



## North Carolina Geographic Information Coordinating Council

Minutes  
August 13, 2014

### PRESENT

Chair: Stan Duncan. Vice-Chair: Bob Brinson. Members: Jon Beck, David Baker, Marc Burris, Neelima Chitoor (for Hunter Robinson), Kathryn Clifton, John Cox, Kristen Culler (for Chris Estes), John Dorman, Ryan Draughn, Dianne Enright, John Farley, John Gillis, Derek Graham, Matthew Helms, Bliss Kite, Dan Madding, Elaine Marshall, Twyla McDermott, Becky McGee-Lankford (for Sarah Koonts), Doug Newcomb (for Bob Wayland), Josh Norwood, Kevin Parrish, Anne Payne, Alex Rankin, Lee Roberts, Allan Sandoval, Joseph Sloop, Richard Taylor, Keith Werner, and Ron York

Staff: Tim Johnson, CGIA

### ABSENT

Jay Bissett, Sharon Rosado, Hugh Devine, and Rebecca Troutman

### 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 Stan Duncan called the meeting to order.

#### Chair Announcements

Mr. Duncan announced that Governor McCrory has appointed and reappointed Council members for terms beginning this fiscal year. Mr. Duncan welcomed four new members.

- Jon Beck has been the GIS Planner at Land of Sky Regional Council in Asheville since September 2003. Previously he worked with NC Department of Environment and Natural Resources and with CGIA.
- Twyla McDermott has been with the City of Charlotte since 2000. She is responsible for enterprise GIS and enterprise master address management. She served on the board of directors for the Urban and Regional Information Systems Association (URISA) and the Department of Labor/URISA geospatial management competency model task force. In 2010-2011 she was appointed to the FCC Communications, Security, Reliability and Interoperability Council to develop technical options for E-911 location accuracy.
- Josh Norwood is the GIS Administrator for Pender County. He was formerly E911 Addressing Coordinator.

- Kevin Parrish is the GIS Director for Caldwell County. Like Mr. Norwood, Mr. Parrish is responsible for the day-to-day implementation of GIS services across a broad range of county departments.

Mr. Duncan welcomed the reappointment of Hunter Robinson of the Office of the State Auditor to another term.

Mr. Duncan also welcomed Mr. Lee Roberts, the new State Budget Director. Mr. Roberts is former managing director of Piedmont Community Bank Holdings in Raleigh, and Executive Vice President and Chief Operating Officer of VantageSouth Bancshares. He has degrees from Duke University and Georgetown University, and he sits on the Board of Directors of the Sanford School of Public Policy at Duke University.

Mr. Duncan welcomed Kristen Culler, Deputy State Chief Information Officer, representing Chris Estes. She is responsible for the Administration and Finance Division in the Office of Information Technology Services (OITS). She focuses on the day-to-day business of core IT functions and administrative activities, including CGIA, the Council, the NC 911 Board, and the Criminal Justice Information Network.

### Approval of Minutes

The minutes of the May 15, 2014 meeting were adopted with no changes.

### Technical Presentation 1

(See “CGIA\_GICC\_Cadastral Data Exchange” PPT file at GICC website - <http://www.ncgicc.org/GICCMetings.aspx>)

The Working Group for Seamless Parcels (WGSP) and CGIA presented a briefing and plan for the NC Integrated Cadastral Data Exchange (Parcels) Project.

Tom Morgan, Manager of the Land Records Management Program in the Department of the Secretary of State, recounted the history of the parcels project, starting in 2008. This has been a persistent effort to realize the vision and goals of the Council for statewide datasets that are complete, consistent, and current, with emphasis on the most widely used and useful data. Led by co-chairs Mr. Morgan and Pam Carver of Henderson County, the WGSP developed a grant proposal for the parcel project in partnership with the Eastern Band of Cherokee Indians. The US Environmental Protection Agency Exchange Network awarded a \$500,000 grant in 2009, modified in 2012. With project management by CGIA, the project team worked intensively for 11 months beginning in June 2013.

The goal of the project was to create a fully functional tool and process for standardized parcel data, and create data products for 25 of 100 counties. The business need is to establish data for the state enterprise and for public and private parcel data consumers in a wide range of business processes, and to enable analysis on a regional basis. The business case is based on efficiency in data processing, management and data sharing, and expanding the usefulness of available parcel data. The Project Team overcame technical obstacles to create a working solution with seven primary steps:

1. Integrated data from authoritative county sources
2. Standardized the data fields that describe the properties

3. Created an online application (transformer) that supports a semi-automated process for translating county parcels into standardized parcels
4. Served datasets and web services for public discovery and access
5. Published data in open data formats to support wide consumption
6. Completed transformations and products for 25 counties – on time and within budget
7. Began to realize benefits in public and private business processes

The 25 counties vary by size and region for a good cross section. The standardized parcel data are accessible through NC OneMap. The contractor was the Carbon Project, Inc. and its team included Fairview Industries, Inc. and Atlas Geographic Data, Inc. to combine experience in application development with expertise in parcel standards and integration. The project team included CGIA, Department of the Secretary of State, Department of Transportation GIS Unit, Department of Public Safety, Department of Environment and Natural Resources, Department of Revenue, and Eastern Band of Cherokee Indians. Teamwork was very effective in a short time period (11 months).

Ms. Carver continued by expressing excitement about completion of the grant project and explaining the benefits to local governments. First, looking at the details of the standard fields, she realized that Henderson County was not fully meeting its intention to serve all public and private parcel data needs. She learned that as many as 20 attributes were in the standard set but were not published by her office. Those 20 attributes make a difference to consumers. For example, having the number of buildings and presence of multi-unit buildings by parcel in adjacent counties can support analysis to help respond to events like wildfires. Disasters do not respect county boundaries, and having consistent fields for analysis can save time, money and even lives.

She added that parcels relate to residents and the Census. Consistent parcel data help support complete Census population counts that translate into fair allocation of funds for state and local government programs and well informed plans and policies. With knowledge from the parcels project, Ms. Carver has changed the data items that Henderson County exports from its computer-assisted mass appraisal database for publication with parcel boundaries. By adopting a fuller set of standard fields, Henderson County has improved the availability and quality of data for a wider range of users.

In solving the parcels puzzle for North Carolina, Ms. Carver emphasized the importance of creating an online tool that works well for local government parcel data managers. She explained that the NC Parcel Transformer is very easy to use. On her own, with only the project user guide for reference, Ms. Carver assisted a neighboring county by transforming its source parcels to a standardized set. Regarding data updates using the online tool, a county data manager merely uploads a copy of a new shapefile and clicks once to transform it based on the saved translation model. She found the update routine to be almost as easy as paying a bill online.

In addition, the NC Parcel Transformer automatically creates metadata for transformed parcels. Ms. Carver noted she was surprised to learn that many counties lack valid metadata records for their published parcel data. This project will help solve that problem. Also, the Transformer produces an error report after a transformation to point out mismatched field types, renamed source fields, invalid geometry, or other errors and gives the user an opportunity to fix problems in the source and run the transformation again. This supports data quality.

To emphasize the value of a transformation tool, Ms. Carver displayed a map of computer-assisted mass appraisal systems by county based on a survey by the NC Department of Revenue. In North Carolina, one or more counties engage 13 different vendors, and three counties have in-house systems. Combined with data manager discretion in selecting fields to export from the tax systems, the variety of systems means that county parcel datasets are unique. For any analysis involving more than one county, working with unique sets of fields is problematic and time consuming. The NC Parcel Transformer takes the source parcel data as is and produces consistent datasets that support data quality and save time.

Ms. Carver noted counties are already using transformed data. For example, Rutherford County used transformed data for analysis of a land use application; a search for certain parcel attributes found a suitable parcel—in an adjoining county. Ms. Carver looks forward to using transformed data as a tool for identifying parcel boundary overlaps, gaps, and data problems where county boundaries meet. This leads to improvements in the quality of county parcel data by data managers. Ms. Carver observed it is time for NC to move cadastral data to the forefront.

Jeff Brown, CGIA project manager for the parcels project, described the status of parcel data. Standardized fields and public access have been achieved, but 25 percent of state is not enough to realize full benefits. The dataset will need to reach 90 percent or more to represent a statewide resource. When expansion is achieved, NC will have a competitive advantage in the region. Only Tennessee among neighboring states has achieved standardization of parcels at a state level. The leaders in statewide parcel datasets, according to national expert and team member Nancy von Meyer, are Montana, Utah, Arkansas, Tennessee, and Florida. Notable progress is evident in several other states including Virginia and South Carolina.

Regarding next steps, a statewide resource is within reach considering achievement of a standard schema, a working online tool, public access to products, a contract with an operation and maintenance option, an agency to coordinate the project (CGIA), active collaborators around the Council table, governance in place through the Council's structure, and an action plan. The incomplete pieces are data content and funding commitments to expand and sustain the resource.

A plan of action recognizes the importance of advisory and oversight roles of the Council, the Statewide Mapping Advisory Committee, and the Working Group for Seamless Parcels; CGIA's role in administering the tool and coordinating partners; technical advice, oversight, and support from collaborating state agencies, including roles for Eastern Band of Cherokee Indians, Land Records Management Program particularly in outreach and technical assistance, Departments of Revenue, Transportation, Agriculture & Consumer Services, Public Safety, other state agencies; and data sharing by county data managers.

The plan for expanding and sustaining statewide parcels:

- Operate and maintain the online tool and data
- Reach out to data producers
- Add 75 more counties and refresh counties at least annually
- Assist counties with transformations
- Expand content monthly and release new content as accepted
- Realize benefits in public and private business processes

Mr. Brown has discussed the plan with State GIS coordinators and identified priority counties for sequencing the remaining 75 counties. In refreshing county parcels once or twice a year, the project team will give attention to county parcel update cycles and offer technical assistance. The current approach groups counties by month from September through May, with updates for the initial 25 counties in June. Getting the content filled out by the end of the fiscal year will meet the business needs of data consumers, public and private.

In a discussion, Mr. Duncan encouraged local government Council members to volunteer to participate. Mr. Duncan confirmed that other states are working on parcels. Montana's state-based land records system represents a different scope and range of data. New Mexico has a limited scope of parcel descriptors. Nancy von Meyer has affirmed that NC's master schema puts it at the forefront of state efforts to build valuable parcel datasets.

In response to a question from Twyla McDermott about operation and maintenance, Mr. Brown shared the estimated costs for hosting by the Carbon Project, Inc. and technical assistance/quality control services by CGIA (\$72,000 in the first year and \$45,000 in the second year) and explained that NCDOT has committed to sharing part of the cost, but other cost-share commitments are needed from other agencies to launch the expansion.

Marc Burris inquired about automating data uploads as an option to save time for local data managers. Mr. Morgan explained that automated upload was not in the scope of the grant project and technical assistance is important in this phase for many counties. Mr. Duncan observed that counties can feel bombarded with data requests from state and private entities. Having a regular schedule for updates could be effective; informing information technology staff is important. Mr. Morgan pointed out that local government data managers may point data requests to NC OneMap for ready access to data and web services. Also, if a jurisdiction creates an application for standardized parcels, it could be applied in any jurisdiction with standardized data.

Kevin Parrish asked about the biggest hurdle. Mr. Morgan explained that sufficient funding for expansion and maintenance is the challenge; many counties are ready and waiting to participate.

In response to a question from Ms. McDermott, Mr. Brown added that the cost estimates include hosting and data storage in the cloud. Also, operation and maintenance of the NC OneMap Geospatial Portal, where a copy of the data is stored to support data download and web services, is not counted in the project cost estimates.

On the topic of security, Mr. Morgan added that county data producers using the Transformer are authenticated by NCID (identity management system). David Baker explained that all counties have an NCID coordinator as a result of the vehicle tax system and he offered to help with county contacts in that regard. Ms. Carver added that her registration with NCID went smoothly.

John Farley recognized the hard work of Tom Morgan over five years to keep the project alive during uncertain times. Mr. Brown acknowledged US EPA's persistent support as well.

Mr. Duncan thanked Pam, Tom, Jeff and the members of the project team and the Working Group for Seamless Parcels for the hard work under time constraints in recent months. The parcel project represents a progression and helps build a foundation for other datasets including addresses.

## Legislative Update

Mr. Duncan reported on recent legislative activity. Senate Bill 614, ratified in July, is an act to further protect military lands. It is directed to the State Construction Office to maintain and make available for the public accurate maps of areas surrounding major military installations, including Military Training Routes and Military Operating Areas. John Cox from the Department of Administration, John Dorman from Department of Public Safety, the Governor's Military Liaison, and state legislators have met and are working out details.

Senate Bill 762 received interest in May and was referred to committees and appears unlikely to come up for votes this session. The origin of the bill apparently related to unmanned aircraft systems (UAS) and agricultural operations. The language in the bill raised concerns about geospatial data including orthoimagery and parcel data. The bill provided that "Records in the custody of the State containing global positioning system (GPS) coordinates of an agricultural operation are not public records ..." and "Records in the custody of the State containing aerial photographs of an agricultural operation are not public records ..."

On the topic of UAS in North Carolina, Kristen Culler explained that Kyle Snyder heads the Next Generation Aircraft Transportation Center at NC State University and is working with Chris Estes and Ms. Culler on legislation. She confirmed that the Federal Aviation Administration (FAA) has outlawed commercial use of UAS for now. Personal use by hobbyists is permitted. NC law requires that State government use of UAS be approved by the State Chief Information Officer's office, with consideration for planning, data protection, and records retention, in addition to FAA approval.

In Senate Bill 744 (the budget bill, ratified August 2) a new section (15.12a) established a LiDAR Reserve in the Department of Public Safety for "LiDAR topographical mapping of the State." This was funded by transfer of \$3.2 million in cash balances from disaster relief funds in the Department of Commerce.

Senate Bill 744 also included provisions (Sections 7.16 a and b) concerning GIS capabilities in State agencies/consolidation of GIS functions and the feasibility of selling GIS data. Ms. Culler is assembling a working group including 14 Council members. Ms. Culler explained that the State Legislature asked the State CIO to head up an effort to document all GIS capabilities in the State and look at ways to work together better. A team effort to address the legislation will produce a report due December 1. The same group will work on the report about the feasibility of selling GIS data. Ms. Culler invited contact if others need to be involved in that question.

## Committee Reports

### ***Management and Operations Committee (M&O) and NC OneMap Governance Committee.***

The Management & Operations Committee is reviewing the Council website with sights set on a redesign this fall. The committee is looking at opportunities for enterprise data that can be integrated from local authoritative sources and published for statewide consumers serving a wide variety of uses in state agencies and local governments and private business. The committee is also starting work on the Council's annual report. The intention is to keep it simple, brief, and conversational to tell what geographic data can do for our citizens and for state and local governments.

***Local Government Committee (LGC).*** Kathryn Clifton, LGC chair, reported that the LGC met on May 28 and will meet on August 20. LGC members and the Advisory Team will review and comment on the proposed Metadata Standard / Local Government Profile from the local government and data producer perspectives. The same people will respond to questions about stream data from the Stream Mapping Advisory Committee. Also, LGC members will provide information to the GIS Technical Advisory Committee about using GIS and geographic data on mobile devices. The committee is in the process of identifying another local government representative to the Working Group for Orthophotography Planning.

***State Government GIS Users Committee (SGUC).*** John Farley, SGUC chair, reported that the Executive Committee met on August 5 and reviewed the SGUC work plan. Concurrently, Sarah Porper of OITS reached out to the group about strategic IT planning. The Executive Committee is now working to align its work plan with strategic IT planning. The group reviewed the proposed metadata standard, was pleased with the content, and recommended the addition of a reference section or appendix for available metadata tools to support good practice and wider adoption of a new standard. The more tools available, including open source, the greater the chance for successful adoption. The committee revisited the topic of disaster related imagery acquisition and ways to take advantage of NCDOT's digital sensor for locations outside of selected highway corridors after an event. State agencies can get agreements with NCDOT in place before a need arises, then move quickly with on work order and cost estimate in response to a disaster. The committee also reviewed legislation and updates on geographic datasets and web services. NCDOT is optimizing its web services for a wider range of clients. Also, NCDOT and the Department of the Secretary of State are collaborating on improvements to the municipal boundaries dataset. In addition, discussions are underway about the enterprise license agreement for GIS software, currently in its last year.

Mr. Farley added that NCDOT has been selected to host the GIS in Transportation Symposium in 2016, likely to be in Raleigh.

***Statewide Mapping Advisory Committee (SMAC).*** Ryan Draughn, SMAC Chair, reported that the committee met on July 16 and received a presentation from the ad-hoc Metadata Committee on a proposed new metadata standard for North Carolina. The committee, chaired by Steve Averett of the City of Greensboro, has worked for over a year to develop a State and Local Government Profile based on the ISO-19115 standard. The committee issued a draft on July 25 for stakeholder review and comment through September 5. Comments to date have been positive. The plan is for the Metadata Committee to submit a revised version to SMAC by October 8. SMAC will review and approve a recommendation for Council adoption. By October 20, SMAC will request Council review and comment in preparation for consideration of adoption of the standard at the Council meeting on November 20. If the new standard is adopted, the Metadata Committee plans to explain, demonstrate and promote the State and Local Government Profile at the NC GIS Conference in February.

SMAC members gave updates on recent efforts. The NC Board on Geographic Names has followed up on pending name change requests. Also, a request for commemorative naming of a summit revealed the rule that a person must be deceased five years for commemorative naming. The revised standard for orthophotography is in process, with comments due to Mr. Morgan by September 5. He thanked Bob Wayland for submitting comments about definitions in the standard.

***Federal Interagency Committee (FIC).*** Doug Newcomb, vice-chair of the committee, reported the Executive Committee finalized the FIC work plan, highlighting collaboration with state agencies with

attention to mapping standards, technical assistance, and project funding opportunities. FIC members contribute through working groups, subcommittees and project teams. Mr. Newcomb acknowledged that he and his federal counterparts also learn a lot from collaborations with state agencies. Planning is underway for a full committee meeting in the fall.

***GIS Technical Advisory Committee (TAC).*** Dan Madding, TAC chair, described progress on revisions to the committee's work plan and its four objectives. First, the committee is developing a document on compression ratios for orthoimagery with consideration of disk storage space, visual quality and performance. The intended audience includes county recipients of imagery products from the statewide imagery program supported by the NC 911 Board. The work group includes subject matter experts from the Departments of Transportation, Agriculture & Consumer Services, Public Safety, Cultural Resources, and from CGIA. Second, TAC will review ArcGIS Online and other third party solutions for hosting map services. The Departments of Health and Human Services, Commerce, Administration, Environment and Natural Resources, and Transportation will participate with local government representatives in a work group. The third objective is to find ways to standardize GIS projects as they relate to Technical Architecture System Design, with advice from OITS and agencies that have developed designs. Fourth, research on uses of geographic information on mobile devices will require a work group with local government participation as well as knowledgeable state agencies. Mr. Farley observed that the Innovation Center has many devices available for testing mobile applications. Mr. Madding invited contact from Council members about participating on a subject-specific work group.

## Technical Presentation 2

(See "GO!NCDemoGICC" PPT file at GICC website - <http://www.ncgicc.org/GICCM Meetings.aspx>)

John Farley and Tom McKay of NC Department of Transportation described and demonstrated *GO! NC*, an online GIS application based on ArcGIS Online for Organizations (AGOL) technology. See <http://ncdot.maps.arcgis.com>. *GO! NC* supports users in NCDOT's enterprise and enables publication of NCDOT maps and web services to the world. Three use cases demonstrate advantages of the online system.

In the NCDOT Photogrammetry Unit before *GO! NC*, the old process of acquiring aerial imagery, processing, administrative steps with other units, generating map services with cached tiles on local servers, and making it available to the public took three to four days. With *GO! NC*, Photogrammetry can be the publisher and create a Web Mapping Service through AGOL as needed, without involving the GIS Unit or other operations units. The time from acquisition to publication is now three to four hours. Time savings can be crucial in responding to events such as Hurricane Sandy that caused severe coastal road damage.

A second example is the NCDOT Materials and Tests Unit. Before *GO! NC*, an annual requirement involved desktop GIS, assistance from the GIS Unit, and production of maps in PDF format that were not widely shared. After *GO! NC*, the Materials and Tests Unit can maintain a database of vendors more efficiently, share information with all stakeholders (e.g., county maintenance engineers), use published services for cost analysis and distance calculations, conduct reviews more frequently, and require only minimal intervention by the GIS Unit.



Thirdly, NCDOT applied *GO!NC* to Strategic Transportation Investments (STI) so that data is published through an online map viewer to interested citizens and is available to users involved in the scoring process. Map updates are nearly instantaneous, and other published NCDOT information may be displayed with prioritization data to tell a more meaningful story. Data on *GO! NC* can be embedded in a web page, providing more ways to view, share and display data.

Data in *GO!NC* come from several sources. NCDOT users in different business units publish their spatial data through *GO! NC* when they want. They own and manage the published geospatial data, e.g., road class information in the Transportation Planning Branch and wetland mitigation sites in the Natural Environmental Unit. Other web services are available to consume and display in *GO!NC* from the NC OneMap Geospatial Portal and from federal agencies including the National Oceanic and Atmospheric Administration (NOAA) and the Census Bureau. Many tools can consume web services, including ArcMap, web applications, and mobile devices. Online web maps and application templates are ready to use through any web browser. Discovery tools help users find data and maps.

Seventeen NCDOT business units are now or soon will be publishing on *GO! NC*. Mr. McKay shared a quote from Elena Talanker in Transportation Planning that sums up the benefits:

*“Active growth of the GO! NC environment created a new form of dialog with the NCDOT partners and public. The most recent development of the STI Results Map made all transportation projects and data associated with them available for everybody’s viewing. Visual representation of the data solved a lot of open questions, helped find better solutions, and shortened discussion time.”*

NCDOT is planning more targeted outreach, more training and support, more work on governance (standards and practices), integration with other software and mobile devices, and online editing capability.

Several other states have implemented or are implementing their own versions of *GO! NC*. A national association of state DOTs (AASHTO) has a Transportation Implementation Group (TIG II) led by North Carolina, Pennsylvania, and Minnesota. *GO! NC* is one of four systems chosen as a best practice and used as an example for other state DOTs.

In response to a question from Mr. Newcomb, Mr. Farley explained that web services are being optimized for a wider set of software and devices, including open data formats. Mr. Dorman commented that his office has been using AGOL internally and seeing advantages. Ms. Clifton added that publication of web services at the state level is beneficial for small jurisdictions that can create an online presence using AGOL to display local datasets plus web services consumed from NCDOT, NC OneMap and elsewhere. Ms. Enright commented that the GIS Enterprise License Agreement includes a state AGOL site that has been used as an incubator. In addition to the Department of Public Safety, the Wildlife Resources Commission and the Department of Environment and Natural Resources have purchased their own customizable site and credits to apply to AGOL processing needs. Mr. Farley pointed out that an organization can publish services without a lot of resources. It is easy to demonstrate the functionality with your own data to make a case for implementing in a business unit.

Mr. Duncan thanked Mr. Farley and Mr. McKay.

## Statewide Orthoimagery Program Update

(see “Statewide GICC Orthoimagery Program” PPT file at GICC website - <http://www.ncgicc.org/GICCMetings.aspx>)

Tim Johnson provided a brief update on the status of the Statewide Orthoimagery Program. He emphasized a successful collaboration between the NCDOT Photogrammetry Unit, CGIA, NC Geodetic Survey in the Department of Public Safety, and the Department of the Secretary of State. He expressed appreciation for the hard work on the four-year program to update the statewide 2010 imagery.

Since the May Council meeting, the project team completed the second of four phases, delivering 2013 imagery on time and under budget and making the data accessible through NC OneMap. CGIA submitted a final report to the NC 911 Board in June. Currently, the program is in the quality control stage on imagery acquired early in 2014, and in the planning stage for 2015 imagery.

Five contractors acquired imagery in early 2014 for 26 counties in the Northern Piedmont and Mountains region (including mountainous terrain and the Greensboro-Winston-Salem-High Point urban area). The project team took delivery of the first set of counties for quality control on August 4. Deliveries will involve 4 to 5 counties per week over six weeks, ending the week of September 8. Imagery quality control involves both state and local government reviewers using the online Virtual Online, Inspection, Checking, and Editing (VOICE) system. Quality issues will be resolved by the contractors by November 4. Delivery of imagery products to Public Safety Answering Points (PSAPs) and counties will occur in January 2015.

Mr. Johnson displayed the study areas assigned to each of five contractors. The project team applied strategic concurrent loading of imagery to the quality control application to ensure that at least two counties are adjacent in each weekly delivery and to assess color matching between contractors. The first delivery (Surry, Stokes, Iredell and Catawba) is currently under review by PSAP and county GIS contacts and receiving scrutiny by NCDOT’s Photogrammetry Unit. Visual quality issues are reported in the online tool, reviewed by CGIA, and submitted to the contractor for that location.

Looking ahead to flights in 2015 for the fourth and final phase in the statewide update, the 24-county Southern Piedmont and Mountains region is mountainous, with elevation varying from 6,625 feet above sea level in Swain County to a point in Richmond County 80 feet above sea level. The project team is learning from each phase, particularly regarding imagery in mountainous areas. The project team is meeting with the City of Charlotte and Mecklenburg County to discuss requirements and opportunities for supplementary products from a vendor. For example, the City of High Point coordinated acquisition of products. Outreach to other counties and municipalities in the region will take place, as well. The 2015 phase includes imagery related to Fort Bragg/Camp Mackall where the military has defined some special requirements to include in a forthcoming agreement for flights, acquisition, and publication.

The schedule for the 2015 phase is similar to previous phases. The project team is in the midst of developing the Request for Qualifications in the Qualifications-Based Selection (QBS) process.

Selection of vendors will occur in the fall, with contracts in place by early December, and a kick-off meeting on December 18. Flights will occur between February and April 2015.

Mr. Duncan recommended a summary of savings from the 4-phase orthoimagery project after completing the 2015 phase. He added that the Council is indebted to the NC 911 Board for funding support and commitment to the imagery program that has statewide benefits. He observed the collaborative spirit is alive and well when we keep the focus on benefits to citizens.

### NC GIS Conference 2015

Tim Johnson displayed the soon-to-be released website for the 2015 NC GIS Conference. The content includes an overview, workshops, history, and logo. The conference will be paperless, relying on a digital scheduling tool. The website includes a link for exhibitors to register for exhibit space. The Herb Stout Award application for local governments seeking to apply for the award will also be included. The responsive design has been tested on mobile devices at the Innovation Center.

### NC OneMap Update

(see NCOM update PPT file at GICC website - <http://www.ncgicc.org/GICCM Meetings.aspx>)

David Giordano, NC OneMap Database Administrator, reported on new and updated resources in the NC OneMap Geospatial Portal as follows:

- NCDOT, GIS Unit: Road Characteristics, Multimodal Investment Network Tiers, Rail Tracks, Rail Crossings, Rail Facilities, Municipal Boundaries, Primary and Secondary Routes, Primary and Secondary Road Arcs, Bridge Locations, DOT Transportation Division Boundaries, and County Boundaries
- DOA, State Property Office: State-Owned Lands

The Geospatial Portal now offers a larger area from which a user may download imagery in one request, now amounting to approximately 72 square miles or 80 imagery tiles (5,000 by 5,000 feet per tile). Server management and analysis have enabled CGIA to offer four times the number of tiles per download compared to 2011 without compromising server performance. [NCOM blog post](#).

Development continues on methods for automating updates to geodatabases, map services, and feature services for NC parcels. Also, an operating system upgrade resulted in configuration of a new virtual database server for NC OneMap. Looking ahead, website redesign and integration is expected in the coming months for NC OneMap and GeoPortal websites. The GICC website will be redesigned as well.

### GICC Member Announcements

Mr. Dorman announced that his office is working with the Department of Public Instruction on a safer schools initiative. Geospatial work relates to a school risk management plan and a school emergency response application for first responders. Floor plans, facilities, and access are included. Forsyth County has been involved. House Bill 1062 (passed by the House and referred to Senate Committee on Education/Higher Education) has language that would require counties to provide digital floor plans of all public schools to NC Emergency Management.

Regarding elevation data, Mr. Dorman reported that the first two phases (of 5) of LiDAR data acquisition have gone through initial review and are now in quality control. Data releases are expected to begin in January. The budget bill provided \$3.2 million that will be used for phase 3 LiDAR acquisition this fall.

Mr. Taylor, having received inquiries to the 911 Board about access to the digital data on public schools, asked if the new application would be accessible statewide on mobile devices. Mr. Dorman explained that the data will be protected from public access, but county officials would have access. Mr. Taylor explained a need to set something up through a 911 center. Mr. Dorman expects that counties and school systems will need to work out access issues. All public schools are involved. The project is looking at the state university system as well.

Mr. Taylor announced that NC 911 Board is looking at the next generation of funding and is considering new funding models for 911 centers and all projects. The 911 Board has looked at the orthoimagery project as one of its crown jewels and has heard good comments in the past like those from Mr. Duncan when the Board met in Henderson County. Mr. Taylor asked Council members to express appreciation about the orthoimagery project, including collaboration, cooperation, and value. Next Generation 911 will involve geographic data including imagery. A letter to the Board in care of Mr. Taylor is recommended. An email reminder from the Council to members will be useful.

**ACTION:** Council members are encouraged to write letters of appreciation to the NC 911 Board in care of Richard Taylor, Executive Director.

Mr. Burris announced that he is training staff to use Microsoft Excel (Office 2013) to produce simple maps and save time and effort for GIS professional staff.

Ms. McDermott observed that Charlotte looks for opportunities to buy-up LiDAR data when the State is flying orthoimagery in the area. She asked if the State acquisitions for orthoimagery and LiDAR are synchronized. Mr. Duncan confirmed that they are collected separately at this time. Mr. Dorman explained that updated elevation data, processed into a digital elevation model before imagery is processed, is valuable to orthoimagery accuracy and quality. Mr. Duncan added that eventually we will be able to serve our citizens and agencies best by coordinating the acquisitions of LiDAR and imagery in the future.

## ADJOURNMENT

There being no other business, the meeting was adjourned at 3:00 PM. The next meeting will be Thursday, November 20, 2014 from 1:00-3:00 pm at the Department of Public Instruction Board Room, Room 755, 301 N. Wilmington Street, Raleigh.

Presentations and reports are on the Council Website: <http://www.ncgicc.org/GICCM Meetings.aspx>. Click on “GICC Meetings” and navigate to August 13, 2014 and the column on the right for presentations and documents presented during the meeting in a downloadable zip file.