MONTANA
Department of Transportation

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Q1. Describe the aerial imagery your agency has and how it is made available

MT Department of Transportation

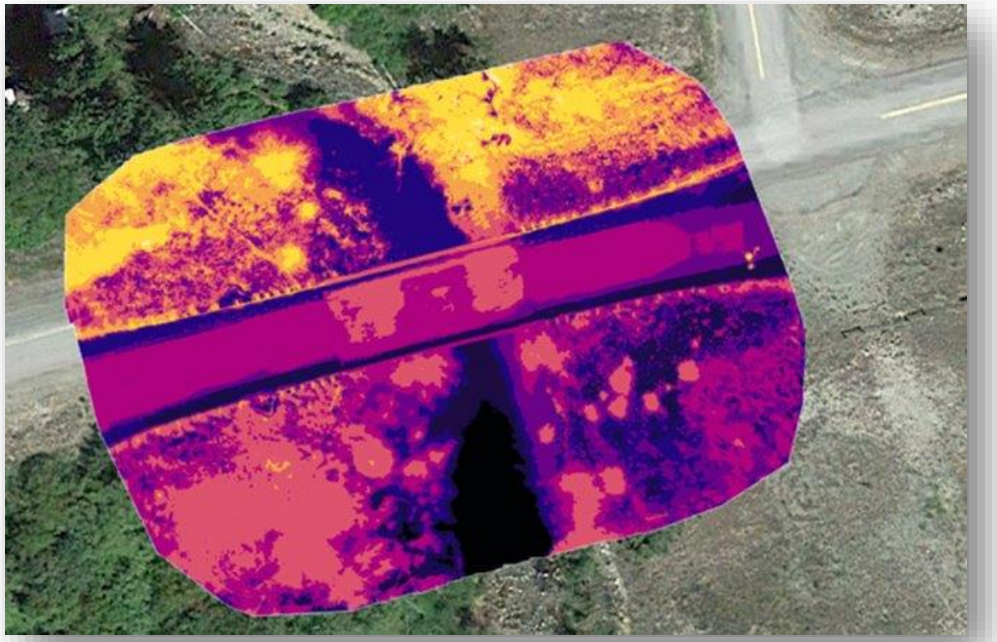
List the imagery:

- Environmental:
  - Yearly inventory
  - Stream mitigation sites
  - Boundary delineation
- Engineering/Construction:
  - Photogrammetry ⇨ design surface ⇨ orthomosaics
  - 3D terrain model
  - Aerial and terrestrial LiDAR
  - Thermal
  - Mobile network imagery
- Maintenance:
  - Stockpile volumetrics
  - Videography
  - Project documentation

How is imagery made available:

- Current imagery stored as TIFF files in a file directory.
  - Most imagery is not easily accessible with current practices.
- Photogrammetry data is currently being stored in Project Folders.
  - End products are typically not stored in PCMS.
- Currently, aerial LiDAR data is project based, stored in project folders.
- Maintenance volumetric data is managed by each division.

Example imagery:



MDT top business uses for imagery:

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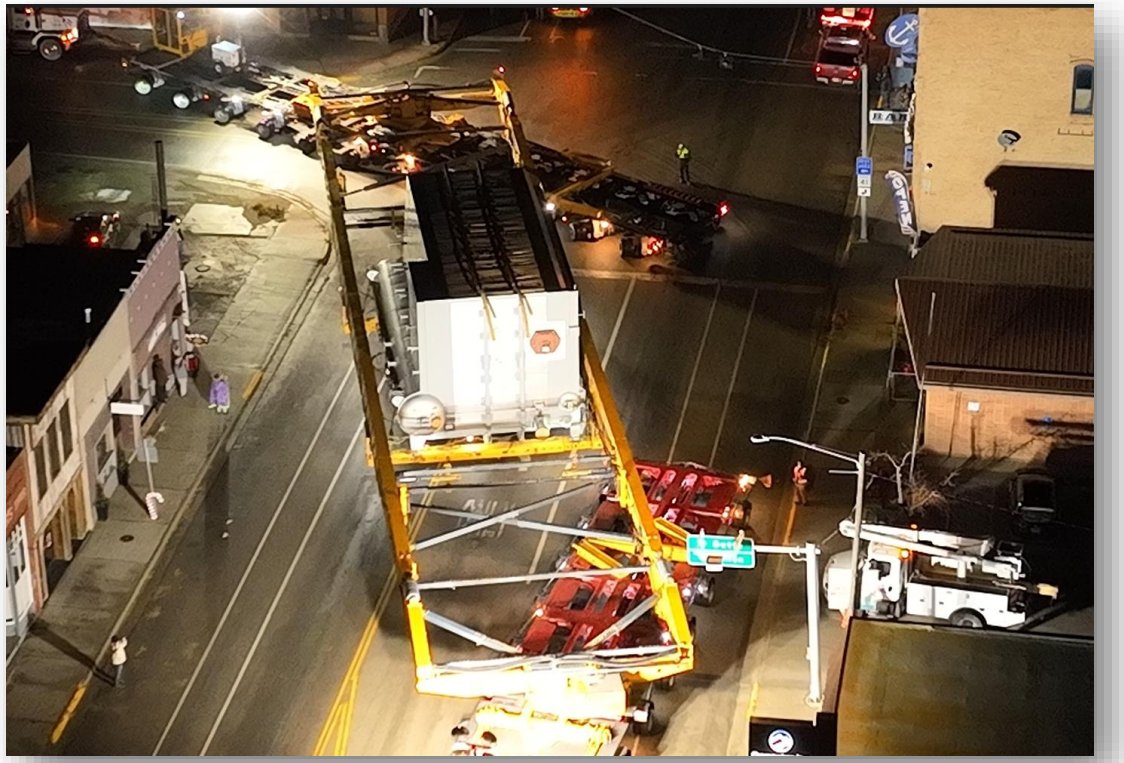
1. Decision making:
    1. The value is in having data which reduces uncertainties in decision making.
2. Record keeping:
    1. Whether it's project documentation or asset management, UAS imagery can provide an accurate, permanent visual record.
3. Planning:
    1. Survey work, geotech, etc.



MDT challenges with imagery:

1. Limited imagery tools and licensing
2. Non-standardized data collection methods
3. Knowledge or access to data collected by other departments

MDT's vision for a state imagery program:

- One vision is for individual agencies to collect and manage their own imagery based off guidelines and best practices for sharing and managing imagery provided by MSL. MDT would like to leverage ESRI's software to increase accessibility and sharing using a web service-based approach.
- Another vision is to have the department move toward a full integration into a BIM (Building Information Modeling) philosophy.
- Lastly, a vision for a state imagery program with standardized data collection methodologies that categorizes or indexes data in a logical format for use by other agencies who may need the data.

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Thank you!