

At the Spy Museum

Black Tie Optional! NCC-AIIM June Social

Friday, June 20, 2008

Joint meeting with ARMA



www.spymuseum.org

#### THE CLOCK IS TICKING: NARA ERA GOING LIVE!

Ken Thibodeau, Director

Electronic Records Archives Program

National Archives and Records Administration



Will we have a future?

Will our future be crippled or impoverished by the inability to reach back and retrieve important information?



### The page cannot be displayed because you need some fresh air

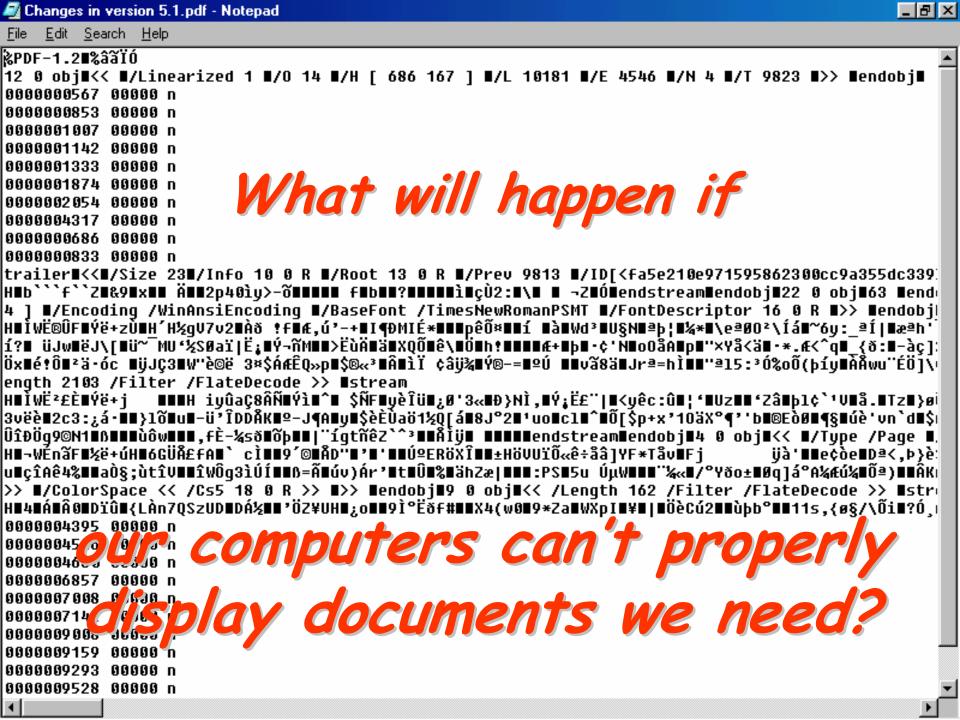
The page you are looking for is currently unavailable. Your ISP has told us that you're on-line several hours every day, and that just ain't right.

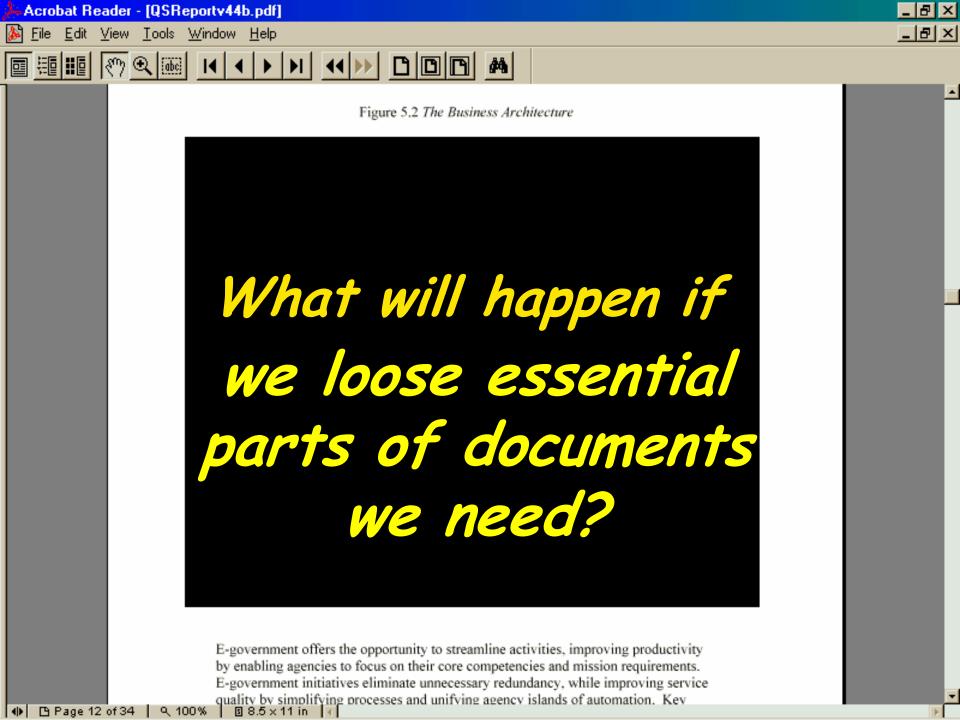
Please, for the love of god, try the following:

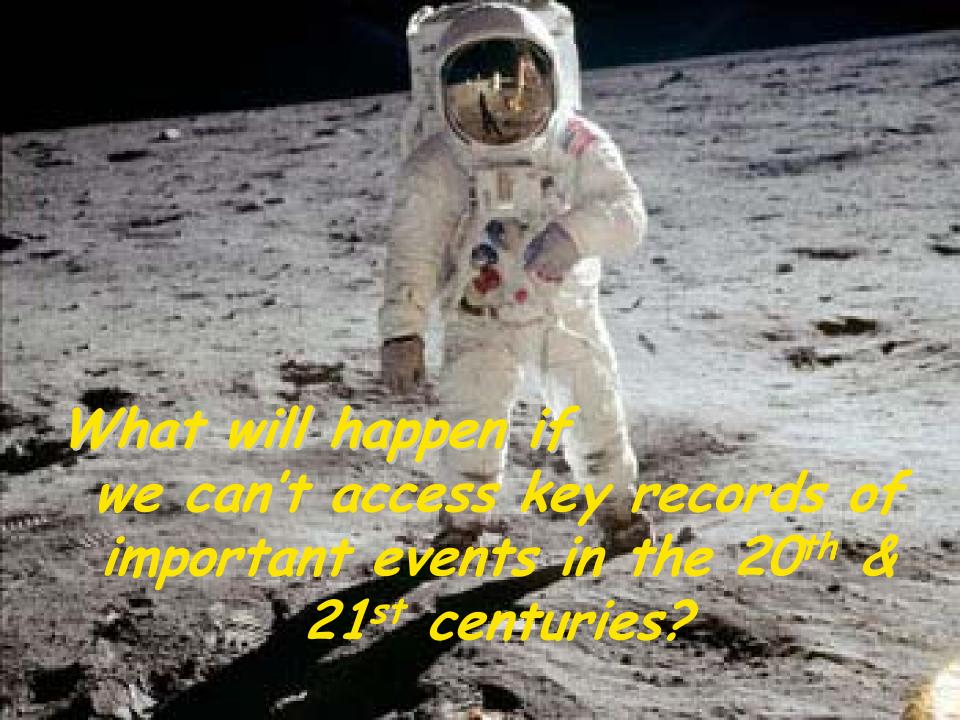
- Don't click the 🗗 Refresh button. Go outside now.
- If you are about to spend another \$100 at Amazon, then please contact Amazon Anonymous.
- To go outside, first click the Cyber Hypnosis menu, and then click Cold Water in the Face. On the Numb Ass tab, click Sedentary Back Pain. The Get Out of Your Chair settings should match those provided by your local area network (LAN) administrator.
- If your Evil Computer Addict Persona has enabled it, we can examine your network and quickly discover a way to wake you up from your computer-induced stupor.
- If you would like Windows to try and discover them, click <u>Detect Computer-Induced Stupor</u>
- There are a host of things awaiting you in the outside world: fishing, skiing, skeet shooting, triatholons, PTA meetings, and dentist appointments, for example.
- If you are unable to get up, click here and your power strip will emit a large enough shock to scare you back to your senses. If that doesn't work, then we give up. You are officially in need of serious help. Dial 1-800-GET-HELP on your computer's keypad to reach a mental hospital near you.
- Click the Back button to melt your computer.

What will happen if we can't retrieve documents we need?

Cannot find reality files Internet Explorer









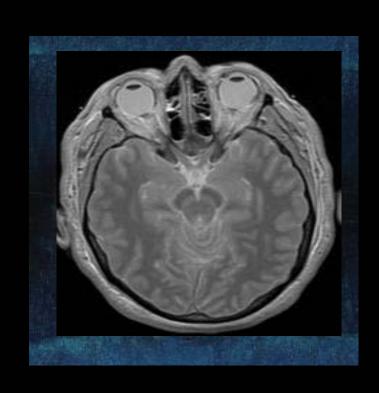
we loose the ability to analyze past mistakes?



we loose the ability to maintain critical infrastructure?









Doctors cannot access complete patient's medical records over the life of the patient?



## What are the Chances?





### Reasons for Pessimism

- The volume of data is increasing exponentially.
- The variety and complexity of digital data are increasing.
- No one knows how to preserve and provide sustained access to authentic electronic records for most digital formats.
- No one knows what information technology will be in the future.
  - People will want to use the best available technologies to discover and access records from the past
  - The best technologies will not be those that were used originally to create, process, and store the records.
- Resources needed to address the challenges are very large

## Reasons for Optimism



Increasing interdisciplinary collaborations are addressing the problem



More and more resources are being devoted to solving the problem



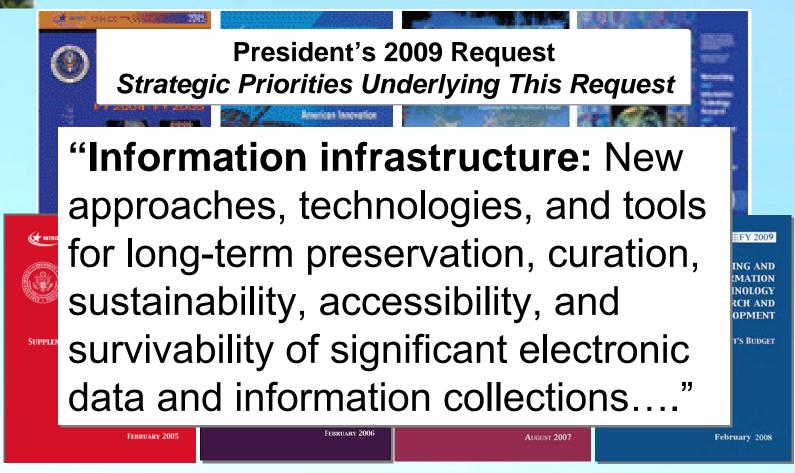
Recognition of the importance of the challenge is growing



No technological barrier has been identified that would prevent successful solutions from being developed



## Reasons for optimism



The Networking and Information Technology Research & Development Program

## Reasons for optimism

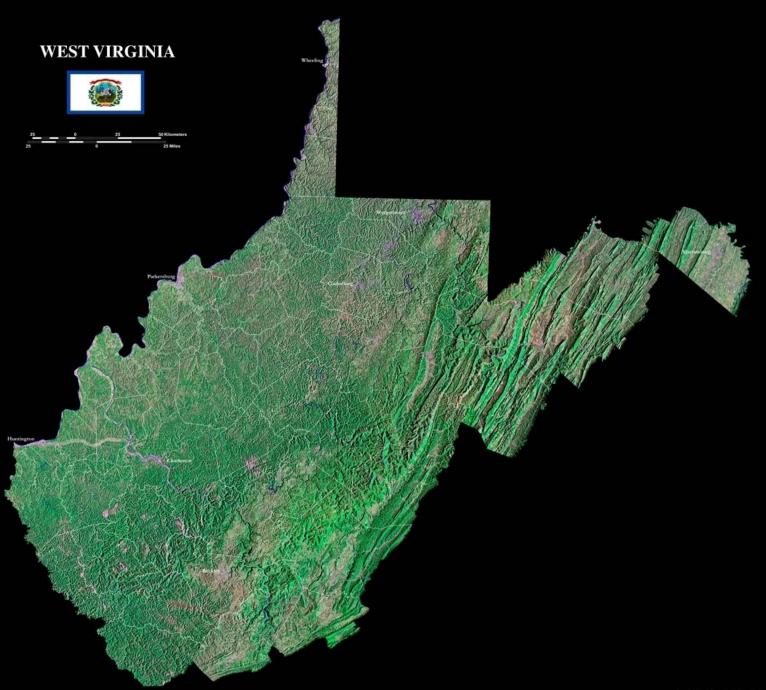


National Archives and Records Administration Electronic Records Archives Program









## Rocket Center, WV









# Status of ERA Development: Requirements

- No indecision about what is required.
- NARA's requirements were
  - Defined in an iterative process involving the entire agency, from top to bottom, and including input from the IT industry and the general public
  - Definitized in the ERA Requirements
     Document in December 2003
  - Stable ever since.

# Status of ERA Development: Costs

- The ERA development has suffered both cost underruns and cost overruns.
- Underrun:
  - the cost of the Initial Operating Capability, as orginally defined by NARA, turned out to be twice the level of funding that became available in the two year period: \$134 M v. \$63 M.
    - NARA and Lockheed Martin renegotiated the contract to define a smaller, but still worthwhile IOC system within available funding.
- Overrun:
  - The delay in reaching IOC is expected to increase its price by an estimated \$16 M.

### Status of ERA Development.

### Deliverables

- Unlike some other major system developments in the Federal Government, NARA is getting the system it contracted for.
- The delivery of the first operational system has been delayed from the original target of September 2007.
  - Since reaching agreement with NARA on a revised schedule, the contractor has not missed a single deadline.
- The IOC system will be worthwhile. It will be used immediately by NARA and four other agencies

# GAO Observations on the Current State of the ERA Program

- "NARA Is Working to Overcome ERA Schedule Delays through Parallel Development Projects, but Uncertainties Remain"
  - ☐ "ERA Base System Is Generally on Schedule to Achieve IOC, but Testing Delays Are a Risk"
  - ☐ "EOP System Is Being Developed, but Completing the Development in Time for the Presidential Transition Is Uncertain"
    - Testimony to U.S. Senate, Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, May 14, 2008

Will NARA overcome the Risks to Initial Operating Capability?



# When Will ERA Reach Initial Operating Capability (IOC)?



#### Buropean News.

LATER FROM ENGLAND.

The ship Emerald, Captain Prindle, arrived from Liverpool, sailed 21st of July.

MONDAY, July 17.

Nothing could exceed the interest excited by the Nothing could exceed the interest excited by the announcement, that the Queen would this day prorogue Parliament in person. At an early hour, all the avenues leading to the galleries of the House of Lords were crowded with ladies anxiously waiting the hour of admission, which was fixed for twelve

The Lord Chancellor habited in his state robes, en-



BY W. L. MACKENZIE.

TORONTO, UPPER CANADA, WEDNESDAY MORNING, SEPTEMBER 6, 1837.

Shortly after the first Republican constitution of the state of New York was framed and the judiciary system was established for the civil department, the supreme court, or that branch of it called the "circuit court," was appointed for one of the circuits, in the county of Dutchess, and the eccentric Judge Crane was to preside --Judge Crane was very wealthy, and highly respected for his public and private virtues,

especially for his charitableness to the poor;

ut he always dressed in a plain early

JUDGE CRARE.

## **ERA Will Achieve Operating** Capability on June 27.

Viscoust Duscanson, and the Doke of Norfolk, stood; on the steps of the throne, to the right of her minjest, and on the left stood Viscoust Melbournes, the Doke of Somerest, and the left stood Viscoust Melbournes, the Doke of Somerest, and the plendelly attired. Beneath a mandle and train of the richest crimon she wore a robe of white stain wrought with gold; a crelet of diamonds glittred on her brow; the blue riband of the order of the gutter crossed her basom and fastened on the left side; a profusion of large and costly diamonds long; on her neck.

or white satin wrought with gold; a carelet of diamonds glitreed on her hove; the blue riband in the control of ing gracefully forward, and with an easy gesture of the hand, "My Lords, be scated." Sir Augustus Clifford, the Usher of the Black Rod,

was then directed to summon the Commons, and in a few minutes the Members of that House headed by the Speaker, appeared before the bar. The turbulent mode of their entrance, and the almost boisterous struggle for precedence that took place between some of them appeared to afford her Mujesty much amuse-ment. She smited, and looked quickly round at the Lords who stood near the Throne. After a short

THE PROBOGATION.

Her Majesty then read in a clear and unfaltering tone, and with an unequalled sweetness of voice, the

" My Lords and Gentlemen,

"I have been anxious to seize the first opportunity meeting you, in order that I might repeat in person y cordial thanks for your condolence upon the death

rentes that is 12 children with their parents were as-sembled recently in the church at Bellinansdorf, the building was struck by a flash of lightning so intense that nearly all present, including the priced at the al-tar, fell senseless. Medical assistance was immedia-cly obtained, and all were speedily recovered except one girl, 13 years of age.

Archibald Earl of Gosford, Baron Worlingham of Beccles in the County of Suffolk, Captain General and Governor-in-Chief in and over the Provinces of Lower Canada and Upper Canada, Vice Admiral of the same, and one of Her Majesty's Most Honorable Privy Council, &c.

MAY IT PLEASE YOUR EXCELLENCY.

Are provided for the expenditure of the year with a strict regard to economy, but with a liberality second to control, the control of the country. We now duileful offer own with a strict regard to economy, but with a liberality second to economy the wind a liberality second to economy. We now duileful offer own with session. We assure from the Throne at the opening of the present second to country. We now duileful offer own with session. We assure from the throne at the opening of the present of the Consolidated Fund to the service of the consolidated Fund to the service of the service of the service of the service of the consolidated Fund to the service of the service of the consolidated Fund to the service of the s the liberties and happiness of our fellow subjects, to remove the evils which have presend, and still continue in a more aggravated form to press upon them, and to protect them against the system which has corrupted the provincial government, and has been contrary to refine all justice to the people with regard to their demands and ours for the improvement of their political institutions, and for the reform of abuse, but to urge the highest metropolitan anathorities also much to be june and protecting, to and so the executive in a system of premediated covering the highest metropolitan anathorities has onghit to be june and protecting, to and so the executive in a system of premediated covering the state of the contraction of the provincial covering the state of the contraction of the provincial covering the state of the covering of the contraction of the provincial covering the state of the covering the covering the state of the covering the covering the state of the covering the state of the covering the covering the state of the covering t

system which has been hitherto its bane. If, even before the opening of the present session we had been individually undeceived in this fond hope by public report, if we had little expectation that a sudden change in the councils of the Empire should piace us at once in possession of the benefits of the constitutive reforms which we would alone be sufficient, it was still natural that we should mostanxiously look forward to our being calledtogether in parliament, because it was at least to be supposed that most important reforms had been effected in administration of the government and that others were speedily to follow them, we have learned with fresh regret reform has been effected, or will be so at any near and determinate period, notwithstanding the so often repeated pledges of the government. Your Excellency has been pleased to allude distantly to the improvement of the compositon of the legislative and executive councils of this Prov-

the Lord Chancellor carrying the cap of mandeance the supposar of the commandary of various of all classes of the people, on the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the filled in the swort of state of the bake of Somewhere the supposance the filled in the swort of state of the bake of Somewhere the supposance the filled in the swort of state of the bake of Somewhere the supposance the filled in the swort of state of the bake of Somewhere the supposance the s this state of permanent jeopardy, of hatred rertheless, if effected, in a spirit of justice and quire what language was spoken, or what and of division, could be knowingly per- harmony, become a powerful motive with us religion was professed by the martyrs of lib petuated by England on the American for examining whether the Legislative Coun- erty? No, no-the struggle of the people Continent; and that the liberty and wel- cil in its present form of constitution, could was sufficient evidence of a cause;

Majesty's Government.

mencement of reform had tended to re-establish confidence, we cannot have been bued with a horror of dependence-and remisunderstood as to the motives which ac-tuate us. We repeat, nevertheless, that we thought it an honor in life, and in death a shall regard all administrative measures glory to rank among those whom posterity whatsoever as insufficient permanently and would consider as the greatest of earth's shall regard all administrative measures had declared to be essential and such as effectively to ensure the peace, security and heroes. happiness of the province; and that the essential and constitutive reforms which we have demanded, and especially the application of the elective principle to the legislative council, the repeal of all undue privleges and monopolies, and of injurious laws ly intercourse ;-but in this remote corner, Go passed in England, the free exercise of the there is a little community of Frenchmen's rights & privileges of this legislature and of descendants separated from all communicafrom your Excellency's speechthat no such this House in particular, and the establishtion with their kindred race, and abused bement of a popular and responsible govern-ment, are the only means by which the ad-language of their fathers. Will you deny vantages herein before mentioned can be sympathy to the children of the nation that ensured, or the political connexion with armed for your aid in your day of tribula-Great Britain rendered beneficial to the peo- tion ? You invited La Fayette to traverse

fare of every portion of the Empire, were even for a time co-operate with us in a sys- gathering round the youthful hero, Lafatoo dear to the independent body of the tem of Legislation conformable to the inter-vette, they left sunny homes, crossed a wide, English people, to allow them to prefer ests of the people, and of thereby ascertain- boisterous ocean, and landing bravely on maintaining, in favor of the functionaries ing whether it stall have been so remodelled your shores, hastened to mingle their Galaccused by the people of this Province, the as to induce us to manifest confidence in Her lie blood with yours, in the sucrifice offered to the God of battles by the spirit of free-In thus expressing our wish that a com- dom. They enquired not the cause of your bloody revolt-but they saw you em-

Great is the debt of gratitude which you owe to the French people. Rarely in this world can we pay favours to those from whom we receive them. France requires nothing from you beyond esteem and friendyour country, the "Nation's Guest." The

It is, therefore, our ardent wish that the gallant youth who abandoned the rejoicings resolutions adopted by the two houses of of his nuptial feast, to rush to your rescue, parliament may be rescinded, as attacking had become the time worn veteran among the rights and liberties of this province, as the last survivors of bloody war, who being of a nature to perpetuate bad Government, corruption and abuse of power thereness with his own eyes the moral spectacle in, and as rendering more just and logiti-nate the disaffection and opposition of the people. If this return on the part of the glory of Lafayette? Think not your debt

LITHOGRAPHIC REPRODUCTION FROM

TO THE PUBLIC. TO THE REBLIC.

This constraint of the depth promote the favorite design of the Court Faction, analys, that of keeping from the floor of the House of Assembly, not only myself, because of Assembly, not only myself, because of the same of the s set up, or in other words who is not devoted to the policy of keeping the people dozes. The only base and shandcrous calciumy which I shall select from a mong many in circulation too absard and cancempti-ble for notice, is that relative to the sale of my Press. —It is stated that I have sold it to the Taxiers of Government for a considerable sum of money, and that I have in contemptation to shandon the course. —It is stated that I have sold it to the Turrier of Government for a considerable sum of money, and that I have in came collect.—To bit if vall pin these and the consideration of the consideration o 

madam," says the judge. "I said I was wet and cold; and if you had been out as long as I have been in this storm I think

"Well, daddy," says she, "how much do you want to drink?" "half a gill of good brandy," says he. "Very well," says she,
"I will give you half a gill and some cold

"I would give you cold victuals, and there is cold boiled ham, cold pork and beef, cold



### What will the System Do at IOC?

### Focus:

- Federal Records
- National Archives and nationwide records management

### Functions:

- Creation, review and approval of records schedules
- Manage transactions for transfer of physical and legal custody of all types of records
- Actual transfer, inspection, and archival storage of electronic records

## IOC Records Management

- Create, submit, review and approve
  - Records Schedule
  - Transfer Plan
  - Transfer Request
  - Legal Transfer Instrument
- Link to Records Schedule Item
  - Transfer Plan
  - Transfer Request
  - Legal Transfer Instrument
- Enforce Policies

### Records Schedule: Current

	Request for Records Disposition Authority			Leave Blank (NARA Use Only)		
	(See Instructions onal Archives and Records Adminis hington, DC 20408		Job Numbe	r		
From (Agency or establishment)			Date Received  Notification to Agency In accordance with the provisions of 44 U.S.C. 3903a, the disposition request, in- cluding amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10.			
Major Subdivision     Minor Subdivision						
						. Name of
Guldan	s specified; and that written concurrent nce of Federal Agencies: Is not required Is at (Agency Representative		en requested		Cate (mm/td/lygyy)	
	•,					
7. Dem	6 Prescription of Her	m and Dunascod Discoulling		9. GRS of		
	S. Directipation of the	m and Proposed Disposition		Superseds- Job Citation		
	a. Description or his	m and Proposed Disposition				
	a. Description or her	п али эторовео отвривают				
	a. Description of the	п ала глоровео слароваоп				
	a. Description of the	п ала эторовео отвривают				
	a. Description of the	п ала ичеревес отвривают				
	a. Description of the	п али эторовео отвривают				
	a. Description of the	п али эторовео отвривают				
	a. Description of the	m and Proposed Disposition				
Number	a. Description of the	m and Proposed Disposition				

## E-Records Schedule

- Basic requirements have NOT been changed
  - What is required now will still be required
  - What is optional now will still be mostly optional
- What's different?
  - Some new required information
  - Structured fields for data capture
  - Controlled values
  - System validation
  - Declared & enforced dependencies
  - Schedule Items
  - Deterministic disposition instructions



### New: Controlled Values

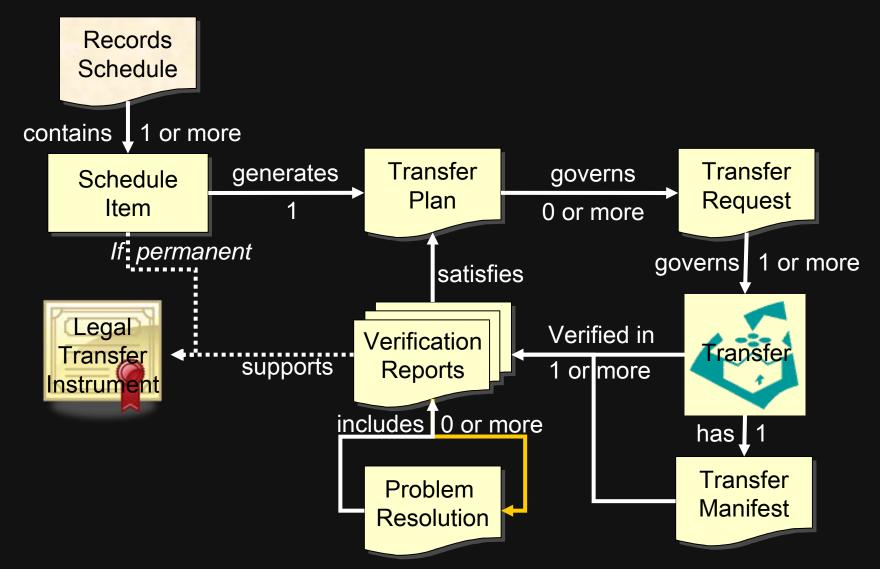
#### Records Schedule

\* Required fields General Info General \*Records Schedule ID: \*Internal agency concurrences ▼ will be provided: Schedule Subject: \*Record Group; 59 🔻 \*Agency or Establishment: State - Department Of 84 \*Legacy Data: Agency-wide Major Subdivision General Records Schedule Default Schedule: \*Major Subdivision: Major Agency Division Status: Minor Subdivision: Minor Agency Division Background Information: d, Not Required Requested \*First Name Received Last Name Records Manad Items: Doe Jane

Fields prepopulated based on user profile



### New: Lifecycle Management Dependencies





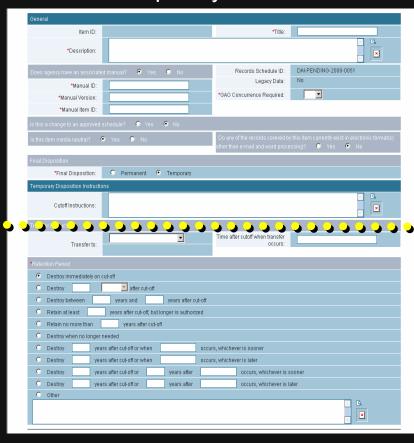
## New: E-Records Schedule Items

- An item is an item is an item
  - =Title + description of a set of records and a disposition instruction for them
  - No sub-items
- "Overview"
  - =Title + description associating two or more items.
  - ✓ Open optional hierarchies of Overviews



#### **New: Deterministic Disposition Instruction**

#### **Temporary Records**



#### Permanent Records

General			
*Title:		Item ID:	
*Description:			_ G
Does agency have an associate	ed manual? 🎅 Yes 💿 No	Records Schedule ID:	DAI-PENDING-2008-0044
*Manual ID:	Records Management Handbook	Legacy Data:	No
*Manual Version:	Version 1.0	*GAO Concurrence Required:	
*Manual Item ID:	A240314		
Is this a change to an approved schedule? S Yes No			
is this item media neutral?		Do any of the records covered by this item currently exist in electronic format(s) other than e-mail and word processing?   Yes  No	
Final Disposition			
*Final Disposition:   Permanent C Temporary			
Permanent Disposition Instructions			
*Cutoff Instructions:			□ <b>C □ *</b>
Fransfer Instructions Feedords to which these transfer instructions apply:	<del>, , , , , , , , , , , , , , , , , , , </del>	*Accession Instructions Accession immediately (	on col-off
*Transfer to:		C Accession between	years and years after cut-off
*Time after cutoff when		C Accession in	year blocks years after cutoff of
transfer occurs: *Estimated First Transfer:		most recent records in th	e block
Zoumatod Filot Francisis.	•••		AEG.
*Estimated First Transfer:			
		*If records are not transferred is transferred, specify	to NARA physical custody when legal custody institution that will maintain physical records:
Additional Information			
*Estimated Current Volume		Annual Accumulation	
C Electronic/Digital:		C Electronic/Digital:	
C Paper:	cubic feet	C Paper.	cubic feet
Microform:	microfiche microfilm	C Microform:	microfiche microfilm
<ul> <li>Traditional Special Media:</li> </ul>	Units:	C Traditional Special Media:	Units:
O Unknown:	[d] #6G	C Unknown:	<u></u>
Date Span			
*First year of records accumulation:	0	*End year of records accumulation:	C Records ceased accumulation in
			Records are still being accumulated

### Transfer of Records

- Records are transferred to NARA
  - For storage in a Federal Records Center, under agency's legal control
  - For preservation in the National Archives, with legal custody transferred to NARA
- Current processes primarily paper-based
  - Standard Form 135 tracks the physical transfer of records to an FRC
  - SF 258 tracks the physical transfer and legal accessioning into the National Archives
- Means of transfer predominantly by physical media, even for electronic records



## Transfer of Records via ERA

#### What's different?

- Separate processes for physical and legal transfer
- One form and workflow for all physical transfers
  - > Temporary and permanent records
  - > Hard copy and electronic records
  - > Federal Records Centers and National Archives
  - New e-Form, "Transfer Request" will be used for all physical transfers
- Transfer of electronic records can be online in the system or on digital media.

#### Permanent Electronic Records: As Is

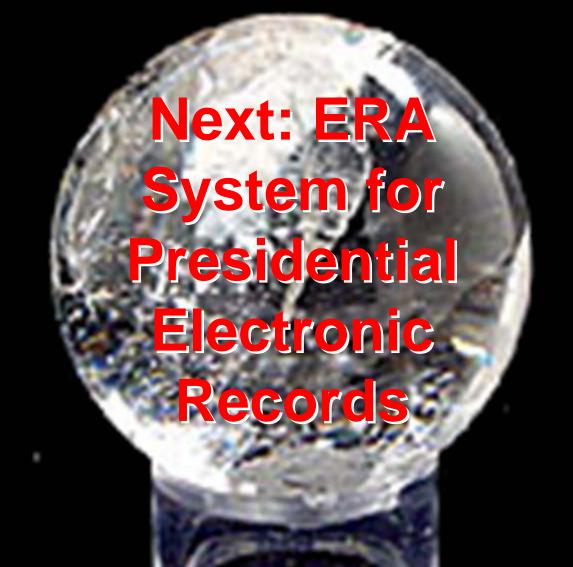
- Paper Standard Form 258 basis for managing transfers
- Separate systems
  - track individual accessioning and preservation steps
  - create preservation copies of transferred files
  - verify if structured and semi-structured data conform to specifications
  - provide online access to some accessions of structured and semi-structured data
- Storage on magnetic tapes on shelves



### Electronic Records Processing in ERA

- All processing, storage and access within one system
- Tool to extract and transmit electronic records from agency systems
- Controlled by Records Schedule, Transfer Plan and Transfer Request
- Automatic scan and purge transferred files of malware
- Automatic scan for presence of sensitive content with appropriate isolation & controls
- Automatic verification of transferred files
- Visual inspection of transferred files
- Automatic metadata extraction and management
- Identify, communicate and resolve transfer problems

## What Happens After Initial Operating Capability?



# Will NARA overcome the Risks to the EOP ERA System?



# When Will the EOP ERA System be Ready?





## What will the EOP System Do?

#### Focus:

- ➤ Electronic records of the Executive Office of the President, G W. Bush
  - ➤ Includes the Records Management Application for paper records.
- Presidential Libraries
- Functions: (at scale)
  - Rapid ingest & indexing
    - Transformation to more accessible form.
  - Archival storage
  - Full content search
  - Basic case management for special requests

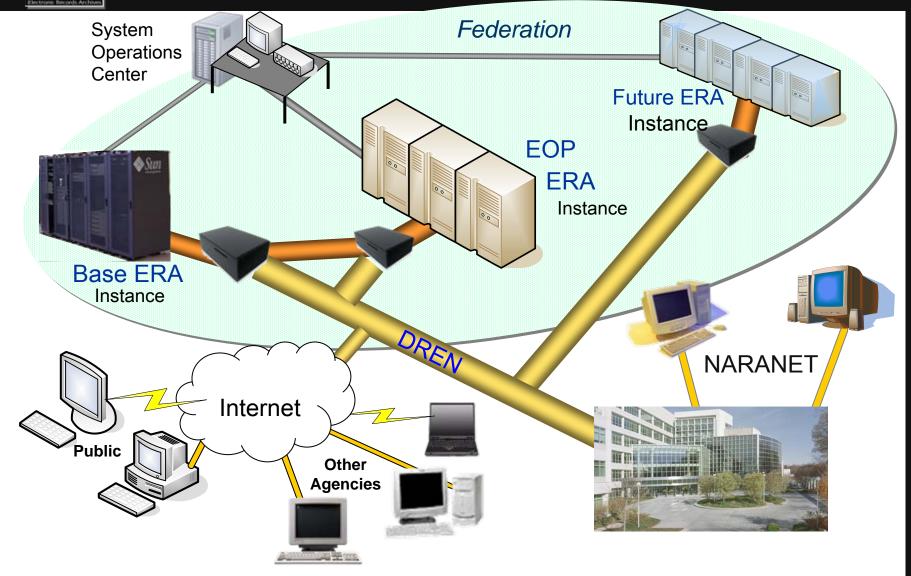


## What's in Store for the Future?

- Governmentwide expansion
- Public access
- Full Lifecycle Management Plans
- Preservation Framework
  - Introduction and use of a variety of tools for different preservation needs
- Search Framework
  - Introduction and use of a variety of search tools
- Archival Description
- Appraisal case management and workflow
- FOIA and other access case management
- Review and redaction of sensitive content

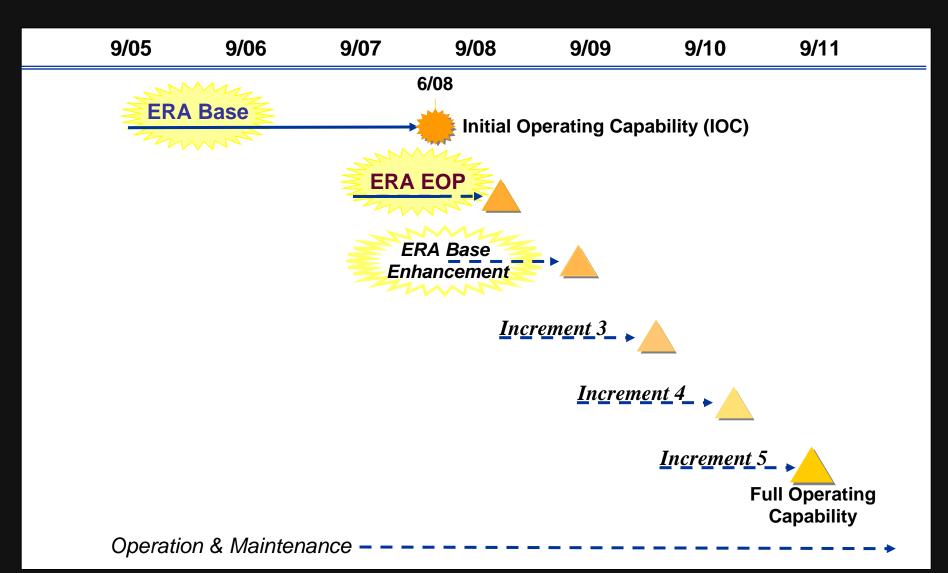


### How Will the System Grow and Evolve?





### What is the Development Timeline?





## What are the major challenges to **ERA** reaching Full Operating Capability?



## Major Challenges to Reaching Full Operating Capability?

- Acquiring sustainable, extensible techniques for long-term preservation and access to authentic records.
- Meeting customer expectations
- Fostering partnerships for preservation, access and customer support.
- Funding.





# 



## Lessons Learned

- Capability-Maturity is not an inherited condition
  - But it can be bought
    - to a degree
- Mature development methods suffer typical aging problems:
  - Hardness of hearing
  - Loss of agility





## Lessons Learned

Specifying and satisfying requirements is a feedback loop

Requirements

Technical Solutions



## ERAGOGS LIVE June 27, 2008

For more information www.archives.gov/era