

# The Tarheel **SURVEYOR**

**CONFERENCE EDITION!**

SPRING 2014 | No. 14.1

## FEATURE:

A Conference to Remember (pg. 16)

**DOES A FOUR-YEAR  
DEGREE MAKE A  
“Learned Profession”?**

**THE LATITUDE AND  
CONVENIENT SITUATION  
OF CAROLINA:**

A Tribute to John Lawson

**EDUCATION  
FOUNDATION**  
A Season of Success

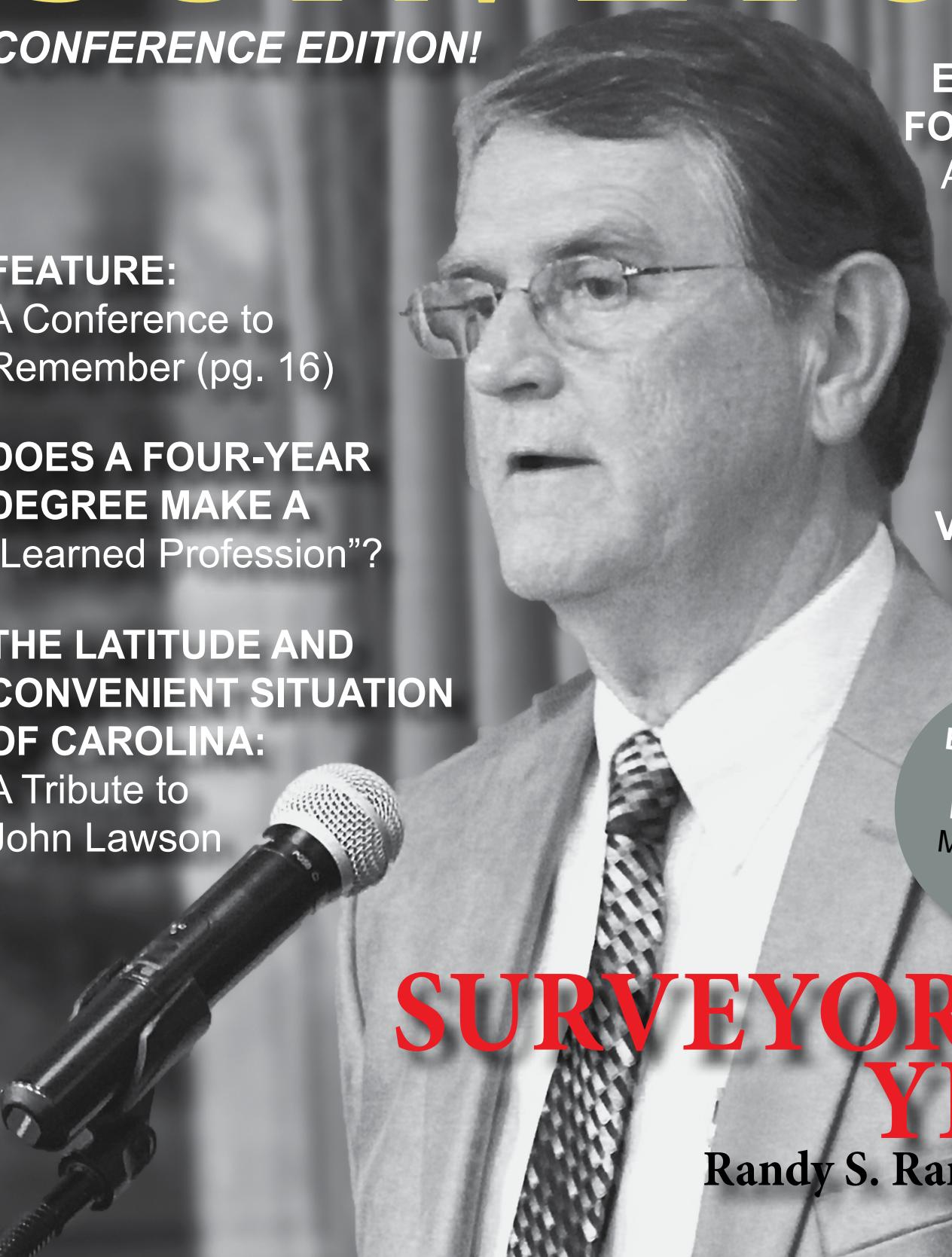
**HISTORY**  
On a Shelf

**VIEW FROM**  
The Capital

Bodie Island  
Baseline  
Dedication  
More Details  
Inside!

## **SURVEYOR** *of the* **YEAR**

Randy S. Rambeau, Sr.



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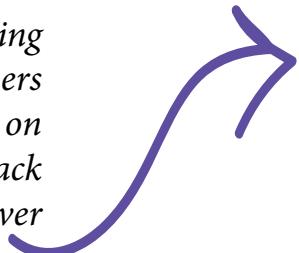


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\*Sustaining Members continue on inside back cover



# The Tarheel **SURVEYOR**

## spring 2014

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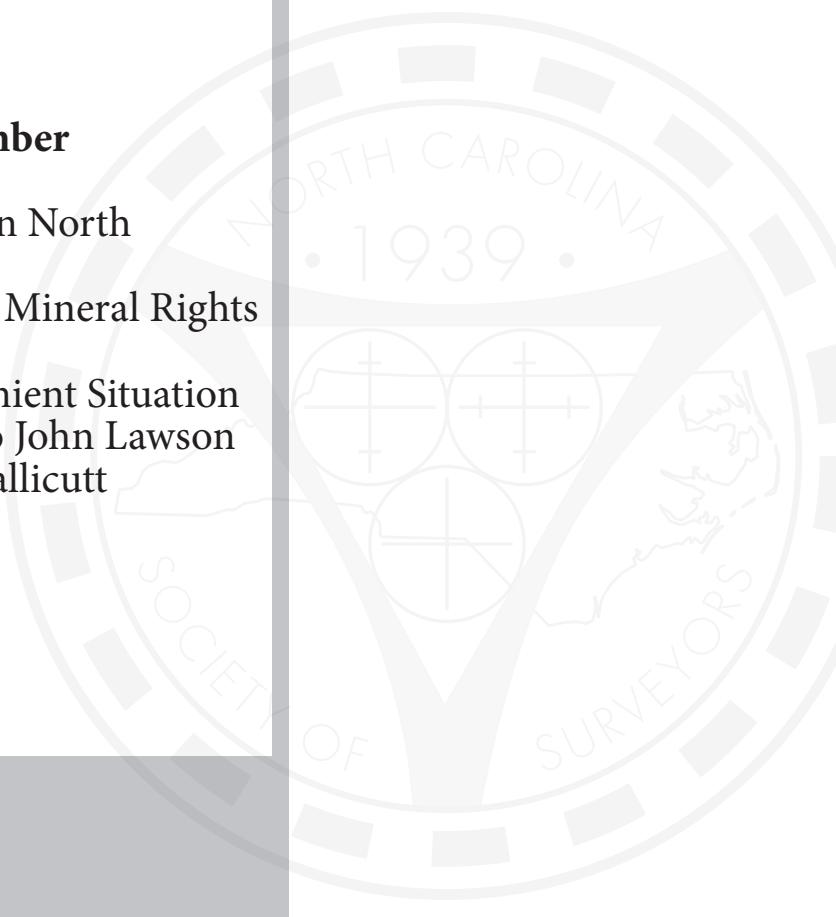
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#### ABOUT NCSS:

- >Founded January 31, 1939
- >Second oldest professional surveying organization in the United States
- >Only professional surveying organization in NC
- >Affiliated with the National Society of Professional Surveyors and, therefore, all Professional Members are also accounted as members of NSPS as of July 1, 2013

#### OUR MISSION:

"A society of professional surveyors and their associates dedicated to enhancing professionalism, improving legislative awareness and promoting the profession of surveying."



# WHO WE ARE

**NCSS PRESIDENT**

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**WESTERN CHAPTER PRESIDENT**

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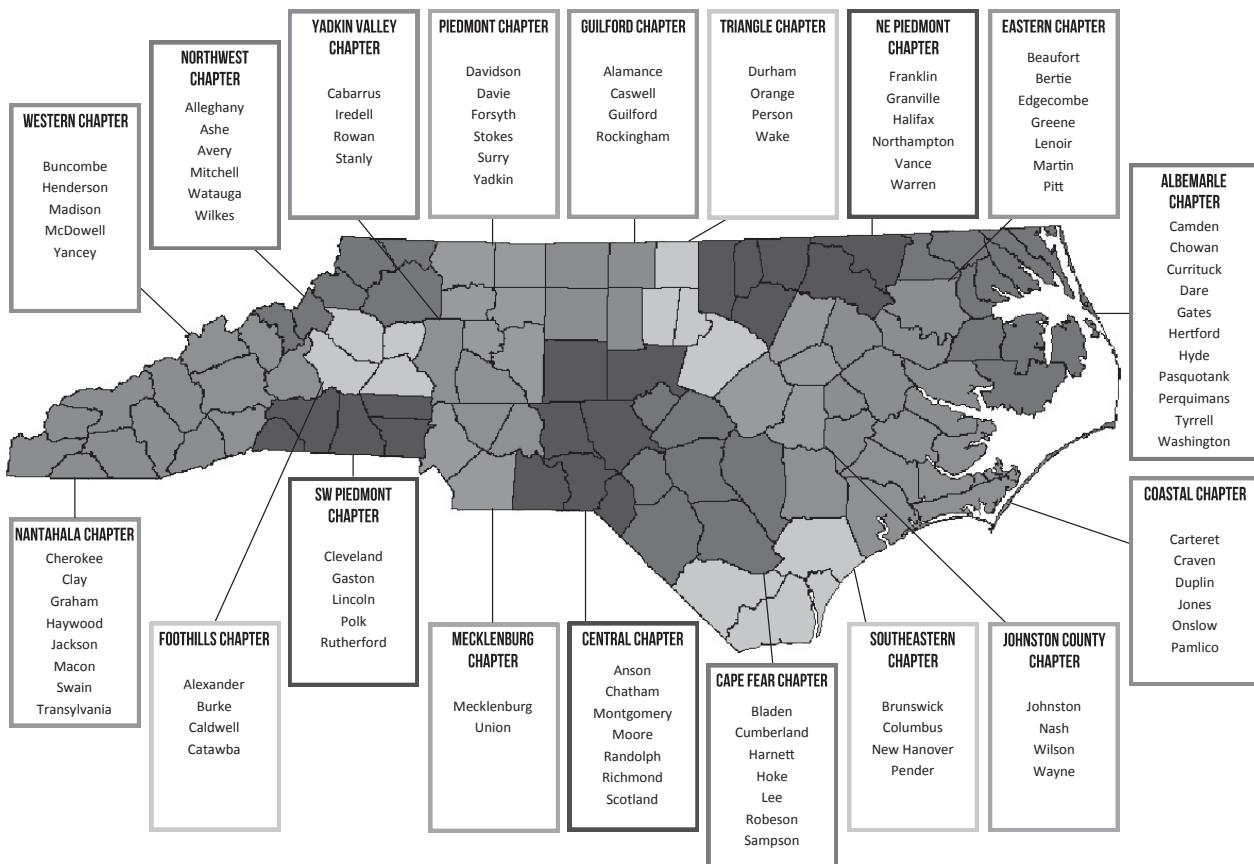
**YADKIN VALLEY CHAPTER PRESIDENT**

Norman G. Ribelin  
ribelin@bellsouth.net

## CHAPTER MEETINGS

CHAPTER	DATE & TIME	LOCATION
Albemarle	3rd Tuesday   6:30 pm	Cypress Creek Grill, Elizabeth City
Cape Fear	Last Thursday   6:30 pm	Various Locations, Fayetteville
Central	Last Monday   7:00 pm	Various Locations, Asheboro/Southern Pines
Coastal	Last Monday   6:30 pm	Texas Steakhouse, Morehead City
Eastern	2nd Monday   6:30 pm	Parker's BBQ, Greenville
Foothills	2nd Tuesday, 7:00 pm	Timberwoods, Morganton
Guilford	2nd Tuesday   6:00 pm	The Porterhouse Grill, Greensboro
Johnston County	2nd Tuesday   6:00 pm	Holt Lake BBQ, Smithfield
Mecklenburg	1st Monday   6:00 pm	Dilworth Grille, Charlotte
Nantahala	3rd Tuesday   6:30 pm *no meeting Jun-Aug	Bogarts, Sylva
NE Piedmont	Last Tuesday   7:00 pm	Various Locations, Louisburg
Northwest	3rd Tuesday   6:00 pm	Sagebrush Steakhouse, Boone
Piedmont	4th Monday   6:00 pm *no meeting Nov/Dec	Riverridge Tap House, Clemmons
Southeastern	Last Wednesday   7:00 pm	Carolina BBQ, Wilmington
SW Piedmont	2nd Thursday   6:30 pm	Ryan's Steakhosue, Forest City
Triangle	3rd Tuesday   6:30 pm	Casa Carbone, Raleigh
Western	2nd Tuesday   6:30 pm	Cornerstone Restaurant, Asheville
Yadkin Valley	2nd Wednesday   6:30 pm	Ryan's Steakhouse, Salisbury

## NCSS Local Chapter Areas



\*Updated 4/24/2013

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# DIRECTOR'S NOTES



**T**he 50th Anniversary Conference and our 75th birthday celebration in Asheville is a pleasant “back sight” as I write this. I think my favorite part of the event was hearing the ideas of surveyors, vendors, political allies and all those who care about the future of surveying across North Carolina. I came away inspired with a “to do list” longer than the one I took to Asheville. My focus for 2014 will follow two paths: memberships and relationships.

Communicating the importance of Society membership is the primary focus of what I do. Therefore, it was immensely rewarding to see, in attendance for a second year, Marshall Wight and Carl Corpus who attended the 2013 conference in New Bern as newly licensed surveyors. It certainly implies they found the experience and education beneficial last year. It was also a pleasure to have Jared Ownbey, a young surveyor who is also an instructor for Asheville-Buncombe Technical Community College, teach a class on Thursday designed to sharpen the skills of survey technicians across the state. Twenty technicians are better equipped for their roles thanks to Mr. Ownbey's involvement. I returned to 3 new memberships on my desk from Hanover Design Services, PA in Wilmington, NC who thought membership was important for all staff surveyors. Finally, I had a surveyor at the conference tell me that he had never heard a politician speak in person before, but he realized after hearing Mitch Gillespie, Assistant Secretary to the NC Department of Environment and Natural Resources (NC DENR), and Senator Wesley Meredith that many things happening in the legislature will directly affect him and his business in the future.

Relationships that NCSS fosters with periphery organizations are another focus of mine in 2014. The decisions made by your Board of Directors take into account information we glean from these relationships as we keep communication open, active and convenient. We have a good relationship with the North Carolina Board of Examiners for Engineers and Surveyors (NCBEEES) so we can keep you informed on the latest issues they are considering as they fulfill their mission to protect the public while administrating licensure for both engineers and surveyors. I have attended two conferences dealing with regulations and energy development in North Carolina because surveyors are affected by these industries and, therefore, the regulations that control them which Mitch Gillespie addressed at Friday's lunch in Asheville. I continue to reach out to realtors across North Carolina, offering our brochures and availability to speak to their local area boards to educate them on the benefits of home loan surveys. Being in close proximity to the state capital is a convenient benefit for me as I foster these relationships, because I can be in committee meetings and in the gallery of the House and Senate when laws are being discussed that affect us. Our lobbyist, Kerri Burke with McGuireWoods Consulting, Inc., helps me stay informed regarding significant committee meetings and she also arranges introductions with legislators that may be helpful to us in the future.

On April 12-16, Randy Rambeau and I will attend the NSPS Convention in San Diego. I'm looking forward to spending time with Executive Directors from across the country as we share our “best practices” list. I am excited to bring back more ideas that will be beneficial. If you have ideas for NCSS that will benefit surveyors, let me know. Brainstorming is where good ideas are developed. I look forward to a productive spring and summer serving you.

Christy C. Davis, Executive Director



Christy is shown in top left with Mitch Gillespie, Assistant Secretary for the Environment (NC DENR) at our 50th Conference & Trade Show in Asheville, NC



From left to right: Christy running NCSS booth & registration; Christy with some NCSS Board members & NCSS staff; Christy & outgoing NCSS President Joel Johnson receiving award from Patrick Smith, PLS, incoming NSPS President





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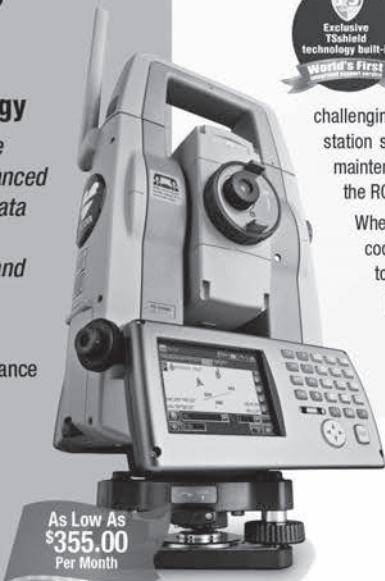
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# LETTER FROM THE PRESIDENT



**I** am so honored to be the President of the North Carolina Society of Surveyors this year. I look forward to meeting a lot of you as I make my visits and trips across the state. I look forward to visiting with old friends that I have not seen in a while.

I look forward to visiting other states and representing this Society. I cannot wait to see what we can accomplish together this year. One of my main priorities is to get all surveyors across this state involved. I do not understand why PLSSs wouldn't want to be involved in their profession.

I asked myself what I was going to write about for my first President's letter. Many of you were not at the Conference in Asheville to hear my acceptance speech, so I decided that, since my speech focused on getting all surveyors involved, I would share some highlights with the whole Society. It is printed below with the exception of a few jokes, awards, and presentations. By the way, if you were not there, you missed a great conference. I have heard nothing but praises about our time spent together. The staff should get most of that credit. We have such an awesome staff!

## SPEECH AT THE PRESIDENTIAL BANQUET, FEB. 21

"I have a dream." I am not Dr. Martin Luther King, Jr., but I have a dream. I have a dream for the North Carolina Society of Surveyors. As we celebrate tonight the 75th anniversary of this Society and the 50th anniversary of this conference, I have a dream that, in 75 years, we will be better, bigger, and stronger than we are today. I have a dream that, in 50 years, the 100th convention will be so dynamic that a certain luxury resort in this town will be begging us, the GREAT NCSS, to have our convention "over there." I have a dream that the strength of our Society will inspire every surveyor in the state to become a member.

How do we get there? How do we keep this society and this profession going strong? How do we become the great Society of your dreams? That is the question! In 1977, I graduated from East Duplin High School in Beulaville, NC. I enrolled in the Architectural Drafting

Technology Program at Coastal Carolina Community College in Jacksonville, NC. In the 4th quarter of that program, I took a couple of courses in surveying and I liked the subject and, of course, I thought I was pretty good at it. I liked it so much that when I graduated in August, 1978, I only looked for a job in Architectural Drafting for a couple of weeks before I decided, to look for a job in surveying I won't call any names, but a couple of surveyors in Jacksonville would not hire me because I did not have any experience. I was frustrated. I came home and told my dad that they would not hire me because I needed experience. How was I going to get experience if nobody would hire me? I told Dad, "Maybe I should just stick to farming!" Of course, my dad (the farmer) said the same thing he always told my brothers and me, "You do not want to farm. I know you enjoy it, but it is a tough life. You are always depending on Mother Nature when you are farming." Then he told me, "There are some surveyors out there in Wallace and they are rich! Why don't you see if you can get a job with one of them?"

So the next day, I went to Wallace, NC and spoke with Mr. Charles Brooks. He did not look very rich to me, but he made me happy because he hired me. This was my first real job. The only jobs I had before then were farming with my dad and granddad, bagging groceries part-time at Billy's Grocery Store, and helping Carlo Lanier build houses and chicken houses part-time. I asked Charles Brooks a few years later, after I got to know him really well, about the "rich" thing. He just looked at me and smiled like he always did. He never told me whether or not he was rich.

Davis Carr and I, along with many others, share the opinion that Charles was a very good surveyor and one of the nicest men you will ever meet. After working for Charles for a few years, I still loved surveying. So I decided I wanted to get my license. I also decided that, in order to do that, I needed to go back to college. So in August, 1981, I enrolled in the Surveying Technology Program at Coastal Carolina Community College and started school. Charles Brooks passed away this past year, but there is no doubt he is the reason I decided to become a PLS.

While I was in school at Coastal Carolina, I was a member and President of the school surveying club. The club decided to go to the NCSS Convention in Raleigh and the ACSM convention in Washington, D.C. Of course, we did not know what to expect and we were really more interested in going to the parties. We planned both of these trips in 1982. When we got to the convention in Raleigh, I was amazed at all the new surveying toys and all the things going on there. The convention was in February at the Royal Villa Hotel. I remember listening to these two

guys speak: Billy Duncan, outgoing President, and Larry Green, taking over as the new President. These two guys and that convention made me want to get involved in this Society. I joined as an Associate Member a few weeks later. Later that year, we attended the ACSM convention where there were even bigger and better surveying toys.

During my final year at Coastal Carolina, I decided that I wanted to transfer to UNC Charlotte to pursue a degree in Engineering Technology. I found a company in Concord, NC, called Concord Engineering and Surveying, that wanted to hire me. This was perfect. I could go to school at night, work during the day and continue pursuing my license. In May of 1983, I graduated from Coastal with an Associate degree of Applied Science in Surveying Technology and moved to Concord the same month. This company was owned by Al Frieze and Gary Simmons at the time, who have both since passed away.

Al was very supportive of NCSS and is one the Society's past Presidents. He encouraged me to get involved. Alex Rankin became an owner not long after that and has always supported NCSS. When I became a Professional Surveyor in 1985, I joined NCSS as a regular member and I have been a member ever since.

We need every PLS in this state to be the best surveyor they can be. If they are not a member, they do not have a clue what they are missing. We need to inform them. I believe we, the surveyors, have to make an impression. We have to make an impression on young people like Charles Brooks, Billy Duncan, Larry Green, and Al Frieze did. We have to find out why the other older surveyors are no longer members or why they were never members. All the members in this room tonight know what we get from this Society. We know the benefits! We need to convince the others.

I have experienced the growth of the surveying profession into what it is today. When I started with Mr. Brooks, we were surveying with a K&E transit and a chain. Then we were using a theodelite with a Hewlett Packard distance meter that seemed like it weighed about 100 pounds mounted on top of that poor theodelite. Then there were total stations and GPS. Now we have one-man robotic guns and scanners. I cannot imagine what they will be surveying with 75 years from now. A lot of people think surveyors will not be needed in the future. I do not believe that. As our profession has changed since I started surveying, we have always changed with the technology. We have to be prepared to change with it in the future just like we always have. If we are the professionals that we should be, we will not go away. We will evolve!

Earlier I asked you, "How do we get there? How do

we keep this society and this profession going strong? How do we become the great Society of your dreams?"

I think we, the members, need to mentor young surveyors and show them how cool surveying is just like Mr. Brooks did for me. I think we need to encourage them to get involved just like Al Frieze did for me. I think we, the members, need to encourage all colleges in this state to participate in our society and conference just like Coastal Carolina did when I was a student there. I think we need to take the time and visit these older surveyors that are no longer members or were never members. We need to show them that the Society cares about them. We need to show them what we are doing and what benefits they can get from us and encourage them to join. As companies, we need to do the same thing. We need to encourage our employees to join and get involved, just like CESI did with me.

We all know that the more members we have, the cooler we look. Those that are not members will be saying, "What are y'all doing over there?" They will be joining us just to find out and so they can tell everyone, "I am cool too!"

I realize my dream is just a dream but we have to start somewhere. With your help we can do this! Dr. Martin Luther King, Jr.'s dream was not completed overnight!

If any of you need anything, just want to talk, or have a problem or an idea, please do not ever hesitate to call me. If you do not feel comfortable calling me, call Christy, Rhonda, Morgan, Joel, Bob, Chad, Randy, John, or any board member. I am sure they will gladly relay the message.

It's my hope, my goal and, of course, my dream that after my year as your President, you will be praising me for the job I did. It is my hope and, of course, my dream that in 75 years, the Society will remember that gray-haired man that was the 75th President of the GREAT North Carolina Society of Surveyors. It is my hope and, of course my dream, as your President, that I can make an impression on young people just like Billy Duncan and Larry Greene did on me.

I am honored to be your President. Thank you for this opportunity. Thank you for your trust and your support! I look forward to this year. I can't wait to get started.



*Marion L. Sandlin, Jr.*

*Marion and his family  
after his speech at his  
induction as President  
of NCSS 2014-2015*

# A Season of Success

by J. Chris Witherspoon, PLS

**A** big “THANK YOU” to all who helped make this raffle season a **HUGE** success! This year’s winners were...

## Beach Condo Raffle - 7 Day/6 Night stay at Indian Beach:

Don McEntire

### Cash Raffle:

Grand Prize (\$2000): Jeff Allen, PLS

Winning Ticket Salesman (\$100): Sid Autry, PLS

First Ticket Out (\$500): Susan Schall of Spatial Data Consultants, Inc.

Next to Last Ticket Out (\$500): Bucky Lawley of Transit and Level Clinic

The Foundation was also presented with several checks from various chapters, such as the Central Chapter (\$2000), Southwestern Piedmont Chapter (\$1000), and the Mecklenburg Chapter (\$1000). The Foundation would also like to thank Transit and Level for their donation of 10% of all instrument repairs scheduled during the NCSS Conference!

Your Foundation has a lot of irons in the fire. At the NCSS Conference, we were fortunate enough to have a sit down chat with David Doyle that we will be posting to the “Be A Surveyor” website. David is the retired NGS Chief Geodetic Surveyor, and if you were fortunate enough to be in his seminar at the conference, you know what a great speaker he is. During our chat with David, we discussed many different topics that will be affecting us all. Be on the lookout for this to hit the website; you will not want to miss it.

Your Foundation will also be revisiting the specialty license plate. Several years ago, NCSS tried to obtain 300 applications to make this happen. At the time, there was not enough support to get it done. Your Foundation feels

that we should make another attempt at this and, with your help, I believe we can make it happen. With this being the 75th anniversary of NCSS and with the enormous amount of pride we all have in being a surveyor, please take this opportunity to consider participating with us. We are still in the research stage of this but, based on our last attempt, we need 300 applications to pull the trigger. A portion of the yearly fee will come back to the NCSS Education Foundation. This could be a huge boost for the Foundation but, once again, we will need your support. We will be getting the information out to you soon.

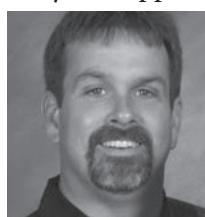
The “Be A Surveyor” website continues to gain momentum. The site has constantly been gaining exposure and continues to be a leading resource for folks looking for information about our profession. The initial momentum we experienced filling the ad spaces for all the states has slowed some, so we are in the process of trying to find ways to make this grow. We will be sending information to the National Society of Professional Surveyors (NSPS) spring meeting with our Executive Director, Christy Davis, in hopes we can get the other associations to help us complete our goal of all 50 states using the website to increase awareness of the profession .

Scholarship season is here and we are on the lookout for applications. Since 2008, the Foundation has given \$28,000 to students pursuing their degrees in surveying. This is outstanding, but we want to do more. Through communication with all the colleges offering a surveying program, we will continue to look at ways to reach the students and help them complete their education.

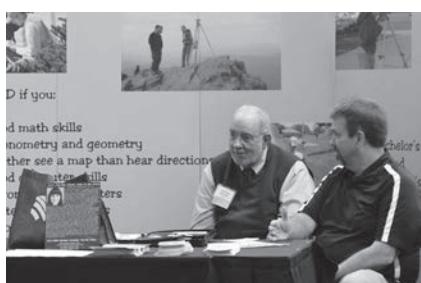
As always, we welcome your input and your participation. If you want to be involved in anything your Foundation is doing, just let us know.

Thank you, once again, for your support.

Spoon



Spoon is shown here at the Conference. From left to right: Enjoying our Presidential Banquet with David Alley, and working the Education Foundation booth with John Furmage





## Schedule at a Glance

### Certified Floodplain Surveyor Biennial Update & GPS Training

Instructors:  
John Gerber, PE, CFM  
Mark White, PLS  
*April 4, 2014*

8:00am-4:30pm, 7.5 PDHs  
NCSS Office  
Wake Forest, NC

### Bodie Island Monument Dedication & Tidal Datums & Elevation Certificates Seminar

Instructors:  
Rick Carraway, NCGS  
Dan Brubaker, NC DPS  
*April 11, 2014*  
1:00pm-5:00pm, 4 PDHs  
UNC Coastal Studies Institute  
Wanchese, NC  
*\*see inside back cover for Dedication Details*

### Tree Identification

Instructor:  
Aaron Cook  
*May 2, 2014*  
8:00am-4:30pm, 7.5 PDHs  
Geitner Park  
Hickory, NC

### Boundary Retracement

Instructor:  
Carl Henline, PLS  
*June 6, 2014*  
8:00am-4:30pm, 7.5 PDHs  
Great Wolf Lodge  
Concord, NC

# Does a Four-Year Degree Make a “Learned Profession”?

by Peggy Fersner, PE

**S**o what would YOU call surveying in North Carolina: a licensed trade, a licensed profession, or a “learned profession”? I’m sure that question immediately pushed quite a few hot buttons. Why do we have a four-year program, and is it really necessary?

I continue to hear comments and discussions that one does not need a four-year degree to become a good surveyor. There are those licensed surveyors that came up through what, basically, was an apprenticeship in surveying. Think back to what was learned on the job. Surveying was heavy with computations – it did not have the benefit of data collectors and computers, as we do today. The math, the trigonometry, the procedures, and the law were taught by doing. Today, field technicians will tell you that the theory and how to do the actual math is not as important since the equipment does it for you. Where will these practitioners learn the theory, the “why” behind the procedures? This is truly what elevates them to a higher status.

A four-year degree does not make a top-notch surveying technician. No argument from this sector. Remember that I came through the ranks as a civil engineer. I can say, without a doubt, that my four-year degree did not give me the practical information needed in my first entry-level job. That is why four years of experience was required prior to sitting for licensure. The difference, however, is that I had a broad education necessary to understand the math, the science, and the ramifications of the job and to place it in an overall framework. So graduates of a four-year Geomatics

program have a broad background in the math, sciences, and the law, but now need to learn how to apply it in the real world.

Regardless of your personal view of the need for a four-year degree, I like to think of it as an “insurance policy.” Approximately half of the states now require a four-year degree. No degree. No comity. That may not seem fair, but it is a reality. So to the argument that one can still get licensed in North Carolina by alternate paths, I say, “Fine.” But in today’s job market, there is no guarantee that you will remain in North Carolina. What is the consequence if your company is expanding and the desired growth is in South Carolina or Tennessee? Without a four-year degree, there is no comity. Your growth and value in the firm has just reached its maximum level.

It all boils down to how you want to be perceived, and maybe what path you want to follow. Do you want the same status and protection that a “learned profession” earns, or are you content being a licensed trade? Remember that the point of licensure is for the protection of the public – not an elevation in status. A “learned professional” needs that four-year college base. If the surveying profession has aspirations to achieve that status, then that degree is necessary. This definition is being upheld by legislatures, courts, and federal agencies nationwide.

I am going to give an assignment: Please read the following article by Dave Gibson at the University of Florida. It looks at the progression of the surveying profession and its need for education if it desires to be elevated to a “learned profession.” Enjoy!

[http://www.wfps.org/files/pdf\\_files/Dave%20Gibson%20Article.pdf](http://www.wfps.org/files/pdf_files/Dave%20Gibson%20Article.pdf)



Peggy Fersner is the Geomatics Coordinator at NC A&T University in Greensboro. She has been on staff since 1993, teaching surveying, GIS, and hydrology courses. She has earned both her BS and MS in Civil Engineering.



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# View from the Capital

by Kerri Burke, McGuire Woods Consulting

**S**ince adjourning last summer, the North Carolina General Assembly has been busy meeting in study committees debating a wide array of issues. The study committees examine issues and recommend legislation for the General Assembly to move forward within the next legislative session. The biggest issues being studied include:

## 1. Revenue Laws Study Committee

- *Tax Reform Clarifications:* Study of unintended consequences from the recent law changes to the tax code, including exemptions for nonprofit organizations and definitions of "state attractions."
- *Tax Credits:* Study of all current tax credits with debate surrounding potential elimination. Debate has focused on the renewable energy tax credit and the film tax credit.
- *Sales Tax Expansion:* Following the 2013 tax reform discussions, study continues as to potentially expanding the sales tax base to a wide array of services.
- *Privilege License Taxes:* Study of mandating a state-wide privilege license tax, taking away local authority to levy.

## 2. Joint Energy Policy Commission

The commission has primarily focused on reviewing the work of the Mining and Energy Commission, which is charged with writing the regulations for shale gas development, most commonly known as "fracking." The rules are scheduled to be completed by September 2014 wherein the General Assembly will have to vote to make them official. In addition, the commission is debating the role of natural gas in the state, finding ways to increase supply and demand, i.e. replacing fueling options of the state's school bus fleet. Those issues most likely to be contentious are the elimination of the renewable energy tax credit and rolling back to the 2009 energy code.

## 3. Joint Transportation Oversight

The oversight committee has focused their time on reviewing the new transportation funding law, "Strategic Transportation Investments." The new law which will rank all state transportation projects, implementing a new hierarchy of funding, is set to be released in late April 2014. The committee will also debate potential alternative revenue sources, specifically replacing the state gas tax.

## LEGISLATORS DEBATE ISSUE OF DRONES IN NC

General Assembly members are in the midst of examining the emerging unmanned aircraft industry and are likely to debate soon what restrictions NC could place on drones. Legislators are examining the use of drones for agriculture, law enforcement, and other fields and are expected to debate how to balance their potential with the constitutional privacy rights. The study committee's attention is focused upon the use of drones by local and state governments and could propose ideas for the legislature to consider when it reconvenes in May.

A bill filed last year would have barred drone use by local or state law enforcement in criminal investigations unless officers had a search warrant or "reasonable suspicion" that immediate action was needed to prevent imminent harm to life, serious property damage, or other exceptions. The Federal Aviation Administration essentially prohibits the commercial use of these aircraft right now. But tests are being done at hundreds of locations nationwide, including North Carolina, with an eye toward private use in the future.

*\*I am closely watching this issue on behalf of NCSS. As legislators continue to examine the potential benefits and implications, please let me (kburke@mwcllc.com) know if you have any questions or feedback on the proposal.*

## 2014 GENERAL ASSEMBLY UPCOMING SESSION

The General Assembly will return on May 14 for a "short session." While NC does not impose session limits, a "short session" is the legislative session where legislators make modifications to the state's two-year budget and considers unfinished business from the previous legislative session. The state budget will take center stage when session reconvenes, with debate centering around pay increases for state workers, primarily teachers, and additional spending cuts for state agencies. The Governor's office recently called for all state agencies to plan for an additional 2% budgetary decrease. In addition, legislators will consider those recommendations from the study committees and leadership priorities, including:

### 1. Regulatory Reform

Potential elimination of several boards and commissions and additional reforms aimed at job creation. Specifically, those regulations surrounding workers' compensation will be examined to find solutions to reduce costs and increase efficiency in management of the system.

### 2. Energy Reform

One of Governor McCrory's top priorities includes offshore energy exploration and establishing a framework for NC to share in revenue. In addition, lawmakers

will debate the pending regulations on shale gas development and expansion of liquefied natural gas.

### 3. Water Regulations

Tied to the “reform” theme, a proposal could be considered to create more water supply by increasing storage, relaxing the rules around the use of reclaimed water to allow more “recycling” of water and improving water infrastructure to retain more water.

### 4. Tax Reform-Part 2

Potential clarifications/additions to the tax reform overhaul passed last year to include an additional decrease in the corporate income tax, expanding the sales tax to a wide array of services and imposition of a privilege license tax.

In addition, the 2014 election season is expected to be nothing short of lively. Speaker of the House Thom Tillis is running for US Senator Kay Hagan’s seat, several state legislators are vying for former Congressman Mel Watt’s seat, and NC House and Senate legislators will be competing for re-election to their districts. McGuireWoods will be actively watching all issues important to surveyors in the next session of the General Assembly.



*Kerri Burke is an assistant vice president in the State Government Relations group for McGuireWoods Consulting in Raleigh, NC. She received a BS in Political Science from Old Dominion University, and attended the Indiana University School of Law. She has served as communications director for the NC Chamber, and has worked as a registered lobbyist and legislative intern.*

## NCSS PAC Update



Since the last issue of *The Tarheel Surveyor*, a lot has happened with the NCSS Political Action Committee (NCSS PAC). First, Past President Joel Johnson spoke with Jamie Watkins at the end of 2013 to see if he would be interested in becoming the Chairman of the NCSS PAC. He gladly accepted this role. Also taking on new responsibility as the Secretary/Treasurer of PAC is Philip A. Collier of Morehead City. Phil is the Surveying Supervisor for Stroud Engineering's Morehead City office. Like Jamie, he is a very motivated person and NCSS looks forward to raising the NCSS PAC from the ashes so that it can better serve the members of NCSS.

Jamie is the current President of Alliance Land Surveying, PC located in Sylva, NC. He has been surveying for twenty years and has just finished a two-year term on the NCSS Board of Directors as President of the Nantahala Chapter. He accepted the role as PAC Chairman so that he could continue to help better the surveying profession. What better place to do that than

with the committee that has the ability to financially support those who write the North Carolina legislation.

In case you didn't make it to the 50th Anniversary of the NCSS Annual Conference and Trade Show, you missed a great speech from keynote speaker, NC Senator Wesley Meredith. Senator Meredith was instrumental to NCSS and the surveying profession in NC as a whole this past legislative session as he sponsored Senate Bill 9, the “design ticket” locate law which went into effect on July 1, 2013. Because of his support, surveyors were asked to be involved with the Underground Utility Damage Prevention Act. Essentially, he enabled us to have a voice in this larger piece of legislation. As a small business owner himself, Senator Meredith understands what surveyors are faced with on a day-to-day basis and is committed to fighting for the survival of surveying in NC. Because Senator Meredith was so gracious in fighting for our cause, a donation of \$500 was given to his campaign from the NCSS PAC at the conference. Surveyors need more people like Senator Meredith fighting for their best interest in Raleigh. This is where you come in.

#### A NOTE FROM OUR CHAIRMAN, JAMIE WATKINS:

“In 2014, I challenge each one of you to stand and join with me in helping to raise money for an organization that is fighting for the best interest of the Land Surveyors of NC. There is so much that needs to be done and there are so many people who can help us. I would like to hear from the NCSS chapters. Whether it is a phone call or a personal visit to your chapter, we need to discuss ways to raise money. I have heard from some of you, but it is going to take all of us to make this work. I look forward to working with each and every one of you. Thank you.”

*Jamie is shown above presenting Senator Wesley Meredith with the check at our Conference in Asheville*

# NSPS Update

by Randy S. Rambeau, Sr., PLS

I am honored and humbled to serve our Society as your newly elected NSPS Delegate. Your past Governor, Mike Benton, and past Governor and past NSPS President, Bill Coleman, have left behind very large shoes to fill. On behalf of my fellow North Carolina surveyors, I would like to offer a rousing THANK YOU to both of these gentlemen for their many years of service to our Society and to the surveying profession on the state and national levels. I will do my best to serve our Society and the National Society of Professional Surveyors in a way in which we can all be proud.

To help me dive into this new role, Governor Coleman invited me to attend the NSPS fall meeting, which was held in Baltimore last November. He very graciously introduced me to the Area 3 and 4 Governors at their regional meeting and invited me to attend the meetings of both the Board of Governors and the Board of Directors. It was very impressive that 48 of the 50 governors traveled to Baltimore to represent their states.

Our Society was privileged to have the current NSPS President-Elect, Patrick Smith, participate in our 50th Anniversary Conference, which was held in February in Asheville. President-Elect Smith, who will be sworn in as the new president at the NSPS spring meeting, attended many of our functions, shared information from NSPS, and conducted the swearing-in of the Society's new officers and Board of Directors.

Of the national news President-Elect Smith shared, I consider the most exciting to be that:

- 1) 42 states are now 100% membership participants
- 2) Three states have approved the 100% Membership Participation Plan
- 3) Boards of Directors in two states have approved the plan
- 4) Only 3 states remain that are still evaluating the plan.

Though not without some challenges, the rapid adoption of the 100% Membership Participation Plan has been a pleasant and beneficial surprise, and will enable NSPS to continue to represent and fight for the surveying profession on the national level. As we all know, the more members in NSPS, the louder our voice in Washington and around the country.

Joe Baird, NSPS Area 3 Director, also attended our 50th Anniversary Conference and conducted a meeting of the Area 3 and 4 delegates. Some of the items discussed at that meeting included the following:

- 1) Two of the state executive directors are retiring and those

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societies are in the process of replacing those directors.

- 2) Several states are discussing the adoption or possible revocation of the four-year college degree requirement for licensure and whether there should be an alternate path for licensure.
- 3) Retaining or enacting "mini" Brooks Bill laws is an issue in one or two states.
- 4) All states in the region have maintained or increased membership in their societies since becoming 100% membership states, even with an increase in dues.

In addition, the Virginia surveyors are working to amend a law passed last year that allows two Virginia counties to establish the common county boundary line between them using information from their GIS departments. The surveyors believe a more accurate location by a survey, map and legal description would be in the best interest of county citizens.

My first "official" meeting as your delegate will be the NSPS 2014 Spring Business Meeting in San Diego on April 12th-16th, and I am looking forward to attending this meeting on behalf of NCSS. Having our Executive Director, Christy Davis, accompany me to this meeting and participate in the Executive Directors Forum and other functions will be very beneficial to NCSS, and I'm sure that Christy has some good information and ideas to share with the other executive directors. I attended the Executive Directors Forum in Baltimore and was very impressed with the willingness of the directors in attendance to share information and ideas from their state societies.



Randy Rambeau has been the Geomatics Office Manager at McKim & Creed, Inc. in Raleigh since 1991. He attended NCSU and became a PLS in 1978, when he joined NCSS. Randy served as the NCSS Secretary/Treasurer (2009-2013) and is now serving as our NSPS Governor. "Surveyor Randy" co-authored the "Intersect" column in Professional Magazine (2006-2010) and was the recipient of the Polaris Award from Past President Joel Johnson at this year's Conference (shown left).

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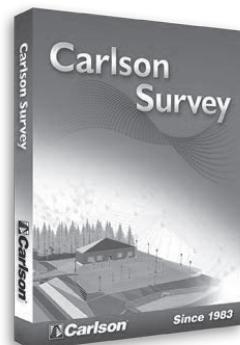
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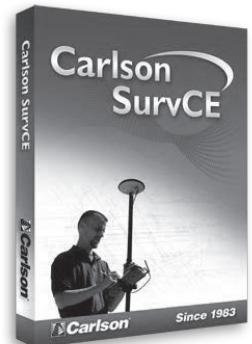
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# Celebrating a Legacy: Fifty Years & Counting

by Morgan Collins, NCSS staff

**B**est conference EVER!" Kristian Forslin, with the NC Railroad, exclaimed as he raised his arms above his head in triumph and passed me on his way out of the Expo Center. His wife nodded her head in agreement.

Their excitement thrilled me. This conference is what our staff had worked diligently on for several months, and this reaction was exactly what I wanted to hear. We had labored long hours to make our 50th Conference one to remember. And, it seems, numerous other surveyors and vendors shared this enthusiasm.

As a staff member of NCSS, my perspective of the Annual Conference looks a little different than yours. You may have seen me running around, troubleshooting concurrent sessions, checking on coffee, creating nametags, and helping a Senator find his seat. And while my job at the Conference looks extremely busy, it is my favorite time of the year. The Conference is the time I get to meet *you* and your families. I am finally able to get to know the surveyors I correspond with during the rest of the year. I am able to put faces with the professionals I serve. And I am reminded of the importance of this Society and its membership.

While my Conference history is very limited (I've only attended two, to be exact), I must agree that there was something different about this year's celebration. Perhaps it was the fact that we had, once again, ventured into the beautiful city of Asheville where the Society has such a legacy with previous conferences. Perhaps it was the buzz of many vendors filling up the Trade Show, some new and some returning. Or, perhaps, it was simply the fact that this Conference was, indeed, a *celebration*.

As our 50th Annual Conference and Trade Show, as well as our 75th Anniversary, we wanted to make this one a little extra special. The Conference format was similar to recent years, with an all-day seminar on Thursday featuring a nationally recognized speaker. David Doyle, PLS, retired NGS Chief Geodetic Surveyor, spoke on the "Modernization of the National Spatial Reference System: Keeping Pace with the Changes in Positioning Technology and User Expectations in a Dynamic World."

Doyle was great, and our class attendees thoroughly enjoyed his presentation. Thursday also saw the return of our Q&A Luncheon with the North Carolina Board of Examiners for Engineers and Surveyors (NCBEEs). We were honored this year to have David Evans and our very own Mike Benton, PLS representing NCBEEs. In addition, Jared Ownbey, PLS taught a class specific to surveying technicians, "Training & Development for the Land Surveying Technician." This class was new, but was a large success with nearly 20 surveying techs attending! It was great to see many new faces that could, one day, be Professional Land Surveyors invested in the Society.

Thursday evening, we continued our tradition from last year of hosting an off-site Vendor Appreciation Dinner. We were excited to go to the Deerpark Restaurant on Biltmore Estate this year. The dinner was fabulous! The Biltmore staff was phenomenal, and the food (especially the collard greens, my personal favorite from the evening) was even better. Our vendors seemed to enjoy their time mingling with our guests without the pressure of the Trade Show floor. The evening proved to be one of great fellowship and fun.

Friday morning, we jumped right in with our annual General Membership Meeting during breakfast. We were fortunate to host representatives from other state societies, as well as the national society. During the meeting, we heard from Mike Benton, surveyor representative with NCBEEs; Aaron Leach, President of the South Carolina Society of Professional Land Surveyors (SCSPLS); David Holland, NSPS Governor for the Virginia Association of Surveyors (VAS); Patrick Smith, incoming President of the National Society of Professional Surveyors (NSPS); as well as Joe Baird, Area III Director for NSPS. These updates were very informative and interesting.

Directly following breakfast, our Trade Show began with a bang. The floor was flooded with surveyors and their families engaging with our nearly 30 vendors. The Expo Center was abuzz with conference excitement and good business for our vendors. We had seven concurrent sessions weaved in throughout the day, with professionals from all areas of expertise including AutoCAD, surveying history, flood vents, elevation certificates, and many more. Everything was held in the Expo Center, including breakfast

and lunch, which added to the unity and flow of the day.

As always, the Trade Show was a lot of fun. Many vendors gave away large prizes this year, and Leica and Transit and Level hosted an open bar for the afternoon. Our classic surveyor games were a huge hit. This year, our winners were: Dennis Lee with NC Geodetic for the Chain Throw, Carl Corpus from the Southeastern Chapter NCSS for Guess the Height, and Scott Bostic, President for the Southwest Piedmont Chapter NCSS for Pacing.

Lunch included special guest Mitch Gillespie, Assistant Secretary for the Environment with the NC Department of Environment and Natural Resources (NC DENR). Gillespie, a former land surveyor, was a great speaker as he was able to easily relate to his audience. He informed us of the importance of the environmental policies NC DENR is working on and how surveyors need to be involved. The meal also included our Plat Award Ceremony. We had more plats submitted this year than we've had in a very long time. Larry Greene, former president of both NCSS (1982) and the Western Chapter NCSS (2013), presented the awards. The "Best Overall" plat award was given to W. Robert Murphy of Raleigh, NC and his entry will go to the National Plat Contest.

Friday's Presidential Banquet was absolutely wonderful and the perfect end to our fun day. Our keynote speaker was a very honored one, Senator Wesley Meredith who represents NC District 19 and Cumberland County in the NC Senate. Senator Meredith was invaluable during this past legislative session as he worked on Senate Bill 9, the "Design Ticket Locate Law" which went into effect on July 15, 2013. Because of his support for this bill, surveyors were asked to participate in the Underground Utility Damage Prevention Act. To thank Senator Meredith for his hard work and dedication, President Joel Johnson (2013) presented him with a plaque in his honor. Jamie Watkins, chairman of the NCSS PAC Committee, also presented Senator Meredith with a check to support his work.

It was an honorable and emotional evening as many worthy men and women were recognized. Randy Rambeau, from McKim and Creed in Raleigh and our Secretary/Treasurer 2009-2013, received the prestigious "Surveyor of the Year" award. He was received by a standing ovation and a very proud wife, Joyce. Joel Johnson, outgoing NCSS President, also recognized Christy C. Davis, Executive Director NCSS, with a beautiful wind chime for her hard work over the past year. Other awards were given, and Patrick Smith of NSPS installed our new Board of Directors. We had eight new chapter presidents to recognize, as well as installing Randy Rambeau as NSPS Delegate and John Story as the new Secretary/Treasurer in his place.

After the installation, Joel Johnson passed the gavel to incoming President Marion L. Sandlin, Jr. who challenged surveyors to be involved in NCSS and encourage others to do the same, as well as impact the younger generation of surveyors. Sandlin recognized many who have been instrumental to him and, to my surprise, this included the ladies of the NCSS office. Sandlin presented the three of us with roses for our help with the conference. It was a very sweet gesture and we were thankful (as well as a bit embarrassed) to be recognized.

After the dinner, former member and long-time surveyor Hurley King from Asheville, NC played guitar and sang for us, recruiting President-Elect Bob Burns on his upright bass and convincing me to sing a few tunes. Coffee, dessert, and drinks were served, and everyone enjoyed the evening relaxing after a busy two days.

Saturday morning, our new Board assumed their places at the Winter Board of Directors meeting. We had nearly 25 members observing and participating in the meeting, who commented that they felt more attached to NCSS and more knowledgeable of what is happening in their field after attending. We would love it if *many* of you would travel to our Board meetings because it does create more unity and allow you to have a voice in the Society!

Overall, I think we accomplished all that we set out to accomplish with this Conference. We were able to value our profession, celebrate our legacy, and welcome our future. Best conference ever? I can't say that I disagree with Kristian. But one thing is for sure: it certainly was a Conference to remember!

*Morgan Collins works in the NCSS office with Marketing & Membership Development and has been with NCSS since the fall of 2012. She graduated from Meredith College in 2012 with a BS in Interior Design and minors in studio art and public history. Morgan has enjoyed learning about surveying and the vital need for this profession. She is eager to assist you however she can. Email her at mcollins@ncsurveyors.com*



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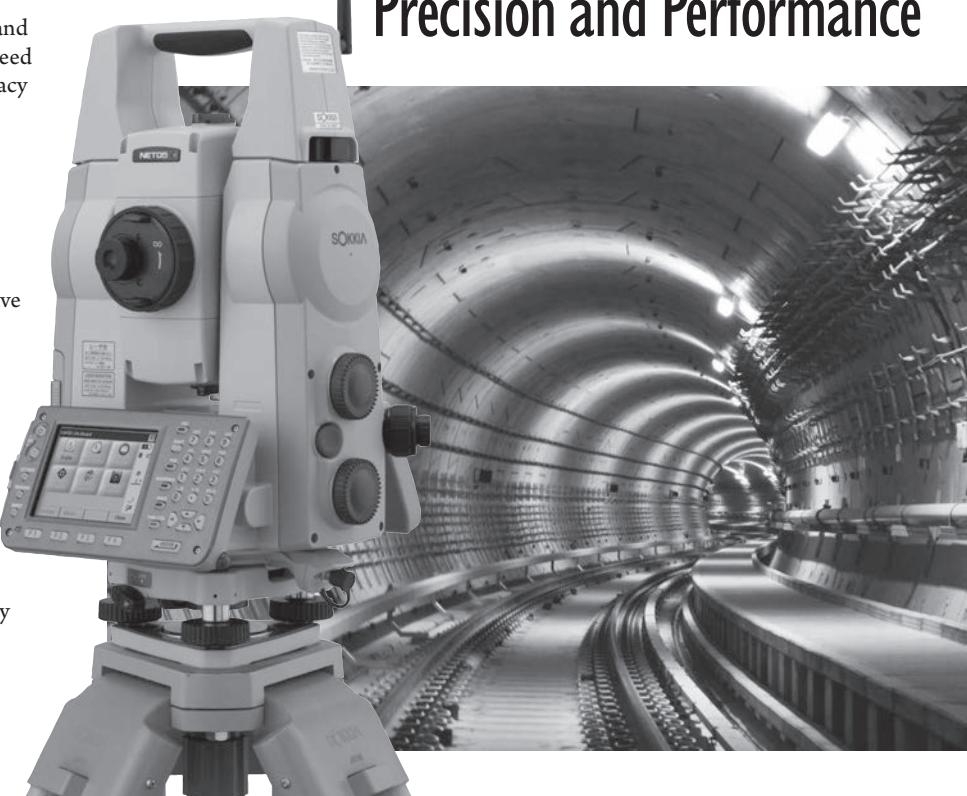
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# Once Upon a Time

by Kenneth Mills, PLS

I was reading the book "Following in Their Footsteps" recently and really enjoyed the Michael J Evans, Sr. chapter on "Surveying in the Piedmont." It brought back many pleasant memories of learning field procedures on a four-man survey crew.

On January 2, 1969, I began working on my first survey crew. Being the low man on the crew, I was the tail chainman. That means I was the guy holding the end of the chain or holding the chain over a mark anywhere along the length of the chain.

For those of you who have never seen a surveyor's chain, it was not a chain but a steel tape. My crew had one chain 100 feet long and one chain 200 feet long. Both chains were marked every foot with a mark across the width of the tape and the foot number stamped beside the mark. There was an additional foot before the zero mark, which was marked to the one hundredth of a foot. This foot was marked from the zero mark, away from the main part of the tape, or backwards.

For example, if we measured between two points 87.62 feet apart, I would hold the 87 foot mark over one point and the head chainman would read the 62 hundredth foot mark past the zero mark. If we were setting a new point 37.48 feet from an existing point, I would hold the 37 foot mark over the existing point and the head chainman would set the new point at the 48 hundredth foot mark at his end of the tape.

Even though surveyors were using the steel tape, it was referred to as the chain. I think since surveyors have been using the Gunter Chain for a couple hundred years, the name was continued when the tape was developed.

The Gunter Chain was not like the chain you use to pull someone out of a ditch or like the snow chains you use on your truck or car. The links were made of heavy gage wire, 0.66 feet long with 100 links making up the length of a chain, for a total length of 66 feet. At the time I thought the length was rather odd. But I learned that a square, 10 chains on each side, equals 1 acre. Then it made sense. Also, 80 chains equals 1 mile, which is why the chain is used in the public land states. That's why sections are 1 mile square, theoretically, but that's another story.

My first task on the job we went out to work on was to hold the range rod on a tack, which was set in the top of the

2"x2" wooden hub. The hub had been hammered into the ground with the hub top flush with the top of the ground.

For those of you who have never seen or used a range rod, it is about 6.5 feet tall. It has a metal point about 6" long on one end of the rod. The rod itself is made of wood and is tapered from the top of the metal point end to the top of the rod. It is painted with alternating red and white stripes, which are one foot long.

The range rod was used to get line over long distances or to place the head chainman on line, if needed. Since it had a really nice point, it could be stuck in the ground as a back sight for the instrument man when the field crew was one man short. We weren't supposed to throw the range rod, even though it made a dandy spear; however, I don't know of anyone who didn't use it as a spear once or twice or more.

The range rod was also used by the instrument man as a way to check distances all the time. Remember I mentioned the stripes were one foot long? In the old instruments, there were stadia hairs above, below and on both sides of the center crosshairs. The stadia hairs were positioned so that, if you placed the top stadia hair on the line between a red and white stripe on the range rod and the bottom stadia hair was on the next line below, the distance from the instrument to the rod was 100 feet. Modern instruments don't have stadia hairs anymore, which is too bad. The stadia hairs on the horizontal crosshair were wonderfully useful as well, but that's another story.

The first day we drove out into the country, I don't remember exactly where we went. We first stopped at the point where the instrument man set up the instrument. The instrument was a brass engineer's transit. It had four leveling screws, a large compass in the center of the instrument, a horizontal circle, (with which you could read the angles from both sides of the instrument using the vernier), a vertical circle and a telescope. The instrument was mounted on a straight leg tripod by means of a large screw, which I think was about 3" in diameter, but I could be wrong about the exact. Before the company switched to the Wild T-16, I got a chance to work with this instrument. It was a lot of fun.

We waited until the instrument man had the instrument set up over something, I don't know what, and the rest of us piled into the van and drove around to another point. The Party Chief (the title has since changed to "Crew" Chief because people used to make fun of the "Party" part) showed me how to hold the range rod on a point by balancing the rod between my fingers. He pointed to another hub with a tack and told me to hold the rod on the point and to face in a certain direction until he came back to pick me up. Being just out of the military and wanting to follow

orders, I stood there like a statue, balancing the rod between my fingers, until I heard the van coming up behind me. I learned the task was to turn an angle to check one completed the week before. The head chainman was occupying another point with a range rod while the instrument man wound up an angle.

Angles could be wound up with an engineer's transit. This means you could measure the same angle as many times as needed for better accuracy, by adding the second angle to the first. For example, say the first angle is 45 degrees, and the second angle, 90 degrees. Then you would divide the last angle by the number of angles turned, in this case, 90 degrees divided by 2 equals 45 degrees. Here's why: the instrument had two clamps to control the horizontal scales. One clamp held the inner scale from moving while the outer scale could move since it was attached to the upper part of the instrument, which held the telescope and the vertical scale.

To turn an angle, the upper scale was turned to set the zero mark of the two scales so they lined up. The upper clamp locked the upper part of the instrument to the lower part and using the vernier, zero was set very accurately. The lower clamp was loosened and, when the telescope was pointed at the back sight, both scales moved with the upper portion of the instrument. The lower clamp was set and, using the adjustment knob on the clamp, the crosshairs were placed on the back sight. Then, the upper clamp was loosened and the scope was turned to the fore

sight. The clamp was set and any adjustment was made to get an accurate sight and angle. This gave you one angle.

To get the second angle, you loosened the lower clamp and turned the scope to the back sight, tightened the clamp and sighted in accurately. This method preserved the first angle. Then the upper clamp was loosened and the scope turned to the fore sight. This gave you two angles. You then divided the second angle by two and the result was the angle between the two points. This gave you a more accurate angle. Many times, the crew I was on would wind up an angle four times to get the most accurate angle.

The last angle and the average were recorded in a parchment book using a carbon stick, (also known as a surveyor's field book and pencil). The field book contained all of the angles, both horizontal and vertical, and the slope distance or horizontal distance as measured. It also contained sketches in order to make the drafting of the final survey map much clearer.



*Ken Mills became a PLS in 1975. He has been an active member of NCSS, serving three terms as the Western Chapter NCSS president (1989, 2005-2007, 2009-2010). He served as the NCSS President in 1998. Mills co-authored Following in their Footsteps with Otis A. Jones. He has written for American Surveyor Magazine and is a columnist for Madison County's News-Record & Sentinel newspaper.*

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# Prescriptive Easements in North Carolina

by Kristopher M. Kline, PLS, GSI

**P**rescriptive easements are often seen as a mere sideline to the more comprehensive doctrine of adverse possession, but important differences exist. It is also indisputable that prescriptive easement claims are becoming more prevalent as property values increase in remote rural areas.

Adverse possession is solidly based in pre-colonial English statutory law as embodied in the *Statute of 21 James I, 1623*. On the other hand, prescriptive easements have no statutory antecedent in colonial England and are instead based entirely on common law that developed in parallel with the statutory basis of adverse possession.

English decisions often refer to this theory as “the doctrine of the presumed grant.” This principle originally applied only to prescriptive easements and was based on a presumption of human fallibility in matters of record keeping. In its earliest form, this doctrine presumes that 20 years of open and continuous use of an apparent way, considered in the light of apparent acquiescence of the property owner, will warrant a conclusive presumption that a grant was made. The court would further presume that shoddy record-keeping or simple forgetfulness accounts for the lack of any permanent written record. As easements in this country are poorly documented to this day, this sentiment should strike a familiar chord with present-day surveyors, attorneys, and paralegals.

In the United States, the doctrine of the presumed grant became inextricably intertwined with the larger concept of adverse possession in many states, but differences remain to this day. Several states still retain the 20-year common law standard for prescriptive easements while applying a shortened statute of limitations for claims of fee simple absolute title. The apparent conflict between the 20-year prescriptive easement requirement and the 15-year statute of limitations for claims of fee simple title in Virginia seems inexplicable until the doctrine of the presumed grant comes into the picture.

This dual standard is also the basis for the 2-tiered system illustrated by the 7-year and 20-year statutory requirements for adverse possession in North

Carolina. The original common law requirement in North Carolina was 20 years, and the 7-year standard was then developed by statutory authority.

Prescriptive easement claims parallel assertions of adverse possession in many ways, but the requirements for claims of prescriptive easements display variations when examined carefully. *Warmack v. Cooke*: 71 N.C. App. 548; 322 S.E.2d 804 (1984) presents the basic requirements for this type of easement imposed by the courts in North Carolina. By a preponderance of evidence, the claimant must show: “(1) that the use is adverse, hostile or under claim of right; (2) that the use has been open and notorious such that the true owner had notice of the claim; (3) that the use has been continuous and uninterrupted for a period of at least twenty years; and (4) that there is substantial identity of the easement claimed throughout the twenty-year period.” Exclusive use is one of the specific requirements for claims of adverse possession, but is not generally included for claims of a prescriptive easement. This element is notable by its absence from the requirements listed above.

*Warmack v. Cooke* emphasizes that proof of adverse use is required in North Carolina and that the presumption of permissive use will be applied in the absence of evidence to the contrary. This decision emphasizes that many other jurisdictions apply a different standard, and hold that open and notorious use combined with the apparent acquiescence of the true owner is presumed adverse. However, this is **not** the case in North Carolina.

The doctrine of neighborly accommodation is cited in many states where property is being used jointly in an apparent spirit of good fellowship. In many jurisdictions, this concept provides a balance against the tendency to presume adverse use any time anyone used a tract for the statutory period. The need for this doctrine is minimal in North Carolina because of the unusual requirement for proof of adverse use. *Warmack v. Cooke* notes: “If such were the case, neighborly relationships would be destroyed, and the conduct of business on the premises would cease.”

*Warmack v. Cooke* is also of interest because the defendants constructed a single-strand electric fence across the driveway under consideration, and argued that this constituted an interruption of the adverse use. However, Judge Hill observed that a latch gate with a simple hook at the driveway allowed convenient passage of any vehicle and did not constitute a bar to continuous use by the claimants.

The fourth requirement for substantial identity poses particular problems for claimants who attempt to prove prescriptive easements in coastal areas. Blowing sands

along the coast constantly erase wheel tracks, and shifting dunes may force adverse users to shift to new locations.

**Deans v. Mansfield:** 210 N.C. App. 222; 707 S.E.2d 658 (2011) describes the requirement for substantial identity of the way used. It is generally agreed in many states that the adverse user who traverses a different path on each trip will not be awarded a prescriptive easement: “*To establish a private way by prescription, the user for twenty years must be confined to a definite and specific line. While there may be slight deviations in the line of travel there must be a substantial identity of the thing enjoyed.*”

*Deans v. Mansfield* also notes that successive users of a private prescriptive easement may tack their adverse use provided that privity of title exists between successive claimants. It is significant that this court makes the technical distinction between “tacking” as applied to adverse claims of fee simple title and “succession”: “*if the adverse use of a roadway ripens into a prescriptive easement, the applicable legal principle is not tacking, but succession.*” For practical purposes, the result is the same, but the prescriptive right is appurtenant to the property and passes by succession rather than by tacking.

As is the case with claims of adverse possession, the claimant in a prescriptive easement proceeding does not need to prove that a heated controversy existed for the statutory period.

**Mecimore v. Bebber:** 109 N.C. App. 650; 428 S.E.2d 470 (1993) emphasizes that: “*...the plaintiffs need not show that there was a heated controversy, or a manifestation of ill will, or that the claimant was an enemy of the owner of the servient estate. ... A “hostile” use is simply a use of such nature and exercised under such circumstances as to manifest and give notice that the use is being made under a claim of right.*”

This decision quotes an earlier landmark ruling where claimants defeated the presumption of permissive use by using and maintaining a roadway for the statutory period despite a complete lack of any evidence of permission from the property owner. “*...the presumption of permissive use may be overcome where the evidence tends to show that the plaintiffs never sought nor were given permission to use the road, that they used the road exclusively for the twenty-year period, and that they performed maintenance on the roadway.*” Several North Carolina rulings agree that open use of a way in the manner of an owner may be sufficient to prove that the use was adverse. The courts also draw a clear distinction between mere use of an existing driveway and the construction of a completely new drive or the active maintenance of an existing way.

**Blevins v. Welch:** 137 N.C. App. 98; 527 S.E.2d 667 (2000) is one of the few North Carolina opinions to discuss the scope

of an easement perfected by prescription. An important refinement of the doctrine in all eastern jurisdictions emphasizes that both the scope and width of the easement awarded will be directly dependent on the uses that led to the decision. The North Carolina court states the principle based on a direct quote from Webster’s Real Estate Law in North Carolina (5th ed., 1999): “*In the case of easements arising by prescription, the character and pattern of the user during the whole period during which the easement came into being determines its extent.*” It is enlightening to observe that no prior case law from this state was available to the court to provide precedent in this matter.

**Melvin v. Stone:** NO. COA05-428 (2006) is a more recent unpublished opinion that reinforces the previous ruling and adds the following language: “*It is the usage of the road over the servient estate that is relevant in determining the width and scope of a prescriptive easement.*” Given this criteria, the difficulty of determining a precise width of any prescriptive easement becomes manifest.

**Town of Sparta v. Hamm:** 387 S.E.2d 173 (1990) 97 N.C. App. 82 considers a claim of a public prescriptive way. The town was ultimately successful in its claim, in part because the road had been used as a bus route and for mail delivery continuously from 1956 through 1985. In addition, the road was constructed and maintained by the city throughout the period. “*The use by the public of Hawthorne Street was continuous, though slight, and may have been affected by the poor maintenance of that street. However, the Town of Sparta has satisfied all of the requirements for a prescriptive easement and we hold there is a public easement over that parcel known as Hawthorne Street.*”

These examples serve to highlight some of the complexities inherent in determining when and if prescriptive rights have been perfected. While surveyors should always be alert to evidence that might indicate land use that is adverse to the property rights of record, our proper role in these situations is that of a fact-finder and problem solver, not as a one-person judge and jury.

**Note:** neither the author nor publisher of this article intend it to be considered a source of legal advice. The law can change over time and differs in various jurisdictions. The best source of legal counsel is an attorney admitted to the Bar in your state.



Kris Kline lives in Alexander, NC. Kline's first book "Rooted in Stone: the Development of Adverse Possession in 20 Eastern States and the District of Columbia" includes more information on prescriptive easements and is currently for sale by the author. For more information, go to [www.2Point.net](http://www.2Point.net).

# A Land Records View of Mineral Rights in North Carolina

by Thomas W. Morgan, PLS

**A**

re mineral rights that have been severed from the surface estate treated as a separate estate?

## Definitions:

**Real Property** refers to the interest, benefits, and rights inherent in ownership of real estate. Said rights are restricted for use within the boundary defined in the granting document. Real Property is the land, buildings, structures, improvements, and permanent fixtures on the land. **Ownership** is the right of one or more persons to possess and use a thing to the exclusion of all other persons. **Title** is legal evidence of ownership. **Estate** is the degree, quantity, nature, and extent of interest which a person has in real and personal property. **Rights** are a claim or title to or interest in anything whatsoever which is enforceable by law.

In theory, individuals gain the right to possess and use real property from the *Sovereign* and typically in the form of a land grant. The land grant does not transfer all rights and interest (that would make the holder of the grant equal to the sovereign).

**Rights and Interest reserved by the Sovereign from a Land Grant:** to tax, to take by eminent domain, to conserve resources, to regulate use and entry (zoning), conservation of historic artifacts, apply the laws of the State, navigation of air and water, etc.

**Six basics rights and interests associated with ownership of an estate granted by the Sovereign (Bundle of Right):** 1) Right to use, 2) right to sell, 3) right to lease or rent, 4) right to enter or leave, 5) right to give away, and 6) right to refuse to do any of these.

\*Reference: International Association of Assessing Officers (Library and Resources)

Glossary <http://www.iaao.org/sitepages.cfm?Page=42&sort=B>

The use of the bundle of rights is confined to an area (the grant description). In most cases the original surveyor establishes the boundary on the ground between rights granted to individuals. The surveyor does not create or grant said rights. Once rights in a property are granted within a defined boundary, any change in said boundary must meet the legal standards for effecting such change. Remember, you cannot transfer what you do not own. A land owner may transfer all or part of what he owns.

We typically think of land ownership commencing at the center of the earth, extending to the boundary defined at the surface of the earth and continuing to the heavens. When land is typically subdivided into traditional lots or tracts of land, it is divided vertically. We rarely think of subdividing horizontally into layers, but that is what the transfer of mineral rights does.

**A Fee Estate is comprised of land** - the earth's surface to the center of the earth and the airspace above the land, including the trees and water; **real estate** - land plus the permanent human-made additions; and **real property** - real estate plus the "Bundle of Legal Rights."

Rights and interests can be disconnected from the primary or fee simple surface estate. The possessor of rights can convey or pass said rights on to another separately. Examples: Airspace within a building (condominium), timber rights, ingress/egress, development rights, water rights, riparian rights, mineral/oil and gas, etc.

\*Ref: "GIS and Land Records", Nancy von Meyer, EXRI Press 2004

The transfers of fee simple title or individual rights must meet legal requirements as defined by NC General Statutes: an instrument affecting real property must be in writing. (§ 22-2); the holder in legal or equitable title; can transfer all or part of the property, (§ 22-2); can transfer some rights, (§ 39-6.4); can restrict or modify use (§ 22-2); only the rights of those executing the document with proper notarization are affected (§47-14(d)); the instrument must be filed in the Register of Deeds office in the county where the property is located. (§47-18(a)).

Once a right or estate is transferred, it can only be modified by the grantee or by an action of law; a subsequent division of the surface estate does not modify previously granted rights/estates. Example: In 1980, the owner (Good Old Boy) of a 1000 acre tract of land deeded the mineral right estate to Fly By Night Oil and Gas Company. In 1990, Good Old Boy developed the land into a subdivision containing 1500 lots. Is the mineral right estate controlled by the original deed to Fly By Night Oil and Gas Company, or by the deeds to the 1500 lots? If the deeds to the 1500 lots fail to mention the mineral right deed as an exception, can the lot owners claim the mineral rights? There is one subsurface estate for mineral rights of 1000 acres and *caveat emptor* ("buyer beware").

This principal is reinforced in NC GS 46-4:

**§ 46-4. Surface and minerals in separate owners; partitions distinct.** "When the title to the mineral interests in any land has become separated from the surface in ownership, the tenants in common or joint tenants of such mineral interests may have partition of the same, distinct

from the surface, and without joining as parties the owner or owners of the surface; The owners of a mineral right may petition the court for a Partition (a division) without involving the surface owners.”

The relationship between the surface and the subsurface estate are similar to that of an easement of appurtenance. The subsurface estate is the dominant estate and the surface estate is the servient estate. It has been deemed that, without reasonable use of the surface estate, mineral rights has virtually no value. Reasonable use of the surface estate is an accepted and prevailing method of mining of the particular mineral. The rules for lateral and subjacent support apply, however there is inconsistent case law about the protection of residences and residential water supplies. The parties may wave or reserve particular rights within documents of title.

\*Ref: Theodore A (Ted) Feitshans, Department of Agricultural & Resource Economics, NC State University Jan. 8, 2013

NC General Statute § 74-49 definition (6) states “minerals” means soil, clay, coal, stone, gravel, sand, phosphate, rock, metallic ore, and any other solid material or substance of commercial value found in natural deposits on or in the earth. The definition is interpreted to include oil and gas.

There is nothing special about a mineral right deed; it must meet the same standard of construction as a deed transferring the total estate or the surface estate. Under case law, an Instrument of Conveyance must contain the following: a competent grantor, an existing grantee capable of taking title, a granting or conveyance clause, an identifiable description of the property to be insured, the requisite execution and “seal” of the grantor, satisfactory acknowledgment by a notary or authorized officer, and delivery to and acceptance by the grantee.

\*North Carolina Real Estate Transactions, Author: Nancy Ferguson  
<https://www.agentxtra.net/extranet/SingleSource/content/StateLaw/NorthCarolina/NorthCarolina.htm>

Remember all land is owned, either by an entity authorized to own land or by the state. There must be a grantor, a grantee and a thing granted. A transfer must identify intent of the grantor (what is intended to be transferred) and the limits of the right granted. Unless special provisions are included, the transfer or reserving of mineral rights do not provide of ingress/egress to an adjacent land. If Fly By Night Oil and Gas Company owned the mineral rights for two adjacent properties without additional provisions, one property could not be used to access the other nor could extracted minerals be transported from one property across the other.

#### Is there a different standard for a lease?

NC property rights created by lease are governed by

the same legal principles applicable to ownership. See *State v. Allen*, 216 N.C. 621, 5 S.E.2d 844, 845 (1939) (even mineral rights leases create interest in real estate governed by principles of law applicable to land (citing *Piney Oil & Gas Co. v. Allen*, 235 Ky. 767, 32 S.W.2d 325, 326 (1930)). A lessee as tenant takes and holds his term in the same manner as any other. See *Brown et al v Cranberry Iron & Coal co* 1894. NC GS 47-18 “No (i) conveyance of land, or (ii) contract to convey, or (iii) option to convey, or (iv) lease of land for more than three years shall be valid to pass any property interest as against lien creditors or purchasers for a valuable consideration from the donor, bargainer or lesser but from the time of registration thereof in the county where the land lies...”

#### How long is a Mineral Deed good for?

Theoretically, once a right is transferred it stays transferred, unless there are limiting terms specified in the deed. Just like the Dinosaur, once gone it stays gone.

**Voluntary or involuntary transfer of right:** Rights acquired cannot be diminished except by an action of law or by an action or inaction of the title holder. An action of law such as *eminent domain* can take rights from the fee holder of said rights without the fee holder agreeing. A fee holder may transfer, restrict, or divide his rights with a written document stating his intent, and identifying the boundary to the rights or through inaction he may lose said rights (Adverse Possession or Statute of limitations, i.e. abandonment).

**Can a mineral right estate be deemed abandoned?** The Real Property Marketable Title Act (General Statute Chapter 47B) is designed to re-unify abandoned rights. However 47B-3 has a number of exceptions: Such marketable record title shall not affect or extinguish the following rights: (5) Rights of any owners of mineral rights. The US Supreme Court affirmed the right to revert unused or abandoned interests, stating, “[f]rom an early time, this Court has recognized that States have the power to permit *unused* or *abandoned* interests in property to revert to another after the passage of time.” Id. at 526, 70 L. Ed. 2d at 749. The Supreme Court “has never required the State to compensate the owner for the consequences of his own neglect. . . . It is the owner’s failure to make any use of the property – and not the action of the State – that causes the lapse of the property right; there is no ‘taking’ that requires compensation.” *Kevin Patrick Rowlette and Others V State of North Carolina*, NO. COA06-1036, NORTH CAROLINA COURT OF APPEALS Filed: 19 February 2008

#### Can a Mineral, Oil or Gas Right be legally declared abandoned in NC?

Statutes 1-42.1 through 1-42.9 set the criteria that define

the durations and lack of action on the part of the Ancient Mineral Claim holder that would extinguish said claim. These statutes with the exception of 1-42.9 are county specific. Before a mineral right can be declared abandoned and reunified with the surface rights, it cannot be in actual course of being mined, drilled, worked or operated, or in the adverse possession of another; has not listed the same for ad valorem tax purposes in the county in which the same is located for a period of ten (10) years prior (number of years and starting date dependant on the statute); must have been severed from surface rights (50) or (30) years (see statutes) prior to a the date defined in the statute; surface estate must have good chain of title for (50) or (30) years (see statutes) prior to the date defined in the statute and cannot be in adverse possession of another.

Even if the holder of the mineral estate fails to meet the above criteria, he may preserve his estate by listing the estate for ad valorem tax and filing a notice of interest within two years of the date prescribed in the statute.

Before NC GS1-42.9 through 1-42.9 are considered valid to extinguish Ancient Mineral Claims, the board of county commissioners shall publish a notice of this subsection in a newspaper published in the county or having general circulation in the county once a week for four consecutive

weeks prior to the date stated in the statute. What happens to this process if the county cannot prove that the advertisement took place? The statute does not go into effect. What if the mineral estate holder states that he was actively mining on the required date? If he was actively mining on that date, the notice filing was not required to preserve the estate.

In conclusion, mineral rights are a separate estate once transferred, the sub-surface rights have dominance over surface rights, subsequent division of the parent tract does not affect previously severed rights, Ancient Mineral claims may be extinguished, counties must follow due process to prefect extinguishment.

**Disclaimer:** This document is not intended to be used as legal advice. Legal advice can only be given by an attorney, if you need legal advice contact an attorney of your choice.



Tom Morgan graduated from NC State University in 1971 with a BA in Geology, and received his PLS in 1978. He started Brunswick Surveying in Holden Beach, NC in 1979, which he sold to Withers & Ravenel, Engineers, Surveyors & Planners in 2006. He has been the Land Records Manager for the NC Secretary of State since January 2008.

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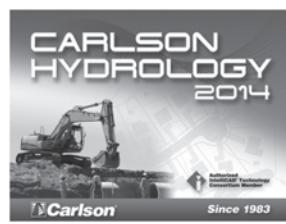
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# The Latitude & Convenient Situation of Carolina:

## A Tribute to John Lawson

by Timothy S. Guisewhite, PLS

**“W**hen we consider the Latitude and convenient Situation of Carolina, had we no farther Confirmation thereof, our Reason would inform us, that such a Place lay fairly to be a delicious Country, being placed in that girdle of the World which affords Wine, Oil, Fruit, Grain, and Silk, with other rich Commodities, besides a sweet Air, moderate Climate, and fertile Soil; these are the Blessings (under Heaven's Protection) that spin out the Thread of Life to its utmost Extent, and crown our Days with the Sweets of Health and Plenty, which, when join'd with Content, renders the Possessors the happiest Race of Men upon Earth.”

*-John Lawson, Surveyor-General of North Carolina,  
from A New Voyage To Carolina*

The freeways get so busy these days that we almost forget what it would be like without our modern conveniences and devices...Oh the devices, both blessing and curse! Technology has spread the spectrum of surveying to its boiling point from ground-penetrating radar all the way to satellite vehicles twenty thousand kilometers away that command the blade of a bulldozer back here on Earth. Now there's buzz about orbs which will fly about the sky emitting laser beams in order to measure topography. Sounds like 1980's science fiction, but it's not! I remember years ago lazily joking with an instrument operator about the day when we would just push a button and the instrument would go set itself up over a point...doesn't seem quite so farfetched these days. My, have things changed!

For a moment, let's forget all of that and step back a few years. I was present at the Charlotte Museum of History a month ago for their annual Twelfth Night Celebration, a seventeenth century Scots-Irish Christmas tradition. The museum occupies the home site of one of this area's early settlers, Hezekiah Alexander, and boasts the oldest standing structure in Mecklenburg County, circa 1774. As the evening wore to an end, I traversed the dark chilly path

from the old stone house back toward the museum and a commemorative plaque caught my eye. It was so dark that I had to stare at it for a few minutes to even render what it said, but somehow the word "Surveyor" caught my eye even through the blackness in such a way that I had to pause and see what it said. It spoke of the first surveyor ever to pass through this countryside, centuries before the birth of our nation, an entire generation before the Alexander settlement and three hundred years prior to my stumbling by. What a treat! I was unknowingly "following in the footsteps," as we say, of a former surveyor who trod this way along the bank of a Sugar Creek tributary that meanders through Charlotte and onward toward the great Atlantic. None could ever determine his actual path with certainty, but it is surreal for a moment to imagine one's self being in the very trail of this great man!

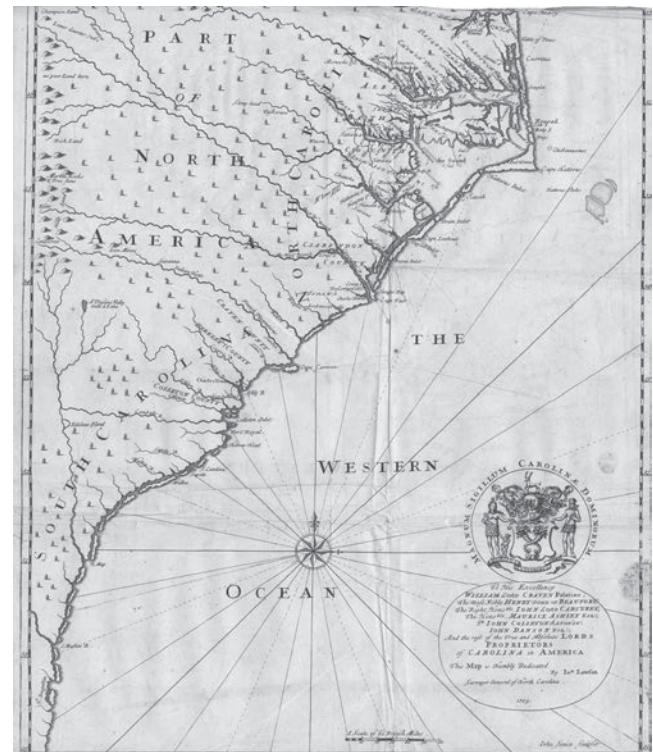
It was three days past Christmas in the year 1700 when John Lawson stepped foot into a large canoe "being six English-men in company, with three Indian-men, and one woman, wife to [their] Indian-guide." They made their way bravely out of the protection of Charles-Town's safe confluence with the ebb of a tide pressing them out into the wild ocean. His hope was to make it deep into the heart of the colony known as Carolina, with a goal of bringing a first-hand report of the backcountry to its English proprietors. This land was rich and free, surrounded with hope and ready to be inhabited by any who would undertake the challenge.

His journey would take them miles up the Santee River and beyond, passing through towns and villages of the Santee, Congeree, Wateree, Waxhaw, Wisack, Esaw & Sugaree Indians. He must have enjoyed his experience, no doubt fascinated by the culture and hospitality of those they called "savages." He tells of trudging through swamps, disrobing to cross rivers, laughing at his companion as he fell off of a log into the creek, only to repeat the blunder as he himself crossed over (more than a few of us, knowing the feeling would chuckle over that one). He would eat whatever the Indian guides would supply, except the polecat; that's where he drew the line and stuck with turkey. One can tell from his journals that all along the way, he was absolutely thrilled to see the potential of Carolina.

As Lawson passed through the Waxhaw villages, he was moving into modern-day Mecklenburg County, North Carolina. His path would take him northward along an old Native American trading path toward Virginia. Having passed over the Heighwaree (Uwharrie) River, the company of travelers with him decided to take the easy road and proceed straight on to Virginia, but Lawson had a mission in mind and that was "(with God's leave) to see North-Carolina." That day he parted company having but

one traveling companion and journeyed eastward out of the way crossing the Haw River and following the Eno and Neuse Rivers through present day Durham. This path would render their first glimpse of the Tuskeruro Indians, and take them along past the falls of Neuse Creek, now submerged under Falls Lake near present day Wake Forest. Lawson and his lone companion would continue eastward, crossing Contentnea Creek and the Pamlico River in the area of Greenville. His journey would take him well over five hundred miles before reaching the known plantations established on the Pamlico Sound.

In the years to follow, Lawson would live and work as a deputy surveyor there along the Pamlico River. He was instrumental in establishing the Town of Bath, which on March 8, 1705 became the first incorporated town in North Carolina. By 1708, Lawson was appointed as the official Surveyor General for the English proprietors. He would return to London the following year to accomplish his mission of publishing the journal and tale of his observance in the backcountry, a work known as A New Voyage to Carolina; Containing the Exact Description and Natural History of that Country: Together with the Present State thereof. And A Journal of a Thousand Miles, Travel'd thro' several Nations of Indians. Giving a particular Account of their Customs, Manners, &c. (Title seems to say it all!) This book was, without question intended to spark interest in colonizing this new world and, in April of 1710, he succeeded in returning with three hundred settlers led by Christoph von Graffenried to establish the Town of New Bern at the confluence of the Trent and Neuse Rivers. John Lawson's spirit of adventure and exploration eventually collided with the birth pangs of our nation. During the summer of 1711, while exploring up the



*John Lawson's Map, circa 1709, North Carolina Collection, Wilson Library, UNC-Chapel Hill*

course of the Neuse River with Graffenried, they were taken captive by the Tuskeruro Indians, a trip from which Graffenried returned but Lawson did not.

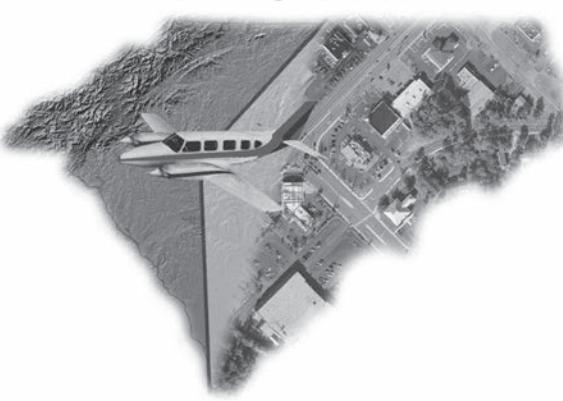
What greater way to crown the anniversary of our society than a tribute to a humble man who truly pioneered this land against great odds. A man with absolute delight for Carolina, and the freedoms it bestows. A surveyor with a love for adventure and a duty to all, for which he gave his life, that we may now enjoy the freedoms that he could see so clearly. In the words of my friend Milton Denny, "What a great debt we owe the men that suffered from the same affliction that most of us suffer from, the love of surveying."

I love this profession because we are part of such a great legacy that has gone on before us. We have the privilege to follow countless honorable men just like Lawson. In the busyness of our culture let's not forget to look back from time to time and remember from whence we've come. The technology will come and go but the honor and privilege that is ours as surveyors can outlast it all! Keep up the good work my dear friends. And, Huzzah! for John Lawson, the first Surveyor General of the great State of North Carolina!



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*Timothy S. Guisewhite, PLS is a Project Manager at Taylor Wiseman & Taylor's Charlotte office. He has worked with TWT since 2004 and performed surveys in 9 of the original 13 colonial states. His passion lies in colonial boundary retracement, and 18th and 19th century survey methods and equipment. Tim is licensed in NC, SC, VA and PA. He is a member of the Surveyors Historical Society and fabricates surveyor's link chains as a hobby.*

# MEMBER PROFILE

## Jerry Callicutt



### Childhood Ambition

To attend college and study Engineering

### Most Recent Purchase

40 Leland Cypress, and a new transmission for his car

### First Job

As a sportswriter for a newspaper in Shelby, NC while attending Gardner-Webb, at the same time working a second job in a men's clothing store

### Favorite Movies

*Chariots of Fire*  
*The Sound of Music*  
*South Pacific*  
*Doctor Zhivago*

### Favorite Surveying Equipment

Topcon Total Station (Jerry's has been around the world several times)



### Best Advice Ever Received

Jerry's dad gave him two pieces of valuable advice that seem to be true more often than not:

1. If you can't afford something, you can do without it.
2. It's not what you know, but who you know. Which Jerry has interpreted to mean, "If you aren't qualified to do something, go to someone who is."

One of our newest board members is Jerry Callicutt, newly-elected president of the Central Chapter of NCSS. Jerry has been a self-employed business owner since the 1970s, so he has seen his share of economic upturns and downturns. Jerry fulfilled his greatest ambition by attending North Carolina State University, studying Engineering. While there, he had the opportunity to work with several different surveying and engineering firms that sparked his interest in surveying. After graduating from NCSU, he took the surveying exam and became a licensed PLS in 1963. He went to work with the City of Greensboro, heading up the Survey section, and as a result, became involved with NCSS in the late 1960s. Jerry held the

office of Secretary/Treasurer of the Society for 6-8 years and continued to work within the Society until the late 1970s. That is when Jerry saw a turn in the road and a way to combine his professional expertise with a call upon his heart from God.

He became interested in helping mission organizations, small hospitals, and other nonprofit groups who could benefit from some of his skills. As a result, he spent 1.5 years in Ecuador helping to build a 4 megawatt hydro power system to be used for short wave radio. Since the late 1970s, Jerry has had the privilege of helping several groups around the world, and is presently involved with hospitals in Papua, New Guinea, Cameroon, and Kenya, Africa. According to Jerry, "Surveying has certainly opened doors which I had never imagined was possible, and I would not trade that for anything. Helping people is what it is all about." We welcome Jerry Callicutt back to the NCSS Board of Directors and look forward to calling upon his wisdom as he uses his expertise to improve the profession.

\*Jerry is pictured here on a surveying missions project in Cameroon, Africa.



## PROBLEM CORNER

by John Furmage, PLS

**Given:** A curve that has been established tentatively with a  $\Delta = 42^\circ 33' 27''$ ,  $D = 4^\circ$ , PC Sta. 44+42.14 and PT Sta. 55+06.08

**Required:** New D (degree of curve) and new PT Sta. if the forward tangent is moved parallel to itself a distance of 78.39' without changing the position of the PC Sta.



Looking for the solution? Go to the NCSS website or use your smart phone.

# History on a Shelf

**A** few years back of this (“back of this” is mountain slang for “previous” or “before”), the City of Asheville Water Department asked John White, Survey Coordinator, if he had come across any as-built maps of waterlines that were dated more than 100 years ago. There is a Century Club of cities with waterlines more than 100 years old, and the City of Asheville was interested in being a part of that unique group. John came across this drawing while looking for something else, as is usually the case.

The name “Biltmore” has a lot of significance in Asheville, so John was naturally interested when he saw the Title “BILTMORE VILLAGE: GEO. W. VANDERBILT. ESQ.” He explored further to find the producer of the drawing, noting the firm’s notation below the title: “Olmsted, Olmsted & Eliot, Landscape Architects, Brookline, Mass August 29, 1894.” John showed the drawing to the landscape architects at the City of Asheville, and he said you could see the reverence in their faces. They said, “Do you know who Fredrick Law Olmsted is? He is known as the father of landscape architecture. His projects included the Biltmore Estate, Central Park, Niagara Falls, and parks in a dozen states as well as the U.S. Capitol. What are you doing with this?” John calmly noted that it had been on the 8th floor of City Hall for the past 80 years.

He was able to make a copy to give the Asheville Water Resources Department, which provided the proof they needed for the Century Club. The original is in the hands of the historian at the Biltmore Estate. The original is drawn in color on waxed linen, using red for storm lines, gold for house sewage, and blue for the waterlines.

As you peruse the map, enjoy the font of the hand drawn numbers. Look closely at the numeral “2,” placed in various forms on the plat. There is elegance in the detail of the handwriting. Secondly, notice where the house sewage lines end, in the Swannanoa River right beside the storm drain line. John’s understanding of the design of Biltmore Village was for passengers to step off the train at the depot and be able look straight up the street to the All Souls Church in the first pie-shaped lot. All of these details give the map such an historical personality. Hand drawn maps are a lost art. Although John doesn’t advocate returning to the old process of drawing maps by hand, he noted that, sometimes, progress for speed and ease removes the personality of the drawing.

John knew this would be a treasure for the NCSS Plat Contest and so appropriate as part of our 75th birthday and 50th anniversary Conference in Asheville. It is no surprise that it won first place recognition in the Historical category. To view the Biltmore Village plat, visit the NCSS website at [http://www.ncsurveyors.com/resources/biltmore\\_village\\_1894/](http://www.ncsurveyors.com/resources/biltmore_village_1894/).



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## Bodie Island Baseline

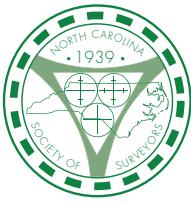
## Monument Dedication Ceremony

Come be a part of history in the making. On April 11, 2014, at 11:00am, the North Carolina Society of Surveyors (NCSS), the North Carolina Museum and Preservation Society (MAPS), the National Park Service and National Geodetic Survey, invites surveyors, historians, school groups or any other interested parties from across the nation to join them for a very special dedication ceremony at Whalebone Junction Visitor's Center, at the entrance to Cape Hatteras National Park Rd., Nags Head NC 27959. "Bache North", the northernmost point along the Bodie Island baseline, will be honored with a monument for its historical significance and long term protection. The 6 ¾ mile baseline is the only one along the east coast where all original mile markers have been recovered. This brief ceremony will be followed by lunch at the Coastal Studies Institute and an afternoon seminar. Please RSVP if you plan on attending any part of this great historical day.

# Join Us!



*The Bodie Island Baseline was recovered in 2002 after some NC DOT surveyors decided to explore the area near a job site. This photo was taken with the Triangle Chapter NCSS during their visit in November 2010 , when they volunteered their services to help clear the site of "Bache North."*



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*This image is from the very first Otis A. Jones Educational Institute in 1987. There were 43 surveyors in attendance.*