



North Carolina Geographic Information Coordinating Council

Minutes
February 14, 2018

PRESENT

Stan Duncan (Acting Chair), Steve Averett, Paul Badr, Bob Brinson, Marc Burris, Kathryn Clifton, Greg Cox, John Cox, Dianne Enright, John Farley, John Gillis, Joanne Halls, Jason Hedley, Matt Helms, Nate Humphrey (for Wesley Beddard), Debbie Joyner, Bliss Kite, Sarah Koonts, Dan Madding, Elaine Marshall, Chris Nida, Michael Pjetraj, Sarah Porper (for John Correllus), Allan Sandoval, Tony Simpson, Richard Taylor, Gary Thompson (for John Dorman), Lee Worsley and Ron York.

Staff: Tim Johnson, CGIA

ABSENT

David Baker, Kristian Forslin, Scott Lokken, Alex Rankin and Nels Roseland

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held in Training Room 240 of the Albemarle Building in Raleigh, North Carolina.

Welcome and Chair Announcements

Stan Duncan, Chair, called the meeting to order and welcomed Council members and visitors.

Mr. Duncan announced that, as shared with members by Tim Johnson by email on February 1, Governor Cooper has appointed Alex Rankin to serve as Chair of the Geographic Information Coordinating Council. Alex is President of Concord Engineering and Surveying, Inc., and brings a wealth of experience to his new role on the Council. Alex was first appointed to the Council in July 2011 and has served either as an appointed member or as an advisory member since that time. When Mr. Rankin's term as a voting member ended in 2014, Mr. Duncan appointed Mr. Rankin as an advisory member to retain his perspective on engineering and surveying on the Council. Mr. Rankin was away on a business trip today and asked Mr. Duncan to preside over the meeting as Acting Chair. The two met last week in Hendersonville to discuss transitional aspects. Mr. Duncan looks forward to Mr. Rankin's leadership as Chair of the Council.

He welcomed new Council members appointed by Governor Cooper who were unable to attend the November Council meeting on short notice:

- Paul Badr, President of the Geospatial Division of GPI, located in Charlotte
- Scott Lokken, Mid-Atlantic Regional Advisor for the National Geodetic Survey, located in Raleigh

- Lee Worsley, Executive Director of the Triangle J Council of Governments, in the Research Triangle Park

He also welcomed Tony Simpson, Director of the Local Government Division, designated by Secretary of Revenue Ronald Penny to serve on the Council. Mr. Duncan also welcomed back David Baker, Director of Tax and Revenue Outreach, appointed to represent the NC Association of County Commissioners.

Mr. Duncan also reported his December appointment of Bob Brinson to serve as an advisory member to the Council. Mr. Brinson formerly served as a voting member and Vice Chair. Mr. Duncan expressed appreciation for his leadership as chair of the Working Group for PLS and GIS and his willingness to continue to participate in the work of the Council.

Mr. Duncan welcomed Sarah Porper, State Strategy Officer, sitting in today for John Correllus. Among visitors today, Mr. Duncan recognized Michael Cline, the State Demographer.

Mr. Duncan called forward Richard Taylor to recognize his service as a Council member. Mr. Taylor will retire from state government service at the end of April. Mr. Duncan read an excerpt of his letter to Mr. Taylor:

I would like to express my gratitude for your contributions to the Geographic Information Coordinating Council and the GIS community in North Carolina. Your service on the Council 2005-2018 has been invaluable as you shared your insights and helped direct our attention to the importance of geospatial data for Next Generation 911. Most significantly for the GIS community, under your leadership the NC 911 Board has invested more than \$30 million in statewide orthoimagery since 2010, resulting in reliable, consistent, timely, high quality imagery across the state, delivered to Public Safety Answering Points, and available to the public through *NC OneMap*. The comprehensive approach has saved millions of dollars and provided even the lowest-wealth counties excellent imagery every four years for emergency communications as well as tax mapping, planning, base mapping and other purposes.

He thanked Mr. Taylor for his collaboration with the Council the benefits to North Carolina. Mr. Duncan presented him with a Certificate of Appreciation and a plaque recognizing his outstanding service and support to the statewide GIS community. In addition, members of the Statewide Orthoimagery Program team, Darrin Smith and Ben Shelton, presented Mr. Taylor with a custom poster of 2016 orthoimagery over his beloved Ocracoke Island. The poster displays the same composition as an original version produced for Mr. Taylor (by Hope Morgan) using 2010 imagery.

Mr. Taylor expressed his gratitude and appreciation for the recognition. He added that involvement with GIS has been a learning experience, going back to his days in the 911 communications system in the City of New Bern. He looks forward to implementation of Next Generation 911, but plans to be only an observer in retirement while enjoying his three grandsons.

Approval of Minutes

The minutes of the November 8, 2017 meeting were approved for adoption with no changes.

National Agriculture Imagery Program

Dan Madding, NC Department of Agriculture and Consumer Services, explained the current situation with aerial imagery from the US Department of Agriculture's Farm Service Agency (FSA). The agency's National Agriculture Imagery Program (NAIP) has produced and distributed imagery with 1-meter ground resolution, leaf-on conditions, and a fourth band (near infrared) to enable application of color infrared imagery. Acquisition is statewide, with frequency depending on funding. In recent years, NAIP imagery has been freely available to North Carolina, most recently from 2016 imagery, and published at 2-year intervals. A three-year cycle of imagery acquisition could be adequate for the FSA's purpose of mapping farm fields and may become the new policy. More importantly, FSA, in the context of funding issues for the agency and partnering federal agencies, is considering changing to a licensed product to generate revenue to support the program.

In comparison, Statewide Orthoimagery is acquired in leaf-off conditions at 6-inch ground resolution and produced in true color (3-band). Mr. Madding explained that leaf-off imagery is better for differentiating species of trees, for revealing roads and rooftops near deciduous trees, and for seeing the extent of water or wet areas. Mr. Badr pointed out that imagery sensors are equipped to acquire the fourth band, meaning that deliverables to the Statewide Orthoimagery Program could potentially include color infrared imagery. As confirmed by the Working Group for Orthoimagery and Elevation in a paper developed recently, producing imagery products from four-band imagery would have an additional cost related to handling and storage of larger files.

Mr. Madding explained that the GIS community in North Carolina uses NAIP imagery a lot for a variety of purposes. For example, NC Forest Service benefits from a classification of forest cover, derived from color infrared NAIP imagery. Consumers have become accustomed to freely available NAIP imagery to provide a summer view of the landscape and to be available for years between Statewide Orthoimagery acquisition over its four-year cycle. For example, NCDOT can use NAIP for road alignment work if NAIP happens to be more current than Statewide Orthoimagery in the location of interest.

Mr. Madding noted that at least one imagery acquisition vendor collects imagery at 1-foot resolution for commercial sale and delivers 1-meter imagery to FSA. He explained that the cost for a license for a statewide commercial product for all public agencies together, for example, could cost as much as \$400,000. A license model would save money for FSA's purposes, but would put NAIP imagery out of reach for many consumers.

Joanne Halls reported much concern among universities where NAIP imagery, particularly from past years for change analysis, has been a valuable resource for faculty and students. Research related to vegetation, wildlife habitat and forestry are a few examples that benefit from NAIP as a freely available color infrared imagery. She has heard concern about continued availability of the imagery archives, not just the next acquisition. If the licensing model supports only one access point, NAIP will become impractical as a university resource. She expects the academic community will be supportive of a Council action.

Mr. Madding asked the Council to consider a letter to the US Department of Agriculture to advocate for open and free NAIP imagery for GIS community in North Carolina. He has prepared a one-page information sheet (to be distributed to the Council) and has consulted with the Statewide Mapping Advisory Committee and its Working Group for Orthoimagery and Elevation.

Decision: Mr. Madding will work with Ms. Halls and Council staff to draft a letter and request review and comment by Council members. The resulting letter may be submitted to the Secretary of Information Technology for approval to submit to the US Department of Agriculture.

Working Group for PLS and GIS

Bob Brinson, chair of the working group, recapped the purpose and approach of the working group for new members. The purpose is to look at GIS practice and Professional Land Surveying and define a boundary between the two. In 2016 the Council noticed new languages in legislation pertaining to the NC Board of Examiners for Engineers and Surveyors (NCBEES). A working group was formed to revive discussions from several years before and prepare for a conversation with NCBEES to about the new language and definitions of GIS practice and surveying.

Selected members of the working group and the surveying committee of NCBEES have met three times to review materials. The framework has been a set of use cases that prompt discussion of purposes of data creation, quality of metadata, disclaimers, guidance for using data, and what is authoritative. The participants have considered what a GIS professional could properly do and what crosses a line from GIS practice into land surveying. Another half-day meeting is scheduled for March 20 to look at remaining use cases and begin developing documentation of findings. Themes of authoritative data, metadata, good practice, and suitability of different work products for different purposes will be discussed. Documentation of findings will be important for guidance to professionals in making decisions about GIS practice and land surveying and to bodies overseeing professional practices.

On a related topic, Greg Cox inquired about land surveys and requirements to tie survey files to the ground, to establish a geographic reference to the earth for boundaries produced in design software. Gary Thompson explained that General Statue 47-30 (Plats and subdivisions; mapping requirements) now has a requirement that surveys be tied to the North Carolina Grid System (f)(9), as enhanced in the last year. He expects to see more and more surveys tied to grid to fix the problem described by Mr. Cox.

Mr. Duncan thanked Mr. Brinson for his leadership of the working group.

Data-Driven Collaboration

Mr. Duncan reminded the Council of the discussion in November that generated a lot of comments and discussion. Jeff Brown facilitated the discussion by briefly recapping the points raised in the last meeting on the topic of Council Direction 2017-2018 and beyond. He reminded the Council about the theme of the Annual Report, “data driven collaboration” centered around statewide datasets that offer a framework for base mapping and geospatial analysis. He reiterated that good data plus collaboration results in mutual benefits. Benefits are related to economic development, site analysis, emergency management, transportation planning, forest management, precision farming, state and local taxation, recreation and many more applications. During the last meeting, members described challenges, constraints and opportunities related to statewide data quality, data sharing, local-state connections and access to geospatial data. The future focus expressed in the Annual report was Next Generation 911, Census 2020, Enterprise Data Management, and service to the public.

Mr. Brown framed the discussion today around ways to maximize benefits from good data plus collaboration. He stated four questions to consider:

1. How can the Council support more applications of geospatial data to meet business needs and to meet the challenges ahead?
2. What are ways to collaborate for more integration of geospatial data in information technology for expanded benefits?
3. How can the Council benefit your part of the GIS community in North Carolina?
4. How can the Council do more to increase the value of geospatial data to the public?

Regarding applications of geospatial data, John Farley expects the State is ready to develop statewide services that apply statewide geospatial datasets to generate more value. For example, vehicle routing using the statewide roads dataset could be used by state agencies. Address validation is another potential service based on statewide addresses that could be an alternative for agencies that individually purchase commercial validation services from various vendors, with resulting cost savings. Address validation would include batch processing.

Mr. Badr observed developments with autonomous vehicles and pointed out the need for large quantities of high quality data and secure applications for vehicle operation and safety. He noted discussions in Florida and reference to data on locations of signs and guardrails along with road conditions and other information related to vehicular control. The discussion turned to “big data” in general and the many sensors that produce large quantities of data frequently. A challenge is developing applications to ingest big data and produce information in near real time. North Carolina’s Government Data Analytics Center is an example of planning and implementing ways to manage and apply large quantities of data.

Rich Elkins suggested an application that associates a point of interest with related jurisdictions would have benefits for government and the private sector. Being able to determine from a map or address look-up the county, municipality, district, precinct, and/or other jurisdiction would answer questions related to state and local taxation and voting. Secretary Marshall added that business license requirements vary depending on which jurisdiction(s) a business location falls inside. Also on the local government level, Mr. Worsley noted citizen questions about service provision—for example, is a resident on a city street, or a state street, and who is a contact? A suite of services may be associated with a single address. A statewide application would save local governments from developing the same types of individual solutions.

Marc Burris cautioned that applications using addresses as the points of interest rely on the quality of the address data. Misplaced address points can return incorrect voting locations, for example. He remarked on the years of effort required of his office to create a database suitable for matching voters to the correct voting places. This goes back to the challenge of integrating geospatial data produced by local governments into statewide datasets. Elections work would benefit from standardization of local government geospatial data regarding addresses and jurisdictional boundaries. Applying standards comprehensively to local government data would save time for data consumers. The alternative approach is to translate local data as-is in all its variety to a set of standard data fields. Mr. Farley pointed out the need for and value of collaboration for address data and other statewide datasets.

Sarah Porper added that she used her position in charge of strategic planning to try to get state agencies to include GIS in their respective information technology plans. Some agencies did, but

some did not. Regarding departments not represented on the Council, and some divisions within departments on the Council, she recommended a survey and/or conversations to identify opportunities to apply GIS to business processes in ways currently unknown to those agencies or divisions. Decisions could be better informed with GIS applied to their business data. She offered to help interact with IT contacts in efforts to integrate and apply GIS.

A local government example of a need for an application using state and local data was described by Matt Helms. Asset maintenance by state and local entities can work at cross purposes. An example may be road paving by NCDOT days before a city digs up the same road to install or repair a water line, followed by repaving. Collaboration could result in a statewide application that integrates state and local data to inform asset management.

Moving to the question about integrating GIS and IT, members were reminded of the presentation to the Council last May by Steve Averett on integration of GIS in asset management in the City of Greensboro. He cautioned that “Smart Cities” engagement is growing in North Carolina without standards or guidance from a statewide perspective. Also, he has seen at least three jurisdictions that lack an understanding of the value of integrating GIS in Smart Cities initiatives. Knowledge sharing is needed to take advantage of GIS across the cities and towns.

Kathryn Clifton described a need for a statewide application to support economic development that would inform site selection and display available industrial parks and properties proposed for development. Allan Sandoval pointed out the management of an inventory of buildings and sites by the Economic Development Partnership of North Carolina, maintained by a vendor, but he was not aware of an inventory of industrial parks. Infrastructure data, as discussed in the last Council meeting, would be valuable for economic development, but its availability is constrained.

Dan Madding added a use case for site selection related to the agriculture industry in which an application provides, for a location of interest, information on utilities and/or utility providers. Greg Cox added that information on utility capacity, for example quantity of water available to a new customer, is important to know when evaluating a location of interest.

Mr. Farley confirmed that NCDOT projects are slowed down by searching for information about utilities in the absence of a comprehensive statewide database including contacts. Security issues persist, but there would be great value in an application that would identify for a location of interest the utilities present, the service providers, and who to contact. NCDOT may have resources to support an application like that, but there are constraints to data access to resolve.

Thinking more about what the Council can do for parts of the GIS community and for the public, Mr. Worsley pointed out that the 16 regional councils can play a role in aggregating local government data for multiple jurisdictions within their respective regions. Regional councils have GIS capacity and regularly interact with constituent local governments on planning, transportation, and other regional issues. He looks forward to finding ways to link the work of regional councils to the work of the GICC.

Ms. Clifton added that smaller communities would benefit from more understanding of how GIS can be applied for benefits locally. This relates to regional councils and their assistance to smaller communities in ways that can include GIS services.

Mr. Duncan thanked members for their participation today and for setting a framework for the Council to move forward.

Note: The Acting Chair directed Council staff to prepare a summary document of the content of the two Council discussions in November and February to help inform the work of the Council in the coming months.

Geospatial Data Act

Tim Johnson reported on the Geospatial Data Act of 2017. Shortly after the November 8 Council meeting, on GIS Day, new versions of the Act were introduced in the Senate and the House that changed the language in the previous companion bills that were reviewed and discussed by the Council earlier in 2017. The changes in the language in the Act appear to be favorable for the GIS community as a whole.

In the latter part of November Mr. Duncan asked the Council to review the Senate Bill (2128) and comment. After comments were received, the Management and Operations Committee discussed the Act on December 4 and decided to prepare a letter for Council submission to bill sponsors in the Senate. The bill is currently in the Senate Commerce, Science, and Transportation Committee. A letter prepared in early January has been under review by the Department of Information Technology's Legislative Liaison Office. Edits received last week will be reviewed soon along with comments by new Council Chair Alex Rankin after he returns. The letter is to be signed by Mr. Rankin and Secretary Boyette. The goal is to get the letter in the hands of Senate sponsors by the end of February. A finalized letter will be copied to Senator Burr, Senator Tillis, and Representative Price with intentions to gain bipartisan support for the Geospatial Data Act. Also, the National States Geographic Information Council (NSGIC) meets the last week in February. Mr. Johnson will attend and expects to hear from other states on their positions and actions regarding the Act. He has seen letters from Minnesota and Arkansas in support of the Act. This is an opportunity for North Carolina to be involved in the national effort.

Next Generation 911: GIS Component

Mr. Johnson reported a key action—a request for proposals (RFP) for GIS services for Next Generation 911 was released in January. Responses from vendors are due February 22. A review team, including John Farley, Erin Lesh of NCDOT, and Mr. Johnson, will evaluate responses through the end of March. Selection of a vendor is expected in mid-April. Mr. Johnson stressed the importance of this project to the Council and he looks forward to good integrated thinking about how to apply the best available geospatial data from local governments to Next Generation 911. He acknowledged it will take work to achieve the available benefits for all.

Mr. Taylor added there may be additional phases of the work needed, beyond the initial scope of the RFP. There is much to consider, and he recognizes the importance of local data and encourages further collaboration.

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Gary Thompson, SMAC Vice Chair, reported on highlights of the January 24 meeting. As usual, committee members presented quarterly reports on

geospatial framework data, including opportunities, issues and progress, as well as working groups reports on activities and progress.

Concerning elevation data, Mr. Thompson has agreed to serve as the state champion for North Carolina in a national effort to study elevation data requirements and benefits. This will be similar to the statewide survey conducted by US Geological Survey (USGS) for the 3D Elevation (3DEP) program several years ago. The USGS National Geospatial Programs Office is forming a committee to develop a new survey, including Scott Lokken as National Geodetic Survey advisor. Mr. Thompson encourages participation by the NC GIS community in a survey and a workshop. More information will be available soon.

SMAC took five actions on January 24.

- SMAC voted to ask the Council to develop an approach and communication for an annual geospatial data request to county data managers that is consolidated to meet data needs for multiple state programs. Hope Morgan and the State Government User Committee as well as the Local Government Committee have discussed the issue. State agencies are sharing data from local governments to some degree, but more standardization and efficiency can be achieved.
- SMAC approved an assignment to the Working Group for Orthoimagery and Elevation to analyze contour data development options and make a recommendation to SMAC at the April meeting. LiDAR acquired in phases 1-3 at 2 points per square meter and in phases 4 and 5 at 8 points per square meter are the basis for new contour data. The greater spatial detail produces contours that are accurate, for example in 1-foot intervals, but are not cartographically pleasing for mapping purposes. The working group will look into a set of contours that would be more usable for data consumers.
- The NC Board on Geographic Names recommended approval of two new names for geographic features. SMAC responded by approving each name:
 - Buck Creek Barrens in Clay County
 - Pittman Pond in Robeson CountyTim Johnson is leading the board effort on a temporary basis.
- SMAC approved and adopted the Charter for the Working Group for Land Cover.

Local Government Committee (LGC). Kathryn Clifton, LGC Chair, reported the committee will meet next on February 28. Though she is now a Governor's appointee to the Council, she is continuing to serve as LGC Chair until a new chair is elected by LGC members. She anticipates new LGC appointments from Carolina URISA, NC Association of County Commissioners, and NC League of Municipalities. She explained that local government representatives are involved with many aspects of the Council's work. Alice Wilson of the City of New Bern is representing local government interests on SMAC, and she is serving along with Durham County GIS analysts on the Working Group for Land Cover. LGC members and other local governments responded to the land cover survey.

She added that Marcus Bryant of Durham County, also a SMAC member, encouraged counties to register and run their own updates with the Parcel Transformer. Currently there are 54 counties registered. She highlighted a good use of the NC Parcels Transformer. Prior to a hurricane event, Lucy Cardwell of Currituck County uploaded her parcels to ensure a current off-site backup in case of service interruption in her county.

Stephen Dew of Guilford County contributed to the discussion concerning color infrared imagery in the Working Group for Orthoimagery and Elevation. Also, Ms. Clifton continues to participate in meetings between the Working Group for Professional Land Surveying and GIS and the surveyors' committee of NC Board of Examiners for Engineers and Surveyors concerning PLS and GIS. She echoed Mr. Brinson's report of progress in reviewing use cases, and has seen a better understanding of one another's use of terminology.

Other efforts include David Nash of the City of Fayetteville keeping LGC informed about Census geospatial data and programs. Ms. Clifton stressed the importance of local participation in the Local Update of Census Addresses and the Boundary and Annexation Survey. Harry Lee of Currituck County and Greta Bumgarner of Catawba County represent local government interests on the Working Group for Roads and Transportation; local governments are excited about the potential for a statewide geo-codable and routable set of street centerlines.

State Government GIS Users Committee (SGUC). John Farley, SGUC Chair, reported that for general meetings, a regular agenda item gives state agencies an opportunity to share examples of online GIS applications using the ArcGIS Online platform. SGUC is discussing Enterprise Data Management and implications for state agencies. Another topic of interest is open source GIS software. Dan Madding presented the paper from the Technical Advisory Committee describing software options. Also, the State Board of Elections described its experience implementing open source software as an alternative to licensed GIS software. The SGUC Executive Committee has started a group effort on the next Enterprise License Agreement with Esri. SGUC is preparing an updated software inventory to inform negotiations with Esri in the coming weeks and to inform ourselves about usage by state agencies. This will also help SGUC consider reaching out to agencies that are not fully utilizing GIS for business needs.

Federal Interagency Committee (FIC). No report.

GIS Technical Advisory Committee (TAC). Dan Madding, TAC Chair, shared some ideas for tasks for the TAC that come out of the Management and Operations Committee. On the topic of land cover, technical solutions will be of interest after the Working Group for Land Cover reports findings for a survey in progress. Regarding open source GIS software, if Council members have interest in more information about specific tools, TAC could follow a lead. Research into products derived from LiDAR may be of interest to describe more applications of elevation data. Mr. Farley added NCDOT is doing research with universities on products derived from LiDAR, in part to evaluate the potential for acquiring LiDAR at 8 points per meter (Quality Level 1) in phases 1-3, replacing the Quality Level 2 data acquired previously. In general, more accurate and more current elevation data are better for transportation projects, but research on the details will be valuable in considering investment. Mr. Duncan acknowledged John Dorman's accomplishments in statewide LiDAR and the better floodplain information that followed, to the benefit of, for example, about 30,000 coastal homeowners that were able to reduce insurance costs.

Also, metadata continues to be an important technical topic. Looking ahead, Mr. Madding expects interest in information about implementing the 2022 Reference Frame. On the latter point, Mr. Thompson, who chairs the 2022 Reference Frame Working Group, explained that videos and other materials are available from the National Geodetic Survey and he will share information with Mr. Madding.

Management and Operations Committee (M&O). Mr. Duncan observed that nearly all topics and updates provided today were brought to the M&O Committee by the standing committees before they were added to the agenda for today's Council meeting. The standing committees are the strength of any organization and the Council has active committees and numerous working groups that provide a bottom-up approach to collaboration. Mr. Duncan has appreciated the dedication among committee members during his tenure as Chair. He observed that North Carolina has been a leading state in geographic information coordination, dating from 1991 under executive orders by Governor Martin and Governor Hunt and under statute since 2001. He sees a lot to be proud of in the GIS community.

Mr. Duncan shared information about Census 2020 programs in the absence of Bob Coats, the Governor's Census Liaison, away at a Census workshop. Mr. Duncan asked staff to distribute to Council members a copy of a document from Mr. Coats that describes in brief the status of Census 2020 programs. Most notable are the Local Update of Census Addresses (LUCA) and the Boundary and Annexation Survey (BAS). Mr. Duncan highlighted LUCA participation where 89 counties registered to receive and review Census address data, 11 more counties than prior to Census 2010. Many municipalities are partnering with counties or lead regional organizations. LUCA training sessions were held across the state. LUCA participation is an important responsibility for local governments.

The Secretary of State's Land Records Management Division is the lead agency for North Carolina in the BAS program. Final submissions from jurisdictions are due by March 1. BAS workshops have been taking place the last three days in Wilmington, Durham, and Charlotte. Mr. Duncan called on Rich Elkins, Land Records Management Division, who expressed concern that three workshops in those locations were inadequate for reaching local governments statewide with the deadline approaching. He will advocate for more BAS workshops in more central locations next year.

The document from Mr. Coats also includes information on the Participants Statistical Areas Programs and the 2020 Census residency rules issued early in February that have implications for counting military personnel.

NC GIS Conference 2019

On February 13, Mr. Johnson sent Council members the official announcement of the 2019 NC GIS Conference, to be held in Winston-Salem at the Benton Convention Center, February 26 through March 1, 2019. The four-day event will feature URISA workshops on the first day and three days of conference proceedings. The extra day means more time slots and less overlap for concurrent sessions. One-day registrations are available for the first time.

This announcement is a kick-off to invite volunteers to serve on committees to assist with conference planning. Contact Tim Johnson for more information and to get involved. The core team visited the facility last week. Winston-Salem has invested and improved its facilities in recent years. Next steps are to hire a management company, develop the conference website, and prepare for registration.

GICC Member Announcements

Mr. Johnson expressed his appreciation for Mr. Duncan's leadership as Chair of the Council. Trusting Mr. Duncan will be able to attend the May meeting, Mr. Johnson limited his remarks to

thanking Mr. Duncan for all his good work, energy, and the sense of collaboration he brought to the Council.

Mr. Thompson announced that February 18-24 is National Engineers Week which will include release of an IMAX movie titled “Dream Big: Engineering Our World.”

Mr. Duncan thanked the Council members one and all for tolerance and patience during his tenure as chair. He said he enjoyed the experience and learned a tremendous amount. He added he had always appreciated GIS, but now he can acknowledge how much the GIS community does.

ADJOURNMENT

There being no other business, the Chair adjourned the meeting at 2:40 PM.

The remaining dates for Council meetings in 2018 are May 9, August 8, and November 7.

Presentations and reports for this [meeting](#) are on the Council [website](#).