



AK Statewide Mapping Initiative

Department of Military and Veteran's Affairs
Department of Natural Resources
University of Alaska Fairbanks

Memorandum of Endorsement

Background: The State of Alaska, in cooperation with the federal government, understands and supports the requirements necessary to create a high resolution map of the state. This high resolution map will be derived using various products produced by commercially available imaging and sensing platforms. The lead state agencies supporting this initiative are the University of Alaska and the Departments of Military and Veterans' Affairs and Natural Resources. To foster the oversight, management and planning required to facilitate this initiative these three agencies will develop the required concepts under the titled name of the "Statewide Mapping Initiative Project" (SMIP).

Understanding: It is understood that the SMIP will provide the leadership and oversight necessary to ensure success of this initiative. It is also understood that the far-reaching cost benefits derived from such an undertaking are enormous; however, the initial investment in project management, ancillary personnel support costs and funding may be very extensive. In-order-to secure formal cooperation and support for this project, the State has elected to request teaming partners and stakeholders to sign a Memorandum of Endorsement (MOE).

Intent: To ensure a long term, cooperative partnership between the respective users of this geospatial data the signatory to this MOE acknowledges the following understandings:

- a) there is a need for a statewide initiative to map the state;
- b) this mapping initiative will benefit many elements in the public and private sector;
- c) the mapping of the state will be to a set of nationally recognized standards;
- d) the data will be shared between all users to improve the development of the state be it from an economic, public safety, resource development/protection, planning or scientific perspective, and;
- e) all repurposing of the original data will be, where legally permissible, shared with other members supporting this initiative through their formal acknowledgement of this MOE.

Acceptance: By signature to this MOE the agency/organization accepts the intent of this initiative and agrees to support this concept with the resources available to them individually or collectively.

Withdraw: Any signatory to this MOE may withdraw their support by providing thirty (30) day written notice to the SMIP.

Signature: I accept the terms and conditions of this MOE.

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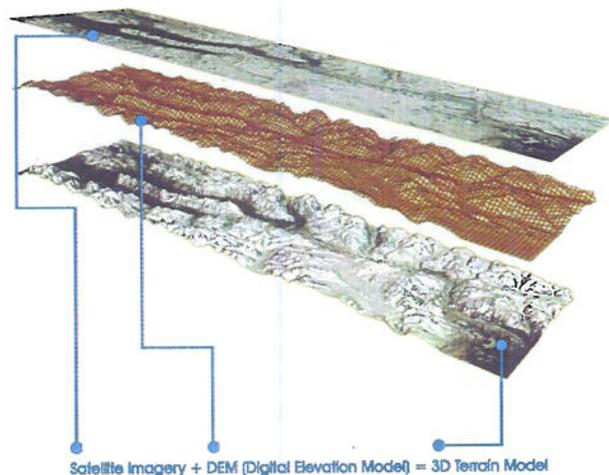


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Currently, the US Geological Survey (USGS) topographic maps of Alaska are over forty years old, inaccuracies of up to a quarter mile and more are commonplace and these maps do not meet National Map Accuracy Standards (NMAS). Modern mapping methods allow for satellite imagery to be laid over DEM data (Digital Elevation Model) to construct a highly accurate 3-D terrain model that functions as the base map. This base map is critical in order to apply modern day layers of GIS data (Geospatial Information Services) used across all disciplines both public and private. None of the modern disaster preparedness, disaster recovery and emergency management systems being deployed elsewhere can work in Alaska until the need for an accurate base map is resolved.

In order to construct the base map DEM data and satellite imagery will need to be acquired. A variety



of interests both private and public have been on an as needed basis purchasing both Ortho and DEM data to construct 3-D terrain models to support their respective interests. Often times this data is licensed and utilized on a project by project basis and the data discarded or forgotten upon completion of the project. This is a very inefficient way to conduct business and affairs of state.

At the time of this writing Alaska is the only state in the United States of America that has not been digitally mapped on a state-wide basis. Point of fact, most states have already completed or are currently addressing a plan of action to refresh existing data. ***The fact Alaska does not have a state-wide digital map is unacceptable and unnecessarily subjects its citizens to a lack of readiness in terms of disaster recovery and emergency services.***

There have been previous attempts to attract the funding to complete a statewide base map. Previous initiatives for mapping the state failed due in part to one or more of the following reasons:

1) The state did not have a "plan" inclusive of stakeholder concurrence with respect to how it would proceed; 2) Cooperation between the state stakeholders and the federal government did not exist; 3) The state did not speak in one voice while having a unified vision; 4) The private sector had not agreed to the plan(s), and 5) The State of Alaska did not participate in terms of supportive funding.

To date; key developments have occurred to resolve these issues, they are as follows:

1. **The State has appropriated \$2M in funds to "map the state".** The intent of this appropriation is to provide seed money to develop a strategic plan for the development of the statewide mapping project as much as it is a show of good faith to the congressional staff demonstrating the State would participate financially to map Alaska and Alaska understands its obligation to do so.
2. A trilateral agreement between three key state agencies and the executive branch has been executed in the form of a Memorandum Of Agreement (MOA). The intent of the MOA, as agreed to by the parties, is unmistakably clear and it is to foster a collaborative effort to create a strategic plan to map the state while building consensus among the stakeholders, both public and private. Therefore a comprehensive plan, which has been historically lacking, is now imminent—one plan, one vision and one voice.
3. Lockheed Martin Corp. (LMC) has been placed under contract to the State of Alaska to assist in the development of the state's Strategic Plan, of which mapping is an integral element. Key among the contract deliverables is stakeholder relations and stakeholder participation in the planning process as well as design review. This therefore addresses stakeholder/end user input and concurrence.
4. The State of Alaska is currently leveraging its relationship with NASA to secure federal oversight through NASA and the Space Act of 1958 thereby creating a conduit of oversight and cooperation by and between the State of Alaska and the Federal Government.

A very well rounded and just set of synergies found in a variety of state and federal agencies and private enterprise have been assembled to collaborate in the planning, design and build functions of the statewide mapping initiative. These organizations are as follows:

NASA: The National Aeronautical and Space Agency (NASA) is perhaps the worlds most recognized leader in the field of satellite imagery and Ortho-rectification. NASA will provide guidance and peer review as well as federal oversight to the project.

DNR: The Department of Natural Resources, (SoA), has been very proactive in their use of modern day GIS applications in the execution of their responsibilities for many years. The DNR has established a very forward looking approach to mapping and has extensive departmental resources supporting the mapping initiative.

UAF: The University of Alaska Fairbanks has extensive experience and facilities dedicated to GIS studies and Satellite observation. UAF has also developed GINA, (Geographic Information Network of Alaska), which possesses strategic knowledge about the mapping process and as such serves to guide the mapping initiative through the technical process.

DMVA: The Department of Military and Veteran's Affairs, (SoA), sponsored the mapping initiative and is implementing a forward looking statewide strategic plan for disaster preparedness, disaster recovery and emergency management. Central to the successful implementation of these initiatives is an accurate digital base map. The DMVA has years of experience and extensive resources to support the project management aspect of developing the base map.

LMC: Lockheed Martin Corporation has been retained by the DMVA on behalf of the state in an advisory capacity to assist in the design, development and deployment of the Statewide Strategic Plan. LMC—Space Operations Division, Information and Technology Services business unit has extensive experience in assisting governments, organizations and business units develop base maps, warehousing and retrieval infrastructure and IP/GIS integration.

Stakeholder Relations:

A stakeholder needs assessment and final design review are key considerations the SDMI executive committee welcomes. To these ends all reasonable recommendations and suggestions will be heard and where appropriate incorporated into the plan.

The SDMI executive committee will publicly announce the mapping initiative and schedule a public forum to discuss the scope of the project, receive stakeholder input and formally establish stakeholder needs. Stakeholder relations will

continue to develop through evolving web development of the GIS clearing house concept and periodic news letters sent via e-mail. Stakeholders will be able to sign up for the periodic newsletter and monitor on-going development as well as provide comment and input through the web site.

The SCoR State Data Retrieval Subcommittee is comprised of Craig Dorman, Vice President Academic Affairs & Research, University of Alaska, will Chair the subcommittee. In addition the three signatories to the MOA will also be added to the subcommittee. And, four yet to be determined envoys of the GIS industry will be nominated to fill out the subcommittee and represent stakeholder and end user's interests and concerns.

Additionally, a final design review will be formally scheduled and in a public forum comments will be heard, concerns addressed and where appropriate incorporated into the SDMI plan.

Conceptual:

At the end of this 4-5 year project (depending upon funding) an agnostic (open standards) digital base map of the entire State of Alaska will be produced, warehoused and made available free of charge to both public and private interests via a fully redundant internet based data retrieval platform. A significant portion of the planning process is dedicated to data management, data warehousing and data retrieval. At the time of this writing a warehousing facility has not been identified, although the supercomputing facility at the University of Alaska, Fairbanks is a conceivable in-state repository for the public/private clearing house version of the base map, the geospatial data layers and the subsequent ongoing data management practices that will need to be employed. Agencies requiring their own base map due to the sensitivity of their respective missions may receive a copy of the base map for the cost of reproduction. Warehousing and data management would then become the responsibility of the agencies having such requirements.

Funding & Endorsement:

Funding has proven to be problematic in the current political climate. The SDMI executive committee's mission with regard to federal funding is a coordinated effort targeting multiple state and federal agencies who have similar needs and a potential budget sharing agenda. Ultimately, federal funds directly appropriated to the Statewide Digital Mapping Initiative will be required but, at this juncture, this is not perceived as being possible until 2008 for a variety of reasons. In order to better coordinate our funding efforts we are asking for stakeholder endorsement to demonstrate to our congressional delegation in Washington DC that the Statewide Digital Mapping Initiative has broad support in both the public and private arenas. Please take a moment to show your support and sign the attached MOE.