

National Park Service
U.S. Department of the Interior



Electronic data collection and databases

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EXPERIENCE YOUR AMERICA

Benefits of electronic data collection

- Faster
- More efficient
- Reduces workload
- More accurate
- More accessible
- Easily shareable
- Takes less physical space

What controls NPS data collection and management

- Laws
- National reporting requirements
- State reporting requirements
- Standards
- Staffing
- Funding

Benefits of Databases

- Data management tool
- Improves resource preservation, protection, planning, interpretation, decision-making
- Research and analysis tool
- Used for budget development and justification
- Facilitates annual reporting
- Assists program managers in systematically documenting, comparing, and evaluating accomplishments, trends, issues, and needs
- Enables quick disaster response

NPS Cultural Resource Databases

- ASMIS - Archeological Sites Management Information System
- CLI - Cultural Landscape Inventory
- LCS - List of Classified Structures
- ERI – Ethnographic Resources Inventory
- Coming soon: CRIS – Cultural Resources Inventory System

ASMIS 4.01

Welcome, ddevenport! [\[log out\]](#)

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Basics

Save Cancel

<< Prev ASM

Park: YUCH

State ID: EAG-008

Site Name: Bower

Alt Designation Text

Add Edit Del

Format

Add Edit Del

Subsites

Sb # VT Subs

Save Cancel

ASMISv4.01: Search for Sites - Internet Explorer

Search

Park Alpha Code ☐ All Parks ☒ Only My Parks ORG Code VT Site Restricted

Current Site Condition Current NR Status

☐ NO Current Site Condition ☐ NO Current NR Status

Site Record Values Show/Hide

Filter Field	Value
ASMIS ID (ignores other search criteria)	= <input type="text"/>
State ID	= <input type="text"/>
Park ID	= <input type="text"/>

Table Controlled Fields Show/Hide

Table Field	Value
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Other Fields Show/Hide

Filter Field	Value
LRT Date	= <input type="text"/>
Local Unit	<input type="text"/>
Alternate Designation Text	<input type="text"/>

Name this Search: Save this Search

Search Cancel

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Local Data Images

Next >>

VT: ☐

Voided Record: ☐

Restricted: Yes

AK

Yukon-Koyukuk Census A

Alaska

Alaska

e: 9870 SubCode:

it:

Site Function

No data to display

Edit Delete

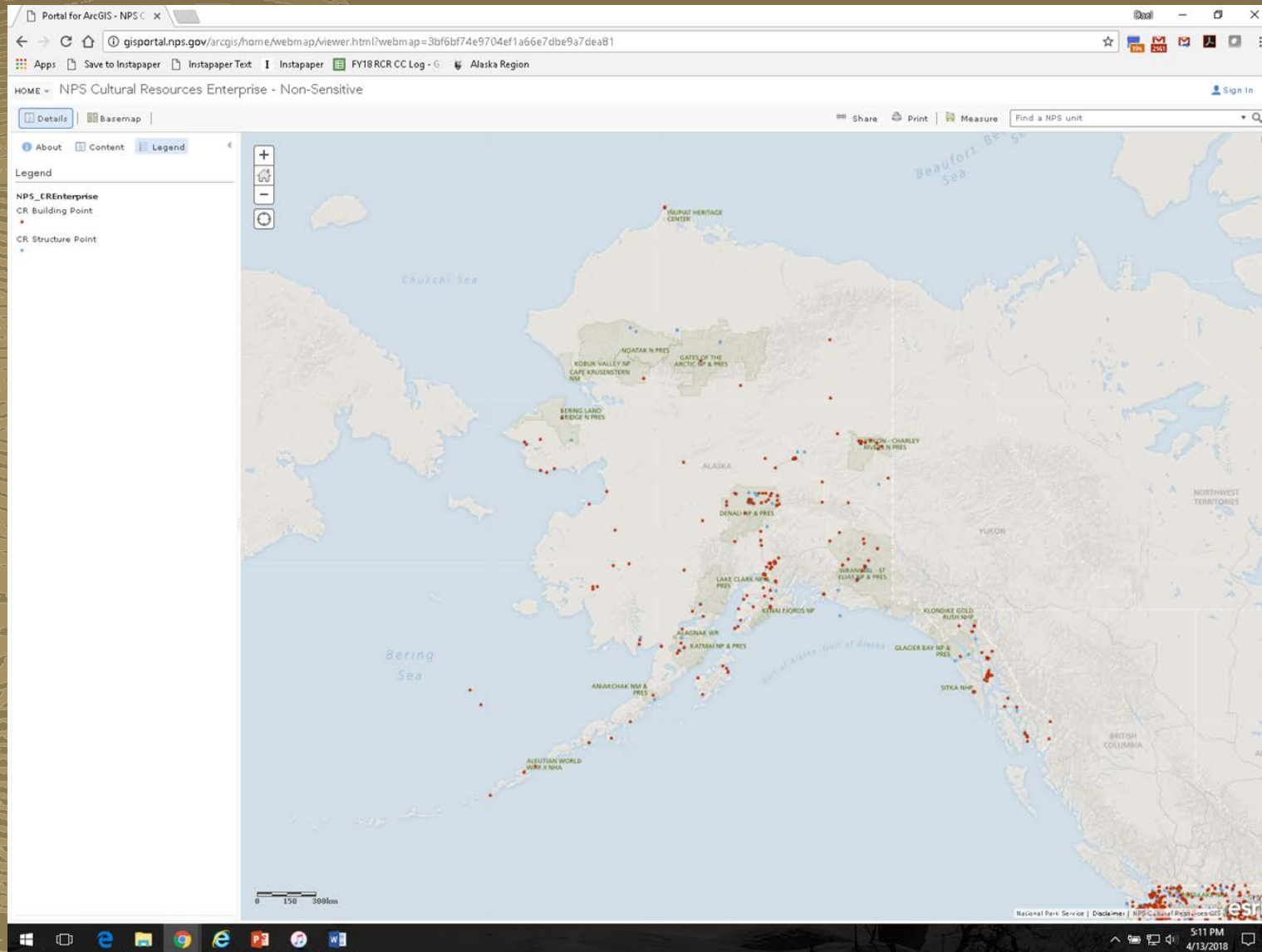
Edit Remarks

poll on the E side of the N
reek. Site is amongst a
landforms containing
remains, this being the
e grey translucent chert
flake and 1 grey basalt
d in game trails on the SE
iform. Approx. 80

Issues Affecting NPS Data Management

- Conflicting needs between parks and DC
- Lack of funding
- Understaffed
- Bureaucracies are slow

Example: CRGIS



Types of Digital Data

- GPS
- Trimble
- Photographs
- GPR
- Total Station
- LIDAR

Example: Trimble Data Dictionary













TerraSync

Data

Collect Options Close

File: DDTest040611A Create

Choose Feature:

Type	Feature Name
	Datum
	Shovel Test
	Test Unit
	Site Boundary
	Artifact Scatter
	Cabin Ruin
	Tent Ring
	Housepit
	Cache
	Hunting Blind
	Hearth
	Cairn

The image shows a software window titled "ArchSurvey2017LACL.ddf - Data Dictionary Editor". At the top, there is a menu bar with "File", "Edit", "Options", and "Help". Below the menu bar is a toolbar with various icons. The main area is divided into several sections. On the left, there is a "Features:" list with icons and names: Datum (red circle), STP (Shovel Test) (X), Test Unit (X), SiteBound (Site Boundary) (fence icon), Scatter (Artifact Scatter) (fence icon), CabinRuin (Cabin Ruin) (fence icon), TentRing (Tent Ring) (fence icon), Housepit (fence icon), Cache (X), Blind (Hunting Blind) (X), Hearth (X), Cairn (X), Fauna (X), Lithic (X), ModWood (Modified Wood) (X), HistArtifact (Historic Artifact) (X), Boulder (X), TreeShrub (Tree or Shrub) (X), Topo (Topographic feature) (fence icon), Vegbound (Vegetation Boundary) (fence icon), Waterbnd (Hydrologic Boundary) (fence icon), Trail (Game Trail) (fence icon), CRGENPT (Cultural Resources Generic Point) (X), CRGENLINE (Cultural Resources Generic Line) (fence icon), CRGENPOLY (Cultural Resources General Polygon) (fence icon), AKTRAIL (AKR Park Trail) (fence icon), AKRGENPT (AKR Generic Point) (blue square), AKRGENLIN (AKR Generic Line) (fence icon), AKRGENPY (AKR Generic Polygon) (fence icon), Point_generic (X), Line_generic (fence icon), and Area_generic (fence icon). In the center, there is an "Attributes:" list with various fields and their descriptions, some marked with a green "A" icon. On the right, there is a "Menu:" section with "Datum*", "STP", "ETC", and a note "Add all Feature Types possible". At the bottom, there are buttons for "New Feature... F3", "Edit Feature... F4", "Delete Feature F5", "New Attribute... F7", "Edit Attribute... F8", and "Delete Attribute F9". The status bar at the bottom left says "Press F1 for help" and the bottom right shows "NUM".

Lessons learned

- Make it win-win
- If its not people will find a shortcut
- There is no one size fits all - structure should be the same but details will differ
- Digital data is ephemeral – don't treat backups like archives
- If you don't invest time and money in data management, you are wasting time and money

Best practices

Pre field

- Design a good database
- Standardize collection methods and processes to create consistency and continuity between employees
- Use site forms, data dictionaries that collect information required by databases
- Learn how to use equipment
- Create field guides for staff

Best practices

In field:

- Write down basic info about site
- Back up digital data to SD cards in units
- Download daily, if you have a laptop

Best practices

Post field:

- Download data, post-process, clean-up
- Write metadata
- Enter data into databases
- Type handwritten notes
- Geotag photos
- Write summary report
- Copy to multiple locations – server, hard drive, external hard drive, upload to website
- Standardize file structure and file naming
- Refresh electronic files every few years
- Store essential data in a hard copy file – site forms, maps, photos, survey areas