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Assurance and Control Assessment Audit

Recordkeeping

Australian National Audit Office

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Australian National
Audit Office

Canberra ACT
1 May 2002

Dear Madam President
Dear Mr Speaker

The Australian National Audit Office has undertaken an Assurance and Control Assessment audit 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 *Recordkeeping.*

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

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

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Abbreviations/Glossary

ACA audits	Assurance and Control Assessment audits—undertaken by the ANAO as a general performance audit examining common business activities and processes across several organisations.
AFDA	Administrative Functions Disposal Authority—regulates the retention and disposal of records of common administrative activities that are undertaken by most Commonwealth organisations.
ANAO	Australian National Audit Office
AS	Australian Standard—promulgated by Standards Australia including those on records management, *AS15489:2002* and *AS4390:1996*—see also ISO below.
BRIK	Business Records, Information and Knowledge—a records and information management system developed at IP Australia which forms part of a case study on this audit (see Appendix).
DIRKS	Designing and Implementing Recordkeeping Systems—a Strategic Approach to Managing Business Information as promulgated for use by Commonwealth organisations amongst others (see also paragraph 2.1 for DIRKS Steps A to H).
disposal	a range of actions that can change a record or remove it from its usual setting. Disposal can include destruction, damage, deletion, migration or transfer of custody or ownership.
disposal authority	a document issued by the National Archives in accordance with the *Archives Act 1983* that describes records and how long they should be kept.
EDMS	Electronic Document Management System
e-permanence	name referring to the set of policies, standards, and guidelines published on the internet by National Archives from March 2000 to help guide recordkeeping in Commonwealth organisations.
Government Online	the Commonwealth Government strategy announced in April 2000 to drive provision of its services online (i.e. through the internet).
IP Australia	stands for Intellectual Property Australia, being the Australian Government agency dealing with property rights in inventions, trademarks and designs.

ISO	International Organization for Standardization—promulgates international standards including a records management standard, *ISO15489* in 2001, that was then adopted by Standards Australia as an Australian Standard (*AS15489:2002*). The ISO standard was largely based on the earlier Australian Standard (*AS4390:1996*).
metadata	data describing the context, content and structure of records and their management through time (that may be 'records on the records').
National Archives	National Archives of Australia
NOIE	National Office for the Information Economy
recordkeeping	making and maintaining complete, accurate and reliable evidence of business transactions in the form of recorded information.
records	recorded information in any form (including data in computer systems) that is created, received, and maintained as evidence and information by an organisation or person, in the transaction of business or the conduct of affairs, and kept as evidence of such activity.

Summary and Recommendations

Summary

Background

1. There have been significant changes to public sector management over the past 15 years that have affected recordkeeping in Commonwealth organisations—these include devolution of authority, downsizing, restructuring, and a redirection of attention from process more to results. Furthermore, the rapid developments in information and communications technology, particularly in the area of electronic transactions, have meant that recordkeeping controls must undergo fundamental change. The pace of this change is likely to continue to accelerate with the emergence and rapid growth of online services, *e-business*, and electronic communications and transactions.

2. Government organisations are moving into an era of increasing and changing risks and other management challenges brought about by new ways of delivering services, such as outsourcing and the greater use of information technology. In this context, there is concern about organisations' ability to preserve those records which are needed to support the delivery of programs and services, and to meet their accountability, as well as archival, obligations. For example, the Australian Law Reform Commission in its 1998 review of the *Archives Act 1983*[1] pointed to the 'parlous state of recordkeeping' in many Commonwealth organisations.

3. The standard of recordkeeping has been a recurring issue in Australian National Audit Office (ANAO) audits in Commonwealth organisations over recent years. Many ANAO reports have noted an absence of, or only limited, ongoing documentation or records, such as in audits of risk management and internal controls. There have been some notable examples in particular audits where the level of documentation available was insufficient to evidence and support administrative actions and decision-making processes[2].

4. Recordkeeping is an essential enabler in any organisation's corporate governance and critical to accountability. Just as for other governance elements such as financial management or audit, it needs to be strategically and professionally managed. The statutory support for accountability within the

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[1] Australian Law Reform Commission, Report No.85 *Australia's Federal Record—A Review of Archives Act 1983 AGPS 1998*.

[2] *Recordkeeping in Commonwealth Agencies—An Audit Perspective* Presentation by Pat Barrett, Auditor-General for Australia, to the National Archives of Australia Advisory Council, Canberra, 11 August 2000.

Commonwealth[3], places significant responsibility for recordkeeping practices on the heads of organisations. Supported by their own accountability and assurance mechanisms, such as through audit committees and boards of management, the heads of organisations must both support and gain commitment from all their staff who are, in turn, responsible for recordkeeping in respect of their own assigned activities and public duties.

5. A sound appreciation of recordkeeping assists the organisation to satisfy its clients' needs and also helps the organisation to deal positively with legal and other risks. When linked with information management more broadly, sound recordkeeping can assist organisations' business performance by better informing decisions, by exploiting corporate knowledge, supporting collaborative approaches, and by ensuring resources are not wasted, for example by unnecessary searches for information and/or re-doing work.

6. Modern electronic records and knowledge management techniques have allowed many organisations to identify opportunities for better performance. As a consequence, at least some organisations are beginning to make a transition to a new approach to recordkeeping. This transition was being assisted by recent developments in the recordkeeping profession in Australia and internationally. In the Commonwealth, the National Archives of Australia has developed its *e-permanence* recordkeeping standards (see paragraphs 1.6 and 1.7).

The audit

7. This audit of recordkeeping is being undertaken at a time when there is an opportunity for a significant advance in the recordkeeping practices of Commonwealth organisations. In this context, the ANAO undertook an Assurance and Control Assessment (ACA) audit[4] of recordkeeping across four Commonwealth organisations. The organisations included in this audit were the Attorney-General's Department, the Civil Aviation Safety Authority, Comcare, and the National Registration Authority for Agricultural and Veterinary Chemicals.

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[3] Legislation relevant to recordkeeping that applies to all Commonwealth agencies, includes the *Archives Act 1983*, the *Freedom of Information (FOI) Act 1982* and the *Privacy Act 1988*. These Acts deal with the overarching issues of maintenance, archiving and disposal of records, access to records by the public, and confidentiality of records. Also of relevance, particularly from a management accountability viewpoint, are the *Public Service Act 1999* (and the Public Service Commissioner's Directions regarding accountability under section 11 of the Act), the *Financial Management and Accountability (FMA) Act 1997* and the *Commonwealth Authorities and Companies (CAC) Act 1997*.

[4] ACA audits are undertaken under the general performance audit provisions of the *Auditor-General Act 1997*. They examine common business activities and processes that are not specifically covered by financial statement or other performance audits. The report to Parliament is generally aimed at improving administration across the Commonwealth public sector. The findings of these audits are indicative, rather than representative, given the relatively small number of agencies involved.

8. The audit objective was to:

- assess whether organisations' recordkeeping policies, systems and processes accord with requirements under the *Archives Act 1983*, with relevant government policies, and with accepted standards and recordkeeping principles; and
- identify better practices and recommend any improvements to organisations' current arrangements.

9. The audit asked questions that addressed both electronic and traditional records, using audit criteria that reflected key recordkeeping developments. The assessment was undertaken against recordkeeping aspects of each organisation's internal control framework. The elements of the control framework are the risk assessment, control environment, control activities, communication of information, and monitoring/review (refer Table 2).

Audit conclusion

10. The four audited organisations were at different stages of development of their corporate recordkeeping. Most of the audited organisations had just started to systematically assess their recordkeeping needs across the organisation and its various functions. All were starting to appreciate the need to develop their recordkeeping and, increasingly, the potential for this to be part of business process re-engineering and of a strategy for improved information management more broadly.

11. None of the organisations reviewed in the audit fully satisfied the criteria under the recordkeeping model applied on the audit. Each organisation had several recordkeeping environments that met the criteria to varying degrees, as the following indicate:

- In all cases, the central records management area coordinated a paper-based filing system as the formal corporate recordkeeping system. Such areas used a proprietary records management information system to help control the files and collect recordkeeping information. System design included basic recordkeeping controls, though in practice they are not always applied as carefully and as effectively as they should be.
- In most audited bodies, business systems were operating that were not covered by the formal corporate recordkeeping system. The records being managed in these systems were often very significant. In two organisations, the volume and number of paper-based project/case records outweighed those in the corporate registry system. While organisations had processes in place to provide assurance that the paper in these business systems is held as an evidential trail for business use, the design of these systems

was not based on a full consideration of recordkeeping needs and principles. As well, organisations had not fully considered informational and recordkeeping risks relating to the management of these business records over time.

- The electronic recordkeeping environment is composed of diverse applications such as email, databases and information systems, web-sites, and other electronic documents in various versions and workspace locations (for example, word processing documents). Organisational approaches to the capture of records from this environment had not been fully developed. Organisations generally advocate a simplistic 'print-to-paper' approach to staff capturing records from the electronic environment. However, this approach to recordkeeping has not been fully developed and consistently implemented by organisations. Increasingly, the approach is also not meeting recordkeeping requirements across the full range of their electronic applications.

12. A critical factor identified in organisations' management of the transition to better recordkeeping was for the organisation to view recordkeeping strategically, as part of information management more broadly, and develop its recordkeeping accordingly. This would desirably be achieved as part of a corporate-level approach to development of recordkeeping across all business units and recordkeeping environments. All the organisations included in the audit had started to recognise the need to upgrade their approach to recordkeeping. Three organisations had commenced a change program for their recordkeeping arrangements and had commenced a systematic assessment of recordkeeping needs.

13. Recognising that recordkeeping is an integral part of doing business, and that it contributes to sound business, is a crucial step in the transition from viewing records as an administrative overhead to viewing them as a corporate asset. Under this more strategic approach, development of recordkeeping systems can be an essential part of business process re-engineering. In addition, while technology exists to build better recordkeeping into business processes and electronic document management systems, technology will not be effective without the necessary in-depth needs analysis, policy settings, and understanding and ownership of the recordkeeping changes in the organisation. A staged, planned approach allows time for laying these necessary foundations of effective change.

Sound and better practices

14. Policies, procedures and practices that reflect and support better practice assist continuous improvement. The audit sought to identify such practices in the audit assessment of organisations' recordkeeping frameworks. Good

practices that were observed in at least one of the organisations audited are shown in Table 1.

Table 1

Sound and better practices observed in at least one of the organisations audited

Control framework	Sound and better practices
Risk assessment	✓ Systematic assessment of recordkeeping needs leading to development of recordkeeping tools for the organisation that are of use in recordkeeping systems development, such as a business classification based on functions and an updated disposal authority coverage
Control environment	✓ Establishing an information services/knowledge management unit reporting directly to top management and headed by a 'Chief Information Officer' responsible for both recordkeeping and related information functions ✓ Establishment of a high-level recordkeeping analysis and strategy unit to undertake systematic analysis of recordkeeping and information needs, to help design new recordkeeping systems, develop corporate recordkeeping policy, and to assist implementation through training and review
Control activities	✓ Integrating implementation of electronic document management and recordkeeping systems ✓ An integrated quality assurance package encompassing recordkeeping and other business processes, and that consists of a procedural framework, training, quality review, and corrective action mechanisms ✓ Maintaining the quality of sentencing and disposal practices through a central archives unit responsible for disposal/preservation strategy
Communication of information	✓ On-line system prompting on recordkeeping responsibilities to accompany excess capacity warnings over personal workspace ✓ A structured program for induction of new staff, including sign-off on a one-on-one briefing by the records manager and close supervision until performance is demonstrated
Monitoring / review	✓ Internal audits and follow-up audits of recordkeeping practice and independent scrutiny of specific recordkeeping issues, such as legal compliance risk and privacy of information ✓ Quality assurance audit teams include the senior corporate records manager and corrective action is taken on quality assurance audit findings

Compliance issues

15. Generally, organisations are not able to be assured that all significant records are being captured and maintained in accordance with Commonwealth record disposal requirements under the *Archives Act 1983*. For example, maintaining printed records of email and other electronic documents depends on a consistent understanding of specific responsibility and timely responses by individual officers. The audit found there was variable practice in organisations in this regard. Also, electronic records in some management information systems were not suitable to be captured in paper formats and are vulnerable to unauthorised disposal. It is important to note the legal compliance implications applying to disposal of email and other electronic records.

16. In several organisations, records of administrative processes were also vulnerable to unauthorised disposal as they were not always being kept, or were sometimes being held loose or otherwise outside of the formal recordkeeping systems. For example, in one organisation the personnel section was disposing of records associated with personnel processing before the retention periods authorised by National Archives under the *Administrative Functions Disposal Authority 2000*.

17. The ANAO also drew attention to the need for adequate supervision of sentencing of records for destruction. In one organisation, the contracted service provider had sentenced files for destruction other than in accordance with the relevant disposal authority.

18. Most organisations had taken initial steps to meet requirements for recording their web-based activity under the *Government Online* strategy to drive provision of services through the internet. However, organisations' self-reporting to the National Office for the Information Economy (NOIE) did not accurately reflect their level of adherence to the *Government Online* recordkeeping guidelines. Three of the four organisations were taking electronic snapshots of their web-sites as one measure that is suggested under the guidelines. Web-sites are Commonwealth publications of archival significance. As such, attention also needs to be given to incorporating the snapshots into the formal corporate record system at appropriate intervals. Also, to fully meet the guidelines, organisations should systematically document their recordkeeping needs in respect of web-based activity and should keep the analysis under review as their use of web-sites develops. At present, organisations are not undertaking formal and systematic assessment of recordkeeping aspects of their web activity.

19. Though protective security was not a focus of this audit, the ANAO did observe that several of the organisations audited could improve their physical protection of business records at some work-sites in accordance with

Commonwealth protective security guidelines. This would better manage the risk of unauthorised access to information, including some classified as commercial-in-confidence.

Key Findings

Assessing recordkeeping needs

20. Most of the audited organisations had commenced systematically analysing and specifying their recordkeeping needs and business information strategies using the standard, risk-based approach promulgated by the National Archives in the Commonwealth as DIRKS (Designing and Implementing Recordkeeping Systems). However, most had not yet committed to the full DIRKS process, particularly those parts of the approach that enable effective systems development and implementation strategies. Organisations should also undertake analysis of recordkeeping needs in specific areas. An example is in relation to their web-site activity where there is a formal requirement under the *Government Online* strategy.

Control environment

21. As part of their corporate governance responsibilities, senior management in Commonwealth organisations should issue a consolidated statement of corporate policy on recordkeeping, both for purposes of accountability and for the information of their staff. The policy would define responsibilities for recordkeeping and set broad recordkeeping standards. Recordkeeping needs to be seen as an integral part of the way organisations do business rather than as something extra at the end of various processes.

22. Several of the organisations audited had recognised that they could do more to provide adequate organisational support for recordkeeping and to develop its linkages to strategic information management more broadly. They had commenced closer consideration of their electronically-sourced records and the informational and management opportunities that these provided. However, in some organisations, the mandate and skills of the central recordkeeping units were restricted more to a traditional registry function and controlling paper-based filing systems. This meant that a significant amount of corporate information could be outside corporate control, with consequent informational risk for the organisation.

Control activities

Capture of records

23. The audited organisations could not be sure they were capturing in their corporate recordkeeping systems all the electronically-sourced records that they

should, both for legislative and for management requirements. Organisations were relying on a print-to-paper approach to capturing electronic records. However, they had not developed procedural and other controls to provide effective support to this approach. In practice, there were significant risks relating to capture of email and electronic documents from personal workspace. Increasingly, recordkeeping in corporate applications, such as databases, could not be managed using a paper-based approach. Some organisations had started to save electronic snapshots of their web-sites. However, they needed to periodically incorporate the snapshots into the formal recordkeeping system. As web-sites develop into mechanisms for conducting an organisation's business online, more attention will need to be given to how records of the organisation's web-based transactions are captured and managed for greater effectiveness.

24. Most of the organisations included in this audit had business records that were managed through systems that were not recognised and developed as recordkeeping systems. Records affected included significant case and project files, and essential core business data. In the further development of the business information systems, organisations need to give consideration to building in the recordkeeping functionality and records management and control information (metadata) for these core business records. Gaps in collection of recordkeeping information compromise an organisation's ability to prove the authenticity, accuracy and integrity of their records and to manage their records efficiently and with appropriate protection.

Disposal/preservation

25. The audited organisations had not sufficiently assessed the risks to their records over time and developed appropriate strategies. Physical storage of inactive paper files in leased warehouses and basements did not meet applicable standards in relation to aspects such as climate control, fire control and security. The risk of technological obsolescence of important electronic records (such as data in information systems) also needs greater consideration. Loss of access to these records, in effect represents disposal for the purposes of the Archives Act. Accordingly, it would be advisable for organisations to give the issue advance consideration and decide on appropriate guiding principles and strategies to adequately manage this risk.

26. The audited organisations should also develop their policies, procedures, and strategic approaches to disposal and sentencing. The audit identified the vulnerability of electronic and other records that are not currently being captured in the formal recordkeeping system, to unauthorised disposal. There is also scope in organisations to update and upgrade controls and procedures for disposal of their paper-based files. Issues include quality assurance over sentencing

processes and the need to actively manage the disposal program rather than simply reacting to storage factors. Modern approaches to recordkeeping, such as aligning business classifications of records with disposal authorities and automated records management information systems, can produce management efficiencies (for example, sentencing on creation).

Communication of information

27. The organisations audited should give greater attention to improving their recordkeeping procedural guidance. Guidance needs to be up-to-date and more closely targeted for use by various audiences, such as records managers and line staff with their creation/capture responsibility.

28. There is also a need for attention at a corporate level to training all personnel to help them meet the recordkeeping responsibilities of their regular business activity. In addition, ongoing communication is needed to keep staff advised about emerging recordkeeping issues.

Monitoring/review

29. Most of the audited organisations had been undertaking reviews of their recordkeeping through the DIRKS recordkeeping needs analysis and also through internal audits. These are proving very useful in prompting necessary changes, although the coverage and scope of internal audits can be developed to provide improved assurance in relation to emerging areas, such as electronic records. To supplement periodic internal audit assurance on recordkeeping, there is a need for central recordkeeping units to be given responsibility for ongoing monitoring and review in support of corporate recordkeeping development and performance. In developing terms of reference for recordkeeping reviews, attention should be given to National Archives' *e-permanence* guidelines to agencies and to the Australian and international standards on records management. The records management standards are seen as enabling improved risk management and greater stakeholder assurance, as well as resulting in cost savings for users.

Recommendations

The summary of recommendations below should generally have relevance to all Commonwealth organisations and have been framed accordingly. The ANAO accords a high priority to implementation of Recommendations 1, 2(a), 3(a) and 5.

Assessing recordkeeping needs

Recommendation No. 1 Para. 2.16

The ANAO recommends that organisations undertake systematic, risk-based assessment of recordkeeping needs at a level to enable them to design systems to capture and maintain records in accordance with business and stakeholder needs, legal requirements (including those relating to privacy and security issues), and relevant government policies and records management standards.

Control environment

Recommendation No. 2 Para. 3.15

The ANAO recommends that organisations:

a) develop and implement a corporate-wide recordkeeping policy to define responsibilities and apply standards, and that encompasses all record formats including electronic;

b) access specialist skills and professional records competencies in the development of their organisational recordkeeping;

c) assign responsibility for coordinating recordkeeping development as part of broader information management responsibilities; and

d) implement information systems that have sufficient capability to support records management—both in respect of dedicated recordkeeping systems and of the recordkeeping functionality of business systems that have a recordkeeping role.

Records capture and classification

Recommendation No. 3 Para. 4.26

The ANAO recommends that organisations promote effective capture, retrieval and management of records by:

a) promulgating guidance to staff on recordkeeping procedure, including simple aids for staff outlining approved practices for capturing essential business records;
b) developing procedural and other controls to ensure capture of electronic records such as from web-sites, management information systems, email correspondence, and documents in personal and shared workspace;
c) ensuring that records are sufficiently specified and classified to allow efficient search and retrieval; and
d) creating and maintaining essential contextual and records management information (i.e. metadata).

Records disposal/preservation

Recommendation No. 4 Para. 4.50

The ANAO recommends that organisations assess and manage the risks in disposal and preservation of their records, by:

a) evaluating their standards of physical storage in terms of the longevity and sensitivity of the records;
b) developing strategies to actively manage the disposal of their paper-based files, as well as strategies for preservation/migration of records held in electronic form; and
c) assessing the occurrence of electronic and paper records that are not currently captured into the formal recordkeeping systems, to ensure that they are not disposed of except as properly authorised.

Recordkeeping skills and awareness

Recommendation No. 5 Para. 5.13

The ANAO recommends that organisations enhance recordkeeping skills and awareness by:

a) providing corporate training to line staff on their recordkeeping responsibilities, including record creators, supervisors and new staff; and

b) developing an ongoing communication program on recordkeeping to maintain awareness and knowledge.

Monitoring and review

Recommendation No. 6 Para. 6.10

The ANAO recommends that organisations promote continuous improvement in recordkeeping by implementing suitable mechanisms to manage the quality of their recordkeeping performance and processes—for example, further developing the effectiveness of internal audit coverage and ongoing monitoring by records management coordinators.

Responses

30. Overall, the audited organisations responded positively to the audit, agreeing with the above recommendations. One organisation noted however, that competing system development priorities would make it difficult to commit in the short term to work in respect of its core business systems under Recommendations 2(d) and 3(d).

31. The ANAO has also provided an individual report to management in each of the organisations audited, with recommendations specific to recordkeeping in each organisation. The organisation-specific recommendations were very similar to the above, and similarly, the organisational responses to the individual audit reports and to the recommendations, were largely favourable.

32. National Archives also supports the audit recommendations and commits to continuing to work closely with Commonwealth organisations to help them institute systems, policies and procedures which will ensure that full and accurate records of government decisions and activities are made and kept. National Archives states that in particular, it recognises that a key issue for organisations is management of the difficult transition from paper-based to electronic recordkeeping. To that end, it will make every effort to promote commitment to

the management of records, including email and web-based records, as corporate assets.

33. National Archives responded favourably to the audit overall, saying that it is pleased to see recordkeeping as the primary focus of an ANAO Assurance and Control Assessment audit. National Archives considers that this attention by the ANAO underlines the importance of good recordkeeping as a key enabler of good governance, organisational efficiency, and democratic accountability.

34. The ANAO is planning to conduct further audits of recordkeeping in other Commonwealth organisations over the next few years. These audits will aim to provide assurance on the progress being made in developing recordkeeping at a time of significant transition to an e-government environment.

Audit Findings and Conclusions

Introduction

1.1 Recordkeeping is a key component of good corporate governance and business practice. Sound recordkeeping practices assist organisations to improve business performance by better informing decision-making and by exploiting corporate knowledge. In addition, sound recordkeeping offers business efficiencies as, for example, valuable resources will not be wasted by unnecessary searches for information and/or re-doing work. Sound recordkeeping systems also assist organisations with their corporate accountability obligations, for example, to demonstrate that due process has been followed in actions and decisions.

Background on developments in recordkeeping

1.2 Changes in the management of Commonwealth organisations since the mid-1980s significantly affected their recordkeeping functions. The range of management reforms has included corporatisation, devolution of authority, downsizing, efficiency drives, outsourcing, privatisation, reorganisations, restructuring of the workforce, and a redirection of management attention away from process more to results. All of these and others had a significant effect on recordkeeping controls. There are indicators that recordkeeping practice in Commonwealth organisations generally have not sufficiently kept up with the changing business environment. By 1998 the Australian Law Reform Commission in its review of the *Archives Act 1983* pointed to the 'parlous state of recordkeeping' in many Commonwealth organisations.

1.3 At the same time there have also been rapid advances and significant developments in information and communications technology, particularly in the area of electronic transactions, and significant growth in the pace of change to electronic business processes. Automated recordkeeping systems, the growth of email traffic, and the implementation of government business and information provision on-line, create new opportunities and challenges for organisational recordkeeping and knowledge management. The technological shift was recognised with the enactment of the *Electronic Transactions Act 1999* which aims to assist the use of electronic communication as a valid form of business transaction to satisfy obligations under Commonwealth law.

1.4 The increased use of electronic data processing, new opportunities of electronic recordkeeping and knowledge management, and developments in the recordkeeping profession, has meant that many organisations are undergoing transition to a new approach to recordkeeping. The transition needs to be carefully managed. Strategies to overcome rapid obsolescence of electronic

formats, to adequately record on-line transactions and the proper context in which they are made, to manage a transition to less paper-based systems, and to effectively address recordkeeping issues from a myriad of data collections, are amongst current developments in electronic recordkeeping.

New approaches to recordkeeping

1.5 Recordkeeping framework issues are a key development in organisational responses to this changing environment. The *Australian Standard—Records Management (AS4390:1996)* was used as the basis for development of an international standard on records management. The International Standard (*ISO15489*) was released in September 2001. The records management standards are seen as enabling improved risk management and greater stakeholder assurance, as well as resulting in cost savings for users. In 1997, the National Archives of Australia endorsed *AS4390:1996* as 'best practice' in its published guidance to Commonwealth bodies.

1.6 Following the Australian Law Reform Commission's 1998 report on the *Archives Act 1983*, National Archives promulgated guidance to Commonwealth bodies on recordkeeping practices. The basic thrust is that, in accordance with professional standards, recordkeeping should be managed systematically by Commonwealth organisations and not allowed to 'just happen'. An approach that treats recordkeeping as a continuum[5] requires that records be managed from system design through record creation, maintenance and use, to disposal and archiving. In March 2000 the National Archives released an extensive range of recordkeeping standards, policies, tools and guidelines for the Commonwealth on the National Archives' web-site <www.naa.gov.au> under its *e-permanence* logo.

1.7 The *e-permanence* guidelines form the basis for a coherent framework for Commonwealth recordkeeping. Some of the guidelines are formal requirements—for example where they are linked to government recordkeeping requirements for web-based activity under the *Government Online* strategy of April 2000 or where agencies must comply with disposal provisions in the *Archives Act 1983*. For example, the *Administrative Functions Disposal Authority—February 2000* (AFDA) governs the disposal of records relating to common administrative functions. A manual to assist Commonwealth organisations implement the approach has been issued that is titled *DIRKS—A Strategic Approach to Managing Business Information*. The DIRKS approach (paragraph 2.1) is at the core of the *e-permanence* recordkeeping framework.

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[5] The term 'records continuum' means the whole extent of a record's existence and refers to a consistent and coherent regime of management processes from ... creation of records (and before creation, in the design of ... systems), through to preservation and use of records as archives (*AS4390:1996*).

Audit approach

1.8 The audit objective was to:

- assess whether organisations' recordkeeping policies, systems and processes accord with requirements under the Archives Act, with relevant government policies, and with accepted standards and recordkeeping principles; and
- identify better practices and recommend any improvements to organisations' current arrangements.

Scope

1.9 The audit was concerned with recorded information in any form (including data in computer systems) that is created or received and maintained by an organisation or person in the transaction of business or the conduct of affairs, and kept as evidence of such activity. This definition of 'records' is consistent with that in the international records management standards.

1.10 Records of interest included not only those in organisations' formal registry files, but also those outside the recognised recordkeeping systems (such as in mainstream business processing and information systems, database applications, personal folders and shared drives). The ANAO also considered recording of web-based activities in terms of requirements under the *Government Online* strategy. All records as described, regardless of their format, carry evidence and therefore need to be considered and managed by organisations. The audit scope covered the records continuum from system design, record creation, maintenance and use, to disposal and archiving, and included consideration of particular issues associated with electronic formats.

Criteria

1.11 The recordkeeping arrangements in organisations were assessed using audit criteria that address standard elements of the internal control structure (refer ANAO's *Better Practice Guide to Effective Control*) in a way that is appropriate to the function under audit (in this case recordkeeping). The five standard elements are risk assessment, control environment, control activities, communication of information, and monitoring and review.

1.12 The top-level audit criteria are summarised in Table 2. The ANAO has mapped the control framework to the recordkeeping framework as reflected in the professional standards, government and legislative requirements, including under the *Archives Act 1983* and National Archives' *e-permanence* guidelines. A body of specific standards, guidelines and best practice models was used to support each of the subsidiary criteria. In this report, the findings and

recommendations have been grouped into five chapters according to the assessment criteria.

Coverage

1.13 The organisations included in this audit were the Attorney-General's Department, the Civil Aviation Safety Authority, Comcare, and the National Registration Authority for Agricultural and Veterinary Chemicals.

1.14 The ANAO sought to form a view on recordkeeping across a range of the organisations' business activities, including those associated with common administrative functions and with core business activities. The ANAO tested recordkeeping practice through visits to selected administrative and core business units. Close contact was maintained with central records management units. The ANAO also liaised closely with allied business support units including information services, training and development, and audit and review.

Quality management

1.15 The ANAO recognises the importance of specialist knowledge and professional competencies in the area of recordkeeping. The ANAO consulted closely with the National Archives of Australia on this audit. The Acting Director-General of National Archives along with the Assistant Director-General, Government Recordkeeping, and the Head of the School of Information Management and Systems at Monash University formed an audit advisory panel that considered progress at key stages of the audit. National Archives officers were also attached as technical advisers to the audit teams. The ANAO records its thanks to all involved.

Management

1.16 The audit was carried out in accordance with ANAO auditing standards at a cost of approximately $320 000. An initial pilot of the audit approach was undertaken in the first organisation audited in July–August 2001 prior to field work in a further three organisations over the period September to November 2001.

Future audit activity

1.17 The ANAO is planning to conduct further audits of recordkeeping in other Commonwealth organisations over the next few years. These audits will aim to provide broad assurance on the progress being made in developing recordkeeping at a time of significant transition and will also allow further exploration of significant recordkeeping issues in the reporting to Parliament.

Table 2
Summary of audit criteria

CONTROL FRAMEWORK	AUDIT CRITERIA
Risk assessment Is there an effective assessment of risk in relation to recordkeeping?	**Recordkeeping assessment** Is there a systematic, risk-based assessment of the organisation's recordkeeping needs based on business, accountability/regulatory and stakeholder needs? **Managerial risks** Is there assessment of operational risks to recordkeeping?
Control environment Does the organisation foster an overall environment conducive to good recordkeeping practice?	**Policy framework** Is there sound corporate policy to support consistent and appropriate recordkeeping standards and practices across the organisation? **Infrastructure** Does the organisation recordkeeping framework comprise appropriate allocation of responsibilities, inter-relationships and reporting, and appropriate records management infrastructure?
Control activities Does the organisation develop and apply systems and procedures for maintaining full and accurate records? Do these systems and procedures produce records with the necessary qualities of: ➢ authenticity ➢ reliability ➢ integrity, and ➢ useability?	**Records creation/capture/business classification** Do the organisation's systems and procedures create and capture records as needed (e.g. according with the risk-based assessment above)? Does the organisation record adequate information on the context, content, structure, and management of the records so that they serve their purpose for as long as needed? **Record tracking/maintenance/use**[6] Does the organisation maintain/monitor records to ensure their accessibility and reliability, and does it control access to the records as appropriate to their sensitivity? **Disposal/preservation** Are the organisation's records altered or disposed of only as authorised under the Archives Act? Are the records stored and preserved in the most appropriate manner (i.e. for their format, useability, and retention period) and consistent with risk assessments above?
Communication of information Does the organisation communicate effectively on its recordkeeping?	**Training and awareness raising** How does the organisation make people aware of and help meet recordkeeping responsibilities, policies, standards and practices? How does the organisation ensure adequate recordkeeping competencies in its people?
Monitoring/review Does the organisation effectively monitor and review recordkeeping?	How does the organisation monitor and review adequacy of recordkeeping responsibilities, policies, standards, systems and practices? Is there appropriate action on the outcome of monitoring and review? Is the organisation going about development of systems in a way that is most likely to produce a sound recordkeeping outcome?

[6] The audit did not systematically test aspects such as tracking of records to ensure their integrity and accessibility, and controlling access as appropriate to the sensitivity of the records. Though these aspects were not fully tested in this audit they would otherwise be included here. The key test that is included here in this audit is whether system/s have the capacity and contain the information to control and manage records over time.

2. Risk Assessment

Assessing recordkeeping needs

2.1 Recordkeeping in an organisation should be based on systematic assessment of the business needs of an organisation and its stakeholders for records, and a risk-based analysis of the likelihood and consequences relating to meeting those needs. The National Archives and State Records New South Wales jointly developed a manual to guide design and implementation of recordkeeping systems. For the Commonwealth, the manual is titled *DIRKS: A Strategic Approach to Managing Business Information*. DIRKS is an eight step method (see Table 3 below) for undertaking a systematic, risk-based assessment of recordkeeping needs and designing appropriate recordkeeping strategies and systems. The DIRKS method is in line with professional recordkeeping standards[7] and can help in managing all of an organisation's business information. Systematic appraisal from both a business unit and an organisational level, should also underpin the specific determination of what records are needed and for how long.

Table 3

Steps in the DIRKS method

Step	Description
A	Preliminary investigation
B	Analysis of business activity
C	Identification of recordkeeping requirements
D	Assessment of existing systems
E	Strategies for recordkeeping
F	Design of a recordkeeping system
G	Implementation of a recordkeeping system
H	Post-implementation review

[7] See *AS4390.5-1996* Clause 6.3 in the Australian Standard—*Records Management* (*AS4390:1996*), Standards Australia, *ISO15489* Clause 8.4 in the International Standard—*Records Management* (*ISO15489-1:2001*), International Organization for Standardization, and Clause 3 of the accompanying ISO Guidelines *ISO/TR15489-2*.

2.2 Three of the four organisations audited had initiated a program of work using the DIRKS method. The first steps of DIRKS involve analysing an organisation's functions and activities, investigating the requirements for making and keeping records, and preparing recommendations about the disposal of records based on this research and analysis. In the past few years, each of the three organisations had already undertaken Steps A and B in consultation with the National Archives. Step B had included the development of a classification for business information and records based on the functions and activities of the organisation together with the development of a thesaurus of agreed terms for titling records. Each of the three was then seeking an agency-specific records disposal authority and to this end was well-advanced in undertaking Step C (one later received approval of a disposal authority).

2.3 Organisations had found the DIRKS process takes longer than they had anticipated. It requires dedicated resources and effort from business units in assisting the process. Steps A to C assist the development of useful records management tools such as classifications, titling thesauruses, and a disposal authority for the organisation's records. Such tools enable an organisation to manage and retrieve records when required and dispose of them in an efficient and accountable way. Coupled with the Commonwealth-wide disposal authorities and thesauruses for administrative functions, these tools are very useful in the organisation's implementation of automated records and information management systems.

2.4 One of the organisations audited had not yet started work on a DIRKS project. That organisation had undertaken some assessments that touched on recordkeeping needs and risks but these were not explicit, systematic, comprehensive and reflecting an organisational-wide perspective as would be the case under DIRKS.

2.5 Only one of the organisations had committed to undertaking DIRKS activity beyond that required to develop an organisation-specific records disposal authority. The level of analysis and assessment necessary for an organisation to obtain National Archives' approval of a records disposal authority identifies specific requirements for keeping or destroying records of agency-specific functions but only very broad requirements for records creation and capture. More detailed analysis is needed to implement strategies for improved recordkeeping.

2.6 One of the organisations audited was moving directly to implementing a new electronic document management (EDMS) / recordkeeping system (i.e. Step F) prior to fully completing Steps C to E. It advised that it was clear that a new recordkeeping system was needed and that detailed needs assessment to

underpin the system design and implementation could be undertaken in parallel with design and implementation of the new system. However, the ANAO noted experience of DIRKS to date that suggested lead times for analytical work were significant. The ANAO therefore considered there was a significant risk that the timing of implementation of the EDMS would not allow sufficient time for detailed analysis of recordkeeping needs to ensure a good recordkeeping outcome in business units. The organisation has subsequently adjusted the project planning and resourcing to allow further analysis of recordkeeping needs.

2.7 National Archives has sought to encourage organisations to undertake these analyses and since March 2000 has required records disposal authorities to be based on a functional analysis undertaken in accordance with the DIRKS method. At the time of planning this audit (June 2001) the National Archives advised the ANAO that some 50 organisations had consulted National Archives and had either started or planned to start a DIRKS project in 2001–02. All these organisations had indicated an intention to go to Step C of DIRKS. One indicated that it would undertake all steps of DIRKS, including the implementation of new recordkeeping systems and strategies and their evaluation. At that time the National Archives had issued five functions-based disposal authorities. At the time of preparing this report, National Archives advised that 54 organisations were actively undertaking DIRKS projects and two more functions-based disposal authorities had been issued (including approval of a disposal authority for one of the audited organisations).

2.8 The ANAO considers that organisations should progress analysis of their needs and systems using DIRKS as soon as practicable. Detailed analysis of record creation and capture requirements across the organisation takes considerable time. It provides the building blocks for cost-effective and efficient progress with recordkeeping policy, training, and systems development. By advancing the analysis now organisations will be positioning themselves for successful development of recordkeeping in the medium-term. Without a clear understanding of their need for evidence held as records, organisations run the risk of not operating efficiently, effectively or accountably.

2.9 The ANAO also noted that none of the organisations audited had commenced systematic assessment of the emerging recordkeeping needs associated with applications such as web-based activity. Recordkeeping guidelines[8] under the *Government Online* strategy require that Commonwealth organisations perform an explicit assessment using the DIRKS method. A number of the organisations had begun to develop recordkeeping of their web-activity

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[8] See *Archiving Web Resources*, National Archives of Australia 2001 at the National Archives web-site <http://www.naa.gov.au/recordkeeping/er/web_records/intro.html>.

in advance of the assessment. In the organisations audited, web activity was still relatively unsophisticated. Even so, the audit was helpful in drawing out some recordkeeping issues associated with web-based activity that had still to be developed. In some instances electronic copies had been retained of web-based activity but organisations had not worked out what to do with them. It would be advisable, as organisations are further developing their use of web-sites, that this assessment now receives greater attention.

Conclusion

2.10 Most of the audited organisations had commenced systematically analysing and specifying their recordkeeping needs and business information strategies using the standard DIRKS approach. However, they had still to commit fully to the process particularly in terms of the detailed analysis needed to enable effective systems development.

2.11 To underpin sound development of their recordkeeping, the ANAO considers it would be advisable to advance and develop these types of analyses. Organisations also need to undertake similar analysis where their business environment is undergoing rapid change or where there is a particular need. A current example is the need to undertake analysis of their web-site activity in accordance with recordkeeping requirements under the *Government Online* strategy.

Operational risks to recordkeeping

2.12 The type of operational risks to recordkeeping included in National Archives' guidance material and other recordkeeping standards[9] include technological obsolescence, disasters and disruptions, administrative restructuring, and outsourcing. General standards of risk management[10] apply to the assessment of these managerial and operational risks.

Risk assessment frameworks

2.13 All the organisations audited conduct business risk assessment at different levels. Generally enterprise-wide or divisional-level strategic assessments by the organisations did not consider risk at a level where recordkeeping was prominent. Organisations also conduct specific-purpose risk assessments, such as of legal compliance, audit or fraud risk. Misuse, or mismanagement, of corporate information can receive some consideration in these assessments.

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[9] For example, *AS4390.6* Appendix B.

[10] See *AS/NZS4360:1999* Standards Australia/Standards New Zealand Joint Standard *Risk Management* clauses 4.3 & 4.4.

Organisations had assessed risk of business disruption to corporate systems. In three of the organisations this assessment had included records management and so allowed the development of contingency planning for recordkeeping to be maintained in the event of a disruption. However, none of the organisations had conducted a risk assessment at the level needed to adequately consider broader operational risks to recordkeeping.

Scope for operational level assessment

2.14 Fundamental recordkeeping risks of capture and retrieval can be addressed using DIRKS (refer paragraph 2.1). However, there are also operational-level risks that could be better considered by organisations in this audit, including recordkeeping risk in outsourcing situations, risks to preservation presented by electronic records, the risk of sub-standard records storage, and the risk of unauthorised access. Assessment of these operational level risks could be undertaken as part of business planning processes and stakeholder discussions relating to the recordkeeping function, information management, or corporate management more generally, encompassing both recordkeeping and information systems more broadly. An explicit set of priority risks would help in the management of recordkeeping. The risk assessment would pinpoint implicit risk acceptance and assist forward planning of the most cost-effective risk management strategies. The assessment would include determining the consequences for the business and its stakeholders of various recordkeeping risk events. Hence, it would be a useful tool for constructing priorities for management attention to improve organisational recordkeeping controls.

Conclusion

2.15 The ANAO concluded that explicit assessment of operational risks to recordkeeping would assist organisations to adequately manage risks to recordkeeping and to engage internal and other stakeholders in the development of suitable controls and risk treatments.

Recommendation No.1 (Assessing recordkeeping needs)

2.16 The ANAO recommends that organisations undertake systematic, risk-based assessment of recordkeeping needs at a level to enable them to design systems to capture and maintain records in accordance with business and stakeholder needs, legal requirements (including those relating to privacy and security issues), and relevant government policies and records management standards.

3. Control Environment

Corporate policy frameworks for recordkeeping

3.1 Professional recordkeeping standards (e.g. *AS4390:1996, ISO15489*) indicate that the leadership of an organisation should define broad recordkeeping parameters and standards to be applied in the organisation through a formal recordkeeping policy statement. As a key element of corporate governance, recordkeeping policy settings provide part of the foundations for successful development of recordkeeping strategies, systems and communications. The policy needs to take account of the recordkeeping analysis conducted by organisations and be regularly reviewed as needs change.

3.2 None of the organisations audited fully satisfied the above audit criteria. One organisation did have an instruction from the chief executive officer on records management that defined the broad responsibilities for records creation and capture, and records management. However, the instruction was not updated to take account of significant changes to recordkeeping; was not promoted; was restricted in its application to general administrative files; and did not consider the state of electronic records. Two of the organisations that did not have any formal recordkeeping policy, did cover some recordkeeping policy aspects within business procedural manuals. However, the policy guidance here was fragmented and not easy to access within the available procedural framework.

3.3 Recordkeeping policy guidance tended to be framed within a narrow recordkeeping environment, usually the registry files. This did not take account of recordkeeping across the spread of the organisation's activities, and did not apply to all record types and formats. It would be preferable for organisations to have a coherent, comprehensive policy to provide an overarching framework of principles from which recordkeeping procedures could be developed. The recordkeeping policy and related corporate policies should at least be consistent.

3.4 Also, there can be greater consistency in corporate approaches to recordkeeping and information more broadly. For example, information technology policies need to be defined taking account of recordkeeping aspects. In a number of the organisations, corporate email policy did not define, or was inconsistent with, recordkeeping approaches. Only one organisation had a policy on web-sites that took account of recordkeeping requirements under the *Government Online* strategy.

3.5 In the absence of a clear policy framework to support recordkeeping practice, the ANAO noted that different work units within organisations gave a

different emphasis and priority to common recordkeeping issues. In some instances, different organisational culture and varying standards of recordkeeping were evident within the one organisation. The ANAO considers a consistent corporate standard of recordkeeping is necessary to ensure accountability and governance obligations can be satisfied throughout the organisation. Several organisations were working on unwritten conventions for aspects of their recordkeeping. In some cases (e.g. in relation to print-to-paper approaches for capturing electronic records), the policy was not fully defined or considered.

3.6 Corporate recordkeeping policy should be actively promoted from the top. In two of the organisations the need for a consolidated, comprehensive and up-to-date policy had been recognised several years before the ANAO audit. However, recordkeeping policy had not yet received sufficient corporate priority and had not yet been completed. The organisations agreed that it is appropriate that the corporate policy receive formal support from senior management. For example, it could be endorsed in *Chief Executive's Instructions* dealing with corporate accountabilities or information policies.

Conclusion

3.7 As part of their corporate governance responsibilities, senior management in Commonwealth organisations should issue a consolidated statement of corporate policy on recordkeeping both for purposes of accountability and for the information of their staff. The policy would define responsibilities for recordkeeping and set broad recordkeeping standards. Recordkeeping policy needs to be comprehensive in its application; take account of the most recent Commonwealth-wide recordkeeping guidance; be consistent with other corporate information policies; and be kept up-to-date.

Corporate recordkeeping infrastructure

3.8 Organisational-wide infrastructure that would support good recordkeeping includes:

- clear allocation of responsibilities for recordkeeping among personnel in line business units, records management, system administration, and elsewhere;
- organisational structures that foster appropriate linkages with functions that are related to recordkeeping—such as corporate governance and information management; and
- corporate support for good recordkeeping through the appropriate systems and records management services.

Organisational responsibilities and linkages

3.9 As noted above, senior management in the organisations audited should promulgate corporate recordkeeping policy that more clearly defines respective responsibilities for records creation, capture and management. For example, the ANAO found that, in two organisations, information technology units were not allocated any responsibility for aspects of recordkeeping that were relevant to them. The statement of recordkeeping policy should clearly allocate responsibility to managers and staff in line areas, as well as indicating central coordination responsibilities for records management and the links to information management more generally. Importantly, the responsibility framework should address both recognised organisation recordkeeping systems (i.e. registry files) and the other business systems that in practice have a significant recordkeeping dimension.

Corporate support of recordkeeping

3.10 In several of the organisations, the central recordkeeping coordination unit had been reduced in size over recent years and been subject to considerable uncertainty during consideration of outsourcing of services. Devolution of administrative functions has meant that central control over records management had been considerably reduced, though some organisations retained some central functions (such as disposing of records, including archiving). In two organisations, the units are staffed at a lower level and are not closely consulted on strategic organisational developments. The units did not have a well-recognised and extensive mandate in relation to business systems other than the formal registry files. Business applications that had a significant recordkeeping role apart from the formal registry, were generally outside their purview. The important recordkeeping aspects of some of these mainstream business systems had not been specifically recognised and developed.

3.11 Central recordkeeping coordination units generally possess skills in traditional registry and records management. However, to better deal with the recordkeeping and corporate governance challenges of the broader business environment in organisations, the ANAO found that coordination unit staff needed to have access to specialised skills in strategic analysis, more advanced recordkeeping developments, and information management more broadly. This issue is further discussed at Part 5, together with references to National Archives' advice on recordkeeping skills and national recordkeeping competency standards.

3.12 Corporate filing systems were usually managed using proprietary recordkeeping software with good recordkeeping functionality, though generally this was not being fully exploited. Systems development, policy and procedural

development, and records management software licenses were generally constrained. In some organisations registry systems were experiencing performance problems. This led to inefficiency in recordkeeping practice. For example, in several organisations, business units operated their own informal file location and tracking systems outside the formal registry.

3.13 Organisations are now reconsidering their systems in support of recordkeeping. One of the organisations audited had decided to implement an EDMS/electronic recordkeeping system. The case study in the Appendix shows how another Commonwealth organisation is approaching these types of developments.

Conclusion

3.14 Generally, organisations can do more to provide adequate organisational support for recordkeeping. Several of the organisations audited had recognised this and were now moving toward a reasonably good standard of corporate support for recordkeeping through better systems and linkages to information management more broadly. In these organisations recordkeeping was taking on more of a strategic information management role and had stronger organisational linkages with related information functions and with relatively direct reporting to corporate governance bodies. However, in some organisations, the mandate and skills of the central recordkeeping units were restricted more to a traditional registry function and controlling paper-based filing systems. This meant that a significant amount of corporate information could be outside corporate control, with consequent informational risk for the organisation as a whole.

Recommendation No.2 (Control environment)

3.15 The ANAO recommends that organisations:

a) develop and implement a corporate-wide recordkeeping policy to define responsibilities and apply standards, and that encompasses all record formats including electronic;

b) access specialist skills and professional records competencies in the development of their organisational recordkeeping;

c) assign responsibility for coordinating recordkeeping development as part of broader information management responsibilities; and

d) implement information systems that have sufficient capability to support records management – both in respect of dedicated recordkeeping systems and of the recordkeeping functionality of business systems that have a recordkeeping role.

4. Control Activities

4.1 This chapter considers whether organisations had systems and procedures for maintaining full and accurate records. The general features of systems and procedures that ensure records have necessary characteristics (authenticity, reliability, integrity and useability) are specified in professional recordkeeping standards[11] and, for example, in National Archives' technical guidelines—minimum Commonwealth recordkeeping requirements for web-based activity, the Commonwealth metadata standard, and guidelines for functional thesauruses. In addition to technical guidance, National Archives is also developing simple guides for Australian Public Service staff on aspects such as record creation and capture. The case study in the Appendix illustrates a system that assists users to maintain a full and accurate record for management and accountability purposes.

Creation, capture and classification of records

4.2 This part considers two main issues:

- the adequacy of the organisation's systems and procedures to create and capture records as needed; and
- the organisation recording full and accurate information on the context, content, structure and management of the records so they serve their purpose for as long as they are needed.

Procedural controls and guidance

4.3 Organisations covered are at different stages of development of formal recordkeeping procedures. One organisation had no procedural guidance—though a need for this is now recognised. Another organisation had a comprehensive corporate records management manual. However, it was bulky and not user friendly. It was being updated, given indications that it was not being adhered to and individual work sites were developing local procedures without reference to the central records unit. Two organisations had documented procedures for some of their core business processes that dealt with recordkeeping amongst other aspects. However, they had not given attention to developing procedures of corporate-wide significance that would apply to all activities in need of recordkeeping guidance. In all the organisations there was scope for specific guidance to support corporate approaches to capturing records from email and electronic workspace.

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[11] For example *AS4390.3* clauses 5 and 8, *AS4390.4*, *ISO15489-1* clauses 7 to 9.5.

4.4 The ANAO sees a need for procedural guidance that is closely targeted to its audience. There is also a need for guidance to administrative staff on records management procedures and systems, especially in view of factors such as devolution of recordkeeping controls within organisations and significant staff turnover. Line managers and their staff preferably need easy to follow guidance and simple aids to remind them of their responsibilities and to assist them to capture records appropriately into corporate systems. System developers need more general guidelines with which to operate. Procedural guidance can form the basis for corporate monitoring and review and be kept up to date with emerging practice.

Conclusion

4.5 Organisations should give greater attention to their recordkeeping procedural guidance. Generally, guidance was insufficient or needed to be brought up-to-date and more closely targeted for use by particular audiences, such as records managers and line staff with their creation/capture responsibility. There was a need for improved guidance on dealing with records from electronic sources (for example, email).

Electronically-sourced records

4.6 All the organisations audited were currently working on a recordkeeping approach that electronic records should be 'printed-to-paper'. There were varying levels of development of this concept. In one organisation, it was an unwritten convention and there were no formal controls to support this approach so as to ensure records capture. In another, there was conflicting advice to staff on practice and no explicit mechanisms to manage the issue. Two organisations managed some of their business processes more closely to seek to ensure that records such as emails and electronic notes were in fact being captured appropriately onto paper files. However, these controls were at business unit level and did not apply across all the organisations' activities.

4.7 In practice, staff frequently relied on computer repositories for day-to-day information and personal work records. Their personal computer hard drives and shared workspaces were structured to meet individual needs rather than structured on corporate lines. The distinction of what was a formal corporate record, as opposed to a personal document or working draft, was not always clearly understood. Staff frequently commented to the ANAO that work pressures were such that they might not always print out all the documents they should for the formal record and file them. In some organisations, staff sometimes received systems advice to cull unwanted emails and other records to free up server capacity, but without any advice on recordkeeping needs.

Timeliness in maintenance of the formal record is also an issue. The ANAO observed several instances where the formal paper trail relating to important corporate strategies and projects was several months out of date because records were not being printed.

4.8 The ANAO also found that increasingly, corporate computer applications were not well suited to paper-based recordkeeping capture. Mainstream business information stored in corporate databases constituted electronic records of corporate significance but were not recognised as such. Database applications were increasingly not suited to the usual paper-based approaches that organisations believed were catering to their recordkeeping needs.

4.9 Organisations audited had not yet fully considered and analysed these types of issues and their potential impacts on informational risk for the organisation. In relation to electronic records, none of the organisations audited could be assured that they were capturing all the necessary records into the formal corporate recordkeeping system under the current print-to-paper approach. However, one organisation was seeking to develop an EDMS/ recordkeeping system to help address the problem (refer paragraph 2.6).

Conclusion

4.10 Organisations were relying on a print-to-paper approach to capture of electronic records. However, they had not developed procedural and other controls to provide effective support to this approach. In practice, there were significant risks to capture of email and electronic documents from personal workspace. Increasingly, recordkeeping for corporate applications, such as databases, could not be managed using a paper-based approach. Organisations could not be sure they were capturing, in their corporate recordkeeping systems, all the electronically-sourced records that they should, both for legislative and for management requirements. Corporate recordkeeping systems need to take into account the increasing volumes of these electronically-sourced records.

Recording web-based activity

4.11 Organisations are giving some attention to recording web-based activity. Specific requirements exist in terms of published recordkeeping guidelines under the *Government Online* strategy. However, the ANAO observed that organisations' self-reporting to NOIE on progress with recording of web-based activity has been overstated. As noted earlier, the guidelines require a more considered analysis than had so far occurred in the organisations audited. One organisation believed that nothing needed to be done to manage records of its web-based activity—on the assumption that much of the material would be stored on a

paper file somewhere in the organisation. This did not take account of Commonwealth policy guidance that web-sites may contain significant evidence and constitute published records of archival significance.

4.12 The other organisations audited were periodically saving electronic 'snapshots' of their main web-sites. The ANAO noted that they now needed to give consideration to incorporating these snapshots into the formal corporate recordkeeping system. The organisations included in this audit currently had relatively simple web-sites, mainly used for publishing information. As their use of web-sites develops (for example, increasingly business transactions may be conducted on-line), the organisations will need to give commensurate attention to developing their web-site recordkeeping strategies.

Conclusion

4.13 Some organisations had started to save electronic snapshots of their web-sites. As the organisations audited did not yet have very complex web-based activity, this is a reasonable approach. However, they needed to periodically incorporate the snapshots into the formal recordkeeping system. As web-sites develop into mechanisms for conducting an organisation's business online, more attention will need to be given to how records of the organisation's web-based transactions are captured and managed for greater effectiveness.

Capture of administrative records

4.14 A number of the organisations audited were not giving their administrative records the same level of attention that they accorded records of their agency-specific functions. In some business environments reviewed, administrative records were viewed as of lesser significance than for example, technical material. In fact, evidence on administrative decision-making processes is often of significance from the perspective of stakeholders outside the immediate business environment. For example, it often assists corporate governance and accountability dimensions or involves issues of compliance with legal responsibilities.

4.15 The audit found that administrative records were often not being captured in formal corporate recordkeeping systems. The ANAO observed examples where administrative records were being stored loose by individual officers who had created and accumulated them. Also in reviewing corporate management of administrative functions such as personnel, the ANAO found that often records were kept outside of the central registry files. In some cases this led to their management outside the formal records management framework. For example, staff managing the records may not always maintain the same in-depth

understanding of recordkeeping issues and the systems they are using may not have sufficient recordkeeping functionality (see metadata below). Organisations audited had not systematically considered detailed record capture requirements flowing from the *Administrative Functions Disposal Authority—February 2000*.

Conclusion

4.16 Administrative records were identified by the audit as being particularly vulnerable in terms of capture into corporate recordkeeping systems. This is the case both for records of administration undertaken by individuals and administrative functions managed corporately. Organisations need to give consideration to capturing, classifying and maintaining records in a manner that is consistent with the Administrative Functions Disposal Authority.

Classification of records

4.17 As noted earlier, three organisations were undertaking DIRKS analysis and this was providing revised tools for classifying their business information by function and by activity within each function. Files would be titled accordingly. At the time of the audit work all the organisations were using traditional subject-based classifications and file titling. However, a number were getting close to the stage when they could move to a new classification system as approved by the National Archives.

4.18 The organisations audited did not exert strict controls on the classification of their records. Their file creation and titling was devolved to business units. The administrative officers in business units had varying procedures for creating files and often experienced some difficulty in manipulating the corporate records management systems for this. For example, practice usually varied as to whether a full search of existing files was undertaken as part of file creation processes in business units. One organisation had a corporate thesaurus in place to control the vocabulary that could be used in file titles, and 'keywords' and titling conventions were to be used for some parts of the title. However, in practice, these procedures were not being monitored or adhered to. Another organisation had only a broad subject catalogue as a guide and this was not easy to use and apply consistently. Organisations were still developing titling control tools as part of their DIRKS analysis.

4.19 The weak titling systems employed made it more difficult for organisations to search and retrieve corporate information. Records such as case files for agency core business records, were not always as affected as administrative or policy records. However, the ANAO observed that some organisations needed to have regard to classification of case files to allow searching of business information

in case records and sometimes also to enable retrieval of business project records over long time frames (in some cases more than 70 years).

Conclusion

4.20 Organisations are reconsidering their classification systems as part of the DIRKS process. Currently records are classified by subject. Titling of files is not tightly controlled, making it more difficult for organisations to efficiently search and retrieve their current corporate information, and also raising an issue about the usefulness and management of the records into the future.

Contextual and records management information on the records (i.e. metadata)

4.21 The ANAO assessed the organisations' formal recordkeeping systems in terms of the essential elements of the Commonwealth recordkeeping metadata standard. Metadata plays a key role in ensuring the quality, integrity and useability of the corporate records (authenticity, reliability, integrity, useability) and in ensuring they can be managed and disposed of in an accountable and efficient manner.

4.22 In all cases the corporate records management information systems (i.e. that contains the electronic index for centrally controlled registry files) had the necessary capability to record the essential recordkeeping metadata in the system. In addition, corporate registry files and processes were designed in a way that enabled manual collection of the metadata. However, in practice, in all the organisations certain elements seen as essential metadata in Commonwealth standards (e.g. the records management history of the registry files) were not always being collected and recorded on the system. There was insufficient practical recognition of the important control role of this information.

4.23 In addition to the formal records management system, the audit also observed that frequently organisations had mainstream business information systems that were playing a key *de facto* recordkeeping role, for example in relation to case or project files. These systems had not been designed with their recordkeeping role in mind and organisations had not previously considered metadata requirements for the core business records that were managed under these systems. Generally, the systems did not currently have all the essential recordkeeping metadata. This could lead to difficulty in management of the records and retrieval of the information over time. The ANAO sees a need, as part of the development of these mainstream business applications, to recognise their important recordkeeping role and to address the risks presented by gaps in recordkeeping control information for management of the records over time.

Conclusion

4.24 Central corporate records management and file registry systems were designed with the capacity for collecting the records management information considered as essential under the Commonwealth recordkeeping metadata standard. However, in practice all the control information is not being collected.

4.25 Most of the organisations included in this audit had business records that were managed through systems that were not recognised and developed as recordkeeping systems. Records affected included significant case and project files, and essential core business data. In the further development of the business information systems, organisations need to give consideration to building in the recordkeeping functionality and control information (metadata) for these core business records.

Recommendation No.3 (Records capture and classification)

4.26 The ANAO recommends that organisations promote effective capture, retrieval and management of records by:

a) promulgating guidance to staff on recordkeeping procedure, including simple aids for staff outlining approved practices for capturing essential business records;

b) developing procedural and other controls to ensure capture of electronic records such as from web-sites, management information systems, email correspondence, and documents in personal and shared workspace;

c) ensuring that records are sufficiently specified and classified to allow efficient search and retrieval; and

d) creating and maintaining essential contextual and records management information (i.e. metadata).

Tracking, maintenance and use of records

4.27 Organisations are expected to maintain and monitor their records to ensure their accessibility and reliability, and to control access as appropriate to the sensitivity of the records. Though the scope of this audit did not include systematic testing on aspects such as tracking and controlling records, the ANAO did consider any indications on whether organisational systems had information on key recordkeeping events.

The role of formal recordkeeping systems

4.28 Organisations' formal recordkeeping systems were designed with the necessary records management capability. However, in practice, as discussed above (on recordkeeping metadata), all the necessary recordkeeping information was not always being completed manually and collected on systems. Organisations need to better understand the risk that these gaps in the control framework may present.

4.29 In some organisations automatic tracking of files through bar-code readers had broken down and the organisations were not undertaking regular censuses to ensure file locations were correctly recorded. Nevertheless, organisations were usually able to locate registry and case files when needed, and the problem of missing files was relatively minor. Inefficiency of records management was evident where work sites needed to develop their own record tracking systems to overcome weaknesses in the organisation-wide framework.

4.30 Information security was not a major focus of this audit. Generally, the audit review of formal registry systems found that they provided the basic controls over classified and sensitive information. At some work sites visited in the audit, the ANAO observed that local practices relating to security of stored and active records could be improved. The ANAO raised these local issues with senior management of the organisations as part of the audit reporting processes.

Records outside the formal recordkeeping systems

4.31 Records that were not being captured into the formal recordkeeping system generally did not have the same level of control over their management and use. As discussed in the previous section, electronic records (for example in database applications) and records of administrative process were often most vulnerable in this regard. In a number of organisations audited, core case/project paper files were managed using systems for which recordkeeping aspects had not been formally recognised and developed. The ANAO observed that these files and administrative folders may lack some typical records management controls, such as recording use history or security classifications on the covers. Usual information technology processes and business rules attaching to these records (such as audit trails and system backups) were not designed with recordkeeping aspects in mind. The ANAO sees a need for organisations to give attention to the risks presented by records not captured and managed through their formal recordkeeping systems—see also Recommendation 2(d) in relation to the further development of these systems.

Conclusion

4.32 Partial audit trails and gaps in collection of recordkeeping information compromise an organisation's ability to prove the authenticity, accuracy and integrity of its records and to manage the records efficiently and with appropriate protection. Though formal recordkeeping systems are designed with these aspects in mind, in practice the necessary information is not always being collected. The audit also found that significant corporate and business records, not managed through formal recordkeeping systems, are not subject to the same level of control. At some work sites visited in the audit, the ANAO observed that local practices relating to security of stored and active records could be improved.

Disposal and preservation of records

4.33 This part of the audit looks at two aspects—preservation/storage and, secondly, disposal of records. The main standard for audit assessment is the regulatory framework under section 24 of the *Archives Act 1983* that generally prohibits the disposal of Commonwealth records other than as authorised by the National Archives. This is also supported by the professional records management standards[12] and by National Archives' guidelines (such as National Archives' recently finalised standards for physical storage).

Physical preservation/storage

4.34 Given changes in National Archives' custody policy, Commonwealth organisations are increasingly responsible for storing their own records that are not of archival value. The audit found that organisations were storing files in conditions that did not fully meet 'best practice' standards. Climatic conditions (such as temperature and relative humidity) were not controlled within the ranges required under the standard. This was a common issue in bulk storage of less active files in warehouses or basement storage. In one organisation needing to store large volumes of its records over long periods, the conditions were such that temperature could fluctuate markedly. This could lead to deterioration of the records. Security controls and fire control systems were also areas not up to the 'best practice' standard in off-site storage sites at several of the organisations audited.

4.35 Organisations that used the purpose-built storage available from specialist records storage providers did meet the Commonwealth 'best practice' standards in respect of the records in these facilities. However, it was significantly more

[12] See *AS4390.5-1996*, *AS4390.6-1996*, *ISO15489-1* clauses 9.6 & 9.9, and the accompanying ISO guidelines *ISO/TR15489-2* clauses 4.3.6, 4.3.7 & 4.3.9.

expensive than the option of leased warehouse premises that several organisations had taken. Organisations also mentioned having greater convenience of access to records in their own storage facilities. However, bringing the leased warehouse facilities to meet the 'best practice' storage standard raises resourcing and cost-effectiveness issues. Management assessment of the cost and risk to the organisation was needed to enable the most cost-effective solutions to be decided on.

4.36 The ANAO also observed instances of on-site storage where records in active use were not being sufficiently secured. For example, at one site commercially sensitive material was not always sufficiently secured. On-site storage decisions also needed to take into account the type of records being stored and the physical conditions. In one instance, small volumes of electronic discs were being kept in a room where temperatures could be high rather than being stored in a cabinet in the air-conditioned computer room.

4.37 In general, organisations had not formally considered the risk represented by the physical conditions to their stored records. The ANAO sees a need for organisations to consider their physical storage against the standards and analyse any risks, particularly those relating to sensitive or long-lived records. In some cases, records were of archival significance and needed special storage to preserve them. Risk identification and analysis would enable consideration of the most cost-effective or common-sense risk treatments, including any explicit acceptance of risk or a business case for extra protection of certain records.

Preservation of electronic records

4.38 Preservation of electronic records into the future raises particular technological challenges. The organisations reviewed in the audit believed their print-to-paper approach meant this was not an issue for them. However, organisations had not fully appreciated the extent to which they already had significant records that were only available in electronic format. A significant example in this context was the control records within records management information systems themselves. System back-ups of data on corporate servers (sometimes referred to as archive tapes) were designed to provide another copy in the event of loss of data in the short-term and to provide physical maintenance of the records. However, these were seen as spare copies not maintained as records that needed to be treated accordingly and managed over time. In addition, as noted above, the organisations that had taken web-site snapshots had not considered how these records would be permanently preserved and accessed over time.

4.39 None of the organisations considered in the audit had recognised the need for systematic strategies to address the issue of obsolescence in systems. In two

organisations, approaches to migrating data were decided on a case-by-case basis as the need arose—for example, when corporate management information systems were being redeveloped. In one instance, a decision was taken not to continue to support data in an outgoing system over the required recordkeeping timeframe and not to migrate the data across to the new system. The decision was based on the cost of continuing to provide access after the system was no longer being used for day to day operations. A loss of continued access to records, may in effect represent a disposal other than as authorised under section 24 of the Archives Act.

4.40 The ANAO considers that it would be preferable for organisations to decide on their overall approach to these issues in a considered way. This would allow for the cost and technology requirements for good recordkeeping to be considered at the time of designing and budgeting for systems redevelopments. For example, continued support arrangements of commonly used applications over the necessary recordkeeping time-frames could be considered for inclusion in the original purchase. Current approaches breach the recordkeeping principle that approaches be planned in advance rather than just allowed to happen in an *ad hoc* fashion.

Conclusion

4.41 Organisations had not sufficiently assessed the risks to their records over time and developed appropriate strategies. Physical storage of inactive paper files in leased warehouses and basements did not meet applicable standards in relation to aspects such as climate control, fire control and security. In some organisations practice relating to adequate security of active files can be improved.

4.42 The risk of technological obsolescence of important electronic records (such as data in information systems) also needs greater consideration. Loss of access to these records in effect represents disposal for the purposes of the Archives Act. Accordingly, it would be advisable for organisations to give the issue advance consideration and decide on appropriate guiding principles and strategies to adequately manage this risk.

Disposal from the recordkeeping system

4.43 Electronic records that are not captured into corporate recordkeeping systems are particularly vulnerable to unauthorised destruction. For example, the audit found that email records could easily be deleted by individuals and lost to the corporate system when there is pressure to reduce the volumes that individuals hold in their personal repositories. Documents stored on personal

hard drives could also be deleted or lost when personal computers were replaced or moved. One of the organisations audited did not provide hard drives on personal computers. This meant all data was 'backed-up' to allow restoration if lost or corrupted. However, floppy disc storage was still available and presented a risk in terms of disposal/continued access. Documents on personal drives were at risk when staff changes occurred, given privacy and security needs. In one organisation senior executive staff retained access to such records. Corporate information policies on such issues are primarily determined by information technologists without explicit consideration of recordkeeping requirements. In organisations audited, where web-activity or information technology services were outsourced, decisions on information retention could be left for the provider to make without corporate policies or service standards that took into account recordkeeping requirements or the impact on an organisation if information were to be lost.

4.44 In the ANAO's view, informational and legal compliance risks would be better managed if information technology policies took greater account of recordkeeping needs in relation to these electronic records. Some of the controls (such as infrastructure and linkages) that would ensure this recognition occurs are discussed at Part 3.

4.45 Organisations were in differing situations in relation to sentencing and disposal of their paper records. Records management units were adjusting to National Archives' policy of replacing existing agency-specific disposal authorities with new functions-based authorities, and the need to develop arrangements under the *Administrative Functions Disposal Authority 2000* (AFDA). Organisations also needed to adjust sentencing/disposal to the changes in National Archives' custody policies.

4.46 One organisation had rationalised its State Offices and was also receiving large volumes of its records back from National Archives under revised custody policies (these were records that were not of archival significance). It had necessarily given records management priority in recent years to bringing all its files under control through a National File Centre. Sentencing and disposal of administrative files had been suspended in the meantime. Sentencing of other files had been contracted out without sufficient supervision by the organisation. The audit drew attention to instances of mistakes in this sentencing that would have led to disposal before the correctly authorised periods and also retention for longer than required. This raised issues both of efficiency, and of legal compliance.

4.47 One organisation considered had not yet fully developed its procedural controls and formal policies for sentencing and disposal. The audit found that some of its records were at risk of being disposed of inappropriately. For example,

some administrative records were being sentenced for disposal before the retention periods authorised under AFDA. Another organisation reviewed in the audit had retained a central Archives Unit. This had the advantage of providing central control over disposal of corporate records. The unit had a depth of knowledge of disposal requirements and issues such as transfer of records to other agencies during restructuring. However, the unit was also fairly small and its limited resources meant that its disposal work program was primarily driven by storage constraints rather than actively managed for greater effectiveness.

Conclusion

4.48 The audit identified the vulnerability of electronic and other records that are not currently being captured in the formal recordkeeping system, to unauthorised disposal. In addition, there is scope in organisations to update and upgrade controls and procedures for disposal of their paper records. Issues include quality assurance over sentencing processes and the need to actively manage the disposal program rather than simply reacting to storage factors.

4.49 In general, organisations should develop their policies, procedures, and strategic approaches to disposal and sentencing. Modern approaches to recordkeeping, such as aligning business classifications of records with disposal authorities and automated records management information systems, can produce efficiencies in management (for example, sentencing on creation).

Recommendation No.4 (Records disposal/preservation)

4.50 The ANAO recommends that organisations assess and manage the risks in disposal and preservation of their records, by:

a) evaluating their standards of physical storage in terms of the longevity and sensitivity of the records;

b) developing strategies to actively manage the disposal of their paper-based files, as well as strategies for preservation/migration of records held in electronic form; and

c) assessing the occurrence of electronic and paper records that are not currently captured into the formal recordkeeping systems, to ensure that they are not disposed of except as properly authorised.

5. Communication of Information

5.1 This element of the recordkeeping control framework is about training and awareness to address the important people factors affecting recordkeeping. Professional recordkeeping standards[13] require ongoing attention to be given to these aspects. The desired outcome is that all personnel maintain the understanding needed to meet their recordkeeping responsibilities. Attention should also be given to the competencies of line staff with records management responsibilities. To enable effective development of modern recordkeeping systems, there is now greater reliance on archival and recordkeeping professional disciplines. There are established standards[14] for recordkeeping and competencies that apply both to staff in line positions, and those with coordination responsibility for records management.

Training and awareness raising

Training

5.2 During the audit, the ANAO observed that business unit staff often lacked confidence in their knowledge of recordkeeping needs. One audited organisation had access to a survey of staff attitudes to recordkeeping. The findings were consistent with a National Archives' survey across Commonwealth public sector organisations in mid-2000, which found that most staff in line areas considered they were not being provided with sufficient recordkeeping training.

5.3 Generally, organisations included recordkeeping aspects in their staff induction programs. However, this varied from sound practice (e.g. one organisation requires new staff to have a one-on-one briefing from the central records area) through to a very cursory mention of the system used. Staff induction generally had restricted application. It usually did not apply to temporary staff. The ANAO was advised by organisations that significant staff turnover could form a risk to recordkeeping knowledge—for example, where temporary staff were needed to fill administrative support positions.

5.4 All the organisations reviewed in the audit relied heavily on individual on-the-job supervision for staff knowledge of recordkeeping responsibilities. However, the ANAO found that this resulted in differing emphases and differing understandings of corporate recordkeeping. At one work site there were formal

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[13] For example *AS4390.2* clause 8, *AS4390.3* clause 6.6, *ISO15489-1* clause 11 and the accompanying ISO technical report *ISO15489/TR-2* at section 6.

[14] Refer *National Training Information Service Competency Standards—(236) Archives and Records*, Australian National Training Authority, 1997. See also *National Archives Advice No.15* on staff recordkeeping skills <http://www.naa.gov.au/recordkeeping/rkpubs/advices/advice15.html>.

monthly training sessions for staff that touched on documentation procedures—with the outcomes monitored. At another, there was close supervision of staff until they had demonstrated performance – such as on recordkeeping. The ANAO observed that work units that relied on the experience of staff without specific consideration of formal knowledge of corporate recordkeeping, were at increased risk in respect of requirements under the Archives Act, of corporate standards, and of recordkeeping performance generally.

5.5 Gaps currently exist in delivery of corporate training programs to all staff in relation to recordkeeping, and to supervisors and managers. Currently, development programs for existing staff were restricted to how to use the corporate registry system. This systems training varied in extent but was usually very restricted in coverage to staff undertaking administrative duties. Often, even long-standing staff had not received formal guidance relevant to their current recordkeeping responsibilities. For example, supervisors and managers might not be introduced to new developments in recordkeeping practice. There was scope for specific corporate training in recordkeeping, and also practical references to it in the course of other training (legal training, business process training, etc).

5.6 Following audit, organisations advised that they were planning to give corporate recordkeeping training to staff a greater priority as part of their development of recordkeeping. This is likely to include general recordkeeping responsibilities, processes and principles, as well as technical training on revised systems and recordkeeping tools. Audit observations indicate that it may be useful to link training and education closely to relevant recordkeeping activity, such as DIRKS analysis or system redevelopment.

Ongoing communication

5.7 Organisations also needed to develop ongoing communication strategies to maintain staff knowledge. At present central records management units provide a helpdesk service and respond to requests for advice. As noted earlier, the usefulness and useability of procedural reference guidance to staff on recordkeeping is variable. Until recently, one of the audited organisations had held a regular forum of its administrative staff (i.e. key system users) in business units. This helped them to stay abreast and communicate on topical recordkeeping issues.

5.8 In development of recordkeeping and recordkeeping systems, there is scope for a planned approach to delivering defined recordkeeping messages to target audiences. Organisations saw that techniques that would be useful included updated advice and reminders in corporate bulletins, on-line prompts

(e.g. when the system advises of a need to cull electronic drives), and simple guides to keep key messages in front of staff in line areas. On-line guidance can be further developed. The communications strategy would be based on consistent messages from various channels and coordinated with recordkeeping policy developments, risk assessments, procedural guidance, and monitoring/review.

Specialist recordkeeping skills

5.9 As noted at Part 3, existing records management units generally had staff with practical skills in traditional records management. They attend training courses and other recordkeeping sessions provided by the National Archives and attend forums organised by professional recordkeeping bodies.

5.10 The audit has observed that there is scope to supplement existing skill sets in recordkeeping coordination units. In particular there is a need to upgrade analytical and strategic skills. This would assist in the development of organisations' recordkeeping policies, need analyses, education and communication strategies. Also, with the increasing significance of electronic systems there is a need to ensure specialist expertise in modern recordkeeping disciplines is available to help guide corporate strategies. The ANAO has recommended—see Recommendation No.2(b)—that organisations' recordkeeping infrastructure be strengthened through access to specialist expertise in the development of recordkeeping strategies and systems. In this respect, the national recordkeeping competency standards are relevant.

Conclusion

5.11 There is a need for attention at a corporate level to training all staff in order to help them meet their recordkeeping responsibilities. Organisations should also plan communication strategies to keep staff advised about emerging recordkeeping issues.

5.12 In central records management units, there is a need for organisations to supplement existing skill sets, by enlisting specialist expertise to help in the development of corporate recordkeeping strategies.

Recommendation No.5 (Recordkeeping skills and awareness)

5.13 The ANAO recommends that organisations enhance recordkeeping skills and awareness by:

a) providing corporate training to line staff on their recordkeeping responsibilities, including record creators, supervisors and new staff; and

b) developing an ongoing communication program on recordkeeping to maintain awareness and knowledge.

6. Monitoring and Review

Evaluation and ongoing quality assurance

6.1 Regular monitoring and periodic evaluation of recordkeeping, and mechanisms to ensure action on outcomes, are essential elements of the control framework. Professional recordkeeping standards[15] require that organisations monitor and review recordkeeping systems and audit adherence to required practice and procedure. As recordkeeping has a vital governance and accountability dimension, it is appropriate that senior management through Audit Committees and the like, are provided with the necessary assurance information on monitoring, reviews, and follow-through action.

Periodic review and audit

6.2 All the organisations in this audit had conducted some review of their recordkeeping performance. As noted at Part 2 of this report, three of the organisations had commenced a systematic assessment across the whole organisation using the DIRKS method and were using these findings to develop their recordkeeping. The fourth organisation had not yet commenced systematic assessment of recordkeeping, but had commissioned management and legal reviews that also touched on particular aspects of the recordkeeping function. This organisation also had the benefit of a number of internal audits and responded to occasional findings on recordkeeping from external review, such as by the Ombudsman and the Privacy Commissioner.

6.3 All the organisations had some internal audit coverage of recordkeeping. This was helping to identify the need for adherence to good practice. In one case the audit coverage was part of a defined quality management process that included recordkeeping and subsequent corrective action.

6.4 Nevertheless, the ANAO found that the effectiveness of internal audit coverage of recordkeeping could generally be improved. Auditing relies on there being a suitable procedural framework on which to audit compliance. As discussed in Part 4 of this report, this is not always present. Audit models also need to be developed that reflect emerging recordkeeping issues in Commonwealth organisations under the *e-permanence* guidelines. Attention should also be given to the Australian and international standards on records management. Points to consider include:

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[15] For example *AS4390.2* cl 5.3, *AS4390.3* cl 7, *ISO15489-1* cl 10, and the accompanying ISO guidelines *ISO15489-2* at section 5.

- using audit programs that test the broader recordkeeping aspects (such as in respect of electronic records) as well as the usual paper-based registry files;
- identifying and covering areas of higher risk—e.g. recordkeeping of web-based activities were identified in this audit as needing extra attention; and
- audit follow-up mechanisms that ensure appropriate response action on audit findings.

Ongoing monitoring of performance

6.5 In three of the organisations, the central recordkeeping area was not systematically monitoring the standard of recordkeeping in work units. With current paper-based recordkeeping systems, it is generally not easy to benchmark recordkeeping performance from quantitative measures. As electronic document management and recordkeeping becomes more prevalent there will be some scope for developing performance information. At present, central units were able to make some assessment from returned files, file titling, missing records, and occasional requests for advice from business areas. However, generally they did not have a mandate to systematically assess recordkeeping issues and performance through visits to business areas. In the organisation that covered recordkeeping as part of its quality management, the head of records management was a member of the quality management teams (though the ANAO noted that in practice the quality monitoring did not extend to all parts of the organisation including areas such as administrative units).

6.6 As part of their development of recordkeeping, organisations generally agreed that it would be desirable to establish ongoing monitoring of recordkeeping through reviews in work units. Not only would this provide assurance over corporate recordkeeping standards and policies but it would assist policy implementation, change management, and continuous improvement through face-to-face coaching of staff and identification of recordkeeping areas in need of development.

Conclusion

6.7 Organisations had been undertaking reviews of their recordkeeping through the DIRKS recordkeeping needs analysis and also through internal audits. These are proving very useful in prompting necessary changes, though the coverage and scope of internal audits can be developed to provide improved assurance in relation to emerging areas such as electronic records.

6.8 To supplement periodic internal audit assurance on recordkeeping, there is a need for central recordkeeping units to be given responsibility for ongoing monitoring and review in support of corporate recordkeeping policy and procedure and to ensure audit findings are followed-up. This could be effected through recordkeeping reviews that allow records management coordinators to systematically assess recordkeeping in visits to business areas.

6.9 In developing terms of reference for recordkeeping reviews and audits, attention should be given to National Archives' *e-permanence* guidelines to agencies and to the Australian and international standards on records management (see paragraph 1.5).

Recommendation No.6 (Monitoring and review)

6.10 The ANAO recommends that organisations promote continuous improvement in recordkeeping by implementing suitable mechanisms to manage the quality of their recordkeeping performance and processes—for example, further developing the effectiveness of internal audit coverage and ongoing monitoring by records management coordinators.

Change management considerations

6.11 Until recently, organisations had been seeking to rely on a paper-based recordkeeping approach—even though increasingly, significant records are generated and held in an electronic format. With the increasing pervasiveness of electronic business transactions and information systems, maintenance of a full and accurate paper record is more complex. Organisations need to develop new means of dealing effectively with this challenge.

6.12 As organisations increasingly turn to electronic recordkeeping solutions, they may nevertheless continue to operate paper-based systems to cater for situations where clients, staff and/or suppliers may still have strong preferences or needs for paper transactions. Organisations may need to consider the transitional issues presented by operating dual systems, relative to the business case of imaging options. Threshold decisions to be considered include where to draw the boundaries for the different systems in time and between business activities.

6.13 The following observations on change management were made based on the experience of the various organisations considered in this audit:

- Recordkeeping should be seen as part of the way business is done and not an event that occurs separately from business. System development can address both accountability and business requirements within the same set of information and recordkeeping processes.

- The changes to recordkeeping should be linked to strategic developments in the organisation and particularly to strategic information and knowledge management. Strategic information managers need to have a strong understanding of recordkeeping principles. Organisations need to maintain a broad view across all their recordkeeping environments and applications.
- Organisations are able to effectively combine better electronic recordkeeping with business process re-engineering, workflow systems, collaboration support, distributed web-content authoring, and electronic document management. Technological solutions are now becoming available that combine good recordkeeping functionality with other information management features. These packages can be customised to meet specific business needs in systems that make it easy to adopt good recordkeeping practice.
- It is important that the changes are not simply technology-led. Effective implementation of electronic recordkeeping/EDMS should be underpinned by systematic analysis of recordkeeping needs at a detailed level (e.g. whole-of-organisation analysis using DIRKS). DIRKS analysis is also useful for developing tools such as classifications of business records and disposal authorities. Development of recordkeeping policy, stakeholder ownership and communications, and recordkeeping awareness are also important determinants of the critical behavioural changes needed.
- Experience suggests that lead times to develop the strategic framework and policy settings and to undertake the necessary recordkeeping analysis are significant. A staged approach to the changes may help complete the necessary steps and to allow more gradual user acceptance of the changes. The earlier an organisation starts the better and it would be inadvisable to rush through essential steps in the process.
- A different set of skills is needed in recordkeeping units that are coordinating the change from traditional records management with the information management areas. These people can utilise high-level analytical and strategic skills.

6.14 All the organisations included in the audit had started to recognise the need to upgrade their recordkeeping. Three organisations had started on a change program for their recordkeeping beginning with a systematic DIRKS analysis. Several of these organisations were seeing recordkeeping as part of a more strategic approach to information management more broadly. One of them was moving to implement a new electronic recordkeeping system/EDMS. In

addition, the ANAO also studied information and recordkeeping developments at IP Australia as a case study illustration (see the Appendix to this report).

Canberra ACT
1 May 2002

P. J. Barrett
Auditor-General

Appendix

IP Australia Records and Information Management

Though not included in the audit, IP Australia is an example of an organisation undergoing transition in the strategic development of its information management and recordkeeping.

The changes were sparked by dual needs of international business competitiveness and scrutiny of organisational accountability. Recordkeeping and information needs are linked to business process improvement. A key message at IP Australia is that

> **... good recordkeeping is part of doing business—not an added extra.**

The changes are being driven from the top by the Director-General and senior leaders and supported by business managers and staff. Coordination of recordkeeping and of information technology policy and strategy is located together in a small work team under a Chief Information Officer.

Development is being guided strategically by principles in an Information Management Framework that is closely tied to corporate strategy and planning. System and *e-commerce* development continued during establishment of the Framework and will be gradually brought to fit in with the guiding model.

After establishing the strategic Framework, early attention was given to:

- recordkeeping policy settings—a Chief Executive Instruction 'Records and Information Management' supports a set of policy statements and guidelines on recordkeeping that are easy for staff to understand and use; and
- recordkeeping needs analysis under a DIRKS-style approach is being undertaken over several years. The analysis underpins the classification of IP Australia's business information and the development of automated business/information systems that include support for better recordkeeping.

Automated systems are one element of the information and records management strategy. There is a staged approach to developing automated system solutions with a number of business applications gradually being rolled out. IP Australia's information technology solutions:

- build better electronic recordkeeping into automated information management (e.g. see **BRIK** below). The system redesign is tied to business process re-engineering and *e-commerce* under the Online Action Plan; and
- use purchased software that is suited to IP Australia's business platforms but that is significantly customised to meet the needs identified from the DIRKS-style analysis.

IP Australia's information and recordkeeping systems are developed in conformity with defined information policies and standards. For example the systems are being designed and reviewed to meet the Commonwealth recordkeeping metadata standard. They conform to the agency information security policies and processes required under the Commonwealth Protective Security Manual.

The systems developments aim to make it easy for people to follow correct recordkeeping procedure. Implementation of each application is carefully planned to coordinate the timing of management seminars, training, assistance, and aids.

Recordkeeping reviews in work areas by a team under the direction of the Chief Information Officer play a key role in the drive for improved recordkeeping. They provide corporate quality assurance, assist understanding of where improvements in recordkeeping practices are needed, enable face-to-face coaching, and provide benchmarks of progress.

BRIK Project

(Business Records, Information and Knowledge)

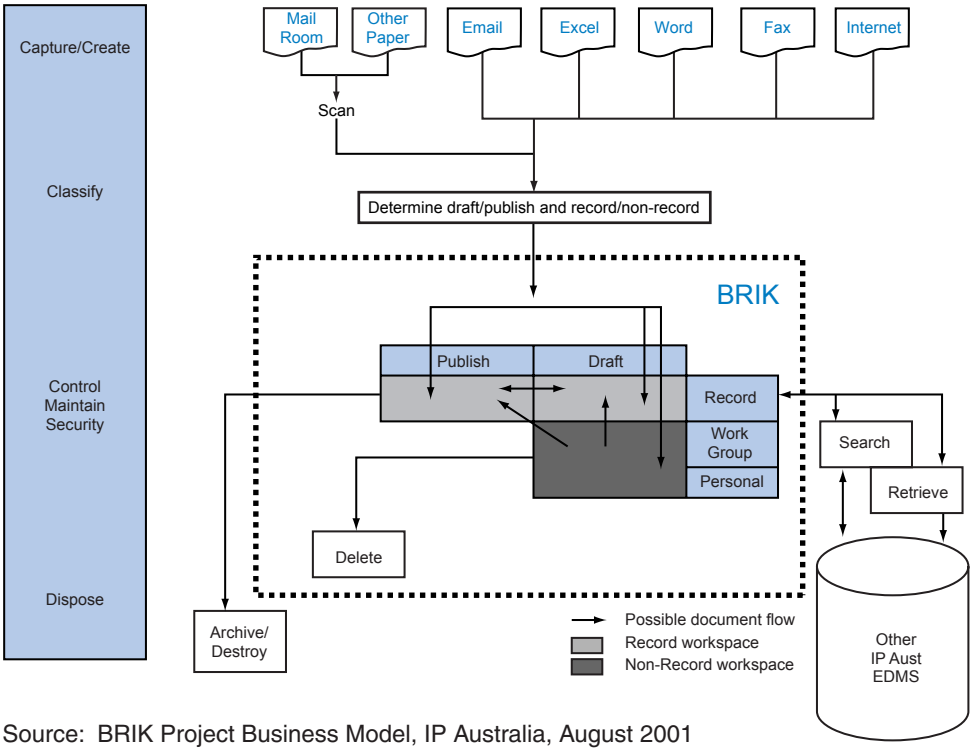
Current development of the BRIK (Business Records, Information and Knowledge) system is an example of the IP Australia model of having business systems that incorporate good recordkeeping as part of the required solution. BRIK is being developed to manage IP Australia's general administrative records.

BRIK makes use of an electronic document management system (EDMS) and is designed to ensure that documents are retrievable electronically, from a valid recordkeeping environment. The change from paper administrative files to an electronic recordkeeping system / EDMS will be made in stages throughout the organisation over 2002.

There are three main domains in BRIK – personal workspace, workgroup space and records space. As depicted in the indicative document flow in Figure 1 below, individuals will have the responsibility of saving information into the relevant space in the appropriate way.

Figure 1

Overview and document flow in the BRIK system



Source: BRIK Project Business Model, IP Australia, August 2001

BRIK can handle electronic records such as emails, electronic documents and scanned versions of external correspondence. Paper documents received after implementation of BRIK can be scanned into the system. Information is classified by function and stored in accordance with the business classifications developed in the DIRKS analysis.

BRIK is compatible with other systems in IP Australia used to manage its Patents, Trademarks, and Designs business lines. Under IP Australia's information discovery model, users will be able to access corporate information as authorised from BRIK record space, from other IP Australia business systems, its library, etc though a corporate index.

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