

North Carolina Geographic Information Coordinating Council

Minutes November 9, 2016

PRESENT

Stan Duncan (Chair), Bob Brinson (Vice Chair), Steve Averett, Allan Axon, David Baker, Scott Miller (for Jon Beck), Wesley Beddard, Jay Bissett, Jr., Marc Burris, Kathryn Clifton, Bob Coats, John Correllus, John Cox, John Dorman, Dianne Enright, John Farley, Kristian Forslin, John Gillis, Derek Graham, Matthew Helms, Bliss Kite, Sarah Koonts, Sarah Collins (for Chris Nida), Dan Madding, Rich Elkins (for Elaine Marshall), Doug Newcomb, Josh Norwood, Kevin Parrish, Alex Rankin, Yongjun Lei (for Allan Sandoval), and Joseph Sloop. Staff: Tim Johnson, CGIA

ABSENT

Joanne Halls, Linda Millsaps, Anne Payne, Richard Taylor, 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 Stan Duncan called the meeting to order.

Welcome and Chair Announcements

Mr. Duncan welcomed the Council members and visitors. He announced that Council member Kevin Parrish retired from Caldwell County after 28 years and has taken a position with Blue Ridge Electric Membership Corporation. The utility perspective on GIS is important and Mr. Duncan expects Mr. Parrish to contribute in his new role. Congratulations were expressed.

Mr. Duncan introduced Wesley Beddard as the new designee of Community College System President James Williamson to serve on the Council. Mr. Beddard is Associate Vice President, Programs. Mr. Duncan welcomes input from the Community College System, realizing that community college programs contribute to the field of GIS.

Mr. Duncan welcomed Sarah Collins, sitting in for the new designee for the NC League of Municipalities, Chris Nida, who could not attend today. Mr. Nida has been involved in previous discussions of address data, Census 2020, and Next Generation 911.

Mr. Duncan called Ryan Draughn to the table to officially recognize Mr. Draughn's contribution to the Council as the designated member from the NC League of Municipalities. Mr. Ryan has taken a new position with the National League of Cities Mutual Insurance Company in Washington, DC. Mr. Duncan presented a certificate and read his letter to Mr. Draughn:

"I would like to express my gratitude for your contributions to the Geographic Information Coordinating Council and the GIS community in North Carolina. In addition to your five years of service on the Council, your leadership as Chair of the Statewide Mapping Advisory Committee (SMAC) over the last four years has been invaluable. The numerous working groups and subcommittees of SMAC all benefitted from your organizational skills, consistency, and enthusiastic support. From standards to geographic names to statewide datasets, SMAC has made great strides under your guidance.

Please find a Certificate of Appreciation enclosed honoring your service to the Council, the GIS community and the citizens of North Carolina. Of course, you are welcome to attend GICC meetings at any time in the future. The schedule is on the GICC website http://it.nc.gov/gicc.

Please do not hesitate to contact me or CGIA staff with any suggestions, comments or concerns. We value your perspective, as always.

Sincerely, Stan C. Duncan, Chair, Geographic Information Coordinating Council"

Mr. Draughn expressed gratitude to the Council for the experience and acknowledged Anne Payne who preceded him as Chair of the Statewide Mapping Advisory Committee for her guidance and assistance.

Mr. Duncan acknowledged Joe Sewash, Luis Carrasco and Bob Coats regarding address data and asked for an update on the *AddressNC* Program. Mr. Sewash reported that *AddressNC* project work has been underway since August. There is a core project team and a steering committee to guide the efforts. Mr. Carrasco is the project manager. In the past week, both the State Government GIS User Committee and the Local Government Committee have support *AddressNC* in the distribution of a user story survey. He asked Council members to please forward the survey link to colleagues. The deadline for responses is November 18. Those stories will form the foundation for the requirements for the database and services produced from the database. Mr. Duncan emphasized the importance of *AddressNC* and sees this effort as parallel to work on Census 2020 led by Mr. Coats.

Approval of Minutes

The minutes of the August 10, 2016 meeting were approved for adoption with no changes.

Progress on Statewide IT Activities

John Correllus, Deputy State Chief Information Officer and Chief Data Officer shared recent developments in statewide IT activities. To follow up on remarks to the Council by State CIO Keith Werner, information technology shops in seven state agencies have transitioned to the NC Department of Information Technology (DIT), including the Department of Environmental Quality. DIT is looking at the road map and will transition more agencies next year.

In a new development, Mr. Correllus explained that, visible through glass on the first floor of the Education Building, Council members will see a green, gray and blue wall that will be the Data Visualization Studio. Opening has been delayed by Hurricane Matthew. Mr. Correllus is excited about the studio and invites the Council to visit and/or have an activity there. The purpose is to leverage data assets to benefit NC. There are five goals: cost reductions, operational efficiencies, improved decision making through analytics, sharing data effectively, and developing data driven

government through collaboration. It is about the people and the process as much as the technology. The purpose of the studio mimics what the Council is doing for the geospatial community. DIT is looking at building resources and developing talent. The Data Visualization Studio is building on success with the Innovation Center (2013) and with Government Data Analytics Center (GDAC) analytics and data integration across agencies applied to business processes. Mr. Correllus plans to put analytics and geospatial data together as well. If you have ideas for tech talks, let him know. It may be used by other organization and events. The studio is about innovation, culture, and sharing data assets.

Mr. Correllus referred to the upcoming GIS Day, led by Dianne Enright, and asked: how can we leverage the studio with GIS year-round? Many people come through the Education Building, including economic developers visiting the Department of Commerce, educators, and school children. He envisions children walking through the Data Visualization Studio and going home to tell parents about the technology and applications they saw and that it was displayed by government.

Mr. Duncan confirmed the studio's and the Council's common core values, and the value of the Council's support of *AddressNC*, *NC Parcels*, Statewide Orthoimagery, and *NC OneMap*. He also envisions students seeing their school or home on display and reporting a positive experience.

2017 NC GIS Conference

The conference will take place at the Raleigh Convention Center, February 22-24. Tim Johnson reported on conference planning and preparation activities including the website, open registration, and exhibit booths—26 of 50 are sold to date. The keynote speaker on the morning of February 23 will be Keith Masback, Chief Executive Officer of the US Geospatial Intelligence Foundation. This will cover military and civilian topics of interest to state and local government and businesses and the GIS profession. He is highly recommended by GIS counterparts in other states, and he is glad to come to North Carolina having been stationed at Fort Bragg some years ago.

The Herb Stout Award Competition for local governments will be announced this month. Any county, city or town may apply for the award. Submissions are due in mid-January with winners selected prior to the conference. The Herb Stout student award competition was announced in October, with submissions due in early January as well. The poster session submission process is active also, and he invited Council members to participate.

In response to a question from John Farley, Mr. Johnson confirmed that the NC GIS Conference website now has a login for speakers to get a discounted registration rate.

Also, Mr. Duncan asked Mr. Johnson to report on the annual conference of the Urban and Regional Information Systems Association (URISA) held last week in Toronto and an award won by North Carolina. Mr. Johnson explained that Jeff Brown and Tom Morgan accepted plaques on behalf of the Council and the Secretary of State, respectively, for the collaborative *NC Parcels* project as a Distinguished Enterprise System in the 2016 Exemplary Systems in Government (ESIG) award competition. Mr. Johnson, who also attended the conference, remarked that the award was a nice recognition from an international group for all the years of work that went into this effort.

Mr. Duncan added that he found in Council minutes from February 2008 that Nancy von Meyer (a project team member and key contributor to the ESIG application) did a presentation to the Council to make the case for a statewide parcels project. Also, in the August 2008 Council meeting, the

Working Group for Seamless Parcels, co-chaired by Mr. Morgan and Pam Carver of Henderson County, received approval to pursue a grant from the Environmental Protection Agency. He recognized the Council's long term commitment to the initiative and extended thanks to Mr. Morgan, Ms. Carver, John Bridgers (co-chair), and Jeff Brown (project manager) for their effort. Mr. Duncan also recognized David Baker for collaborating on a letter through the NC Association of County Commissioners urging county participation in the *NC Parcels* project. This was effective and all counties participated.

Technical Presentation

Federal and State Regulation Around Commercial (UAS/Drone Operations (Basil Yap, NCDOT Aviation Division) (See - <u>https://it.nc.gov/event/gicc-quarterly-meeting-1192016)</u>

Mr. Duncan introduced Basil Yap who is currently the contract Unmanned Aircraft System (UAS) Project Manager at NC DOT Division of Aviation. He is part of the team dedicated to the UAS Program Office within the Division of Aviation. Mr. Yap holds a civil engineering degree from North Carolina State University and has served in a variety of capacities within NCDOT and in the private sector. Mr. Yap holds a Remote Pilot Certificate and currently operates UAS platforms within the state.

Mr. Yap explained that the General Assembly mandated that the Aviation Division take responsibility for permitting UAS in North Carolina in 2014. The UAS Program Office promotes safe and legal UAS operation in NC. UAS knowledge test and permitting is supported by safety and guidance materials and planning activities. Regarding aviation in the state, in May 2016 there were 17,760 pilots, 6,987 manned aircraft, and 13,264 unmanned aircraft vehicles (UAV). UAS, UAV, and "drone" may be used to describe unmanned aircraft.

Mr. Yap described the core functions of the NCDOT Division of Aviation. He noted that North Carolina is one of a few states to receive a block of money to distribute funds to general aviation publicly owned airports. He observed that a "Part 77" surface slope analysis of a general aviation airport could be can be put in GIS to inform protection of airspace and regulation of growth of large buildings or towers in the airport vicinity.

The Federal Aviation Administration (FAA) counted more than 13,000 hobbyist UAS in North Carolina in May 2016, and 247 non-hobbyist UAS. Among Council members, NC Emergency Management and Pender County have UAS. Nationwide, FAA expects hobbyist UAS purchases to more than double to 4.3 million by 2020 and UAS sales for commercial purposes will increase from 0.6 million to 2.7 million.

Regarding potential uses, FAA recognizes that the visual line-of-sight requirement is a constraint. Overall demand for UAS will accelerate if some requirements are changed. UAS interactions with manned aircraft in North Carolina have not been numerous to date.

Mr. Yap described projects by Next Generation Aviation Technologies (NGAT) at NC State University in collaboration with NCDOT. For example, UAS are useful in construction project monitoring, as illustrated by flights completed in Wilmington and imagery and elevation derived from a UAS with a camera where 800 images were stitched together. Accuracy was about 3-inch horizontal and 6-inch vertical. If interested, request the report from Mr. Yap.

Regarding regulation, the FAA has control over all airspace. Regulating airspace gets complicated, with various restricted uses. Updates to small UAS rules (Part 107) were issued by the FAA in August 2016. The federal UAS license needed is a "Remote Pilot's Certificate." A manned aircraft pilot license is no longer required. Requirements include a test at an FAA approved center and a background check. He reviewed the major provisions relating to weight, altitude, daylight operation, and speed. Operators may not fly over anyone not involved in the operation, particularly a large gathering of people. For UAS over 55 pounds or for higher altitude operations, a Certificate of Authorization (COA) and Section 333 exemptions are still needed. Mr. Yap emphasized that hobbyist and non-hobbyist UAS need to be registered with the FAA.

Regarding the North Carolina General Assembly, there are multiple statutes related to UAS, primarily Session Law 2014-100 and 2015-232. Provisions relate to unlawful distribution of images, expectation of privacy, intent of data, interference with manned aircraft, hunting and fishing, and launch and recovery sites. Criminal penalties may apply. Mr. Yap pointed to the NC UAS website for links to the knowledge test and permitting process, information and help. For state and local government and commercial users, the knowledge test and permit are required at the state level. There is a specific license for a government UAS operator. Hobbyists are not required to take the test, but it is a good idea to do so. Insurance specifically for UAS operation is not required but is a good practice. If a local government is hiring a company to provide UAS services, a quick check is to confirm the company has insurance. State agencies may get insurance coverage through the NC Department of Insurance. Municipalities should contact the risk management section of the NC League of Municipalities, and counties should contact risk management at the NC Association of County Commissioners. Mr. Yap displayed checklists for government and commercial operators. For more information for hobbyists, see hobbyist guidelines.

In response to a question from Mr. Rankin, Mr. Yap explained that he has not had to use the waiver process for part 107. The Aviation Division operates in Class G airspace (general aviation). In response to a question from Mr. Helms, Mr. Yap observed that there is not a defined buffer zone around a crowd. Discretion is advised; if a UAS were to fall, would it hit someone.

Mr. Yap estimated that the volume of permit applications to the UAS Program has reached 500 and is increasing, with about two-thirds from commercial and one-third from government to answer a question from Mr. Johnson. Also, courts may need to interpret FAA rules and NC statutes to clarify as more is learned.

Mr. Duncan asked about unregistered users. Mr. Yap explained that perhaps one-quarter to one-third of UAS are not registered. There is no seller obligation, it is up to the buyer to register. There is not a system for tracking sales and registrations. Mr. Duncan observed that advertisements make UAS look simple to obtain and operate. Mr. Yap added that research helps, but communication to reach all users is a challenge. Also, as technology improves, lower priced models may be as effective as older higher priced models.

John Dorman commented that NC Emergency Management has two UX5 UAS and a statewide Certificate of Waiver or Authorization (COA). The UASs were flown over the Woodlake Dam in Moore County and over Princeville after Hurricane Matthew and related rainfall. He sees a positive future. However, there is concern about UAS sales to local law enforcement agencies and perhaps flying without full knowledge of the regulations. In response to a question from Bliss Kite, Mr. Yap answered that NCDOT did not fly UAS after the hurricane. Some municipalities may have flown.

Mr. Johnson pointed out two sessions on UAS at the 2017 NC GIS Conference, both a policy session with NCDOT, NCDOI and FAA, plus a session on UAS technology.

Mr. Duncan expressed appreciation for the presentation and stressed its importance. Mr. Yap appreciated the opportunity and encourages contact for any others seeking a presentation on UAS.

Hurricane Matthew and GIS

Mr. Duncan invited Council members to make brief statements about how they used GIS in response to Hurricane Matthew (landfall on October 8). He expects more time at the February Council meeting for presentations about results and lessons learned. He noted that, from his vantage point in western North Carolina, the national media were good about warning of the approaching storm, but not so informative after the storm hit. He appreciated the regular information from the Governor's Office, especially press conferences, and from public television (UNC-TV) on flooding, damage and loss of life.

Doug Newcomb received many responses from members of the Federal Interagency Committee (FIC) members via email. David Lawson (GIS Coordinator for FEMA Region IV) was in Raleigh, working closely with NC Emergency Management. National Geodetic Survey flew imagery at FEMA's request, NOAA has published imagery daily over flooded areas, the National Weather Service had river flooding forecasts and mapped projected inundation, Federal Highway Administration worked with NCDOT on road closure and detour information, the National Park Service and Fish and Wildlife Service have surveyed damage and identified inundated roads on their properties including refuges and parks. Also, USGS went out before the storm to place sensors for high water marks and rapid deployment temporary stream gages and they are working on a flood inundation map based on the data. The US Army Corps of Engineers is mapping emergency permits for road repair, and reviewing topobathymetric data to analyze impact on inlets.

John Dorman summarized the work of NC Emergency Management (NCEM) in the Department of Public Safety. Years of preparation in risk management for all hazards have included collection of building data statewide, first-floor elevations and other building information and development of damage models by hazard. Also, collection and modeling 30,000 miles of streams were ready to apply in conjunction with stream gages and coastal gages. The intent has been to predict and track what is happening. With assistance from RENCI, models for calculating storm surge were applied. With resources in place, NCEM was able to provide real time forecasts of damages at the building level. This was used for evacuation of two prisons and a hospital. The Highway Patrol used the system for deployment decisions. The system is now being used to identify damages. The system produced estimates: 98,669 impacted buildings and \$1.77 billion in damages. About \$1.4 billion is uninsured damages. The State needs to analyze unmet needs and potential federal assistance. In preparation, models indicated that Kinston would be split by flooding of US Highway 70, and evacuation was effective in reducing loss of life and property. It was good use of the data in a bad situation.

Dan Madding described work performed by the Emergency Programs Division of the Department of Agriculture & Consumer Services. The group tracked rainfall and flooding to identify farms at risk and save (or process) livestock to avoid disposal and environmental issues. NCDOT road closure information was helpful as well as the flood forecast tool and flood inundation and building footprint datasets from NCEM. He noted that the post Hurricane Floyd program to buy-out swine facilities was successful and avoided scenarios of swine the roofs of barns this time.

Allan Axon explained that the Department of Environmental Quality (DEQ) put together applications quickly before the storm to do planning and prioritize inspections of permitted facilities after the storm. Web services from *NC OneMap*, other state agencies, and federal agencies, including stream-related data and imagery, were vital.

Josh Norwood described his experience in the Pender County Emergency Operations Center (EOC). He made maps steadily for two weeks. The storm was unusual – beaches were fine except for erosion on North Topsail; but after the storm, water came pouring in through the Black River Basin. The county monitored river levels and used local knowledge to identify problem areas. There were mandatory evacuations and swift water rescues. He noted that people wanted paper maps and an address list for evacuation. He did use a damage assessment application for planning and community development that was deployed on IPADs. He will be working with FEMA on damage assessment as well. He added that the county emergency services department has an unmanned aircraft system and used it to inform people who were out of their homes for 2-4 weeks. Creating a grid where structures were inundated, the county flew the UAS over areas and loaded images on a website so that people could view their homes. Mr. Norwood expressed gratitude to CGIA and the 911 Board for making the 2016 coastal imagery available.

Marc Burris, State Board of Elections, used data from NCDOT and NOAA to monitor early voting sites and identify high water events.

Mr. Duncan asked Council members to send him an email and copy Mr. Johnson if they have some good material to share for applications and results for the February Council meeting.

<u>Report</u>

Working Group for PLS and GIS (Bob Brinson)

Bob Brinson, chair of the working group, recapped the creation of the working group and its efforts to look at the intersection of GIS and Professional Land Surveying, and the impact of statutory changes in 2014 and 2015 on government and private GIS practitioners. Since the last Council meeting, the working group has pulled together numerous use cases to frame discussions. Purpose, data and actions are described. With the use cases defined, the working group can consult the NC Board of Examiners for Engineers and Surveyors (NCBEES) and the NC Society of Surveyors about what requires a PLS license and what does not. The working group met this morning to review use cases, organized as 18 use cases consolidated from more than 40 submitted from the working group. Discussions were valuable and the working group is making progress, particularly on identifying points of agreement. Mr. Brinson added that a related meeting between NCBEES and NCDOT on the topic of the government exemption as it relates to NCDOT work, with indications in a letter from NCBEES to NCDOT that changes in statute did not change the government exemption. Mr. Brinson seeks a similar letter from NCBEES to the Council. In any case, the status of private sector GIS

practitioners needs more clarity. Next steps will be to document points of agreement, finish defining use cases, share findings with NCBEES, and discuss the material with the board.

Mr. Duncan commended the group for its hard work and progress.

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Gary Thompson, SMAC vice chair, reported that the committee did not meet as scheduled in October in consideration of the members who were busy in response to Hurricane Matthew. Meanwhile, working groups are active and making progress including the Stream Mapping Advisory Committee, the Metadata Committee, and the Working Group on the 2022 Reference Frame. In its work to implement the Council's metadata standard, the Metadata Committee has conducted three in-person training sessions this fall, will hold a session for state GIS data managers on December 1, and presented at the URISA GIS-Pro Conference in Toronto. In its ongoing work, SMAC provides oversight and advice for development, maintenance, opportunities, and issues for Geospatial Framework datasets for North Carolina.

Mr. Duncan inquired about the status of the reestablished North Carolina-South Carolina boundary. Mr. Thompson explained that approvals are complete but a proclamation by the Governor of North Carolina is pending.

Local Government Committee (LGC). Kathryn Clifton, LGC chair, reported that the committee met August 24. The Value of GIS story map has been migrated from Davidson County to a more central home in the *NC OneMap* online account. The story map is ready for promotion and submissions. The committee discussed geographic data related to voting districts, precincts and other elections data. The committee will do more work to identify which datasets, hosted by the State Board of Elections and the General Assembly, should be discoverable through the *NC OneMap* Geospatial Portal.

Ms. Clifton shared that she attended the metadata workshop at the NC Property Mappers Association conference on October 4, conducted by Lynda Wayne and Jeff Brown, and it was very well received. Participants she spoke with were pleasantly surprised by the energy and quality of the workshop.

Also, LGC is pleased to participate in CGIA's survey about requirements for *AddressNC* and looks forward to the results. LGC meets next on November 30.

State Government GIS Users Committee (SGUC). John Farley, SGUC chair, reported that the Executive Committee discussed the GIS limited services contracts for which an RFP is complete and expected to be issued November 16. The package includes a statement of work template. Also, work on a new Master Purchasing Agreement (MPA) for the Enterprise License Agreement (ELA) with Esri is on hold. The plan is to extend the old MPA to the term of this ELA and apply lessons learned and issues to the next ELA negotiations.

Federal Interagency Committee (FIC). Doug Newcomb, FIC chair, reported that FIC, considering the demands of Hurricane Matthew response and recovery, postponed a general meeting until January. The Executive Committee will meet in December to plan a session that will include lessons learned from hurricane response.

GIS Technical Advisory Committee (TAC). Dan Madding, TAC chair, reported that research on Geoserver software and trying to determine if there is enough user experience available to develop a paper. He seeks contributors.

Management and Operations Committee (M&O). Mr. Duncan summarized work of the Management and Operations Committee. He emphasized the importance of the Working Group for Census Geospatial Data, using resources including *AddressNC* to get accurate numbers for Census 2020 and defend them. *AddressNC* has value for Next Generation 911, providing addresses across county boundaries. In this year's annual report, in progress, Mr. Duncan is emphasizing challenges and how the Council's initiatives and collaboration are preparing for and meeting those challenges. Mid-December is the target for completion.

Mr. Duncan invited Bob Coats to give a quick update on Census preparations. Mr. Coats reported that the Census Bureau selected Buncombe County as one of two locations to test verification of addresses using analysis of address points over aerial imagery (targeting 75 percent) as well as canvassing for areas that may not be verifiable in reference to imagery (25 percent). The testing will run through the end of this year. The Director of the Census Bureau visited Buncombe County. The Local Update of Census Addresses (LUCA) program is operational in the Census Bureau. Letters will go out in January to the highest elected official in each county and municipality. Mr. Coats will work with the NC League of Municipalities (NCLM) and the NC Association of County Commissioners (NCACC). Jurisdictions will have only 120 days for the process, meaning it is time to plan and budget resources. The Census Bureau shared information on address data and formats and he has shared the same with *AddressNC*. The Boundary and Annexation Survey kicks off January 1 as well. Mr. Duncan offered to follow up with NCLM and NCACC about promotion of LUCA. Mr. Coats added that it will be good to point local governments to *AddressNC* as a resource.

Statewide Orthoimagery Program Update

(See - <u>https://it.nc.gov/event/gicc-quarterly-meeting-1192016)</u>

Tim Johnson provided a brief update on the Statewide Orthoimagery Program. The Coastal 2016 Project is nearing delivery to the Public Safety Answering Points (PSAP) in that area. Final delivery of products from the contractors to the state are expected late this month and the project team will complete packaging for distribution, including imagery extending 7 miles beyond county boundaries as agreed with the NC 911 Board. The project team is working with the US Marine Corps on delivery of imagery within the installation footprints to the Corps and outside of the footprints to the PSAPs. Delivery meetings are planned in four locations to be determined for January. Also, NC 911 Board approved CGIA to serve 2016 coastal imagery, as-is prior to final quality control, through *NC OneMap* in preparation for Hurricane Matthew and to provide a before picture to compare to imagery captured after the storm by federal resources.

Simultaneously, the project team is working on the Eastern Piedmont 2017 phase, including all of Fort Bragg and Camp Mackall. The team will be negotiating contracts during the week of Thanksgiving, and expect the contractors to begin flying as early as the third week in January.

NC OneMap Update

(See - https://it.nc.gov/event/gicc-quarterly-meeting-1192016)

David Giordano, *NC OneMap* Database Administrator, reported on data updates since the last Council meeting. On the topic of coastal imagery, he displayed a snapshot of federal imagery

from the Goldsboro area after Hurricane Matthew showing an inundated road. NOAA served imagery of flooded areas the day after capture, and *NC OneMap* displayed the "after" pictures over the 2016 "before" imagery for comparison. Image services for the 2016 imagery were temporarily available for several days. 2016 imagery is now back in final quality control and packaging, and will be served again in February. *NC OneMap* also updated other key datasets prior to the hurricane, including parcel data updates for many of the affected counties.

A spike in *NC OneMap* usage was evident. During October 10 to November 1, the "Orthoimagery Latest" image service received almost 8 million hits or about 2 million per week. Typical usage per week for that image service is 1 to 1.5 million. During October 10-16, there were over 2.5 million hits in that one week following the hurricane. The temporary service for 2016 imagery received about 600,000 hits during October 5 and November 1. Parcel data received 240,000 hits during that period, or about 60,000 a week, double the typical usage.

GICC Member Announcements

Mr. Farley announced that yesterday the NCDOT GIS Unit published products from the new Roads and Highways System and released the Fourth Quarter 2016 publication updates. The GIS Unit created new "Irs arcs," "Irs routes" and "road characteristics" products to replace previous products. He shared a handout with the Council describing the new schema and new map services and more detailed information about the products available online.

David Baker introduced Tony Simpson, Assistant Director, Local Government Division; his predecessor Michael Brown retired from the Department of Revenue.

Dianne Enright announced GIS Day in Raleigh November 16 at the City of Raleigh Museum. The event will feature demonstrations and posters by state agencies, Wake County, and the City of Raleigh. She urged Council members and colleagues to sign up for displays and/or attend the event.

Mr. Duncan thanked Council members for their participation this year and wished everyone safe and happy Thanksgiving and Christmas holidays.

ADJOURNMENT

There being no other business, the meeting was adjourned at 2:50 PM.

The dates for Council meetings in 2017 are February 9, May 10, August 9, and November 8.

Presentations and reports for this meeting are on the Council Website: https://it.nc.gov/event/gicc-quarterly-meeting-1192016