



North Carolina
Geographic Information Coordinating Council

Minutes
February 11, 2009

PRESENT

Chair, Dr. Lee Mandell. Members: Jerad Bales, Bob Brinson, Michael Brown (for Kenneth Lay), Rodney Bunch, John Correllus, John Cox, Ryan Draughn, John Farley, John Gillis, Bill Gilmore, Bill Laxton, Bliss Kite, Dan Madding, Ben Matthews (for Derek Graham), Herb McKim, Joe McKinney, Tom Morgan (for Elaine Marshall), Steve Morris (for Dr. Hugh Devine), Anne Payne, Jeremy Poss, Stephen Puckett, Colleen Sharpe, Julie Stamper, Mary Penny Thompson, Dr. Billy Willis, Ron York, and Reuben Young

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held in the Board Room of the Department of Public Instruction in Raleigh, North Carolina. Dr. Lee Mandell, Chair, called the meeting to order. He welcomed new members Reuben Young, Secretary of the Department of Crime Control and Public Safety, Mary Penny Thompson, Assistant Secretary of the Department of Environment and Natural Resources, and Jerad Bales, the Governor's appointment to represent federal government in North Carolina. Mr. Bales also serves as chair of the Federal Interagency Committee.

The Minutes of the November 19, 2008 meeting were approved.

Status and Discussion of Priorities Before Council

Priority #1—NC OneMap Implementation

Mr. Tim Johnson called attention to the flier in member packets on the NC OneMap website. He mentioned that 2008 local government orthophotography was now available for free download for Surry, Nash, and Caswell counties. Data updates for Shellfish Areas, Natural Heritage Element Occurrence Sites, and Significant Natural Heritage Area were released. The NC OneMap data inventory of state and local government GIS datasets includes listings for 2,200 datasets posted by 86 state and local government agencies. An important feature of this statewide inventory is that it generates a starter set of metadata for each data set recorded. Quarterly reports from the inventory are routinely placed on the NC OneMap website.

Priority #2—State Geographic Information / Consolidation Implementation Plan (HB 2436)

Dr. Lee Mandell thanked Council members for attending the January meeting of the Joint Legislative Oversight Committee on Information Technology. The committee forwarded the GIS Study Implementation Plan to bill drafting. The Office of Information Technology Services (OITS) is including \$1.3 million in its request for state appropriations. At this point it is a separate bill, but could be rolled into budget provisions when the budget is finalized. He said that anything members can do to put in a good word would be welcome. Ms. Bliss Kite said that Dr. Mandell made an excellent presentation to the legislative committee. Dr. Billy Willis mentioned that this GIS Study Implementation Plan is in as good shape as can be expected. The Office of State Budget and Management does know the minimum requirements, but they have challenged the need for NC OneMap refresh funds. We need to keep explaining its importance as it moves forward.

Priority #3—Surveyors' Model Law Working Group

Mr. Herb McKim, Chair of the Working Group, reported that they received a letter from NC Board of Engineers and Surveyors (NCBELS) and will schedule a meeting with the working group members in early March. There are 32 instances that will be discussed at that meeting to decide on whether there is a need for surveyor's oversight. Mr. McKim says a full report should be available at the May meeting.

Priority #4—Update on Current Efforts to Archive NC GIS Data

Ed Southern, head of the Government Records Branch in the North Carolina Division of Archives, said they welcomed the archiving recommendations from the Council's Archival and Long Term Access *ad hoc* committee, especially relating to data available through NC OneMap. Mr. Southern said the GeoMapp project, a geospatial multistate archive and preservation partnership that involves North Carolina, Utah and Kentucky, is working with state government archives staff and geospatial experts to investigate issues surrounding preservation of digital content. This includes records maintenance and solving for retention time and storage issues. Mr. Southern estimated that only 3-5% of state records end up in state archives. All North Carolina agencies have a retention schedule that must include digital information. There is confusion as to what "archive" means in information technology (temporary storage) versus the broader context of public records, which means forever. He gave an example using local government orthophotography. The local government survey of archival practices several years ago revealed that respondents did not know about archiving this data. There is a potential archival flow, through NC OneMap, and creation of a node for the North Carolina State Archives.

Mr. Southern requested feedback from the State Government GIS Users Committee (SGUC) and the Local Government Committee (LGC) to discuss plans to move archiving forward. Ms. Anne Payne, chair of the former archival *ad hoc* committee, said she was very encouraged about this approach and the use of NC OneMap as the conduit to the State Archives. Ms. Julie Stamper, chair of the LGC, said that committee would be happy to cooperate. Dr. Mandell said this process of collaboration within the community is how things are supposed to work. Mr. Tom Morgan made a motion to move the process forward to the committees for the next step. Dr. Mandell asked how the data would be accessible after it is archived. Mr. Southern said we have begun to take on storage and there will be links on the State Archives website and reciprocal links on NC OneMap. He also said that access is part of the creed and to make the data accessible to the public is what we are talking about.

ACTION 1: State Archives will work with the Local Government Committee and the State Government GIS Users Committee to discuss plans for archiving geospatial data including consideration of using NC OneMap as the link.

Presentation: New Imagery Techniques Enhance Government Services with Increased Efficiency

Mr. Erin Ford of Pictometry, Inc., showed how oblique imagery provides visual intelligence to see not only the tops of buildings as in standard orthophotography, but detailed views of the sides of the buildings and their surroundings. Five cameras are used at one time in oblique photography: one camera aimed down, and one camera facing each of the cardinal directions. Mr. Ford discussed the increased efficiencies that are derived when you save staff time and transportation costs because of the extended view. As an example, he mentioned that tax assessors use oblique imagery to save field study time during re-evaluations. This translates into less staff hours per parcel checked; one county saved 72% in time and dollars for their tax re-evaluation. In the case of 911 calls, the use of oblique imagery can save lives. He showed an example from Haywood County in western North Carolina. In this situation someone had fallen and was injured. The GPS signal from the wireless phone call could have originated from any of three buildings in that location. The call center dispatchers used oblique imagery to determine the correct structure because it had a basement window, as described by the caller. Mr. Ford mentioned the value of oblique imagery in conducting change analysis as well. Post-disaster, such as a hurricane, oblique imagery can be captured very quickly by plane and downloaded to computer to assist in recovery. GIS data from other sources, such as the NC OneMap viewer, can be added.

Dr. Mandell said this presentation was to provide a look at the new oblique technology and not an endorsement of a firm. Mr. John Farley asked about the cost of oblique imagery versus standard orthophotography. Mr. Ford said it is comparable in price. Secretary Reuben Young asked about the update cycle, and Mr. Ford replied that schedules are determined by the local government. He mentioned that high-growth areas might want the photography refreshed every two years. Ms. Payne said more and more local governments are purchasing the oblique, but we need guidance on standards and sharing, similar to what exists for regular orthophotography. She volunteered the Statewide Mapping Advisory Committee to look into this.

ACTION 2 Statewide Mapping Advisory Committee will investigate oblique imagery standards and data sharing.

Ms. Julie Stamper said she was not clear if 911 funds can be used for oblique imagery. Dr. Willis, who is chair of the NC 911 Board, said there is a list of acceptable expenditures and funds can be spent on either oblique imagery or orthophotography, but not both. He mentioned that the League of Municipalities, the NC Association of Commissioners and 911 entities are at the table and should be providing information to their constituencies. Mr. Tom Morgan said the 911 fund does allow the purchase of imagery once every four years, but it should be complementary to orthophotography used for local government tax mapping, not a replacement. Counties need to be careful on how they spend their money. Dr. Willis said 911 monies should be spent to assist dispatch of emergency personnel.

Mr. John Farley asked if oblique and imagery can be taken on the same airplane sweep. Mr. Charles Mondello, from Pictometry, said they are able to create a certified orthophotography product from these flights, using a surveyor and orthophotogrammetrist. He said Pictometry is working with the

Open GIS Consortium and the American Society for Photogrammetry and Remote Sensing (ASPRS) to begin discussion on standards for oblique imagery. Mr. Mondello said users currently use ArcMap to bring GIS data layers into the oblique images, which could include building floorplans and live camera feeds. Ms. Colleen Sharpe asked if there is a version of oblique imagery that can be used by architects. Mr. Ford said his company is working on it.

Council Member Roundtable on Expectations for GIS in Agency in 2009

Dr. Lee Mandell asked members to discuss their expectations for 2009.

Mr. John Farley said NC DOT is focusing on infrastructure. The 80,000 miles of roads (and centerlines) is managed in GIS for maintenance, planning, and reporting to state and federal authorities. The data was on a mainframe and is being converted to a geodatabase in Oracle. There will be a spatial data viewer constructed using ESRI technology, and the viewer will allow NC DOT to eliminate 1,100 (80%) of its individual ESRI desktop licenses next year. NC DOT efforts are focused internally and there was no list of expectations of the GICC. However, he is chairing a subcommittee on GIS architecture in state government through the State Government GIS Users Committee and that is a big item for the year.

Mr. Bill Gilmore said the Ecosystem Enhancement Program (EEP) will strive for more transparency in its stream and wetland restoration program. They are going to use GIS data to produce a “clickable” map to show work being conducted in individual counties, including land acquisition. Mr. Gilmore said they are a young program and need to manage their information through GIS. Regarding GICC he wants to support standardized collections, and it is important to keep data for the historical perspective to showcase the where and what we are doing. He said the committee information on standards is helpful. Ms. Anne Payne said the subject of water quality is important and stressed the need for sharing data between EEP and counties.

Mr. Tom Morgan, from the Secretary of State’s Office, said his program has a statutory mandate to help local government with land records. They have been very pleased with the US Geological Survey efforts to provide cost-share dollars that can leverage county participation in flying their orthophotography. He said that the current orthophotography standard is being peer-reviewed by the Council’s Orthophotography Work Group and then will be reviewed by the North Carolina Property Mappers Association and the Council. Six training sessions for review officers and property mappers will be conducted this spring. Mr. Morgan said his program is the certifying agent to the US Bureau of the Census for boundary and annexations across the state.

Mr. Dan Madding said the Department of Agriculture is working with the State Property Office and Geodetic Survey to identify the specific land, based on conflicting deeds, in Butner that was given to the Department of Agriculture. His agency monitors farm animal health and uses GIS extensively. He mentioned that last winter GIS showed how a poultry disease was spreading—the problem was the vaccination process itself. Mr. Madding mentioned that they used Google Earth Globe, but updating of data is difficult and they need to replicate the project with Division of Public Health. He wants to include parcel data and make sure data is as current as possible. The US Department of Agriculture’s leaf-on summer orthophotography was flown in 2006 (1-meter resolution) and again in 2008 for the entire state. In 2006 the state provided LIDAR data, captured by the Floodplain Mapping Program, as our cost-share. In 2008 the state’s cost-share was the network of geodetic

control points provided by NC Geodetic Survey. Mr. Madding said he was hopeful the USDA would fly North Carolina again in 2010. The data is available through his office and people are finding out about it through the NC OneMap Inventory. He mentioned that some of the public health/animal interfaces are situational, such as emergency shelters needing veterinarians.

Ms Mary Penny Thompson said the Department of Environment and Natural Resources' challenge is internal coordination. Each division has different systems for stream mapping, air quality, water quality, landslide, conservation, and water resources, for example, and they need to be brought together and be more efficient. She said she is looking to the Council to help with acquiring and leveraging funds and for strong policy leadership.

Dr. Lee Mandell said Melodee Stokes from the Department of Health and Human Services, sent him an email since she could not attend. She said DHHS wants to grow its GIS services for citizens and look thoroughly at current GIS capabilities. She indicated that all non-protected data should be available through NC OneMap. Ms. Stokes also made a point that GICC should be a true governance body and that there should be consistent follow up from GICC regarding standards and recommendations. Follow up should include if the standards are being implemented and if not, the reasons why should be discovered and revisions brought before the Council in a timely manner.

Mr. John Correllus said the Department of Commerce is focused on turning the economy around. The online EDIS system uses data produced by numerous agencies to support state and local government economic developers and the private sector. The system showcases products (buildings), sites, and crucial demographics in one place. The second phase of the EDIS will be a real estate system. They are looking at incorporating Microsoft Virtual Earth and Google Earth in the new product which should be available by mid-summer.

Mr. Julie Stamper said local government is holding on by its fingertips in this economic climate. She said they are looking for free resources. The public has higher expectations of GIS data now.

Mr. Ryan Draughn said the League of Municipalities can support the Council by communicating better to local government and he is just beginning to learn about the opportunities being addressed by the Council.

Mr. John Gillis said as a land developer he is noticing a downturn. He mentioned that more restrictions and increasing regulations have increased many fees for developers. He said relying on GIS resources can help with the policy process. He cited stormwater issues, for example, as a use for GIS to determine where flooding will occur by street address. He said NC OneMap is a good service but can be improved.

Dr. Mandell said this was a good discussion; and we will continue at future meetings.

Committee Reports

Council committee representatives reported on their group's activities.

Statewide Mapping Advisory Committee (SMAC)

Ms. Anne Payne, Chair, said Dr. Tyrel Moore, from UNC-Charlotte was appointed to chair the NC Board on Geographic Names, which is currently drafting a new charter and recruiting new

membership. There was no report from the Working Group for Seamless Parcels at the last meeting on January 7, and they are waiting on word from the grant submission to the US Environmental Protection Agency. The Streambed Mapping Program is working to reconcile different water body names as currently assigned by the NC Division of Water Quality and the federal Geographic Names Information System managed by the US Board on Geographic Names. The Streambed group will become a SMAC working group for hydrography concerns and will prepare a white paper for the stream naming issue, as well as take up the topic of watershed boundary stewardship. This new working group is a good addition to existing SMAC working groups that are responsible for roads, parcels and imagery.

Working Group for Orthophotography Planning. Mr. Gary Thompson showed a slide of the current orthophotography status map. He mentioned that Lee County flies one-quarter of its territory every year, which is why it shows up every year. The annual spreadsheet is being updated to indicate when counties plan to fly orthophotography, and 40 counties have responded to date. Mr. Thompson said 2008 marked the transition to digital cameras. Members have a summary about digital cameras in their packets. Although the Working Group was going to write a white paper, the U.S. Department of Agriculture has already completed one which addresses this topic. The siting of a digital camera calibration range in cooperation with U.S. Geological Survey and NC A&T University is still in process. There will be a bathymetric LIDAR project with U.S. Geological Survey in 2010, using a western North Carolina stream as the pilot for this water-penetrating elevation technology. Mr. Dan Madding mentioned that the 2008 NAIP leaf-on (one-meter pixel) color orthophotography has been delivered and is available by county in MrSID format. It will be sent to each county in North Carolina State Plane projection, feet. Mr. Madding said he needs letters from state and local agencies in support of the 2010 NAIP effort. He mentioned that North Carolina would need to come up with a 10% cost-share to get unlimited access to this photography. Mr. Morgan said that we are leveraging resources. Before the Floodplain Mapping Program flew LIDAR elevation data for the entire state, the cost of purchasing orthophotography by local governments was around \$800/square mile. With the LIDAR data, the cost has reduced to \$130/square mile. Dr. Mandell said these are the kind of success stories we need in our back pocket as the Consolidation Implementation Plan moves forward.

Working Group for Roads and Transportation (WGRT). Mr. Alex Rickard, co-chair, said the group had its quarterly meeting on January 28 and created its work list for 2009. The railroad and bike/pedestrian standard has been postponed, as was a CAP grant proposal for a data translation application. The group has focused on the existing transportation content standard and a desire to modify it to a full schema with consideration of the FGDC standard. Those revisions should be ready for the Council by the August meeting. A design team will be created to develop the schema and a pilot area (cities/counties) will be selected. Then, with the pilot completed, the WGRT will be ready to apply for a grant to build one seamless centerline schema for the entire state.

State Government GIS Users Committee (SGUC).

Mr. John Correllus said the SGUC created goals and objectives in 2008 and upcoming activities will be mapped to those objectives. There is a need for self-sufficient training and members are leveraging all opportunities. The question of the ESRI Enterprise License agreement, which currently expires in 2010, is a major issue. The SGUC would like to see the agreement refreshed by the Office of Information Technology Services. He said the SGUC is promoting attendance of state government officials at a special Executive Open House at the 2009 NC GIS Conference in

the Raleigh Convention Center. The general membership met January 29 and saw a presentation by Renaissance Computing Institute (RENCI) on their 360° video camera and how it works for numerous public safety or emergency response applications.

Local Government Committee (LGC).

Ms. Julie Stamper said the LGC has concerns about the NC Master Address project, but Joe Sewash has been responsive to the committee and they will stay involved. She hopes lessons come out of the project for other data as the LGC is frustrated at how GIS is funded in the state, and hopes the consolidation implementation plan will help in the future.

Federal Interagency Committee (FIC).

Mr. Jerad Bales said the FIC will meet at the NC GIS Conference since many members will be attending the event.

GIS Technical Advisory Committee (TAC).

Mr. Tim Johnson reported for chair, Kelly Laughton. She is working on a plan to move forward.

ANNOUNCEMENTS

Master Address Data Set. Mr. Joe Sewash, Center for Geographic Information and Analysis, reported that his group is actively implementing feedback recommendations from the local governments and is committed to outreach to the LGC, E911, and NC Property Mappers Association, as well as Division of Motor Vehicles. They are developing the workflows and tools for data, as well as the schema which will be adaptable to business processes. There are 13 counties involved in the pilot. Mr. Madding asked if counties with address points are identified; Mr. Sewash replied that is one of the next steps. There will be an insert in the NC GIS Conference packet as well as a session at the conference on the Master Address Data Set.

2009 NC GIS Conference. Mr. Johnson said GICC members should attend the NC GIS Conference, February 19-20, 2009 and more than 700 people are expected. He mentioned the Executive Open House on Thursday, February 19 for legislators and state agency heads and Council members. This open house will showcase GIS activity in North Carolina, collaboration and GIS projects. Governor Jim Geringer, the former Governor of Wyoming, will speak to that group on the value of GIS in government.

ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be May 13 from 1:00-3:00 pm at the Department of Public Instruction Board Room, Room 755, 301 N. Wilmington Street, Raleigh.

PowerPoint presentations and reports are on the Council Web site: www.ncgicc.org Click on "Meetings." Presentations and documents presented during the meeting are available in a Zip file for easy download.