

March 2011

# ELECTRONIC GOVERNMENT

## National Archives and Records Administration's Fiscal Year 2011 Expenditure Plan



G A O

Accountability \* Integrity \* Reliability

## Why GAO Did This Study

Since 2001, the National Archives and Records Administration (NARA) has been working to develop an Electronic Records Archive (ERA) to preserve and provide access to massive volumes of all types of electronic records. NARA originally planned to complete the system in 2012, but has repeatedly revised the program schedule and estimated cost and is now planning to deploy an ERA system with reduced functionality by the end of fiscal year 2011. As required by the Consolidated Appropriations Act, 2010, and the Continuing Appropriations Act, 2011, NARA submitted an expenditure plan to Congress to support its request for fiscal year 2011 ERA funding. The legislation also requires that this plan meet six conditions, including review by GAO. GAO's objectives in reviewing the fiscal year 2011 plan were to (1) determine whether the plan satisfies legislative conditions, (2) determine the extent to which NARA has implemented prior GAO recommendations, and (3) provide any other observations on the plan or the ERA acquisition. To do this, GAO reviewed the expenditure plan and other agency documents and interviewed NARA officials.

## What GAO Recommends

Congress should consider limiting funding of further ERA development until NARA addresses weaknesses in its oversight and management of the acquisition. GAO is also recommending actions for NARA to take to address these weaknesses. NARA concurred with GAO's recommendations.

## ELECTRONIC GOVERNMENT

### National Archives and Records Administration's Fiscal Year 2011 Expenditure Plan

## What GAO Found

NARA's fiscal year 2011 expenditure plan satisfies four of the six legislative conditions and partially satisfies two. Specifically, it partially satisfies the condition that NARA meet requirements for reviewing the progress of capital investments, such as ERA. While NARA has held regular meetings with senior-level agency management to review ERA progress, these groups did not document approval of important schedule and scope changes, and NARA did not validate the estimated benefits and costs of deployed ERA capabilities. Further, NARA partially satisfies the condition that the expenditure plan be approved by NARA and the Office of Management and Budget (OMB). NARA approved the expenditure plan in October 2010, but the plan was not approved by OMB. Without approval from OMB, Congress will have limited assurance of the plan's reliability and accuracy.

NARA has fully implemented one of GAO's four prior recommendations and partially implemented three. It implemented a recommendation to ensure that ERA's requirements are managed using a disciplined process by, for example, developing a process to keep requirements current. NARA partially implemented three other recommendations. First, to improve its executive-level oversight, NARA documented meetings to review ERA progress, but did not document approval of important changes to a recent phase, or increment, of the system. Second, NARA added information in its expenditure plan on ERA cost, schedule, and performance as recommended, but the plan lacks other key information, such as the estimated costs of an ongoing increment. Third, NARA documented a plan to strengthen its processes for measuring program progress, but continues to have weaknesses in this area, including not accurately portraying ERA program status.

GAO has three observations on the expenditure plan and ERA acquisition:

- The fiscal year 2011 expenditure plan does not provide a reliable basis for informed investment decision making. For example, NARA's cost estimates do not reliably reflect the work to be completed because of weaknesses in its supporting methodology, and the plan does not clearly show what functionality is planned to be delivered in the final year of development, by when, and at what cost.
- NARA's expenditure plan does not address how remaining multiyear funds from fiscal year 2010 will be allocated. Specifically, NARA's plans for using the remaining \$20.1 million are not discussed in the plan.
- Although NARA recently updated the ERA requirements, the agency has not yet determined which of the requirements would be addressed before the end of development in fiscal year 2011 and has not fully prioritized the requirements to ensure that critical stakeholder needs will be met.

Without a reliable expenditure plan and adequate management of the ERA acquisition, it is unclear whether NARA can make substantial progress in delivering additional system capabilities by the end of fiscal year 2011 to justify its planned investment.

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## Abbreviations

EOP	Executive Office of the President
ERA	Electronic Records Archives
EVM	earned value management
NARA	National Archives and Records Administration
OMB	Office of Management and Budget
OPA	Online Public Access
SA-CMM	Software Acquisition-Capability Maturity Model
SEI	Software Engineering Institute

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**United States Government Accountability Office**  
**Washington, DC 20548**

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March 4, 2011

The Honorable Richard J. Durbin  
Chairman  
The Honorable Jerry Moran  
Ranking Member  
Subcommittee on Financial Services  
and General Government  
Committee on Appropriations  
United States Senate

The Honorable Jo Ann Emerson  
Chairwoman  
The Honorable José E. Serrano  
Ranking Member  
Subcommittee on Financial Services  
and General Government  
Committee on Appropriations  
House of Representatives

Since 2001, the National Archives and Records Administration (NARA) has been working to develop a modern Electronic Records Archive (ERA). According to NARA, this major information system is estimated to cost between \$456 and \$481 million and is intended to preserve and provide access to massive volumes of all types of electronic records, independent of their original hardware or software. NARA plans for the system to manage the full life-cycle of electronic records, from their ingestion through preservation and dissemination to customers.

Because of the system's complexity, NARA awarded a contract to Lockheed Martin to develop ERA in five phases, or increments, the first of which is referred to as the "ERA base." According to NARA, the ERA base included initial functionality for transferring federal electronic records into the system and achieved initial operating capability in June 2008. The second increment includes the Executive Office of the President (EOP) system or "ERA EOP," and NARA certified that it reached initial operating capability in December 2008. NARA originally planned to complete the development of the remaining increments and achieve full operating capability in March 2012. However, in acquiring this system, NARA has repeatedly revised the program schedule and increased the estimated costs. As a result, in July 2010, the Office of Management and Budget

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(OMB) directed NARA to halt ERA development at the end of fiscal year 2011, 1 year earlier than originally planned.

As mandated by the Consolidated Appropriations Act,<sup>1</sup> NARA is required to submit an expenditure plan before obligating multiyear funds for the ERA program. On October 1, 2010, the agency submitted its fiscal year 2011 expenditure plan to support its request for \$85.5 million in ERA funding, which includes \$61.8 million in multiyear funds. In the expenditure plan, NARA also included support for requests at two alternative funding levels—\$72.0 million and \$61.4 million—based on congressional direction. Subsequently, on October 19, 2010, NARA submitted a summary of its expenditure plan that included revised requests at \$72 million and \$65 million funding levels. According to NARA, both the expenditure plan and the summary reflect fiscal year 2011 as the final year of ERA development.

As in the previous year, the plan must satisfy six legislative conditions, including a review by GAO. Our objectives in reviewing the plan and the summary were to (1) determine whether NARA's fiscal year 2011 expenditure plan satisfies legislative conditions, (2) determine the extent to which NARA has implemented prior GAO recommendations, and (3) provide any other observations about the expenditure plan and the ERA acquisition.

To assess compliance with legislative conditions, we analyzed the expenditure plan submitted by NARA in October 2010 and reviewed its budget submission to OMB, along with other program documentation. To determine the extent to which NARA had implemented our prior recommendations, we obtained and reviewed agency documents, which included briefings to senior management on ERA cost, schedule, and

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<sup>1</sup>Consolidated Appropriations Act, 2010, Pub. L. No. 111-117, div. C, title V, 123 Stat. 3034, 3193 (Dec. 16, 2009). As of March 1, 2011, Congress had not yet enacted the Financial Services and General Government Appropriations Act applicable to NARA for fiscal year 2011. However, the Continuing Appropriations Act, 2011, as extended to March 4, 2011, appropriates funds under the authority and conditions of applicable appropriations acts, including the Consolidated Appropriations Act, 2010, Pub. L. No. 111-242, sections 101(7) and 103 (Sept. 30, 2010); Pub. L. No. 111-290 (Dec. 4, 2010); Pub. L. No. 111-317 (Dec. 18, 2010); and Pub. L. No. 111-322 (Dec. 22, 2010). Therefore, the legislative conditions that applied in fiscal year 2010 to NARA's expenditure plan continue to apply at this point in fiscal year 2011. At the time of our briefing, the Continuing Appropriations Act had been extended to December 21, 2010, and the legislative conditions continued to apply at that time.

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performance; requirements management documentation; and earned value management processes. To develop observations on the ERA expenditure plan and acquisition, we analyzed fiscal year 2010 and 2011 cost, schedule, and planned system functionality information contained in the expenditure plans and other ERA briefings. In addition, we reviewed and analyzed requirements management documentation, including the revised list of ERA requirements. We also interviewed NARA and Lockheed Martin officials.

To assess the reliability of the data in the expenditure plan, we interviewed NARA officials to gain an understanding of the data and discussed our use of the data in this briefing. We concluded that the data were sufficiently reliable for our purposes. In addition, we reviewed NARA budget documents, as well as its consolidated financial statement results for the fiscal year 2010 Performance and Accountability Report. We did not, however, assess the reliability of the information in these documents.

We conducted this performance audit from October 2010 to March 2011 at NARA's College Park, Maryland, location in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

On December 21, 2010, we transmitted the results of our review to the staffs of the Senate Subcommittee on Financial Services and General Government, Committee on Appropriations, and the House Subcommittee on Financial Services and General Government, Committee on Appropriations. This report transmits the briefing materials we provided, the matter we suggest Congress consider, and the recommendations that we made to the Archivist of the United States.<sup>2</sup> The full briefing materials, including details on our scope and methodology, are reprinted as appendix I.

In summary, we made the following major points:

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<sup>2</sup>Subsequent to our briefing, on January 14, 2011, NARA provided GAO with a revised version of its fiscal year 2011 expenditure plan. We did not analyze the extent to which NARA's revised plan satisfies legislative conditions.

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- NARA's fiscal year 2010 expenditure plan satisfies four of the six legislative conditions. Specifically, NARA's plan complies with the agency's enterprise architecture, conforms to the agency's enterprise life-cycle methodology, reflects certain system acquisition best practices, and was reviewed by GAO. The expenditure plan partially satisfies the other two conditions:
    - NARA partially satisfies the condition that it develop capital planning and investment control review processes designed to help ensure that projects are being implemented at an acceptable cost and within expected time frames and that they are contributing to observable improvements in mission performance. While NARA has conducted regular meetings with senior-level agency management to review ERA progress, these groups did not document approval of important schedule and scope changes to a recent ERA increment. Further, NARA has not conducted post-implementation reviews of deployed ERA capabilities, such as the recently deployed congressional records component, to validate estimated benefits and costs. As a result, NARA has limited ability to ensure that the system is being implemented at an acceptable cost and within expected time frames, and that deployed capabilities are contributing to observable improvements in mission performance.
    - NARA partially satisfies the condition that the expenditure plan be approved by the agency and OMB. NARA approved the expenditure plan in October 2010, but the plan was not approved by OMB because, according to NARA officials, OMB will only review the expenditure plan if there is an existing appropriation with language requiring its review. Without approval from OMB, Congress will have limited assurance that the plan is accurate and reliable.
  - NARA has fully implemented one of our prior recommendations and partially implemented three:
    - NARA implemented our recommendation to ensure that ERA's requirements are managed using a disciplined process by updating the ERA requirements document and developing a process to ensure that the ERA requirements are kept current following significant changes to the program, such as significant modifications to the contract.
    - NARA has partially implemented three other recommendations. First, in response to our recommendation that NARA ensure that its investment review process has adequate executive-level oversight by

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maintaining documentation of the results of reviews, NARA documented meetings that its senior management attended where the ERA program was discussed, but the agency did not document approval of important changes to a recent increment through its review process. Second, in response to our recommendation that NARA provide additional information in the fiscal year 2011 expenditure plan on what was spent and delivered for deployed increments, NARA added information on delivered functionality and additional capabilities planned for fiscal year 2011. However, the expenditure plan lacked other important information, such as the estimated fiscal year 2011 costs and the expected completion date of an ongoing increment. Third, in response to our recommendation to strengthen its use of earned value processes, NARA documented an action plan to improve its earned value processes, but continues to have weaknesses in this area. Among other things, we found that ERA's earned value data trends do not accurately portray program status, and future cost overruns would likely be between \$195 and \$433 million if the full ERA system were to be completed as originally designed.<sup>3</sup>

- We made three observations related to the ERA program and fiscal year 2011 expenditure plan and summary:
  - NARA's fiscal year 2011 ERA expenditure plan does not provide a reliable basis for informed investment decision making. Specifically, NARA's plan does not clearly show what functions have been delivered to date or how actual costs compare to planned costs. For example, the plan does not clearly show the system functions of an ongoing increment that have been delivered and how the actual costs of this increment compare to the amount NARA planned to spend, as reported in the fiscal year 2010 expenditure plan. Further, even though NARA plans to end development in fiscal year 2011, the fiscal year 2011 expenditure plan does not clearly show what functionality is planned to be delivered, by when, and at what cost during this period. For example, the plan does not discuss the delivery date of an ongoing increment, nor the fiscal year 2011 costs associated with completing this increment. Lastly, NARA's cost estimates, used as the basis for

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<sup>3</sup>For more information related to our evaluation of NARA's use of earned value processes, see GAO, *Electronic Records Archive: National Archives Needs to Strengthen Its Capacity to Use Earned Value Techniques to Manage and Oversee Development*, [GAO-11-86](#) (Washington, D.C.: Jan. 13, 2011). At the time of our briefing, this report had not yet been issued.



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determining its fiscal year 2011 funding requests, do not reliably reflect the work to be completed because of weaknesses in the supporting methodology. For example, while NARA's estimates were based on information provided by the contractor, including estimates of the total lines of software code required and the related costs, these data could not be traced back to their original sources, and NARA did not validate the information when preparing its cost estimates.

- NARA's fiscal year 2011 expenditure plan does not address how remaining multiyear funds from fiscal year 2010 will be allocated. Specifically, in fiscal year 2010, NARA spent \$41.7 million of the \$61.8 million in accumulated multiyear funds that it was provided by Congress to develop the ERA system, which resulted in a balance of \$20.1 million that is available for obligation in fiscal year 2011. According to NARA officials, the ERA program plans to use the \$20.1 million to fund development efforts needed to make the system available to all federal agencies, as well as to fund other operations and maintenance costs. However, NARA's plans for using these funds and their supporting details are not included in the fiscal year 2011 expenditure plan or the revised summary. Until NARA specifies how it will use the multiyear funds remaining from fiscal year 2010, appropriators will lack information important for evaluating NARA's fiscal year 2011 request.
- NARA has not yet determined which ERA requirements will be implemented in fiscal year 2011, nor fully prioritized the remaining requirements. In June 2010, we reported that NARA had developed and documented a set of 853 high-level business requirements for ERA and planned to complete about 57 percent of them by the end of fiscal year 2010. Subsequently, in July 2010, NARA updated its requirements document. According to NARA, the original 853 requirements were decomposed to a more detailed set of 1,577 requirements, portions of which were allocated to Increments 1 through 5, deferred to post-Increment 5 (i.e., post-fiscal year 2011), or removed from the scope of the ERA program. However, NARA could not determine which of the remaining requirements would be addressed before the end of fiscal year 2011 because, according to NARA officials, the requirements were subject to ongoing negotiations with the development contractor. This uncertainty is further exacerbated because NARA has not fully prioritized its requirements. Maintaining a prioritized set of system requirements can better ensure that the requirements that are most critical to the customer and other stakeholders are addressed quickly. Until the ERA program fully prioritizes the ERA requirements to be completed during fiscal year 2011, it will be unclear what system

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development work is planned to be completed and whether it will result in functionality that is most critical to NARA's customers and other stakeholders.

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## Conclusions

While NARA's fiscal year 2011 expenditure plan meets four of the six legislative conditions, the lack of critical capital planning and oversight steps—including documentation demonstrating approval of significant changes to a recent ERA increment, post-implementation reviews of deployed capabilities, and OMB's approval of the expenditure plan—limits NARA's ability to ensure that the system is being implemented at an acceptable cost and within expected time frames and contributes to observable improvements in mission performance. These issues are further exacerbated by the agency's partial implementation of several open GAO recommendations, such as those related to improving investment oversight and earned value processes. With significant weaknesses in many basic oversight and management processes, as well as continued delays in completing Increment 3, NARA's ability to make significant development progress in the remainder of the fiscal year will be challenged.

In addition, without a reliable ERA expenditure plan, NARA has not provided adequate information to assist congressional oversight and informed decision making related to the use of appropriated funds. When these weaknesses are combined with the lack of prioritization of the remaining requirements under negotiation for fiscal year 2011, Congress has little assurance that additional funds allocated to ERA will result in significant benefits to potential users. With OMB's direction to stop development after 2011, it is unclear whether NARA will be able to effectively address the full range of weaknesses we identified and still have adequate time to complete significant development efforts.

## Matter for Congressional Consideration

The identified deficiencies in NARA's expenditure plan and management of the ERA acquisition make it unclear whether NARA can make substantial progress in delivering additional ERA system capabilities that justify its planned investment by the end of fiscal year 2011. As such, we suggest that Congress consider employing an accountability mechanism that limits NARA's ability to use funds appropriated for ERA development until NARA implements an adequate capital planning and investment control process, updates its expenditure plan to clearly describe what system capabilities and benefits are to be delivered in fiscal year 2011, and

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establishes an associated set of prioritized system requirements and adequate earned value reporting.

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## Recommendations for Executive Action

We are recommending that the Archivist of the United States immediately take the following two actions while the current system development contract is active:

- Report to Congress on the specific outcomes to be achieved with the balance of any previous multiyear funds in fiscal year 2011.
- Ensure that the ERA requirements planned for fiscal year 2011 are fully prioritized so that those most critical to NARA's customers and other stakeholders are addressed.

To ensure that any future efforts are completed within reasonable funding and time constraints, we are recommending that the Archivist of the United States take the following four actions:

- Ensure that significant changes to ERA's program's cost, schedule, and scope are approved through NARA's investment review process.
- Conduct post-implementation reviews of deployed ERA capabilities to validate estimated benefits and costs.
- Submit ERA expenditure plans to OMB for review and approval prior to submitting to Congress.
- Update the ERA Requirements Management Plan and related guidance to mandate requirements prioritization throughout the project's life-cycle.

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## Agency Comments

In written comments on a draft of this report, which are reprinted in appendix II, the Archivist of the United States concurred with our six recommendations. Specifically, he stated that NARA has sufficiently addressed the first two recommendations. He further stated that NARA would be unable to address the final four recommendations in a near-term action plan since those were specific to a future ERA development effort. The Archivist also noted that NARA is developing an addendum to the fiscal year 2011 expenditure plan to provide updated information on ERA requirements, costs, and the schedule of software releases.

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We are sending copies of this report to the Archivist of the United States. The report will also be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staffs have any questions concerning this report, please contact me at (202) 512-9286 or by e-mail at [pownerd@gao.gov](mailto:pownerd@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.

A handwritten signature in black ink, reading "David A. Powner". The signature is fluid and cursive, with a long horizontal stroke at the end.

David A. Powner  
Director, Information Technology  
Management Issues

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# Appendix I: Briefing for Staff of Congressional Committees

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## **ELECTRONIC GOVERNMENT: Review of the National Archives and Records Administration's Fiscal Year 2011 Electronic Records Archive Expenditure Plan**

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Briefing for Staff Members of the Subcommittee on Financial Services and General Government, Committee on Appropriations, U.S. Senate

and

the Subcommittee on Financial Services and General Government, Committee on Appropriations, House of Representatives

December 21, 2010



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Objectives, Scope, and Methodology
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Matter for Congressional Consideration
Recommendations for Executive Action
Agency Comments and Our Evaluation



## Introduction

Since 2001, the National Archives and Records Administration (NARA) has been working to develop a modern Electronic Records Archive (ERA). According to NARA, this major information system is estimated to cost between \$456 and \$481 million and is intended to preserve and provide access to massive volumes of all types of electronic records, independent of their original hardware or software. NARA plans for the system to manage the full life cycle of electronic records, from their ingestion through preservation and dissemination to customers. It is to consist of

- infrastructure elements, including hardware and operating systems;
- business applications that will support the transfer, preservation, dissemination, and management of all types of records; and
- a means for public access via the Internet.

Because of the system's complexity, NARA awarded a contract to Lockheed Martin to develop ERA in five phases, or increments, the first of which is referred to as the "ERA base." According to NARA, the ERA base included initial functionality for transferring federal electronic records into the system and achieved initial operating capability in June 2008. The second increment includes the Executive Office of the President (EOP) system or "ERA EOP," and NARA certified that it reached initial operating capability in December 2008. NARA originally planned to complete the development of the remaining increments and achieve full operating capability in March 2012. However, in acquiring this system, NARA has repeatedly revised the program schedule and increased the estimated costs. As a result, in July 2010, the Office of Management and Budget (OMB) changed the direction of the program, and NARA is now planning to deploy an ERA system with reduced functionality by the end of fiscal year 2011.



## Introduction

As mandated by the Consolidated Appropriations Act,<sup>1</sup> NARA is required to submit an expenditure plan before obligating multi-year funds for the ERA program. The plan must satisfy the following legislative conditions:

- meet the capital planning and investment control review requirements established by OMB;
- comply with the agency's enterprise architecture;
- conform to the agency's enterprise life-cycle methodology;
- comply with the acquisition rules, requirements, guidelines, and system acquisition management practices of the federal government;
- be approved by the agency and OMB; and
- be reviewed by GAO.

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<sup>1</sup> Consolidated Appropriations Act, 2010, Pub. L. No. 111-117, div. C, title V, 123 Stat. 3034, 3193 (Dec. 16, 2009). As of the date of this briefing, Congress has not yet enacted the Financial Services and General Government Appropriations Act applicable to NARA for fiscal year 2011. However, the Continuing Appropriations Act, 2011, as extended to Dec. 21, 2010, appropriates funds under the authority and conditions of applicable appropriations acts, including the Consolidated Appropriations Act, 2010. Pub. L. No. 111-242, sections 101(7) & 103 (Sept. 30, 2010); Pub. L. No. 111-290 (Dec. 4, 2010); Pub. L. No. 111-317 (Dec. 18, 2010). Therefore, the legislative conditions that applied in fiscal year 2010 to NARA's expenditure plan continue to apply at this point in fiscal year 2011.





## Introduction

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On October 1, 2010, the agency submitted its fiscal year 2011 expenditure plan to the relevant House and Senate appropriations committees to support its request for \$85.5 million in ERA funding. Of this amount, \$61.8 million consists of multi-year funds allocated to ERA. In the expenditure plan, NARA also included support for requests at two alternative funding levels—\$72.0 million and \$61.4 million—based on congressional direction. Subsequently, on October 19, 2010, NARA submitted a summary of its expenditure plan to the appropriations committees that included revised requests at \$72 million and \$65 million funding levels. According to NARA, both the expenditure plan and the summary reflect fiscal year 2011 as the final year of ERA development.



## Objectives, Scope, and Methodology

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Our objectives were to

- determine whether NARA's fiscal year 2011 expenditure plan satisfies legislative conditions;
- determine the extent to which NARA has implemented prior GAO recommendations; and
- provide any other observations about the expenditure plan and the ERA acquisition.



## Objectives, Scope, and Methodology

To assess compliance with legislative conditions, we

- obtained and reviewed NARA's briefings to senior management and OMB, minutes of Information Technology Executive Committee meetings, information related to post-implementation reviews of deployed ERA functionality, and the fiscal year 2011 exhibit 300 submission<sup>2</sup> to OMB to determine the extent to which the agency has complied with OMB's capital planning and investment control requirements;
- obtained and reviewed data on NARA's enterprise architecture to determine the status of the agency's enterprise architecture efforts;
- reviewed NARA's ERA system life-cycle processes, which include processes for managing system investments, configuration management, and managing risks, and reviewed related agency documentation describing how these processes were implemented for the ERA project, such as minutes of oversight boards and risk watchlists to determine if ERA conforms with NARA's enterprise life-cycle methodology;
- obtained and reviewed NARA documentation on the ERA acquisition, which included internal assessments of ERA compliance with the Software Engineering Institute's Capability Maturity Model, to determine if NARA follows system acquisition best practices;
- obtained and reviewed information related to the agency's and OMB's approval of the expenditure plan; and
- reviewed and analyzed the fiscal year 2011 expenditure plan submitted by NARA on October 1, 2010, and a summary of the expenditure plan with revised information submitted by NARA on October 19, 2010.

<sup>2</sup>Agencies develop an exhibit 300, also known as the Capital Asset Plan and Business Case Summary, to justify each request for a major information technology investment. OMB sets forth requirements for the exhibit 300 in Circular A-11, Part 7, Planning, Budgeting, Acquisition, and Management of Capital Assets.



## Objectives, Scope, and Methodology

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To determine the extent to which NARA has implemented our prior recommendations, we obtained and reviewed agency documents, which include briefings to senior management on ERA cost, schedule, and performance; requirements management documentation; earned value management processes; and the expenditure plan.

To develop observations on the ERA expenditure plan and acquisition, we analyzed fiscal year 2010 and 2011 cost, schedule, and planned system functionality information contained in the expenditure plans and other ERA briefings. We reviewed and analyzed requirements management documentation, including the revised list of ERA requirements. We also interviewed NARA and Lockheed Martin officials.

To assess the reliability of the data in the expenditure plan, we interviewed NARA officials in order to gain an understanding of the data and discussed our use of the data in this briefing. We concluded that the data were sufficiently reliable for our purposes. In addition, we reviewed NARA budget documents as well as its consolidated financial statement results for the fiscal year 2010 Performance and Accountability Report. We did not, however, assess the reliability of the information in these documents.

We conducted this performance audit from October 2010 to December 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



## Results in Brief

NARA's fiscal year 2011 expenditure plan satisfies four of the six legislative conditions contained in the 2010 Consolidated Appropriations Act. Specifically, NARA's plan complies with the agency's enterprise architecture, conforms to the agency's enterprise life-cycle methodology, reflects certain system acquisition best practices, and was reviewed by GAO. The expenditure plan partially satisfies the other two conditions.

- NARA partially satisfies the condition that it develop capital planning and investment control review processes designed to help ensure that projects are being implemented at an acceptable cost and within expected time frames. While NARA has conducted regular meetings with senior-level agency management to review ERA progress, these groups did not document approval of important schedule and scope changes to a recent ERA increment. Further, NARA has not conducted post-implementation reviews of deployed ERA capabilities, such as the recently deployed congressional records component, to validate estimated benefits and costs. As a result, NARA has limited ability to ensure that the system is being implemented at an acceptable cost and within expected time frames, and that deployed capabilities are contributing to observable improvements in mission performance.
- NARA partially satisfies the condition that the expenditure plan be approved by the agency and OMB. NARA approved the expenditure plan in October 2010, but the plan was not approved by OMB because, according to NARA officials, OMB will only review the expenditure plan if there is an existing appropriations bill with language requiring its review. Without approval from OMB, Congress will have limited assurance that the plan is accurate and reliable.



## Results in Brief

NARA fully implemented one of our prior recommendations and partially implemented three:

- NARA implemented our recommendation to ensure that ERA's requirements are managed using a disciplined process by updating the ERA requirements document and developing a process to ensure that the ERA requirements are kept current following significant changes to the program, such as significant modifications to the contract.
- NARA has partially implemented three other recommendations. First, in response to our recommendation that NARA ensure that its investment review process has adequate executive-level oversight by maintaining documentation of the results of reviews, NARA documented meetings that its senior management attended where the ERA program was discussed, but the agency did not document approval of important changes to a recent increment through its review process. Second, in response to our recommendation that NARA provide additional information in the fiscal year 2011 expenditure plan on what was spent and delivered for deployed increments, NARA added information on delivered functionality and additional capabilities planned for fiscal year 2011. However, our review of the expenditure plan showed that it lacked other important information, such as the estimated fiscal year 2011 costs and expected completion date of an ongoing increment. Third, in response to our recommendation to strengthen its use of earned value processes, NARA documented an action plan to improve its earned value processes, but continues to have weaknesses in this area. Among other things, we found that ERA's earned value data trends do not accurately portray program status and future cost overruns would likely be between \$195 and \$433 million if the full ERA system is completed as originally designed.



## Results in Brief

We have three observations related to the ERA program and fiscal year 2011 expenditure plan:

- NARA's fiscal year 2011 ERA expenditure plan does not provide a reliable basis for informed investment decision-making. Specifically, we have identified the following weaknesses:
  - NARA's plan does not clearly show what functions have been delivered to date or how actual costs compare to planned costs. For example, the plan does not clearly show the system functions of an ongoing increment that have been delivered and how the actual costs of this increment compare to the amount NARA planned to spend, as reported in the fiscal year 2010 expenditure plan.
  - NARA's plan does not clearly show what functionality is planned to be delivered in the final year of development, by when, and at what cost. For example, the plan does not discuss the delivery date of an ongoing increment, nor the fiscal year 2011 costs associated with completing this increment.
  - NARA's cost estimates, used as the basis for determining its fiscal year 2011 funding requests, do not reliably reflect the work to be completed because of weaknesses in the supporting methodology. For example, while NARA's estimates were based on information provided by the contractor, including estimates of the total lines of software code required and the related costs, these data could not be traced back to their original sources and NARA did not validate the information when preparing its cost estimates.





## Results in Brief

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NARA officials attributed many of the issues we identified with the reliability of the expenditure plan, in part, to ongoing program uncertainty due to negotiations with its development contractor. Without more specific information on what functionality will be delivered before the completion of development at the end of fiscal year 2011 and more reliable cost estimates, Congress will continue to lack important information for evaluating NARA's funding request and measuring overall program progress.

- NARA's fiscal year 2011 expenditure plan does not address how remaining multi-year funds from fiscal year 2010 will be allocated. Specifically, in fiscal year 2010, NARA spent \$41.7 million of the \$61.8 million in multi-year funds that it was provided by Congress to develop the ERA system, which resulted in a balance of \$20.1 million that is available for obligation in fiscal year 2011. According to NARA officials, the ERA program plans to use the \$20.1 million to fund development efforts needed to make the system available to all federal agencies, as well as to fund other operations and maintenance costs. However, NARA's plans for using these funds and their supporting details are not included in the fiscal year 2011 expenditure plan or the revised summary. Until NARA specifies how it will use the multi-year funds remaining from fiscal year 2010, appropriators will lack information important for evaluating NARA's fiscal year 2011 request.





## Results in Brief

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- NARA has not yet determined which ERA requirements will be implemented in fiscal year 2011, nor fully prioritized the remaining requirements. In June 2010, we reported that NARA had developed and documented a set of 853 high-level business requirements for ERA and planned to complete about 57 percent of them by the end of fiscal year 2010. Subsequently, in July 2010, NARA updated its requirements document. According to NARA, the original 853 requirements were decomposed to a more detailed set of 1,577 requirements, portions of which were allocated to Increments 1 through 5, deferred to post-Increment 5 (i.e., post-fiscal year 2011), or removed from the scope of the ERA program. However, NARA could not determine which of the remaining requirements would be addressed before the end of fiscal year 2011 because, according to NARA officials, the requirements were subject to ongoing negotiations with the development contractor. This uncertainty is further exacerbated because NARA has not fully prioritized its requirements. Maintaining a prioritized set of system requirements can better ensure that the requirements that are most critical to the customer and other stakeholders are addressed quickly. Until the ERA program fully prioritizes the ERA requirements to be completed during fiscal year 2011, it will be unclear what system development work is planned to be completed and whether it will result in functionality that is most critical to NARA's customers and other stakeholders.



## Results in Brief

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The identified deficiencies in NARA's expenditure plan and management of the ERA acquisition make it unclear whether NARA can make substantial progress in delivering additional ERA system capabilities by the end of fiscal year 2011 that justify its planned investment. As such, we suggest that Congress consider employing an accountability mechanism that limits NARA's ability to use funds appropriated for ERA development until NARA implements an adequate capital planning and investment control process, updates its expenditure plan to clearly describe what system capabilities and benefits are to be delivered in fiscal year 2011, and establishes an associated set of prioritized system requirements and adequate earned value reporting. We are also making specific recommendations to NARA to improve its oversight and management of the ERA acquisition while the current system development contract is active and in preparation for any future ERA development efforts.



## Results in Brief

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We provided a draft of this briefing for review and comment to the Archivist of the United States. In oral comments, the Archives' GAO liaison stated that NARA generally agreed with our findings. NARA did not comment on our recommendations.



## Background

The ability to find, organize, use, share, appropriately dispose of, and save records—the essence of records management—is vital for the effective functioning of the federal government. In the wake of the transition from paper-based to electronic processes, records are increasingly electronic, and the volumes of electronic records produced by federal agencies are vast and rapidly growing, providing challenges to NARA as the nation's record keeper and archivist.

Besides sheer volume, other factors contributing to the challenge of electronic records include their complexity and their dependence on software and hardware. Specifically, the computer operating systems and the hardware and software that are used to create electronic documents can become obsolete. If they do, they may leave behind records that cannot be read without the original hardware and software. Further, the storage media for these records are affected by both obsolescence and decay. Media may be fragile, have limited shelf life, and become obsolete in a few years. For example, few computers today have disk drives that can read information stored on 8- or 5¼-inch diskettes, even if the diskettes themselves remain readable.

Another challenge is the growth in electronic presidential records. The Presidential Records Act gives the Archivist of the United States responsibility for the custody, control, and preservation of presidential records upon the conclusion of a President's term of office.<sup>3</sup> The act states that the Archivist has an affirmative duty to make such records available to the public as rapidly and completely as possible consistent with the provisions of the act.

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<sup>3</sup>44 U.S.C. § 2203(f)(1).



## Background

In response to these widely recognized challenges, the Archives began a research and development program to develop a modern archive for electronic records. In 2001, NARA hired a contractor to develop policies and plans to guide the overall acquisition of an electronic records system. In December 2003, the agency released a request for proposals for the design of ERA. In August 2004, NARA awarded two firm-fixed-price<sup>4</sup> contracts for the design phase, totaling about \$20 million—one to Harris Corporation and the other to Lockheed Martin Corporation. On September 8, 2005, NARA announced the selection of Lockheed Martin Corporation to build the ERA system. The total value of the contract with Lockheed through 2012 is about \$317 million, which includes provisions for award fees based on how well the contractor meets technical, program management, and cost-control criteria. As of the end of fiscal year 2010, NARA has paid Lockheed approximately \$199.5 million, including \$181.6 million for development and \$17.9 million for operations and maintenance.

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<sup>4</sup>According to the Federal Acquisition Regulation, a firm-fixed-price contract provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract. This type of contract places on the contractor maximum risk and full responsibility for costs and resulting profit or loss. 48 C.F.R. § 16.202-1.



## Background

The final operational ERA system is to consist of six key functions:

- *Ingest* enables the transfer of electronic records from federal agencies.
- *Archival Storage* enables stored records to be managed in a way that guarantees their integrity and availability.
- *Records Management* supports scheduling,<sup>5</sup> appraisal,<sup>6</sup> description, and requests to transfer custody of all types of records, as well as ingesting and managing electronic records, including the capture of selected records data (such as origination date, format, and disposition).
- *Preservation* enables secure and reliable storage of files in formats in which they were received, as well as creating backup copies for off-site storage.
- *Local Services and Control* regulates how the ERA components communicate with each other, manages internal security, and enables telecommunications and system network management.
- *Dissemination* enables users to search descriptions and business data about all types of records, and to search the content of electronic records and retrieve them.

<sup>5</sup>A record schedule is a document that describes agency records, establishes a period for their retention by the agency, and provides mandatory instructions for what to do with them when they are no longer needed for current government business.

<sup>6</sup>Records appraisal is the process of determining the value and the final disposition of records, making them either temporary or permanent.



## Background

NARA currently plans to deliver ERA system capabilities in five separate increments. Each increment involves multiple releases that are to deliver specific functionality. Below is a summary of the specific releases delivered or planned for delivery in each increment:

- Increment 1 was deployed in two releases. Release 1 established the ERA base system—the hardware, software, and communications needed to deploy the system. Release 2 enabled functional archives with the ability to preserve electronic data in their original format, enable disposition agreements and scheduling, and receive unclassified and sensitive data from four federal agencies; according to NARA officials, this increment was certified as complete in June 2008. However, additional enhancements were made to Increment 1, release 2 that were completed in March 2010.
- Increment 2 includes the EOP system, which was designed to handle records from the Executive Office of the President. This increment was to include the content searching and management for special access requests.<sup>7</sup> The EOP system was certified for initial operating capability in December 2008. However, NARA did not finish ingesting the presidential records it received from the George W. Bush administration until September 2009, 9 months after initial operating capability.

<sup>7</sup>These are requests NARA receives from the current and former administrations, the Congress, and the courts for access to presidential records. The priorities are determined by NARA's Office of Presidential Libraries based on experience with the records of previous administrations.



## Background

- Increment 3 is expected to include the following:
  - Storage and access capabilities for electronic records of the Congress. NARA received authority to operate the first release of Increment 3—the congressional records component—in January 2010.
  - Public access to provide the public with tools needed to search and access electronic records, including descriptions of archival records, copies of electronic records, and digital surrogates of non-electronic records. NARA completed a prototype of the Online Public Access (OPA) interface in April 2010 and plans to release the system for public use by December 2010.
  - Planning for preservation to include development of a preservation framework prototype. According to NARA, this prototype was completed in April 2010 and included functionality for file transformations and capturing preservation metadata, such as the relationship between different file versions.
  - Upgrades to the ERA base system to, among other things, integrate additional commercial-off-the-shelf products. Development and contractor testing of these upgrades were originally planned to be completed in March 2010 but, according to NARA officials, were not completed until November 2010—a slip of 8 months. These delays were due, in part, to unanticipated additional development work, as well as issues identified during testing that required additional work. According to NARA officials, as of December 2010, these upgrades were undergoing additional government testing.

NARA planned to complete Increment 3 in June 2010; however, due to the delays in upgrading the ERA base system, this milestone was postponed. According to NARA officials, Increment 3 is now expected to be delivered in January 2011—7 months later than planned.





## Background

- Increment 4 was originally planned to build upon the base architecture delivered as part of Increment 3 and insert newly available technology, particularly for preservation capabilities. Specifically, in its fiscal year 2010 expenditure plan, NARA stated that Increment 4 would provide capabilities for, among other things, managing access-restricted records, managing Freedom of Information Act<sup>8</sup> cases, and redacting records and managing redacted versions of records. However, NARA reduced the time allocated to this increment from 12 months to 3 months and revised the scope. In particular, all functionality planned to be implemented during this increment was deferred to Increment 5 or removed. According to NARA, the revised scope of this increment included, among other things, supporting the OPA and preservation framework prototypes, and early requirements work for Increment 5. This increment was completed in September 2010.
- Increment 5 is expected to expand on system capabilities implemented in the prior increments and address functionality deferred from previous increments. According to NARA, its development priorities for fiscal year 2011 include modifications to the ERA system needed to store classified records from the Iraq conflict, enable the faster release of George W. Bush presidential records when they are legally open to Freedom of Information Act requests in 2014, and store electronic records from the 2010 Census. NARA is currently negotiating the work to be completed during this increment with the development contractor.

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<sup>8</sup>The Freedom of Information Act establishes that federal agencies must provide the public with access to government information, thus enabling them to learn about government operations and decisions. 5 U.S.C. § 552.



## Background

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According to NARA, as of October 2010, the cost of the ERA program through fiscal year 2011 was between \$456 million and \$481 million,<sup>9</sup> which includes not only the development contract costs, but also program management, research and development, and program office support, among other things.

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<sup>9</sup>In June 2010, we reported that NARA's estimated cost for ERA through 2012 was \$567 million. See GAO, *Electronic Records Archive: Status Update on the National Archives and Records Administration's Fiscal Year 2010 Expenditure Plan*, GAO-10-657 (Washington, D.C.: June 11, 2010). Subsequently, as previously mentioned, OMB directed NARA to end development in 2011 and, as a result, the current cost estimate is lower than we previously reported.

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## Background

Table 1 shows reported spending from the program's inception to the end of fiscal year 2010.

**Table 1: Summary of ERA Spending from Fiscal Year 2002 through Fiscal Year 2010 (Dollars in millions)**

Project category	Spending
Development Contract—Lockheed Martin	\$199.5
System Analysis and Design Contracts—Lockheed Martin and Harris Corporation	40.8
Program Management	47.8
Program Office Support Team	34.3
Research and Development	27.2
Integrated Deployment and Support	16.0
Independent Verification and Validation	8.8
Security	0.2
End of Year Balance	0.4
Adjustments <sup>a</sup>	0.0
<b>Total</b>	<b>\$374.9<sup>b</sup></b>

Source: GAO analysis of NARA data.

<sup>a</sup>Recoveries of prior year funds, adjustments to obligations incurred, obligations against prior years, and carryover funds expiring at the end of fiscal year 2010.

<sup>b</sup>Total number may not equal the sum of individual items due to rounding.

In fiscal year 2010, NARA spent about \$41.7 million of the \$61.8 million in multi-year funds that it was provided by Congress to develop the ERA system, and plans to use the remaining balance of \$20.1 million in fiscal year 2011.



## Background

NARA's estimated ERA obligations for fiscal year 2011 in the President's budget request, including both single-year and multi-year funds, are \$85.5 million. Table 2 shows how NARA plans to distribute funds across the ERA program in fiscal year 2011.

**Table 2: Summary of NARA's Fiscal Year 2011 Estimated Obligations for ERA (Dollars in millions)**

Project category	Description	Estimated obligations
Development Contract	Activities performed under the ERA system acquisition contract with Lockheed Martin	\$61.8
Program Management	Salaries and benefits, supplies, equipment, and telecommunications	10.5
Program Office Support Team	Labor, contracts, and materials to support ERA program management	5.4
Research and Development	Research performed with other agencies	4.5
Independent Verification and Validation <sup>a</sup>	Verification and validation activities	1.8
Integrated Deployment and Support	Interagency agreements for ERA facilities, including Allegany Ballistics Lab at Rocket Center, West Virginia	1.5
Security	Security clearances for government personnel	0.1
<b>Total</b>		<b>\$85.5<sup>b</sup></b>

Source: GAO analysis of NARA's fiscal year 2011 expenditure plan.

<sup>a</sup>NARA contracted with Northrop Grumman to perform independent verification and validation on policies and plans produced by the ERA program and contract deliverables produced by Lockheed Martin.

<sup>b</sup>Total includes estimated obligations and does not include the balance of available multi-year funds from previous years. Total number may not equal the sum of individual items due to rounding.



## Background

NARA's fiscal year 2011 expenditure plan also included estimated ERA obligations at two additional funding levels—\$72.0 million and \$61.4 million—based on congressional direction. Table 3 shows how NARA plans to distribute funds across the ERA program at these funding levels.

**Table 3: Summary of NARA's Fiscal Year 2011 Estimated Obligations for ERA at Alternate Funding Levels (Dollars in millions)**

Project category	Description	Estimated obligations at \$72.0 million funding level	Estimated obligations at \$61.4 million funding level
Development Contract	Activities performed under the ERA system acquisition contract with Lockheed Martin	\$56.0	\$45.4
Program Management	Salaries and benefits, supplies, equipment, and telecommunications	9.5	9.5
Program Office Support Team	Labor, contracts, and materials to support ERA program management	3.4	3.4
Research and Development	Research performed with other agencies	1.5	1.5
Integrated Deployment and Support	Interagency agreements for ERA facilities	1.5	1.5
Security	Security clearances for government personnel	0.1	0.1
<b>Total</b>		<b>\$72.0*</b>	<b>\$61.4*</b>

Source: GAO analysis of NARA's fiscal year 2011 expenditure plan.

Note: For both alternate funding levels, NARA estimated obligations of \$30,000 towards Independent Verification and Validation, but this is not shown in the table because the amounts are equal to zero when converted into millions and rounded to one decimal place.

\*Totals include estimated obligations only and do not include the balance of available multi-year funds from previous years.



## Background Prior GAO Work

Since 2002, we have issued several reports on ERA and its development.<sup>10</sup> In November 2009, we testified that NARA had completed two of its five planned increments, but experienced delays and cost overruns, and several functions planned for the system's initial release were deferred.<sup>11</sup> We further testified that although NARA initially planned for the system to be capable of ingesting federal and presidential records in September 2007, the two system increments to support those records did not achieve initial operating capability until June 2008 and December 2008, respectively. In addition, NARA reportedly spent about \$80 million on the base increment, compared to its planned cost of about \$60 million.

<sup>10</sup>GAO, *Information Management: Challenges in Managing and Preserving Electronic Records*, GAO-02-586 (Washington, D.C.: June 17, 2002); *Records Management: Planning for the Electronic Records Archives Has Improved*, GAO-04-927 (Washington, D.C.: Sept. 23, 2004); *Information Management: Acquisition of the Electronic Records Archives Is Progressing*, GAO-05-802 (Washington, D.C.; July 15, 2005); *Electronic Records Archives: The National Archives and Records Administration's Fiscal Year 2006 Expenditure Plan*, GAO-06-906 (Washington, D.C.: Aug. 18, 2006); *Information Management: The National Archives and Records Administration's Fiscal Year 2007 Expenditure Plan*, GAO-07-987 (Washington, D.C.: July 27, 2007); *Information Management: Challenges in Implementing an Electronic Records Archive*, GAO-08-738T (Washington, D.C.: May 14, 2008); *Information Management: The National Archives and Records Administration's Fiscal Year 2008 Expenditure Plan*, GAO-08-1105 (Washington, D.C.: Sept. 26, 2008); and *Electronic Records Archive: The National Archives and Records Administration's Fiscal Year 2009 Expenditure Plan*, GAO-09-733 (Washington, D.C.: July 24, 2009).

<sup>11</sup>GAO, *National Archives: Progress and Risks in Implementing its Electronic Records Archive Initiative*, GAO-10-222T (Washington, D.C.: Nov. 5, 2009).



## Background Prior GAO Work

In our review<sup>12</sup> of NARA's fiscal year 2010 expenditure plan, we made three observations about the expenditure plan and ERA acquisition:

- The ERA system was experiencing cost increases, and system development was behind schedule. Since 2007, the ERA estimated life-cycle cost had increased from about \$531 million to \$567.4 million, or about 7 percent. In addition, the planned completion dates for two of the increments were about 1 year later than milestones established in program planning documents.
- NARA had not fully detailed the system capabilities to be included in the final two ERA increments. While the fiscal year 2010 expenditure plan provided a high-level description of these capabilities, it did not have fully defined plans, including specific dates for completion and what capabilities were to be delivered.
- NARA had not effectively defined or managed ERA's system requirements. Although NARA developed a baseline set of system requirements for ERA, it lacked firm plans to implement about 43 percent of them. In addition, NARA had not updated its requirements document to reflect changes as the project progressed and did not conduct system requirements reviews as called for in its requirements management plan.

Accordingly, we made recommendations to NARA to improve its investment review process and ensure that ERA's requirements are managed using a disciplined process.

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<sup>12</sup>GAO-10-657.



## Background Prior GAO Work

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More recently, we reported<sup>13</sup> on weaknesses in NARA's information security controls. For example, while the agency has maintained and tracked configuration changes for ERA, it has not consistently documented the status of those changes. As a result, NARA faces an increased risk that the integrity of the ERA system could be compromised. We recommended that NARA take steps to address its information security-related weaknesses.

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<sup>13</sup>GAO, *Information Security: National Archives and Records Administration Needs to Implement Key Program Elements and Controls*, GAO-11-20 (Washington, D.C.: Oct. 21, 2010).

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## Background Prior GAO Work

In addition, the Senate Committee on Homeland Security and Governmental Affairs and the House Committee on Oversight and Government Reform asked us to evaluate whether NARA is adequately using earned value management (EVM)<sup>14</sup> techniques to manage the ERA acquisition, as well as to evaluate ERA's earned value data to determine the program's cost and schedule performance. Among other things, we found that NARA has not yet fully implemented key practices for establishing a comprehensive EVM system. Further, we found that ERA's earned value data trends do not accurately portray program status and that if the full ERA system is completed as originally designed, ERA's costs could be between \$195 to \$433 million (34 to 76 percent) higher than NARA's previous estimate of \$567 million.<sup>15</sup> We are recommending, among other things, that NARA establish a comprehensive plan for all remaining work, including new life-cycle cost and schedule estimates for the program; improve the accuracy of earned value performance reports; and engage executive leadership in correcting negative trends. We plan to issue a report on this work in January 2011.

<sup>14</sup>EVM integrates the investment scope of work with schedule and cost elements for investment planning and control. The method compares the value of work accomplished during a given period with that of work expected in the period. Differences in expectations are measured in both cost and schedule variances. OMB requires agencies to use EVM as part of their performance-based management system for any investment under development or with system improvements under way.

<sup>15</sup>Our analysis of NARA's projected cost overruns was based on a NARA cost estimate that included development costs in 2012. As we discussed previously, OMB directed NARA to end development in 2011 and, as a result, the current cost estimate is lower than we previously reported.



## Background

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Citing our concerns related to the cost, schedule, and performance of the ERA system, OMB recently directed changes to the ERA program. Specifically, in July 2010, OMB directed NARA to halt all development activities by the end of fiscal year 2011 and develop an action plan to address our finding on the lack of defined system functionality for the final two increments of the ERA program and the need for improved strategic planning. In response, NARA plans to finish ERA development in 2011 with reduced functionality, as reflected in its fiscal year 2011 expenditure plan. However, as of December 2010, the revised scope of the program had not yet been determined because of ongoing negotiations with the contractor regarding the development activities to be completed in fiscal year 2011.

Despite changes in program direction, the Archivist noted that the essential goals of ERA would remain unchanged. He stated that beginning in fiscal year 2012, ERA would fully support the transferal of electronic records to an archival repository, as well as access and preservation of electronic archival records. To do this, the Archivist stated that the agency would work on those elements determined to be the highest priorities in fiscal year 2011. According to NARA, these changes may lead to a second phase of the ERA development in the future.



**Results**  
Legislative Conditions

**Objective 1: NARA's expenditure plan satisfies four of the fiscal year 2011 legislative conditions and partially satisfies two**

**Table 4: Fiscal Year 2011 Expenditure Plan Provisions for Satisfying Legislative Conditions**

Legislative condition	Status	Expenditure plan provisions
1. Meets OMB capital planning and investment control review requirements	Partially satisfied	<p>OMB requires agencies to develop capital planning and investment control review processes that help ensure that projects are being implemented at acceptable cost and within reasonable and expected time frames and that they are contributing to observable improvements in mission performance. In order to do this, agencies should establish an oversight entity that periodically reviews capital assets (e.g., the ERA system) to determine how mission requirements might have changed whether the asset continues to fulfill mission requirements and deliver intended benefits to the agency and customers. Further, agencies should indicate (i.e., document) that the investment has been reviewed and approved by the responsible oversight entity.</p> <p>NARA partially met this condition; it has established groups to oversee ERA's progress and provided them with regular briefings. However, NARA did not document approval of important schedule and scope changes to the ERA program. Specifically, Increment 4 was originally planned to build upon the base architecture and insert newly available technology; however, NARA reduced the time allocated to this increment from 12 months to 3 months and deferred originally planned functionality to Increment 5 or removed it. Approval of these changes was not documented through NARA's investment review process because, according to NARA officials, the agency instead relies on briefings to senior management to proceed with these changes. Further, NARA has not conducted any post-implementation reviews of deployed ERA capabilities, including the system's first two increments, as well as the first release of Increment 3—the congressional records component. According to NARA officials, these reviews were not conducted because the agency's IT policy does not require it and the ERA program instead relies on system acceptance testing to ensure that a system performs in accordance with stakeholder expectations. Without ensuring that key schedule and scope changes are approved and post-implementation reviews of deployed capabilities are conducted, NARA has limited ability to ensure that the system is being implemented at acceptable cost and within expected time frames, and that deployed capabilities are contributing to observable improvements in mission performance.</p>



## Results Legislative Conditions

Legislative condition	Status	Expenditure plan provisions
2. Complies with NARA's enterprise architecture	Satisfied	<p>OMB requires NARA to include ERA in its agency-level enterprise architecture, which is updated on a yearly basis. NARA's most recently approved agencywide enterprise architecture—version 5.5 updated in May 2009—includes ERA and consists of several component architectures, including business, data, systems, application, operations, performance, and information technology security architectures. In May 2010, NARA released its annual update to its enterprise architecture, version 5.6; however, it has not yet been reviewed by OMB.</p> <p>In addition, OMB requires that any major IT investment be mapped to and support the Federal Enterprise Architecture. The business case for the investment must also demonstrate the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's architecture. NARA's business case for the ERA system certified compliance with these requirements and was approved by NARA's Acting Chief Information Officer at the time.</p>
3. Conforms with NARA's enterprise life-cycle methodology	Satisfied	<p>The ERA project conforms with NARA's life-cycle methodology. For example, the expenditure plan includes descriptions of the incremental approach the agency has adopted for acquiring ERA and its management of program risks. In particular, the risk management methodology calls for the agency to identify and categorize risks, qualify the probabilities and consequences of the risks, specify a strategy to mitigate each risk, communicate risk status, and formulate actions needed to mitigate the risk.</p> <p>NARA manages risks using an agency-level risk review board and a program-level risk review board. In addition, the ERA program office produces monthly reports that include top identified risks and specify associated mitigation strategies. The office also generates reports of pending or active risks from its risk management database that specify the probability and consequences of identified risks. Further, risk status is communicated to senior NARA management on a monthly basis, to OMB through ad-hoc technical review sessions, and to Congress on a quarterly basis. The quarterly reports also identify executive actions needed to mitigate risks.</p>



## Results Legislative Conditions

Legislative condition	Status	Expenditure plan provisions
4. Complies with the acquisition rules, requirements, guidelines, and systems acquisition management practices of the federal government	Satisfied <sup>a</sup>	NARA satisfied this provision by implementing key processes that reflect best practices for acquiring software-intensive systems, like ERA. The quality of software is governed largely by the quality of the processes involved in developing or acquiring it and maintaining it. Carnegie Mellon University's Software Engineering Institute (SEI), <sup>b</sup> recognized for its expertise in software processes, has developed models and methods that define and determine organizations' software process maturity. Specifically, NARA conducted internal assessments in 2002 and 2004 that used SEI's SA-CMM <sup>c</sup> methods to determine the maturity of ERA's system policies, processes, and practices and implemented a process to address the assessment's recommendations. In addition, NARA's Chief Information Officer certified that the ERA program continues to be in compliance with the Clinger-Cohen Act on November 19, 2009. <sup>d</sup>
5. Approved by NARA and OMB	Partially satisfied	<ul style="list-style-type: none"> <li>NARA—October 1, 2010</li> <li>OMB—NARA officials stated that the expenditure plan was not reviewed by OMB prior to submitting it to Congress. Officials stated that OMB will only review the expenditure plan if there is an existing appropriations bill with language requiring its review. Without approval from OMB, Congress will have limited assurance that the plan is accurate and reliable.</li> </ul>
6. Reviewed by GAO	Satisfied	GAO—December 21, 2010, briefing to congressional appropriations committees.

Sources: GAO analysis of NARA data and the Consolidated Appropriations Act, 2010.

<sup>a</sup>We did not independently examine NARA's compliance with acquisition rules of the federal government. Instead, we limited our analysis to the agency's use of the Software Engineering Institute's Capability Maturity Model and certification from NARA's Chief Information Officer that the ERA program is in compliance with the Clinger-Cohen Act.

<sup>b</sup>SEI is a federally funded research and development center operated by Carnegie Mellon University and sponsored by the Department of Defense. It provides leadership in software engineering and in the transition of new software engineering technology into practice.

<sup>c</sup>The Software Acquisition-Capability Maturity Model (SA-CMM) identifies key process areas that are essential to effectively managing software-intensive system acquisitions.

<sup>d</sup>Among other things, the Clinger-Cohen Act of 1996 required OMB to establish processes to analyze, track, and evaluate the risks and results of major capital investments in IT systems made by executive agencies. As such, OMB developed policy and issued guidance for the planning, budgeting, acquisition, and management of federal capital assets.





## Results

### Prior Recommendation Status

#### Objective 2: NARA has partially implemented most of our open recommendations

In July 2009 and June 2010, we made recommendations to NARA to help improve the expenditure plan and ERA acquisition. NARA has implemented one of our recommendations and partially implemented three.

**Table 5: Status of NARA's Progress in Implementing Prior GAO Recommendations**

Prior GAO recommendations	Implementation status	Status as of November 2010
Ensure that ERA's requirements are managed using a disciplined process that results in requirements that are traceable throughout the project's life cycle and are kept current (GAO-10-657).	Implemented	NARA updated its ERA requirements document and conducted a gap analysis to identify which requirements had been satisfied and which remained outstanding. The results of this analysis were entered into an automated requirements tracking tool to facilitate traceability analyses. Further, in September 2010, NARA developed a process to ensure that the ERA requirements document is kept current following significant changes to the program, such as significant modifications to the contract or change requests to the system.
Ensure that NARA's investment review process has adequate executive-level oversight by maintaining documentation of the results of reviews, including changes to the program's cost and schedule baseline and any other corrective actions taken as a result of changes in ERA cost, schedule, and performance (GAO-10-657).	Partially implemented	NARA documented meetings that NARA senior management attended where the ERA program was discussed and documented corrective actions that were proposed in response to issues related to the ERA program. In addition, NARA conducted and documented briefings to senior management on the status of the ERA program's cost, schedule and performance, and the status of corrective actions. However, NARA did not document approval of significant changes to Increment 4, including reducing the increment's timeframe from 12 months to 3 months, through its investment review process.



## Results

### Prior Recommendation Status

Prior GAO recommendations	Implementation status	Status as of November 2010
Provide detailed information in future expenditure plans on what was spent and delivered for deployed increments of the ERA system and cost and functional delivery plans for future increments (GAO-09-733).	Partially implemented	NARA's fiscal year 2011 expenditure plan includes additional information on ERA cost, schedule, and performance. For example, NARA's 2011 plan discusses the estimated amount spent on Increment 3 in fiscal year 2010 through August 2010 (\$18.8 million) and the delivery dates of the first release—the congressional records component—in December 2009, and two prototype systems, in April 2010. It also discusses plans to achieve a significant milestone in system testing for the final component of Increment 3—upgrades to the ERA base system—in early fiscal year 2011. For Increment 4, the 2011 plan includes the estimated amount spent in fiscal year 2010 through August 2010 (\$16.3 million) and a description of significant changes to the increment's schedule and scope, including the removal of planned functionality. Further, the 2011 plan includes the estimated cost of Increment 5 (\$49.8 million) and planned functionality, including OPA. However, the plan does not fully discuss other important information. For example, although it estimates the amount spent on Increments 3 and 4 in fiscal year 2010, it does not show how these costs compare to the amount NARA planned to spend on these increments, as reported in the fiscal year 2010 plan. Further, the plan does not include the estimated delivery date of Increment 3, nor the estimated fiscal year 2011 costs associated with completing this increment. Lastly, while the plan describes the expected functionality and costs planned for Increment 5 during fiscal year 2011, this information is not reliable because of, among other things, weaknesses in the cost estimating methodology (as discussed later in this briefing).



## Results

### Prior Recommendation Status

Prior GAO recommendations	Implementation status	Status as of November 2010
Strengthen the earned value process so that it follows the practices described in GAO's Cost Estimating Guide and more reliable cost, schedule, and performance information can be included in future expenditure plans and monthly reports (GAO-09-733).	Partially implemented	In response to our recommendation, NARA developed but has not fully implemented an action plan to improve its earned value processes to follow best practices described in GAO's Cost Estimating Guide. <sup>9</sup> However, NARA continues to have weaknesses in its implementation of earned value processes and has not yet fully implemented key practices for establishing a comprehensive earned value management system, ensuring that the resulting data are reliable, and using earned value data for decision-making purposes. In addition, ERA's earned value data trends do not accurately portray program status, and future cost overruns would likely be between \$195 and \$433 million if the full ERA system is completed as originally designed.

Source: GAO analysis of NARA data.

<sup>9</sup>GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, GAO-09-3SP (Washington, D.C.: March 2009).





## Results Observations

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### Objective 3: Observations about NARA's 2011 ERA Expenditure Plan and Acquisition

**Observation 1:** *NARA's ERA fiscal year 2011 expenditure plan does not provide a reliable basis for informed investment decision-making.*

NARA's expenditure plan should include a sufficient level and scope of information for Congress to understand what system capabilities and benefits are to be delivered, by when, and at what costs, and what progress is being made against the commitments that were made in prior expenditure plans. However, NARA's plan does not clearly show what functions have been delivered to date and at what costs, and what additional system capabilities are planned for fiscal year 2011, including reliable costs estimates for these capabilities.

The fiscal year 2011 expenditure plan includes three different spending scenarios: \$85.5 million—based on the President's budget request, and two additional figures—\$72 million and \$61.4 million—based on congressional direction. In addition, as previously mentioned, NARA also submitted a revised summary of its expenditure plan that includes two different spending scenarios: (1) \$72 million and (2) \$65 million.



## Results Observations

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The fiscal year 2011 expenditure plan does not clearly show what functionality has been delivered to date, or how the actual costs of ongoing and completed increments compare to planned costs, as documented in the fiscal year 2010 expenditure plan. Specifically, it is unclear from the expenditure plan exactly what Increment 3 functionality has been delivered to date because the information provided does not consistently provide adequate detail to understand the status. For example, the plan provides status information for system functions included in Increment 3, such as the output of assets (i.e., electronic records) in various formats; however, it does not provide other important information, such as the types of file formats that have been completed to date.

Further, while the fiscal year 2011 expenditure plan reports the estimated amounts spent on Increments 3 and 4 during fiscal year 2010, it does not compare these amounts to what was planned to be spent on these increments, as reported in the fiscal year 2010 plan. For example, in its fiscal year 2010 expenditure plan, NARA indicated that it planned to spend approximately \$16.6 million on Increment 3 development during fiscal year 2010; however, in its fiscal year 2011 plan, NARA estimated that it had already spent \$18.8 million on Increment 3 development as of August 2010—an increase of \$2.2 million, with one month remaining in the fiscal year. NARA's fiscal year 2011 expenditure plan did not compare these planned or actual amounts or include a discussion of why costs were higher than planned.



## Results Observations

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Even though NARA plans to end development in fiscal year 2011, the fiscal year 2011 expenditure plan does not clearly show what functionality is planned to be delivered, by when, and at what cost during this period. For example, as previously mentioned, NARA originally planned to complete Increment 3 in June 2010, but experienced delays in upgrading the ERA base system. According to NARA officials, this increment is now expected to be delivered by January 2011. However, NARA's fiscal year 2011 expenditure plan does not discuss the delivery date of Increment 3, nor the fiscal year 2011 costs associated with completing this increment.



## Results Observations

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In addition, while best practices call for the development of realistic and well-documented cost estimates, NARA's fiscal year 2011 cost estimates are unreliable and do not provide an accurate basis for realistic budget formulation. A reliable cost estimate is critical to the success of any IT program, as it provides the basis for informed investment decision-making, realistic budget formulation and program resourcing, meaningful progress measurement, proactive course correction, and accountability for results. Our research has identified a number of practices for effective program cost estimating.<sup>16</sup> Among other things, the methodology used to perform the cost estimate should be clearly documented, including traceability back to the original data sources, and the estimate should include clearly documented calculations and results. Further, in cases where estimates are based on data derived by the subjective judgment of engineers or other technical experts, this data should be validated before being used in a cost estimate. Validation involves cross-checking the results, in addition to analyzing the data and examining the documentation for the judgment.

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<sup>16</sup>GAO-09-3SP.



## Results Observations

While NARA has documented the cost estimates used as the basis for determining its fiscal year 2011 funding requests, there are limitations in the supporting methodology, resulting in estimates that do not reliably reflect the work to be completed. Specifically, NARA stated that the cost estimates for key components (e.g., ERA base, OPA) were based on information provided by the contractor, including estimates of the total lines of software code required and the related costs. According to NARA officials, the lines of code required for each task are based on the contractor's analysis of the complexity, duration, and interdependencies of the task with other requirements.

However, there are weaknesses in NARA's methodology. While NARA's documentation included the estimated lines of code required and the related costs (as provided by the contractor) for planned development tasks, NARA did not provide evidence of the traceability of these estimates back to their original data sources. For example, NARA's cost estimates for providing OPA functionality were based, in part, on requiring 1,800 lines of code to implement user registration; however, NARA could not provide documentation to support this estimate and others. In addition, NARA did not fully validate important data provided by the contractor, such as the lines of code required for planned tasks, when preparing its fiscal year 2011 cost estimates. This is important because our analysis of NARA's documentation showed that the estimated cost of each line of code ranged from \$287 to \$4,737. While NARA officials stated that the lines of code required would be reviewed during negotiations with the contractor, this has not yet been completed. Without validating the contractor's estimates by, for example, cross-checking the results against other sources, it is unclear whether such a wide range of costs for each line of code are justified based on the complexity of the planned development work. As a result, NARA's cost estimates do not provide a reliable basis for informed investment decision-making and realistic budget formulation.



## Results Observations

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NARA officials attributed many of the issues that we found with the reliability of the expenditure plan, in part, to ongoing program uncertainty due to negotiations with its development contractor. NARA provided descriptions of tasks for fiscal year 2011 development activities to Lockheed Martin and, as of December 2010, is working with the contractor to refine them.

Without more specific information on what functionality will be delivered before the completion of development at the end of fiscal year 2011 and more reliable cost estimates associated with those functions, appropriators will continue to lack important information for evaluating NARA's request and have limited ability to measure overall program progress.



## Results Observations

**Observation 2:** *NARA's fiscal year 2011 expenditure plan does not address how remaining multi-year funds from fiscal year 2010 will be allocated.*

NARA's fiscal year 2011 expenditure plan mentions a balance of remaining multi-year funds, but the plan does not specify how the agency plans to allocate these funds. Specifically, in fiscal year 2010, NARA spent about \$41.7 million of the \$61.8 million in multi-year funds that it was provided by Congress to develop the ERA system, which resulted in a balance of \$20.1 million that is available for obligation in fiscal year 2011. NARA's fiscal year 2011 expenditure plan includes planned ERA system capabilities at three different funding levels—\$85.5 million, \$72 million, and \$61.4 million, and its revised summary of the expenditure plan includes an updated list of planned of ERA system capabilities and associated costs at two additional funding levels—\$72 million and \$65 million, but none of these estimates include the planned ERA capabilities to be delivered with the \$20.1 million remaining from fiscal year 2010. According to NARA officials, NARA will use the \$20.1 million to fund development efforts needed to make the ERA system available to all federal agencies, as well as to fund other operations and maintenance costs. However, NARA's plans for using these funds and their supporting details are not included in the fiscal year 2011 expenditure plan or the revised summary provided to Congress. Until NARA specifies how it will use the multi-year funds remaining from fiscal year 2010, appropriators will lack information important for evaluating NARA's request.



## Results Observations

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**Observation 3:** *NARA has not yet determined which ERA requirements will be implemented in fiscal year 2011, nor fully prioritized the remaining requirements.*

System requirements describe the functionality needed to meet user needs and perform as intended in the operating environment and should be clearly defined and managed throughout the project in a disciplined way. Among other things, requirements should be prioritized to guide the acquirer in determining which requirements to include the project scope.<sup>17</sup> As work products are developed and more is learned about the system that is being developed, information is occasionally found that requires a change to the original requirements. Maintaining a prioritized set of system requirements can better ensure that the requirements that are most critical to the customer and other stakeholders are addressed quickly.

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<sup>17</sup>Software Engineering Institute, *Capability Maturity Model® Integration for Acquisition, Version 1.2*, CMU/SEI-2007-TR-017 (Pittsburgh, Pa.: November 2007).





## Results Observations

NARA recently revised its requirements, and our analysis reveals that it has made less progress in completing ERA than reported earlier this year. In June 2010, we reported that NARA had developed and documented a set of 853 high-level business requirements for ERA and planned to complete about 57 percent of them by the end of fiscal year 2010. Subsequently, in July 2010, NARA updated the ERA requirements. According to NARA, the original 853 requirements were decomposed to a level such that each requirement could only be allocated to one increment (e.g., Increment 1) and one component (e.g., ERA base). This resulted in a revised set of 1,577 requirements, portions of which were allocated to Increments 1 through 5, deferred to post-Increment 5, or removed from the scope of the ERA program.

Our analysis of the 1,577 revised requirements indicates that only 36 percent of the requirements had been implemented by the end of fiscal year 2010—a 21 percent decrease in planned progress compared to earlier this year, even though NARA spent more time than planned on system development. Specifically, as of November 2010, we found that NARA had identified 571 (36 percent) of the revised requirements as implemented. NARA also indicated that roughly 8 percent of the remaining requirements would be completed when Increment 3 is delivered, 11 percent of the requirements were removed from the program, and an additional 18 percent are to be addressed after the completion of the current development contract at the end of fiscal year 2011 (i.e., post-Increment 5). For the remaining 430 requirements (27 percent of the total) NARA could not determine whether they would be addressed in fiscal year 2011 because, NARA officials said, they were subject to ongoing negotiations with the development contractor.



## Results Observations

Table 6 shows the status of the ERA requirements.

**Table 6: Status of NARA ERA Requirements (as of October 2010)**

Requirements category	Requirements implemented	Requirements not yet implemented
Increment 1	319	0
Increment 2	158	0
Increment 3	94	128
Increments 4 and 5	0	430
Deferred to post-Increment 5	n/a	277
Removed	n/a	171 <sup>a</sup>
<b>Total</b>	<b>571</b>	<b>1,006</b>

Source: GAO analysis of NARA data.

<sup>a</sup>According to NARA, 33 requirements were removed because they were too high-level to accurately track, while the other 138 were removed because, among other things, they were no longer valid based on NARA's business process or the ERA implementation approach.



## Results Observations

The uncertainty about which requirements will be completed in the coming year is attributable in part to NARA not fully prioritizing its requirements. As previously mentioned, maintaining a prioritized set of system requirements can better ensure that the requirements that are most critical to the customers and other stakeholders are addressed quickly. To its credit, NARA prioritized its major business functions planned for fiscal year 2011 and used those prioritized business functions during negotiations with the development contractor. For example, NARA has prioritized certain functions associated with its planned OPA system, such as user registration and the ability to download certain electronic records. However, NARA has not fully prioritized the remaining 430 ERA system requirements under negotiation with the contractor. While NARA has prioritized 242 of the 430 requirements (about 56 percent), it has not prioritized the remaining 188 requirements (about 44 percent), nor used a full set of prioritized requirements during negotiations with the contractor regarding the scope of work to be completed in the final year of development.

The ERA requirements are not fully prioritized, in part, because the ERA Requirements Management Plan, dated December 2003, only requires prioritization of the requirements during the program's concept exploration phase. However, significant changes to the ERA program have occurred since this phase ended in 2004, including the recent updates to the ERA requirements in July 2010. Although NARA recently issued a supplemental requirements control process in September 2010 to ensure that the ERA requirements are kept current following changes to the program (such as significant modifications to the contract), this process does not include evaluating the prioritization of the requirements after major changes occur. Until the ERA program fully prioritizes the ERA requirements to be completed during fiscal year 2011, it will be unclear whether planned system development work will result in functionality that is most critical to the customer and other stakeholders.



## Conclusions

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NARA's fiscal year 2011 expenditure plan met four of the six legislative conditions, but the lack of critical capital planning and oversight steps, including documentation demonstrating approval of significant changes to a recent ERA increment, post-implementation reviews of deployed capabilities, and OMB's approval of the expenditure plan, limits NARA's ability to ensure that the system is being implemented at an acceptable cost and within expected time frames and contributes to observable improvements in mission performance. These issues are further exacerbated by problems with NARA's information security controls and the agency's partial implementation of several open GAO recommendations, such as those related to improving investment oversight and earned value processes. With significant weaknesses in many basic oversight and management processes, as well as continued delays in completing Increment 3, NARA's ability to make significant development progress in the remainder of the fiscal year will be challenged.

In addition, without a reliable ERA expenditure plan, NARA has not provided adequate information to assist congressional oversight and informed decision-making related to the use of appropriated funds. When combined with the lack of prioritization of the remaining requirements under negotiation for fiscal year 2011, Congress has little assurance that additional funds allocated to ERA will result in significant benefits to federal taxpayers. With OMB's direction to stop development after 2011, it is unclear whether NARA will be able to effectively address the full range of weaknesses we identified and still have adequate time to complete significant development efforts.



## Matter for Congressional Consideration

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The identified deficiencies in NARA's expenditure plan and management of the ERA acquisition make it unclear whether NARA can make substantial progress in delivering additional ERA system capabilities by the end of fiscal year 2011 that justify its planned investment. As such, we suggest that Congress consider employing an accountability mechanism that limits NARA's ability to use funds appropriated for ERA development until NARA implements an adequate capital planning and investment control process, updates its expenditure plan to clearly describe what system capabilities and benefits are to be delivered in fiscal year 2011, and establishes an associated set of prioritized system requirements and adequate earned value reporting.



## Recommendations for Executive Action

We are recommending that the Archivist of the United States immediately take the following two actions while the current system development contract is active:

- Report to Congress on the specific outcomes to be achieved in fiscal year 2011 with the balance of any previous multi-year funds.
- Ensure that the ERA requirements planned for fiscal year 2011 are fully prioritized so that those that are most critical to NARA's customers and other stakeholders are addressed.

To ensure that any future efforts are completed within reasonable funding and time constraints, we are recommending that the Archivist of the United States take the following four actions:

- Ensure that significant changes to ERA's program's cost, schedule, and scope are approved through NARA's investment review process.
- Conduct post-implementation reviews of deployed ERA capabilities to validate estimated benefits and costs.
- Submit ERA expenditure plans to OMB for review and approval prior to submitting to Congress.
- Update the ERA Requirements Management Plan and related guidance to require requirements prioritization throughout the project's life cycle.



## Agency Comments and Our Evaluation

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We provided a draft of this briefing for review and comment to the Archivist of the United States. In oral comments, the Archives' GAO liaison stated that NARA generally agreed with our findings. NARA did not comment on our recommendations. The liaison also commented that NARA would like a member of GAO's staff to be assigned to help the agency address the ERA program's weaknesses. Establishing such a consultative working relationship would create the appearance of a conflict of interest under GAO's professional standard for independence. However, we remain committed to working with NARA to discuss or clarify any issues raised in this product.

# Appendix II: Comments from the National Archives and Records Administration



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15 February 2010

Government Accountability Office  
Director of Information Technology Management Issues  
Mr. David A. Powner  
441 G Street NW  
Washington DC, 20548

Dear Mr. Powner:

Thank you for the opportunity to comment on the draft report GAO-11-299, *Electronic Government: National Archives and Records Administration's Fiscal Year 2011 Expenditure Plan*. As with prior ERA related reports, we find the observations and recommendations in this report to be helpful as we move forward.

The report includes six recommendations. We concur with all and believe that we have sufficiently satisfied the first two. We will provide documentation for these recommendations under separate cover. The last four recommendations are specific to a future ERA. Since we do not know when new development efforts may start, nor the scope or cost of such development, we are unable to address them in a near term action plan.

Please note that we are also developing an addendum to the FY 2011 Expenditure Plan. The addendum is being prepared pursuant to an agreement reached at an ERA meeting attended by Senate and House Appropriations Committee staffs, GAO, OMB, and NARA to provide updated, clarified information on requirements, costs, and the schedule of software releases. At GAO's request, NARA has also included additional information related to security, cost estimating, and requirements.

If you have any questions regarding this memo or our action plan process, please contact Mary Drak, NARA's Audit Liaison at 301-837-1668 or via email at [mary.drak@nara.gov](mailto:mary.drak@nara.gov).

David S. Ferriero  
Archivist of the United States

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contact

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## Staff Acknowledgments

In addition to the individual named above, key contributions to this report were made by James R. Sweetman, Jr., Assistant Director; Monica Perez-Nelson; Eric Costello; Lee McCracken; Tarunkant Mithani; Karl Seifert; Jonathan Ticehurst; and Adam Vodraska.

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