



*North Carolina*  
Geographic Information Coordinating Council

Minutes  
February 13, 2008

PRESENT

Chair, Dempsey Benton. Members: Jon Beck (for Joe McKinney), Bob Brinson, Rodney Bunch, Jimmy Carter (for Bill Laxton), John Correllus, John Cox, Dr. Hugh Devine, Jim Dolan, John Dorman, John Farley, John Gillis, Derek Graham, Reggie Hinton, Bill Holman, Susan Johnson, Dan Madding, Dr. Lee Mandell, Elaine Marshall, Herb McKim, Doug Newcomb (for Mary Combs), Anne Payne, Jeremy Poss, Mark Prakke, Stephen Puckett, Colleen Sharpe, Richard Taylor, Rebecca Troutman, Dr. Bill Willis, and Ron York

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. Chair Dempsey Benton called the meeting to order. He introduced Jeremy Poss, the GIS Coordinator for Chatham County, who is a new appointment from the Speaker of the House. Anne Payne has been appointed by the Governor to serve out the term of the General Member previously held by Dr. Rita Hagevik, who resigned when she joined the faculty at the University of Tennessee. The other change is the appointment of GICC member John Correllus to serve as Chair of the State Government GIS Users Committee (SGUC). Dianne Enright has served as SGUC Chair from 2001 until 2008. The GICC presented Dianne Enright a plaque to acknowledge her years of service.

Secretary Elaine Marshall introduced Tom Morgan who has been hired into the Land Records Management Program position vacated by Rex Minneman's retirement. She mentioned that Mr. Morgan is from Brunswick County and has served on the Electronic Recording Council.

Mr. Benton congratulated the firm of McKim and Creed, headed by GICC member Herb McKim, which recently received the "Grand Conceptor Award" for engineering excellence by the American Council of Engineering Companies of North Carolina.

The Minutes of the November 7, 2007 meeting were approved.

## Status and Discussion of Priorities Before Council

### *Priority #1—NC OneMap Implementation*

Tim Johnson reported that with the two appropriated NC OneMap staff positions now in place, the emphasis for the rest of the year will be on improving the map viewer and the implementing a map service checker to notify agencies when their data is not available in the viewer. Several data layers have been updated since November and are available as free downloads through NC OneMap: Storm Water Reference which represents permitting based on Phase II storm water legislation and rules; Public Water Supply Water Sources; Natural Heritage Element Occurrences, which locates occurrences of rare and endangered species populations and wildlife habitats; and Significant Natural Heritage Areas. Because of the cost-share program for local orthophotography, Mr. Johnson said that 25 counties now have their orthophotography posted through the free NC OneMap FTP site. Mr. Johnson expects that all 2005-2007 orthophotography will be on the free ftp site by the end of the fiscal year.

### *Priority #2—Stream Mapping Project Status Report*

Joe Sewash said the expansion budget for Phase II of the North Carolina Stream Mapping Project is projected at \$1.4 million for the two-year budget and includes a coastal pilot. In December an Estuarine Shoreline Mapping workshop, conducted by the Division of Coastal Management, brought numerous stakeholders together, including the Stream Mapping Project, to coordinate efforts.

### *Priority 3—Public/Private Partnership Working Group*

Susan Johnson, co-chair of the working group presented the updated final report. She expressed her thanks to all the reviewers that were helpful in improving the report. The handout included the report and a compendium of all comments received. She said language was clarified in some instances. For example, many had pointed out that NC OneMap could not be the “authoritative” source for data, since the data originator is the authoritative source. The committee agreed that “authoritative” was used incorrectly, and a better term would be “trusted” source.

Recommendation #7 was revised to clarify support for the Secretary of State’s digital recordation standards per NC GS §47-16.5. The committee noted that, beyond plats, there should be standards for digital submission of development plans that will eliminate the need to manually digitize street centerlines and other important constructed assets.

A third change, aligned with the feeling of committees that reviewed the document, was to strengthen Recommendation #6 regarding changes in the current North Carolina Engineering and Land Surveying Act, NC GS §89c, to facilitate GIS data exchange from public to private and *vice versa*, which is currently inhibited. This recommendation needs to be explored by the GICC.

Ms. Johnson recognized the work of her co-chair Herb McKim and members Ron York, Dr. Lee Mandell, John Correllus, Greg Thorpe, Marshall Dean, Andrew Vondrak, George Glenn, John Dorman and Tim Johnson. The working group feels their work is completed, except for monitoring and reporting back on the NC OneCall Center and Duke Energy collaboration on a

proof of concept to collect, overlay and transfer discrete data in the NC OneCall Center for Mecklenburg County.

#### Discussion on the Recommendations

The GICC discussed whether to receive the report, or adopt the entire report as a statement of direction, or adopt each of the eight recommendations individually and assign responsibilities. Mr. Steven Puckett said Recommendation #6 should be deferred until the Surveyors' Model Law Working Group can complete their task with the NC Board of Engineers and Surveyors. Mr. Herb McKim said that Recommendation #7, dealing with electronic submittal of development plans, should be referred to the Surveyors' Model Law Working Group as well.

It was agreed that no further action needed to be taken on Recommendation #1: "Confirming NC OneMap as "the" trusted provider for distribution of authoritative standards based geospatial data for the State of North Carolina." Two others that do not require committee work were referred to Jim Dolan and the Office of State Budget and Management: Recommendation #3: "Create a source of support, coordination and funding with CGIA to assist with standards;" and Recommendation #4: "Create a dedicated funding model/mechanism to ensure that key data is collected and maintained."

It was agreed that Recommendation #5: "Establish formal data sharing agreements between CGIA and utilities," is an action item for CGIA as Council staff.

In discussing committee responsibilities for the remaining recommendations, Ms. Johnson said that the Local Government Committee could take the lead on Recommendation #2: "Incentives for local governments to adhere to standards," and Recommendation #7: "Support the Secretary of State's efforts on digital recordation standards and expand standards to include electronic submittal of development plats/plans."

Regarding Recommendation #6: "Change the current North Carolina Engineering and Land Surveying Act requirements pertaining to surveyor certification of geospatial data exchanged between private sector entities and NC governments," it was agreed to refer this to the reconstituted Surveyors' Model Law Working Group. Mr. John Farley said that the DOT photogrammetry unit wants to participate in that Working Group.

Relative to Recommendation #7, Secretary Marshall said it was her understanding that the Register of Deeds has some leeway in what they require. Dr. Bill Willis asked if it is possible to dictate a standard. Mr. McKim asked if this had to go to the Register of Deeds, or is this more a city/county planning matter, because electronic submittal of development plans deals with street centerlines. He said the GICC required more knowledge about the local government process involving land records and planning and asked about the process to get data into NC OneMap. Dr. Mandell said that one purpose of the recommendation is to look at data and processes that go beyond the plat, such as development plans. He said electronic recordation standards might involve synergy between the GICC and the Secretary of State. Mr. John Gillis said in Cumberland County the GIS comes from Land Records and that the Register of Deeds deals strictly with paper submissions, not digital. Mr. Benton said that development plans typically follow a local government planning process. Ms. Johnson said each local government might handle that process differently. Ms. Judy Martin, in attendance representing the Register of Deeds Standards Committee, reported that they would be happy to collaborate. Mr. Benton said

the Local Government Committee should take this on and determine a further direction for study. Ms. Johnson suggested that someone representing the private sector participate in the discussion.

In discussing Recommendation #8, “Promote the value of NC OneMap to the Legislature to support the ongoing investment necessary for the maintenance and expansion of this important resource,” Ms. Johnson said that state agencies are not in the position to make the case to the Legislature, but since it is an economic asset the private sector can assist. Mr. McKim said this requires another subcommittee, which becomes the voice to the Legislature. Mr. Benton said the NC Association of County Commissioners and the NC League of Municipalities should be involved. Dr. Mandell said that private sector involvement would be a huge asset. Mr. Benton directed staff to coordinate with the private sector members.

- Action #1 The GICC passed a motion adopting the “Update-Final Report, 12/28/2007” presented by the Public/Private Partnership Working Group as a general statement of direction with actions assigned to staff and various subcommittees.
  - Action #1-a Local Government Committee was requested to follow-up on Recommendation #2: “Incentives for local governments to adhere to standards.”
  - Action #1-b CGIA was assigned Recommendation #5: “Establish formal data sharing agreements between CGIA and utilities.”
  - Action #1-c The Surveyors’ Model Law Working Group was assigned Recommendation #6: “Change the current North Carolina Engineering and Land Surveying Act requirements pertaining to surveyor certification of geospatial data exchanged between private sector entities and NC governments.”
  - Action #1-d The Local Government Committee was assigned Recommendation #7: “Support the Secretary of State’s efforts on digital recordation standards and expand standards to include electronic submittal of development plats/plans.” The LGC should add participants from the Register of Deeds and the private sector.
  - Action #1-e CGIA was assigned to take the lead on Recommendation #8: “Promote the value of NC OneMap to the Legislature” and report at the May GICC meeting.

#### *Priority 4—Archival and Long Term Access Working Group*

Ms. Anne Payne, Chair of the Working Group, reported that the group is now finalizing membership with twelve members representing all government sectors and will hold their first meeting February 29.

#### *Priority 5—Surveyors' Model Law Working Group*

Mr. Herb McKim, Chair of the Working Group, reported that the group held its first meeting today. They are discussing the intersections of GIS and the Surveyor's law with the NC Board of Engineers and Surveyors. They will talk through the issues of data sharing, data accuracy, and data access and see how a cooperative approach can be taken relative to changes in Administrative Rules and the NC GS §89C. Mr. Bill Holman asked if those changes might occur this year. Mr. McKim replied this is a work in progress and there is no certain date.

#### Geographic Information System (GIS) Study

Jim Dolan spoke on behalf of the NC Office of State Budget and Management (OSBM) regarding this study established by House Bill 1473, Section 6.13 (a) (b) (c). He submitted it to the Legislature in early February and emailed it to the GICC members. He said the study sought to identify the development and use of GIS in state government; assess the completeness, timeliness and accessibility of GIS data; and review governance. The approach included the survey of individuals, use of data from the existing NC OneMap (RAMONA) inventory, and the development of a self-assessment tool. He said he held one-on-one meetings or round tables with over 70 stakeholders and those meetings were very useful.

There were four key findings: (1) Critical need for GIS layer coordination; (2) Funding for CGIA; (3) Cost share funding to support local government acquisition of orthophotography; and (4) Better data sharing. Mr. Dolan showed graphics that support the need for better data sharing because no single entity creates all the data they need and use, and, currently, most sharing moves in a single direction. He showed that when NC OneMap is fully implemented the data sharing flow is streamlined and multi-directional.

Mr. Dolan reviewed the study recommendations:

Governance: Task the GICC's Management and Operations Committee to set the state strategy, as legislatively authorized. Council staff, the CGIA, should execute the strategy. Establish a GIS Reserve account with oversight provided by the Office of State Budget and Management.

Organization: Move CGIA under the State Chief Information Officer and align the CGIA Director to report to State CIO. Leave the agency GIS personnel in place in their respective agencies.

Staffing/Funding: Appropriate eight CGIA staff positions, subject to inclusion in the Governor's recommended budget for 2008-09. The other 15 CGIA staff positions to remain as "fee" based. Create an additional OSBM position for GIS Reserve oversight.

Infrastructure: Fund the development of a system architecture plan and follow up with funding for implementation of the plan needed to complete NC OneMap.

Leveraging Local and Federal Support: The GICC and CGIA should coordinate state flyovers of orthophotography with a cost-share balance point for local governments. The State should appropriate 25-percent for its portion of the flyover cost.

Consolidation of State GIS Initiatives: CGIA review should occur on an enterprise level. State agencies should look at consolidation opportunities to reduce the number of servers. The State GIS enterprise will not be successful unless there is collaboration and cooperation.

Mr. Benton asked for questions. Mr. Holman mentioned that CGIA has been moved to various agencies throughout its history and asked how it will fit on the CIO's plate. Mr. Dolan said the Office of Information Technology Services has experience in enterprise activities, and CGIA has the expertise in GIS. Mr. Benton said it is key that the CGIA Director would be a direct report to the State CIO, and therefore retain prominence within OITS. Dr. Bill Willis said OITS has worked hard to establish review processes for technical projects. Those processes bring things to light early. Mr. Dolan said that the intention is to leverage that process and involving the CGIA in the review of GIS projects puts a subject matter expert in the mix. Dr. Willis said that there is added value to engineering and technical projects when they are reviewed from a GIS perspective for opportunities that may not be readily apparent. This recommendation does not apply to local government activities, but it can have an impact on standards. Regarding coordination of orthophotography flyovers, Dr. Willis said the promotion of content standards comes down to adequately describing what we want delivered. In the end it is important as to how the information is exchanged.

Relative to the operation of professional services, Dr. Willis said OITS has rate mechanisms in place, and if appropriately structured for CGIA, rates can get more out of CGIA's expertise. He remarked that there is a geospatial value to all information and this new structure could leverage service delivery, and a well-coordinated plan would be better than considering GIS separately.

Dr. Mandell thanked Mr. Dolan for his work and asked about the next step. Mr. Dolan said the study report was provided to the Legislature on February 1 and it is intended for the Governor's budget. Dr. Mandell said the principal fundamentals are covered but details need to be worked out. He would like to see the GICC endorse the report. He asked for clarification on the use of local government 911 funds as part of the orthophotography funding mix. Mr. John Dorman asked if the study addressed long-term assistance for orthophotography from federal sources. Mr. Dolan said that was not addressed.

Mr. Dolan said that he would like all counties to be able to tap into 911 funds for flyovers. He said if a statewide flyover works best for using these dollars, then we should consider that an option. Ms. Colleen Sharpe asked if cities, such as Raleigh, could also be covered by cost-share funding. Dr. Willis said that the NC 911 Board has adopted a list of appropriately funded items that can be purchased with 911 funds, including orthophotography and oblique photography. He cautioned that photography acquisitions have to be requested by the primary Public Safety Answering Point (PSAP) and may not go directly to counties or cities. Plus, the telecommunication providers want to see the monthly rate decrease over time. Dr. Mandell asked if the statute could be changed. Mr. Richard Taylor said the landline and wireless monthly 911 rates are now the same and are collected by the NC 911 Board. GIS mapping should be funded for the PSAP operations centers. The NC 911 Board considered qualified and disqualified expenditures, and there is a need to take another look at GIS projects again. He

mentioned that Virginia's 911 Board conducted a flyover for their state. Ms. Rebecca Troutman said that whole 911 system will be restructured next January with new rules and new collection fees. She noted that there is concern not just for orthophotography but for other GIS layers as well.

Dr. Mandell said some of the study involved a non-budgetary process and he asked how that would be presented to the Legislature. Mr. Dolan said there was the possibility of writing particulars into the budget bill, but that process was not far along.

Ms. Sharpe mentioned that housing CGIA in the State CIO's office actually moves closer to the local government strategy, which is a good model and that transition has been happening for more than ten years. Mr. Dolan replied that other states are moving to this model. Dr. Willis agreed with this change in infrastructure, since GIS people are also business analysts, not exclusively technology people. Mr. John Farley said GIS people are business analysts and application developers, as well. He said there are still details to be worked out. He wondered if giving CGIA an additional review under OITS was redundant. Dr. Willis said CGIA would just be rolled into the existing ITS review process to get GIS expertise. Mr. Benton said that from his perspective of managing state agencies and departments, there is a need to be clearly accountable to the CIO and he wants projects to be thoughtfully planned out, rather than go through automatic approvals. He said he wants GIS to get special attention and welcomes GIS overview of IT projects.

Secretary Marshall noted that the university system was not covered in this study. Mr. Dolan said the study benefits them, but they are not part of the state government IT review. Dr. Devine said the university is a data consumer and participates in the development of databases, and therefore wants to participate. However, the university research arena is unstructured and does not want review. Secretary Marshall said since GIS is integral to many functions there should be one robust system for GIS in the state, and she hoped the universities would provide input into the process. Dr. Devine agreed.

Mr. John Correllus said there are many details to be worked out. The recommendations task the Management and Operations Committee, but the State CIO might manage things differently, relative to CGIA. The GICC user committees need to help define Management and Operations Committee strategies. Mr. Farley said the GIS needs of each state agency must be kept in mind, for instance, the Department of Transportation sets priorities internally. Dr. Willis said he is working within the State CIO governance mechanism, and suggests that GICC subcommittees work through department CIOs.

Dr. Mandell said the study recommendations are well thought out and should be considered as a complete package of recommendations as it moves forward. Mr. Benton asked Mr. Dolan to keep the GICC involved, through the Management and Operations Committee, as the study moves forward. He said that CGIA, the Office of State Budget and Management, and the State CIO should remain connected as the study recommendations progress through the next steps.

Action #2      The GICC passed a motion supporting the GIS Study recommendations in principal, subject to additional clarification and refinements through the legislative process.

Mr. Dan Madding, the Department of Agriculture representative, abstained from voting.

### Presentation: Building Integrated Statewide Parcel Data

Ms. Nancy von Meyer, Vice President of Fairview Industries, works with counties, states and federal agencies on parcel and land records projects. She recently served on the National Academy of Sciences committee on Land Parcel Databases. Ms. Von Meyer said she plans to ask federal agencies what data they give back to local governments when she attends an upcoming meeting in New Orleans. Federal agencies constantly seek local information to conduct their work, and parcels are essential data because location is imbedded in what we do relating to 911 response, economic development, and social services. She said there are 98 million parcels in the United States, but information is collected on about 70% of those parcels. Natural disasters, such as the wildfires in the west last fall, and tornadoes this winter, show the importance of parcel information and the US National Grid for operation management and recovery. Ms. von Meyer said land parcel information, collected on the local government level, is essential for everything that government does.

She said it is important to put GIS into the IT structure, which is happening across the country. Citizens are demanding geospatial data and it should be seamless and widely available. She remarked that the public/private partnership effort presented earlier is mutually beneficial since both sectors should have access to the same accurate, trusted local data.

North Carolina has a national presence in GIS and land parcels, as well as through its adoption of the US National Grid. She said that North Carolina is at the top of the list of the most successful states in using GIS and the GICC should continue to pursue excellence. She said it was important that the GICC adopted many standards, including the Standard Classification System for the Mapping of Land Use and Land Cover, Statewide Global Positioning Data Collection and Documentation Standards, and the Data Sharing Guidelines. Referring to the Fifty States Initiative, she said North Carolina is one of the states that had embraced the need for state-level coordination and standards. She recommended the book “National Land Parcel Data, A Vision for the Future,” National Academies Press, Washington, DC 20007, be sent to every county to help them understand the importance of their parcel data to others.

She said there was a need to coordinate funding for parcel data production. There is a case being made for state stewardship of local parcel data to cover numerous government uses and business needs. Referring to her handout, Ms. von Meyer said that the first step is to make a statewide cadastral business plan and consider what is included. Her suggestions included parcel-level land-use classifications as well as building footprints that would make the parcel a richer data source. She mentioned that it would be great to publish local parcel updates through NC OneMap so current data are always available. Baltimore County, Maryland did a study on web publishing of parcel data using 15 attributes and derived a cost of less than \$1 per parcel. Ms. von Meyer pointed out that counties ultimately gain revenue from parcel publication on the web.

Mr. Benton said the GICC will consider Ms. von Meyer’s assignments.

Action #3      CGIA was directed to review Ms. von Meyer's presentation to determine subsequent actions for the GICC.

### Committee Reports

All Council committee representatives reported on their group's activities.

***Statewide Mapping Advisory Committee (SMAC).*** Bill Holman reported that the Committee met on January 9, 2008 with 21 people attending. They heard updates on the Streambed Mapping Program and Floodplain Mapping Program, and the NCSU Library of Congress Digital Preservation project. The SMAC heard a presentation on estuarine shoreline and the submerged aquatic vegetation mapping project being conducted by the Albemarle-Pamlico National Estuary Program and the NC Division of Marine Fisheries. The Working Group on Roads and Transportation reported at the SMAC meeting.

Mr. Holman mentioned that Dr. Wayne Walcott, University of Charlotte, is retiring this summer as chair of the NC Board on Geographic Names and that a replacement will need to be named.

Working Group for Orthoimagery Planning. Gary Thompson said that 30 counties plan to fly local orthophotography this winter with help from the NC OneMap cost-share program or the Floodplain Mapping Program. He noted that by the end of 2008 the oldest imagery will be from 2003. The cost-share programs are making a difference. As part of the Integrated Ocean Coastal Mapping (IOCM) program, the National Geodetic Survey, Army Corps of Engineers, USGS, and the partners in North Carolina are conducting a pilot project along the VA and NC coasts (Virginia Beach, VA to Hatteras, NC) to collect LIDAR elevation data and aerial imagery. The collected data will be used for IOCM applications, and shared with the partners for use in multiple applications.

The draft white paper on digital cameras is out for comments and it will be presented to the GICC at the May meeting. This paper is directed to local county officials to help them understand the difference between film and digital cameras for orthophotography. The US Geological Survey, NC A&T University, NC Geodetic Survey, NC DOT, and the National Geodetic Survey are in a partnership to establish a calibration range for aerial cameras at the NC A&T campus.

North Carolina Geodetic Survey is working with the National Geodetic Survey to perform beta testing of a new online GPS post processing tool, the Online Positioning User Service Mapper (OPUS-Mapper) that is being developed by the US Census for the 2010 Census. The Working Group for Orthoimagery Planning recommends that the GICC send a letter to the National Geodetic Survey requesting access to OPUS-Mapper for use by local, state, federal agencies and the citizens of NC.

Ms. Troutman thanked the working group for all their efforts on the cost share projects with local government.

***State Government GIS Users Committee (SGUC).*** Mr. John Correllus asked the former chair, Dianne Enright, to give the report. She said the SGUC January meeting had to be postponed

because of icy weather. It was rescheduled and well attended two weeks later. Mr. Zsolt Nagy discussed the data sharing recommendations that were passed by the GICC in November. GIS applications shown included Division of Water Quality on groundwater and DOT on seamless roads. Research Triangle Institute presented on flu pandemic dispersion as well as TerraGo Technologies, the private sector developer of GeoPDF. The SGUC appointed Amy Keyworth to the Archival and Long Term Access Working Group. Ms. Enright said she will continue to manage the ESRI Enterprise License on behalf of the SGUC. The next general meeting is April 17.

***Local Government Committee (LGC).*** Colleen Sharpe said the LGC met January 31 and considered members to appoint to the Archival and Long Term Access Working Group. She said that local government coordination with NC OneMap and the Floodplain Mapping Program orthophotography cost-share funding needs to treat counties equally, so some do not hold out waiting for free orthophotography. Mr. Dorman said the Floodplain Mapping Program has a requirement to use up-to-date photography when the maps are updated. This drives the business case and the counties to be flown are selected only because of map maintenance.

***Federal Interagency Committee (FIC).*** Doug Newcomb reported that the committee chair, Mary Combs, plans to circulate a letter to federal agencies on the ten recommendations for data sharing passed by the GICC. The FIC met January 15 and will appoint a member to the new Archival and Long Term Access Working Group. The USDA Farm Service Agency (FSA) will be flying National Agricultural Imagery Program (NAIP) photography this summer in North Carolina. The resolution is still undecided, but will be either 1 or 2-meter. The 12-digit hydrographic data layer for North Carolina should be completed this summer. Mr. Newcomb said that Ken Taylor of NC Geological Survey presented information on HAZUS, FEMA's software program for estimating potential losses from natural disasters at the FIC meeting.

***GIS Technical Advisory Committee (GIS TAC).*** Susan Johnson said the GIS TAC has not met.

#### Other Business

***Floodplain Mapping Program.*** Mr. John Dorman said the statewide project continues and the last 7 counties will be complete this summer, and 29 will be worked on for maintenance of the DFIRM maps this year.

#### ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be May 14, 2008 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](http://www.ncgicc.org) Click on "Meetings." Presentations and documents presented during the meeting are available in a Zip file for easy download.