of Section 9(1)(g) of the Civil Aviation Act are met, CASA should:

(a) develop and foster a strong analytical capability to undertake systematic analyses of safety information; and

(b) closely monitor progress in implementing the proposed Safety Intelligence System.

CASA response: Agreed

Recommendation No.11 Para. 6.51

The ANAO recommends that CASA develop and publish a range of suitable performance measures, including annual comparative data, that would clearly indicate the results, and productivity, of its major resource areas in monitoring aviation safety.

CASA response: Agreed

Recommendation No.12 Para. 6.70

The ANAO recommends that, to ensure an effective system of quality management for compliance activities, CASA should:

(a) develop clear guidelines for the conduct of peer evaluation and the manner in which the outcome of these evaluations are to be used;

(b) develop a program of reviews by senior air safety auditors to ensure regular coverage of all area and airline offices;

(c) analyse the outcome of senior air safety auditor reviews to identify trends in and opportunities for improvement in compliance practices and procedures; and

(d) update and re-issue the Quality Manual on a regular basis.

CASA response: Agreed

Recommendation No.13 Para. 6.78

The ANAO recommends that, to ensure all significant recommendations contained in reviews of CASA activities receive appropriate attention, CASA enhance procedures for:

(a) examining, implementing and finalising all recommendations, and subject to endorsement by the Board, Director and/or Assistant Directors, the proposed responses and actions plans; and

(b) provide regular reports to the Board, Director and/or Assistant Directors on progress with the implementation of recommendations.

CASA response: Agreed

Audit Findings and Conclusions

1. Introduction

This chapter places Australia's aviation safety record in context; sets out the relevant legislative structures and organisational aspects; provides brief details of other recent reviews; and describes the audit's objectives, scope and methodology and structure of the report.

Background

1.1 Aviation plays a more prominent role in the Australian transport network than in many western nations because of the geographic nature and size of Australia and its small but widely dispersed population. The aviation industry acts as a catalyst for business, trade and tourism as well as being an important community resource. A loss of confidence in the safety of Australian civil aviation could therefore have major repercussions. Following a period of community and political concerns about air safety stemming from several tragic accidents involving fare-paying passengers, the Government established the Civil Aviation Safety Authority (CASA) as an independent body in 1995.

1.2 The aviation industry encompasses a wide range of interested parties ranging from ultra light aircraft owners through to large international and domestic carriers as well as trade and tourism bodies and the travelling public. The views and needs of these parties are diverse and, in some cases, conflicting. The marginal financial position of many small operators, especially in the general aviation sector, combined with increasing competition in a relatively small market place, can represent a risk to safety.

1.3 Aviation, as a form of regular public transport, has involved relatively few deaths or injuries in recent years. A Bureau of Transport Economics report[7] published in 1998, stated that, in 1996, 13 persons were killed in charter aircraft accidents and a total of 11 were seriously injured in accidents involving charter and HCRPT. That report estimated that the total cost to the community of accidents involving either charter or RPT operators amounted to $30 million in 1996. On the other hand, this low accident rate would be changed dramatically if one large passenger aircraft were to be lost in an accident.

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[7] Bureau of Transport Economics Report, *Cost of civil aviation accidents and incidents*, Oct 1998, p. 38.

1.4 In recognition of the need to sustain Australia's highly regarded record of aviation safety, the measures taken by government in recent years have been aimed at consolidating and further improving the safety framework that has served the travelling public so well.

Legislative framework

1.5 CASA was formally established as a statutory authority on 6 July 1995 through the *Civil Aviation Act 1988*, as amended by the 1995 legislation. The main objective of the Act

> *is to establish a regulatory framework for maintaining, enhancing and promoting the safety of civil aviation with particular emphasis on preventing aviation accidents and incidents* (Section 3A).

1.6 Among other things the Act deals with CASA's functions and powers, the powers of the Minister, the regulation of civil aviation including general regulatory provisions, AOCs and offences in relation to breaches of regulatory requirements, and CASA's investigation powers.

1.7 Besides the Act, other formal regulatory controls are set out in the Civil Aviation Regulations (CARs) and Civil Aviation Orders (CAOs). The CARs and CAOs incorporate working level legislation and are supported by a variety of information documents such as Aeronautical Information Publications (AIPs) and Notices to Airmen (NOTAMS). Airworthiness Directives (ADs) and Major Defect Reports (MDRs) also issued by CASA are essential elements in preserving the airworthiness of aircraft.

1.8 Australia, like most advanced aviation countries, has developed a complex set of rules and regulations for aviation safety. Historically, the major catalysts to regulatory development have been the standards and recommended practices, established by the International Civil Aviation Organisation (ICAO); recommendations which have arisen from the investigation of aviation accidents and incidents; and the introduction of new technologies. Other influences on regulatory development include requests from industry, community groups, and the public; government directives; international airworthiness directives from either manufacturers or government agencies; major defect reporting systems; and the results of surveillance activities.

Organisational structure

1.9 CASA operates under the strategic direction of a Board and is accountable to the Parliament through the Minister for Transport and Regional Services. The Director is responsible for the day-to-day management of CASA. In 1998–99 CASA's operating expenditure was $78.9 million and it employed a staff of some 650 officers. In addition to

its Central Office located in Canberra, CASA has regional staff located at offices at most major regional centres and capital cities in mainland States and Territories. A significant component of the regulations and CASA's compliance function are related to the flying operations and airworthiness disciplines. Other elements include aerodrome standards and facilities and the carriage of dangerous goods.

Rebuilding program

1.10 Since 1995, CASA has devoted considerable attention to a rebuilding program. The CASA Corporate Plan 1996–97 to 1998–99 details the three-phased approach taken to achieve this. Phase one was directed to establishing the organisation. Phase two was concerned with improving core business with two major programs to review aviation safety—the Regulatory Framework Program and the Regulatory Role Program. Phase three is examining organisational management. Each phase is designed to overlap in time so that improvements effected along the way can be incorporated in the next stage of the rebuilding program. As indicated below, the third phase is currently in the process of being implemented while the regulatory framework review is ongoing.

Organisation changes

1.11 In the last three years, CASA has experienced continuing and significant changes at the senior management and Board levels both in terms of personnel and strategic direction and, at the time of the audit, was going through a further process of re-organisation.

1.12 In April 1998, CASA announced the creation of a new management structure as part of a proposed organisational restructure, incorporating four new divisions: Aviation Safety Standards; Aviation Safety Compliance; Aviation Safety Promotion; and Corporate Services. In addition to these divisions are four functional branches reporting directly to the Director. Staffing of the positions arising from this restructure commenced in the latter half of 1998.

1.13 In March 1999, CASA released further details of its proposed new structure covering all levels of the organisation. It was expected that CASA's staff numbers would be reduced by a net total of 72 from the existing level of 678 over two years. Significant features of the proposed organisation included:

- the creation of seven area offices across Australia to manage day-to-day safety activities;
- centralised control of decisions on enforcement actions against organisations and individuals;

- more resources for safety education and training for the aviation industry; and
- a focus on monitoring aviation safety performance and identifying safety trends and risks.

1.14 At the time of the audit fieldwork, CASA's organisational structure included three regional offices and 16 district offices. Following the recent organisational restructure, these have been replaced by three airline offices and seven major area offices. An area office can include two offices, for example, the North Queensland Area is made up of Townsville and Cairns offices with the area manager being based at Townsville. District Flying Operations Managers (DFOMs) and District Airworthiness Managers (DAMs) will be replaced by team leaders. Recruitment for these positions was still to be completed at the time of the audit but expected to be finalised by late 1999.

1.15 The area offices are responsible for carrying out CASA's core compliance and related functions as they apply to the general aviation sector of the industry, including maintenance organisations. The airline offices are responsible for those airline operations with aircraft of 30 seat capacity and above and their maintenance organisations. Throughout this report the term district office(s) and area / airline office(s) are used interchangeably.

1.16 As part of its review of member states' compliance with ICAO aviation safety annexes, ICAO undertook an audit of Australia's compliance with three annexes[8] in August 1999. A report is to be provided in December 1999.

Functions

1.17 CASA's core business is to regulate the safety of civil aviation for the benefit of the Australian public. Key functional areas included the requirement to :

- set rules;
- control entry;
- secure compliance; and
- encourage the industry to accept its safety responsibilities.[9]

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[8] ICAO audit included: Annex 1, Personnel licensing; Annex 6, Flying Operations and Annex 8, Airworthiness.

[9] Civil Aviation Safety Authority Australia, 1997–98 *Annual Report*, p. 2.

1.18 The 1996–97 to 1998–99 Corporate Plan outlined CASA's intentions in relation to these core business areas. In respect of setting rules, its intent was to move to a revised regulatory framework to reduce aviation safety risks, with particular emphasis on operations relating to the carriage of fare-paying passengers. In relation to entry control the aim was to clarify and streamline entry control processes so that they meet the needs of the aviation community and the public and maintained transparency of fees. In securing compliance CASA sought to establish improved compliance through safety systems focused on risks to the travelling public. In the fourth area mentioned above, it sought to encourage a greater acceptance by industry of its obligations to maintain high safety standards.

Reviews

1.19 CASA's predecessor, the Civil Aviation Authority (CAA), was the subject of a House of Representatives Standing Committee inquiry into aviation safety (*Plane Safe*, December 1995), a judicial inquiry, a coronial inquiry and several reviews as listed following. The *Plane Safe* review found that the CAA was in a state of almost continual internal conflict and undergoing constant reviews and reorganisations. In less than seven years, CAA had eight ministerial changes, four chairmen, four chief executives and six heads of safety regulation. Its successor has proved to be little different in this respect. Since it was established in July 1995, CASA has had several changes at the Board and senior management level and attracted ongoing and extensive debate in the Parliament.

1.20 Reviews of CASA in recent years, have included :

- an inquiry into aviation safety by the House of Representatives Standing Committee on Transport Communications and Infrastructure *Plane Safe* December 1995;
- a Commission of Inquiry into Relations between CAA and Seaview Air completed in 1996;
- various quasi legal internal inquiries into regulatory failures within CASA, such as the 1998 Skehill inquiry into the Aquatic Air fatal accident and the Pearce Report of deficiencies in certain engines;
- Bureau of Air Safety Investigation (BASI) reports of aircraft accidents and incidents that often include recommendations for CASA;
- a BASI investigation of the recent efforts to change "G" airspace management in 1999;
- the Willoughby & Broderick report concerning the CASA organisation structure; and

- Quality and Internal Audit Branch reports covering a diverse range of topics, including Compliance and Enforcement 1996, Aviation Safety Monitoring 1997, Airworthiness Directives Function 1997, Data Evaluation in the Aviation Safety Surveillance Program1998, and Entry Control for New Operators 1998.

1.21 In April 1999, the Senate Rural and Regional Affairs and Transport Committee announced two inquiries into aspects of aviation involving CASA. The second of these inquiries included in its terms of reference an examination of aviation safety.

Audit objectives, scope and methodology

Audit objectives and scope

1.22 This audit was undertaken in response to a recommendation contained in the *Plane Safe* report from HORSCTI that the ANAO undertake an efficiency audit of CASA in 1998. The preliminary study for the audit commenced in late 1998.

1.23 The audit objectives were to assess the efficiency and effectiveness of the management systems and procedures used by CASA to ensure compliance with regulatory controls by AOC holders operating passenger-carrying aircraft within HCRPT; LCRPT and charter industry sectors; and Certificate of Approval holders. Aviation safety compliance includes entry control, surveillance and enforcement.

1.24 The focus of the audit was on compliance with the procedures contained in manuals developed by CASA for:

- the issue of AOCs and Certificates of Approval, (entry control function);
- the aviation safety surveillance program (ASSP); and
- compliance and enforcement.

1.25 In addition, the audit examined the effectiveness of corporate governance activities in relation to planning, policy development, strategic analysis, training and quality assurance. The scope of the audit did not extend to the setting of standards or CASA's activities in encouraging the aviation industry to accept its safety responsibilities.

Audit methodology

1.26 During the audit, the ANAO interviewed CASA officers at Central Office, as well as area and airline offices (formerly regional and district offices), and reviewed relevant files and documentation. A sample of 97 cases relating to entry control, surveillance and enforcement were subject to detailed examination at the seven offices visited. A range of

data was obtained from the ASSP database and analysed to assess patterns and trends. The audit adopted a quota sampling[10] approach, stratified to include both AOC and Certificate of Approval holders representative of HCRPT, LCRPT and charter sectors, and different sized maintenance organisations.

Audit conduct

1.27 The audit was conducted in accordance with ANAO Auditing Standards and field work was completed in June 1999. The total cost was $475 000.

1.28 Three CASA officers were seconded to the audit team during the fieldwork phase and continued to act as a reference source during the analytical phase. In addition, another CASA officer provided considerable assistance to the audit through the provision of material from the ASSP database. The ANAO records its appreciation of the significant contribution made by these officers to the audit. Due to the complexity of the audit and the need for additional resources, a consultant, Mr. B. Boland, PSM, was also engaged to assist the audit team and his contribution is similarly appreciated.

Structure of report

1.29 This report has been structured to address the objectives of the audit and includes chapters on entry control, surveillance, enforcement and corporate governance. The report is structured as follows:

- Chapter 1—Introduction
- Chapter 2—Entry control
- Chapter 3—Aviation safety surveillance program
- Chapter 4—Developments in the surveillance program
- Chapter 5—Enforcement
- Chapter 6—Corporate Governance

[10] Quota sampling is a method of stratified sampling in which the selection within strata is non-random.

HCRPT operators use aircraft ranging from the DASH8, above which service larger regional centres, to the larger Boeing and Airbus types on intercity and overseas routes. Photo—CASA

2. Controlling Entry

This chapter discusses CASA's processes for assessing the entry of new operators into the aviation industry and for re-issuing and varying the certificates of existing operators.

Introduction

2.1 The *Civil Aviation Act 1988* requires an AOC to be issued for operation of an aircraft, for prescribed commercial purposes, that fly in, into or out of Australian territory and Australian aircraft flying outside Australian territory. A Certificate of Approval is issued to persons and organisations that intend to carry out the design, distribution or maintenance of aircraft, aircraft components or aircraft materials.[11] Subject to conditions in the Civil Aviation Act, Regulations and Orders, CASA issues, re-issues and varies certificates to those applicants who demonstrate they can comply and will continue to comply with air safety regulations.

2.2 CASA controls the entry of operators into the aviation industry through the certification process for issuing AOCs and Certificates of Approval. In discharging its responsibility for the oversight of all commercial air operations, CASA must be satisfied with all safety aspects of the operation prior to the issue of a certificate.

2.3 In 1998–99 the total number of current AOCs was 1036 and included HCRPT, LCRPT, charter, flying schools and aerial work categories. An AOC can cover more than one category. The total number of current Certificates of Approval for 1998–99 was 846.[12]

2.4 The audit examined the process for:

- issuing an AOC or Certificate of Approval, or both, to a new certificate holder;
- re-issuing an AOC to an existing certificate holder; and
- varying the AOC or Certificate of Approval of an existing certificate holder.

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[11] Appendix 1 sets out the legislative requirement for AOCs and Certificates of Approval.

[12] Certificate of Approval statistics from Aviation Safety Surveillance Program and LARP databases.

Assessment sample and methodology

2.5 Table 1 outlines the audit sample by certification process and the category of operation. The sample covered the seven area / airline offices (formerly district offices) visited by the audit team.

Table 1

Audit sample numbers by certification process and category of operation

Certification Process	HCRPT	LCRPT	Charter	Maintenance Organisations	Total
Initial Issue	*1*	*2*	*1*	*6*	*10*
Variation	*1*	*1*	*0*	*3*	*5*
Re-issue	*1*	*0*	*4*	*0*	*5*
Total	***3***	***3***	***5***	***9***	***20***

Source: ANAO analysis of CASA data.

2.6 The audit examined whether:

- the assessment process had been undertaken and documented in accordance with CASA's procedures outlined in the Air Operators Certification Manual and Certificate of Approval Manual;
- previous surveillance history was considered when re-issuing and varying certificates;
- appropriate financial assessments had been undertaken;
- costs involved in issuing, re-issuing or varying certificates had been recovered; and
- the ASSP database was correctly updated.

Entry control process

Initial issue

2.7 CASA procedures require the initial issue of an AOC or Certificate of Approval to an applicant to be processed in the following five distinct phases: pre-application; formal application; document evaluation; inspection and proving flights; certification and post certification.

2.8 The issue of an AOC is a joint airworthiness and flying operations process that requires close coordination and cooperation between the two disciplines. An AOC may not be issued until the CASA project manager is in a position to advise the delegate that both disciplines are satisfied that the applicant can comply with the legislative requirements. The financial position of an applicant may also be considered by CASA when issuing an AOC.

2.9 The issue of a Certificate of Approval does not involve flying operations and is the responsibility of the Airworthiness Manager and, where necessary, the Airworthiness Engineering Manager. Airworthiness engineers conduct entry control and audit functions on design organisations and individuals. Their activities include assessing:

- designs of aircraft and aircraft components and equipment; and
- manufacturers and oversight of approval of modifications, repairs and manufacturing processes.

Re-issue and variation of certificates

2.10 At the time of the audit, AOCs were generally issued for a period of 12 months. Once this period expires, the AOC ceases to have effect. There is no provision in the Act for CASA to renew an existing AOC; to extend the validity period of an existing AOC; or to renew an expired AOC. Should an operator wish to continue commercial aircraft operations, it is that operator's responsibility to apply for, and be issued with, a new AOC prior to the expiry of the existing certificate. Variations to an AOC are also handled by issuing a new AOC.

2.11 On the other hand, a Certificate of Approval is not normally issued for a finite period, unless CASA specifies an expiry date, and will remain in force until it is suspended, cancelled or expires. The holder of a Certificate of Approval may request CASA to approve a change to any of the particulars outlined in the certificate, including the activities covered by the certificate.

2.12 CASA recently advised that it is currently developing a process whereby AOCs and Certificates of Approval will, as a matter of policy, be issued for a probationary period of six months for new certificate holders and, provided certain conditions are met, up to a maximum period of 36 months for existing certificate holders. This is discussed in detail in paragraphs 2.60–2.63.

Assessment process

Flying operations

2.13 As part of the AOC assessment process CASA inspectors are required to examine documents, premises and equipment. Flying operations inspectors are also empowered by the Act to request proving flights, aircraft tests and demonstrations of procedures. CASA must be satisfied in relation to the following matters covering an applicant's organisation that:

- it is suitable to ensure that the AOC operations can be conducted or carried out safely;

- its chain of command is appropriate;
- it has a sufficient number of suitably qualified and competent employees;
- key personnel have appropriate experience in air operations;
- the facilities of the organisation are sufficient;
- it has suitable procedures and practices to control the organisation; and
- the authorisations conferred by the licences are appropriate and, if CASA requires, particulars of licences held by flight crew members of the organisation.[13]

2.14 The ANAO examined the documentation relating to the assessment of 11 AOCs to determine if the process had been completed properly and that delegates were in an adequate position to satisfy themselves that the applicants could comply with the aviation safety requirements outlined in the Act.

2.15 Table 2 outlines, by operator category, how well this process was documented in terms of completed checklists recording documentation reviews, inspections, proving flights, personnel approvals and other procedures such as cost recovery and consultation.

Table 2

Results of the flying operations assessment process by operator numbers and category

Assessment Process	*HCPRT*	*LCRPT*	*Charter*	*Total*	*Per cent*
Fully documented	*1*	*1*	*1*	*3*	*27.3*
Mostly documented	*0*	*0*	*3*	*3*	*27.3*
Partially documented	*1*	*2*	*1*	*4*	*36.3*
Poorly documented	*1*	*0*	*0*	*1*	*9.1*
Total	***3***	***3***	***5***	***11***	***100***

Source: ANAO analysis of CASA data.

2.16 A 'mostly documented' assessment was given when the relevant documentation, with few exceptions, was sighted. A 'partial' or 'poor' assessment was given where the ANAO was unable to sight many of the completed checklists or other documentation to indicate that the relevant procedures had been carried out in accordance with CASA requirements or where checklists were incomplete.

[13] Section 28. (1) (b) *Civil Aviation Act 1988.*

Airworthiness

2.17 CASA has the power[14] to determine if an applicant is suitable to hold a Certificate of Approval. The manual states that these powers should be fully utilised by inspectors to achieve and maintain a high standard of quality and competence among new applicants. When assessing applications, CASA staff must have regard to:

- the relevant qualifications and experience of the applicant and applicant's employees;
- the facilities and equipment available to carry out the proposed activities;
- the arrangements made to ensure the applicant has, and will continue to receive, the information necessary to carry out the proposed activities; and
- a system of quality control and, if required, a procedures manual.

2.18 The audit examined the assessment process for:

- the airworthiness component of the issue or re-issue of 11 AOCs; and
- the issue of, or variation to, nine Certificates of Approval held by maintenance organisations.

Table 3 outlines the audit findings in relation to how well this process was documented.

Table 3

Results of the airworthiness assessment process by operator numbers and category and maintenance organisations

Assessment Process	*HCPRT*	*LCRPT*	*Charter*	*Maintenance Organisations Certificates of Approval*	*Total*	*Per cent*
Fully documented	*2*	*1*	*1*	*8*	*12*	*60*
Mostly documented	*0*	*0*	*2*	*1*	*3*	*15*
Partially documented	*0*	*2*	*1*	*0*	*3*	*15*
Poorly documented	*1*	*0*	*1*	*0*	*2*	*10*
Total	***3***	***3***	***5***	***9***	***20***	***100***

Source: ANAO analysis of CASA data.

[14] CAR 30 (2B) *Civil Aviation Regulations 1988.*

Proposed developments

2.19 CASA has advised that it intends introducing an integrated approach to entry control and surveillance. Included in this new approach will be a requirement for inspectors to provide the delegate with a written report summarising the assessment and making an appropriate recommendation as to whether the certificate should be issued and what, if any, conditions should be imposed on the certificate. The delegate will also be required to provide written confirmation that all of the facts and circumstances were considered when making his/her decision.

Conclusion

2.20 CASA has well documented procedures for assessing applications for the issue and re-issue of AOCs and the issue and variation to Certificates of Approval. Of the sample operators examined, the audit found that the assessment process had been either fully or mostly documented in only 55 per cent of flying operations and 75 per cent of airworthiness cases. Although acknowledging the small size of the sample, seven out of 12 assessments involving RPT operations lacked appropriate documentation. In these cases, it was difficult to determine if the applications had been properly assessed or how the delegates had satisfied themselves that the operators were suitable to hold certificates and had the ability to comply with the legislated safety requirements.

2.21 As it is important for good public administration, including effective accountability and credible quality assurance, to have an audit trail to support CASA's decisions, inspectors and managers must document the assessment and decision-making processes. This is part of sound risk management. The proposed initiative requiring assigned inspectors to prepare a written report summarising the assessment and making appropriate recommendations as to whether the certificate should be issued, re-issued, or varied, and whether conditions should be imposed, will strengthen the assessment and decision-making processes.

2.22 The following two case studies involving RPT operations highlight matters of concern.

Case Study 1: Initial issue of an AOC to a LCRPT Operator

2.23 A new AOC was issued to this LCRPT operator in July 1997. The original assessment process was only partially documented with no documentation or checklists on the operator's file relating to:

- the airworthiness component of the AOC;
- inspection of facilities or equipment;
- proving flights;
- personnel approvals; or
- any post certification processes.

2.24 The AOC was re-issued in July 1998 and varied in February 1999. In March 1999, this operator was the subject of an investigation following breaches of the regulations. Its AOC was cancelled in June 1999.

Case Study 2: Re-issue of an AOC to a HCRPT Operator

2.25 A major HCRPT Operator's AOC was re-issued in November 1998. It was difficult to assess the thoroughness of the assessment process as:

- the flying operations inspector completed the wrong checklist instead of the more comprehensive checklist, required for this type of assessment;
- no documentation assessing the airworthiness component of the AOC was evident;
- even though minimal surveillance for this type of operation (12 tasks for flying operations and 11 tasks for airworthiness) had been undertaken by the controlling office[15] in the previous 12 months, there was no evidence of consideration of the operator's surveillance history; and
- there was no evidence of consideration of surveillance activity undertaken by conducting offices.[16]

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[15] The Office that issues an approval or licence, recommends the granting of a delegation, administers an AOC or a Certificate of Approval is known as the c*ontrolling office.*

[16] The c*onducting office* is the office that carries out inspections or audits on behalf of the controlling office.

Previous compliance history

2.26 The manual states that, prior to re-issuing or varying a certificate, the delegate should:

- gather information from CASA sources as to the applicant's history; and
- consult with the assigned flying operations inspector, the Manager Airworthiness and the Manager Airworthiness Engineering to determine whether:

  –as a result of surveillance, there is action outstanding against the operator; or

  –there is any information to indicate that the operator's circumstances have changed to the extent that further information may be needed in relation to the application.

2.27 Although it is possible that inspectors considered an operator's compliance history, this process, if undertaken, was not generally documented. In the re-issue or variation cases examined, the ANAO was unable to sight any evidence to suggest that the compliance history of the operators had been considered in 70 per cent of the relevant flying operations sample or 80 per cent of the relevant airworthiness sample. Tables 4 and 5 outline the audit findings by operator category.

2.28 The prescribed surveillance cycle is 12 months for AOCs and Certificates of Approval covering maintenance of aircraft for RPT use and between 18 months and two years for other Certificates of Approval and the airworthiness component of charter operations. In most cases, some form of surveillance activity had been carried out within the previous cycle. However, in three out of the 13 cases where the compliance history had not been considered (two AOCs and one Certificate of Approval), there had been no surveillance activity for between 18 to 26 months prior to re-issuing or varying certificates. The surveillance cycle for the three cases was 12 and 18 months respectively.

Table 4

Evidence of consideration of flying operations compliance history by operator numbers and category

Compliance History	HCRPT	LCRPT	Charter	Total	Per cent
Evidence of history being considered	*0*	*0*	*2*	*2*	*18.2*
No evidence of history being considered	*2*	*1*	*2*	*5*	*45.4*
Not applicable—no history as new certificate holders	*1*	*2*	*1*	*4*	*36.4*
Total	***3***	***3***	***5***	***11***	***100***

Source: ANAO analysis of CASA data.

Table 5

Evidence of consideration of airworthiness compliance history by operator numbers and category and maintenance organisations

Compliance History	HCRPT	LCRPT	Charter	Maintenance Organisations Certificates of Approval	Total	Per cent
Evidence of history being considered	*0*	*0*	*2*	*0*	*2*	*10*
No evidence of history being considered	*2*	*1*	*2*	*3*	*8*	*40*
Not applicable—no history as new certificate holders	*1*	*2*	*1*	*6*	*10*	*50*
Total	***3***	***3***	***5***	***9***	***20***	***100***

Source: ANAO analysis of CASA data.

2.29 The importance of considering an operator's compliance history prior to re-issuing or varying a certificate is highlighted in the following two case studies. In both instances, if the operator's history had been considered prior to re-issuing or varying the certificate, action could have been taken to address the safety issues involved.

Case Study 3: Re-issue of AOC—Charter Operator

2.30 The charter operator has a fleet of aging aircraft. The following is a chronology of accidents, incidents and concerns relating to this operator, who was designated as an RPT operator for planning and surveillance purposes, during the last two years:

- on 26 March 1997 one of the operator's aircraft was involved in an accident when the right main landing gear collapsed after landing on the runway. The accident report indicated a lack of awareness by the pilot in command that was fundamental to operating that type of aircraft;
- in September 1997 CASA inspectors discovered extensive corrosion of two aircraft. There were 12 Code A (the most serious category) aircraft survey reports (ASRs)[17] and five Grade 1 non-compliance notices (NCNs)[18] issued;
- on 7 February 1999 one of the operator's aircraft, carrying 24 fare-paying passengers and three crew suffered a malfunction to its left engine. The report noted that subsequent action by the crew could have jeopardised the safety of the aircraft and all onboard;
- in February 1999, the Maintenance Controller for the operator notified CASA that severe corrosion had been detected in one of the aircraft and that it had been voluntarily grounded;
- the operator's AOC was due for re-issue in March 1999. The airworthiness inspector and District Airworthiness Manager recommended the request for re-issue on 17 February 1999. It was also recommended by the Engineering Manager on 26 February 1999;
- in March 1999, the Maintenance Controller for the operator notified CASA that corrosion had been detected in the fuselage area of another aircraft;
- on 19 March 1999 another aircraft, whilst on a passenger charter flight, diverted with both generators inoperative and the main batteries discharged. The report noted that it was difficult to accept that the operator's personnel were unaware of electrical problems prior to departure and most likely earlier;
- on 23 March 1999 the re-issue of the AOC was signed off by the

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[17] An aircraft survey report (ASR) is a document used to notify defects and/or non-compliances associated with aircraft. Reports are coded from A (most serious) to C.

[18] A non-compliance notice (NCN) is a form used to record and notify a failure to comply with a regulatory requirement. There are five grades of notices for commercial operators ranging from 1 (most serious) to 5 (least serious).

assigned flying operations inspector and on 26 March 1999 the AOC was re-issued by the delegate for a further 12 months; and

- on the 6 April 1999, less than two weeks later, a risk observation report (ROR)[19] was raised by the assigned airworthiness inspector noting the above accidents, incidents and concerns. The ROR put forward a corrective action plan but also noted that, due to the advanced age of the aircraft, difficulties associated with maintaining them and the age of the pilots commanding them, there was a real risk of one of these aircraft being the subject of a serious accident with the potential to cause serious injury or loss of lives involving fare-paying passengers, flight crew and innocent people beneath the flight path.

Case Study 4: Variation to a Certificate of Approval

2.31 The Certificate of Approval for this operator covers the distribution of aircraft components and materials, maintenance of aircraft and aircraft components and design of aircraft avionics systems. The ANAO examined the surveillance history of this operator from April 1996:

- in December 1996 a defect report on an aircraft away from its home-base was raised by an organisation in relation to defective work carried out by the operator normally responsible for maintaining the aircraft at its home-base. The area office (formerly district office) raised an ROR on 6 January 1997;
- in May 1998, the operator requested a variation to its Certificate of Approval. The area office (formerly district office) undertook an assessment and completed the appropriate checklists. However, when reviewing the Company's manual and assessing the operator six Grade 4 NCNs (least serious) were issued;
- on 7 July 1998, some 18 months later, the matters relating to the December 1996 defect report were raised with the operator, at an informal counselling meeting. The operator undertook to investigate the issues raised and to advise in writing;
- on 17 July 1998 the letter varying the Certificate of Approval was forwarded and included a summary of the NCNs issued during the variation assessment process;
- in late August 1998, with the exception of one, all NCNs were acquitted (ie satisfactorily resolved);
- on 3 September 1998, the operator's response to the matters raised at

[19] A risk observation report (ROR) covers a range of non-regulatory matters which individually or collectively could impact on aviation safety.

the informal counselling meeting in July was received by CASA; and

- on 27 November 1998 the assigned airworthiness inspector noted in a file note that the response was not acceptable. He recommended that the matter be brought to the attention of Central Office. At the time of this audit the matter had not been progressed by either the airworthiness inspector or the District Airworthiness Manager.

Ensuring up to date surveillance information

2.32 Prior to re-issuing or varying certificates, consideration should be given to the results of previous surveillance including the type of tasks undertaken and the time since they were completed. Some surveillance tasks will more readily identify whether an operator is complying with the safety regulations, or has the ability to so, than some other tasks. For this reason, the ANAO considers that, when considering the re-issue of, or variation to, a certificate, CASA should endeavour to ensure that key surveillance tasks, which provide the most relevant surveillance history, have been completed in the preceding surveillance cycle.

2.33 As the surveillance cycle for the airworthiness component of charter AOCs and some maintenance organisations extends to two years, the time period in which these key surveillance tasks are completed is an important factor. The ANAO considers that, preferably, this period should be no less than six months before the expiry date of an AOC and, where possible, before a request for variation to a Certificate of Approval. This would enable the decision to approve the re-issue of, or variation to, a certificate to be based on reasonably current information. If these tasks have not been conducted for some time, it may be preferable to schedule them to be completed before the assessment process is finalised.

Conclusion

2.34 An operator's compliance history is an important factor that should be taken into account when assessing applications to renew or vary certificates as it an indication of their compliance with safety regulations. The ANAO found no evidence to suggest that the compliance history for the majority of the sample operators examined had been considered prior to varying or re-issuing certificates.

2.35 The ANAO considers that CASA should identify the key surveillance tasks that, if completed shortly before the re-issue of an AOC, will provide the most relevant surveillance report. To ensure that the decisions to re-issue and vary certificates are based on current information, surveillance plans should schedule such tasks to be completed within six months prior to the re-issue of an AOC. Where possible, relevant tasks should also be completed before a request for variation to a Certificate of Approval is processed.

Recommendation No.1

2.36 The ANAO recommends that, to ensure recent surveillance history is taken into account, the re-issue of an Air Operator's Certificate and variation to a Certificate of Approval should be contingent on certain key designated surveillance tasks being completed within six months prior to the re-issue of an AOC and, where possible, before a variation to a Certificate of Approval.

Agency response

2.37 Agreed. The surveillance plan and entry control programs are designed to take into account the full range of organisations that seek issue, re-issue or variation of AOCs or Certificates of Approval. Integral to this approach is a longitudinal view of the operator's compliance performance. This performance history is not contingent on the immediate compliance performance, rather the delegate is required to form a view that takes account of trends.

2.38 CASA is cognisant of the need to take into account compliance history. CASA will introduce a more rigorous process of sign-off by staff when renewing and varying certificates, which will include a declaration that the operator's compliance history has been reviewed. The sign-off will be filed on individual operator's files and the LINK computer system will also require confirmation that these assessments have been received and considered.

2.39 CASA will investigate the timing of key surveillance tasks in conjunction with the review of General Aviation ASSP program. The new Airline Operations surveillance program already takes this into account.

Modern aircraft such as the jet powered helicopter, above, undergoing an inspection by CASA, often cosst Australian GA operators several million dollars to acquire.

Photo—CASA

Financial viability

2.40 It is generally recognised in the aviation industry that there is an increased risk to safety by financially marginal operators. ICAO recommends that national aviation regulatory bodies consider the financial resources of an applicant when assessing an application for the issue or variation of an AOC.[20] BASI have also supported the need to assess the financial position of AOC holders.[21]

2.41 The Act[22] states that the financial position of the applicant is one of the matters that may be taken into account when issuing an AOC and permits CASA to seek financial information about AOC applicants that may assist in determining their ability to meet safety requirements. Such information can be used as a trigger to search out further technical or operational information, if it exists, through normal surveillance processes. There is no requirement in the Regulations for Certificate of Approval applicants to be assessed for financial viability.

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[20] Civil Aviation Safety Authority, *Air Operator Certification Manual*, October 1996, Annex 1.2.3.

[21] Recommendation 940181 *Regional Airlines Safety Study Project Report,* May 1999, p. 107.

[22] Section 28 (2) *Civil Aviation Act 1998* p. 23.

Assessment process for new or varied certificates

2.42 In November 1998, the procedures for assessing the financial viability of AOC applicants were revised. Previously, the financial position of the applicant was established on the basis of certifications by the applicant or an accountant or auditor on their behalf. CASA did not seek data which would allow a more detailed evaluation.

2.43 The current financial assessment process applies to new passenger-carrying operations and those existing certificate holders requesting major changes that will involve passenger-carrying operations. As part of the process, comprehensive financial and business data is sought from new applicants.[23] The applicant is solely responsible for the accuracy of the information provided.

2.44 The assessment methodology uses accounting expertise to analyse the data provided. Supplementary information from third parties such as credit rating agencies is sometimes obtained, to assist in establishing a view on the financial position of the applicant. CASA operational staff review the information submitted in relation to the coverage of necessary safety-related expenditures.[24]

2.45 The assessment report is based on an analysis of information provided by the applicant and the Australian Securities and Investment Commission, to verify the directors and shareholders of the applicant and to obtain a view of control and ownership, and information from credit reporting agencies. Advice is obtained from area offices on safety-related expenditure.

2.46 The process does not constitute a 'financial audit' of the applicant, as it cannot include verification and validation procedures. It is based on history and predictions and provides a view on whether the applicant has adequate resources to cover proposed safety-related expenditure. Naturally, the process cannot ensure that, for the life of the AOC, financial viability will not change. In an effort to address such contingencies, financial reporting conditions can be placed on the AOC holder by CASA.

2.47 For the period November 1998 to 30 July 1999, 87 requests for financial assessment had been received by Central Office. Of these, 43 had been completed, 14 did not proceed and the remainder were either

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[23] Information relating to directors and managers, financial statements, business plans including forecast expenditure over the first three years on safety-related activities, forecast revenue and funding arrangements is required. If the applicant is a person, additional information addressing personal assets, liabilities and equities, mortgages and charges over assets is requested.

[24] Safety-related expenditure includes items such as inspections, training manuals, courses and certification and replacement of equipment.

under assessment or awaiting information. A review of the process in January 1999 indicated that, initially, there were delays in processing assessments with only five cases being completed by December 1998. These problems appear to have been addressed with CASA's July status report indicating that, in the last six month period, approximately 38 assessments had been completed (approximately six each month). CASA advised that the current turnaround time for most financial assessments, where all information is provided, is approximately one to two weeks. The ANAO did not examine individual cases.

Re-issue of certificates

2.48 Under the current arrangements, all area and airline managers have access to the credit assessment company's data and may request reports if there are concerns about the financial position of an operator. An assessment can also be requested, by Central Office, from a credit reporting agency. This assessment will provide information on the legal and business structure, financial investigations from historical financial statements and any adverse information relating to creditors accounts or reportable court actions. A risk rating is then determined by the agency based on an assessment of this information. Airservices Australia also provide CASA with details of their outstanding debtors and current status of accounts. This information is forwarded to the General Manager, General Aviation and area managers for review.

Review of assessment process

2.49 As indicated earlier, a consultancy review of the assessment process was carried out in January 1999. It compared CASA processes with those of the FAA and ICAO. It noted that, in its assessment process, CASA had not drawn clear lines between the financial and technical assessment phases and there was no clear specification of the exact nature or format of the financial data required. A number of useful suggestions were put forward to improve the process for collecting and analysing information. These had not been implemented at the time of the audit. CASA advised that some of the issues raised have been addressed through procedural changes over the past six months.

Conclusion

2.50 The revised financial assessment process for new passenger-carrying AOC applicants ensures CASA has a better appreciation of the financial viability of these applicants. Although it is recognised that there are not the same safety implications in relation to the financial viability of Certificate of Approval holders, the ANAO considers that the financial

assessment process should be extended to include Certificate of Approval applicants where there are grounds for concern about their financial viability. It is appreciated that consideration of the financial viability of Certificate of Approval holders would require an amendment to the Regulations.

2.51 The ANAO appreciates that it would require a considerable increase in resources to extend this process to cover the re-issue of certificates to all existing AOC holders. However, the ongoing financial position of existing operators should be kept under notice. The sources of information available to area managers, where there are concerns about an operator's financial position, should enable this—although it is still incumbent on assigned inspectors to bring this to management's attention.

Evaluation of financial assessment process

2.52 The ANAO considers that it is important to evaluate the new financial assessment process to ensure that it is the most efficient and effective means of determining the financial viability of potential and existing certificate holders.

2.53 Performance monitoring and evaluation are complementary tools. Therefore it is important to establish performance information first so that subsequent evaluations can be used to refine existing arrangements including performance measures.[25] CASA advised that at present there are no performance measures that would permit a judgment on whether the assessment strategies are working and the objectives of the process are being achieved.

Monitoring financial viability

2.54 In many instances, financial and business plans for a new entity are based on forecasts and projections which may arise from an applicant's unrealistic expectations. The ANAO considers there would be merit in examining a new AOC holder's financial performance following the first two years of operation. The purpose of such an examination would be to compare actual performance with the financial forecasts and business information provided as part of the initial application. This could be done by requesting specific financial data as part of the application to renew their AOC at the end of the second year of operation. If financial issues are identified, conditions that will address safety requirements may then be imposed on any new certificate.

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[25] ANAO Audit Report No.3 1997–98, *Program Evaluation in the Australian Public Service,* p. 21.

Conclusion

2.55 To ensure that the financial assessment process is assessing the financial viability of operators in the most efficient and effective manner, there would be benefit in CASA undertaking a post-implementation evaluation of the process in 12–18 months of its introduction. Performance information should be developed and data collected so that such an evaluation could be carried out effectively.

2.56 The ANAO also considers that the financial performance of new AOC holders should be reviewed after their first two years of operation to compare actual performance with the financial forecasts and business information provided as part of the initial application.

Recommendation No.2

2.57 The ANAO recommends that, to maximise the effectiveness of financial viability checks, CASA should:

(a) develop performance information strategies for monitoring the new financial assessment process and undertake an evaluation of those strategies in 1999–2000;

(b) review the financial performance of new passenger-carrying Air Operator's Certificate (AOC) holders after the first two years of operation by comparing actual performance with the financial forecasts and business information provided as part of the operator's initial application; and

(c) ensure that thorough consideration is given to an existing certificate holder's financial position when re-issuing an AOC and, where appropriate, request further financial information and assessment.

Agency response

2.58 Parts (a) and (c) Agreed. Part (b) Agreed with qualification. This would constitute a large increase in the workload of the small section that conducts financial evaluations. CASA has limited resources available and, therefore, CASA has applied the resource in accordance with established safety benefits. However, financial stress is an integral part of the risk assessment model and can also be determined through the system audit process which requires operators to provide adequate resources to perform safely.

Charter and LCRPT operators use a diverse range of smaller aircraft ranging from the traditional piston twin engine types, as above, to more recent turbo prop designs as below. The aircraft type below is popular with operators in Northern Australia. Photo—CASA

New operators compliance

Air operators certificate

2.59 Surveillance is the primary tool CASA uses to gain evidence of compliance with, or breaches of, safety requirements under the Act or Regulations. Concerns have been raised by BASI about the level of surveillance given to new AOC holders to ensure they are complying with regulatory requirements. BASI recommended[26] in 1996 that new commercial operators be adequately monitored and inspected until a demonstrated history of safe operations is known.

Future developments

2.60 CASA has recently advised that it recognises the need for new operators to undergo a probationary period. During this period, surveillance could be carried out and a safety assessment made on the operator's demonstrated ability and willingness to comply with the legislative requirements, before any subsequent issue is approved.

2.61 CASA advises that it is currently developing a process whereby AOCs and Certificates of Approval will, as a matter of policy, be issued for:

- a maximum duration of six months to an applicant who is not the holder of a current certificate; and
- a maximum duration of 36 months to an applicant;
  - — who already holds a certificate of six months duration and is applying for a new certificate:
    - –that would authorise the same things as the current certificate;
    - –that would come into force when the term of the current certificate expires; and
    - –whose compliance history under the current certificate is satisfactory.

2.62 This policy does not override the legal requirement for the delegate to be satisfied of the matters in section 28 of the Act relating to the particular applicant's capacity to comply with regulatory requirements for the duration of the AOC. In addition, applicants for an initial AOC will be required to provide details of any AOC issued in any other country, which has been subject to variation, suspension or cancellation by the regulatory authority.

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[26] Interim Recommendation 960127 *Regional Airlines Safety Study Project Report,* May 1999, p. 110.

2.63 The ANAO understands the policy to introduce probationary periods for new AOCs and Certificates of Approval is still being developed and will not apply for at least another 3–6 months. As Certificates of Approval are not normally issued for a finite period, this will allow CASA the opportunity to formally review, at periodic intervals, an organisation's demonstrated compliance with the legislative requirements and their capacity to carry out the activities covered by the certificate. However, as the period of issue of an AOC may now be extended from 12 to 36 months for existing certificate holder, the ANAO considers the need to undertake scheduled surveillance activities and to monitor the compliance of operators with regulatory requirements should be reinforced.

Recovery of costs

2.64 CASA charges costs at a scheduled hourly rate for regulatory service work, which includes all action relating to the issue and re-issue of and variation to certificates. Costs were recovered for all but one of the operators in the audit sample. CASA should ensure that costs are recovered in all cases.

3. Aviation Safety Surveillance Program

This chapter outlines CASA's Aviation Surveillance Safety Program (ASSP), which covers the planning, conduct, recording and reporting of surveillance and the analysis of outcomes.

Introduction

3.1 Certificate holders are required to comply with Australia's aviation safety regulatory requirements. To determine whether operators and maintenance organisations are meeting these statutory requirements, CASA has developed a comprehensive Aviation Safety Surveillance Program (ASSP). The program is undertaken to provide an assessment of the aviation industry's safety level, identify breaches of the regulations and monitor action to correct non-compliance. Depending on the nature, size and complexity of the organisation, CASA applies different surveillance parameters for HCRPT, LCRPT, charter, aerial work and private operations. This audit examined only HCRPT, LCRPT, charter operations and maintenance organisations.

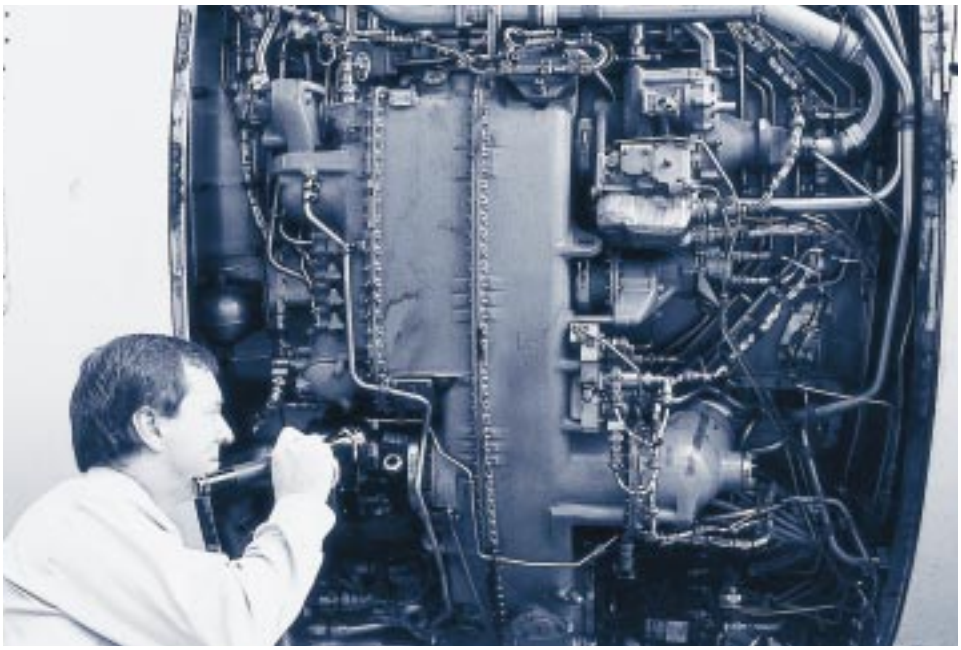
Aviation safety surveillance program

3.2 The purpose of ASSP is to provide the capability for CASA staff to plan, conduct and report surveillance activities in a systematic manner. The objectives of ASSP are to provide:[27]

- a planning methodology that results in standardised surveillance activities for certificate holders;
- information to measure, record and analyse the aviation industry's compliance with aviation safety legislation;
- the capability to identify, record and analyse the impact of risk indicators on aviation safety;
- reports of the results of surveillance activities; and
- analysis of the results of surveillance activities as well as providing feedback to user groups.

[27] *Aviation Safety Surveillance Program Manual*, Vol 1, April, 1998, pp. 2–9.

3.3 CASA has developed a series of manuals containing guidelines and procedures to assist inspectors when carrying out surveillance. The level of surveillance undertaken should be sufficient to determine that each approved operation meets the required standard. Following these procedures should result in a standardised approach and consistency in decision-making. The contents of the manuals are updated on a regular basis to reflect changes in regulatory policy and to overcome any procedural deficiencies that may be identified. The criteria for this audit were based on the ASSP manuals.



CASA audits of HCRPT aircraft require comprehensive assessments of operators, their systems and their aircraft. An airworthiness inspector is examining a Boeing 747 engine undergoing maintenance. Photo—CASA

Surveillance priorities

3.4 At the time of the audit, surveillance activities were to be implemented in accordance with the following priorities assigned by the Director:[28]

- activities affecting the safety of the travelling public;
- organisations or individuals with known indications of higher risk;
- scheduled surveillance; and
- unscheduled activities.

3.5 Scheduled surveillance is defined in the ASSP Manual as any scheduled activity generated directly by ASSP requirements and contained in the area/airline office (formerly district office) annual surveillance plan. All other surveillance—that is, surveillance conducted in response to some other trigger—is considered unscheduled or unplanned. Surveillance priorities have been determined with the intention of focusing on areas with the greatest safety return. Regulatory services,[29] program support[30] and other compliance activities such as advice, industry education and enforcement are considered to warrant a lower priority.

3.6 The Assistant Director, Aviation Safety Compliance Division has recently promulgated the following priorities for airline and area offices:

- **Priority 1:**
  1. *Certificate and license enforcement action*
  2. *'Urgent' regulatory services*[31]
  3. *ASSP surveillance*
- **Priority 2:**

  Entry control—existing certificate and license holders
- **Priority 3:**

  Entry control—new entrants

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[28] *Aviation Safety Surveillance Program Manual*, Vol 1, Annex 2A, April, 1998, p. 2A–4.

[29] Regulatory services is the response to requests from industry and includes assessments and approvals for certificates and licences, exemptions, examinations, and advice.

[30] Program support includes staff training, leave and internal administration.

[31] Urgent regulatory services means the assessment of a nomination of Chief Pilot, Chief Flying Instructor or Maintenance Controller, where the incumbent is unable to perform the function through death or medical incapacity.

Surveillance cycle

3.7 As indicated earlier, scheduled surveillance is planned in accordance with cycles laid down by CASA policy. For 1998–99, the surveillance cycle was 12 months for AOCs and maintenance of aircraft for RPT use and between 18 months and two years for Certificates of Approval and the airworthiness component of charter AOCs.

Audit sample

3.8 The ANAO examined the planning, conduct, recording and reporting of surveillance activities for 67 operators across HCRPT, LCRPT and charter operations and maintenance organisations.

Surveillance planning

3.9 Area and airline team leaders (formerly district office managers) are responsible for preparing and maintaining an annual surveillance program to cover those operators, personnel, and activities for which the office has responsibility. The ASSP manuals contain guidelines and information for producing surveillance plans. The outcome of this planning process should be:

- an annual surveillance plan for each inspector;
- an area/airline office surveillance plan for each operator and maintenance organisation; and
- a master surveillance plan for each area/airline office.

3.10 The ANAO found various different approaches to planning in the offices visited. Planning was either a centralised approach with one officer being allocated the task for the office or decentralised, with individual inspectors completing their own plans. Although plans were entered into the ASSP database, not all offices produced master surveillance plans, preferring to rely on individual inspectors' plans, spreadsheets or paper-based office plans.

3.11 In the sample examined, the ANAO saw no evidence that district office managers had reviewed the surveillance plans to either approve them or to obtain assurance that they had been completed in accordance with ASSP requirements.

Risk assessment as part of surveillance planning process

3.12 The ASSP surveillance guidelines state that, to assist in identifying those operators that have a relatively high safety risk and in determining local surveillance priorities, managers must complete a risk assessment using the *Operator Selection Risk Assessment Form*. Both the District Flying Operations Manager and the District Airworthiness Manager must

conduct this assessment, as a joint exercise, before planning the next surveillance program. Despite this requirement in the ASSP manual, the ANAO was unable to find evidence that joint risk assessments had been prepared by any of the managers at the seven offices visited. Further, the then district office managers confirmed, during interviews, that a formal risk assessment of operators is not carried out as part of the surveillance planning process.

3.13 The ANAO found little evidence that district office managers had taken account of risk indicators in allocating priorities or resources. For example, there was no evidence that, as part of the planning process, consideration had been given to allocating resources to those operators and areas of highest safety risk, particularly in those offices that had experienced high staff turnover or staff shortages.

Determining levels of surveillance

3.14 Operator profile sheets include information such as revenue hours, the type of activity and class of products, and are used to determine the frequency of specific ASSP tasks. To determine the appropriate number and type of surveillance tasks to be undertaken, inspectors are required to develop a surveillance profile using the operator's current profile and the appropriate ASSP spreadsheet or matrix. In assessing surveillance planning the ANAO examined whether:

- operator profile sheets were current (that is, post June 1997);
- surveillance profile sheets had been prepared and the appropriate ASSP spreadsheets and matrices completed;
- surveillance plans had been entered into the ASSP database; and
- legal entity reports[32] in the ASSP database were complete and up to date.

3.15 The ANAO was unable to locate current operator profile sheets in 76 per cent of the flying operations cases examined and 70 per cent of airworthiness cases. Completed surveillance profile sheets and ASSP spreadsheets and matrices were rarely found on operator files. Surveillance plans had been entered into the ASSP database but legal entity reports were incomplete in 31 per cent of flying operations cases and 37 per cent of airworthiness cases. Without being able to sight planning documentation, such as current operator profile sheets and/or spreadsheets and matrices, it was difficult to confirm that appropriate levels of surveillance had been planned.

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[32] A legal entity report includes details of the certificate holders' categories, personnel, aircraft, organisation, facilities, training personnel and ASSP targets.

Adequacy of ASSP planning

3.16 Where planning documentation was not available, the ANAO drew up a surveillance plan, in accordance with the ASSP manual requirements, by completing the relevant spreadsheets / matrices from information either on operators' files or through discussions with the assigned inspector or district office manager.

3.17 The level of surveillance that had been planned was then compared with the ASSP requirements. Of the sample examined, 63 per cent of flying operations and 60 per cent for airworthiness cases had not been planned in accordance with these requirements. The actual plans were then assessed in terms of underplanning, that is, not all the required tasks had been included in the surveillance plan and overplanning, where more tasks than required were included in the plan.

3.18 The overall tendency, to varying degrees, was to underplan, with 37 per cent of flying operations surveillance plans and 42 per cent of airworthiness plans being underplanned. Seventeen per cent of flying operations plans and 20 per cent of airworthiness plans were overplanned. In 17 cases, surveillance tasks within the plans contained elements of both underplanning and overplanning.

3.19 An example of poor planning was a major HCRPT operator where the controlling office's 1997–98 surveillance plan for flying operations had been underplanned by 79 tasks and overplanned by 35 tasks as recorded in the ASSP database. In the 1998–99 plan, only two tasks were recorded in the ASSP database. Planning documentation was not located on the operator's files but the then District Flying Operations Manager had created a spreadsheet outlining the proposed 1997–98 surveillance activities. However, this differed considerably from records in the ASSP database. The airworthiness inspector's surveillance plan for this operator's Certificate of Approval was overplanned by 31 tasks and underplanned by 14 tasks for July 1997 to June 1999. Comparisons of this plan with the ASSP database revealed 10 tasks had not been included in the database. CASA advised the ANAO during the audit, that responsibility for this operator has now been assigned to another office.

Future developments

New developments in surveillance planning for airline offices

3.20 CASA is currently trialling a new safety management systems audit process for airline operations on a number of larger RPT operators. This new process is discussed in detail in Chapter 4. CASA has advised the ANAO that an integral element of this new audit process will be the requirement for all airline office managers to have in place a fully

documented office surveillance plan covering the forthcoming financial year. This includes confirmation that they have reviewed the current plan and individual operators' compliance history when formulating the new surveillance plan. This is required to be completed no later than one calendar month prior to the start of 2000–2001.

3.21 The process also requires all plans to be approved by the General Manager Airline Operations before promulgation. Once approved, office managers are required to give an undertaking that the plans will be completed. When, due to unforseen circumstances, a plan or part thereof, cannot be completed, approval must be obtained from the General Manager, Airline Operations to amend the existing plan.

3.22 These plans will form the basis of a national airline plan, which will be approved by the Assistant Director Aviation Safety Compliance and included in the ASSP Manual as the national Airline Operations Plan.

ASSP database support system

3.23 The ANAO has been advised that the integration of the ASSP database within CASA's new computer system LINK will improve data input and data integrity. Automating the planning process is also proposed. However, there have been delays with this project and, at the time of audit fieldwork, the Compliance Division was reviewing its ASSP requirements before submitting a revised business requirements proposal to integrate ASSP with the LINK system.

Conclusion

3.24 CASA has developed and documented procedures to assist inspectors in planning surveillance for AOC and Certificate of Approval holders. However, the audit findings indicate that CASA staff are not always following these procedures. Although there was considerable variation in planning techniques across area and airline offices (formerly district offices), surveillance plans for individual inspectors and operators are generally being developed and entered into the ASSP database. Master surveillance plans were generally not prepared and therefore only used in some offices. The ANAO considers that CASA should review the need for master surveillance plans and, and if considered necessary, ensure that they are produced as part of the planning process. Contrary to the ASSP guidelines, surveillance plans had not been based on an assessment of operators to identify those presenting the highest safety risk.

3.25 The ANAO examination also revealed a degree of underplanning and overplanning of surveillance tasks suggesting that surveillance is not being conducted in accordance with identified procedures and, as a consequence, resources are not being used to maximum effect.

3.26 The introduction of revised planning strategies and quality control measures will improve the surveillance planning process for airline offices. However, the systems approach is currently being developed and trialled on a number of larger RPT operators only. It is yet to be extended to smaller RPT and charter operators who represent the bulk of the industry.

3.27 The future integration of the ASSP database within the new LINK system will improve data input and data integrity. The planning process would also be enhanced considerably if the process could be automated, as is proposed. However, this will not negate the need to follow existing guidelines and incorporate an assessment of operators, priorities and resources as part of the planning process, or for managers to review the surveillance plans prepared by inspectors and institute some level of quality control over the process.

Conduct of surveillance

Scheduled surveillance

3.28 Scheduled surveillance is made up of systems and product[33] audits comprising pre-audit preparation, conduct of the audit, and post audit activities which include the preparation of any ASSP records such as NCNs, RORs and ASRs. A Surveillance Control Document (SCD) is also completed to provide a detailed summary of all activities and relevant information relating to the audit/inspection.

3.29 Adequate surveillance of operators has been an ongoing concern. BASI notes in its recent *Regional Airlines Safety Study Project Report* that:

> *The issue of surveillance continues to be of concern to the Bureau. Inappropriate or inadequate surveillance has been identified as a contributing factor in a number of organisational aviation accidents in Australia over recent years. Submissions made in the Morris inquiry, evidence and recommendations from the Seaview Coronial inquiry, information provided to the Bureau through CAIR reports and by this and other recent studies, suggest that the quality of surveillance conducted by CASA may need to be reviewed to ensure that both the aviation industry and CASA are meeting their individual responsibilities and their shared objective of maintaining a safe aviation industry.*

[33] Product audits are those involving inspection of aircraft, aircraft components, documents relating to design, maintenance, manufacture, operational airworthiness aspects and major defect reporting, training courses, examinations, weight and loading data facilities and procedures for the storage and supply of aircraft components and materials.

CASA's flying inspectors are required to examine cockpit procedures in many types of aircraft. Here, above and below, flying procedures in use by two GA operators are being examined by CASA inspectors. Photo—CASA

3.30 The report went on to note that the Bureau had previously issued a number of recommendations in response to safety deficiencies related to CASA surveillance. A number of these recommendations[34] addressed the frequency of surveillance and the achievement of surveillance targets.

3.31 The procedures to be followed, controls and documentation to be completed for each ASSP task are outlined in the ASSP Manual for flying operations, airworthiness engineering and airworthiness disciplines. These were the criteria used when examining the audit sample to determine whether:

- planned surveillance tasks were completed;
- SCDs had been completed recording the results of the surveillance activity;
- audits were supported by the relevant documentation such as NCNs, RORs, ASRs and checklists; and
- details of the audit were recorded in the ASSP database.

Planned surveillance vs actual surveillance

3.32 For the period July 1997 to February 1999, the ANAO compared actual surveillance carried out against planned surveillance for the audit sample. Table 6 outlines, by industry sector, the percentage of planned surveillance achieved for this period. The ANAO understands that under-achievement of planned surveillance was a common occurrence in all area / airline offices (formerly district offices) and was exacerbated by the time inspectors devoted to regulatory service work.

Table 6

Achievement of actual surveillance as a percentage of planned surveillance by industry sector and flying operations and airworthiness disciplines for period July 1997 to February 1999

	Flying Operations			*Airworthiness*		
Sector	***Planned***	***Actual***	***%***	***Planned***	***Actual***	***%***
HCRPT	*843*	*229*	*27*	*59*	*43*	*73*
LCRPT	*631*	*400*	*63*	*117*	*95*	*81*
Charter	*346*	*126*	*36*	*144*	*93*	*64*
Maintenance Orgs				*853*	*699*	*82*

Source: ANAO analysis of CASA data.

[34] BASI Interim Recommendation 930244 and Seaview Inquiry Recommendations 11, 25 and 27.

National surveillance statistics

3.33 The ANAO obtained data from the ASSP database for all surveillance activities carried out during 1997–98 and 1998–99. Although CASA has indicated concern about the accuracy and consistency of the data entered into the database, it is the only national data available on surveillance activity. An analysis of the data revealed that, throughout Australia, flying operations inspectors had each averaged about 261 hours during 1997–98 and 220 hours during 1998–99 on scheduled and unscheduled surveillance activities. Airworthiness inspectors had averaged 246 hours and 232 hours for the same periods. These figures indicate that inspectors were spending only about 15–17 per cent of their available time on surveillance activities despite the fact that it was regarded as their highest priority work. The data also revealed that flying operations inspectors completed only 48 per cent and 43 per cent of planned tasks during 1997–98 and 1998–99 respectively. Airworthiness inspectors completed 71 per cent and 60 per cent respectively during these periods.

3.34 The ANAO also examined the number of unscheduled tasks undertaken by CASA inspectors. The combined total of scheduled and unscheduled tasks for the 24 months to June 1999 represented 53 per cent of the total planned tasks for flying operations and 79 per cent of the planned tasks for airworthiness. A comparison of the data for 1997–98 and 1998–99 revealed a decline of over 20 per cent in the number of tasks completed and over 10 per cent in the hours worked on surveillance. These comparisons indicate a marked decline in productivity.

3.35 The ANAO analysed the time spent on pre- and post-audit activities, travel and the time spent actually conducting the audit. The analysis revealed that flying operations inspectors spend about 56 per cent of their time on the actual conduct of audits while airworthiness inspectors spend about 48 per cent. This information suggests that, overall, inspectors are only spending between two and three hours per week on the actual conduct of surveillance inspections and approximately another two hours on preparation, travel and reporting of surveillance.

3.36 The ASSP database only records time spent on surveillance functions and does not record hours on other duties nor was it designed to do so. However, the ANAO was able to obtain workload data collected during 1996–1998 for airworthiness activities at the Brisbane and Archerfield District Offices. These data showed surveillance activities occupied about 17 per cent of inspectors' time. The balance of time was spent on regulatory service work and program support activities with regulatory services occupying between 50–60 per cent of the time. Program support activities occupy between 25–30 per cent of their time.

Dangerous goods surveillance

3.37 Another surveillance element contained in ASSP relates to dangerous goods. The surveillance tasks are usually carried out by specially trained inspectors but can be undertaken by flying operations inspectors. Because of the safety implications of dangerous goods, the ANAO also extracted information from the ASSP database relating to this activity.

3.38 CASA is responsible for ensuring compliance with dangerous goods regulations by air operators, regular shippers of dangerous goods and freight forwarders acting as air cargo agents.[35] The surveillance cycle for dangerous goods inspections is currently two years and covers a total population of over 800 HCRPT, LCRPT and charter operators. In addition to these operators, there are over 1500 international and domestic freight forwarding locations that require surveillance.

3.39 Procedures for undertaking surveillance are outlined in the ASSP Manual. Results of inspections of operators are recorded in the ASSP database but not the results of inspections of shippers and freight forwarders. The ANAO only examined dangerous goods surveillance relating to operators. Australia-wide, 250 tasks were planned for 1997–98 and, of these, 50 per cent were completed. In 1998–99 only 164 tasks were planned, a reduction of 34 per cent on the previous year's surveillance, and 91 tasks were completed (55 per cent of the already reduced surveillance targets). During the period July 1997 to February 1999 no surveillance at all was completed by a number of area/airline (formerly district) offices.

3.40 Although it is appreciated that the surveillance populations are extensive, the dangerous goods surveillance targets have been significantly under achieved. A total of 382 planned tasks, out of a population of 800, over two years would also indicate substantial underplanning. Australia-wide there are currently three dangerous goods inspectors, but two of these also have other tasks so are considered to be part-time. The ANAO has been advised that, under the new staffing structure, the number of inspectors will increase to five and that this should assist in overcoming the shortfall in inspections.

Proposed review of surveillance tasks

3.41 CASA has recently advised that ANAO that, as part of the implementation of the new systems approach to surveillance (refer Chapter 4), it is reviewing the existing ASSP tasks/targets as to their

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[35] S23 of the *Civil Aviation Act 1988* and Civil Aviation Regulations 262A–V outline Australia's dangerous goods regulations.

appropriateness for the future conduct of surveillance. This review will be ongoing and form an important part of CASA's continual monitoring of the surveillance process.

3.42 To assist in developing an integrated approach to surveillance, CASA has established a Compliance Advisory Team (CAT) to review entry control and surveillance procedures and methodology, review existing surveillance tasks/targets and, assist in the development of resource strategies. The team consists of experienced staff from all areas of compliance and meets on a regular basis to discuss and make recommendations across the entire spectrum of compliance issues.

3.43 To ensure a standardised approach is taken to surveillance, the Compliance Division has also established a Compliance Practices and Procedures (CPP) section that is responsible for monitoring the productivity of staff and ensuring that priorities and procedures are being observed. Central Office based senior air safety auditors will also be required to review all audit reports that are produced by area/airline offices.

Conclusion

3.44 The audit findings indicate that meeting planned surveillance targets is a continuing problem for CASA. Based on an analysis of the data available, it would appear that surveillance targets are not consistently achieved across all industry sectors. It was also not apparent that CASA had analysed its achievement of surveillance targets. A recent initiative to review ASSP tasks/targets and to monitor outstanding surveillance and time spent on surveillance would help CASA to identify the under-achievement of surveillance targets. However, the relative proportion of time inspectors are devoting to regulatory services and surveillance activities should be examined. The ANAO considers that CASA should, as part of its review of surveillance targets:

- increase surveillance resources if existing surveillance targets are considered realistic;
- if existing targets are to remain without an increase in resources, operators should be formally assessed and surveillance prioritised by area managers and resources applied to those presenting the highest safety risk as required by the ASSP Manual; and
- specifically allocate inspectors to either surveillance activities or regulatory service work in order to ensure a more equitable workload between these activities and, if appropriate, rotate staff on a 6–12 month basis.

Recommendation No.3

3.45 The ANAO recommends that CASA, as part of its review of surveillance targets and resources:

(a) ensure that adequate surveillance is carried out and resources directed to the areas and operators representing the highest safety risk;

(b) develop strategies to ensure a more appropriate distribution of resources between surveillance activities and regulatory service work; and

(c) ensure regular analyses of the ASSP database is undertaken by the Compliance Practices and Procedures section to monitor the productivity of inspectors, and to ensure that priorities and procedures are being observed by area and airline office managers and inspectors in relation to aviation safety surveillance.

Agency response

3.46 Agreed. Integral with the implementation of the new systems approach to surveillance within Airline Operations has been a review of the existing ASSP tasks/targets as to their appropriateness to the future conduct of surveillance. It also includes identifying and documenting safety management systems in keeping with the new systems approach. This review is ongoing and will form an important part of our continual monitoring of the surveillance process. This process is being extended to the General Aviation Operations area. The first phase of the General Aviation ASSP review process will take place in October 1999. The surveillance program is intimately linked to the identification of operators demonstrating higher risk profiles.

3.47 CASA has taken steps to develop strategies that will properly allocate resources between services and surveillance tasks. The Director has established a working group whose purpose it is to fully examine the problem and recommend organisational solutions to achieve an appropriate balance between these tasks.

3.48 So as to ensure a standardised approach is taken to surveillance, the Compliance Division has also established the CPP section that is responsible for monitoring the productivity of staff and ensuring that priorities and procedures are being observed. Central Office-based Senior Air Safety Auditors will also be required to review all audit reports that are produced by field offices. The methodology to be employed by these two groups includes:

- reports from all audits are to be forwarded to Central Office for review, peer evaluation to be undertaken in each office. Senior Air Safety Auditors and CPP staff will participate in local audit teams on an ad-hoc basis; and
- CPP will undertake analysis of the ASSP support system, on a national level, and provide reports to all levels of management on surveillance audits that are outstanding, and the amount of time spent on surveillance.

3.49 While recognising the need to provide effective services to industry, the Director has reiterated CASA's commitment to safety compliance and enforcement activities.

CASA's controlling and conducting offices have to deal with a diverse range of operators, some of whom not only operate across Australia but also overseas, such as very large helicopter charter operators. Photo—CASA

Controlling and conducting offices

3.50 The Office that issues an approval or licence, recommends the granting of a delegation and administers an AOC or a Certificate of Approval is known as the *Controlling Office*. These offices are responsible for the continued surveillance associated with those operators. However, the surveillance function can be transferred from one area (formerly district) office to another. This occurs where companies maintain subsidiary units or bases throughout Australia on a temporary or permanent basis. It is far more cost-effective for CASA to vest responsibility for some of the surveillance tasks (either totally or in part) to the office that has the easiest access. This office is then known as the *Conducting Office*.

3.51 Table 7 outlines, at the time of the audit, the total number of certificate holders where conducting offices assume responsibility for undertaking surveillance tasks. The average aviation organisation is generally audited by two conducting offices. The largest organisation, a Certificate of Approval holder, has twelve conducting offices undertaking surveillance.

Table 7

Number of organisations with multiple conducting office by certificate types

Certificate Type	*Total number of Certificate Holders*	*Holders with multiple Conducting Offices*	*% of total number*
AOC[1]	*1041*	*410*	*39*
Certificate of Approval	*846*	*125*	*15*
Total	*1887*	*535*	*28*

Note 1: Includes all AOC holders: HCRPT, LCRPT, charter, aerial work and flying schools.

Source: CASA's ASSP database.

3.52 The transfer of the surveillance function from the controlling office to the conducting office is through a Memorandum of Understanding (MOU) that:

- describes the organisation;
- sets out the auditing functions to be transferred;
- outlines the administrative arrangements; and
- states the period of validity.

3.53 The ANAO examined four organisations from the audit sample whose surveillance was managed under the controlling / conducting office arrangement. They included a HCRPT operator, charter operator and Certificate of Approval holder, that had operations in all Australian states and a LCRPT operator with conducting offices in the same state.

3.54 The ANAO found that MOUs did not clearly specify arrangements, were often out of date, open ended and in six instances were non-existent. There was also no evidence to suggest that they were reviewed on a regular basis by the controlling office. Although information is readily available in the ASSP database, it was not clear that controlling offices were systematically monitoring surveillance to ensure that planned tasks are being completed and carried out in accordance with ASSP requirements. Conversely, there was one instance where the controlling office was not even aware that surveillance was being undertaken by another office.

3.55 An examination of the audit sample revealed that surveillance targets were generally not being achieved by conducting offices. There was a wide variation in percentage of tasks completed by conducting offices ranging from nil to over 90 per cent. This is consistent with the earlier findings that on a national basis achievement is falling well-short of planned surveillance targets. The ANAO did not find any evidence that controlling offices were initiating action to prioritise tasks in those instances where surveillance targets were not being met by the conducting office.

3.56 In the sample of cases examined by the ANAO, the controlling offices did not evaluate the results of surveillance undertaken by conducting offices. Therefore, it would have been difficult to determine:

- the operator's level of compliance nationally;
- whether there was a requirement to vary future surveillance and/or the terms of their certificate; or
- whether there was a need for enforcement action.

New initiatives

3.57 CASA has advised that the appointment of area managers has provided the management necessary to review MOUs between offices. Each MOU is to be reviewed to ensure that it is the most appropriate way of carrying out the function or, where appropriate, being replaced by other arrangements.

3.58 CASA has also advised the ANAO that, as part of its new systems approach to the surveillance of airline operators (refer Chapter 4), it intends implementing revised controlling/conducting office arrangements. Under these new arrangements, the controlling office will also be the conducting office. The controlling office will use local staff to supplement a controlling office team when undertaking remote surveillance but responsibility for surveillance will rest clearly with the controlling office. CASA considers this revised process will provide a more effective way of managing surveillance commitments and ensure

the appropriate surveillance is undertaken in a timely manner. CASA advised that this new arrangement will be incorporated into the current trial being undertaken on a number of RPT airline operators.

Conclusion

3.59 The controlling and conducting office arrangement can be an efficient and cost-effective way of managing surveillance of the 1887 operators, many of whom are based in more than one location. However, at the time of the audit this process was not well managed by controlling offices. For example, they were not always in a position to assess the compliance of operators either at the local or national level. In some cases, the required MOUs had not been established and, in others, had not been reviewed to ensure they remained current. Tasks allocated to conducting offices were not necessarily monitored nor the results evaluated.

3.60 The ANAO considers that the processes for managing this conceptually sound arrangement has not been sufficiently developed. The ASSP Manual does not provide adequate guidance on planning, such as the need for controlling offices to consider the priorities and resources of the conducting office and, where necessary, prioritise the surveillance tasks to be carried out by conducting offices. The requirement for controlling offices to monitor the surveillance undertaken and to evaluate the results should also be detailed in the manual.

3.61 A primary difficulty with the arrangement is that controlling offices do not directly control the resources within conducting offices to ensure that surveillance targets will be met. The ANAO considers that the conducting office should advise either quarterly or bi-annually of the work done to date and likelihood of the remaining targets being achieved within the surveillance cycle. The controlling office could then review the targets and, where necessary re-allocate tasks and, where it appears unlikely that all tasks will be completed, advise the conducting office of the priorities to be observed for the remaining tasks. This would ensure that the most critical tasks were completed.

3.62 Controlling offices should be responsible for setting surveillance targets, monitoring surveillance planning and analysing the results of audits performed by conducting offices. At the end of the surveillance cycle, the conducting office should provide details of any significant safety issues that have arisen during this cycle. The controlling office should then undertake a comprehensive review taking account of all relevant information, including surveillance outcomes and conducting office reports. This would then guide decisions on renewal and variation of certificates and subsequent surveillance planning.

3.63 CASA has advised that, where they continue to be applicable, MOUs will be reviewed by the recently appointed area managers. The new arrangements for airline operations currently being trialled on a number of larger RPT operators should be monitored and evaluated. If they prove to be a more efficient and effective means of undertaking surveillance of operators based in more than one location, existing procedures could then be refined accordingly.

Recommendation No.4

3.64 The ANAO recommends that, to ensure the effective management of the controlling and conducting office arrangement, CASA should:

(a) review and, where appropriate, amend the procedures relating to controlling and conducting offices to include details on how controlling offices should plan, monitor and evaluate the surveillance to be carried out by conducting offices;

(b) ensure controlling offices evaluate the results of surveillance undertaken by conducting offices to provide an overall assessment of an operator's compliance with safety regulations and to identify future surveillance requirements; and

(c) monitor and evaluate the new controlling/conducting office arrangements being trialled by airline offices.

Agency response

3.65 Agreed. As part of the ongoing review of General Aviation Operations, the procedures for MOUs will be amended to more clearly define the responsibilities of the controlling offices for the monitoring and evaluation of operators on a national basis. Airline Operations have already achieved the required degree of supervision.

3.66 Data analysis is an integral element of the ASSP program and procedures are being strengthened in this area. However, it needs to be recognised that this is only one element of the safety information available to CASA.

Recording and reporting surveillance

3.67 Recording and reporting surveillance are integral to CASA's safety management activity. Surveillance records contain observations recorded during an audit or immediately afterwards. The format of these records varies from information written on printed checklists to comprehensive narratives. CASA requires inspectors to keep an accurate record of all surveillance activities and the ASSP Manual clearly outline the procedures to be followed.

3.68 The results of surveillance are reported on a Surveillance Control Document (SCD). The SCD serves as an executive summary of the surveillance activity and includes any major deficiencies found, non-compliance notices and aircraft survey reports issued, risk observation reports raised, recommended changes to surveillance levels and the time taken in the actual conduct of the surveillance. Attached to the SCD are copies of the relevant checklists and any NCNs, ASRs and RORs. The information contained in the SCD is then recorded in the ASSP database.

Surveillance control documents

3.69 In the cases examined, the ANAO found that, although there were some discrepancies, generally SCDs reported the surveillance undertaken by inspectors and that this information was recorded in the ASSP database. An exception to this was audits of a major HCRPT operator where there was a delay of 15 months before surveillance results were recorded in the database. If an operator's surveillance data is not being entered into the database in a timely manner, the database records will not accurately reflect the compliance history of individual operators or enable complete surveillance data to be collated at the national level.

Surveillance checklists

3.70 Although the SCD provides a summary of the surveillance undertaken, it is the surveillance checklists that outline the specific requirements of each ASSP task and records the results of the checks. The ANAO found, in the cases examined, that checklists documenting the surveillance undertaken by flying operations inspectors were retained but those relating to airworthiness surveillance were generally not. Should enforcement action be necessary, this lack of documentation could impede such action.

Non-compliance notices

3.71 NCNs are issued when there is a failure to comply with the regulatory requirements. CASA consider NCNs to be an important source of information for:

- assessing operator compliance;
- assessing sector/industry compliance;
- highlighting areas for regulatory change; and
- providing feedback to the industry and CASA staff.

3.72 NCNs covering surveillance deficiencies in commercial organisations/operators include a grade to indicate the severity of the non-compliance. Grade 1 refers to passenger-carrying operations using Australian registered aircraft; grades 2 to 5 were for remaining non-compliances. Grades 1 and 2 related to high safety risk non-compliances, Grades 3 and 4 for medium safety risk and Grade 5 for lower risk.

Acquittal of NCNs

3.73 Prior to new, strengthened procedures being introduced for acquitting NCNs in November 1998, an NCN was taken to be acquitted when the corrective action slip attached to the notice had been completed and returned by the operator. An NCN is now considered to be acquitted when an inspector has confirmed, and is satisfied, that the non-compliance has been corrected and appropriate preventative action has been implemented to ensure this non-compliance does not re-occur. The acquittal of an NCN should be recorded in the ASSP database and supporting documentation placed on the operator's file.

Follow-up action of NCNs

3.74 Inspectors are required to monitor the actions of operators and to ensure non-compliance issues are resolved with corrective action responses being received by the 'response due' date. Where no corrective action has been taken, inspectors are required to report any safety-related concerns to the team leader (formerly district office manager) and, where necessary, the manager of the controlling office, making recommendations for further action. Subsequent actions could include increasing the level of surveillance, a possible unscheduled audit of the operator or enforcement action. Managers are required to monitor all outstanding NCNs to ensure that non-compliance has been corrected and satisfactorily acquitted.

3.75 Table 8 outlines, for the cases examined, the total number of NCNs issued and acquitted for the period July 1997 to February 1999. Although it is recognised that not all NCNs and ASRs are safety critical, the number of NCNs unacquitted for the cases examined included 37 (42 per cent) in the high safety risk Grade 1 and 2 categories. It is acknowledged that some of these may have subsequently been acquitted. Nationally, 12.9 per cent of flying operations and 12.5 per cent of airworthiness NCNs issued, were not acquitted in 1997–98. From July 1998 to June 1999, 17.5 per cent of flying operations and 22.3 per cent of airworthiness NCNs issued had not been acquitted. The ANAO is concerned that if NCNs are not being properly acquitted, then CASA is not taking appropriate action to ensure that breaches of the safety regulations are being corrected by operators.

Table 8

Total number and percentage of NCNs issued and acquitted for audit sample for period July 1997 to February 1999

Certificate Type	Total NCNs issued	Total NCNs acquitted	% of NCNs acquitted	Total NCNs unacquitted	% of NCNs unacquitted
AOC[1]	523	451	86	72	14
Certificate of Approval	109	93	85	16	15

Note 1: includes NCNs relating to the airworthiness component of AOCs.

Source: ANAO analysis of ASSP database.

Aircraft survey reports

3.76 ASRs are used to advise of non-compliance relating to an aircraft or its maintenance documentation. All ASR items of non-compliance must be recorded as a code A, B or C. Code A is the most serious and requires maintenance to be carried out on the aircraft before any further flights may be undertaken. Code B requires the items to be assessed and rectified as necessary and Code C assessed and rectified at the earliest opportunity. Acquittal of an ASR does not require rectification action to be carried out within any particular timeframe. The deciding factor is whether the operation of the aircraft is in contravention of the direction. Details of the ASR are to be entered into the ASSP database and supporting documentation placed on the operator/organisation/individual file.

3.77 Nationally, a total number of 3286 ASRs were issued for 1997–98 and 2400 for 1998–99. Of these 14.8 per cent were outstanding in 1997–98 and 22.6 per cent had not been acquitted for 1998–99. For the sample examined by the ANAO, 153 ASRs were issued. The ANAO did not examine the acquittal of ASRs due to the difficulty and time required to access specific aircraft files which may be held at another office.

ASSP database support system records

3.78 The procedures clearly outline that the results of surveillance should be recorded in the ASSP database. Nationally, about 5 per cent of SCDs did not record the actual time taken in the conduct of surveillance. In the cases examined, out of a total of 632 NCNs, there were 35 NCNs (11 relating to AOCs and 24 relating to Certificates of Approval) that had been issued but were not recorded in the ASSP database and a small number (four relating to AOCs and two relating to Certificates of Approval) where NCNs were in the database but supporting documentation was not on the operator's file. The Quality and Internal Audit Branch audit report of *Borrowed AOCs* completed in March 1999 also raised concerns that an operator's non-compliance with safety requirements was not always clearly documented and, at times, not fully recorded.

Maintenance of aircraft at regular intervals in accord with agreed schedules is critical to keeping them airworthy. Above, a six cylinder light twin engine aircraft engine and below a propeller are undergoing maintenance. Photo—CASA

3.79 The ASSP database contained a number of tasks denoted by the code 99X. The ANAO has been advised that these are unscheduled tasks such as reviewing amendments to an operator's procedures which are not specified by ASSP or incorporated into the database. These tasks were most frequently associated with the activities of major operators and distort surveillance data analysis. The ANAO considers that CASA should review the use of '99X' tasks and, if appropriate, develop formal tasks that will cover the work involved and incorporate these into the database.

Records management

3.80 The Quality and Internal Audit Branch audit report of *Borrowed AOCs* completed in March 1999 stated:

> *Records of activities relating to AOCs (including non-compliance and certificate license actions) are often on a multitude of files spread across multiple district offices and Central Office. These files are often unrelated by title, nullifying the use of the file tracking facility. Coupled with this is a lack of a national database containing all information about CASA actions in progress or completed against AOC holders or Chief Pilots. This results in CASA management not being able to readily provide a complete, accurate response to questions on AOC action and inspectors are not able to access a comprehensive history of non-compliant principals/chief pilots who may apply for other aviation permissions in a different location.*

3.81 The report recommended that the Assistant Director Aviation Safety Compliance ensure the system requirements specification for the LINK support system include the recording and reporting of both 'in progress' and 'completed' actions against permissions. The report stated there was no Management response to this recommendation.

3.82 Currently CASA has in operation two databases: LARP[36] and ASSP. The LINK project, when fully developed and implemented, will replace these two databases and include:

- Aircraft registration numbers (ARN);
- Certificates (AOCs and Certificates of Approval);
- ASSP records;
- Carrier Liability Insurance;
- Licensing; and
- Airworthiness reporting.

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[36] LARP records details of ARNs, certificates, licensing, aviation examinations, medical information and details of investigations.

3.83 At the time of the audit, only the ARN component had been completed and it will be some time before the system is fully developed. The Compliance Division is in the process of reviewing all of its business requirements for the Link project in light of foreseeable regulatory amendments and proposed changes in its approach to surveillance. This will include a facility for identifying 'completed' and 'in progress' actions against all permission holders. Reports in the system are also being reviewed as part of the overall review of the Division's reporting structures. In the short-term, the analytical and reporting capability of ASSP will be enhanced when proposed software changes are incorporated into the existing database.

Management reporting of surveillance

Monthly reporting by district and area offices

3.84 The ASSP Manual outlines the responsibilities, at all levels, for reporting surveillance and compliance issues. The ANAO mainly focused its examination of the reporting system on the district inspectors/managers (now team leaders) and, the then, regional managers (now area managers). There are now seven area managers and three airline managers, in lieu of three regional managers but the process remains the same.

3.85 Inspectors are required to provide a monthly report to their team leaders summarising the results of compliance activities for the previous month. Team leaders are to consolidate this information and provide a monthly report to the area/airline managers summarising the office's compliance activities and highlighting any safety issues or potential problems in achieving the surveillance plan. Reporting proforma in the ASSP Manual outline the specific points to be covered in both instances.

3.86 The ANAO found that while some area/airline offices (formerly district offices) were providing quite detailed reports others were providing a minimum of information and some had completely discontinued the practice of monthly reporting. Based on comments made by the then district office managers, it appears that the reporting system has been discredited by the absence of feedback from Central Office. The Quality and Internal Audit Branch report *Aviation Safety Monitoring* completed in January 1998 also noted an absence of feedback.

Proposed review of reporting requirements

3.87 CASA advised that it is to review its management reporting requirements. This is being undertaken as a three phased approach which will include executive management reporting requirements, senior management reporting requirements, and area/airline office management reporting requirements.

3.88 At this stage only senior management reporting requirements have been identified. The existing procedures and database support system are undergoing a review to ensure continued support for these requirements is maintained. Area/airline office managers have been appraised of the review and they are currently developing a reporting suite that will enable timely and appropriate reporting of management information both to senior management and area/airline staff.

3.89 It is proposed that once the area/airline office requirements have been identified, the executive requirements will be developed and implemented. Until these new initiatives are in place, the reporting system, as outlined in the ASSP Manual, is still a requirement.

3.90 The ANAO considers that, as part of this examination of the reporting system, the extent of the feedback necessary to the originating offices should also be reviewed.

Board Safety Committee

3.91 The Board Safety Committee was convened in November 1997. Its primary responsibility was to focus on the assessment of safety matters and the adequacy of corrective action taken by CASA management. It was also to determine if safety-related trends and risk factors had been identified and appropriate management action taken and to identify those issues which required policy or strategic recommendations being put to the Board.

3.92 The General Manager Airline Operations and General Manager General Aviation provided monthly reports to the Assistant Director and the then Board Safety Committee outlining safety issues relating to domestic operators/organisations and overseas operators. The ANAO noted that a number of safety issues, involving operators that were part of the audit sample, had been considered by, the then, Board Safety Committee.

3.93 The ANAO has been advised that the Board Safety Committee is to be replaced by an Executive Safety Committee which will include the Director of Aviation Safety, the three Assistant Directors of Aviation Safety Standards; Aviation Safety Compliance; and Aviation Safety Promotion; General Counsel, Office of Legal Counsel; Head, Government, Industry and International; and a representative of the Audit Committee. At the time of the audit, a charter for this new committee was being developed. The development of the charter presents an opportunity for the Executive Safety Committee to address a range of strategic and governance issues facing CASA in discharging its statutory responsibilities.

Conclusion

3.94 CASA has well documented procedures for recording and reporting surveillance and following-up non-compliance. However, not all surveillance data is being recorded in the ASSP database and not all surveillance documentation is being retained. Proposed electronic enhancements to the existing analytical and reporting capabilities will improve these processes, but they will not negate the need for CASA inspectors to record compliance activities; input accurate data into the ASSP database; nor to adopt good records-management principles so that, if necessary, documentation is available as admissible evidence for enforcement action. Procedures for recording and reporting surveillance should be regularly brought to staff's attention.

3.95 The ANAO noted that a number of NCNs has not been acquitted and a number of ASRs are also outstanding. Inspectors are not implementing the procedures for following up and acquitting non-compliance notices. Although it is recognised that not all NCNs and ASRs are safety critical, there was a significant number of unacquitted NCNs and ASRs to suggest that, CASA does not always know if breaches of safety regulations have been corrected.

3.96 The existing monthly reporting system covering compliance activities is not operating satisfactorily. CASA is currently reviewing the management reporting system. The ANAO considers that, as part of this examination, the extent of, and mechanisms for, provision of necessary feedback to area and airline offices (formerly district offices) should be assessed.

Recommendation No.5

3.97 The ANAO recommends that, as part of its current review of the management reporting system, CASA examine the extent of, and mechanisms for, providing necessary feedback to area and airline offices.

Agency response

3.98 Agreed. An important part of implementing the new surveillance methodology, has been CASA's review of its management reporting requirements. This is being undertaken as a three phased approach including Executive Management reporting requirements, Senior Management reporting requirements and Field Office Management reporting requirements.

3.99 At this stage Senior Management reporting requirements have been identified. The existing procedures and IT systems are undergoing a review to ensure continued support for these requirements is

maintained. Field Office Managers have been appraised of the review and they are currently developing a reporting suite that will enable timely and appropriate reporting of management information both to senior management and field staff.

3.100 Once the field office requirements have been identified, the executive requirements will be developed and implemented. Until these new initiatives are in place, the reporting system, as outlined in the ASSP Manual, is still a requirement.

3.101 Initial samples of standard monthly reports have been distributed to Area and Airline Office Managers for evaluation.

Analysis of surveillance outcomes

ASSP requirements

3.102 Of the five objectives of ASSP, three contain a reference to the need to analyse industry safety compliance. ASSP is to provide the capability to:

- gather information to measure, record and analyse the aviation industry's compliance with regulatory requirements;
- identify, record and analyse the impact of risk indicators on aviation safety; and
- analyse the results of surveillance activities and provide feedback to user groups.

3.103 To guide strategic decisions, some of these requirements are the responsibility of Central Office but they can also be undertaken at area office level to assist with day-to-day operations.

Sources of information

3.104 The primary sources of information available to area and airline office staff that assist inspectors in assessing operators are:

- the ASSP database which records the results of surveillance activities including non-compliance information and RORs;
- the LARP database which contains information on registration numbers, certificates, licensing, examinations, investigations and aircrew medical information;
- individual operators' files, procedural documentation and administrative records;
- incident and accident reports;
- airworthiness directives and defect reports;

- financial assessments of operators;
- local intelligence; and
- aircraft movements.

Little evidence of analysis

Quality and Internal Audit Branch

3.105 The Quality and Internal Audit Branch report *Aviation Safety Monitoring*[37] found that much of aviation safety monitoring had been intuitive and unstructured, and had not provided the analysis capacity required to interpret even primary data sources. It further noted that:

> *In the absence of a nationally focussed analysis capacity, inspectors, district managers and to some extent regional managers have analysed ASSP results in a relatively informal way. This analysis is done sporadically……. Without full access to national information, it is probable that issues are undetected or untreated.*[38]

Findings from ANAO Sample

3.106 In the cases examined, the ANAO found little evidence of risk analysis. Such analyses should have been undertaken prior to the following key phases of the compliance cycle:

- the re-issue of an AOC or variation to a Certificate of Approval;
- commencement of planning for the following year's surveillance; or
- the consideration of enforcement action.

3.107 The ANAO examined 19 out of the 124 RORs issued between July 1997 and February 1999. Most did not contain the depth of analysis suggested by the risk indicators listed in the ASSP Manual. As indicated earlier, nor was there evidence that an *Operator Selection Risk Assessment* form had ever been completed. The then district managers advised that these forms are rarely used. The ANAO noted that inspectors use the ASSP database mainly to track achievement of planned surveillance. Little effort appeared to be directed towards developing an outcome or results based appreciation of the current extent of operators' compliance. There is a significant amount of information available in the ASSP database that is not being used for analytical purposes. The ANAO extracted a number of reports from this database for analysis as part of the audit. Similar reports would be of assistance to area/airline office staff in assessing the safety risk of operators and the consequential level and nature of surveillance.

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[37] Quality and Internal Audit Branch Report *Aviation Safety Monitoring*, January 1998, p. 11, para 1.3.2.

[38] Ibid p 15 para 1.3.7.3.

3.108 One of the other main purposes of analysis is to identify those operators with a constant history of breaching the regulations. However, there is no direct link between the analytical phase of surveillance and the steps required for enforcement action, as outlined in the Compliance and Enforcement Manual (CEM). The CEM provides a checklist to assist decision makers to decide the most appropriate response to a breach of regulatory requirements. This checklist contains only brief references to an operator's surveillance history.

Guidance material

3.109 Despite the strong emphasis on data analysis, the ASSP Manual contains little guidance material to assist inspectors or managers in undertaking such analysis. For example, the following extract from the ASSP Manual[39] is the only guidance provided under the heading of "Analysing data":

> *Analysing data is an integral part of surveillance activity. Every inspector and manager conducts some form of analysis on a day-to-day basis. Data may be reviewed and compared in response to user needs. By accessing and comparing all data relating to a particular matter, with reference to any other circumstances, ASSP System users may decide to take further action.*

3.110 The list of risk indicators contained in the ASSP Manual to assist inspectors in the preparation of RORs could provide a sound basis for analysis. Their intended use is to record and report internally, any event which in an inspector's judgment, could contribute to a reduction in aviation safety. The *Operator Selection Risk Assessment* form, that is used to assist in determining local surveillance priorities and highlighting those operators that have a relatively higher safety risk is another tool. These documents contain guidance that should be considered in any complete analysis of an operator.

High risk operator assessments

3.111 A high risk operator (HRO) assessment is a comprehensive, independent assessment of the adequacy and effectiveness of a certificate holder's ability and willingness to comply with regulatory requirements. The Assistant Director Aviation Safety Compliance Division is responsible for authorising and determining the scope of HRO assessments. They are initiated as a result of surveillance identifying safety system deficiencies, complaints or intelligence received, reported incidents / accidents or at Board or Ministerial direction. Area / airline office staff may participate if a special audit is initiated but this is controlled by Central Office. The Manager Compliance Practices and Procedures

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[39] *Aviation Safety Surveillance Program Manual*, Vol 1, Chapter 5, para. 5.48.

monitors progress in implementing any corrective action plan through the controlling office manager. The assessments are kept confidential and the Assistant Director Aviation Safety Compliance provides the Executive Safety Committee (formerly the Board Safety Committee) with a monthly briefing on assessments undertaken and follow-up action initiated. This process is separate from the nationwide surveillance process managed across CASA and is not linked in with any risk assessment process undertaken at area/airline office level.

Differing industry risk profiles

3.112 HCRPT generally includes operators with access to substantial resources, operating a relatively young, homogenous fleet of aircraft into well equipped airports with access to sophisticated navigation systems. These operators are often directly or indirectly linked with international airlines and can call on the resources and expertise of these other operators. The residual risk associated with HCRPT is normally low which is reflected in their very low accident rates. The efficacy of their management control systems is relatively high with a correspondingly lower risk of failure on the part those systems. This is reflected by the low rate of NCNs issued during surveillance.

3.113 In contrast, many LCRPT and charter operations include local regional operators, operating as small businesses with limited resources, often flying a diverse range of older aircraft, with little opportunity to avail themselves of economies of scale. In some cases, they may possibly be facing declining markets as local industry and population decline. These factors may contribute to a higher risk in terms of aviation safety. There are a small number of substantial operators in these sectors of the industry however, they are the exception rather than the rule.

3.114 Overall, for many operators in general aviation, survival in business is an ongoing struggle and this has the potential to increase the safety risk. The House of Representatives Standing Committee on Transport, Communications and Infrastructure (HORSCTCI) *Plane Safe Inquiry into Aviation Safety* concluded:

> *Another characteristic of GA (general aviation) is that there are a large number of small businesses which operate at the margin… The general aviation sector is characterised by strong competition which could exert downward pressure on profits. The need to defend an investment without skimping on safety is reduced by the small amount of money required to commence a business. ….These are preconditions for avoiding essential maintenance which endangers safety.* [40]

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[40] House of Representative Standing Committee on Transport, Communications and Infrastructure *Plane Safe Inquiry into Aviation Safety*, December 1996, Chapter 5, p. 57.

CASA must inspect operators whose aircraft work in a wide range of diverse and challenging operating conditions. Above, a charter operator's modern jet powered helicopter is approaching a deep sea oil drilling rig. Below; an older piston engine aircraft is landing on a grass runway on a country airstrip. Photo—CASA

3.115 A recent BASI review of safety in regional airlines stated that:

> *There are significant operational differences between regional airlines and domestic airlines (HCRPT). The regional airlines meet less stringent legislative requirements for some of their operations, operate smaller, less automated aircraft, and frequently operate in uncontrolled airspace to airports which lack many of the support facilities found at major airports.*[41]

3.116 Elsewhere in the same report they commented on the risks to safety arising from commercial pressures. These risks included airlines with inadequate financial resources, lack of aircraft spare parts, excessive cost cutting, pressure on flight and maintenance crews to take short cuts and inadequate training.[42]

Patterns of compliance across industry sectors

3.117 The ANAO analysed data from the ASSP database. Table 9 compares and contrasts the differing levels of compliance for flying operations between HCRPT, LCRPT and charter sectors in terms of number of NCNs issued for tasks undertaken.

Table 9

Comparison of NCNs issued for tasks undertaken by industry sector for flying operations for period July 1996 to June 1999

Industry Sector	Population[43]	1996–97		1997–98		1998–99	
		Tasks	NCNs	Tasks	NCNs	Tasks	NCNs
HCRPT	17	552	6	563	8	328	8
LCRPT	42	1034	248	1275	337	1179	146
Charter	765	1316	1087	1532	1075	1560	663

Source: ANAO analysis of ASSP database.

3.118 The flying operations surveillance cycle of 12 months is common to all three sectors. Charter has the highest ratio of NCNs being issued per task and HCRPT the lowest. At the same time, charter has the most operators and highest frequency of accidents. The rate for LCRPT is low and, for HCRPT, extremely low.

3.119 While the number of NCNs issued can provide an indication of non-compliance, other factors should also be considered when assessing operators and could include compliance history, accident / incident history, maturity of the operations, organisational and support structures, financial position and management and staff turnover.

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41 Bureau of Air Safety Investigation report *Regional Airlines Safety Study Project Report,* May, 1999, p. 1.

42 Ibid p. 47.

43 Civil Aviation Safety Authority Australia 1997–98 *Annual Report*, p. 45.

Lack of differentiation between sectors

3.120 The figures in Table 9 indicate the highest level of non-compliance and, presumably, risks to safety occur in the charter sector. Because of the high number of fare-paying passengers, CASA has focused its surveillance effort on the RPT sector. This is despite the apparently low level of inherent risk, a relatively small population and a generally higher level of compliance in RPT operations. In comparison, the charter sector has a much larger population, fewer surveillance tasks per operator and a higher level of reported non-compliance and, comparatively, a lower level of surveillance overall than RPT operations. The ANAO recognises that there is not always a correlation between the number of NCNs issued and an operator's level of safety as many of the NCNs issued may be of a less serious safety nature. Different inspectors may also have different propensities to issue NCNs.

3.121 It is not clear that, in setting its priorities for surveillance tasks, CASA has had sufficient regard to the differing levels of risk in the three sectors. The Government's view is that:

> *CASA's regulatory efforts should focus on protecting the fare paying passenger. The fare paying passenger has a right to expect the highest quality of regulatory activity in this area and the same level of safety, irrespective of the type of operation. This focus does not, of course, absolve CASA from ensuring appropriate safety regulatory arrangements are in place for all other aviation related activities.*[44]

3.122 CASA's Corporate Statement notes:

> *Fare paying passengers are passengers carried by an operator who is authorised by an Air Operators Certificate (AOC) to conduct passenger Regular Public Transport (RPT) or charter operations in the course of those operations.*

3.123 The interpretation of the term 'fare-paying passenger' has been the subject of debate[45] and uncertainty for some time and continues to be. Although it is understood that CASA is addressing this issue, the ANAO considers that every effort should be made to resolve this uncertainty as soon as possible.

3.124 The ANAO considers that, ideally, area/airline offices should be identifying the higher risk operators within each sector and allocating sufficient surveillance resources to reduce the risks associated with these operators either by encouraging compliance or taking enforcement action.

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[44] Ministerial Charter dated 20 March 1998, p. 1.

[45] Commission of Inquiry into the Relations Between the CAA and Seaview Air Vol 1, September 1996, p. 340.

Therefore, it is essential that appropriate risk analysis capabilities and techniques be developed, including consideration of the inherent risks of the industry sector in which they are operating, to identify those operators that represent the highest risk.

3.125 The ANAO appreciates that a risk assessment model (discussed in detail in Chapter 4) has been developed recently and is being incorporated into the trial of the new systems approach to surveillance of airline operations. However, this is only being trialled on a number of larger RPT operations and its applicability to small LCRPT and charter operations is yet to be determined.

3.126 The ANAO examined the surveillance sample to ascertain whether the information collected by the audit team could be used to identify high risk operators. As a result of this analysis, the ANAO identified five operators (seven per cent) in the sample whose surveillance history revealed an above average number of NCNs and ASRs and whose files documented a low level of compliance. The process used by the ANAO was one that offices could undertake on a regular basis drawing on summary reports from the ASSP database, their local operators' files and their own local knowledge. Despite the unsatisfactory level of compliance of these operators, there was no indication that consideration had been given to either increased surveillance or enforcement action at the time of the audit fieldwork. Although three of these operators had been the subject of safety system assessments (SSAs)[46] the ANAO noted that a compliance strategy had not been developed to follow-up the issues raised in the SSAs as was required at the time.

Conclusion

3.127 The ANAO considers that the analytical phase of the surveillance process is not undertaken or managed as effectively as it might be by area or airline offices (formerly district offices). As a result, CASA does not always have early warning of an operator's unsafe practices which may result in a serious incident / accident. Proper analysis of surveillance results would allow CASA to identify unsafe operators early and develop appropriate enforcement strategies. It would also more effectively link ASSP with the other compliance processes of entry control and enforcement. Factors that have contributed to this lack of analysis include:

- the limited guidance given to the analysis phase in the ASSP Manual;

[46] A safety system assessment is an assessment using multi-discipline teams to identify and assess the safety systems of an operator. The assessments may be scheduled or unscheduled and may occur on a needs basis in response to a trigger or risk indicators.

- the emphasis, in area / airline offices (formerly district offices), is on using the ASSP database to manage the surveillance process rather than evaluate the outcomes;
- the current inability to link the ASSP and LARP databases for analytical purposes;
- the failure of area / airline offices (formerly district offies) to address the factors listed in the *Operator Selection Risk Assessment Form* and *Risk Observation Report*; and
- insufficient management focus at the area / airline office level on the need to identify and target high risk operators.

3.128 To ensure that the HRO assessments undertaken by Central Office are fully effective and based on all available information, the ANAO considers that any analysis undertaken by area and airline offices should be included in these assessments. The development of a risk assessment model will also assist in determining those operators with a history of non-compliance. However, the applicability of this model to small LCRPT and charter operators is not yet known (refer paragraph 4.22).

4. Developments in the Surveillance Program

This chapter discusses some recent developments in CASA's approach to surveillance particularly the move towards system-based audits and the development of a risk assessment model for RPT operations.

Systems-based approach to surveillance

Development of the approach

4.1 At the time of the audit, CASA was developing a systems-based approach for surveillance of larger airline operators. The systems approach will introduce a shift of emphasis from flight deck surveillance to the auditing of airline systems and management. CASA believes that it provides the opportunity to develop a series of safety barriers and reduces the present reliance on 'last line of defence' audits and, overall, is a more effective use of scarce surveillance resources. Initially, this new approach was only to involve flying operations but it has now been extended to include airworthiness. New system audit processes, procedures and practices are required and were being developed at the time of the audit.

4.2 CASA considers this approach will gain more acceptance within industry, given that current management trends are towards integrated management systems for quality, safety and environmental impacts. CASA advises that responses received from industry during recent briefings to airline operators have reinforced their acceptance of this proposed approach. The 'process model' for management systems, which addresses management responsibility, resource management, processes and measurement analysis and improvement is to be adopted. This model is based on ISO 9001:2000, Joint Aviation Regulations (Europe), ICAO annexes and International Air Transport Association standards and has been adopted to harmonise CASA's safety systems approach with local and international management systems.

4.3 It is proposed that operators' individual systems are to be assessed and given a maturity level rating. The level of surveillance activity undertaken is then based on this assessment.

Introduction of the proposed approach

4.4 The process for introducing the systems-based approach began in June 1998 and was to be trialled by flying operations in 1998–99. To accommodate this trial, the current ASSP levels of flying operations surveillance for the two major operators involved were significantly reduced. At the time of this audit the trial had not commenced, and the ANAO examined the level of surveillance activity that had been carried out by the controlling offices[47] of these operators from July 1997 to February 1999. As Table 10 outlines, only 28 per cent and 45 per cent of planned flying operations surveillance activities were completed for these two operators respectively in 1997–98. Planned flying operations surveillance from July 1998 to February 1999 was only 29 per cent and 14 per cent of the previous year's surveillance for the two operators. Despite this reduction in planned surveillance, to February 1999, only 21 per cent and 37 per cent of planned flying operations surveillance activity had been achieved for these two operators. It is a matter of concern that only minimal flying operations surveillance of major airline operators was undertaken during this period. All planned tasks relating to the airworthiness component of the AOCs were completed.

4.5 CASA advised that the level of surveillance was below the ASSP targets because of resource shortages and that the subsequent review of HCRPT surveillance tasks demonstrated that some of the surveillance planning was excessive and directed at areas which were unlikely to enhance air safety.

Table 10

Achievement of actual surveillance as a percentage of planned surveillance for HCRPT operators by flying operations and airworthiness disciplines

Operator	Flying Operations					
	Tasks Planned 1997–98	Tasks Achieved 1997–98	%	Tasks Planned 1998–991	Tasks Achieved 1998–991[1]	%
Operator 1	*542*	*150*	*28*	*155*	*33*	*21*
Operator 2	*436*	*196*	*45*	*62*	*23*	*37*
	Airworthiness component of AOCs					
Operator 1	*6*	*6*	*100*	*7*	*7*	*100*
Operator 2	*9*	*9*	*100*	*27*	*27*	*100*

Note 1: Although fieldwork was completed in March/April 1999, February was the cut-off point to ensure surveillance results had been entered into ASSP database.

Source: ANAO analysis of CASA surveillance data.

[47] The controlling offices were the only offices involved in the proposed trial.

Management of the project

4.6 Although the project was to be introduced in June 1998, in April/May 1999 the ANAO found that certain key elements and procedures had not been fully developed and the ASSP database could not capture the results of any such audits. Also at that stage, the details of the new approach had not been discussed with the major airlines. Training courses in systems auditing were being conducted for flying operations inspectors.

4.7 It was not until June 1999 that a project management plan was devised, and a structure established, to develop and implement this new approach. A communications plan addressing both industry and CASA staff was also developed.

4.8 Industry has now been briefed on the proposed approach and a safety system specification, against which operators will be assessed, has been developed for AOCs. An airworthiness safety system specification for maintenance organisations is yet to be developed, but is expected to be completed by late 1999.

4.9 In order to identify gaps and set targets for refining the specification, an initial system review against the new specification was planned for July 1999. A 12 month trial using 10 selected RPT operators commenced in August 1999. Audit staff competencies will be assessed during the trial period and system guidelines and checklists developed, with a first draft available in late 1999. It is envisaged that the system will be extended to other operators when fully developed. This is currently programmed to commence in July 2000.

Conclusion

4.10 The ANAO acknowledges the benefits of a systems-based approach for surveillance of larger airline operators. It is recognised that such an approach has the potential to be a more efficient and cost effective method of assessing the safety management systems and levels of compliance of these operators. However, while the system was being developed, the level of surveillance for the major airlines involved had been minimal and well below ASSP requirements. Little effort appears to have been made to increase the surveillance levels even when it became apparent that the trial would not eventuate during 1998–99 as planned. CASA advised that the level of surveillance was below the ASSP targets because of resource shortages and that the subsequent review of HCRPT surveillance tasks demonstrated that some of the surveillance planning was excessive and directed at areas which were unlikely to enhance air safety. Nevertheless, the example indicates the need for appropriate contingency planning in such circumstances.

4.11 Prior to June 1999, insufficient attention was given to proper project planning or the development of implementation and communication strategies to ensure the success of the systems-based approach. As a project management plan and structure has now been established and resources dedicated to the task, it is important that CASA management monitor and evaluate the progress of introducing this new approach against agreed timeframes and performance outcomes. It is equally important that, while this new approach is being developed and trialled, adequate surveillance activity is carried out on the airlines involved.

Recommendation No.6

4.12 The ANAO recommends that, to ensure the development and implementation of the systems-based approach to surveillance is properly managed, CASA should:

(a) monitor and evaluate the development and implementation of the proposed approach against agreed timeframes and performance outcomes outlined in the project plan; and

(b) ensure adequate levels of surveillance of all airline operations are properly maintained during the development, trialling and implementation of such an approach.

Agency response

4.13 Agreed. Monitoring and evaluation are fundamental elements of the project plan and monthly reports are supplied to the Assistant Director Aviation Safety Compliance Division. A full plan has been developed and is monitored on a monthly basis.

Risk assessment

4.14 The basic risk assessment approach adopted by CASA in relation to aviation safety is:

- to set and administer standards for entry and participation in the industry;
- to monitor operator's safety standards through surveillance methods—including audits, inspections and spot checks;
- to require corrective actions to bring safety performance up to standard; and
- to provide support and safety education programs to the industry to encourage responsibility for the safety of their own operations.

4.15 The ANAO sought to identify the other risk management processes used by CASA to achieve civil aviation safety. In particular, the ANAO was interested in identifying the management systems used by CASA to collect and store data indicative of industry safety performance. A further factor was the use of risk assessment methodologies to maximise safety and also achieve economies in the use of CASA's resources.

4.16 CASA's 1996–97 Annual Report referred to completion of the Safety Systems Assessment of Passenger Carrying Operators (SSAPCO) project. The report stated that the project, completed in December 1996, resulted in the development and introduction of a formal safety systems assessment (SSA) methodology into CASA's safety surveillance program

4.17 The SSAPCO report recommended that CASA managers take into account the data produced in a risk indicator matrix[48] when reallocating priorities and resources, including increasing or decreasing the level of surveillance of an organisation. It also recommended that the then district office managers be required by ASSP to conduct periodically (eg. annually, when operator profiles are reviewed) a joint (flying operations and airworthiness) risk assessment of their operators. Although this requirement was included in the ASSP manual the ANAO found that it was not being done (paragraph 3.12 refers).

4.18 Following on from the SSAPCO Report, a Risk Assessment of Aviation Organisations Project was approved and work commenced in April 1997. The original timeframe for the project envisaged four phases:

- concept phase—April–May 1997;
- definition and planning phase—May–August 1997;
- implementation phase—August–December 1997; and
- closeout phase—December 1997–April 1998.

4.19 The project was undertaken as part of CASA's strategic framework. It was commenced due to perceptions and concerns regarding the adequacy of CASA's Safety Information System methods of risk assessment of aviation organisations. A project team consisting of 32 members, half of whom were industry representatives, was formed. Its primary task was to develop a risk assessment tool that could be used by both CASA and industry. Emphasis was given to the development of a tool for use in the assessment of Regular Public Transport AOC holders.

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[48] Civil Aviation Safety Authority Australia, *Systems for Safety* Report, October 1997, p. 3.

4.20 The original timeframe for the project was not achieved but a prototype tool was developed for testing early in 1998. Although some preliminary tests were conducted in the first half of 1998, little further work was done until June 1999. It has now been decided to incorporate the risk assessment model with the proposed trial of a systems-based approach to surveillance. Work is in progress to refine the risk indicators developed in 1998 to enable data to be collected and analysed in conjunction with the system-based audit trial. CASA has advised that it expects the risk assessment tool to be available within three months to assist staff in monitoring the ongoing risk profile of operators overseen by airline offices. The appropriateness of the risk assessment model will be assessed at the conclusion of the trial in June 2000.

Conclusion

4.21 There are indications that the risk assessment model currently being trialled would present a worthwhile adjunct to CASA's surveillance program, especially in view of inspectors apparent inability to complete all planned surveillance tasks. The ANAO considers the risk assessment methodology has potential benefits both in terms of highlighting operations with a greater likelihood of unsafe practices and in achieving a more efficient use of CASA's resources. Minimal work has been carried out on the model in the past 12 months. However, CASA has advised that it expects the risk assessment tool to be available within three months to assist staff in monitoring the ongoing risk profile of operators overseen by airline offices.

4.22 The risk assessment model is to be included as part of the systems-based audit trial. However, as the trial will be directed at the larger RPT operators, it is not yet apparent whether the model will be applicable to small LCRPT operators as well as the more numerous group of relatively small charter operators throughout the industry. The ANAO considers there would be merit in examining the need for a separate model suitable for the smaller operators. Pending the development of such a model, CASA should reinforce the need for the *Operator Selection Risk Assessment Form* currently required by the ASSP manual to be completed as part of the surveillance planning process. The ANAO considers that, for any analytical process to be fully effective, the procedures to be followed should be documented and staff given appropriate training.

Recommendation No.7

4.23 The ANAO recommends that, in order to improve the determination of priorities in the conduct of surveillance, CASA should:

(a) examine the feasibility of extending the trial of the risk assessment process to include the development of a model suitable for smaller operators;

(b) reinforce the need for the *Operator Selection Risk Assessment Form*, currently required by the ASSP manual, to be used in surveillance planning; and

(c) document all analytical processes in the relevant manuals and ensure staff are given appropriate training.

Agency response

4.24 Agreed. A Risk Assessment Tool (RAT) has been developed and a cross-divisional working group will meet in late October 1999 to extend RAT across all operational segments. This project has been given high priority and should produce a prototype assessment RAT by November 1999.

5. Enforcement

This chapter discusses aspects of enforcement including the graded path concept, proposed new enforcement powers for CASA, how enforcement is managed, factors leading to and the timeliness of enforcement, and the practise of 'borrowing' AOCs.

Introduction

5.1 Under the Act,[49] CASA is responsible for conducting the safety regulation of civil aviation in Australia and the operation of Australian aircraft outside Australia. It does this through developing and promulgating appropriate, clear and concise aviation safety standards and developing enforcement strategies to secure compliance with those aviation safety standards. While compliance can be compelled where necessary, civil aviation safety depends on voluntary adherence by the aviation industry to regulatory requirements. In a recent letter,[50] the Director reminded industry that those operators who fail to accept their full responsibilities for the safe management of their operation, must accept the consequences and this may ultimately lead to them leaving the industry.

5.2 The statistics indicate that CASA's preference is to deal with non-compliant certificate holders, where possible, by means of administrative actions rather than prosecutions. Prosecutions are extremely time and resource intensive and can often take more than one or two years to initiate due to the complexity of the criminal justice system and delays in courts. CASA advised that often the only viable mechanism available to deal with non-compliant operators in a timely manner is by means of administrative action. In recent years, between 30–40 licence and certificate holders have been the subject of 'show cause' actions each year and between 10–20 licences and certificates have been cancelled.[51] Also each year, about 40 licence, certificate and permission holders have been subject to prosecution. The latter are mainly private pilots, who have committed offences.

5.3 CASA policy is that enforcement action is normally used as a last resort, unless it is obvious that a deliberate breach of the Act or Regulations has occurred, such that the safety of the travelling public is

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49 Civil Aviation Act 1988, Part II, Section 9 (1).

50 Open letter from the Director Mr Toller dated 12 August 1998.

51 Civil Aviation Safety Authority 1996–97 and 1997–98 Annual Reports.

under immediate threat. Where circumstances permit, CASA policy encourages inspectors to adopt a graded path of enforcement action[52] in order to achieve adherence to regulatory requirements. In the first instance, this should involve education and counselling, but if this is unsuccessful or a serious breach of safety requirements occurs, stronger deterrent action should be considered.[53] In doing this, CASA's regulatory program must be fair, reasonable and consistent and perceived as being fair by those subject to regulation. However, the policy makes it clear that in appropriate cases involving serious risks to safety, CASA delegates can, and should, take immediate suspension or cancellation action or refer a matter for prosecution.

Graded path of enforcement

5.4 When faced with a certificate holder who is not complying with the Act or Regulations, an inspector may elect to pursue a graded path of enforcement and, in the first instance, issue:

- a non-compliance notice (NCN) to an operator; or
- an aircraft survey report (ASR) for non-airworthy aircraft.

5.5 When operators have failed to react to either counselling by CASA or the issue of a significant number of NCNs or ASRs, an inspector can consider taking stronger action to secure compliance. The following are options for further enforcement action:

- require a pilot or Licensed Aircraft Maintenance Engineer (LAME) to undergo competency testing;
- cancel or suspend the licence of a pilot or aircraft maintenance engineer;
- either withdraw approval, or refuse approval, of the appointment of a chief pilot or maintenance controller;
- ground an aircraft;
- impose conditions on a certificate, such as removing the right to undertake a particular service, operate a particular type of aircraft or operate from a particular location; or
- seek to have a licence, permission or certificate cancelled.

5.6 Having identified that administrative action is necessary CASA, in accordance with legal requirements, provides a 'show cause' notice to the operator advising the facts and circumstances for suspending,

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[52] CASA Compliance & Enforcement Manual, Part 1, pp. 1–2.

[53] CASA Compliance & Enforcement manual, Chapter 1, paras 1.1.1 & 1.1.2, pp. 1–2.

cancelling or varying a licence, permission, certificate or approval held by an operator, pilot or maintenance controller by a certain date. The operator is required to respond advising why the proposed action should not proceed. CASA may also offer the operator the right to attend an informal conference, to discuss the issues raised in the show cause notice. If the operator cannot offer good reasons why CASA should not proceed, the appropriate action takes place.

5.7 The operator can appeal to either the Administrative Appeals Tribunal (AAT) or the Federal Court challenging the decision made by CASA. The AAT can review CASA's decision on its merits and can affirm the decision or set aside the decision and substitute its own decision. It can also grant a stay of CASA's decision. The Federal Court can, among other things, quash or set aside CASA's decision, uphold the decision or refer the decision back to CASA for further consideration. It can also grant a stay of the decision. The appeal bodies may either uphold, put aside or defer the administrative decision already taken by CASA. Where prosecution action has been initiated by the Director of Public Prosecution (DPP), operators and their staff can defend their actions in the courts. Although some of CASA's actions have been subject to appeal, in the last 18 months, the majority were found to have withstood challenge.

Recent developments in CASA policy on enforcement

5.8 In October 1998, the CASA Board agreed to the following underlying philosophy for its enforcement policy:

- subject to certain exceptions, a person who reports making an honest mistake generally should not be prosecuted or fined, or have their licence, certificate or authority suspended or cancelled;
- there should be a measured response to less serious contraventions of the safety rules that involves counselling, warnings, training or administrative fines, rather than either criminal prosecution or the suspension or cancellation of licences, certificates or authorities. Decisions taken on the latter group of options are to be made centrally by one of several senior managers, directly accountable to the Director and the Board, to ensure consistency and fairness in approach;
- due process should be the primary consideration in the enforcement process; and
- people who consciously choose to operate outside the rules or who put the lives of fare-paying passengers at risk should be prosecuted and removed from the industry.

5.9 The Board's philosophy is that, subject to safety considerations, anyone who admits to an unintentional contravention of the Civil Aviation

Regulations will, at most, be given a warning. If the nature of the contravention clearly indicates that the offender lacks the skills or knowledge that they should have, CASA may require the offender to take further training. CASA has advised it will take strong action, including referral to the DPP, for possible prosecution if:

- the contravention was deliberate, fraudulent or demonstrates a reckless disregard for the safety rules;
- the operator admits to being previously aware of the contravention only during the course of a CASA inspection or the contravention is part of a pattern of contraventions; and/or
- the contravention seriously endangers the safety of fare-paying passengers, other aircraft or people on the ground.

5.10 In addition to the above, the Board has proposed to the Minister, through the Department of Transport and Regional Services, that changes to the legislation or regulation be sought to enable CASA to:

- enter into voluntary undertakings with operators in relation to their future conduct, such as their attendance at appropriate training, for minor contraventions; and
- impose fines, which could be appealable in the courts, on operators for minor contraventions identified during CASA surveillance.

5.11 At the time of the audit fieldwork, these proposed changes to the legislation were still the subject of discussion between CASA and the Department.

Issues arising from proposed new powers

5.12 Enforcement actions present substantial technical legal challenges to any regulatory body. As the prime focus of the ANAO audit was on CASA's management of its compliance function, the ANAO did not examine the impact of the proposed new powers in any depth. However, the ANAO considers the following matters will require attention by CASA when, and if, the proposed additional powers are approved by the Parliament:

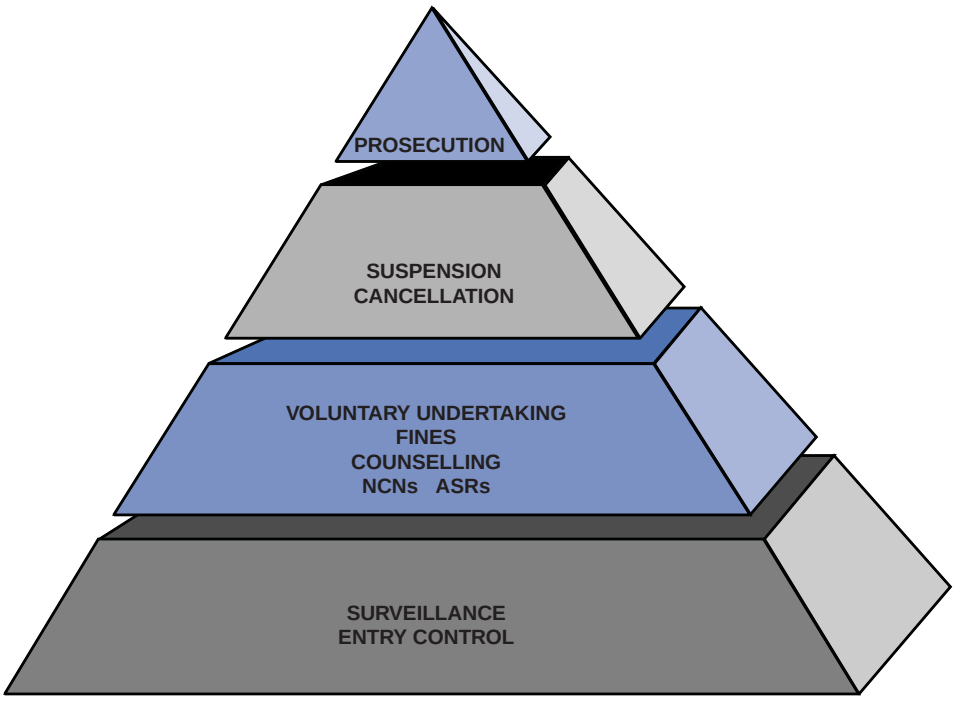
- as senior managers will be authorised to impose administrative fines, they will in many cases rely on the recommendations of area/airline office inspectors. Both they and the inspectors in the field will need to ensure that they are fully aware of CASA's powers when recommending and issuing fines so that the probability of successful appeals is minimised. This will require the development and provision of appropriate training courses for all parties involved as well as having access to relevant advice from CASA's legal counsel;

- the process of operators entering into voluntary undertakings at informal conferences, once a show cause action has been invoked, will require proper documentation. Also, for the undertakings to have any enduring significance they will need to be monitored by the responsible office. In the light of the ANAO's findings, cited earlier in this report, this will require improvement in the way CASA manages and prioritises tasks in its surveillance program; and
- an effective quality control system is in place to ensure that the evidence is reliable, and that the quality of the inspection and audits from which the evidence is derived is consistent with the standards set by CASA.

Pyramid of enforcement

5.13 If CASA is granted the proposed additional powers, it will be well equipped to ensure compliance by the aviation industry. Figure 1 relates CASA's powers to the supporting surveillance and entry control processes. It captures the fundamental importance of the supporting processes situated at the base of the pyramid. CASA needs to have full confidence in its ability to monitor industry compliance, so that when it identifies non-compliance, it is able to take action with a minimum of delay in the knowledge that the supporting documentation is reliable.

Figure 1
Pyramid of enforcement



Management of enforcement process

5.14 Prior to the recent restructure of CASA, which was announced in March 1999, the responsibilities for organising enforcement action were devolved as follows:

- proposed administrative actions were initially prepared by inspectors, in some cases with assistance from regional investigators and input from the Office of Legal Counsel and submitted to the then district manager. If the district manager agreed that action should proceed, the case was referred to the delegate, in most cases the then regional manager, for a decision on the action to be taken; and
- proposed prosecutions were submitted by inspectors to the then district manager who, if prosecution was appropriate, referred the matter to a regional investigator, keeping the regional manager informed of the progress of the investigation. The investigator prepared a brief of evidence concerning the alleged offence and a final decision on whether the brief should be referred to the DPP was made by the regional manager.

5.15 From March 1999, enforcement action is now centrally managed as follows:

- proposed administrative actions are to be submitted by inspectors to the area/airline manager through the team leader (formerly district manager), with input from an outposted OLC officer. Where the area/airline manager considers that the action should proceed, then a recommendation is made to the appropriate general manager in Central Office within the Compliance Division who has delegated authority to take the action. In the case of immediate suspensions under CAR 268, only the Director and the Assistant Director, Aviation Safety Compliance are empowered to issue such suspensions; and
- matters proposed for prosecution are to be submitted by inspectors through the team leader to the area/airline manager who decides whether the matter should be referred to the Manager Enforcement and Investigation (ME&I) in Central Office. The latter will decide if an investigation appears warranted or will suggest an alternative course of action to the area manager. On completion of an investigation, the ME&I will refer the matter to the responsible general manager for technical input, and, on receipt of this input, will decide whether the matter should be referred back to the manager for administrative or other action, or whether it is referred to the DPP for prosecution.

5.16 It should be noted that, while investigators are almost always instrumental in collecting evidence and preparing briefs for prosecutions, their role in supporting administrative action is usually subordinate to that of the inspector initiating the action. The DPP will decide, in accordance with the prosecution policy of the Commonwealth, whether a prosecution will proceed.

5.17 Under the new arrangements outlined above, Central Office must approve the proposed enforcement whereas previously the decision could be made at (the then) regional manager level. The new approach is intended to ensure a greater level of consistency in decisions relating to enforcement actions. If the arrangements are to succeed, CASA will need to ensure that there are no undue delays between the time a recommendation is made and a final decision taken. The ANAO considers that CASA should closely monitor the progress of cases under the new arrangements and review their effectiveness after 12 months.

Compliance and enforcement manual

5.18 Although the Act and supporting regulations, are the basic starting point for any enforcement action, the CEM outlines the procedures to be followed by CASA staff. The Office of Legal Counsel has, since late 1998, had a replacement CEM incorporating the new approach to enforcement, ready for release pending the passage of the proposed new regulations. Those regulations are not expected to be submitted to the Parliament for its consideration until late 1999, at the earliest.

5.19 The ANAO found there was some uncertainty in area/airline offices (formerly district offices) concerning the revised approach to enforcement. Pending the introduction of the revised manual, inspectors have been informed of changes in procedures principally by Email and also by memoranda. One cause of confusion arose from an Email in October 1998, that stated, *"the Board proposes to start implementing the policy as soon as possible"*. An audit report,[54] issued by the Quality and Internal Audit Branch in March 1999, found that, in some offices, this has been interpreted to mean the new policy was already in place while others continued to use the existing manual. The ANAO considers that CASA should clarify the procedures to be observed in relation to enforcement action.

5.20 The changes to the delegations necessary to give effect to the new enforcement policy, referred to earlier, have been issued by the Director and inspectors have been formally notified of these changes.

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[54] CASA Quality and Internal Audit Branch Report *Borrowed AOCs*, March 1999 p. 11.

Once the legislative changes referred to above have been enacted, CASA advises that these will be detailed in the revised CEM Manual. This should then be completed and distributed as quickly as possible.

Enforcement action

Decision making

5.21 Questions have been raised about CASA's reluctance to take enforcement or other action when necessary. In this context the Seaview Commission of Inquiry noted that a climate of 'institutional timidity' had been created within CASA.[55]

5.22 The ANAO examined its sample of 67 surveillance cases with a view to identifying operators whose surveillance history indicated an above average number of NCNs and ASRs. Five of these cases revealed a continuing pattern of non-compliance since 1997. The nature of the non-compliance suggested that the operators could represent a threat to aviation safety. Although a safety system assessment audit had been conducted in the case of three of the five operators and there was an apparent likelihood of further non-compliance, the then district offices responsible for these operators had not sought to vary the planned surveillance coverage. In most cases, the planned coverage had not been achieved, in some cases quite substantially. There had been no risk assessment of any of these operators despite clear patterns of non-compliance. In addition, the files bore no recent evidence of consideration being given to the merits of possible enforcement action.[56]

5.23 CASA advised that it recognised that under the previous regional manager structure that such problems sometimes occurred. To address this situation, CASA has put in place a structure with seven area managers to closely monitor and ensure enforcement action and ongoing reviews of operators' regulatory performance takes place in a timely manner. In addition, CASA has set up a centralised review cell (Compliance Practices and Procedures) to provide quality assurance oversight of compliance activities.

5.24 Factors influencing this situation include, operators, in some instances, using a wide variety of public forums to strongly contest the

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[55] Commission of Inquiry into the Relations Between the CAA and Seaview Air Vol 1, September 1996, p. 3.

[56] The ANAO's analysis of these five operators was provided to CASA at the conclusion of the audit fieldwork.

removal of their authority to operate and, as a consequence, distract attention from the safety issues involved. This has also meant that CASA inspectors may be reluctant to take strong enforcement action in a timely fashion for fear of being unnecessarily criticised in the media and elsewhere.

5.25 CASA advised that the Director recently wrote to all AOC holders to make its position clear about their obligations to take all reasonable steps to ensure their activities are carried out safely. It is considered that this represents a clear message that times have changed for marginal aviation operators and CASA staff have been told to take strong enforcement action against those operators who are not meeting their safety obligations.

5.26 The ANAO findings indicate that an important issue relating to CASA's enforcement activities is the time taken to reach a decision to proceed with action against non-compliant operators. The fatal accidents involving 'Monarch Airlines', and 'Aquatic Air' were examples of cases where CASA had identified non-compliance but, prior to the loss of aircraft, was still developing an enforcement strategy to deal with those operators. Earlier sections of this report have discussed the importance of analysis and risk assessment in the early identification of potentially high risk operators. Early identification of problems could act as a trigger for additional surveillance, the results of which could be used to determine whether enforcement action is warranted and if so, how it could best be undertaken.

Outcomes of CASA's enforcement action

5.27 The ANAO examined 10 AOC and Certificate of Approval holders, across three regions, who had been the subject of enforcement action. Included in these cases were nine AOC holders (three LCRPT and six charter operators) and one Certificate of Approval holder. All 10 cases were subject to administrative action and nine were given the option of attending an informal conference. Five of the 10 operators sought a review by the AAT of CASA's decision with the following results:

- in two cases, the AAT affirmed CASA's decisions;
- one challenge was subsequently withdrawn by the operator; and
- two operators had their suspensions lifted after entering into an agreement with CASA at informal conferences.

5.28 None of these challenges resulted in the AAT overturning or varying CASA's actions. Three of the 10 operators were also subject to prosecution. Two of the three prosecutions were successful.

Timeliness of enforcement action

5.29 In practice, as part of the enforcement process, a special effort may be required by inspectors, investigators and Office of Legal Counsel staff to obtain and document evidence that is sufficiently robust to withstand AAT and other legal scrutiny. In most of the cases examined by the ANAO, once the decision was made to proceed with enforcement action, the time taken was reasonably short. However, six of the operators had a history of non-compliance extending over a period of time. In one case this was 10 years.

5.30 CASA can expedite matters by ensuring that the quality of the evidence collected through the normal surveillance process is such that it constitutes admissible evidence and that all the necessary evidence is available to decision makers and courts at the time decisions are required. This will also mean that additional evidence gathering is not required to support the case. Where adequate admissible evidence is not available, decisions and action can be either delayed or not occur. If circumstances warrant and, to speed up the process of taking administrative action, CASA can also decide not to extend the informal conference option to the operator.

Conclusion

5.31 CASA has a range of legislative powers to deal with non-compliant operators and is seeking additional powers that will enhance its ability to take prompt action where contraventions are identified. CASA's preferred approach, as a general rule, is to apply a graded enforcement strategy that will encourage compliance without immediate recourse to penalties. In those cases where it has decided to apply the full range of sanctions at its disposal, CASA's actions have usually been successful in enforcing compliance.

5.32 The CASA Board decided on a new approach to enforcement in October 1998. However, there has been some uncertainty in area/airline offices (formerly district offices) concerning the revised approach. The ANAO considers that CASA should clarify the situation and ensure consistency of approach pending the introduction of the revised CEM. In the past, the management of enforcement actions has been delegated to regional managers but, because of some concerns about the lack of consistency of enforcement decisions, CASA has centralised the management of enforcement activities as part of its organisational restructuring. The ANAO considers that CASA should closely monitor these new arrangements and review their effectiveness after, say, 12 months.

5.33 An ANAO analysis of a sample of operators with a history of non-compliance disclosed that no special action had been taken to address the apparent risks to safety posed by these operators, even though they have had a continuing history of non-compliance. This, in turn, highlights the absence of a formalised analysis component in CASA's surveillance process. The decision to take action was often prompted by factors external to CASA which reinforced the results of its own surveillance program. On the other hand, external pressures have, in some cases, distracted attention from the safety issues involved and contributed to delays in taking enforcement action.

5.34 The Director recently wrote to all AOC holders to make CASA's position clear about their obligations to take all reasonable steps to ensure their activities are carried out safely, sending a clear message that times have changed for marginal aviation operators. CASA staff have been told to take strong enforcement action against those operators who are not meeting their safety obligations. The ANAO considers that such steps plus identifying operators with a significant history of non-compliance and developing appropriate enforcement strategies, CASA will be able to demonstrate a more proactive approach to enforcement. CASA should also ensure that the evidence collected during surveillance is of a quality that would be admissible in the courts.

Recommendation No.8

5.35 The ANAO recommends that, to ensure appropriate and timely enforcement action is initiated, CASA should:

(a) review those operators with a significant history of non-compliance and, if considered appropriate, develop enforcement strategies specific to those operators; and

(b) ensure that the quality of the evidence collected would expedite enforcement action.

Agency response

5.36 Agreed. CASA has developed an integrated enforcement policy that, over the first half of 1999, has demonstrated a significant increase in the identification and prosecution of non-compliant operators and individuals. Administrative actions have also increased and there have been no decisions overturned in any tribunal. These results reflect the progressive improvement of techniques, which should be further enhanced with the application of the risk assessment tool.

5.37 The new structure allows for internal audits by the Enforcement Coordinator and Senior Air Safety Auditors. Initial results have proven these audits to be an effective way of reinforcing the need for good record keeping and achieving rationally consistent outcomes.

5.38 Additionally, CASA has proposed a number of additional enforcement tools to enable it to deal with operators who may engage in inappropriate practices which may not necessarily constitute breaches of legislation or who have a history of minor non-compliances which would not justify prosecution or certificate action. These new tools (enforceable voluntary undertakings and administrative fines) will allow CASA to effectively deal with many of the issues raised in Chapter 5 of this report. Unfortunately, those legislative changes have not yet been enacted into law.

"Borrowed AOCs"

5.39 One of the significant recommendations arising from the Commission of Inquiry into the Seaview air crash was that the Civil Aviation Regulations be examined and, if necessary, amended to prevent sham arrangements involving the use of another operator's AOC. This arrangement is sometimes referred to as "borrowing" and refers to the process where an operator uses another operator's AOC in order to undertake activities for which they would otherwise be unauthorised. In March 1999 CASA's Quality and Internal Audit Branch issued a report on an audit of how CASA regulates the practice of "borrowing" AOCs. The audit was requested by the Director.

5.40 The findings of the Quality and Internal Audit Branch audit included:

- although legislative changes had been made in October 1998, they did not cover all circumstances of borrowing an AOC;
- the limited legislative controls over the details included on the AOC's for passenger charter operations and the current prescribed levels of surveillance limit opportunities for CASA to detect instances of borrowing/lending in this sector; and
- the nature of CASA's records resulted in its management being unable to obtain an accurate picture in respect of AOC actions or for inspectors to access a comprehensive history of non-compliant operators who may apply for permissions in a different location.

5.41 The audit identified 16 circumstances where "borrowing" or "lending" was occurring with no basis for administrative action to be taken against the AOC holder. It found that of 13 AOCs that had been

cancelled / varied / suspended, or where other enforcement actions had been initiated by CASA, during the 22 month audit sample period, four of those operators were involved in borrowing another AOC. Although CASA inspectors were concerned about the safety and legality of the process, there was no legislative basis for them to take action. Part of the difficulty is that if an AOC is cancelled, the operator is no longer an aviation entity in terms of the current legislation and CASA can take no further action against the operator.

5.42 The basic problem related to the differing legislative and ASSP controls between RPT AOCs and charter AOCs. The information required to be included on RPT AOCs is far more comprehensive and significantly limits the opportunities for a borrowing arrangement. Similarly, the range of controls in the surveillance program applied to RPT operations precludes the likelihood of borrowing. As a consequence, the findings of the Quality and Internal Audit Branch report indicate that borrowing of AOCs is far more common amongst charter operators than amongst RPT operators.

5.43 Another issue that emerged from the report was the complexity, in some instances, of some of the borrowing and business arrangements which made detection and evaluation of the arrangements by CASA difficult. This was further complicated by the lack of a national database of actions initiated by CASA against non-compliant operators.

5.44 The Quality and Internal Audit Branch report contained a number of recommendations to address the problems identified in that report. While CASA management had not, at the time this audit, provided any direct responses to these recommendations, the Director wrote on the 7 October 1999 to all AOC holders engaged in either charter or RPT operations to advise of proposed measures to address these issues. CASA envisages that the regulatory amendments necessary to implement the proposed changes will be finalised by 2000.

6. Corporate Governance

This chapter addresses corporate governance issues such as corporate planning, policy development and promulgation, strategic analysis and performance management. Also discussed are CASA's quality assurance mechanisms and its systems for responding to and monitoring the implementation of recommendations directed to CASA as a result of investigations, inquiries and reviews.

Introduction

6.1 In the seven years prior to the creation of CASA in 1995, its predecessor, the CAA had four chairmen, four chief executives and six heads of safety regulation. It is generally recognised that, at the time of its establishment, CASA was emerging from a difficult period and the Board and senior management were confronted with a major task in developing a cohesive organisation with clear strategies and guidelines for the future. Since 1995, CASA has also experienced considerable change at the Board and senior management level with three chairmen and two chief executives, as well as a number of reviews examining various facets of the organisation.

6.2 In 1995 the then Director, in consultation with the Board, developed and implemented a three phase rebuilding of the Authority. Phase one concentrated on standardising and documenting core business processes as they had existed, and in recruiting and training staff. In addition, physical and business infrastructure needed to be created. Phase two commenced in 1996 with two major regulatory review programs. These programs were aimed at rewriting the entire civil aviation safety regulations and a complete review of functional tasks, regulatory activities and the tools necessary to carry out CASA's responsibilities. Phase three was to incorporate changes recommended by the previous phases and to provide an organisation that facilitated the effective and efficient conduct of the functions of the Authority.

6.3 At the time of the audit, phase one had been completed with the establishment of the necessary infrastructure and the publication of manuals and handbooks covering most of CASA's activities. Phase two was still in progress following the publication in late 1998 of a significant component of the revised Civil Aviation Regulations.

6.4 Phase three, organisational restructuring, was in the process of being implemented at the time of the audit. A significant proportion of senior management positions, including the Director, have been filled

progressively during the past 12 months. The implementation of revised structures and the consequent appointment of new managers has required a period of adjustment for the Authority. At the time of the audit, the new management was in the process of developing and implementing measures directed at improving the organisation's performance.

6.5 It needs to be recognised that the staff of the Authority have experienced considerable turmoil with frequent top management turnover and accompanying changes in strategic emphasis and policy direction. There is little doubt that CASA would benefit from a period of management stability to enable it to be fully effective in carrying out its functions.

6.6 The basic elements of the rebuilding strategy adopted by CASA have progressed in accordance with the initial timetable but there are some aspects of corporate governance that need further attention. Broadly speaking, corporate governance refers to the processes by which organisations are directed, controlled and held to account. Corporate governance involves a range of responsibilities including the development and implementation of sound corporate strategies, policies and structures. It also entails the implementation of effective risk management, measurement of performance and reliable reporting of achievement of objectives.

Corporate planning and strategies

6.7 Although CASA was established in June 1995, it has produced only two corporate plans. These plans covered the periods 1995–96 to 1997–98 and 1996–97 to 1998–99. The latter plan, which contained full details of the three phase approach to rebuilding, was submitted to the Minister in August 1997, that is after the conclusion of the first year covered by the plan. The finalisation of only two corporate plans in the four years since it was established represents a clear breach of the legislation. The Civil Aviation Act provides that the CASA Board must prepare a corporate plan at least once a year and give it to the Minister (Section 44(1)). The plan must cover a period of at least three years (Section 44(2)) and include details of the following matters:

- assumptions about CASA's operational environment;
- the strategies of CASA;
- performance measures for CASA;
- review of performance against previous corporate plans;
- analysis of risk factors likely to affect safety in the aviation industry; and
- human resources strategies and industrial relations strategies.

6.8 In addition to the legislative breach, the failure to provide the Minister with a corporate plan has other implications. The Act also requires the Minister to table a copy of the corporate plan before each House of Parliament. This means that the Parliament has not had the opportunity to assess CASA's planning and strategies, or the nature of its performance against plans and strategies contained in previous plans. CASA advised the ANAO that it had reported, for each financial year, against the corporate plan in its Annual Report.

6.9 Equally important, the absence of a corporate plan may mean that neither the industry nor CASA staff are fully informed on the strategic directions proposed for CASA in the forthcoming period. This, presumably, is of some importance to industry in terms of its own planning in response to CASA's intentions. The ANAO recognises that CASA does communicate its policies and directions to staff and industry however, without clearly stated strategies outlined in the corporate plan there is a significant risk that the actions of CASA management and staff will be inconsistent with the direction the Board intends. Similarly plans and strategies developed within different elements of the organisation may be inconsistent or unco-ordinated, or may be nugatory, because they are based on imperfect knowledge of the overall strategic direction.

6.10 The existing corporate plan covered the period to the end of June 1999. At the time of writing this report a further plan had not been provided to the Minister or promulgated to staff. As a consequence, there may be confusion as to CASA's current corporate strategies. In the circumstances, it would not be surprising if CASA staff were uncertain about corporate philosophy and the appropriate response to emerging events.

6.11 The ANAO was advised that CASA had prepared a draft 1997–98 to 1999–2000 Corporate Plan in September 1997 but, due to a number of developments at the time, including changes in key personnel it was not formally presented to the Minister. In March 1998 the then Minister agreed to a request from the then Chairman to deferral of the plan on the understanding that he would like to see the corporate direction reviewed and requested that a new plan be presented to him as soon as possible after 1 July 1998 and no later than 1 September 1998. However, this deadline was not achieved.

6.12 Subsequently, a draft 1998–99 to 2000–01 Plan was developed in the latter half of 1998 but, following a request by the Minister for the inclusion of additional information and difficulties in resolving long-term funding issues, this plan had not been finalised at the time of writing this report. Even if the plan is presented to the Minister in the near future the first year covered by the plan will have passed.

6.13 A major factor contributing to the delays in formally presenting a corporate plan to the Minister has been changes at senior management level within CASA, including the Chairman of the Board, Board members and the Director of Aviation Safety. Draft plans have reflected, in some instances, the directions and priorities of the previous personnel and have not accurately represented the views of the present management. Difficulties beyond CASA's immediate control, such as resolution of long-term funding issues have also impacted on the finalisation of the plans.

6.14 CASA have advised the ANAO that the Minister has agreed that, following recent changes to the Board, the Board should finish its comprehensive corporate strategy process and submit a new corporate plan for 1999–2000 to 2001–02 by the end of 1999. The Annual Report for 1998–99 reports against the Corporate Plan for 1996–97 to 1998–99. The current Board has put in place arrangements to ensure corporate plans are prepared and submitted in a timely manner.

6.15 Coincident with the failure to finalise the corporate plans have been the absence of a strategic plan and business plan to guide developments within CASA. It is understood the Board is considering the preparation of plans of this nature to underpin the corporate plan but they are dependent on completion of a suitable corporate plan.

Recommendation No.9

6.16 The ANAO recommends that, to ensure the requirements of Section 44 (1) and (2) of the Civil Aviation Act are met and to provide information to the Parliament and appropriate guidance to the aviation industry and CASA staff, CASA should:

(a) complete the current corporate plan as a matter of urgency; and

(b) give a high priority to the development of procedures to ensure that a corporate plan is submitted to the Minister at least once a year and, preferably, before the commencement of the first financial year covered by the plan.

Agency response

6.17 Agreed. The current Board has put in place arrangements to ensure that corporate plans are prepared and submitted in a timely manner. The Board has undertaken to provide the Minister with a new corporate plan by the end of 1999.

Organisation structure

6.18 In April 1998, CASA announced the creation of a new top structure as part of a proposed organisational restructure. The underlying basis for the new structure encompassed recommendations from a number of reports and external inquiries. Subsequently, in March 1999, CASA announced a proposed restructuring, subject to consultation with unions/staff associations, of the remaining elements of the Authority. Implementation of the new structure, which entailed a nett reduction of some 70 positions was being implemented during the course of the audit.

6.19 The main features of the new organisation are the establishment of four principal divisions that reflect the functions/responsibilities of CASA with four additional functional branches. The four principal divisions are:

- Aviation Safety Standards;
- Aviation Safety Compliance;
- Aviation Safety Promotion; and
- Corporate Services.

6.20 The Aviation Safety Compliance Division is responsible for compliance by industry operators with the safety regulations relating to entry control, surveillance and enforcement. In addition to Central Office the former structure contained 16 district offices overseen by three regional offices.

6.21 It was considered that coverage of the three regions was too extensive, with regional managers being too remote from their staff and clients. It was decided that, from the point of accountability, local CASA representation and management load, seven areas offices and three airline operations offices based on the location of operators would be the optimum arrangement. Each area manager would be accountable for the operators within their area. It is also proposed that some existing district offices will be amalgamated with associated relocation of some staff. As indicated in Chapter 5, another important feature of the new organisation is a more centralised management of the enforcement function with a view to ensuring greater consistency.

6.22 The introduction of area managers in lieu of regional managers should improve the direction and oversight of district offices carrying out entry control and surveillance functions. However, although the new structure was announced in March 1999, a number of detailed aspects were still to be resolved and it will take some months for the new structure to be fully implemented.

6.23 The ANAO sought details of the methodology used to determine the future resource requirements. The information supplied was of a general nature and suggested that in the case of inspectors it was, in part, based on a previous staffing formula that had been found to have some weaknesses. The reply also stated that the future implementation of a more structured risk analysis process and the move towards system-based safety assessment practices will mean that the original resource methodology can be more accurately and effectively applied.

6.24 The ANAO considers that, unless carefully managed, there is a risk that the proposed restructure could further hinder the achievement of the required level of surveillance of the aviation industry. Pending the development and implementation of improved risk analysis processes and systems-based surveillance practices, it would be appropriate to conduct an examination of the factors underlying the present situation where only a comparatively small proportion of inspectors' time is applied to planned and unplanned surveillance tasks. As indicated in Chapter 3, an analysis of the ASSP database revealed that inspectors are spending only 15–17 per cent of their time on surveillance tasks. As noted earlier, CASA has indicated concern about the accuracy and consistency of the data entered into the database and it does not contain information on other duties performed by inspectors such as regulatory services and regulatory action such as show cause notices, suspension and cancellation of licences and certificates and follow-up of outstanding NCNs. However a limited review, undertaken by CASA's Quality and Internal Audit Branch, suggests that a high proportion of time is spent on lower priority regulatory services to the detriment of surveillance matters. A reversal of this situation would provide greater assurance that safety surveillance is not being jeopardised.

Management of policy

6.25 CASA issued a General Policy Notice 001 in November 1998 titled the 'Management of CASA Policy'. The purpose of this notice was to set out the responsibilities and method for managing the development, issue, cancellation and retrieval of all CASA policy. The Notice defined policy as *'a course or general plan of action issued as a direction to others by a person or group that has the appropriate authority'*. It went on to state that

> *though there may be many contributors to the development of CASA policies, the responsibility for determining policy lies with the Minister, the Board and the Director. The Director or, in the Director's absence, his nominated delegate shall be the only person to approve and issue CASA policy.*

The Notice distinguished between regulatory policy, advisory/ interpretative documentation and non-regulatory policy.[57]

6.26 At the time of the audit, the Quality and Internal Audit Branch promulgated non-regulatory policy as controlled "on-line" documents for inclusion in the Public Folders.[58] All non-regulatory policy has an expiry date of 12 months from the date of issue, unless an earlier date is specified. The Director of CASA may re-issue non-regulatory policy after he reviews it and confirms it is still valid and required.

Changes to policy

6.27 A primary source of information about CASA policy is contained in the various manuals that have been produced to guide officers in the performance of their duties. All CASA manuals are issued under the signature of the Director and represent CASA's policy on the matters contained in the manuals. Subordinate staff do not have the authority to vary these manuals except by way of the documented amendment process. It was drawn to ANAO's attention that there was an increasing volume of unofficial policy changes, (i.e. not authorised by the Director), being added to the contents of the manuals. Despite the fact that General Managers were assigned as sponsors of various manuals, the Manual of Controlled Documents states that amendments are subject to the same controls as a new manual.

6.28 Some of the recent policy advice has emanated from an appropriate area (an area with the appropriate authority) but has been promulgated by E-mail, minute or memorandum. There is a risk that important policy changes issued in this form may not be recorded in the formal policy documentation, ie manuals. As a consequence, the ANAO considers this could give rise to situations where:

- the legality of actions taken by CASA could be open to question;
- policy is not known to all staff;
- there could be inconsistencies in the approaches to tasks by CASA inspectors; and
- important policy changes could be overlooked.

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[57] Regulatory policy sets out the rules by which CASA regulates the aviation industry, namely legislation. Where regulatory policy allows some degree of flexibility in the application of rules by giving discretion to the decision maker, advisory/interpretive documentation such as procedures, criteria and advisory material is developed to outline how the rules should generally be applied. Non-regulatory policy is setting the bounds within which CASA will operate and includes cost recovery, staff recruitment, training and delegation to industry.

[58] Public Folders are a shared directory system within the CASA computing network that allows staff electronic access to CASA policies and common information.

6.29 If the changes are intended to be formal changes in policy they should be issued in accordance with approved procedures and in such a way that they can be incorporated into the appropriate policy documentation, such as procedure manuals or policy notices.

6.30 The ANAO obtained details of a sample of policy changes issued by Central Office over the past twelve months. A number of these matters affected existing policy contained in procedure manuals but the contents of the manual were not immediately changed, resulting, in some cases, in conflicting or inconsistent policy direction. As noted in Chapter 5, the ANAO observed that the Compliance and Enforcement Manual had not been re-issued to reflect policy changes advised by E-mail in October 1998.

6.31 In June 1999, the ANAO was advised that there had been a change in priorities relating to enforcement, surveillance and regulatory services. Meetings had been arranged with industry and staff at various locations to outline the revised priorities, however, there was no evidence that these revisions had been endorsed in accordance with the formal procedures outlined above.

6.32 The ANAO considers that CASA should ensure that changes in policy, especially when they relate to regulatory matters, are promulgated in accordance with the approved amendment process to reinforce the basic control system actually works.

Safety monitoring

Analysis of data

6.33 The Civil Aviation Act states:

> *9. (1) CASA has the function of conducting the safety regulation of the following, in accordance with this Act and regulations:*
>
> .....
>
> *(g) conducting regular reviews of the system of civil aviation safety in order to monitor the performance of the aviation industry, to identify safety-related trends and risk factors and to promote the development and improvement of the system.*

6.34 The ASSP database contains a considerable amount of information relating to industry participants and the outcome of safety surveillance conducted by CASA. As Chapter 3 noted, the ANAO found that CASA has not taken full advantage of the data. As well, there has been only limited analysis of the contents of the database. It was noted that some inspectors and managers had undertaken some analyses, on an individual basis, in respect of activities in their local area but there was little

indication of structured analysis on a national basis. Information in the database could be used to identify safety issues, such as deficiencies in certain types of aircraft, recurring maintenance failures and classes or types of operations or aircraft most likely to have safety problems.

6.35 CASA also has access to a range of other information relating to safety, including Major Defect Reports (MDR), Electronic Safety Incident Reporting (ESIR) and material from investigations and reports by BASI. The integration of this information with the other data collected directly by CASA would assist in determining risk indicators and providing an overall assessment of the safety performance of the industry and of safety related trends. It would also be of value in developing strategies and priorities for action and in providing benchmarks and industry norms.

6.36 Safety information management has been the subject of several reports and internal audits since 1994. The most recent reviews were a report completed by CASA's Quality and Internal Audit Branch in January 1998 and an external consultant's report in February 1999. Both of these reports concluded that it was doubtful that CASA was effectively meeting the requirements of Section 9(1)(g) of the Act. Both reports found that, although there were numerous sources of data within and outside CASA, there were few direct links or formal interfaces between these components to provide a comprehensive set of safety measures/ indicators. The more recent report commented that there had been progress in 1998 with the formation of an Executive Information Management Group to oversee corporate information issues and a proposal for a Safety Intelligence System (SIS) in the 1998–99 Information Management Plan.

6.37 In November 1997 the former Safety Committee, comprising mainly senior managers was disbanded and a new Committee containing at least two independent members of the Board was formed. The charter for the restructured Safety Committee stated its primary responsibilities were to focus on the assessment of safety matters and the adequacy of corrective action taken by CASA management and the identification of issues which require policy or strategic recommendations to the Board. In particular, the Committee was to:

- conduct reviews of the system of civil aviation safety in order to monitor the safety performance of the aviation industry and to determine if safety related trends and risk factors had been identified and appropriate management action taken;
- monitor operational civil aviation safety issues identified by CASA management; and
- conduct assessments of international safety developments.

6.38 As noted in Chapter 3, the Board Safety Committee has been replaced by an Executive Safety Committee which will include senior CASA management and a representative of the Audit Committee. At the time of the audit, a charter for this new committee was being developed.

6.39 As part of the reorganisation of CASA that was being implemented at the time of the audit, the aviation safety promotion function which includes the collection and analysis of safety information and statistics was elevated to division level.

6.40 Since the June quarter 1998 CASA has produced a quarterly report titled *Aviation Safety Trends.* The report contains accident and incident data together with a small quantity of data on non-compliance extracted from the ASSP database. The report is largely statistical data and contains only a limited analysis of trends.

6.41 The restructuring of the Safety Committee and the higher status accorded to aviation safety promotion, as well as the additional analytical capability that will be provided by the new LINK system should lead to an improvement in the range of analyses. Due to the withdrawal of the contractor responsible for the LINK project it may be some time before the full integration of CASA databases is achieved.

Safety intelligence system

6.42 In May 1999 CASA initiated the SIS strategy which is aimed at providing:

- an infrastructure to assist in monitoring safety trends;
- tools to identify emerging safety issues and potential safety hazards;
- risk assessment methodologies and criteria; and
- safety performance indicators.

6.43 The ANAO acknowledges that the development of a comprehensive system that would enable safety performance, trends and risk indicators to be accurately determined is a difficult task. It is understood that other nations have experienced difficulty in developing a satisfactory system. The ANAO recognises the benefits of the proposed strategy but, in the past, achievements in implementing similar systems have been limited. It is important that progress with the implementation of the proposed strategy should be closely monitored and regularly reviewed.

Recommendation No.10

6.44 The ANAO recommends that, to ensure the requirements of Section 9(1)(g) of the Civil Aviation Act are met, CASA should:

(a) develop and foster a strong analytical capability to undertake systematic analyses of safety information; and

(b) closely monitor progress in implementing the proposed Safety Intelligence System.

Agency response

6.45 Agreed.

Performance measures

6.46 A related factor is the development of meaningful performance measures to indicate the success of the strategies adopted by CASA. As mentioned earlier, Section 44(4) detailed matters that must be included in the corporate plan, including performance measures for CASA and a review of performance against previous corporate plans. In the absence of a recent corporate plan, the ANAO reviewed the performance information relating to entry control, surveillance and enforcement contained in the two most recent Annual Reports. These reports listed a range of performance and workload indicators. However, the reports contained only a small amount of information or data relating to these indicators.

6.47 The ANAO noted that some of the indicators listed in the 1996–97 Annual Report[59] had not been included in the 1997–98 Annual Report, eg:

- surveillance results for recent entrants are satisfactory—(control entry);
- recent entrants corrected identified deficiencies within an agreed timeframe—(control entry);
- percentage of planned surveillance tasks completed—(secure compliance); and
- proportion of non-compliance for which corrective action is completed—(secure compliance).

6.48 The reasons for the exclusion of these indicators is unclear as they would appear to provide a useful indication of the success of CASA's entry control and compliance procedures. Other matters that have been

[59] Civil Aviation Safety Authority Australia 1996–97 *Annual Report*, p.17.

retained or added are primarily concerned with the number of activities undertaken and do not show matters outstanding, or planned activities versus achieved activities. Nor do the reports contain a comparison of results against previous years to indicate variations in workload or achievement. As indicated earlier in Chapter 3 of this report, the ANAO found that the achievement of planned surveillance was considerably below the planned program and that surveillance productivity had fallen between 1997–98 and 1998–99. It is considered that data of this nature would be of greater value to the Parliament and the Board in assessing CASA's achievements.

6.49 The ANAO was advised that proposed projects for the Aviation Safety Compliance Division would include the development of assessment data reporting structures to ensure that regulatory aims are met and that key performance indicators are regularly assessed. There would also be regular reporting of Aviation Safety Compliance Division activities against performance indicators to enhance performance and productivity. Proposed performance indicators developed for the Aviation Safety Compliance Division in association with the re-organisation were provided to the ANAO. However, these indicators were primarily associated with development and implementation of new procedures and did not focus on entry or surveillance results or productivity.

6.50 The ANAO considers that there would be benefit in developing performance indicators that clearly identify productivity levels; achievement against plans for major resource areas; matters completed within assigned timeframes; and tasks outstanding. In addition, comparative data from previous years would be beneficial in assessing current performance. Such information is essential both for management and external stakeholder review purposes.

Recommendation No.11

6.51 The ANAO recommends that CASA develop and publish a range of suitable performance measures, including annual comparative data, that will clearly indicate the results, and productivity, of its major resource areas in monitoring aviation safety.

Agency response

6.52 Agreed. This will flow directly from the Corporate Plan that is currently being developed. Business plans will also provide data for these performance measures.

Training

6.53 Since its establishment, CASA has placed considerable importance on training and staff development programs. CASA provides support to its core operational areas through the provision of training programs which underpin those areas and develop appropriate skills and competency levels for its staff. The 1996–97 to 1998–99 Corporate Plan stated CASA's intention to align the National Training Program with the outcomes of the Regulatory Review Program to ensure requisite skills in core areas, ie, certification, surveillance, enforcement, safety systems, legal, ethics, interpersonal and technical know how.

6.54 The CASA training unit comprises eight staff some with specialist qualifications (one flying operations inspector and three airworthiness inspectors). Where appropriate, CASA has adopted a team training approach using specialist trainers in combination with practitioners in the field. Courses have been initiated having regard to the identified needs of the regulatory, technical and operational elements of the organisation and appropriate training materials developed. A course catalogue, listing details of courses to be offered is produced every six months. The 1997–98 Annual Report showed that staff had attended courses for a total of 3415 training days.

6.55 The ANAO noted that other reviews of CASA had contained recommendations for increased training within CASA to ensure that all staff possessed the necessary competencies and skills. The ANAO examined attendance by flying operations and airworthiness inspectors at courses relevant to entry control, the ASSP database and compliance. These courses covered the following matters:

- *ASSP Database*—to enable ASSP users to efficiently access and use data from the ASSP database;
- *Airworthiness Entry Control*—exposure to the breadth of issues to be considered in regard to the issue of a Certificate of Approval and approval of the airworthiness component of RPT AOC holders; and
- *Securing Compliance/Ensuring Compliance*—to provide an understanding of, and an appreciation for, a systems approach to aviation safety and to have a working knowledge of the procedures contained in ASSP, Compliance and Enforcement and other relevant manuals.

6.56 Table 11 contains the outcome of the ANAO's examination of attendance at the above courses.

Table 11
CASA Training statistics

CASA—Training of Airworthiness & Flying Operations non-Canberra based staff (up to January 1999)							
		Course					
		ASSP Database		*Airworthiness Entry Control*		*Securing Compliance**	
	No. of Staff	*No.*	*%*	*No.*	*%*	*No.*	*%*
DAMs, SAWIs & AWIs[60]	*91*	*86*	*94.5*	*76*	*83.5*	*70*	*76.9*
DFOMs & FOIs[61]	*76*	*66*	*86.8*			*37*	*48.7*
Total	***167***	***152***	***91.0***			***107***	***64.1***

Source: CASA National Training Program statistics cross-referenced to CASA telephone directory dated January 1999.

*Includes Ensuring Compliance training.

6.57 The above table shows that, while the majority of staff has attended the ASSP database and entry control courses, the percentage of staff attending the Securing/Ensuring compliance course could not be regarded as satisfactory, especially in respect of flying operations inspectors. It was noted that, based on training records maintained by CASA, no flying operations staff from the Townsville, Coffs Harbour, Darwin or Perth District Offices, and only a small proportion of all District Flying Operations Managers, had attended the course in Securing/Ensuring compliance. Similarly, no airworthiness staff from the Jandakot District Office had attended this course.

6.58 CASA has developed a well structured training program designed to increase the skills and competencies of its staff. However, not all staff have attended the principal courses aimed at ensuring compliance with safety regulations by the aviation industry. This is a matter that requires management attention. It is considered that CASA should develop a training register to ensure that all staff have received the necessary training to carry out their duties.

[60] District Airworthiness Managers (DAMs), Senior Airworthiness Inspectors (SAWIs), Airworthiness Inspectors (AWIs).

[61] District Flying Operations Managers (DFOMs), Flying Operations Inspectors (FOIs).

Quality management systems

6.59 Quality is defined by the Australian Quality Council as the total effect of the features of a process, product or service on its performance, or on the customer's perception of that performance. It is not just a feature of a finished product or service but involves a focus on internal processes and outputs and includes aims such as the reduction of waste and improvement of productivity. Quality assurance is one of the processes used by an organisation to standardise its core procedures to ensure that its own output requirements and its customers' expectations are consistently met. Quality control involves another more traditional set of procedures aimed at having effective accountability, reporting and review procedures in place across all levels of an organisation.

6.60 CASA had developed a Quality Manual which set out CASA's broad approach to implementing its quality policy. The CASA quality management system was based on the Australian standard. The overall objective of the system was to provide a framework in which CASA could conduct its activities in such a way that there was ongoing and gradual improvement based on measurement and verification. The Quality Manual was withdrawn at the beginning of 1999 as it no longer reflected CASA's organisational structure and has not yet been replaced.

6.61 The progress of the quality management system was to be measured by:

- the outcome of surveillance reporting, indicating continual improvement in industry compliance and in the effectiveness of delegations to industry in maintaining high safety levels; and
- the effective measurement of organisational efficiency and compliance with policies and procedures via an ongoing program of audits and complaints recording.

6.62 The Quality Manual contained a provision for annual management review of the suitability and effectiveness of its quality management system. This evaluation was to consider audit results, service delivery results, client assessment and requests for corrective action. The review was to assess these matters against CASA's legal responsibilities, business objectives and project plans. The quality management system was to be modified or upgraded in response to outcomes of the review. The ANAO considers that such a review would be valuable provided the performance data available for the review is based on a comprehensive assessment of all the relevant material.

6.63 The ANAO sought information from CASA on the impact of the proposed restructuring on quality management procedures within the Compliance Division. CASA advised that the existing systems would be maintained and that a number of projects were being initiated to improve the processes. The projects included a comprehensive review of procedures for entry control and surveillance in association with the proposed system-based safety assessment, the development of information technology systems for recording and reporting and the development of reporting structures to ensure that regulatory aims are met and key performance indicators are assessed. Future internal audit programs will be aimed at ensuring that consistency is maintained throughout the Division for compliance activities and in subsequent data collection and entry.

6.64 CASA further advised that to ensure a standardised approach is taken to surveillance, the Compliance Division has established a Compliance Practices and Procedures (CPP) Section. This section will be responsible for monitoring the productivity of staff and that priorities and procedures are being observed. Also, a unit of Central Office based senior air safety auditors will review all audit reports produced by area/airline offices. Other quality system measures will include:

- peer evaluations undertaken in each office;
- senior air safety auditors and CPP staff participating in local surveillance audit teams on an ad hoc basis; and
- the CPP undertaking analyses of the ASSP support system on a national level and provide reports to all levels of management on surveillance audits that are outstanding and the amount of time spent on surveillance.

6.65 The ANAO acknowledges the actions proposed to improve quality system procedures but is aware that these mechanisms do not appear to have been applied effectively in the past. As outlined elsewhere in this report, there is scope for considerable improvement in the development of performance measures, analysis of data to highlight areas of concern and in the response to issues and recommendations arising from reviews of CASA's existing processes. It is apparent that, if CASA is to achieve its quality objectives, appropriate leadership, including additional management attention is required.

6.66 CASA managers have primary responsibility for the quality of work carried out by their staff. However, the Quality Manual placed considerable reliance on the internal audit function for independent verification of compliance with policies and procedures and in their

consistent application by staff. The ANAO recognises that audits have been effective in identifying shortcomings in existing practices and procedures but considers that management involvement throughout all phases of the compliance function should be seen as integral to the implementation of a qualtiy system.

Conclusion

6.67 Quality control involves having effective accountability, reporting and review procedures in place across all levels of an organisation. Although CASA has developed an infrastructure incorporating the basis of a sound quality system, it has not been used effectively. A robust system of quality management requires continuing management commitment and well developed control processes to ensure effective measurement and assessment as a guide to the improvement of systems and performance.

6.68 A major recurring theme throughout this report has been the absence of quality management in the performance of CASA's compliance function. Overall, CASA has well documented procedures which, if fully implemented, would provide a reasonable degree of assurance that safety standards are being maintained. However, the ANAO found a lack of consistent adherence to these procedures which puts at risk both CASA's effectiveness and the resulting public's confidence and assurance. The measures such as the establishment of the CPP section that CASA has introduced as part of the current restructuring represent an advance on the existing arrangements.

6.69 As the above measures had not been implemented at the time of the audit, the ANAO was unable to assess their effectiveness. It is not evident that peer evaluation has been successful in the past and there is a risk that it may lack independence and objectivity. If peer evaluation is to form a significant element of the quality system, clear guidelines need to be developed concerning the way in which it will be applied and how improvements arising from the evaluations are to be accomplished. The ANAO considers use of senior air safety auditors would be enhanced if they were to review the activities of area offices on a routine rather than an ad hoc basis. A regular program of inspections / audits would provide feedback to area and central office managers on the quality of surveillance undertaken and the appropriateness of existing practices and procedures. It would also provide senior management with a greater assurance that regulatory standards are being applied in a consistent and equitable manner and in accordance with established documented procedures.

Recommendation No.12

6.70 The ANAO recommends that, to ensure an effective system of quality management for compliance activities, CASA should:

(a) develop clear guidelines for the conduct of peer evaluation and how the outcome of these evaluations are to be used;

(b) develop a program of reviews by senior air safety auditors to ensure regular coverage of all area offices;

(c) analyse the outcome of senior air safety auditor reviews to identify trends in and opportunities for improvement in compliance practices and procedures; and

(d) update and re-issue the Quality Manual.

Agency response

6.71 Agreed. These elements are accepted as fundamental parts of a system of quality assurance and will be implemented as elements of a greater system of quality management. CASA is re-assessing its manual structure and distribution in order to give effective guidance to staff.

Response to previous reviews

6.72 CASA has attracted ongoing and extensive debate in Parliament and the media since it was established in July 1995. CASA and its predecessor, the CAA have been the subject of various parliamentary, judicial and coronial inquiries and external and internal reviews. The extent of these reviews and inquiries is indicated by the following list:

- The House of Representatives Standing Committee on Transport, Communications and Infrastructure (HORSCTI) undertook an inquiry into aviation safety and released its report *Plane Safe* in December 1995;
- a Commission of Inquiry into Relations between CAA and Seaview Air was completed in 1996;
- various quasi legal internal inquiries into regulatory failures within CASA, such as the 1998 Skehill inquiry into the Aquatic Air fatal accident and the Pearce Report of deficiencies in certain engines;
- BASI reports of aircraft accidents and incidents that often include recommendations for CASA;
- a BASI investigation of the recent efforts to change “G” class airspace management in 1999;

- the Willoughby & Broderick report concerning the CASA organisation structure;
- Quality and Internal Audit Branch reports covering a diverse range of topics, including Compliance and Enforcement 1996, Aviation Safety Monitoring 1997, Airworthiness Directives Function 1997, Data Evaluation in the Aviation Safety Surveillance Program1998, Entry Control for New Operators 1998;
- two Parliamentary reviews announced by the Senate Rural and Regional Affairs and Transport Committee in April 1999; and
- a review by ICAO in August 1999 of aspects of Australia's aviation safety regime.

6.73 Most of the reviews have contained recommendations requiring some action by CASA to remedy shortcomings identified during the course of the review. The ANAO did not seek to examine CASA's actions in implementing all of these recommendations. However, it was observed that many of the issues raised and the recommendations arising from this audit were similar to those raised in previous reviews. It was therefore considered appropriate to assess the procedures developed by CASA to monitor the implementation of review recommendations.

6.74 CASA has advised that, at the end of each major review, it sets up a small group to develop a response to the recommendations. The size and composition of the group depend on the significance of the review and the amount of follow-up work that has to be done. The usual practice is for the group to develop an action plan, with clearly defined completion dates for individual items, and then to nominate managers responsible for those items. In most cases, the action plan has been endorsed by the Board and sometimes sent to the Minister.

6.75 Although the procedures also indicate that the usual practice is to have a monthly, or sometime longer period, updates on progress, the ANAO was unable to find evidence that the Board receives regular comprehensive updates on implementation of the outcome of reviews. As well, the ANAO observed that, where updates were available, the action on many recommendations was identified as completed even though they had only been partially implemented, or full implementation of the recommendation was dependent on matters either in train or in prospect.

6.76 The ANAO found that, until October 1998, there was no formal system for recording and following up recommendations contained in BASI reports. The ANAO noted that, in many instances, recommendations

contained in Quality and Internal Audit Branch reports did not have a management response to indicate whether or not the recommendations had been accepted by the responsible area within CASA. Also, at the time of the ANAO audit, there was no system in place to record and follow up implementation of Quality and Internal Audit Branch recommendations.

Conclusion

6.77 The ANAO recognises that it is not incumbent on CASA to accept and implement all recommendations arising from reviews and inquiries into its activities. In some cases, decisions in response to the recommendations may have been overtaken by other events, or it is not possible to give effect to the recommendations because of resource or other constraints. However, it is considered that existing procedures should be enhanced to ensure that a structured process is in place to deal comprehensively with the examination, implementation and finalisation of action on all recommendations directed to CASA as a result of investigations, inquiries and reviews. In most cases, it would be appropriate for the Board, Director and/or Assistant Directors to endorse the proposed response, including timeframes, to these recommendations and the allocation of responsibility for implementation, where necessary, to nominated officers. A cost effective system to monitor, review and report on the status of agreed recommendations should also be introduced.

Recommendation No.13

6.78 The ANAO recommends that, to ensure all significant recommendations contained in reviews of CASA activities receive appropriate attention, CASA should enhance procedures for:

(a) examining, implementing and finalising all recommendations, and subject to endorsement by the Board, Director and/or Assistant Directors, the proposed responses and actions plans; and

(b) provide regular reports to the Board, Director and/or Assistant Directors on progress with the implementation of recommendations.

Agency response

6.79 Agreed. CASA has recently put procedures in place to ensure all significant recommendations containing reviews of CASA activities receive appropriate attention. This has been demonstrated in the approach taken by CASA in dealing with the two most recent investigations, the Pearce

Report and the Skehill Report into the Acquatic Air Accident and the formal system now in place to record and follow-up BASI reports. CASA is also reviewing the function and procedures of its Quality and Internal Audit area and following-up recommendations will be examined during this review. CASA believes that it has demonstrated that it clearly recognises the importance of dealing with reports of inquiries in a timely and comprehensive way.

Canberra ACT
22 November 1999

P. J. Barrett
Auditor-General

Appendices

Appendix

Entry control legislative requirements and procedural documentation

Legislative requirements

Sub-section 9(1) of the C*ivil Aviation Act 1988* states:

> *CASA has the function of conducting the safety regulation of the following in according with this Act and the regulations:*
>
> *(e) issuing certificates, licences, registrations and permits*

Air operator's certificate

Section 27 of the *Civil Aviation Act 1988* provides, among other things, that an Air Operator's Certificate is required for commercial operations as outlined in Civil Aviation Regulation (CAR) 206 for:

- aircraft flying into, or out of, Australian territory; or
- aircraft flying in Australian territory; or
- Australian aircraft flying outside Australian territory.

Section 28 (1) of the Act states that if a person applies to CASA for an AOC, CASA must issue the AOC if it is satisfied that the applicant has complied with, or is capable of complying with, the provisions of the Act, the Regulations and the Civil Aviation Orders that relate to safety including provisions about the competence of persons to do anything that would be covered by the AOC. CASA also has the statutory power to impose or vary conditions on an AOC under section 28BB and 28BC of the Act.

Certificate of Approval

CAR 30(1) states that a person engaged, or intending to engage, in any stage of design, distribution or maintenance of aircraft, aircraft components or aircraft materials may apply to CASA for a Certificate of Approval in respect of those activities. CASA must grant the applicant a certificate covering the activities to which the application relates if CASA is satisfied that the applicant is able to carry out such activities in a satisfactory manner. CAR 30A outlines the procedure to be followed for any proposed changes to certificates and CAR 269 allows for the variation, suspension or cancellation of licence, certificate or authority by CASA.

Procedural documentation

The Air Operator Certification Manual provides the policy, procedures and administrative processes to be followed by CASA staff in assessing an application for the issue of an AOC. The manual is made available to potential AOC holders so that these applicants can better prepare their application. The Certificate of Approval manual sets out the procedures to grant or change a Certificate of Approval for the design, manufacture, distribution and maintenance of aircraft, aircraft components and materials.

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