

Meeting Notes

State Mapping Advisory Committee (SMAC) October 4, 2005

**U.S. Bureau of Land Management, Nevada State Office
Main Conference Room, 1340 Financial Blvd.
Reno, Nevada**

For further Information please contact Ron Hess
Nevada Bureau of Mines and Geology
(775)784-6691 Ext. 121 or Email: rhess@unr.edu

10:00 AM: OPENING REMARKS and Welcome by Jon Price, Committee Chairman

OLD and NEW BUSINESS

Report on U.S. Geological Survey's National Mapping Discipline projects in Nevada, by Tom Sturm (USGS):

USGS Reorganization - What's happened to the former National Mapping Division of USGS:

Renamed the Geography Discipline. The Earth Science Information Center (and map sales) merged with the USGS library as part of the Natural Science Network under the management of the Regional Geographic Information Offices.

The research staff has been split off as Geography, the fourth USGS science discipline. The liaison staff has been split off into regional National Spatial Data Infrastructure (NSDI) Partnership Offices under the Regional Geographic Information Officers (RGIO). The remaining staff has become the four offices of the National Geospatial Technical Operations Center.

In September a decision was made to consolidate the Technical Operations Center offices into our Denver location and proceed with a competitive outsourcing study. The outcome of this study will be reported at a future meeting.

Status of the National Agricultural Imagery Program (NAIP) Nevada Cooperative Funding Project 2006, by Tom Sturm (USGS), Mike Turner (NDOT), and Ron Hess (NBMG).

The Bureau of Land Management (BLM), U.S. Geologic Survey (USGS), Farm Service Agency (FSA), Nevada Department of Transportation (NDOT), Southern Nevada Water Authority (SNWA), Washoe County, Nevada Bureau of Mines and Geology (NBMG), and other agencies are implementing a cooperative project to fund a NAIP mission for Nevada during 2006.

It appears that sufficient cooperative funding will be available to fly NAIP for Nevada in 2006. It appears that FSA contracting restrictions will prohibit the capture of the four bands needed to produce both natural color and color infrared (CIR) imagery as a deliverable. However, this will not prohibit agencies in Nevada from negotiating directly with the selected vendor to purchase the additional imagery as an add-on product (if the selected vendor uses a digital capture camera system). FSA can not guarantee that the chosen vendor will have the required equipment available to capture both sets of data.

Since it is unlikely that both natural color and CIR would be captured under this single contract it was the consensus of the committee that natural color imagery should be captured statewide as a first priority and, if contracting requirements allowed and additional funds were available, that CIR imagery should be a second priority.

When the NAIP orthoimagery becomes available it will be distributed through the Keck website at no cost. We may have to identify some funds to purchase additional high performance disk packs for the Keck website servers to hold, backup, and serve the NAIP imagery to the Web.

The NAIP project will cover Nevada except for the Nellis Air Force Range and DOE Test Site. Anticipated project cost is \$1.2 to 1.5 million. NAIP 1-meter imagery program specifications allow for up to 10% cloud cover.

National Spatial Data Infrastructure (NSDI) MOU with Nevada and creation of a Geospatial Strategic Plan for Nevada, by Ron Hess and Tom Sturm.

There would be long-term benefits in developing a National Spatial Data Infrastructure (NSDI) MOU with Nevada and creation of a Geospatial Strategic Plan with the SMAC and other partners in Nevada. These efforts should be tied to the National States Geographic Information Council's (NSGIC) Fifty States Initiative.

Ron reviewed the Fifty States Initiative which is an effort by NSGIC and the Federal Geographic Data Committee (FGDC) to implement a standard state coordination model nationwide.

NSGIC published the following nine criteria that its members believe are essential for effective statewide coordination of geospatial information technologies:

1. A full-time, paid coordinator position is designated and has the authority to implement the state's business and strategic plans.
2. A clearly defined authority exists for statewide coordination of geospatial information technologies and data production.
3. The statewide coordination office has a formal relationship with the state's Chief Information Officer (or similar office).
4. A champion (politician or executive decision maker) is aware and involved in the process of coordination.
5. Responsibilities for developing the National Spatial Data Infrastructure and a State Clearinghouse are assigned.
6. The ability exists to work and coordinate with local governments, academia, and the private sector.
7. Sustainable funding sources exist to meet projected needs.
8. Coordinators have the authority to enter into contracts and become capable of receiving and expending funds.
9. The Federal government works through the statewide coordinating authority.

By FY '08, the ability should exist to link USGS geospatial data budget dollars to identified requirements in the State Strategic Plan. The plan would be developed by the State coordinating body.

Over the next several years there should be FGDC CAP grants made available on a competitive basis to help fund development of State coordination bodies and strategic plans in accordance with the above guidelines. Over the next several years SMAC should move in this direction to insure that Nevada can make the best use of funds, both local and Federal, that may become available for geospatial data projects.

National Hydrography Database (NHD): The hydro program in Nevada is nearing completion. This program had been identified at previous SMAC meetings as a priority. At present only five sub-basins need to be completed for statewide coverage to be complete. The BLM may contribute cooperative funding to complete these basins in 2006. The data will be distributed through the USGS NHD website.

National Elevation Database (NED) update: The 1/3 arc-second (10 meter) NED program is finally complete for Nevada. By early 2006 these data should be available via the USGS NED website. One arc-second (30 meter) data have been available over Nevada for several years and 30 meter data from the Shuttle Radar Topography mission are also available on the NED website. It is anticipated that when 1/9 arc-second (3 meter) data are made available by local agencies in Nevada that it will also be made available through the NED website.

Report on ongoing projects at the Nevada Department of Transportation (NDOT), by Eric Warmath (NDOT).

Eric reported that NDOT has a DGPS station now running in Fallon. It will eventually be upgraded to HGPS, 0.10 meter accuracy, in the near future.

NDOT has been digitizing historic road alignments, roads that at one time or another were under NDOT control, and the data base currently contains data on over 100 roads.

NDOT continues to mosaic and compress digital orthophoto quadrangle (DOQ) imagery for placement on the Keck website.

Three updated 30-minute map quadrangles have been released and are included in the latest version of the Nevada Map Atlas.

NDOT is continuing to GPS State and County roads.

Report on Las Vegas Urban Area orthophotos, by Tom Sturm (USGS).

The USGS, in conjunction with the Clark County Geographic Information Systems Office (GISMO), will be creating a new DOQ coverage of Las Vegas Valley for the 133 city homeland defense initiative.

Open discussion and comments.

Eric reported that the Nevada Department of Transportation mentioned that NDOT owns two terrestrial LiDAR instruments. They have used them for measuring bridges and road cuts. Eric understood that some researchers have used these for detailed profiling and topographic mapping of fault scarps. They are also being used in open-pit mines for slope-stability measurements and for measuring the geometry of stream beds before and after flash floods

Several other agencies have acquired airborne LiDAR, which is increasingly being used to map fault traces and flood-hazard zones (and to measure mass transport associated with flooding) in various parts of the country. If you are interested in getting to see these data, please contact the agencies:

USGS/Carson City Office has been involved with a project in the Walker Lake area - from Hawthorne to Weber Reservoir.

Nevada Flood Inundation Management Program (Kim Groenewold) and perhaps the USGS have conducted a Carson Valley LiDAR + hyperspectral image project.

Nevada Division of Environmental Protection (NDEP) has acquired some LiDAR data along the Carson River.

Southern Nevada Water Authority collected LiDAR for the Virgin River and Muddy River areas, and the Bureau of Reclamation flew LiDAR along the Virgin River after January's big floods.

Clark County and the Las Vegas Valley Water District either have already or plan to acquire LiDAR data for the valley.

BLM did two small LiDAR demonstration tests - one near the Carlin Tunnel and one somewhere in White Pine County.

Tom said that the cost of commercial airborne LiDAR is coming down, from about \$1,000 per square mile to now about \$300 per square mile as more vendors are offering the service. Several individuals warned, however, that unless the data are carefully processed to eliminate unwanted vegetation and buildings, the airborne LiDAR can be frustrating to use.

Wrap up: At present the focus in Nevada for 2006 will be:

- 1. Securing NAIP funding (number one priority) for 1 meter natural color digital orthophoto quads Statewide.**
- 2. Completion of 24K National Hydrography Data (NHD) set for Nevada.**
- 3. Look into developing a National Spatial Data Infrastructure (NSDI) MOU between Nevada and the USGS.**
- 4. Look into development of a Geospatial Strategic Plan for Nevada.**

12:00 Noon ADJOURN

If you have questions please contact Ron Hess, Executive Secretary, Nevada State Mapping Advisory Committee at (775) 784-6691 x 121 or Email rhess@unr.edu.

Meeting Attendees

Jon Price	NV Bureau of Mines and Geology	775-784-6691x126/Email: jprice@unr.edu
Ron Hess	NV Bureau of Mines and Geology	775-784-6691x121/Email: rhess@unr.edu
Eric Warmath	NV Department of Transportation	775-888-7265/Email: ewarmath@dot.state.nv.us
John Watermolen	NV Dept. of Environmental Protection	775-687-9328/Email: jwatermo@ndep.nv.gov
Craig Hale	Southern Nevada Water Authority	702-862-3730/Email: craig.hale@snwa.com
Michael Wallen	Southern Nevada Water Authority	702-862-3788/Email: michael.wallen@snwa.com
Ryan Cooper	NRCS	775-857-8500/Email: ryan.cooper@nv.usda.gov
Gail Durham	NV Division of Forestry	775-684-2513/Email: gdurham@forestry.nv.us
Mike Turner	NV Department of Transportation	775-688-7449/Email: mturner@dot.st.nv.us
Linda Newman	UNR, Delamare Library	775-784-6945x230/Email: lnewman@unr.edu
Larue Smith	USGS Water Resources	775-887-7630/Email: lsmith@usgs.gov
Toby Welborn	USGS Water Resources	775-887-7671/Email: twelbor@usgs.gov
Rose Medina	USGS Water Resources	775-887-7620/Email: rmedina@usgs.gov
Matt Forest	Carson City	mailto:775-887-2116x1013 /Email: mforrest@ci.carsoncity.nv.us 775-887-2116x1013/Email: mforrest@ci.carsoncity.nv.us
Mark O'Brien	Bureau of Land Management	775-861-6440/Email: mobrien@blm.gov
Tom Sturm	USGS Mapping Liaison	650-329-4326/Email: tsturm@usgs.gov
Kim Groenewold	NV Division of Water Resources	775-684-2860/Email: groenewold@water.nv.gov
Holly Smith	NV Division of State Lands	775-684-2727/Email: hsmith@lands.nv.gov
Matt Dillon	NV Division of Water Resources	775-684-2856/Email: mdillon@water.nv.gov

State Mapping Advisory Committee Web Page
<http://www.nbmg.unr.edu/smac/smac.htm>

Virtual Clearinghouse of Nevada Geographic Information Web Page
<http://www.nbmg.unr.edu/geoinfo/geoinfo.htm>