



The Center for Research Libraries

August 16, 2006

Archive Profile

ERA: Electronic Records Archives

National Archives and Records Administration (NARA)

By Marie Waltz
Center for Research Libraries¹

NARA Mission Statement

"The mission of the National Archives and Records Administration is to ensure, for the Citizen and the Public Servant, for the President and the Congress and the Courts, ready access to essential evidence."

NARA's ERA Project

Background

ERA is part of the National Archives and Records Administration's strategic plan to create a "comprehensive, systematic, and dynamic means for preserving virtually any kind of electronic record, free from dependence on any specific hardware or software." The ERA will be designed to enable NARA to preserve and make available the electronic records of the Federal Government. The conditions for preservation include adaptable formats, hardware and software independence, and transparent access for the American public and Federal officials.

NARA intends to work with other governmental agencies and research partners to construct the ERA system. With other Federal agency partners, they will develop policy and technical guidance to enable responsible electronic records creation and management. For the technical side, they will work with research partners to develop and maintain the technical capability to capture, preserve, describe, access and appropriately dispose of any Government electronic record.

¹ Unless otherwise noted all quotes were harvested from NARA websites in August 2006 at:

<http://www.archives.gov/era> and
<http://www.archives.gov/about/plans-reports/strategic-plan/2003/index.html>

The ERA project began in 1998. The first three years were spent understanding what the problems might be and visualizing what was possible. NARA research activities have all been collaborative with other Federal Government agencies, state governments, computer scientists, other national archives, academia, and private industry. One of these collaborations was in the development of the Open Archival Information Standard (OAIS). ERA intends to develop OAIS standards for records and archives. In July 1999, John Carlin, Archivist of the United States, gave the ERA Project preliminary approval. After this approval NARA began to develop their meta-computing system.

NARA's Vision of ERA

NARA's Vision Statement for the ERA project is as follows:

ERA will authentically preserve and provide access to any kind of electronic record, free from dependence on any specific hardware or software, enabling NARA to carry out its mission into the future.

- We will be a leader in innovation in electronic records archiving.
- In coordination with our Federal partners, we will develop policy and technical guidance to enable responsible electronic records creation and management.
- With help from our research partners, we will develop and maintain the technical capability to capture, preserve, describe, access and appropriately dispose of any government electronic record.
- We will manage a coherent, nationwide, and sustainable system for permanent archival electronic records of the Federal Government.
- We will develop the capability to manage Federal agency electronic records within the NARA records center system.
- We will ensure that anyone, at anytime, from any place, has access to the best tools to find and use the records we preserve.
- Our staff will be capable and consistent users of the electronic tools at every point of the life cycle.
- We will sustain widespread support from all our stakeholders and customers by listening to their needs, meeting their requirements, and seeking their feedback.²

² ERA Vision Statement, viewed August 11, 2006, at:
<http://www.archives.gov/era/about/vision.html>

ERA Requirements

Among the voluminous documentation provided by NARA for the development and functionality of the ERA system is an extensive list of requirements for the system. A copy of the *ERA Requirements* document, harvested from the NARA site on July 30, 2006, is available in Microsoft Excel format at <http://www.crl.edu/content/digArc/DigArc2/ERArequirements.xls>

A .csv format is available on the ERA web site at:
<http://www.archives.gov/era/about/requirements.csv>

Development and Implementation Time Frame

Five phases or “increments” are planned in the development of the ERA system. Increment 1 will require two years of development to provide system functions for managing, preserving and providing online access to NARA electronic records. First use, called Initial Operating Capability (IOC), of the ERA System is expected by FY 2007.

Four subsequent annual increments will each provide additional functions, technology enhancements, and advanced preservation tools. Full use (Full Operating Capability) of the ERA System is expected by the year 2011.

Each fiscal year there will be certain, currently unspecified, measures or milestones that will indicate progress towards achieving NARA’s goals. In addition, NARA has developed “an annual efficiency measure related to processing time to provide public access to electronic records upon receipt by NARA, as well as a measure indicating its ability to preserve electronic records prior to building ERA.”³

Funding

ERA is being funded primarily under the NARA budget appropriations. Approximate amounts earmarked for ERA by the Congress since 2000 were:

Fiscal Year	Amount
2001	\$902,0000
2002	\$19M
2003	\$12M
2004	\$22M
2005	\$36 M
2006*	\$38 M
2007	\$45M

³ *Detailed Information on the National Archives and Records Administration: Electronic Records Services Assessment*, viewed July 28, 2006, at: <http://www.whitehouse.gov/omb/expectmore/detail.10002428.2005.html>

*2006 funding for ERA is summarized as:

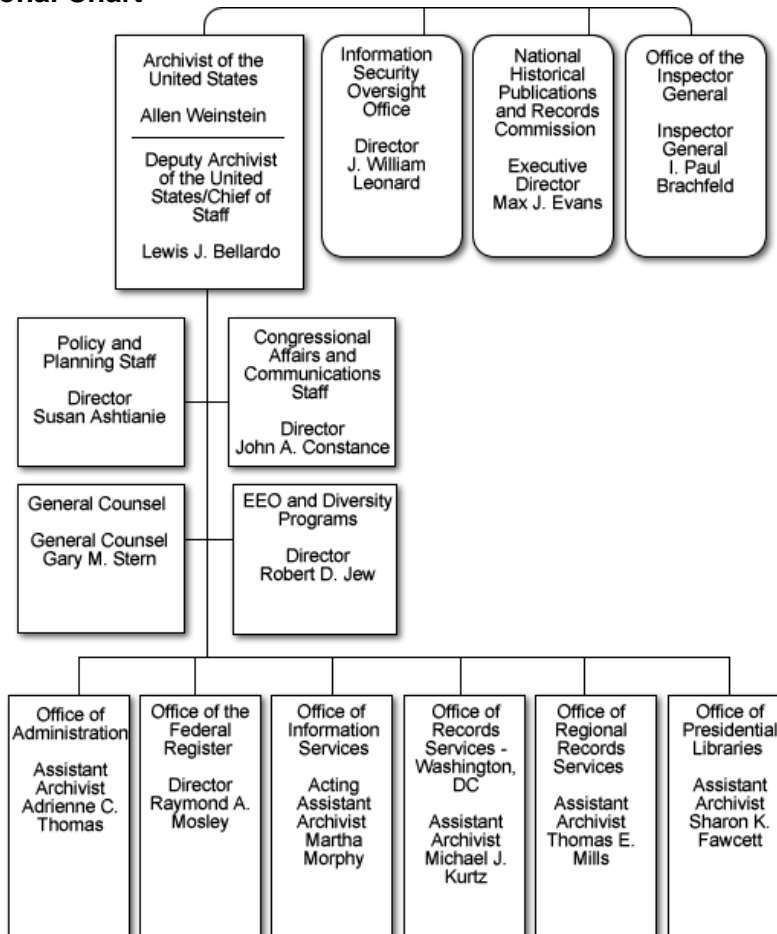
“For the ERA, Congress appropriated \$37,914,000, of which \$22,000,000 will be available through FY 2008 to build the system...The ERA funding also includes \$2,000,000 for NARA to begin working with the Naval Oceanographic Office”⁴

Governance

NARA

The National Archives and Records Administration is an independent federal agency in the executive branch of the United States Government, administered under the supervision and direction of the Archivist of the United States.

NARA Organizational Chart



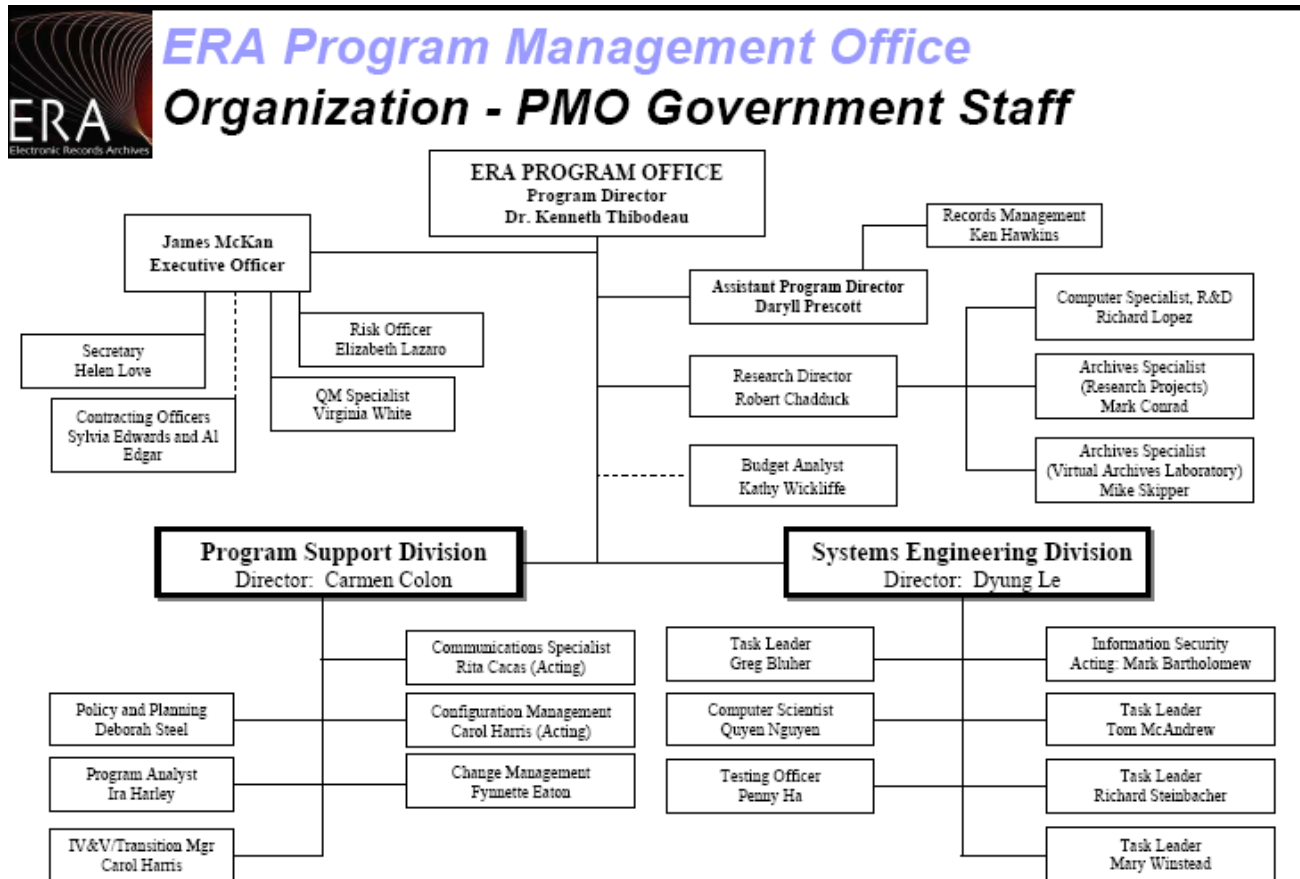
(Found at: <http://www.archives.gov/about/organization/>)

⁴ NARA Press Release, Nov. 23, 2005, *Congress Approves FY 2006 Budget of \$338 Million for the National Archives*, viewed online at: <http://www.archives.gov/press/press-releases/2006/nr06-26.html>

Office of Information Services (NH)

The ERA is administered by the ERA Program Management Office. The ERA PMO operates under the auspices of NARA's Office of Information Services (NH), which has responsibility for managing NARA's information technology (IT) programs, systems, and services.

ERA Organizational Chart



(Found at: <http://www.archives.gov/era/pdf/era-pmo-org-chart.pdf>)

Kenneth Thibodeau is the Director of the Electronic Records Archives Program Office. Prior to being appointed to the ERA project Thibodeau worked from 1988-1998 as Director of NARA's Center for Electronic Records. In 1995, Ken was detailed from NARA to the Department of Defense, where he served as Director of the Records Management Task Force, which was set up to implement business process reengineering for records management. Prior to joining NARA in 1988, Thibodeau was the first Chief of the Records Management Branch of the National Institutes of Health (NIH) with responsibilities for records management, office automation, privacy, and strategic planning for information resources management. Thibodeau earned a Ph.D. in the history and sociology of science from the University of Pennsylvania.⁵

⁵ Biography, DLM Forum '99, viewed August 11, 2006 at: http://europa.eu.int/ISPO/dlm/program/bio_kt_en.html

Private Industry Partners

In Sept 2005, NARA selected Lockheed Martin Corporation to build the Electronic Records Archives (ERA) system. This award came at the close of a one-year design competition between Lockheed Martin and Harris Corp.

Lockheed Martin's team includes:

BearingPoint Inc. of McLean, Va., a management consulting and systems integration firm.

EDS Corp., Electronic Data Systems consulting for systems integration, network and systems operations, data center management, application development, and outsourcing.

Fenestra Technologies Corp. of Germantown, Md., a software company specializing in data management and reporting solutions.

History Associates Inc. of Rockville, Md., Provides customized consulting services in historical research and writing, litigation research, and archives and records management.

Science Applications International Corp. of San Diego, a leading government services contractor that offers technical support and project management services.

Tessella Inc. of Newton, Mass. a supplier of software development and support services to the scientific and engineering community.⁶

Other Governmental Agencies

The Naval Oceanographic Office at the National Center for Critical Information Processing and Storage (NCCIPS) at the Stennis Space Center in Mississippi has contributed an additional \$2 million to set up an outpost for the ERA project with the Naval Oceanographic Office.

“The agreement is expected to start a process between NMOC and NARA to provision advanced facilities, secure large-scale storage and computing, and accompanying services for the ERA Program. John Lever, the command’s Director of Information Architecture Governance who started talks with NARA two years ago, said he expects that the repository’s holdings ultimately will be massive, on the order of petabytes, or one quadrillion bytes. “These are the nation’s records, with a mandated retention by law for the life of the republic.” he said. “The Navy’s proven expertise in the development and successful application of petascale storage architectures will be a key ingredient to the success of our partnership with NARA”.⁷

⁶ *NARA chooses Harris, Lockheed for e-records system*, viewed online May 16, 2006 at <http://www.tessella.com/news/NARA.htm>

⁷ *Navy Oceanography Participates in National Archives Program*, Marine Technology Reporter, viewed online August 11, 2006 at <http://www.mtronline.net/mt/mtStories.aspx?ShowStory=1004712066>

Advisory Committee on the Electronic Records Archives (ACERA)-Committee Members

Dr. Robert E. Kahn, CEO and President, *Corporation for National Research Initiatives* (chair)
Dr. Daniel Atkins, Executive Director, *Alliance for Community Technology*
Laura E. Campbell, *Associate Librarian for Strategic Initiatives, Library of Congress*
David Carmicheal, *State Archivist, Georgia State Archives*
Sharon Dawes, Director, *Center for Technology in Government*
Luciana Duranti, Director, InterPARES Project, *University of British Columbia*
Dr. Richard Fennell, Chief Technology Officer, *Administrative Office of the U.S. Courts*
Daniel Greenstein, Associate Vice Provost Scholarly Information, *University of California*
Jerry Handfield, State Archivist, *Washington State Archives*
Robert Horton, Acting Director, *Minnesota Historical Society*
Andy Maltz, Director, *Academy of Motion Picture Arts and Sciences*
Richard Pearce-Moses, Director, *Digital Government Information*
John T. Phillips, Management Consultant, *Information Technology Decisions*
Jonathan Redgrave, Partner, *Redgrave, Daley, Ragan & Wagner LLP*
Dan Reed, Director, *Renaissance Computing Institute*
David Rencher, Director, *Federation of Genealogical Societies*
Mr. Richard L. Testa, Director, *Records and Information Division, Air Force*
Dr. Kelly A. Woestman, Professor and History Education Director, *Pittsburgh State University*

ERA-Sponsored Research Projects

- Access to Archival Databases Project (AAD)
- San Diego Supercomputer Center (SDSC)
 - NARA Project on Persistent Archives and Electronic Records Management
 - NHPRC Project on Methodologies for Preservation and Access of Software-Dependent Electronic Records
- U.S. InterPARES Project
- Presidential Electronic Records Pilot Operations System (PERPOS)

Partnerships & Collaborations

Groups, organizations, partnerships, projects, and federations with whom NARA is collaborating.

- Army Research Laboratory (ARL)
- Department of Defense (DoD)
- Digital Library Federation (DLF)
- Federal Geographic Data Committee (FGDC)
- Georgia Institute of Technology (GA Tech)
- Global Grid Forum (GGF)
- Institute of Electrical and Electronics Engineers, Inc. (IEEE)

- InterPARES Project - International Research on Permanent Authentic Records in Electronic Systems
- Massachusetts Institute of Technology (MIT)
- National Aeronautics and Space Administration (NASA)
- National Computational Science Alliance (NCSA)
- National Institute of Standards and Technology (NIST)
- National Nuclear Security Administration (NNSA/US Dept. of Energy)
- National Science Foundation (NSF)
- National Security Agency (NSA)
- Object Management Group (OMG)
- PDES, Inc. Consortium
- San Diego Supercomputer Center (SDSC)
- Stanford Linear Accelerator Center (SLAC)
- University of Maryland Institute for Advanced Computer Studies (UMIACS)