



Montana Imagery Working Group | February 14 2024



9:00 AM Welcome & Introductions

9:15 AM Recap: Takeaways from the Imagery Summit

9:30 AM Imagery Working Group Tasks:

- Charter? Roles (identify active members v. recipients of info)
- First tasks? Montana Imagery Plan and/or Imagery Repository Business Case

Short break

10:00 AM Legislative Planning

- Leg. important dates
- Repository
- State Imagery Program
- Imagery Needs Assessment
- Resource Requirements: What is the Ask?

10:30 AM Imagery Inventory (who & what)

- Existing Imagery Assets
- Specs, requirements, metadata

11:00 AM Closing

- Wrap Up
- Next Steps Assignments Future Meetings

Recap: Key takeaways from the Imagery Summit, Dec. 12 – 13, 2023



Multiple agencies have imagery. There is a need for a central repository or inventory

-State, county, and city gov shared their needs and use cases for imagery

-There is significant interest in imagery across the state and many use cases



Desire for technical sessions, such as raster analysis and imagery management

-Desire to hear new applied, cutting-edge work

Need to build a productive collaboration across agencies that use imagery

- Imagery coordination

Current statewide imagery (NAIP) does not meet all state needs, such as resolution and leaf-off



Lots of ground level support for an imagery program. Funding is the question.

-Strong desire for one point, one payment contract and ability to readily buyup

-Need to identify potential collaborations, funding, and strategies for outreach

-Need to identify benefits realized in other states and other state imagery successes

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Imagery Working Group Tasks

• Would a Charter be helpful?

- Clear purpose and first tasks
- Meeting frequency
- Resources
- Members & Roles
- Leadership Structure
- Active Participants
- Additional participants? Do we have the right people?

• First Tasks (?) Inventory > Program > historic v current

- Inventory of existing State agency imagery and other imagery(?)
 - Digitized v georeferenced; L&C (Federal Lands Access Program)
- Montana Imagery Plan and/or Imagery Repository Business Case (Needs)
- Imagery as a service and issues with contracts
- Historic imagery (USFS, NRCS) (where are the vaults and boxes?)
 - Mining claim digitization (MBMG)
- Funding/grant opportunities list (example, CalFire, inland water NOAA)
 - Be ready when grants become available
 - Restoration efforts

Draft Charter



Active Members

| Name | Organization | Role |
|------------------|-------------------------|---|
| Erin Fashoway | Montana State Library | Writing and reviewing best practices or a Montana Imagery Plan Testing technical workflow Writing and developing policies or standards Represent your organization at stakeholder events Providing expert testimony (written or oral presentation) to support imagery efforts |
| Troy Blandford | Montana State Library | Writing and reviewing best practices or a Montana Imagery Plan Testing technical workflow Writing and developing policies or standards Represent your organization at stakeholder events Providing expert testimony (written or oral presentation) to support imagery efforts |
| Mike Eidum | Dept. of Transportation | Writing and reviewing best practices or a Montana Imagery Plan Testing technical workflow Writing and developing policies or standards Represent your organization at stakeholder events Providing expert testimony (written or oral presentation) to support imagery efforts |
| Robin Rude | Dept. or Revenue | Represent your organization at stakeholder events Providing expert testimony (written or oral presentation) to support imagery efforts Testing technical workflow Writing and reviewing best practices or a Montana Imagery Plan |
| Dorothy Friday | Eagleview | Represent your organization at stakeholder events; |
| Jason Caldwell | Sanborn | Writing and reviewing best practices or a Montana Imagery Plan Writing and developing policies or standards |
| Melissa Christie | NV5 | Writing and reviewing best practices or a Montana Imagery Plan Providing expert testimony (written or oral presentation) to support imagery efforts I can supply graphics for visualization of various image solutions like orthos, oblique, thermal imagery and color infrared. Writing and developing policies or standards; |
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Imagery Repository Business Case

Draft business case =>

Imagery plans from other states to review(?)

- Indiana Ortho-lidar Plan
- Nebraska Imagery Business Plan
- Washington Imagery Plan
- Utah, Minnesota, Oregon, Alaska(?), Wyoming (?)
- (And also sharing ours once complete)

State Imagery Repository Business Case

Notes and draft items

Scope

Phase 1 development of a **Digital** State Imagery Repository and Service for purposes of Montana imagery storage, catalog, discovery, and potential interaction/analysis for citizens, businesses, universities, governmental and non-governmental entities. Phase 1 will include only non-sensitive, publicly accessible imagery collections of the following types:

Imagery types:

Photo: tif, mrf, geotif, crf, Irc, jp2, jpg, sid Video: mj2, mjp2, LIDAR: las, laz Sonar: kmz Digital Terrain Models: tif, ascii Coverage Areas/Footprints (flight paths, lines, etc.): shp, kml, fgdb,

List of where imagery is currently published, image resolution, xyz accurac

Phase 1 Agencies: MSL, MDT, DNRC, DOR, DEQ

Out of Scope

Physical imagery files (9x9; reels, etc.) Imagery access restricted by contract Interactive delivery of video content

Goals & Objectives

G1: Develop architectural requirements for repository.
Obj. 1: system requirements document
Obj. 2: evaluate vendor options (Esri, Hexagon, Google, Amazon or Azure cloud, etc.)
Obj. 3: define what is imagery and priorities for including in repo
G2: Establish a primary common repository for state agency imagery files hosted by MSL.

Obj. 1: repository has open access for public search and discovery Obj. 2: establish business model to support repository at MSL

Obj. 3: evaluate level of effort for agency to move imagery files

G3: Develop a searchable catalog of imagery holdings with metadata describing imagery details including resolution and geolocational rigor.

Legislative Planning Key dates

- April 17th State Library Commission starts executive planning
- April 30th House Bill 10 requests (long-range information technology)
- June 6th House Bill 2 requests (general state budget)

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Legislative Planning

Key content for the Imagery Working Group to develop:

- 1. List of the programs, related statute, or activities that depend on imagery
 - a) List of new or planned imagery business cases
 - Illustrate how new collections should be managed in an organized and standardized fashion
- 2. Inventory of where imagery currently resides and how it is requested/obtained
 - a) Illustrate need to create an inventory and repository
- 3. Clear description of the ask and a good estimate of costs
 - a) Upfront, one-time-only costs or largely ongoing funding
 - b) Local governments that have imagery programs, what is the cost and cost sharing opportunities
 - a) And cost savings of having an imagery repository (might be a good example with Billings and adjacent community); multiplier or economy of scale, flight planning tool?; time and effort on contracts and advantage of buyup and cooperative; consider difference in budget planning timing; budget complexities and moving money around
 - b) Ballpark for statewide 6"
- 4. Montana Imagery Plan and/or Imagery Repository Business Case

Needs Assessment

- Identify critical activities/business uses for imagery
 - What are the requirements?
 - Data accuracy/resolution
 - *Refresh cycle/frequency*
 - Geographic areas of interest
 - Ground conditions (leaf, flooding)
 - What are the benefits realized or cost savings? (now and future, such as ½ foot imagery v. 3-inch imagery)

<u>Draft spreadsheet</u>

- Examples from Elevation and Hydrography
 - Hydrography Requirements and Benefits Study
 - National Enhanced Elevation Assessment

Existing Imagery Assets

Inventory of what is available now

- Who has imagery and what is it?
- Is it made publicly available?
- Means of dissemination
- Would a central repository be preferred?
- Draft spreadsheet
- What are the important attributes/schema to include in the inventory?
 - Specs, accuracy, required fields, reports

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Next Steps & Assignments

- Documents
 - Finalize WG Charter reachout to potential add. Members
 - March 20 adopt it as a group
 - Needs Assessment
 - Programs/Workflows Dependent on Imagery Data
 - Time Goal First draft March 20th
 - Montana Imagery Inventory:
 - Where does Imagery Exist
 - How is it accessed/published
 - Time Goal First draft March 20th
 - Benefits & Costs Document Estimates & Savings
 - State Agency & Local Gov't Imagery Repository Hosting
 - Shared Flights / Cooperative Arrangements Imagery Program
 - Understanding Budget Planning Cycles
 - MSL can start to pull that in April
 - Imagery Plan Bare Bones & Timeline Outline April meeting incorporate white board documents
 - Imagery Repository Business Case March 20 Final Draft

Future Meetings

- March 20, 2024 9:00 11:00 a Virtual, Zoom registration
- April 2024 Billings, Montana In coordination with MAGIP's Annual Conference 2024 Big Sky GeoCon *In–Person*
- May 15, 2024 9:00-11:00 a Hybrid in Helena, Zoom registration

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Montana Imagery Working Group | February 14, 2024

Registered Participant List

First Name Last Name Michael Fashoway (MSL) Jeremy Crowley, University of Montana Michael Gustafson Mark Blevins, DEQ Jamie Jisa Mike Eidum - Montana Department of Transportation Mike Eidum Steve Varro City of Kalispell Public Works Department Chad Addleman - Department of Revenue Steve Varro Stephen Shirley, Planner I, City of Helena Emmanuel Diaz - Hayes Troy Blandford - Montana State Library Eric Spangenberg - Helena / Lewis & Clark County Tom Burnett Melissa Christie, NV5 Geospatial Martin NoRunner Matt Trebesch, Montana State Library Eric Spangenberg Tom Burnett, MSL Commissioner Erin Fashoway, Montana GIS Coordinator Jamie McFadden Michael Gustafson Meghan Burns Chad Addleman Dorothy Friday mark blevins Melissa Christie Crowley Jeremy Mike Snook Scott Faust Jim Kammerer Stephen Shirley

Zoom Chat

Participant List

Kristina Bouquet

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