REEVALUATING DIGITAL GEOREFERENCED AERIAL IMAGERY SERVICES

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Many print and digital collections
  • Shared responsibility
Digital collection growing
  • Unmanned & georeferencing historical imagery
Services over the years
  • Web services (Esri GeoService, OGC); web application; web accessible folder
  • Can we improve?
Determine which imagery characteristics are most important to discover and explore these data
Determine the most desired methods for accessing these data
Fall 2017 sent to variety of mailing lists
114 responses
50% from Idaho; most western US
SURVEY RESULTS

Place of work

- Government (68%; n=77)
- Academia (18%; n=21)
- Private (11%; n=13)
- Other (3%; n=3)
Important characteristics for discovery

Access Constraints
Vendor
Source
Leaf Status
Sensor Name
Sensor Type
Platform
Rectification
Collection Name/Title
Band Combination
Spatial Resolution
Acquisition Date
Geographic Extent

Very or Somewhat Important
Neutral
Not Very or Not Important
SURVEY RESULTS

Important services for access

- Offline Delivery
- Bulk Downloading
- Extracting
- Downloading
- OGC Web Services
- Esri GeoServices
Two free text questions

- How could services be improved (n=48) and any additional comments (n=25)
  - make it easier to locate and faster to access
  - create a “one-stop” shop - comprehensive
  - provide more historical imagery
New processing workflow

- New comprehensive web service
- Web app new functionality
  - Location
  - Date
  - Resolution
  - Rectification
  - Image type
SURVEY REINFORCED ACCESS OPTIONS

Access

• Single item download
  • Web application, Esri GeoService
• Bulk download
  • Web accessible folder & Esri GeoService
• Extract
  • Esri image service
• Esri GeoService & OGC services
  • Each individual acquisition and comprehensive
• Offline
  • Contact GIS librarian
Mosaic dataset

- Geodatabase raster data model
- Allows you to store, manage, view, and query collections of raster data
- A collection of raster datasets stored as a catalog and viewed as a dynamically mosaicked image
MOSAIC DATASET BASICS

- Boundary
MOSAIC DATASET BASICS

- Footprint (index map)
MOSAIC DATASET BASICS

- **Image**
  - Display order - most recent to least recent
MOSAIC DATASET BASICS

- Processing functions
- Download
- Extract
Previous

- Default fields
- Source mosaic datasets
Previous workflow

Source Data Collections

Data Store

2015 1m Idaho

Source Mosaic Datasets

2015 Idaho

Published Image Service

2015 Idaho

2013 0.5m Idaho

2013 Idaho

2013 Idaho
Current

- Added fields (acquisition year, resolution, rectification, image type, others)
- Added derived and reference mosaic datasets
Current workflow

Source Data Collections

Source Mosaic Datasets with new fields

Derived Mosaic Dataset

Referenced Mosaic Dataset

Published Image Service

Data Store

2015 1m Idaho

2013 0.5m Idaho

2015 Idaho

2015 Idaho

2013 Idaho

2013 Idaho
Idaho Digital Georeferenced Aerial Imagery Collections GeoService

This service provides comprehensive access to all digital georeferenced aerial image collections at the University of Idaho Library. The default image display order is from most recent to least recent.

Field | Values
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Collection | 0 - Idaho 2004
| 1 - Idaho 2009
| 2 - Idaho 2011
| 3 - Idaho 2013
| 4 - Idaho 2015
| 5 - Island Park Reservoir 2016
| 6 - Challis National Forest 2010
| 7 - Lewis Clark Valley 2015
| 8 - Southeast Idaho 2003
| 9 - Idaho Agricultural Land 2006
| 10 - Idaho 2017
| 11 - Boundary County 2009
| 12 - Boise Urban Area 2003
| 13 - Idaho Panhandle 2006
| 14 - Nez Perce County 2007
| 15 - Culdesac, Lapwai, & Peck Cities 2007
| 16 - Blackfoot River Area 1964-1966
NEW WEB APPLICATION

In development
Helpful Web Sites

- **Older**
  - Image Management Workflow

- **Newer**
  - ArcGIS Imagery Workflows