Idaho Geospatial Council – Executive Committee (IGC-EC)

November 15, 2018

Minutes

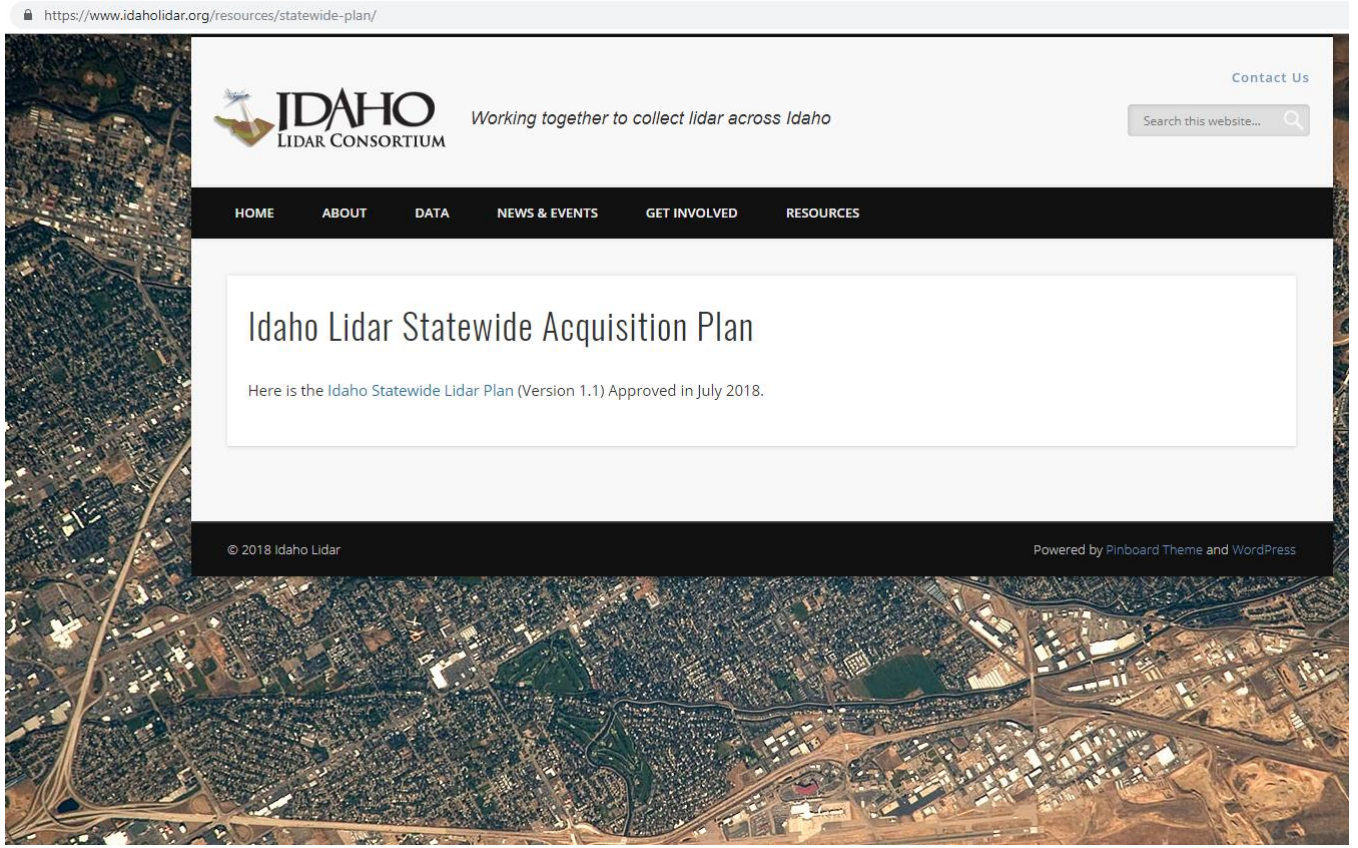
- September 24, 2018

Elevation Technical Working Group

Nancy Glenn

November 2018 update

Idaho Lidar Statewide Acquisition Plan



https://gis.idaho.gov/coordination/Idaho_Statewide_Lidar_Plan_Final_2018.pdf

Idaho Lidar Statewide Acquisition Plan

Recommends priority areas and quality level (QL1)

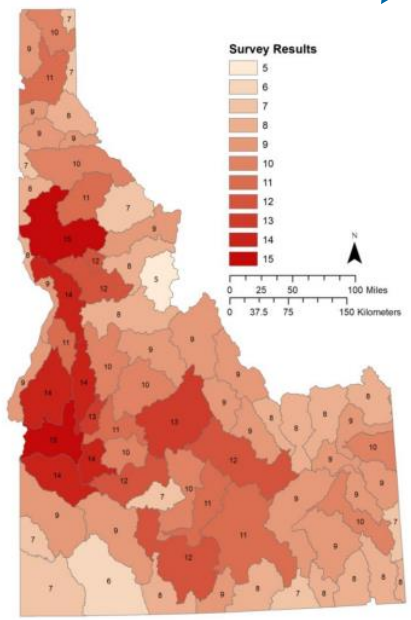


Figure 2. Priority HUC-8 watersheds based on survey. Survey results indicate number of user requests.

To share data collection information, people are encouraged to email bcal@boisestate.edu to coordinate the necessary information and distribution. Coordination of lidar data collections can also start with this email, and are usually facilitated ad-hoc with announcements on the State of Idaho's Geotech list-serv (http://admws.idaho.gov/mailman/listinfo/geotech), coordination with the Idaho Geospatial Council (IGC) meetings, and email notifications. The ETWG meets on an as needed basis and its membership is comprised of geospatial professionals who volunteer their time and represent state, federal, tribal, private, and university interests. The intent of this state TWG is to coordinate elevation data products in the state. There is no formal membership with ETWG and communication takes place primarily using the Geotech list-serv. Any and all interested parties are welcome to become involved in the ETWG and thus the ILC. The best mechanism to become involved in ETWG and ILC is to subscribe to the Geotech list-serv, attend meetings announced on the Geotech list-serv, and contact the ETWG Chair (Nancy Glenn at bcal@boisestate.edu).

State of Idaho Specifications for Airborne Lidar Data and Delivery

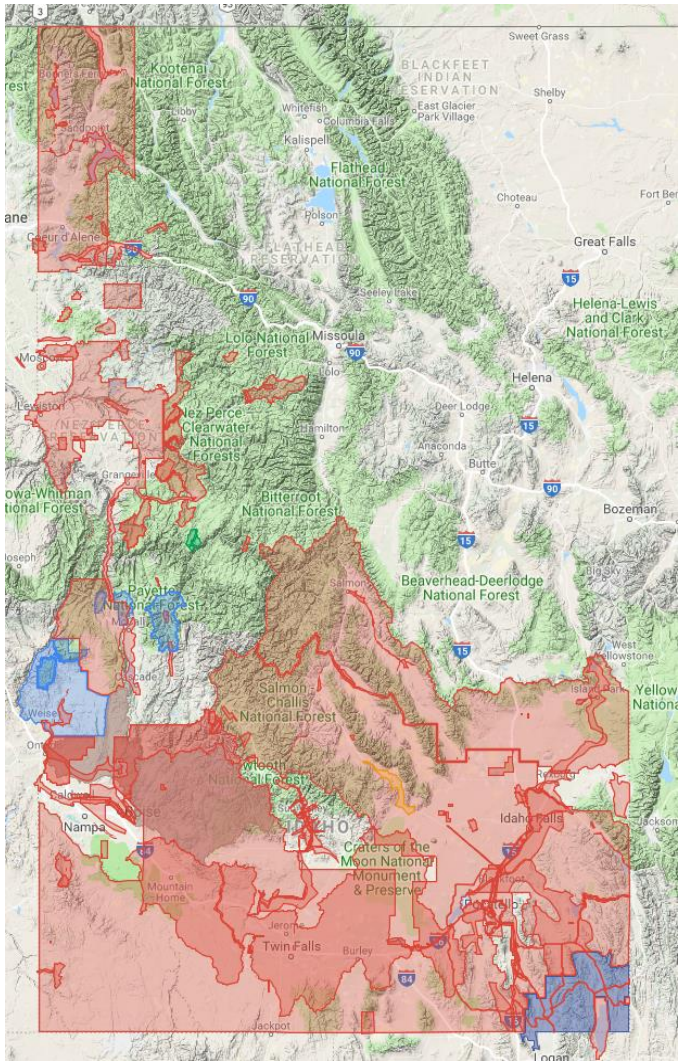
In order to ensure the best data quality for a range of business uses in the State of Idaho, the ETWG and ILC recommend all lidar data be collected as USGS Quality Level 1 (QL1). Information on USGS QL1 and other information on lidar can be found in the USGS Lidar Base Specification Version 1.3 (USGS, 2018).

The ILC has developed a guide on specifications and considerations when acquiring lidar data (Appendix A). These specifications exceed what is recommended by QL1. These recommended specifications are for acquiring lidar data, the accompanying LAS files, LAS file header information, metadata, and control point survey information. Similar to the information described by the USGS' QL1, these recommended specifications are intended to provide the widest community use of lidar data, while also being cost effective. However, specific applications may require different specifications. In general we recommend using these specifications along with the USGS QL1 specifications in parallel. Note, one major difference between our recommendations and the USGS specifications is the point density. This acquisition plan recommends a minimum 12 pts/m^2 whereas QL 1 is 8 pts/m^2. This recommendation of 12 pts/m^2 is based on: 1) previous experience where agencies have acquired coarser data only to find their features of interests (e.g., streams and topography) are not sufficiently captured; 2) the need for a statewide coverage standard to ensure consistency; and 3) to improve the cost: benefit ratio by increasing the number of potential users of the data collected. That said, if agencies are unable to acquire at 12 pts/m^2, we recommend using no lower than QL 1 as described by the USGS. There are a number of distinguishing characteristics between the Quality Levels described by the USGS (2018); however, one of the major considerations with QL1 is the >8 pts/m^2 requirement and its accompanying relative and absolute vertical accuracy requirements. QL2 data will not provide long-term data usability nor enable multi-agency use, thus negating any cost benefit with the even coarser data collection.

Next steps with Idaho Lidar Statewide Acquisition Plan

- Update in 2019 to reflect new acquisitions
- Update survey for priority areas
- NSGIC lidar plan template???

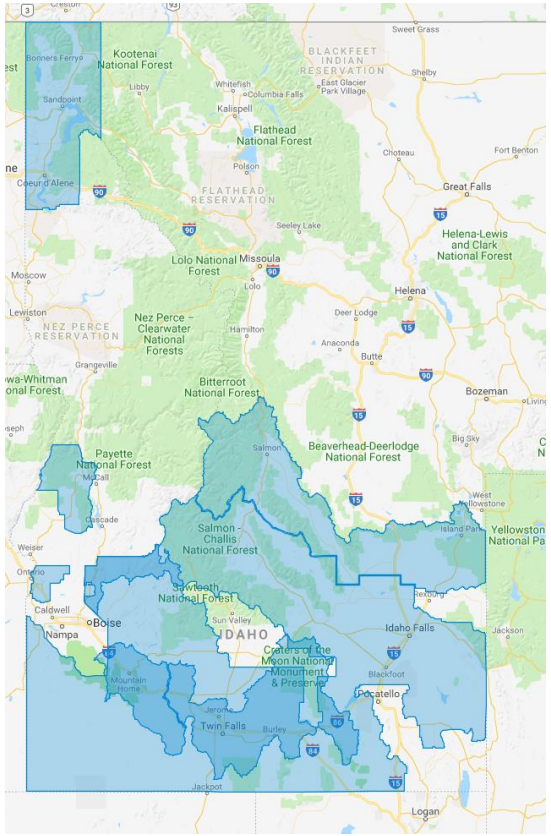
- Current lidar data map
- Data map is getting messy (a good thing!)
- This map is updated as of 11/13/2018
- Please email bcal@boisestate.edu with changes



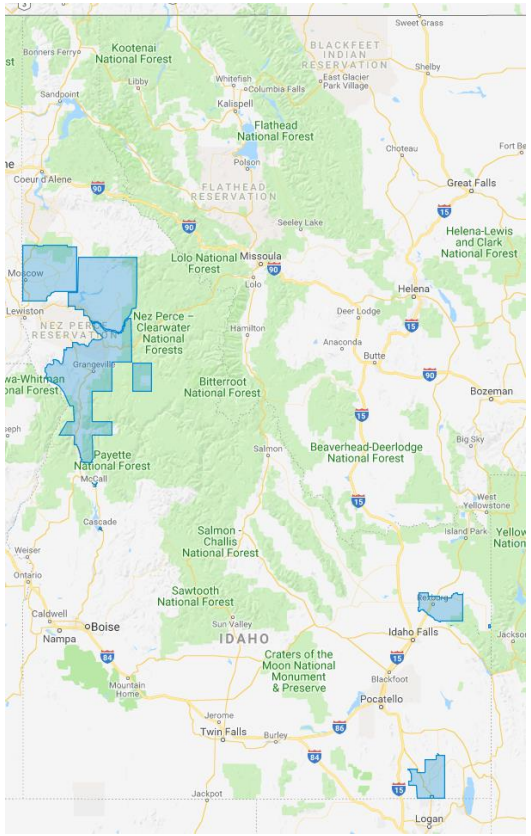
Upcoming Opportunities, FEMA HQ, QL2

Need to know soon if you can partner for QL1!

FEMA FY18 Planned



FEMA Proposed



G350 – Addition of ESRI's "Authoritative" designation

- Page 4 - addition

For those datasets that are published on ArcGIS Online, IGC-EC recommends that the Authoritative Source is verified by ESRI and that the Authoritative Dataset is designated as "Authoritative" in ArcGIS Online. For a description of this process see http://doc.arcgis.com/en/arcgis-online/reference/

Action Item

Moving Definitions into G105

Wilma Roberson

Pam Bond

Bill Farnsworth

G105

Idaho Technology Authority (ITA)

ENTERPRISE GUIDELINES – G100 GENERAL

Category: G105 – ITA GLOSSARY OF TERMS

CONTENTS:

I. DEFINITIONS

Cybersecurity Breach: A cybersecurity incident in which unencrypted sensitive information or personal information is disclosed. *(See also Idaho Code section § 28-51-104 for breach of the security of the system.)*

Cybersecurity Event: An unauthorized act, successful or unsuccessful, exploiting a **cybersecurity threat,** to gain access to or use of a network or system, or data stored on a network or system.

Cybersecurity Incident: A **cybersecurity event** that impacts the confidentiality, integrity or availability of a network, system, or data.

Cybersecurity Threat: The potential for a cybersecurity event from a person or thing exercising (accidentally or intentionally) a specific vulnerability.

Personally Identifiable Information (PII): PII is: "Personal information" as defined in Idaho Code section § 28-51-104; Information about an individual exempt from disclosure in a public record pursuant to the Idaho Public Records Act, Idaho Code title 74, chapter 1; and, Information about an individual defined as confidential, private, or a similar designation in

Example (P4510)

Idaho Technology Authority (ITA)

ENTERPRISE POLICY – P4500 COMPUTER AND OPERATIONS MANAGEMENT

Category: P4510 – CYBERSECURITY INCIDENT REPORTING

CONTENTS:

I. AUTHORITY

III. DEFINITIONS

See ITA Guideline G105 (ITA Glossary of Terms) for definitions.

IV. POLICY

Inventory of Definitions

- Pam went through all Guidelines, Standards and Policies and pulled out all definitions.
- Six definitions has multiple descriptions
- Some definitions included broken hyperlinks

Best Available data

- Geospatial data available for distribution with no access restrictions, accurate, and current at the time of compilation, and metadata is complete and compliant with S4220 – Geospatial Metadata Standard.

- ***G350*** *– Geospatial data available for distribution with no access restrictions, accurate, and current at the time of compilation, and metadata is complete and compliant with G320-Geographic Metadata Guideline.*
- Broken Link (I think this document was retired).

Data Customer

- Anyone who uses Geospatial Framework Data. This includes public citizens, private businesses, educational institutions, non-profit organizations, and government agencies at all levels.

- ***S4233*** *- anyone who uses Hydrography Framework Data. This includes public citizens, private businesses, educational institutions, non-profit organizations, and government agencies at all levels. Hydrography Technical Working Group.*
- ***S4232*** *- anyone who uses Geospatial Framework Data. This includes public citizens, private businesses, educational institutions, non-profit organizations, and government agencies at all levels.*
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Framework

- Statewide base map datasets initially identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure.

- ***P5030*** *– Statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/IGO/stratplan.htm) and depicted in the Framework Diagram (http://gis.idaho.gov/Framework.htm).*
- ***S4230*** *– Statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/portal/IGO/stratplan.htm) and depicted in the Framework Diagram (http://gis.idaho.gov/portal/framework/framework_index.htm).*
- ***S4232*** *- Statewide base map datasets initially identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/portal/IGO/stratplan.htm), and as subsequently modified and depicted in the Framework Diagram (http://gis.idaho.gov/portal/framework/framework_index.htm).*
- ***S4233*** *- Statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/portal/coordination/standards.html#Plans) and depicted in the Framework Diagram (http://gis.idaho.gov/portal/pdf/Framework/Administration/Visuals/FrameworkDiagram.pdf). Idaho Technology Authority Framework Standards Development Policy 5030.*
- ***S4234*** *-Statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/portal/coordination/standards.html#Plans) and depicted in the Framework Diagram (http://gis.idaho.gov/portal/pdf/Framework/Administration/Visuals/FrameworkDiagram.pdf) Idaho Technology Authority Framework Standards Development Policy 5030.*
- ***S4240*** *– Statewide base map datasets initially identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/portal/IGO/stratplan.htm), and as subsequently modified and depicted in the Framework Diagram (http://gis.idaho.gov/portal/framework/framework_index.htm).*

Framework Data Theme

- Spatial data that is commonly needed by a wide spectrum of GIS users with a goal toward developing and maintaining coverage statewide.

- ***G350*** *– Spatial data that is commonly needed by a wide spectrum of GIS users with a goal toward developing and maintaining coverage statewide. (Idaho Spatial Data Infrastructure Strategic Plan v. 1.0, page 9)*
- *Reference to the OLD Strategic Plan*

Geographic Information Systems (GIS)

- Geographic information systems (GIS) are digital databases in which a geographic coordinate system is used to reference the location of features represented by the data. In general, typical components of a GIS are the tools used to capture, store, transform, analyze, model, simulate, and display spatial and tabular data.

- ***P1070*** *– Geographic information systems (GIS) are digital databases in which a geographic coordinate system is used to reference the location of features represented by the data. In general, typical components of a GIS are the tools used to capture, store, transform, analyze, model, simulate, and display spatial and tabular data.*
- ***S4220*** *– defined in ITA Policy 1070 – Geographic Information Systems (GIS).*
- ***S4250 –*** *NOTE: The document just says 'GIS', not 'Geographic Information Systems'. Geographic information systems which comprise the hardware, software, network, data, and human resources involved in creating, maintaining, managing, and distributing data, information, and knowledge about spatial objects and their relative positions.*
- ***G340*** *– As defined in ITA Policy 1070 – Geographic Information Systems (GIS), GIS are digital databases in which a geographic coordinate system is used to reference the location of features represented by the data. In general, typical components of GIS are the tools used to capture, store, transform, analyze, model, simulate, and display spatial and tabular data.*
- ***G350*** *- As defined in ITA Policy 1070 – Geographic Information Systems (GIS), GIS are digital databases in which a geographic coordinate system is used to reference the location of features represented by the data. In general, typical components of GIS are the tools used to capture, store, transform, analyze, model, simulate, and display spatial and tabular data.*

Geospatial Metadata

- A file of information which describes the content, quality, condition, and other characteristics of a geospatial resource including but not limited to geospatial data, web services, and web applications.

- ***S4220*** *– a file of information which describes the content, quality, condition, and other characteristics of a geospatial resource including but not limited to geospatial data, web services, and web applications.*
- ***G350 –*** *Note: says 'Geographic Metadata (Metadata)' not 'Geospatial Metadata'. As defined in S4220 – Geospatial Metadata, is an information file on the geospatial data.*

Spatial Data Infrastructure (SDI)

- The technology, policies, standards, human resources, and related activities necessary to acquire, process, distribute, use, maintain, and preserve spatial data. Idaho's Spatial Data Infrastructure is known as The Idaho Map.

- ***P5030*** *– The technology, policies, standards, human resources, and related activities necessary to acquire, process, distribute, use, maintain, and preserve spatial data.*
- ***S4230*** *– The technology, policies, standards, human resources, and related activities necessary to acquire, process, distribute, use, maintain, and preserve spatial data. Idaho's SDI is known as The Idaho Map.*
- ***S4233 -*** *The technology, polices, standards, human resources, and related activities necessary to acquire, process, distribute, use, maintain, and preserve spatial data. Idaho Technology Authority Framework Standards Development Policy 5030.*
- ***S4234 -*** *The technology, polices, standards, human resources, and related activities necessary to acquire, process, distribute, use, maintain, and preserve spatial data. Idaho Technology Authority Framework Standards Development Policy 5030.*

Technical Working Group (TWG)

- Long-term groups formed by the Idaho Geospatial Council to provide expertise and focused effort in specific areas of interest including the Idaho Spatial Data Infrastructure (ISDI) initiative.

- ***G350*** *– Long-term groups formed by the Idaho Geospatial Council to provide expertise and focused effort in specific areas of interest including the Idaho Spatial Data Infrastructure (ISDI) initiative. (Bylaws of the Idaho Geospatial Council Article V.1)*
- Broken Link

Resources that include definitions

G340	Statewide Geospatial Clearinghouse
G350	Methodology for Recognizing a TIM Framework Dataset
P1070	Geographic Information Systems (GIS)
P5030	Framework Standards Development
S4210	Single Zone Coordinate System for GIS Data
S4220	Geospatial Metadata
S4221	Metatags
S4230	Framework Standard for Emergency Service Zones
S4231	Structures and Landmarks Data Exchange
S4232	Parcel Data Exchange
S4233	Hydrography Data Exchange Standard
S4234	Control Point Standard
S4240	Idaho Land Cover Dataset Standard
S4250	GIS Data Sharing Standards

Next Steps

- Reach consensus on edits to terms
- Finalize mechanism to include terms in G105
- Next IGC-EC meeting:
  - Approve changes to G105
  - If approved:
    - “Batch” approve the following change to ALL policies/guidelines/standards that have definitions:

GIO Update – Bill Farnsworth

- ❑ Geospatial Data Act Update
- ❑ NSGIC State Leaders Membership
- ❑ NAIP Licensing Update
- ❑ GIS Coordination and the Role of the GIO
- ❑ Proposed Broadband Satellite Network Initiative Update

Geodetic Control Technical Working Group

GC-TWG

Chair: Keith T Weber, GISP

ISU GIS TReC

Idaho Geodetic Control Technical Working Group (GC-TWG)

DRAFT Recommendation of a Statewide Spatial Reference System for Idaho's GIS Community Relative to NATRF 2022

Based upon discussions at monthly meetings beginning in June 2018, the GC-TWG currently recommends the spatial reference system described below be adopted as the statewide spatial reference system for the state of Idaho, superseding Idaho Transverse Mercator NAD83 (IDTM83), following release of the North American Terrestrial Reference Frame (NATRF) by the National Geodetic Survey (NGS) in 2022.

Idaho Oblique Mercator 2022

PROJCS[NATRF2022 and/or its resulting datum/geoid]

Principle Meridian:	PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]]
Projection:	PROJECTION["Hotine_Oblique_Mercator_Azimuth_Center"]
1.	PARAMETER["False_Easting",4250000.0]
2.	PARAMETER["False_Northing",1000000.0]
3.	PARAMETER["Scale_Factor",1.0]
4.	PARAMETER["Azimuth",-18.0]
5.	PARAMETER["Longitude_Of_Center",-114.61352425]
6.	PARAMETER["Latitude_Of_Center",44.35106255]
7.	UNIT["Meter",1.0]]

Explanation of Parameters

Hotine Oblique Mercator is probably the most commonly used form of an oblique Mercator projection. Oblique Mercator is particularly well suited for areas that do not follow a north-south or east-west trend[1]. For this reason, the Hotine Oblique Mercator has been applied to the Aleutian Islands of Alaska and similarly could be applied to the state of Idaho.

1, 2: The false easting and false northing parameters have been carefully calculated to eliminate the error caused by an incorrect application of this reference system relative to IDTM83, IDTM27 (the predecessor of IDTM83), and the Idaho State Plane Coordinate System (SPCS). In the event this reference system is incorrectly applied during either a projection or definition process, the resulting geospatial data will clearly offset visually indicating the error to the GIS specialist.

3. [This is a standard scale factor identical to that used in IDTM83]

4-6. The azimuth (bearing) describing how the cylindrical oblique Mercator projection is fit to the earth model. An azimuth of -18° (parameter 4) will fit meridian or great circle entirely within the state of Idaho passing through the geographic centroid of Idaho, given in parameters 5 and 6 (fig. 1).

7. A coordinate system measure in meters is standard for nearly all GIS applications and is identical to that used in IDTM83.

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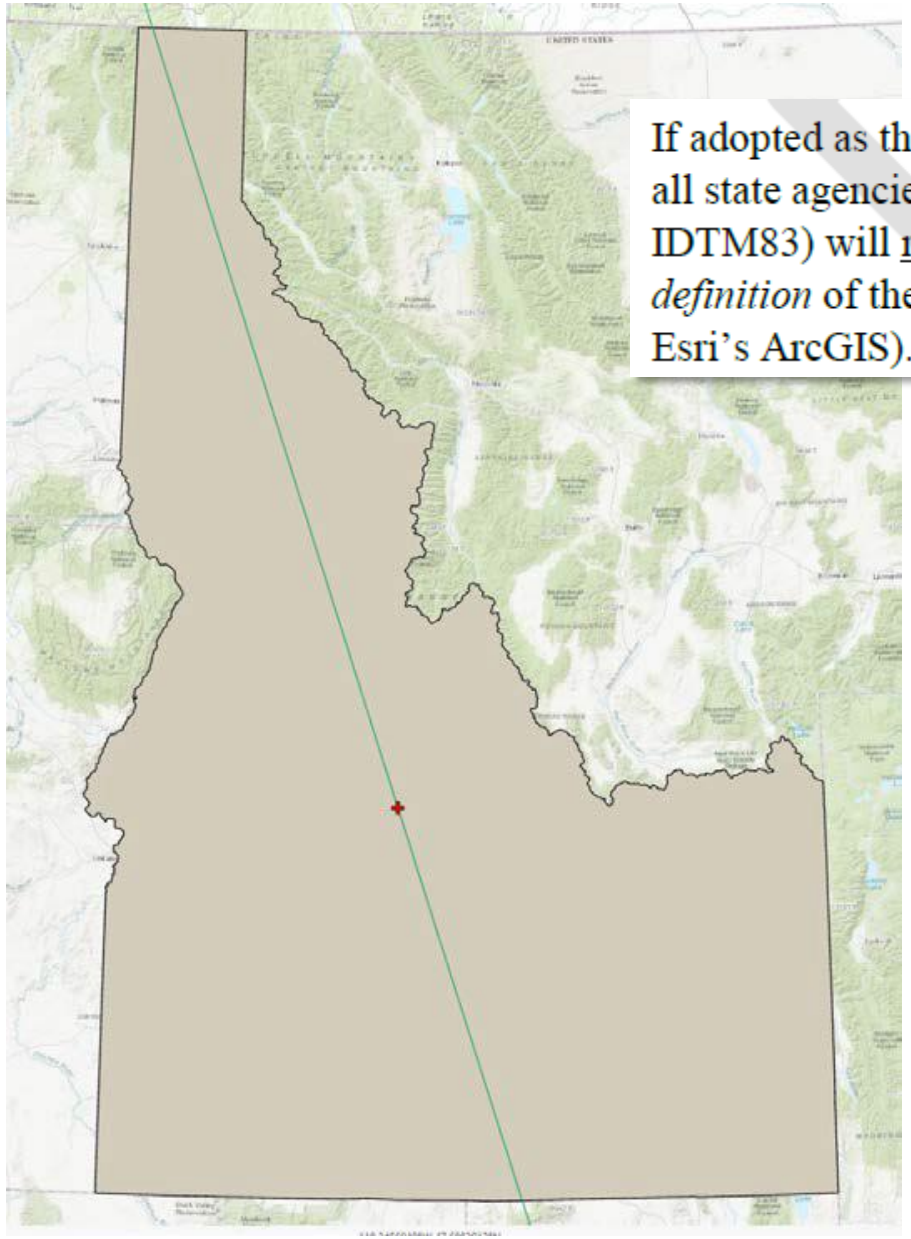
[1] Cf., Hotine Oblique Mercator http://desktop.arcgis.com/en/arcmap/10.3/guide-books/map-projections/hotine-oblique-mercator.htm



If adopted as the standard for the State of Idaho, use of IDOM2022 will be encouraged and expected by all state agencies and institutions. Existing geospatial data that uses a different reference system (e.g., IDTM83) will not need to be re-projected into IDOM2022 to comply with the standard as the correct *definition* of the reference system will accommodate differences within the GIS software itself (e.g., Esri's ArcGIS).

Figure 1. A depiction of how the meridian or great circle (indicated by the green line) used by the Hotine oblique Mercator projection has been fit to the state of Idaho passing through the geographic centroid of Idaho (indicated by the red cross) at a -18° angle.

Questions?

Letter of Support

Free and Open Landsat Imagery Data

At the direction of the Department of the Interior (DOI) and the U.S. Geological Survey, a Federal Advisory Committee is currently reviewing USGS's current free-and-open policy for Landsat data - https://www.usgs.gov/center-news/landsat-advisory-group-undertakes-a-landsat-cost-recovery-study. On behalf of the Idaho geospatial community, the Idaho Geospatial Council Executive Committee (IGC-EC) would like to express our overwhelming support for continued open and free access to data collected under the Landsat program. The mission of IGC-EC is to provide leadership and coordination for the creation and maintenance of statewide geospatial data and overall support to the GIS community. We facilitate the use, development, access, sharing, and management of geospatial data and assist with communicating the value of geospatial information to citizens and decision makers in the state of Idaho. Landsat plays an important role in supporting the various missions of the Idaho geospatial community.

NASA launched the first Landsat satellite in 1972 and represents the world's longest continuously acquired collection of space-based moderate resolution land remote sensing data. The advances in the use of this unprecedented historical archive of Landsat data for natural resources management, including water, wildfire recovery, and landuse change have come because Landsat data are free. The user community of academia, federal, state, and regional institutions and a multitude of others will continue to develop valuable Landsat-based applications as long as Landsat data are provided at no-cost.

Open and free access to Landsat data allows urban and natural resource program managers, decision-makers, and staff at many levels (administrative, technical, GIS, and field) to engage in quality analyses to protect natural resources, provide data verification, and monitor changes. The range and variety of how satellite imagery is used - from regulatory and compliance monitoring to field mapping and scientific assessment – is a testament to its importance.

We acknowledge the budget pressures motivating the necessity to recoup the cost of Landsat; however, limited access will have considerable detrimental impacts to state, regional, and local governments already experiencing tightened budgets and reduced staff. We believe that collecting data that serves a public good is an excellent use of our federal dollars and should continue to be served freely and openly to the national GIS community, be it from the USGS/NASA program or from another national program that would be consistently funded.

GIS Records Retention Policy Update

Adjourn

- **Upcoming Meetings**

  - ✓ **IGC-EC Meeting**

    Thursday, January 17, 2019