



ARMA INTERNATIONAL
**EDUCATIONAL
FOUNDATION**
RESEARCH • EDUCATION • SCHOLARSHIP

A Guide to Commonly Used U.S. National and International Records and Information Management Standards, Guidelines and Technical Reports

Virginia A Jones, CRM, FAI

Revised September 2017

Originally Published September 2010

Mary Margaret Fletcher, MLIS

Revised August 2012

The Honorarium for this author-donated Research Project provided by:
The ARMA International Educational Foundation

©2017 ARMA International Educational Foundation

www.armaedfoundation.org

ABSTRACT

Originally written by by Virginia Jones, CRM, FAI (2010) [Originally funded by the Greater Washington DC ARMA Chapter]; Updated by Mary Margaret Fletcher, University of Pittsburgh (2012) [Funded by the Foundation]; Updated by Virginia Jones, CRM, FAI (2017) [Funded by the Foundation].

This guide is a compilation of key U.S. national and international records management standards, guidelines, and technical reports available for use in and by U.S. records and information management practitioners. It is not all-inclusive. Standards, guidelines, and technical reports for specific industry groups, such as legal profession, real estate, or banking, are not included, nor are quality control standards for imaging systems. The standards, guidelines, and technical reports that have been included were selected for their universal usefulness for most or all U.S. RIM programs. The purpose of this compilation is to offer a categorized list of pertinent standards and best practices to assist in determining those that meet the needs of the organization. This paper is meant to help the average RIM practitioner decide which standards apply to their programs.

Each standard or guideline includes a brief description, usually a summary of the published Scope or Purpose when available. The pertinent preservation standards have been included for reference by those RIM practitioners responsible for legacy micrographic programs or archived micrographic records.

TABLE OF CONTENTS

Introduction	12
RIM General	14
ISO 15489-1:2016	14
Information and documentation -- Records management -- Part 1: Concepts and principles	14
ARMA International TR25-2014	14
Auditing for Records and Information Management Program Compliance	14
ANSI/ARMA TR22-2012	15
Glossary of Records and Information Management Terms: 4th Edition	15
ISO/TR 26122:2008	15
Information and documentation — Work process analysis for records	15
ANSI/ARMA TR27-2015	16
Retention Management for Records and Information	16
ARMA International Guideline 2005	16
Establishing Alphabetic, Numeric and Subject Filing Systems	16
ARMA International Guideline 2008	17
Controlled Language in Records and Information Management	17
ANSI/ARMA TR01-2011	17
Records Center Operations, 3 rd Edition	17
ARMA International Guideline 2007	18
Guideline for Evaluating Offsite Records Storage Facilities	18
ARMA International Guideline 2009	18
Contracted Destruction for Records and Information Media	18

ISO 19011:2012.....	18
Guidelines for auditing management systems.....	18
ISO 9000-2015	19
Quality management systems – Fundamentals and vocabulary	19
ISO 9001:2015.....	19
Quality management systems – Requirements	19
ISO 14001-2015	20
Environmental management systems – Requirements with guidance for use.....	20
ISO 30300:2011.....	21
Information and documentation -- Management systems for records -- Fundamentals and vocabulary.....	21
ISO 30301:2011.....	21
Information and documentation -- Management systems for records -- Requirements	21
ISO 30302:2015.....	21
Information and documentation -- Management systems for records -- Guidelines for implementation	21
ISO 22310:2006 (R2015)	22
Information and documentation -- Guidelines for standards drafters for stating records management requirements in standards	22
Protection	23
ARMA International Guideline 2009	23
Evaluating and Mitigating Records and Information Risks	23
ANSI/ARMA 5-2010	23
Vital Records Programs: Identifying, Managing, and Recovering Business Critical Records	23
NFPA 75 (2013)	24
Standard for the Protection of Information Technology Equipment	24
NFPA 232 (2017)	24
Standard for the Protection of Records.....	24

ISO/IEC 27001:2013	25
Information technology -- Security techniques -- Information security management systems -- Requirements	25
ARMA International TR28-2015	25
Secure Management of Private Information.....	25
NIST Special Publication 800-34 Rev. 1 (2010).....	25
Contingency Planning Guide for Federal Information Systems.....	25
NIST Special Publication 800-144 (2011)	26
Guidelines on Security and Privacy in Public Cloud Computing.....	26
NIST Special Publication 800-124 Revision 1 (2013)	26
Guidelines for Managing the Security of Mobile Devices in the Enterprise.....	26
NIST Special Publication 800-122 (2010)	26
Guide to Protecting the Confidentiality of Personally Identifiable Information (PII).....	26
NIST Special Publication 800-98 (2007)	27
Guidelines for Securing Radio Frequency Identification (RFID) Systems	27
NIST Special Publication 800-45 Version 2 (2007).....	28
Guidelines on Electronic Mail Security.....	28
NIST IR 8053 (2015).....	28
De-Identification of Personal Information	28
ISO/TR 18128:2014	29
Information and documentation -- Risk assessment for records processes and systems.....	29
NIST Special Publication 800-88 Revision 1 (2014)	29
Guidelines for Media Sanitization.....	29
Technology and Electronic Records.....	30
AIIM Recommended Practice (ARP1-2009)	30
Analysis, Selection, and Implementation of Electronic Document Management Systems (EDMS).....	30

ARMA International 2013.....	30
Developing Electronic File Structures.....	30
ARMA International TR20-2012	30
Mobile Communications and Records and Information Management.....	30
ANSI/ARMA TR24-2013	31
Best Practices for Managing Electronic Messages.....	31
ANSI/AIIM/ARMA TR48-2006.....	31
Revised Framework for Integration of Electronic Document Management Systems and Electronic Records Management Systems	31
ANSI/ARMA 18-2011	31
Implications of Web-Based, Collaborative Technologies in Records Management.....	31
ANSI/ARMA 19-2012	31
Policy Design for Managing Electronic Messages.....	31
ISO 13008: 2012.....	32
Information and Documentation – Digital Records Conversion and Migration Process	32
ANSI/AIIM MS23-2004 (R2010)	32
Standard Recommended Practice - Production, Inspection, and Quality Assurance of First- Generation, Silver Microforms of Documents.....	32
ANSI/AIIM TR41-2006.....	33
Technical Report for Information and Image Management – Optical Disk Storage Technology, Management, and Standards.....	33
ISO 23081-1: 2006 (R2010).....	33
Information and documentation — Records management processes — Metadata for records — Part 1: Principles	33
ISO 23081-2:2009 (R2014).....	34
Information and documentation -- Managing metadata for records -- Part 2: Conceptual and implementation issues	34
ISO/TR 23081-3:2011	34
Information and documentation -- Managing metadata for records -- Part 3: Self-assessment method	34
ISO 16175-3:2010	35
Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 3: Guidelines and	

functional requirements for records in business systems	35
ARMA International Guideline 2009	35
Website Records Management	35
ARMA International Guideline 2007	36
Working Collaboratively in an Electronic World.....	36
ARMA TR03-2009.....	36
Metadata: A Basic Tutorial for Records Managers	36
ISO 16175-1:2010	37
Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 1: Overview and statement of principles.....	37
ARMA International Guideline 2009	37
Records and Information Management for Information Technology Professionals	37
ISO 16175-2:2011	38
Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 2: Guidelines and functional requirements for digital records management systems	38
ARMA TR 26-2014.....	39
Understanding Electronic Records Storage Technologies	39
ARMA International Guideline 2010	39
Guideline for Outsourcing Records Storage to the Cloud	39
ARMA TR04-2009.....	40
Using DoD 5015.02-STD Outside the Federal Government Sector.....	40
ISO/TR 13028:2010	40
Information and documentation - Implementation guidelines for digitization of records.....	40
ARMA International TR21-2012	40
Using Social Media in Organizations.....	40
ANSI/AIIM TR41-2006	41

Optical Disk Storage Technology, Management, and Standards	41
Legal	42
ARMA International Guideline 2007	42
Records Management Responsibility in Litigation Support.....	42
ANSI/AIIM TR 31-2004	42
Legal Acceptance of Records Produced by Information Technology Systems.....	42
NIST Special Publication 800-102 (2009)	42
Recommendation for Digital Signature Timeliness	42
NIST Special Publication 800-89 (2006)	43
Recommendation for Obtaining Assurances for Digital Signature Applications.....	43
ISO/TR 17068:2012	43
Information and Documentation - Trusted Third Party Repository for Digital Records.....	43
ANSI/AIIM 25: 2012	44
Assessing Trusted Systems for Compliance with Industry Standards and Best Practices	44
Preservation	45
ISO 18901:2010 (R2015)	45
Processed Silver-Gelatin Type Black-and-White Film – Specifications for Stability.....	45
ISO 18905:2002 (R2012)	45
Imaging materials -- Ammonia-processed diazo photographic film -- Specifications for stability	45
ISO 18906:2000 (R2015)	46
Imaging materials -- Photographic films – Specifications for safety film.....	46
ISO 18902:2013.....	46
Imaging materials -- Processed imaging materials -- Albums, framing and storage materials	46
ISO 18909:2006 (R2015)	47

Photography -- Processed photographic color films and paper prints -- Methods for measuring image stability.....	47
ISO 18911:2010 (R2015)	47
Imaging materials – Processed safety photographic films – Storage practices	47
ISO 18912:2002 (R2012)	48
Imaging materials -- Processed vesicular photographic film -- Specifications for stability.....	48
ISO 18913:2012.....	48
Imaging materials — Permanence — Vocabulary.....	48
ISO 18915:2000 (R2015)	48
Imaging materials – Methods for the evaluation of the effectiveness of chemical conversion of silver images against oxidation.	48
ISO 18916:2007 (R2015)	49
Imaging materials -- Processed imaging materials -- Photographic activity test for enclosure materials	49
ISO 18919:1999 (R2011)	49
Imaging materials -- Thermally processed silver microfilm -- Specifications for stability.....	49
ISO 18921:2008 (R2012)	49
Imaging materials -- Compact discs (CD-ROM) -- Method for estimating the life expectancy based on the effects of temperature and relative humidity.....	49
ISO 18917:1999 (R2011)	50
Photography – Determination of residual thiosulfate and other related chemicals in processed photographic materials – Methods using iodine-amylose, methylene blue and silver sulfide	50
ISO 18923:2000 (R2012)	50
Imaging materials – Polyester Base Magnetic Tape – Storage Practices	50
ISO 18924:2013.....	51
Imaging materials -- Test method for Arrhenius-type predictions	51
ISO 18925:2013.....	51
Imaging materials - Optical Disc Media – Storage Practices	51
ISO 18927:2013.....	51

Imaging materials -- Recordable compact disc systems -- Method for estimating the life expectancy based on the effects of temperature and relative humidity.....	51
ISO 18928:2013.....	52
Imaging materials -- Unprocessed photographic films and papers -- Storage practices.....	52
ISO 18929:2012.....	52
Imaging materials -- Wet-processed silver-gelatin type black-and-white photographic reflection prints -- Specifications for dark storage	52
ISO 18932:2009 (R2015)	52
Imaging materials -- Adhesive mounting systems -- Specifications	52
ISO 18934:2011.....	52
Imaging materials -- Multiple media archives -- Storage environment.....	52
ISO 18933:2012.....	53
Imaging materials -- Magnetic tape -- Care and handling practices for extended usage.....	53
ISO 11108:1996 (R2015)	53
Information and documentation -- Archival paper -- Requirements for permanence and durability	53
ANSI/AIIM MS45-1990	53
Recommended Practice for Inspection of Stored Silver- Gelatin Microforms for Evidence of Deterioration.....	53
NIST Special Publication 500-252 (2003)	54
Care and Handling for the Preservation of CDs and DVDs -- A Guide for Librarians and Archivists.....	54
ISO 16245:2009.....	54
Information and documentation -- Boxes, file covers and other enclosures, made from cellulosic materials, for storage of paper and parchment documents.....	54
ISO 16363:2012.....	54
Space data and information transfer systems -- Audit and certification of trustworthy digital repositories	54
ISO 14721:2012.....	55
Space data and information transfer systems -- Open archival information system (OAIS) -- Reference model.....	55

Appendix..... 57

Funded by ARMA Int'l Ed Foundation

Introduction

Standards can be a standard set of requirements (*de jure*) or a best practice or procedure (*de facto*). Guidelines are informative and technical reports cover the technical aspects of an issue. RIM professionals use standards, guidelines, and technical reports as integral parts of active, inactive, governance, and vital records management programs. National and international standards, guidelines, and technical reports exist that aid in determining the best methods, rationale, environment, and housing for managing and protecting records.

Standards, guidelines, and technical reports provide a measurable benchmark for evaluating RIM practices based on proven best practices from a variety of sources. They can create measurable methods of accomplishing work processes and tasks and allow interoperability and compatibility of equipment and products. Standards, guidelines, and technical reports are not *required until adopted* by an organization or government entity as a requirement or regulation. Adopting and using standards, guidelines, and technical reports provides consistency of products and services.

There are a myriad of national and international standards, guidelines, and technical reports available for purchase or free download. Wading through the voluminous list in order to find those that are useful in establishing and maintaining good records and information management can be time-consuming. Many standards must be purchased before full understanding of their scope and coverage can be reached.

This guide is a compilation of key U.S. national and international records management standards, guidelines, and technical reports available for use in and by U.S. records and information management practitioners. It is not all-inclusive. Standards, guidelines, and technical reports for specific industry groups, such as legal profession, real estate, or banking, are not included, nor are quality control standards for imaging systems. The standards, guidelines, and technical reports that have been included were selected for their universal usefulness for most or all U.S. RIM programs. The purpose of this compilation is to offer a categorized list of pertinent standards and best practices to assist in determining those that meet the needs of the organization. This paper is meant to help the average RIM practitioner decide which standards apply to their programs before buying them.

Each standard or guideline includes a brief description, usually a summary of the published Scope or Purpose when available. The pertinent preservation standards have been included for reference by those RIM practitioners responsible for legacy micrographic programs or archived micrographic records.

The standards, guidelines and best practices included in this paper were developed by a standards setting body *such as AIIM, ARMA, ISO, NFPA, and NIST*.

AIIM is the Global Community of Information Professions that believe that information is our most important asset. Since 1943, AIIM has evolved from being the National Micrographics Association and then the Association for Information and Image Management. AIIM's Standards Program develops and promotes high quality standards, recommended practices, technical reports, and industry specifications to support interoperability, interchangeability, and the global enterprise for information professionals. AIIM represents the American National

Standards Institute (ANSI) on ISO TC171 (technical committee for Document management applications).

ARMA International is a not-for-profit professional association and the authority on governing information as a strategic asset. The association was established in 1955. Its members include records and information managers, information governance professionals, archivists, corporate librarians, imaging specialists, legal professionals, IT managers, consultants, and educators. Standards development is a major activity for ARMA International. ARMA International's Standards Development Program is accredited by (ANSI).

The International Organization for Standardization (ISO) (based in Switzerland) develops and publishes International Standards. International RIM standards are set by a number of ISO Technical Committees and Sub Committees. The two primary groups are ISO TC46 SC11 Information and Documentation – Archives/Records Management and ISO TC171 Document Management Applications.

The National Fire Protection Association (NFPA) is a global nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. The backbone of NFPA is its codes and standards. Its mission is to provide the information and knowledge needed in today's ever-changing environment. The 300 codes and standards are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation around the world. It has more than 200 technical code and standard development committees comprised of more than 6,000 volunteers who vote on proposals and revisions in a process that is accredited by the American National Standards Institute.

The National Institute of Standards and Technology was founded in 1901 and is now part of the U.S. Department of Commerce. NIST is one of the nation's oldest physical science laboratories. Its mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. Today, NIST measurements support the smallest of technologies—nanoscale devices so tiny that tens of thousands can fit on the end of a single human hair—to the largest and most complex of human-made creations, from earthquake-resistant skyscrapers to wide-body jetliners to global communication networks. The NIST Laboratories conduct world-class research, often in close collaboration with industry, that advances the nation's technology infrastructure and helps U.S. companies continually improve products and services.

Since the original publication of this paper, new standards, guidelines and technical reports have been published and many of those that were included originally have been revised. An alpha-numeric list showing the status of the standards, guidelines, and technical reports in this paper is included at the end in the appendix.

The author would like to thank the ARMA International Educational Foundation, its Board of Trustees, and officers for the opportunity to contribute this research to RIM professional literature.

RIM General

<p>ISO 15489-1:2016 <i>Information and documentation -- Records management -- Part 1: Concepts and Principles</i></p>	<p>This standard defines the concepts and principles from which approaches to the creation, capture, and management of records are developed. This part of the standard describes concepts and principles relating to the following:</p> <ul style="list-style-type: none"> • records, metadata for records and records systems; • policies, assigned responsibilities, monitoring and training supporting the effective management of records; • recurrent analysis of business context and the identification of records requirements; • records controls; • processes for creating, capturing and managing records. <p>ISO 15489-1:2016 applies to the creation, capture, and management of records regardless of structure or form, in all types of business and technological environments, over time.</p>
<p>ARMA International TR25-2014 <i>Auditing for Records and Information Management Program Compliance</i></p>	<p>Records and information management (RIM) audits are useful for assessing an organization's risk exposure and providing opportunities for quality and performance improvement. This technical report expands RIM professionals' knowledge and provides implementation-based advice related to the RIM audit. It aims to encourage innovation, spur improvement, strengthen information governance efforts, and bolster compliance for all organizations.</p>

<p>ANSI/ARMA TR22-2012 <i>Glossary of Records and Information Management Terms: 4th Edition</i></p>	<p>This fourth edition of <i>Glossary of Records and Information Management Terms</i> (ARMA TR 22-2012), includes nearly 900 terms from numerous disciplines that intersect with records and information management (RIM), including archives, information technology, legal services, and business management. It is intended for anyone whose work includes any aspect of managing information. This technical report also has several appendices, including a list of international ISO and American National Standards related to RIM; a list of national libraries and archives from the countries that participate on the ISO TC 46 / SC 11 committee (Information and Documentation/Archives and Records Management); and contact information for related professional and trade organizations.</p>
<p>ISO/TR 26122:2008 <i>Information and documentation — Work process analysis for records</i></p>	<p>This Technical Report provides guidance on work process analysis from the perspective of the creation, capture and control of records.</p> <p>It identifies two types of analyses, namely:</p> <ul style="list-style-type: none"> • functional analysis (decomposition of functions into processes), and • sequential analysis (investigation of the flow of transactions). <p>Each analysis entails a preliminary review of context (i.e. mandate and regulatory environment) appropriate for the analysis. The components of the analysis can be undertaken in various combinations and in a different order from that described here depending on the nature of the task, the scale of the project, and the purpose of the analysis. Guidance provided in the form of lists of questions/matters to be considered under each element of the analysis is also included.</p> <p>This Technical Report describes a practical application of the theory outlined in ISO 15489. As such, it is independent of technology (i.e. can be applied regardless of the technological environment), although it can be used to assess the adequacy of technical tools that support an organization's work processes.</p> <p>This Technical Report focuses on existing work processes rather than on facilitating “workflow” (i.e. the automation of a business process in whole or part during which documents, information or tasks are passed from one participant to another for action).</p>

<p>ANSI/ARMA TR27-2015 <i>Retention Management for Records and Information</i></p>	<p>This technical report covers activities pertinent to managing the retention of records and information—regardless of media or format—as an organization applies those elements in accordance with the “needs of the business” and associated legal/regulatory requirements.</p> <p>This technical report covers activities pertinent to managing the retention of records and information—regardless of media or format—as an organization applies those elements in accordance with the “needs of the business” and associated legal/regulatory requirements. It includes, but is not limited to, records and information stored on paper/physical media or housed via electronic resources. Records disposition is also discussed. It also includes three appendices:</p> <p>Appendix A: Resources for retention management policy creation</p> <p>Appendix B – Sample inventory forms</p> <p>Appendix C – Examples of records retention schedule forms</p>
<p>ARMA International Guideline 2005 <i>Establishing Alphabetic, Numeric and Subject Filing Systems</i></p>	<p>This guideline aids in the selection and application of a filing system that will enable users to retrieve information. It describes three principal systems: alphabetic filing, subject filing, and numeric filing. In addition, it contains standard rules for indexing alphabetic data.</p> <p>This publication establishes a uniform file classification system while identifying and preserving a set order of records. Three informative appendices include instructions for indexing, factors to consider when using automated indexing systems, and exceptions for alphabetic indexing.</p>

<p>ARMA International Guideline 2008 <i>Controlled Language in Records and Information Management</i></p>	<p>Controlled language is an umbrella term that indicates an agreed-upon use of language in a predetermined or predictable way for describing organizational information resources, regardless of format. This guideline provides an understanding of what controlled language is and how it benefits organizations.</p> <p>Controlled language is an umbrella term that indicates an agreed-upon use of language in a predetermined or predictable way for describing organizational information resources, regardless of format. This guideline provides an understanding of what controlled language is and how it benefits organizations by:</p> <ul style="list-style-type: none"> • Reducing search time and increasing the reliability of search results • Improving organizational communication • Avoiding duplication • Reducing corporate risk exposure in legal and other discovery processes
<p>ANSI/ARMA TR01-2011 <i>Records Center Operations, 3rd Edition</i></p>	<p>This technical report will assist organizations with selecting an appropriate records center site and designing, equipping, staffing, operating and managing a records center. Additional sections discuss vaults, security, records center software, and commercial records storage facilities. (For much more extensive coverage on commercial records centers, see Guideline for Evaluating Offsite Records Storage Facilities.)</p> <p>It is useful to records and information management practitioners and educators, archivists, consultants, information technology professionals, and records center vendors. Although it also may be useful to archivists, it is not inclusive of the specific needs of an archival records center, which requires a more stringent look at temperature/humidity controls, storage supplies, and equipment needed for long-term storage of records and/or objects.</p>

<p>ARMA International Guideline 2007 <i>Guideline for Evaluating Offsite Records Storage Facilities</i></p>	<p>This guideline is a practical tool for organizations to use to evaluate their storage needs, determine whether their business practices make outsourcing the best decision, and assess the ability of vendors to meet storage requirements. It includes checklists for records security and protection, service levels, contract terms, and cost comparisons.</p> <p>This guideline is a practical tool for organizations to use to evaluate their storage needs, determine whether their business practices make outsourcing the best decision, and assess the ability of vendors to meet storage requirements. It includes checklists for records security and protection, service levels, contract terms, and cost comparisons. It will facilitate the user's development of:</p> <ul style="list-style-type: none"> • A customer profile • A request for information (RFI) process • A request for quote (RFQ) process <p>Purchasers get free online access to a form-enabled, editable Microsoft Word version of the checklists they may customize and distribute as their RFI or RFQ for vendors to complete and return.</p>
<p>ARMA International Guideline 2009 <i>Contracted Destruction for Records and Information Media</i></p>	<p>Designed to guide organizations when contracting for destruction services, this guideline identifies the critical components that must be addressed so no records or information in any format are compromised during any part of the destruction process. Service providers may also use this guideline to understand requirements for managing and processing an organization's records and information media destruction activities.</p> <p>Forms provided in the appendices are also available to purchasers of this guideline as a free download of editable Microsoft Word files.</p>
<p>ISO 19011:2012 <i>Guidelines for auditing management systems</i></p>	<p>ISO 19011:2011 provides guidance on auditing management systems, including the principles of auditing, managing an audit program, conducting management system audits, and evaluating the competence of individuals involved in the audit process, including the person managing the audit program, auditors, and audit teams.</p>

<p>ISO 9000-2015 <i>Quality management systems – Fundamentals and vocabulary</i></p>	<p>This International Standard describes fundamentals of quality management systems which form the subject of the ISO 9000 family, and defines related terms.</p> <p>This International Standard is applicable to the following:</p> <ul style="list-style-type: none"> • Organizations seeking advantage through the implementation of a quality management system • Organizations seeking confidence from their suppliers that their product requirements will be satisfied • Users of the products • Those concerned with a mutual understanding of the terminology used in quality management (e.g. suppliers, customers, regulators) • Those internal or external to the organization who assess the quality management system or audit it for conformity with the requirements of ISO 9001 (e.g. auditors, regulators, certification/registration bodies) • Those internal or external to the organization who give advice or training on the quality management system appropriate to that organization • Developers of related standards
<p>ISO 9001:2015 <i>Quality management systems – Requirements</i></p>	<p>This International Standard specifies requirements for a quality management system where an organization</p> <ul style="list-style-type: none"> • needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and • aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements <p>Note: In this International Standard, the term “product” applies only to the product intended for, or required by, a customer; or any intended output resulting from the product realization process. Statutory and regulatory requirements can be expressed as legal requirements.</p>

ISO 14001-2015

*Environmental management systems –
Requirements with guidance for use*

ISO 14001:2015 specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance. It is intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

This international standard helps an organization achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself, and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include:

- enhancement of environmental performance;
- fulfilment of compliance obligations;
- achievement of environmental objectives.

This international standard is applicable to any organization, regardless of size, type and nature, and applies to the environmental aspects of its activities, products and services that the organization determines it can either control or influence considering a life cycle perspective. It does not state specific environmental performance criteria.

This international standard can be used in whole or in part to systematically improve environmental management. Claims of conformity to ISO 14001:2015, however, are not acceptable unless all its requirements are incorporated into an organization's environmental management system and fulfilled without exclusion.

<p>ISO 30300:2011 <i>Information and documentation -- Management systems for records -- Fundamentals and vocabulary</i></p>	<p>This International Standard defines terms and definitions applicable to the ISO standards on Management System for Records (MSR) prepared by ISO/TC 46/SC 11. It also establishes the objectives for using a MSR, provides principles for a MSR, describes a process approach, and specifies roles for top management.</p> <p>This International Standard is applicable to any type of organization that wishes to:</p> <ul style="list-style-type: none"> • establish, implement, maintain and improve a MSR to support its business; • assure itself of conformity with its stated records policy; • demonstrate conformity with this International Standard by: <ul style="list-style-type: none"> ▪ undertaking a self-assessment and self-declaration, or ▪ seeking confirmation of its self-declaration by a party external to the organization, or ▪ seeking certification of its MSR by an external party.
<p>ISO 30301:2011 <i>Information and documentation -- Management systems for records -- Requirements</i></p>	<p>ISO 30301:2011 specifies requirements to be met by a MSR in order to support an organization in the achievement of its mandate, mission, strategy and goals. It addresses the development and implementation of a records policy and objectives, and gives information on measuring and monitoring performance.</p> <p>This international standard can be implemented with other Management System Standards (MSS). It is especially useful to demonstrate compliance with the documentation and records requirements of other MSS.</p>
<p>ISO 30302:2015 <i>Information and documentation -- Management systems for records -- Guidelines for implementation</i></p>	<p>ISO 30302:2015 gives guidance for the implementation of a MSR in accordance with ISO 30301. This International Standard is intended to be used in conjunction with ISO 30300 and ISO 30301. This International Standard does not modify and/or reduce the requirements specified in ISO 30301. It describes the activities to be undertaken when designing and implementing a MSR.</p> <p>This international standard is intended to be used by any organization implementing a MSR. It is applicable to all types of organization (e.g. commercial enterprises, government agencies, non-profit organizations) of all sizes.</p>

ISO 22310:2006 (R2015)

*Information and documentation --
Guidelines for standards drafters for
stating records management
requirements in standards*

ISO 22310:2006 allows the appropriate incorporation of records requirements according to ISO 15489-1 and 23081-1, which are applicable to all standards that require the creation and retention of records into other standards. It also highlights the different elements that need to be considered as components of a comprehensive records management framework.

This guidance is in addition to the procedures for technical work and the methodology for the development of International Standards established by the ISO/IEC Directives.

This international standard is intended for use by all ISO bodies involved in the development of records management or documentation requirements in standards. It can also be used by non-ISO standards development organizations at the international, regional, or national level, which are considering or are in the process of developing records management requirements in standards and/or comparable documents.

Funded by ARMA Int'l Educational Foundation

Protection

<p>ARMA International Guideline 2009 <i>Evaluating and Mitigating Records and Information Risks</i></p>	<p>This guideline provides a framework for establishing systems to evaluate information risks and describes a process for framing a risk management system using a risk quadrant:</p> <ul style="list-style-type: none"> • Administrative risks – threats related to managing the RIM program (information governance, change management, and emergency management) • Records control risks – records classification, records retention and disposition, records storage • Legal/regulatory risks • Technology risks – information security, electronic communications, and software applications <p>Includes Excel risk assessment tool.</p>
<p>ANSI/ARMA 5-2010 <i>Vital Records Programs: Identifying, Managing, and Recovering Business Critical Records</i></p>	<p>ANSI/ARMA 5-2010 sets the requirements for establishing a vital records program. It includes requirements for:</p> <ul style="list-style-type: none"> • identifying and protecting vital records • assessing and analyzing their vulnerability • determining the impact of their loss on the organization <p>The content reflects, among other considerations, business continuity-related planning needs. New and updated contents include a section on developing, implementing, and monitoring a records loss prevention plan, new information around protecting electronic data, and an annex comparing drying techniques for water-damaged books and records.</p> <p>Prepared for the use and guidance of those charged with planning, surveying, classifying, retaining, and protecting vital records, this American National Standard also includes a sample records classification chart, vital records schedule, and risk assessment site survey.</p>

<p>NFPA 75 (2013) <i>Standard for the Protection of Information Technology Equipment</i></p>	<p>This standard covers the requirements for the protection of information technology equipment and information technology equipment areas from fire damage by fire or its associated effects--smoke, corrosion, heat, and water.</p> <p>Application is based on risk considerations including business interruption aspects of the functions and the fire threat to the installation. Specific criteria address construction requirements, materials and equipment, construction of information technology equipment, fire protection and detection equipment, records kept or stored in IT equipment rooms, utilities, and emergency and recovery procedures.</p>
<p>NFPA 232 (2017) <i>Standard for the Protection of Records</i></p>	<p>This standard provides minimum requirements for protection of records, records protection equipment and facilities, and the types of records specified within this standard from the hazards of fire. It provides requirements for the following categories of records storage environments in ascending order of increasing risk tolerance and descending protection requirements: (1) Vaults, (2) Archives, (3) File rooms, (4) Compartmented records centers, (5) Non-compartmented records centers. It also provides the requirements for the application of the types of records protection equipment specified within this standard.</p> <p>This standard does <u>not</u>:</p> <ul style="list-style-type: none"> • provide any requirements to prevent forcible entry • provide any requirements for the protection of cellulose nitrate film records • provide any requirements for the storage and handling of useful records. <p>The responsible party, typically the owner of the records and not the authority having jurisdiction, shall determine classification of the records in accordance with this standard and shall determine which records justify the application of this standard.</p> <p>Those charged with planning, inspecting, approving, operating, and maintaining the types of records facilities, equipment, and techniques covered by this standard can choose to consult with an experienced and competent fire protection professional or records protection consultant.</p>

<p>ISO/IEC 27001:2013 <i>Information technology -- Security techniques -- Information security management systems -- Requirements</i></p>	<p>ISO/IEC 27001:2013 specifies the requirements for establishing, implementing, maintaining and continually improving an information security management system within the context of the organization. It also includes requirements for the assessment and treatment of information security risks tailored to the needs of the organization. The requirements set out in this international standard are generic and are intended to be applicable to all organizations regardless of type, size or nature.</p>
<p>ARMA International TR28-2015 <i>Secure Management of Private Information</i></p>	<p>This technical report covers:</p> <ul style="list-style-type: none"> • how to identify private information; • what policies are needed to protect it and how to audit for compliance with these policies; • private information risks and the tools and techniques to help mitigate the risks. <p>Appendices include lists, descriptions, and URLs for U.S. and foreign privacy legislation; a charter for a privacy committee; guidance for doing a risk gap analysis, and a model for auditing compliance with privacy policies and procedures.</p>
<p>NIST Special Publication 800-34 Rev. 1 (2010) <i>Contingency Planning Guide for Federal Information Systems</i></p>	<p>NIST Special Publication 800-34, Rev. 1, <i>Contingency Planning Guide for Federal Information Systems</i> provides guidelines to individuals responsible for preparing and maintaining information system contingency plans (ISCPs). The document discusses essential contingency plan elements and processes, highlights specific considerations and concerns associated with contingency planning for various types of information system platforms, and provides examples to assist readers in developing their own ISCPs.</p> <p>This document provides instructions, recommendations, and considerations for federal information system contingency planning. This guide addresses specific contingency planning recommendations for three platform types and provides strategies and techniques common to all systems:</p> <ul style="list-style-type: none"> • Client/server systems; • Telecommunications systems; and • Mainframe systems.

<p>NIST Special Publication 800-144 (2011) <i>Guidelines on Security and Privacy in Public Cloud Computing</i></p>	<p>This document provides an overview of public cloud computing and the security and privacy challenges involved. The document discusses the threats, technology risks, and safeguards for public cloud environments, and provides the insight needed to make informed information technology decisions on their treatment. The document does not prescribe or recommend any specific cloud computing service, service arrangement, service agreement, service provider, or deployment model. Each organization must perform its own analysis of its needs, and assess, select, engage, and oversee the public cloud services that can best fulfill those needs.</p>
<p>NIST Special Publication 800-124 Revision 1 (2013) <i>Guidelines for Managing the Security of Mobile Devices in the Enterprise</i></p>	<p>The purpose of this publication is to help organizations centrally manage and secure mobile devices, such as smart phones and tablets. (Laptops are out of the scope of this publication, as are mobile devices with minimal computing capability, such as the most basic cell phones.) This publication provides recommendations for selecting, implementing, and using centralized management technologies, and it explains the security concerns inherent in mobile device use and provides recommendations for securing mobile devices throughout their life cycles.</p> <p>The scope of this publication includes both organization-provided and personally-owned (bring your own device, BYOD) mobile devices. Classified systems, devices, data, applications, etc., are out of the scope of this publication.</p> <p>Evaluating the security of mobile device applications is also outside the scope of this publication.</p>
<p>NIST Special Publication 800-122 (2010) <i>Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)</i></p>	<p>The purpose of this document is to assist Federal agencies in protecting the confidentiality of personally identifiable information (PII) in information systems. The document explains the importance of protecting the confidentiality of PII in the context of information security and explains its relationship to privacy using the Fair Information Practices, which are the principles underlying most privacy laws and privacy best practices. PII should be protected from inappropriate access, use, and disclosure.</p> <p>This document provides practical, context-based guidance for identifying PII, and determining what level of protection is appropriate for each instance of PII. The document also suggests safeguards that may offer appropriate levels of protection for PII, and provides recommendations for developing response plans for incidents involving PII. Organizations are encouraged to tailor the recommendations to meet their specific requirements.</p>

**NIST Special Publication 800-98
(2007)**
*Guidelines for Securing Radio
Frequency Identification (RFID)
Systems*

This publication seeks to assist organizations in understanding the risks of RFID technology and security measures to mitigate those risks. It provides practical, real-world advice on how to initiate, design, implement and operate RFID systems in a manner that mitigates security and privacy risks. The document also provides background information on RFID applications, standards, and system components to assist in the understanding of RFID security risks and controls.

Funded by ARMA Int'l Ed Foundation

<p>NIST Special Publication 800-45 Version 2 (2007) <i>Guidelines on Electronic Mail Security</i></p>	<p>The purpose of the <i>Guidelines on Electronic Mail Security</i> is to recommend security practices for designing, implementing, and operating email systems on public and private networks. While intended as recommended guidance for Federal departments and agencies, it may be used in the private sector on a voluntary basis.</p> <p>This document may be used by organizations interested in enhancing security on existing and future mail systems to reduce the number and frequency of email-related security incidents. This document presents generic principles that apply to all systems.</p> <p>This guideline does <u>not</u> cover the following aspects relating to securing a mail server:</p> <ul style="list-style-type: none"> • Securing other types of network servers; • Firewalls and routers used to protect mail servers beyond a basic discussion in Section 7.2.1; • Special considerations for high traffic mail servers with multiple hosts; • Securing backend servers that may support the mail server (e.g., syslog hosts, file servers); • Security of the X.400 standard messaging protocol.
<p>NIST IR 8053 (2015) <i>De-Identification of Personal Information</i></p>	<p>De-identification removes identifying information from a dataset so that individual data cannot be linked with specific individuals. De-identification can reduce the privacy risk associated with collecting, processing, archiving, distributing or publishing information. De-identification thus attempts to balance the contradictory goals of using and sharing personal information while protecting privacy. Several U.S laws, regulations and policies specify that data should be de-identified prior to sharing. Many different kinds of information can be de-identified, including structured information, free format text, multimedia, and medical imagery.</p> <p>This document provides an overview of de-identification issues and terminology. It summarizes significant publications to date involving de-identification and re-identification. It does not make recommendations regarding the appropriateness of de-identification or specific de-identification algorithms.</p>

<p>ISO/TR 18128:2014 <i>Information and documentation -- Risk assessment for records processes and systems</i></p>	<p>ISO/TR 18128:2014 intends to assist organizations in assessing risks to records processes and systems so they can ensure records continue to meet identified business needs as long as required.</p> <p>This technical report:</p> <ul style="list-style-type: none"> • establishes a method of analysis for identifying risks related to records processes and systems, • provides a method of analyzing the potential effects of adverse events on records processes and systems, • provides guidelines for conducting an assessment of risks related to records processes and systems, and • provides guidelines for documenting identified and assessed risks in preparation for mitigation. <p>This technical report can be used by all organizations regardless of size, nature of their activities, or complexity of their functions and structure. These factors, and the regulatory regime in which the organization operates which prescribes the creation and control of its records, are taken into account when identifying and assessing risk related to records and records systems.</p> <p>ISO/TR 18128:2014 can be used by records professionals or people who have responsibility for records in their organizations, and by auditors or managers who have responsibility for risk management programs in their organizations.</p>
<p>NIST Special Publication 800-88 Revision 1 (2014) <i>Guidelines for Media Sanitization</i></p>	<p>Media sanitization refers to a process that renders access to target data on the media infeasible for a given level of effort. This guide will assist organizations and system owners in making practical sanitization decisions based on the categorization of confidentiality of their information.</p> <p>This document will assist organizations in implementing a media sanitization program with proper and applicable techniques and controls for sanitization and disposal decisions considering the security categorization of the associated system's confidentiality.</p> <p>The objective of this special publication is to assist with decision making when media require disposal, reuse, or will be leaving the effective control of an organization. Organizations should develop and use local policies and procedures in conjunction with this guide to make effective, risk-based decisions on the ultimate sanitization and/or disposition of media and information.</p>

Technology and Electronic Records

<p>AIIM Recommended Practice (ARP1-2009) <i>Analysis, Selection, and Implementation of Electronic Document Management Systems (EDMS)</i></p>	<p>This industry recommended practice presents a set of procedures and activities which should be considered and/or performed during all aspects of analyzing, selecting, and implementing electronic document management systems. Using the information contained in this document will enable the organization to consider all of the recommended steps, procedures, and activities highly recommended for EDMS projects, thereby significantly improving the project results.</p> <p>This document has been prepared by a team of recognized industry experts following ANSI/AIIM rules and procedures associated with the creation of standards and guidelines to ensure all input is considered and incorporated where appropriate. While there are many proprietary approaches and methods used by individual companies and organizations, this best practice has been prepared and updated to provide clear and agreed-upon guidance associated with industry best practices in a vendor-neutral format. This document provides a categorization of relevant national and international standards and reports thereby enabling users and organizations to quickly identify and locate required information for all aspects of the EDMS project.</p>
<p>ARMA International 2013 <i>Developing Electronic File Structures</i></p>	<p>This technical report describes the strategy, techniques, and tools needed for creating, implementing, and managing electronic file plans in organizations. It includes a sample project plan written from a project management perspective and a hypothetical, industry-neutral case study that illustrates how an electronic file structure can be developed and implemented according to the procedures described in the technical report. This technical report complements the American National Standard Policy Design for Managing Electronic Messages (ANSI/ARMA 19-2012).</p>
<p>ARMA International TR20-2012 <i>Mobile Communications and Records and Information Management</i></p>	<p>This technical report provides advice for using mobile communications technologies, such as smartphones and tablets, in the organizational setting. It focuses at the implementation level, including such topics as policy design, collaborating with information technology professionals, security, and training.</p>

<p>ANSI/ARMA TR24-2013 <i>Best Practices for Managing Electronic Messages</i></p>	<p>This technical report provides current information for managing all types of text-based electronic messages or communication, such as e-mail, instant messages, and text messages (SMS). This edition supersedes the previous edition, <i>Procedures and Issues for Managing Electronic Messages as Records</i> (ARMA TR 02-2007) and reflects recent advances in technology and industry best practices. It includes a model electronic message management program audit guideline.</p>
<p>ANSI/AIIM/ARMA TR48-2006 <i>Revised Framework for Integration of Electronic Document Management Systems and Electronic Records Management Systems</i></p>	<p>The scope of this report provides a framework for the integration of Electronic Document Management Systems (EDMS) and Electronic Records Management Systems (ERMS). The report deals with what is required for EDMS and ERMS to integrate and interoperate. The report describes the integration framework in three key areas:</p> <ul style="list-style-type: none"> • Metadata Management – Unique and Common • Functionality – Unique and Common • Typical Implementation Approaches
<p>ANSI/ARMA 18-2011 <i>Implications of Web-Based, Collaborative Technologies in Records Management</i></p>	<p>This American National Standard provides requirements and best practice recommendations related to policies, procedures, and processes for an organization’s use of internally facing or externally directed (public or private), web-based, collaborative technologies such as wikis, blogs, mashups, and classification (tagging) sites. (It does not address e-commerce, e-mail, instant messaging, or workflow solutions). Adherence to Generally Accepted Recordkeeping Principles® is also supported and encouraged by advice contained within this publication.</p>
<p>ANSI/ARMA 19-2012 <i>Policy Design for Managing Electronic Messages</i></p>	<p>This American National Standard, which replaces Requirements for Managing Electronic Message as Records, sets forth the requirements for a policy guiding the management of electronic messages as records throughout their life cycle – from creation to final destruction or disposition. It extends to text-based electronic messages or communications, including e-mail (and related attachments/metadata), instant messaging, and text messaging, but it does not include requirements for video messaging, voicemail/audio-based messaging applications, and other electronic messaging platforms within the context of social media.</p> <p>It is for use by records and information management practitioners and educators, and it may be of interest to archivists, consultants, IT professionals, and individuals employed in a legal setting.</p>

<p>ISO 13008: 2012 <i>Information and Documentation – Digital Records Conversion and Migration Process</i></p>	<p>This International Standard provides guidance for the conversion of records from one format to another, and the migration of records from one hardware or software configuration to another. It contains applicable records management requirements, the organizational and business framework for conducting the conversion and migration process, technology planning issues, and monitoring/controls for the process. It also identifies the steps, components and particular methodologies for each of these processes, covering such topics as workflow, testing, version control and validation.</p> <p>It specifies the planning issues, requirements, and procedures for the conversion and/or migration of digital records (which includes digital objects plus metadata) in order to preserve the authenticity, reliability, integrity and usability of such records as evidence of business transactions. These digital records can be active or residing in a repository.</p> <p>These procedures do not comprehensively cover:</p> <ul style="list-style-type: none"> • backup systems; • preservation of digital records; • functionality of trusted digital repositories; • the process of converting analogue formats to digital formats and vice versa.
<p>ANSI/AIIM MS23-2004 (R2010) <i>Standard Recommended Practice - Production, Inspection, and Quality Assurance of First- Generation, Silver Microforms of Documents</i></p>	<p>This document identifies and discusses the qualitative characteristics of first-generation silver gelatin microforms and the methods to attain, maintain, and measure levels of quality.</p> <p>The scope of this document excludes COM, updateable, color, and thermally processed microforms.</p>

<p>ANSI/AIIM TR41-2006 <i>Technical Report for Information and Image Management – Optical Disk Storage Technology, Management, and Standards</i></p>	<p>This technical report provides information on the various technologies, management, implementation strategies, and industry standards for optical based subsystems. This information and the corresponding techniques described have been provided to enable optical disk system users, as well as other imaging system users, to become knowledgeable in the various techniques currently in use throughout the imaging industry.</p>
<p>ISO 23081-1: 2006 (R2010) <i>Information and documentation — Records management processes — Metadata for records — Part 1: Principles</i></p>	<p>Part 1 of ISO 23081 covers the principles that underpin and govern records management metadata. These principles apply through time to:</p> <ul style="list-style-type: none"> • records and their metadata; • all processes that affect them; • any system in which they reside; • any organization that is responsible for their management.

<p>ISO 23081-2:2009 (R2014) <i>Information and documentation -- Managing metadata for records -- Part 2: Conceptual and implementation issues</i></p>	<p>This part of ISO 23081 establishes a framework for defining metadata elements consistent with the principles and implementation considerations outlined in ISO 23081-1. The purpose of this framework is to:</p> <ul style="list-style-type: none"> • enable standardized description of records and critical contextual entities for records, • provide common understanding of fixed points of aggregation to enable interoperability of records and information relevant to records between organizational systems, and • enable reuse and standardization of metadata for managing records over time, space, and across applications. <p>It further identifies some of the critical decision points that need to be addressed and documented to enable implementation of metadata for managing records. It aims to:</p> <ul style="list-style-type: none"> • identify the issues that need to be addressed in implementing, • identify and explain the various options for addressing the issues, and • identify various paths for making decisions and choosing options in implementing metadata for managing records.
<p>ISO/TR 23081-3:2011 <i>Information and documentation -- Managing metadata for records -- Part 3: Self-assessment method</i></p>	<p>ISO/TR 23081-3:2011 provides guidance on conducting a self-assessment on records metadata in relation to the creation, capture, and control of records.</p> <p>The self-assessment helps to:</p> <ul style="list-style-type: none"> • identify the current state of metadata capture and management in or across organizations; • identify priorities of what to work on and when; • identify key requirements from ISO 23081-1:2006 and ISO 23081-2:2009; • evaluate progress in the development of a metadata framework for the implementation of specific systems and projects; • evaluate system and project readiness (move to the next phase in a system or project) when including records metadata functionality in a system. A records metadata readiness evaluation is provided for key steps from project inception through to the implementation/maintenance phase.

<p>ISO 16175-3:2010 <i>Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 3: Guidelines and functional requirements for records in business systems</i></p>	<p>ISO 16175-3:2010 specifies general requirements and guidelines for records management and gives guidelines for the appropriate identification and management of evidence (records) of business activities transacted through business systems. It gives guidelines:</p> <ul style="list-style-type: none"> • to understand processes and requirements for identifying and managing records in business systems; • to develop requirements for functionality for records to be included in a design specification when building, upgrading, or purchasing business system software; • to evaluate the records management capability of proposed customized or commercial off-the-shelf business system software; • to review the functionality for records or assess compliance of existing business systems. <p>ISO 16175-3:2010 specifies requirements for export supports preservation by allowing the export of records to a system that is capable of long-term preservation activities, or for the ongoing migration of records into new systems. It does not specify requirements for the long-term preservation of digital records.</p> <p>ISO 16175-3:2010 is not applicable to records management in highly integrated software environments based on service-oriented architectures.</p>
--	---

<p>ARMA International Guideline 2009 <i>Website Records Management</i></p>	<p>This guideline explores how information posted on websites may constitute records. It offers records and information management (RIM) advice and best practice recommendations for managing website records.</p> <p>This guideline explores how information posted on websites may constitute records. It offers records and information management (RIM) advice and best practice recommendations for managing website records. It covers:</p> <ul style="list-style-type: none"> • Roles and responsibilities of web, RIM, archives/library, and legal personnel • Risk management processes • Records lifecycle issues, including retention scheduling and disposition/preservation • Technologies for creating and attaching metadata, web content management, and capturing/harvesting website, and meeting the challenges of Web 2.0
--	---

ARMA International Guideline 2007 <i>Working Collaboratively in an Electronic World</i>	Consistent information-handling practices and policies apply to all information created or exchanged across physical and virtual collaborative environments. E-mail management represents a challenge for a majority of organizations. This guideline examines traditional and virtual collaborative work environments, provides guidelines for file and document sharing, and discusses issues surrounding information privacy and security.
ARMA TR03-2009 <i>Metadata: A Basic Tutorial for Records Managers</i>	Through the use of an elementary, field-based example using the records lifecycle, this technical report illustrates metadata elements and their implementation in a records management setting where a computer-based tool is in place to allow electronic data management. It provides useful information for practitioners regarding metadata's relationship to RIM policy and procedure.

Funded by ARMA Int'l Ed Fdn

<p>ISO 16175-1:2010 <i>Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 1: Overview and statement of principles</i></p>	<p>ISO 16175-1 establishes fundamental principles and functional requirements for software used to create and manage digital records in office environments. It is intended to be used in conjunction with ISO 16175-2 and ISO 16175-3.</p> <p>ISO 16175-1 establishes the principles of good practice, guiding principles, implementation guidelines and lists risks and mitigations for the purpose of:</p> <ul style="list-style-type: none"> • enabling better management of records in organizations; • supporting the business needs of an organization by enabling greater effectiveness and efficiency of the operations; • providing, through wider deployment of automated records functionality, enhanced abilities to support auditing activities; • improving capabilities to comply with statutory mandates specified in various information-related legislation (for example, data protection and privacy); • ensuring good governance (for example, accountability, transparency and enhanced service delivery) through good management of records; • increasing general awareness of automated records management capabilities via the dissemination of key principles; and • maximizing cross-jurisdictional consistency regarding the articulation of functional requirements for managing records, and to enable the global archives, and records and information management community to speak with one voice to the software vendor community.
<p>ARMA International Guideline 2009 <i>Records and Information Management for Information Technology Professionals</i></p>	<p>A variety of business drivers, including electronic commerce, emerging technologies, and privacy and security requirements, are compelling records and information management (RIM) and information technology (IT) professionals to collaborate to create cohesive information management solutions.</p> <p>Consequently, RIM professionals need to extend their IT knowledge, and IT professionals need a clear understanding of records retention and archiving requirements and methodologies. This guideline, which focuses on key records processes that are relevant in managing information through the use of information technologies, will help both groups gain a better awareness of RIM and IT roles and responsibilities.</p>

ISO 16175-2:2011

Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 2: Guidelines and functional requirements for digital records management systems

ISO 16175-2:2011 is applicable to products that are often termed "electronic records management systems" or "enterprise content management systems". It uses the term digital records management systems for those software applications whose primary function is records management. It does not seek to set requirements for records still in use and held within business systems. Digital objects created by email, word processing, spreadsheet and imaging applications (such as text documents, and still or moving images), where they are identified to be of business value, are managed within digital records management systems which meet the functional requirements established in this standard.

ISO 16175-2:2011 does not attempt to include requirements that are not specific to, or necessary for, records management, for example, general system management and design requirements. It does not give specifications for the long-term preservation of digital records. This standard articulates a set of functional requirements for digital records management systems. These requirements apply to records irrespective of the media in which they were created and/or stored.

The requirements are intended to:

- define the processes and requirements for identifying and managing records in digital records management systems;
- define the records management functionality to be included in a design specification when building, upgrading, or purchasing digital records management systems software;
- inform records management functional requirements in the selection of commercially available digital records management systems; and
- review the records management functionality of, or assess the compliance of, an existing digital records management system.

<p>ARMA TR 26-2014 <i>Understanding Electronic Records Storage Technologies</i></p>	<p>This technical report, which replaces Guideline for Outsourcing Electronic Records Storage and Disposition, includes a broad discussion of storage technologies and service offerings for electronic records, including operational issues such as outsourcing considerations and contract-related elements. Its appendices feature 10 checklists that may be used for evaluating and selecting electronic records storage service providers. Purchasers will have access to these checklists as a form-enabled Word file that can be used to create a customized request for proposal for distribution to potential service providers. Note: This does not address the storage of physical records, which is covered in Guideline for Evaluating Offsite Records Storage Facilities.</p> <p>Users of this technical report are advised that its content, in whole or in part, does not supersede laws, statutes, regulations, or ordinances applicable to certain business types, settings, sectors, and/or entities.</p>
<p>ARMA International Guideline 2010 <i>Guideline for Outsourcing Records Storage to the Cloud</i></p>	<p>Many organizations are either investigating or beginning to use cloud-based service. This guideline cuts to the core of the information management issues related to cloud-based records storage. Its concise and focused discussion will prepare RIM professionals to highlight those concerns and assist with decision making when cloud services are under consideration by their organizations.</p> <p>It includes discussions of:</p> <ul style="list-style-type: none"> • Benefits and risks of using cloud-based records storage • How to mitigate legal risks • Issues related to retention, disposition, privacy, and security • Standards and best practices • Vendor selection <p>The guideline also includes checklists and a questionnaire to help readers evaluate their decision-making preparedness when considering the outsourcing of records storage to the cloud. Separate forms are provided for cloud technology matters, legal issues, and vendor considerations. An editable Word version of the checklists and questionnaire is available as a free download for purchasers of this guideline.</p>

<p>ARMA TR04-2009 <i>Using DoD 5015.02-STD Outside the Federal Government Sector</i></p>	<p>DoD 5015.02-STD <i>Design Criteria Standard for Electronic Records Management Software Applications</i> specifics hundreds of requirements that electronic record management (ERM) products must be certified against if they are to be acquired by Department of Defense (DoD) organizations. It has also become a vehicle for granting a <i>de facto</i> seal of approval that signals that an ERM product provides the tools necessary to manage electronic (as well as paper-based) information effectively.</p> <p>This technical report will help those outside the federal government better understand DoD5015.02-STD and how it can be used for records management training to develop or evaluate ERM system products.</p>
<p>ISO/TR 13028:2010 <i>Information and documentation - Implementation guidelines for digitization of records</i></p>	<p>ISO/TR 13028:2010: establishes guidelines for creating and maintaining records in digital format, only where the original paper or other non-digital source record has been copied by digitizing; establishes best practice guidelines for digitization to ensure the trustworthiness and reliability of records and enables consideration of disposal of the non-digital source records; establishes best practice guidelines for the trustworthiness of the digitized records which may impact on the legal admissibility and evidential weight of such records; establishes best practice guidelines for the accessibility of digitized records for as long as they are required; specifies strategies to assist in creating digitized records fit for long-term retention; and establishes best practice guidelines for the management of non-digital source records following digitization.</p> <p>It is applicable for use in the design and conduct of responsible digitization by all organizations undertaking digitization, either business process digitization or back capture digitization projects for records management purposes as outlined in ISO 15489-1:2001 and ISO/TR 15801:2009.</p> <p>ISO/TR 13028:2010 is not applicable to: capture and management of born-digital records; technical specifications for the digital capture of records; procedures for making decisions about records' eventual disposition; technical specifications for the long-term preservation of digital records; or digitization of existing archival holdings for preservation purposes.</p>
<p>ARMA International TR21-2012 <i>Using Social Media in Organizations</i></p>	<p>Complementing ANSI/ARMA 18-2011 <i>Implications of Web-based, Collaborative Technologies in Records Management</i> (ANSI/ARMA 18-2011), this new technical report offers advice on implementing social media within the context of accepted RIM best practices. Topics include governance, infrastructure/technology, processes and controls, change management, training, and audit/evaluation</p>

ANSI/AIIM TR41-2006
*Optical Disk Storage Technology,
Management, and Standards*

This technical report provides information on the various technologies, management, implementation strategies, and industry standards for optical based subsystems. This information and the corresponding techniques described have been provided to enable optical disk system users, as well as other imaging system users, to become knowledgeable in the various techniques currently in use throughout the imaging industry

The scope of this technical report is to address the various services that should be incorporated into the management of an optical media-based system to ensure a successful implementation of this technology. All forms of optical disk media will be addressed in this report including write-once-read-many (WORM), magneto-optical (MO), compact disk (CD), digital video disk (DVD), and newer technologies.

Funded by ARMA Int'l Ed

Legal

<p>ARMA International Guideline 2007 <i>Records Management Responsibility in Litigation Support</i></p>	<p>This guideline helps records managers identify the steps of a typical litigation and define their roles in the process. It is written from the perspective of the law firm records manager as well as the client/corporate records manager, encompassing both law firm and corporate records.</p> <p>Checklists provide a capsule summary of the steps in process order. The bibliography includes relevant websites, resources, and case law cited and recommended.</p>
<p>ANSI/AIIM TR 31-2004 <i>Legal Acceptance of Records Produced by Information Technology Systems</i></p>	<p>This guideline addresses laws that affect personal or business recordkeeping practices. In particular, it addresses laws containing recordkeeping provisions that require records to be kept available for government audit, require records to be submitted to the government, or establish the form of records.</p> <p>Part I gives an overview of evidence law. Part II presents a performance guideline for the legal acceptance of records produced by IT systems. Part III offers a self-assessment for accomplishment of the performance guideline. Although the report is oriented heavily towards information recorded initially on paper and then entered into an IT system, much of the material applies also to system environments that are entirely digital.</p>
<p>NIST Special Publication 800-102 (2009) <i>Recommendation for Digital Signature Timeliness</i></p>	<p>A digital signature is an electronic analogue of a written signature, it can be used to provide assurance that the claimed signatory signed the information. In addition, a digital signature may be used to detect whether or not the information was modified after it was signed (i.e., to detect the integrity of the signed data).</p> <p>Establishing the time when a digital signature was generated is often a critical consideration. A signed message that includes the (purported) signing time provides no assurance that the private key was used to sign the message at that time unless the accuracy of the time can be trusted. With the appropriate use of 1) timestamps that are digitally signed by a Trusted Timestamp Authority (TTA), and/or 2) verifier-supplied data that is included in the signed message, some level of assurance about the time that the message was signed can be provided. A discussion of the establishment and management of a TTA is outside the scope of this Recommendation.</p>

<p>NIST Special Publication 800-89 (2006) <i>Recommendation for Obtaining Assurances for Digital Signature Applications</i></p>	<p>Entities participating in the generation or verification of digital signatures depend on the authenticity of the process. This Recommendation specifies methods for obtaining the assurances necessary for valid digital signatures: assurance of domain parameter validity, assurance of public key validity, assurance that the key pair owner actually possesses the private key, and assurance of the identity of the key pair owner.</p>
<p>ISO/TR 17068:2012 <i>Information and Documentation - Trusted Third Party Repository for Digital Records</i></p>	<p>ISO/TR 17068:2012 details the authorized custody services of a Trusted Third Party Repository (TTPR) in order to ensure provable integrity and authenticity of the clients' digital records and serve as a source of reliable evidence.</p> <p>It describes the services and processes to be provided by a TTPR for the clients' digital records during the retention period, to ensure trust. It also details the criteria of "trustworthiness" and the particular requirements of TTPR services, hardware and software systems, and management.</p> <p>This international standard has the limitation that the authorized custody of the stored records is between only the third party and the client.</p>

<p>ANSI/AIIM 25: 2012 <i>Assessing Trusted Systems for Compliance with Industry Standards and Best Practices</i></p>	<p>This standard identifies the activities and operations an organization shall perform in order to evaluate whether the electronically stored information is maintained in reliable and trustworthy Enterprise Content (or Records) Management ECM (also referenced as EDMS, ERM, ERMS) systems.</p> <p>The purpose of this industry standard is to identify activities and operations an organization shall follow in order to ensure that ESI is created, captured and maintained in a reliable and trustworthy manner by evaluating its existing ECM system. The concepts defined in this industry standard shall also be incorporated into the design of a new system.</p> <p>The scope of this standard is to identify activities and operations an organization shall perform in order to evaluate whether the electronically stored information is maintained in reliable and trustworthy Enterprise Content (or Records) Management ECM (also referenced as EDMS, ERM, ERMS) systems. Using ISO 15801 section 5.1.1 , ISO 22957, and ARP 1 -2009 section 5.3.3 as a basis, this standard focuses on identifying factors that shall be considered when evaluating compliance with the relevant standards for an existing ECM system (or which shall be addressed during design of a new ECM system). Establishing the existence of a trustworthy system is an important step in documenting the accuracy and reliability of the electronically stored information (ESI) maintained within that system or environment.</p>
--	---

Preservation

ISO 18901:2010 (R2015)

Processed Silver-Gelatin Type Black-and-White Film – Specifications for Stability

ISO 18901:2010 establishes the specifications for photographic films intended for the storage of records. It is applicable specifically to films with a base of safety cellulose ester or polyester having silver-gelatin emulsions, processed to produce a black-and-white silver image by negative or full-reversal processing. It applies to film processed using a monobath that includes thiosulfate as the fixing agent, followed by a conventional wash. It also is applicable to silver films given a stabilizing treatment by partial or full conversion to silver sulfide, silver selenide, or gold.

This international standard is applicable to films having ultrasonic or dielectric (induction-heated) splices. It does not cover films with splices made of adhesive tape or solvent-type splices. It is not applicable to films with chromogenic black-and-white images, color images of any type, or to films with a magnetic recording track. It does not apply to films with silver images produced by dry or thermal processing, by diffusion-reversal processing, or to films that have been processed by a monobath using means other than a thiosulfate-type fixing solution. It is not applicable to films where the silver salts are removed by means other than thiosulfate solutions, and it is not applicable to films to which lacquers have been applied.

ISO 18905:2002 (R2012)

Imaging materials -- Ammonia-processed diazo photographic film -- Specifications for stability

ISO 18905:2002 establishes specifications for the stability of polyester-base safety film which has an ammonia-processed diazo photographic image. It is applicable only to diazo photographic films intended for and used as LE-10 and LE-100 storage copies, which shall be stored in accordance with ISO 18902 and ISO 18911.

This international standard is applicable to photographic film in which the image layer is a discrete layer attached to a transparent support, and it applies to roll film and sheet film. It is not applicable to diazo film records intended and used as work copies.

<p>ISO 18906:2000 (R2015) <i>Imaging materials -- Photographic films – Specifications for safety film</i></p>	<p>ISO 18906 provides specifications and test procedures for establishing the safety of photographic films with respect to hazards from fire. The specifications apply to both processed and unprocessed films on any type of currently known plastic support.</p> <p>The specifications cover silver films (both gelatin and non-gelatin types), color films, diazo films, vesicular films, and striped or full-width magnetic films. Magnetic tapes and video recording tapes are excluded.</p> <p>A field test for burning behavior is described in informative annex B, and methods of marking film are defined in informative annex C. A simple test to distinguish non-safety nitrate-base film from cellulose ester and polyester-base film is given in informative annex D.</p>
<p>ISO 18902:2013 <i>Imaging materials -- Processed imaging materials -- Albums, framing and storage materials</i></p>	<p>ISO 18902:2013 specifies the principal physical and chemical requirements for album, storage, and framing materials to prevent damage to processed or printed imaging materials over time.</p> <p>It covers requirements for:</p> <ul style="list-style-type: none"> • paper and paperboard; • plastics; • metals; • writing instruments; • adhesives; • tapes; • self-adhesive labelling materials; • stamping inks and pads; • framing and glazing materials used as, or in the construction of, storage and display materials for black-and-white or color reflection prints or negatives made with traditional silver-halide and silver dye bleach photographic materials; • dye- and pigment-based inkjet, dye diffusion thermal transfer ("dye sublimation"), and liquid- and dry-toner electrophotographic digital prints.

<p>ISO 18909:2006 (R2015) <i>Photography -- Processed photographic color films and paper prints -- Methods for measuring image stability</i></p>	<p>ISO 18909:2006 describes test methods for determining the long-term dark storage stability of color photographic images and the color stability of such images when subjected to certain illuminants at specified temperatures and relative humidities.</p> <p>This international standard is applicable to color photographic images made with traditional, continuous-tone photographic materials with images formed with dyes. These images are generated with chromogenic, silver dye-bleach, dye transfer, and dye-diffusion-transfer instant systems. The tests have not been verified for evaluating the stability of color images produced with dry- and liquid-toner electrophotography, thermal dye transfer (sometimes called dye sublimation), ink jet, pigment-gelatin systems, offset lithography, gravure and related color imaging systems.</p>
<p>ISO 18911:2010 (R2015) <i>Imaging materials – Processed safety photographic films – Storage practices</i></p>	<p>ISO 18911:2010 provides recommendations concerning the storage conditions, storage facilities, handling and inspection for all processed safety photographic films in roll, strip, aperture-card or sheet format, regardless of size. It is applicable to extended-term and medium-term storage of photographic film.</p> <p>It is applicable to photographic film records intended as storage copies, which are not in frequent use. It does not apply to “work” or “use” copies.</p> <p>While it is intended for materials that are properly processed, it is also of considerable value in prolonging the useful life of photographic film whose processing conditions are unknown, or which has been toned or retouched, or has markings with materials of uncertain or unknown stability.</p> <p>This international standard is applicable only to safety photographic film (see ISO 18906). Nitrate-base films are not covered by ISO 18911:2010. The storage of photographic prints and photographic plates requires different considerations. They are not covered in ISO 18911:2010, but are described respectively in ISO 18920 and ISO 18918.</p>

<p>ISO 18912:2002 (R2012) <i>Imaging materials -- Processed vesicular photographic film -- Specifications for stability</i></p>	<p>ISO 18912:2002 establishes specifications for the stability of polyester-base safety film which has a heat-processed vesicular photographic image formed by nitrogen bubbles. It is applicable only to vesicular photographic film intended and used as LE-10 and LE-100 storage copies, which shall be stored in accordance with ISO 18902 and ISO 18911.</p> <p>This international standard is applicable to photographic film in which the image layer is a discrete layer attached to a transparent support, and it applies to roll film and sheet film. It is not applicable to vesicular film records intended and used as work copies.</p>
<p>ISO 18913:2012 <i>Imaging materials — Permanence — Vocabulary</i></p>	<p>This international standard establishes a vocabulary of terms and definitions used in relation to the permanence of imaging materials, related storage materials, and digital storage media.</p> <p>In most cases these terms and definitions are generic and are applicable to the entire imaging industry. For terms and definitions specific to particular applications, industry standards are applicable. However, in some cases the definition of a term is still evolving and/or is used by different user groups in different ways. In these cases, a definition related to permanence of imaging materials work is given and a note to this effect is included.</p>
<p>ISO 18915:2000 (R2015) <i>Imaging materials – Methods for the evaluation of the effectiveness of chemical conversion of silver images against oxidation.</i></p>	<p>This international standard describes methods for evaluating the effectiveness of chemical conversion treatments intended to increase the resistance of wet-processed silver images to oxidation. The treatment may be applied as part of the original processing, or it may be a post-processing treatment.</p> <p>It does not recommend general or specific treatments for silver images. Likewise, treatment temperature, times, and replenishment rates are outside the scope of this International Standard. Factors to be considered in a stabilizing treatment are discussed in informative annex B.</p> <p>Two test methods are described: the "dichromate bleach test" and the "hydrogen peroxide incubation test." The significance of each is discussed in informative annex C.</p> <p>This international standard is applicable to silver-gelatin images coated on supports of either plastic, paper, or glass.</p>

<p>ISO 18916:2007 (R2015) <i>Imaging materials -- Processed imaging materials -- Photographic activity test for enclosure materials</i></p>	<p>ISO 18916:2007 specifies the procedure for the photographic activity and dye coupler reactivity tests. It is applicable to general photographic enclosure materials such as paper, tissue, cardboard, mat board and plastics. It is also applicable to components of photographic enclosure materials such as adhesives, inks, paints, labels and tape.</p> <p>This international standard evaluates possible chemical interactions between enclosures with processed silver-gelatin, color (dye-gelatin), inkjet prints made with dye-based and pigment-based inks, thermal dye diffusion transfer (“dye sub”) prints, digitally printed dye-diffusion-transfer prints, liquid- and dry-toner xerographic prints, liquid-toner electrostatic prints, and diazo images after long-term storage. It does not pertain to harmful physical interactions such as blocking (sticking together), dye bleed, adhesive migration, or plasticizer exudation. It does not pertain to important criteria of enclosures such as their inherent chemical stability, physical integrity, and workmanship. Photo-safe, storage enclosures and their components are covered in ISO 18902, which includes passing the criteria of the photographic activity test.</p>
<p>ISO 18919:1999 (R2011) <i>Imaging materials -- Thermally processed silver microfilm -- Specifications for stability</i></p>	<p>This ISO 18919:1999 establishes specifications for the stability of photographic films intended for storage of records; specifically, microfilms with a base of safety polyester [poly(ethylene terephthalate)] having predominantly silver behenate salts dispersed in nongelatinous emulsions, and thermally processed to produce a black-and-white silver image.</p> <p>This international standard applies to thermally processed silver (TPS) microfilms having ultrasonic or dielectric (induction-heated) splices. It does not cover films with splices made by means of adhesive tape. It does not cover other types of black-and-white TPS films, black-and-white paper, color images and color prints that are produced with thermally processed silver behenate systems. It does not apply to films to which lacquers have been applied.</p>
<p>ISO 18921:2008 (R2012) <i>Imaging materials -- Compact discs (CD-ROM) -- Method for estimating the life expectancy based on the effects of temperature and relative humidity</i></p>	<p>ISO 18921:2008 specifies a test method for estimating the life expectancy (LE) of information stored on compact disc (CD-ROM) media, including CD audio, but excluding recordable media. Only the effects of temperature and relative humidity on the media are considered.</p>

<p>ISO 18917:1999 (R2011) <i>Photography – Determination of residual thiosulfate and other related chemicals in processed photographic materials – Methods using iodine-amylose, methylene blue and silver sulfide</i></p>	<p>This international standard specifies test methods for the determination of residual thiosulfate and other related chemicals in processed photographic materials.</p> <p>It applies to silver halide/gelatin products that have been processed with a final thiosulfate fixing bath and a water wash. It does not apply to stabilized black-and-white products, thermally processed films, or instant-type products.</p> <p>The procedures given in this international standard measure residual thiosulfate, and the silver densitometric method measures residual related polythionate materials as well. Measurements carried out by the procedures in this standard may, within the limitations stated in annexes A and B, correlate with the image stabilities of processed photographs.</p> <p>The iodine-amylose can be used with fiber-based paper, resin-coated paper, films and plates. It is the method to be used with films and papers containing incorporated developing agents.</p> <p>The methylene blue method can be used with fiber-based paper, resin-coated paper, films and plates, but not with films and paper containing incorporated developing agents.</p> <p>The silver sulfide densitometric method measures thiosulfates, polythionates and all other residual chemicals in a processed product that react with silver ion to form a silver "stain" under the conditions of the test.</p>
<p>ISO 18923:2000 (R2012) <i>Imaging materials – Polyester Base Magnetic Tape – Storage Practices</i></p>	<p>ISO 18923 provides recommendations concerning the storage conditions, storage facilities, enclosures, and inspection for recorded polyester base magnetic tapes in roll form. It covers analog and digital tape and includes tape made for audio, video, instrumentation and computer use.</p> <p>This international standard is applicable to medium-term and extended-term storage of magnetic tape as defined in 3.18 and 3.7, and also is applicable to magnetic-tape records intended as master tapes, which should not be in frequent use. Deviations from these recommendations, whether before or after recording, may result in shortened life expectancy. For example, adverse conditions during shipment, handling, or usage.</p> <p>This international standard is not applicable to "work" or "use" copies.</p>

<p>ISO 18924:2013 <i>Imaging materials -- Test method for Arrhenius-type predictions</i></p>	<p>This International Standard specifies a test method for the prediction of certain physical or chemical property changes of imaging materials.</p> <p>ISO 18924:2013 is applicable to the Arrhenius test portion of ISO 18901, ISO 18905, ISO 18909, ISO 18912 and ISO 18919.</p> <p>This international standard is applicable to the prediction of the optical-density (D) loss or gain of imaging materials. Photographic dye images may be produced by chromogenic processing, by formation of diazo dyes, or by non-chromogenic methods such as dye diffusion and silver dye-bleaching processing. It also covers density changes caused by</p> <ul style="list-style-type: none"> • residual coupler changes in dye images, • excess residual processing chemicals in silver black-and-white materials, • temperature effects on thermally processed silver images. <p>This international standard is applicable to the prediction of support degradation.</p>
<p>ISO 18925:2013 <i>Imaging materials - Optical Disc Media – Storage Practices</i></p>	<p>ISO 18925-2013 establishes extended-term storage conditions for optical discs and provides recommendations concerning the storage conditions, storage facilities, enclosures and inspection for optical discs. It is applicable to discs made for audio, video, instrumentation and computer use.</p> <p>Recommendations are general in nature and it is advisable that the manufacturer's cautions for specific material be considered. Relaxation from these recommendations, whether before or after recording, will generally result in shortened life expectancy.</p>
<p>ISO 18927:2013 <i>Imaging materials -- Recordable compact disc systems -- Method for estimating the life expectancy based on the effects of temperature and relative humidity</i></p>	<p>ISO 18927:2013 specifies a test method for estimating the life expectancy of information stored on recordable compact disc systems. Only the effects of temperature and relative humidity on the media are considered.</p> <p>This international standard does not cover the effects of light, air pollution, or time-dependent flow phenomena.</p>

<p>ISO 18928:2013 <i>Imaging materials -- Unprocessed photographic films and papers -- Storage practices</i></p>	<p>ISO 18928:2013 specifies recommended storage conditions for unprocessed photographic materials.</p> <p>It is applicable to black-and-white and color photographic materials (negative films, positive films, reversal films, positive papers, and X-ray films), as well as to safety films.</p>
<p>ISO 18929:2012 <i>Imaging materials -- Wet-processed silver-gelatin type black-and-white photographic reflection prints -- Specifications for dark storage</i></p>	<p>ISO 18929:2012 establishes the specifications for silver-gelatin photographic reflection prints intended for dark storage. It covers silver-gelatin print types of all weights.</p> <p>It applies to wet-processed black-and-white silver-gelatin photographic prints, including those that have been chemically treated (with a gold, selenium, sulfur, or other chemical treatment bath) to improve the permanence of the silver image. It also applies to silver-gelatin prints processed by a monobath, which includes thiosulfate as a fixing agent followed by a conventional wash.</p>
<p>ISO 18932:2009 (R2015) <i>Imaging materials -- Adhesive mounting systems -- Specifications</i></p>	<p>ISO 18932:2009 provides specifications for adhesive mounting materials for use in attaching prints, including photographic, electrophotographic, electrostatic, thermal transfer or inkjet prints to mounting boards, album leaves, file cards and other supports [such as aperture cards]. It covers both pressure-sensitive and thermally-activated adhesives. Spray adhesives are specifically excluded from this international standard.</p>
<p>ISO 18934:2011 <i>Imaging materials -- Multiple media archives -- Storage environment</i></p>	<p>ISO 18934 provides suggested guidelines for four temperature and humidity macro-environments for archives that contain a variety of recording media, based on the corresponding ISO storage standards for those media. Whenever possible, this standard recommends that users follow the storage environments in the ISO storage standards. It does not replace those ISO storage standards.</p> <p>The storage of traditional paper collections is not within its scope. Nitrate-base photographic films are also included in this international standard since they are often stored together with other materials.</p> <p>This international standard does not address the various strategies to upgrade substandard environments that deviate from those recommended by ISO standards.</p>

<p>ISO 18933:2012 <i>Imaging materials -- Magnetic tape -- Care and handling practices for extended usage</i></p>	<p>ISO 18933-2012 concerns the care and handling of magnetic recording tape during use. It addresses the issues of physical integrity of the medium necessary to preserve access to the data (information) recorded on the tape. This international standard recommends handling procedures to maximize the effective life of magnetic tape. Extending the longevity of magnetic tape requires the identification of appropriate handling methods and well-developed training programs.</p> <p>This international standard addresses the following subjects:</p> <ul style="list-style-type: none"> • handling techniques, including common hazards and methods to mitigate those hazards; • handling environments, including pollutants, temperature and humidity, lighting, magnetic fields and robotics; • use of tape, including inspection, playback, mounting/loading and removing, winding speed, tension and robotic systems; • cleaning and maintenance techniques, including contaminants, cleaning methods and frequency; • transportation, both in-house and shipping outside the storage facility; • disasters, including water, fire, construction and post-disaster procedures; • staff training, including schedule for training and contents of the training program; • archival issues.
<p>ISO 11108:1996 (R2015) <i>Information and documentation -- Archival paper -- Requirements for permanence and durability</i></p>	<p>ISO 11108-1996 specifies the requirements for archival paper. It is applicable to unprinted papers intended for documents and publications required for permanent retention and frequent use. For these documents and publications, paper of high permanence and high durability is required.</p>
<p>ANSI/AIIM MS45-1990 <i>Recommended Practice for Inspection of Stored Silver- Gelatin Microforms for Evidence of Deterioration</i></p>	<p>This recommended practice applies to all forms of silver-gelatin microfilm, whether in roll, aperture card, jacket or microfiche format. It describes the equipment and procedures necessary to observe and identify the various types of deterioration known to the industry. This information serves to identify the extent and nature of the problem and will ultimately provide a sound basis for any remedial action that may be indicated. This recommended practice does not apply to nitrate film.</p>

<p>NIST Special Publication 500-252 (2003) <i>Care and Handling for the Preservation of CDs and DVDs -- A Guide for Librarians and Archivists</i></p>	<p>This document is a comprehensive review of procedures for the care and handling of optical disc media, providing both guidelines and introductory information for both the expert and the end user (librarians, archivists) of CDs and DVDs.</p>
<p>ISO 16245:2009 <i>Information and documentation -- Boxes, file covers and other enclosures, made from cellulosic materials, for storage of paper and parchment documents</i></p>	<p>ISO 16245:2009 specifies requirements for boxes and file covers made of cellulosic material, to be used for long term storage of documents on paper or parchment. It is applicable to boxes made of solid or corrugated board and to file covers made of paper or board.</p> <p>This international standard can also be applicable to other types of enclosure for long term storage such as cases, portfolios, tubes and envelopes made of cellulosic material. It is not applicable to storage of photographic materials.</p>
<p>ISO 16363:2012 <i>Space data and information transfer systems -- Audit and certification of trustworthy digital repositories</i></p>	<p>This standard defines a recommended practice for assessing the trustworthiness of digital repositories. It is applicable to the entire range of digital repositories. This international standard can be used as a basis for certification.</p> <p>The main purpose is to define a CCSDS Recommended Practice (and ISO international standard) on which to base the operations of the organization(s) which assess the trustworthiness of digital repositories using ISO 16363, and provide the appropriate certification (defined by CCSDS Recommended Practice) based on the operations of the organization(s) which assess the trustworthiness of digital repositories using ISO 16363 and provide the appropriate certification.</p>

<p>ISO 14721:2012 <i>Space data and information transfer systems -- Open archival information system (OAIS) -- Reference model</i></p>	<p>This international standard defines the reference model for an open archival information system (OAIS). An OAIS is an archive, consisting of an organization, which may be part of a larger organization of people and systems, that has accepted the responsibility to preserve information and make it available for a designated community. (The term "open" in OAIS is used to imply that this standard was developed in an open forum, and it does not imply that access to the archive is unrestricted.)</p> <p>ISO 14721-2012 can:</p> <ul style="list-style-type: none"> • provide a framework for the understanding and increased awareness of archival concepts needed for long term digital information preservation and access, • provide the concepts needed by non-archival organizations to be effective participants in the preservation process, • provide a framework, including terminology and concepts, for describing and comparing architectures and operations of existing and future archives, • provide a framework for describing and comparing different Long Term Preservation strategies and techniques, • expand consensus on the elements and processes for long term digital information preservation and access, and promote a larger market which vendors can support.
--	---

A list of ARMA standards and best practices publications can be found at: <http://www.arma.org/r2/standards-amp-best-practices>

A complete list of AIIM standards can be found starting on:

<http://www.aiim.org/Resources/Standards/Standards%20List%20Page?page=1>

NIST Standards beginning with "800" can be downloaded for free at: <http://csrc.nist.gov/publications/PubsSPs.html>

A list of the complete body of work for TC46 SC11 can be found at:

http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_tc_browse.htm?commid=48856

A list of the complete body of work for TC171 can be found by accessing:

http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_tc_browse.htm?commid=53650

(click on each SC for the work items and standards)

Other ISO standards can be searched by accessing: http://www.iso.org/iso/home/store/catalogue_ics.htm

National Fire Protection Association (NFPA) standards can be searched by accessing: <http://www.nfpa.org/codes-and-standards>

Funded by ARMA Int'l Ed Foundation

APPENDIX

Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
AIIM Recommended Practice (ARP1-2009) - <i>Analysis, Selection, and Implementation of Electronic Document Management Systems (EDMS)</i>			X (2009)		
ANSI/AIIM 25: 2012 - <i>Assessing Trusted Systems for Compliance with Industry Standards and Best Practices</i>	X				
ANSI/AIIM MS23-2004 (R2010) - <i>Standard Recommended Practice - Production, Inspection, and Quality Assurance of First- Generation, Silver Microforms of Documents</i>			X (R2010)		
ANSI/AIIM MS45-1990 - <i>Recommended Practice for Inspection of Stored Silver- Gelatin Microforms for Evidence of Deterioration</i>					X
ANSI/AIIM TR 31-2004 - <i>Legal Acceptance of Records Produced by Information Technology Systems</i>					X
ANSI/AIIM TR41-2006 - <i>Optical Disk Storage Technology, Management, and Standards</i>	X				
ANSI/AIIM TR41-2006 - <i>Technical Report for Information and Image Management – Optical Disk Storage Technology, Management, and Standards</i>					X
ANSI/AIIM/ARMA TR48-2006 - <i>Revised Framework for Integration of Electronic Document Management Systems and Electronic Records Management Systems</i>					X

ANSI/ARMA 12-2005 - <i>Establishing Alphabetic, Numeric and Subject Filing Systems</i>		X (withdrawn as ANSI standard)			
ANSI/ARMA 16-2007 - <i>The Digital Records Conversion Process: Program Planning, Requirements, Procedures</i>		X			
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ANSI/ARMA 18-2011 - <i>Implications of Web-Based, Collaborative Technologies in Records Management</i>					X
ANSI/ARMA 19-2012 - <i>Policy Design for Managing Electronic Messages</i>					X
ANSI/ARMA 5-2010 - <i>Vital Records Programs: Identifying, Managing, and Recovering Business Critical Records</i>					X
ANSI/ARMA 8-2005 - <i>Retention Management for Records and Information</i>		X			
ANSI/ARMA 9-2004 - <i>Requirements for Managing Electronic Messages as Records</i>		X (superseded by ANSI/ARM A 19-2012)			
ANSI/ARMA TR01-2011 - <i>Records Center Operations, 3rd Edition</i>					X
ANSI/ARMA TR-02-2007 - <i>Procedures and Issues for Managing Electronic Messages as Records</i>		X (superseded by ANSI/ARM A TR24-2013)			
ANSI/ARMA TR22-2012 - <i>Glossary of Records and Information Management Terms: 4th Edition</i>	X				

ANSI/ARMA TR24-2013 - Best Practices for Managing Electronic Messages	X				
ANSI/ARMA TR27-2015 - Retention Management for Records and Information	X				
ARMA International 2013 - Developing Electronic File Structures	X				
ARMA International Guideline 2005 - Establishing Alphabetic, Numeric and Subject Filing Systems			X (new number only)		
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ARMA International Guideline 2007 - Glossary of Records and Information Management Terms: 3rd Edition		X			
ARMA International Guideline 2007 - Guideline for Evaluating Offsite Records Storage Facilities					X
ARMA International Guideline 2007 - Records Management Responsibility in Litigation Support					X
ARMA International Guideline 2007 - Working Collaboratively in an Electronic World					X
ARMA International Guideline 2008 - Controlled Language in Records and Information Management					X
ARMA International Guideline 2008 - Guideline for Outsourcing Electronic Records Storage and Disposition		X			
ARMA International Guideline 2009 - Evaluating and Mitigating Records and Information Risks					X
ARMA International Guideline 2009 - Records and Information Management for Information Technology Professionals					X

ARMA International Guideline 2009 - Website Records Management					X
ARMA International Guideline 2009 Contracted Destruction for Records and Information Media					X
ARMA International Guideline 2010 - Guideline for Outsourcing Records Storage to the Cloud					X
ARMA International TR20-2012 - Mobile Communications and Records and Information Management	X				
ARMA International TR21-2012 - Using Social Media in Organizations	X				
ARMA International TR25-2014 - Auditing for Records and Information Management Program Compliance	X				
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ARMA International TR28-2015 - Secure Management of Private Information	X				
ARMA TR 26-2014 - Understanding Electronic Records Storage Technologies	X				
ARMA TR03-2009 - Metadata: A Basic Tutorial for Records Managers			X (new number only)		
ARMA TR04-2009 - Using DoD 5015.02-STD Outside the Federal Government Sector			X (new number only)		
ISO 11108:1996 (R2015) - Information and documentation -- Archival paper -- Requirements for permanence and durability			X (R2015)		
ISO 13008: 2012 - Information and Documentation – Digital Records Conversion and Migration Process	X				
ISO 14001-2015 - Environmental management systems – Requirements with guidance for use			X (2015)		

ISO 14721:2012 - <i>Space data and information transfer systems -- Open archival information system (OAIS) -- Reference model</i>	X				
ISO 15489-1:2016 - <i>Information and documentation -- Records management -- Part 1: Concepts and principles</i>	X				
ISO 154989-1:2001 - <i>Information and documentation -- Records management -- Part 1: Concepts and principles</i>		X			
ISO 154989-2:2001 - <i>Information and documentation -- Records management -- Part 2: Guidelines</i>		X			
ISO 16175-1:2010 - <i>Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 1: Overview and statement of principles</i>					X
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ISO 16175-2:2011 - <i>Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 2: Guidelines and functional requirements for digital records management systems</i>					X
ISO 16175-3:2010 - <i>Information and documentation -- Principles and functional requirements for records in electronic office environments -- Part 3: Guidelines and functional requirements for records in business systems</i>					X
ISO 16245:2009 - <i>Information and documentation -- Boxes, file covers and other enclosures, made from cellulosic materials, for storage of paper and parchment documents</i>	X				
ISO 16363:2012 - <i>Space data and information transfer systems -- Audit and certification of trustworthy digital repositories</i>	X				

ISO 18901:2010 (R2015) - <i>Processed Silver-Gelatin Type Black-and-White Film – Specifications for Stability</i>			X (R2015)		
ISO 18902:2013 - <i>Imaging materials -- Processed imaging materials -- Albums, framing and storage materials</i>			X (2013)		
ISO 18905:2002 (R2012) - <i>Imaging materials -- Ammonia-processed diazo photographic film -- Specifications for stability</i>			X (R2012)		
ISO 18906:2000 (R2015) - <i>Imaging materials -- Photographic films – Specifications for safety film</i>			X (R2015)		
ISO 18909:2006 (R2015) - <i>Photography -- Processed photographic color films and paper prints -- Methods for measuring image stability</i>			X (R2015)		
ISO 18911:2010 (R2015) - <i>Imaging materials – Processed safety photographic films – Storage practices</i>			X (R2015)		
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ISO 18912:2002 (R2012) - <i>Imaging materials -- Processed vesicular photographic film -- Specifications for stability</i>			X (R2012)		
ISO 18913:2012 - <i>Imaging materials — Permanence — Vocabulary</i>			X (2012)		
ISO 18915:2000 (R2015) - <i>Imaging materials – Methods for the evaluation of the effectiveness of chemical conversion of silver images against oxidation.</i>			X (R2015)		
ISO 18916:2007 (R2015) - <i>Imaging materials -- Processed imaging materials -- Photographic activity test for enclosure materials</i>	X				

ISO 18917:1999 (R2011) - <i>Photography – Determination of residual thiosulfate and other related chemicals in processed photographic materials – Methods using iodine-amylose, methylene blue and silver sulfide</i>			X (R2011)		
ISO 18919:1999 (R2011) - <i>Imaging materials -- Thermally processed silver microfilm -- Specifications for stability</i>	X				
ISO 18921:2008 (R2012) - <i>Imaging materials -- Compact discs (CD-ROM) -- Method for estimating the life expectancy based on the effects of temperature and relative humidity</i>	X				
ISO 18923:2000 (R2012) - <i>Imaging materials – Polyester Base Magnetic Tape – Storage Practices</i>			X (R2012)		
ISO 18924:2013 - <i>Imaging materials -- Test method for Arrhenius-type predictions</i>			X (2013)		
ISO 18925:2013 - <i>Imaging materials - Optical Disc Media – Storage Practices</i>			X (2013)		
ISO 18927:2013 - <i>Imaging materials -- Recordable compact disc systems -- Method for estimating the life expectancy based on the effects of temperature and relative humidity</i>	X				
ISO 18928:2013 - <i>Imaging materials -- Unprocessed photographic films and papers -- Storage practices</i>	x				
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ISO 18929:2012 - <i>Imaging materials -- Wet-processed silver-gelatin type black-and-white photographic reflection prints -- Specifications for dark storage</i>	X				
ISO 18932:2009 (R2015) - <i>Imaging materials -- Adhesive mounting systems -- Specifications</i>	X				

ISO 18933:2012 - <i>Imaging materials -- Magnetic tape -- Care and handling practices for extended usage</i>	X				
ISO 18934:2011 - <i>Imaging materials -- Multiple media archives -- Storage environment</i>					X
ISO 19011:2012 - <i>Guidelines for auditing management systems</i>	X				
ISO 22310:2006 (R2015) - <i>Information and documentation -- Guidelines for standards drafters for stating records management requirements in standards</i>	X				
ISO 23081-1: 2006 (R2010) - <i>Information and documentation — Records management processes — Metadata for records — Part 1: Principles</i>			X (R2010)		
ISO 23081-2:2009 (R2014) - <i>Information and documentation -- Managing metadata for records -- Part 2: Conceptual and implementation issues</i>			X (R2014)		
ISO 30300:2011 - <i>Information and documentation -- Management systems for records -- Fundamentals and vocabulary</i>					X
ISO 30301:2011 - <i>Information and documentation -- Management systems for records -- Requirements</i>					X
ISO 30302:2015 - <i>Information and documentation -- Management systems for records -- Guidelines for implementation</i>	X				
ISO 9000-2015 - <i>Quality management systems – Fundamentals and vocabulary</i>			X (2015)		
ISO 9001:2015 - <i>Quality management systems – Requirements</i>			X (2015)		
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change
ISO 9004-2009 - <i>Managing for the sustained success of an organization—A quality management approach</i>				X	

ISO/IEC 27001:2013 - <i>Information technology -- Security techniques -- Information security management systems -- Requirements</i>	X				
ISO/IEC 27002:2005 (ISO 17799: 2005) - <i>Information Technology –Security techniques – Code of Practice for Information Security Management</i>				X	
ISO/TR 13028:2010 - <i>Information and documentation - Implementation guidelines for digitization of records</i>	X				
ISO/TR 17068:2012 - <i>Information and Documentation - Trusted Third Party Repository for Digital Records</i>	X				
ISO/TR 18128:2014 - <i>Information and documentation -- Risk assessment for records processes and systems</i>	X				
ISO/TR 23081-3:2011 - <i>Information and documentation -- Managing metadata for records -- Part 3: Self-assessment method</i>					X
ISO/TR 26122:2008 - <i>Information and documentation — Work process analysis for records</i>					X
NFPA 232 (2017) - <i>Standard for the Protection of Records</i>			X (2017)		
NFPA 75 (2013) - <i>Standard for the Protection of Information Technology Equipment</i>			X (2013)		
NIST IR 8053 (2015) - <i>De-Identification of Personal Information</i>	X				
NIST Special Publication 500-252 (2003) - <i>Care and Handling for the Preservation of CDs and DVDs -- A Guide for Librarians and Archivists</i>					X
NIST Special Publication 800-102 (2009) - <i>Recommendation for Digital Signature Timeliness</i>	X				
Title	New	Withdrawn by Standards setting body	Revised/Reaffirmed*	Removed: not within Scope of paper	No change

NIST Special Publication 800-122 (2010) - <i>Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)</i>	X				
NIST Special Publication 800-124 Revision 1 (2013) - <i>Guidelines for Managing the Security of Mobile Devices in the Enterprise</i>	X				
NIST Special Publication 800-144 (2011) - <i>Guidelines on Security and Privacy in Public Cloud Computing</i>	X				
NIST Special Publication 800-34 Rev. 1 (2010) - <i>Contingency Planning Guide for Federal Information Systems</i>					X
NIST Special Publication 800-45 Version 2 (2007) - <i>Guidelines on Electronic Mail Security</i>	X				
NIST Special Publication 800-88 Revision 1 (2014) - <i>Guidelines for Media Sanitization</i>			X (2014)		
NIST Special Publication 800-89 (2006) - <i>Recommendation for Obtaining Assurances for Digital Signature Applications</i>	X				
NIST Special Publication 800-98 (2007) - <i>Guidelines for Securing Radio Frequency Identification (RFID) Systems</i>	X				

*An R before the date indicates the year the standard was reaffirmed with no changes.

About the Authors

Virginia A Jones, CRM (Certified Records Manager), FAI (Fellow of ARMA International), recently retired as the Records Manager for Newport News Waterworks Department. Her background includes hands-on operations, management, consulting, writing, teaching and training experience for 50 years in the records and information management field. Since 1983, she has also been principal of VAJonesAssociates, a records and information management consulting and training firm.

Ms. Jones has been a member of several AIIM standards committees and is a past member of the AIIM International Standards Board. She was also a member of the U.S. delegation (TAG) to ISO TC 171 the international standards development committee for document management applications. She has been a project leader for several standards/technical report revisions. She was project leader of the ARMA International task force developing and subsequently revising ANSI standard Vital Records Programs: Identifying, Managing, and Recovering Business-Critical Records.

Ms. Jones is the author of Handbook of Microfilm Technology & Procedures (QP Publishing), co-author of Emergency Management for Records and Information Programs (ARMA International), and a co-author of The Information Manager's Toolkit (ARMA International). She has contributed numerous articles on records and information management and micrographics concerns to national trade publications and journals. She is an active member of AIIM International (Old Dominion Chapter) and ARMA International (Tidewater Chapter), and has presented a number of papers at the national conferences for both associations. She has completed several research projects for the ARMA International Educational Foundation.

Ms. Jones is a Fellow of ARMA International and a Fellow of AIIM International. She is a member of the Institute of Certified Records Managers and a past member of the ICRM Board of Regents.

Mary Margaret Fletcher is a graduate of the University of Pittsburgh's Master of Library and Information Science program in archives and records management.



The ARMA International Educational Foundation (the Foundation) is an education and research funding resource to be used by individuals and organizations for the advancement of knowledge in the field of information management. It is a US non-profit, 501(c)3 organization.

Mission

The ARMA International Educational Foundation supports education and research initiatives that promote the advancement of both information managers and the information management profession.

Purpose

Recorded information is the lifeblood of the modern organization, but rarely is it treated as a critical asset, primarily because there is little quality research to create the comprehensive body of knowledge required to support information management as a profession. The Foundation's purpose is to answer that need by soliciting funds for this research and then providing a vehicle through which conclusions can be tested, documented and communicated to the information management community.

If you found value in this publication, please consider making a financial contribution to the Endowment Fund of the Foundation. This can be accomplished by visiting the Foundation's web site, www.armaedfoundation.org , or by contacting: coordinator@armaedfoundation.org .

Additional information about the Foundation can be found at:



The National Database of Non-profit Organizations

<http://www.guidestar.org/organizations/31-1556655/arma-international-educational-foundation.aspx>

Comments about this publication and suggestions for further research are welcome at: coordinator@armaedfoundation.org