

The Tarheel SURVEYOR

FALL 2016 | No. 16.2

**TOM MORGAN
RETIRES
P. 26**



**ED SPITLER
HONORED
P. 18**

**TAPS PROGRAM:
HIRING VETERANS
P. 16**

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The Tarheel SURVEYOR

Fall 2016

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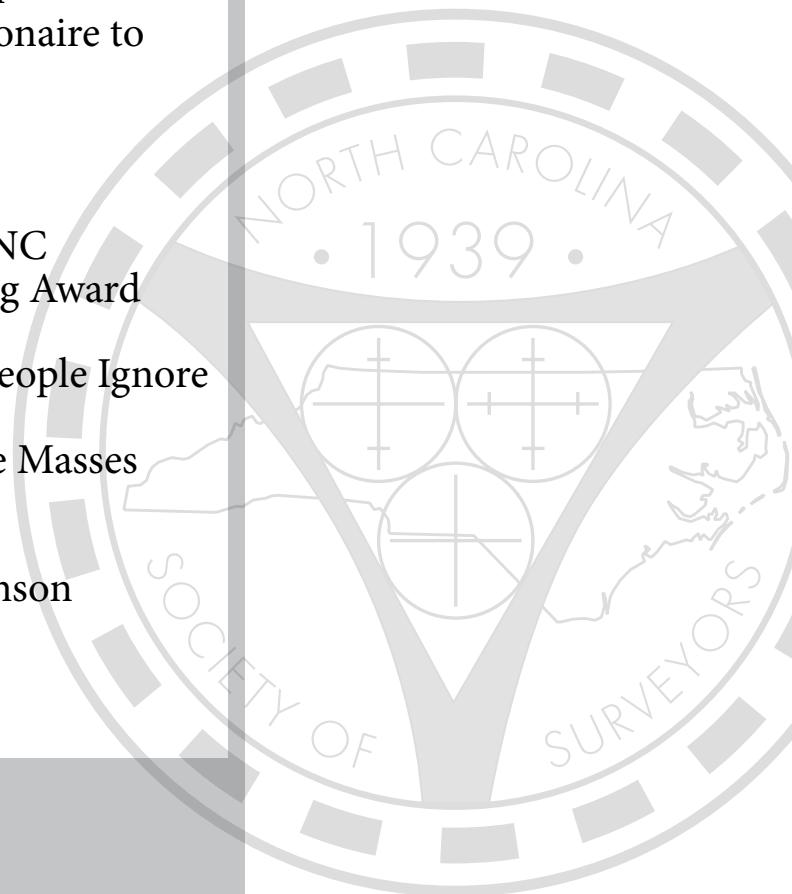
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ABOUT NCSS:

- >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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ribelin@bellsouth.net

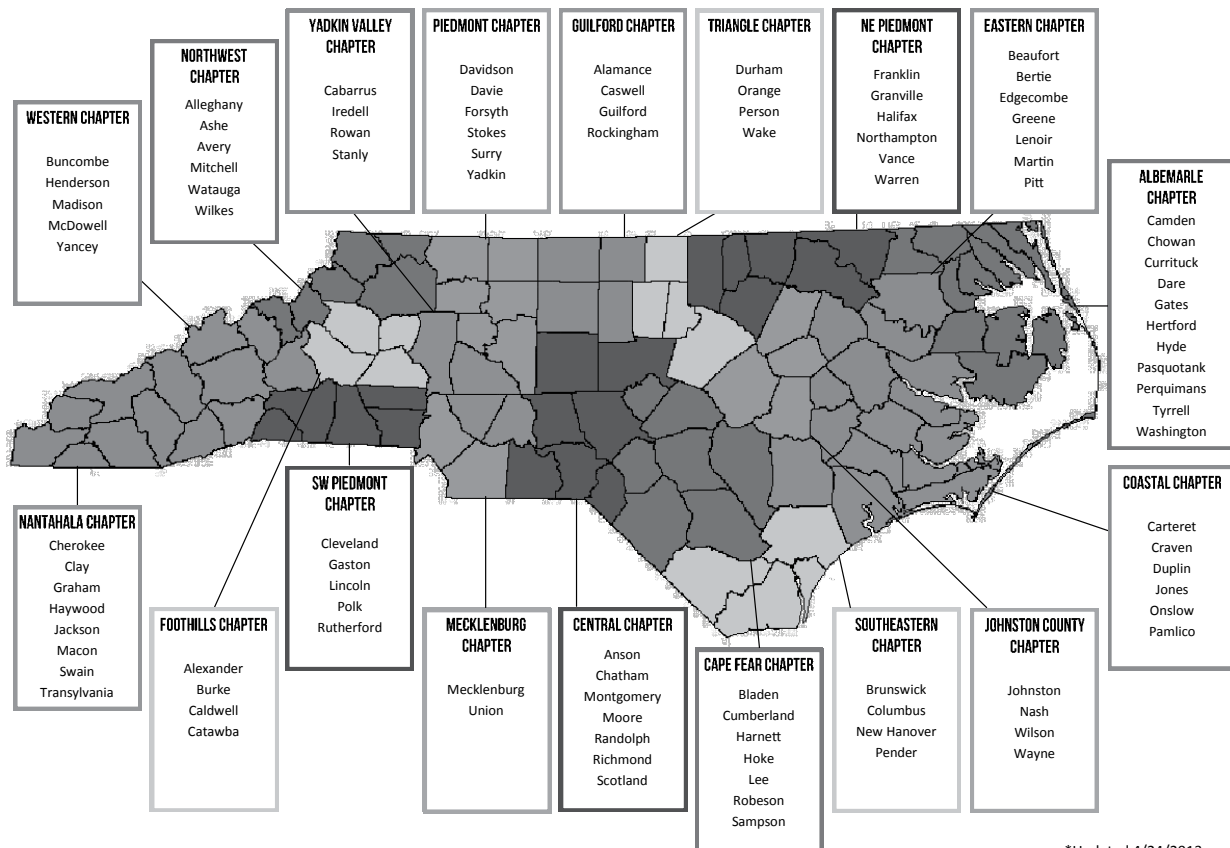
MARKETING & MEMBERSHIP DEVELOPMENT

Sherri L. Barron
sbarron@ncsurveyors.com

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 Tuesday 7:00 pm	Westmore Family Restaurant, Westmore
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	3rd Wednesday 6:00 pm	The Porterhouse Grill, Greensboro
Johnston County	2nd Tuesday 6:00 pm	Holt Lake BBQ, Smithfield
Mecklenburg	1st Monday 6:00 pm *no meeting Jul-Aug	Dilworth Grille, Charlotte
Nantahala	3rd Tuesday 6:30 pm *no meeting Jun-Aug	Sunset Restaurant, Franklin
NE Piedmont	Last Tuesday 7:00 pm	Various Locations, Louisburg
Northwest	3rd Tuesday 6:00 pm	Daniel Boone Inn Restaurant, Boone
Piedmont	4th Tuesday 6:00 pm	Ham's Restaurant, Winston-Salem
Southeastern	Last Wednesday 7:00 pm	Carolina BBQ, Wilmington
SW Piedmont	2nd Thursday 6:30 pm	Mario's Restaurant, Forest City
Triangle	3rd Tuesday 6:30 pm	Various Locations, Raleigh
Western	2nd Tuesday 6:30 pm	Cornerstone Restaurant, Asheville
Yadkin Valley	2nd Wednesday 6:30 pm	Various Locations, Salisbury

NCSS Local Chapter Areas



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DIRECTOR'S NOTES



By the time of this publication, North Carolinians may have a new Governor and we'll definitely have a new President. Politics often inspires a love/hate relationship, which makes me fairly certain that we are all relieved to be rescued from the onslaught of campaign ads, phone calls and pundits on every channel droning on about why their opinion should matter more than ours. Presidential elections bring out the best and worst in our country. Yes the mudslinging is exhausting, but it also brings to mind the United States' great principles such as free speech and freedom of the press. The beauty of our system demands that in four years, we the people will have the opportunity to vote for our candidate again, which is especially a great comfort if your personal choice lost this election.

I'm thankful that the political issues put forth by surveyors are rarely controversial. Our issues are technical and very specific to the industry and the profession; however, that doesn't make them less important. I am surprised how often I hear the response, "I am not political," when I explain the value of a surveyor's membership dollar as we represent them at the General Assembly. Please know that even if our membership isn't politically active, others fighting for their own causes are extremely active. Other groups may not take into account the job you do every day. They may not fully understand the scientific precision of surveying. They may not understand the liability that you bear upon your shoulders like an old theodolite. Let's suppose that a group proposes legislation that a surveying app, which can be downloaded, is sufficient to mark corners for new home purchases. Would you not want someone visiting the offices of representatives and senators letting them know that surveying takes into account many more elements than GPS measurements on a smart phone?

The long session of the General Assembly starts January 11, 2017. We are preparing wording for legislation that will benefit surveyors across the state, such as: DOT mapping clarifications and a Control Corner rewrite in General Statute 47-30. The recent ballot allowed our membership to vote on the issue of whether or not they would like to pursue becoming a Learned Profession. Your voice matters. Legislators often ask me about the size of our constituency. I really hope that one day I can say that we have more than

half of the surveyors licensed in North Carolina represented in our membership. The staff and I work hard to reach that goal. Until then, I want to thank our current members. Through your support, we are able to stand in the gap for surveyors across the state. Approximately 30% of your dues are used to monitor changes, and create legislation that positively affects your profession. We will press on no matter who is President and Governor. And we'll press on no matter how many surveyors see the benefit of belonging to the oldest professional society in North Carolina, but knowing that you understand how important you are in the process is very important to me.

Christy C. Davis, Executive Director



Christy with Lin Byrd & John Odom at the Morehead City town forum for floodplain mapping.

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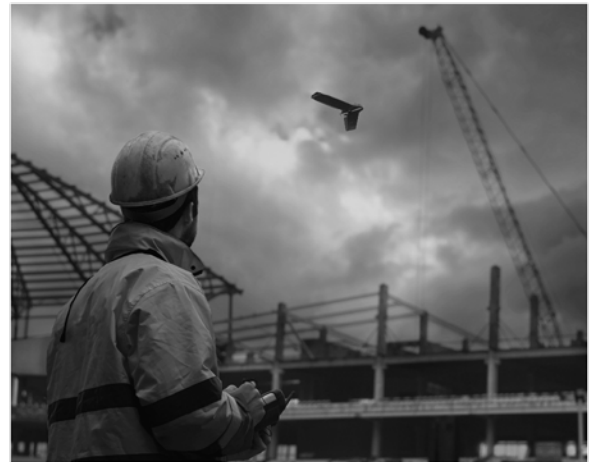
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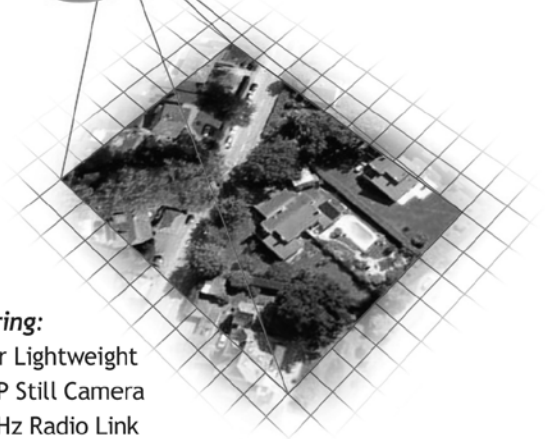


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LETTER FROM THE PRESIDENT



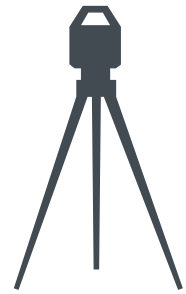
In my previous letter to you this year, I spoke of the fact that the North Carolina Society of Surveyors (NCSS) is the primary champion for surveyors in the State of NC; that there is no other group or organization within the State doing more for our profession. Since I wrote that letter, there has been a legislative event that has solidified my belief that we need NCSS to guard our profession. This event has also shown me what can happen when one or two surveyors decide that they want to change laws associated with surveying with no regard for how the changes may impact the rest of us.

On June 2, Kerri Burke, our lobbyist from McGuireWoods Consulting, Inc. provided Christy Davis, our Executive Director, with a copy of House Bill 959 (H959-ASU-68 [v.2]). The bill had been approved by the House and was set to move its way into the Senate for final approval. The bill had not been caught by McGuireWoods prior to this date due to its limited language which did not contain any words that our lobbyists typically search for when trying to find land surveying matters. Section 2.5 G.S. 136-18 was to be amended by adding a new subdivision to read: "The Department (meaning the NCDOT) shall provide North Carolina grid coordinates for at least one point for each parcel acquired by the Department on or after January 1, 2017."

On June 3, I began correspondence with Charlie Brown, PE, PLS, NCDOT State Location & Surveys Engineer, to ascertain how the NCDOT felt about the impending legislation. I learned that the language in the bill had been presented to Representative Brody by two land surveyors in his district. They had not made the Society aware of their proposed legislation. Furthermore, these two surveyors had not consulted with the North Carolina Board for Engineers and Land Surveyors (NCBELS).

As it was written, the language in HB 959 would have required the NCDOT to place an NC grid coordinate on at least one corner of every property touched in a set of transportation plans. NCDOT was not in favor of this, as (1) this degree of labeling grid coordinates is not required of standard subdivision plats; (2) this would cause confusion having two sets of coordinates on the plans; and (3) the addition of these coordinates would add even more clutter to an already cluttered set of plans. Furthermore, the NCDOT had already been working with NCBELS to establish statewide procedures for certain aspects of highway mapping. Those procedures will include a consistent method of providing a project datum tied to the NC State Plane Coordinate System, localized coordinates on all right-of-way and permanent easement points, coordinates for all alignment control points (TS, ST, PC, PT, etc.), and tie from centerline to properties, including irons found. This mimics to a degree what is required on any subdivision plat.

I presented the NCDOT's stance on the legislation to the NCSS Legislative Committee (LC) and Executive Committee (EC) to see if they agreed that the proposed language should be stricken from the bill and perhaps compromise language could be presented to the Senate. The LC and EC unanimously agreed that the language should be stricken from the bill and that compromise language should be pursued.



Schedule at a GLANCE

NOVEMBER 2-4, 2016

Otis A. Jones

Educational Institute

9PDHs/day

8:00am-5:30pm

McKimmon Center,

Raleigh, NC

NOVEMBER 11, 2016

Yadkin Valley Chapter

Surveyor Workshop

8:00am-4:30pm

7.5 PDHs

Russell-Rufty Shelter Miner's

Hall at Gold Hill Mines

Historic Park

Gold Hill, NC

DECEMBER 9, 2016

Coastal Issues

Surveyor Workshop

8:00am-4:30pm

7.5 PDHs

College of The Albemarle

Elizabeth City, NC

DECEMBER 9, 2016

SW Piedmont Chapter

Resolving Boundary Issues

8:00am-4:30pm

7.5 PDHs

Rankin Lake Park

Gastonia, NC

DECEMBER 16, 2016

Statute of Frauds (and)

Why People Ignore It

8:00am-4:30pm

7.5 PDHs

Joint School of

Nanoscience &

Nanoengineering

Greensboro, NC

On June 14, Christy, Kerri and I met with Representative Brody to discuss HB 959. I explained several reasons why the language was unsuitable to become law. NCSS agreed that the NCDOT was being asked to label coordinates to a much higher degree than private sector surveyors. We agreed that NCDOT plans contain localized grid coordinates and that it would create confusion if the NCDOT had to label true grid coordinates on points spread throughout their localized projects. I explained my involvement with the NCDOT's in-house policy changes that are currently being studied by both NCDOT staff and members of the private consulting firms that currently provide surveying services to the NCDOT. The changes that Mr. Brown and others at the NCDOT are currently pursuing are extremely positive and in the best interest of the public. It was my hope that we could present compromise language to the Senate that would make law out of some of the boundary-related matters being put into policy by the NCDOT. After the meeting with Rep. Brody, Mr. Brown and I worked on compromise language from lunch time until 11:00 PM.

On June 15, we learned that Rep. Brody had asked the Senate committee to strike the amendment language concerning property corners. Unfortunately, due to the shortage of time, compromise language was not an option.

So what did I learn from all this? It would have been nice if the surveyors who wanted to push for this legislation had reached out to the one organization in the State that lobbies on behalf of surveyors. It would have been nice if our legislative committee had been given an opportunity to review the proposed language and provide feedback before a representative of the House was presenting the language in a bill. In my opinion, the proposed language had good intentions, but it needed to be refined by more than two surveyors.

As it stands, NCSS and NCDOT are still in communication concerning compromise language. Instead of trying to force the hand of the NCDOT, NCSS is working with the NCDOT to write legislation that both the public and private sector will find amenable. In 2017, NCSS will sponsor legislation that has been approved by both the NCSS legislative committee and the NCDOT. I truly believe that the outcome will satisfy the desires of the two surveyors who sought to make these changes on their own, but the results will have been achieved through the collaboration of the public and private sector.

Sincerely,



NCSS President 2016-2017



Chad & Sara Howard



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Milestones in Education

by Peggy Fersner, PE

As one gets older, it seems that time moves a little faster. There was actually an article that was posted online acknowledging this. The good news was that there are certain things we can do to modify that feeling. The classic one is that, as adults, we tend to not live in the moment, and I agree, that perhaps we need to work on that characteristic. We are too busy scheduling, planning, and darting from place to place to really focus and enjoy the moment we are in. So currently, Jerry and I are focusing on the present with the Geomatics program. The present for the Geomatics program is the upcoming ABET accreditation. A little history....

Let's look at this in a round-about way. Most of you are familiar with licensure for engineers with one caveat being that you must graduate from an ABET accredited college. ABET was an acronym for Accreditation Board for Engineering and Technology, but now is just known as ABET, since it accredits engineering, computer science, technology and applied science programs. As you are aware, the national trend for licensing professional surveyors is toward the 4-year requirement with some states choosing to require an ABET accredited program, and some not addressing that issue due to the small numbers of programs in the country. The intent for the Geomatics program has always been to be accredited as this meets quality standards for the profession at a national and international level. The program's move from engineering to technology reset the clock and we had to wait until this year to apply. This is not just an application process. The program must document and assess student work, collect alumni and employer surveys, and the list continues. After that, modifications for improvement will be made based on the data, and then finally the results of these changes will be documented. This leads to the buzzwords of continuous improvement. And you thought Jerry and I just taught classes! A report called a Self-Study was submitted on July 1, 2016. This addresses all of the criteria by which a team of professionals will assess the program. These three professionals will visit A&T on November 6, 7 and 8, 2016 to review all of our documentation, to meet with faculty, students and administrators and the Geomatics Advisory Committee. Please keep your fingers

crossed as this has been a long road to reach this point and we are so very excited about this finally taking place.

On another note, Jerry and I had the opportunity to present at the North Carolina Arc Users Group Fall Conference in Carolina Beach. We were asked to address the issue of licensure and what educational components and avenues are needed in order for a GIS Professional to be licensed as a PLS. By the end of the four hours, some most definitely wished that they had taken the opportunity to be grandfathered in. The discussion was lively and sometimes tense, but we feel that both sides benefited greatly from the discussion. I am sure you will hear much more about this in the future.



Peggy Fersner is the Geomatics Coordinator at NC A&T State 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.

Welcome New Licensees

Donovan P. Benson	Walter Brian Keever
Don Michael Brady	Tyrone Edward LaRue
Timothy R. Durr	Justin A. McDaniel
Scott Matthew Faulkner	Robin J. Muray
Dan Gregory	Dana Andrew Parsell
Gary S. Harvin Jr.	Walter B. Sheets
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NSPS Update

by Randy S. Rambeau, Sr., PLS



As your North Carolina director, I attended the fall NSPS meeting held at the Wildhorse Pass Hotel and Casino in Phoenix, Arizona on September 29 and 30th. It was great to renew friendships with the directors I have gotten to know over the past two years. As much as we may feel we are different, there is much common ground in the surveying community across the country. It seems the vast majority of us share the difficulties and frustrations of finding good employees, keeping our fees at profitable levels, dealing with local municipalities, and a common desire to better our entire profession. It was good to hear some fresh ideas in these areas from the other directors. One new area of concern is the scrutiny that the surveying and engineering licensing boards are coming under in several states.

Committee meetings were held all day on Thursday and the Board of Directors met on Friday. I'd like to share with you some of the information I gathered at the meeting.

EDUCATION COMMITTEE

Participation was up at the 2016 Student Competition in Washington, D.C. Two schools in the two-year schools category and seven schools in the four-year schools category participated, and the event was very successful. Rich Vannozzi (Massachusetts) and Jim Sens (New Jersey) have enlisted the help of Mitchell Duryea (Washington) to plan and execute the 2017 Student Competition. More information is available on the NSPS website. It would be great if North Carolina had several of our schools participating!

The Washington Land Surveyor Association is recording SI and PLS exam refresher classes and making them

available to surveyors in their state. Association members are charged a reduced fee to use them.

Rich Vannozzi will continue to be the NSPS liaison to the National Teachers Conference to increase teachers' awareness of the opportunities in the surveying profession. Rich encouraged the committee to be more active with educators and guidance counselors on the state and local level in our respective states.

Lisa VanHorn (Wisconsin) reported on her research of the BEASURVEYOR website created and maintained by our own, Doug Suttles and the NCSS Education Foundation. Lisa and others on the committee were very complimentary of the content, the links, and the quality of the site.

CERTIFIED SURVEY TECHNICIAN (CST) COMMITTEE

Art Haase (Indiana), who is the CST board chairman and also the NSPS CST Committee chair, reported that Tim Burch (Illinois) and yours truly were selected as national CST board members at the summer CST board meeting at Vincennes University in Indiana. Also at that summer board meeting, the directors reviewed the exam grades and challenges to exam question answers, and compiled responses to send to the technicians who submitted the challenges. The board also reviewed the questions on several of the exams to ensure that the exam questions are relevant and up-to-date with our ever-evolving profession. Chairman Haase also noted that the number of technicians taking the CST exams and renewing their certification has dramatically increased in 2016, jumping 40 percent over the first half of 2015.

NSPS BOARD OF DIRECTORS MEETING

President Tony Cavell (Louisiana) called the meeting to order promptly at 8 am on Friday. President Cavell thanked the various committees on the work they accomplished on the previous day.

NSPS Treasurer Robert Miller presented the proposed budget for 2017 and the current status of our 2016 budget as of June 30. Our 2016 projected total income is \$936,465. and total projected expenses are \$910,852. As of June 30, actual total income was \$743,087 and actual total expenses were \$484,529. Treasurer Miller does not anticipate any difficulties in meeting the 2016 budget. The proposed budget for 2017 is total income of \$988,557 and total expenses of \$976,757.

NSPS Executive Director Curt Sumner reported on the efforts of the NSPS staff and others since our spring meeting. Those efforts include the following:

- An appreciation plaque is being presented to the family of Malcolm Shaw who passed away earlier this year. Mr. Shaw was a well-respected and long-serving New York director to NSPS.
- The Alaska Lands Disposition Committee is working on a report urging the Bureau of Land Management (BLM) to set monumentation of the unsurveyed lands in northern Alaska at the same density as with previous Alaskan surveys.
- NSPS will be taking over the Certified Federal Surveyor (CFedS) program from the BLM.
- The NSPS office staff is working on a national speaker database for the state associations to use in finding speakers for their conferences and continuing education seminars.
- The memorandum of understanding (MOU) was signed with the NSPS Young Surveyors Network as an affiliate member of NSPS. Currently there are 45 states with a Young Surveyors representative, and the group has a total of 130 members.
- The 2017 spring meeting of NSPS will be held in Silver Spring, Maryland the week beginning March 13. Included in that meeting will be a Lobby Day on Capitol Hill. NSPS members are strongly encouraged to attend the spring meeting and meet with their legislators during Lobby Day.
- And last but not least, everyone will soon receive the electronic ballots for 2017 NSPS officers. Please complete the online ballots so that you have a voice in YOUR national organization.

Government Affairs Committee Chairman Pat Smith (Texas) reported on the committee activities as well as the activities of our NSPS lobbyist, JB Byrd of John M. Palatiello & Associates. Some of those activities are as follows:

- NSPS is continuing the fight to have survey crews exempted from the Davis-Bacon Act regulations as they pertain to federal construction projects. We maintain that surveyors are not “laborers and mechanics” or construction helpers.
- NSPS has been working with several U.S. Representatives to pass legislation to reform the Federal Prison Industries (FPI) Act. The language would prevent federal inmates from accessing sensitive geospatial, mapping, and survey data, including data that would be a part of GIS services.
- NSPS continues to push for the Federal Aviation Administration (FAA) to finalize rules and regulations for unmanned aerial systems (UAS) to fully integrate those systems into the National Airspace System. We see this rapidly evolving field as making a significant contribution to surveying and mapping, agriculture, public safety, natural disasters, and natural resource

management.

- Workforce development was one of the issues taken to Capitol Hill this past March on Lobby Day. NSPS has been working with congressional members to introduce legislation to create a public-private partnership. This will help assure development of the future geospatial work needed to contribute to future needs of our society, including infrastructure, property rights, and environmental protection.
- In the realm of qualifications-based selection (QBS) under the Brooks Act, North Carolina Representative Mark Meadows introduced a bill that would limit the use of one-step design-build and reverse auctions in federal procurement of design and construction services. It would specifically prohibit federal agency use of reverse auctions for architectural and engineering services, including surveying and mapping. These services have historically been protected by QBS process of the Brooks Act.
- Also noted is the need for continued contributions to NSPS Political Action Committee (PAC) to support our lobbying efforts at the national level.
- Directors were asked to encourage their respective states to participate in the Trig Star Program in the coming year. Thirty-eight states participated last year and the Trig Star committee is working on the possibility of online testing for the program.
- Several motions were passed during the meeting, including the promotion of National Surveyors Week in March 2017 and a motion to fund the linking of the BEASURVEYOR website to the NSPS site. Numerous directors were familiar with the site and spoke very favorably of moving forward to expand the prominence of the BEASURVEYOR site. I was very proud of the recognition and appreciation our NCSS and Education Foundation received on the national level for this effort.

I would like to remind our NCSS members to visit the NSPS website to learn how to take advantage of the numerous benefits provided by our NSPS membership, including insurance plans, rental car discounts, tires, apparel, and the “PerksCard” for discounted products and services. There are also numerous opportunities for NCSS members to participate in NSPS by volunteering to serve on one of the NSPS committees. All of the committees would welcome new members and value their contributions. It will be a rewarding experience!



Randy Rambeau has been the Geomatics Office Manager at McKim & Creed, Inc. in Raleigh since 1991. He graduated from NCSU and became a PLS in 1978, when he joined NCSS. Randy now serves as our NSPS Governor.

NCSS Education Foundation

by James E. Davis, PLS
Education Foundation President



The NCSS Education Foundation continues to support and carry out the purposes of the North Carolina Society of Surveyors. As your Education Foundation, we focus on the areas where we believe we can have the most impact which

are: 1) Growing the endowment, 2) Providing a funding mechanism to support a 4 year program, and 3) Providing a funding mechanism for scholarships. A great way to support the foundation is by purchasing a specialized license plate. Although the program was started last year, the Foundation has just recently started receiving checks from the North Carolina Department of Motor Vehicles (NCDMV). This income will provide a stable funding source to support the objectives of the NCSS Education Foundation.

Thanks to all who continue to support the Foundation through participation in the "Cash Raffle" program. Because of the success of the raffle, the Foundation has been able to award five scholarships totaling \$7,750 dollars. The scholarships were awarded to both 4-year degree and 2-year degree applicants. If you know of someone who is pursuing a degree in surveying, please encourage them to apply for a scholarship. This year, the Foundation modified the eligibility requirements to allow out-of-state students who are attending NC schools to apply. The deadline for scholarship applications is March 15, 2017. Additionally, the Foundation continues to support the Geomatics program at NC A&T State University with a \$500 incentive grant for students newly enrolled in the program. The Foundation has contributed an additional \$5000 for the program this year.

The "Cash Raffle" will be held again this year and will consist of 100 tickets sold for \$100 each. There will be a reverse drawing held at the NCSS Conference in February to determine the winners. The holder of the first ticket drawn will win \$500. The holder of the next to last ticket drawn will win \$500. The owner of the last ticket drawn will be the grand-prize winner and will win \$2000.

The other area of emphasis for the Foundation is to grow the endowment. We are pleased to report

that we have made a contribution of \$4000 to the endowment fund. At the last quarterly report, the endowment had a balance of approximately \$225,000. We look forward to continued growth in the future.

After several years' absence, the Foundation will be participating in the NC Math Teacher's Conference. The conference is held on October 28-29 in Greensboro, NC and is attended by math teachers from grades K-12. The conference provides a good opportunity to present the information about surveying to teachers who can help guide students towards the surveying profession.

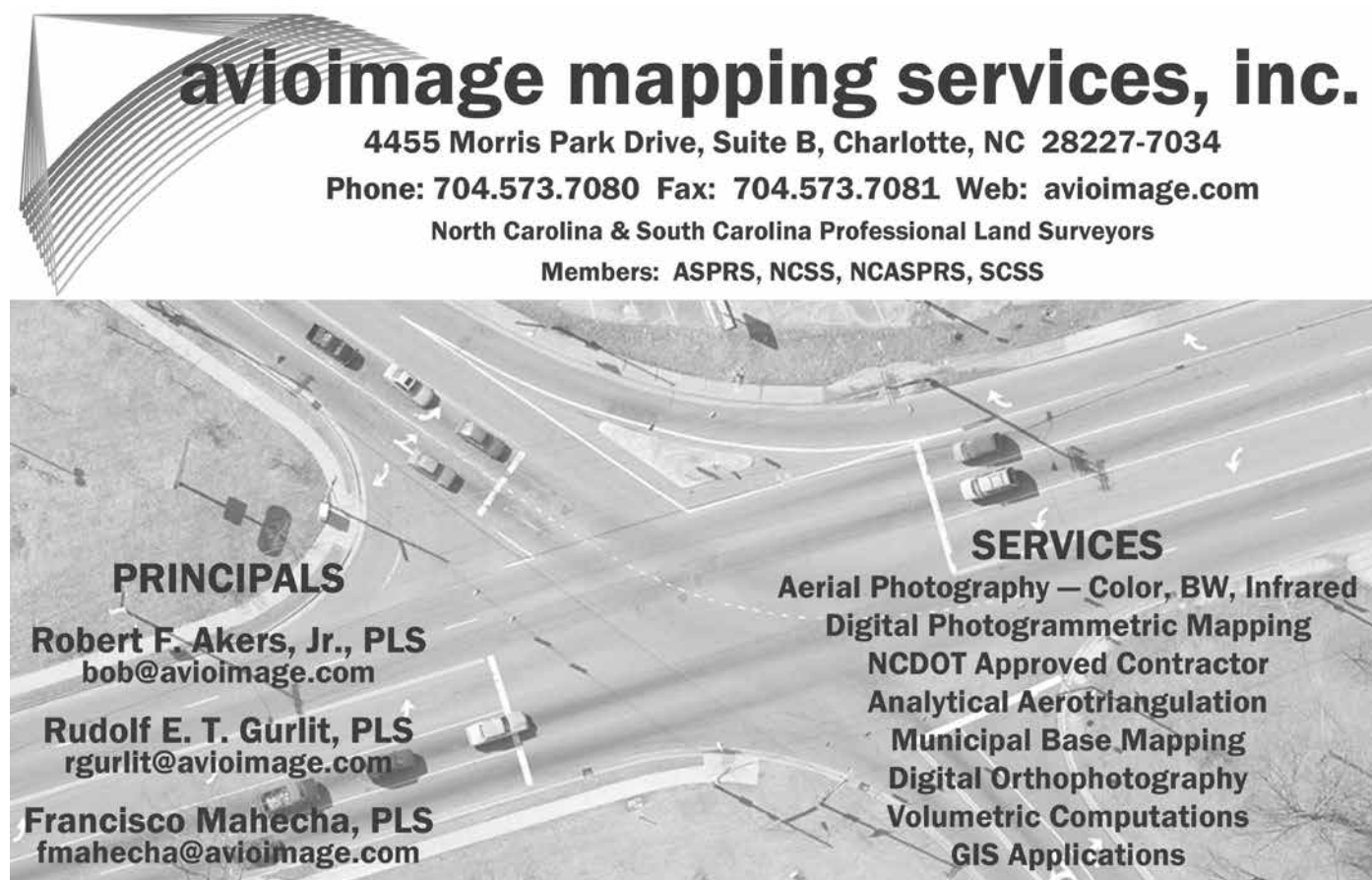
If you have any ideas for the Foundation to consider or would like to attend a meeting, please let me know or contact one of the other board members.



You Don't Need to be a Millionaire to Leave a Legacy

Estate Planning is not something reserved only for the rich. The word 'estate' may bring to mind an image of riches with a mansion and landscaped grounds. In legal terms it simply means "property or possessions". I think it's safe to assume that everyone seeing these words has property or possessions and for you to depart this life without a formal declaration of what happens to your possessions creates a huge potential for your loved ones to become embroiled in a destructive conflict. Without a will, your property or possessions will be distributed according to state guidelines which may not match your final wishes. A will should be created with the proper documents, and accordingly, we strongly encourage you to engage a professional for assistance or there are several books available to guide you through the process. In short, almost everyone needs a will.

The NCSS Education Foundation, Inc. is a non-profit, all-volunteer group which raises funding for the education of future surveyors. We urge all of the NCSS members, fellow surveyors and others to create a will to represent their own personal wishes. The Foundation can offer you an opportunity to leave a legacy (a gift of property or personal possessions) to assist the future of surveying through the education of newcomers to the profession. The following sentence included in your will is one way to ensure that you can leave that legacy to reflect your passion for the surveying profession: I give _____ (specific or identified property, possessions, percentage or residue) to the NCSS Education Foundation, Inc. (a tax-exempt organization located in Wake Forest, NC) for the purpose of supporting its education-stewardship programs.



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David Turner - US Army

Jeff Wagner - US Army

Leroy E. Waters Jr. - US Air Force

Jamie Watkins - US Marines

Woodrow W. Wilson - US Army

Thank you for serving our country and protecting our freedoms.



The History of VETERANS DAY

November 11, or what has come to be known as Veterans Day, was originally set as a U.S. legal holiday to honor Armistice Day - the end of World War I, which officially took place on November 11, 1918. President Woodrow Wilson honored the first commemoration of Armistice Day with the following words: "To us in America, the reflections of Armistice Day will be filled with solemn pride in the heroism of those who died in the country's service and with gratitude for the victory, both because of the thing from which it has freed us and because of the opportunity it has given America to show her sympathy with peace and justice in the councils of the nations..."

In 1954, Congress, at the urging of the veterans service organizations, struck out the word "Armistice" and inserted the word "Veterans." With the approval of this legislation on June 1, 1954, November 11 became a day to honor American veterans of all wars.

Between 1968 and 1975, Veterans Day was moved around on the calendar, sometimes even appearing on the last Monday of October. Finally on September 20, 1975, President Gerald R. Ford signed a law which returned the annual observance of Veterans Day to its original date of November 11, beginning in 1978.

Veterans Day continues to be observed on November 11, regardless of what day of the week on which it falls. The restoration of the observance of Veterans Day to November 11 not only preserves the historical significance of the date, but helps focus attention on the important purpose of Veterans Day: A celebration to honor America's veterans for their patriotism, love of country, and willingness to serve and sacrifice for the common good.

"Veterans Day." Military.com. N.p., n.d. Web. 04 Oct. 2016.



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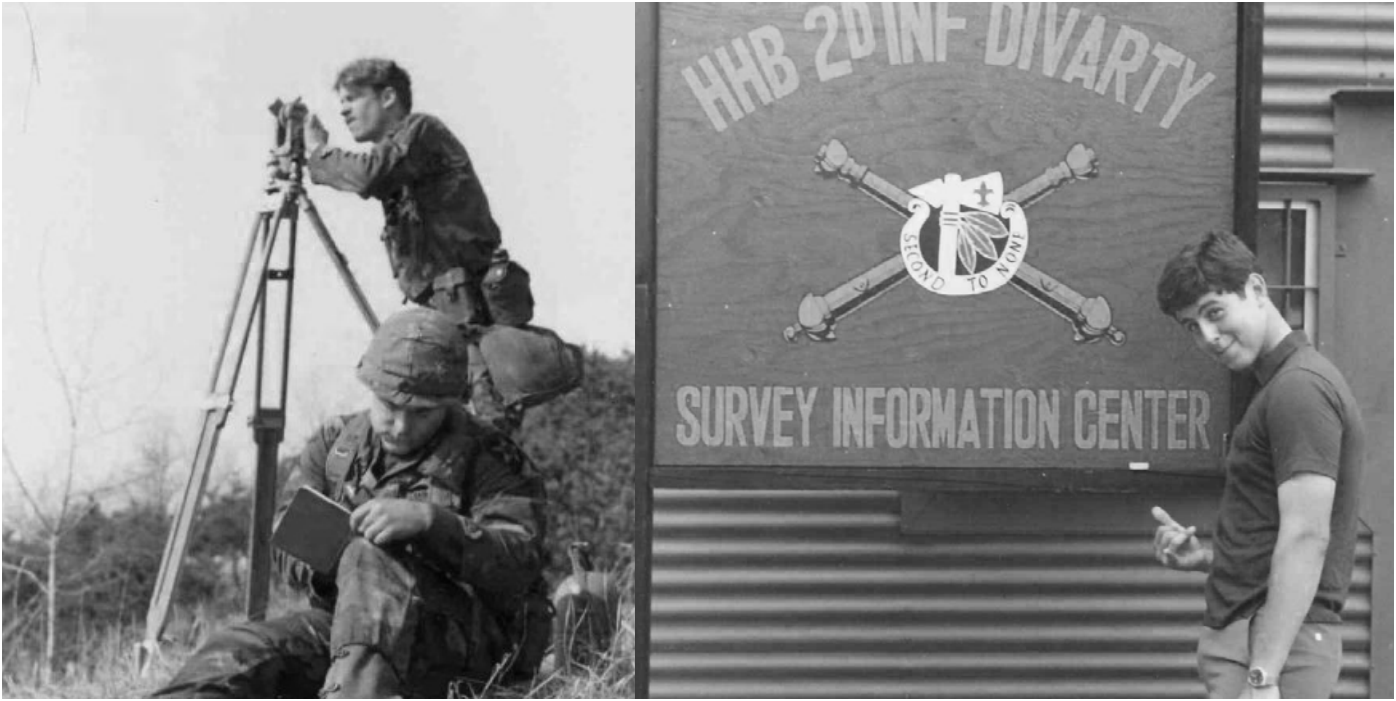
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Why Not Try Fort Bragg?

Don't overlook the military when looking for new employees.

by Bill Beardslee, PLS, PE, PP

Wherever I have traveled in recent months, surveyors have lamented the lack of the availability of quality field personnel – or for that matter, any personnel at all. The same holds true for office technicians of any caliber. One can postulate the many potential reasons for this until the end of time, but that does not help add staff to anyone's firm.

During the past few months, I have discovered a potential source of staffing for the survey community in North Carolina. Where do we find dependable employees who are either experienced in field or office procedures or are imminently trainable for those positions? How do we get our openings before them? How do we cull (hopefully) the responses? How can we control our costs finding these potential employees? That source is Fort Bragg.

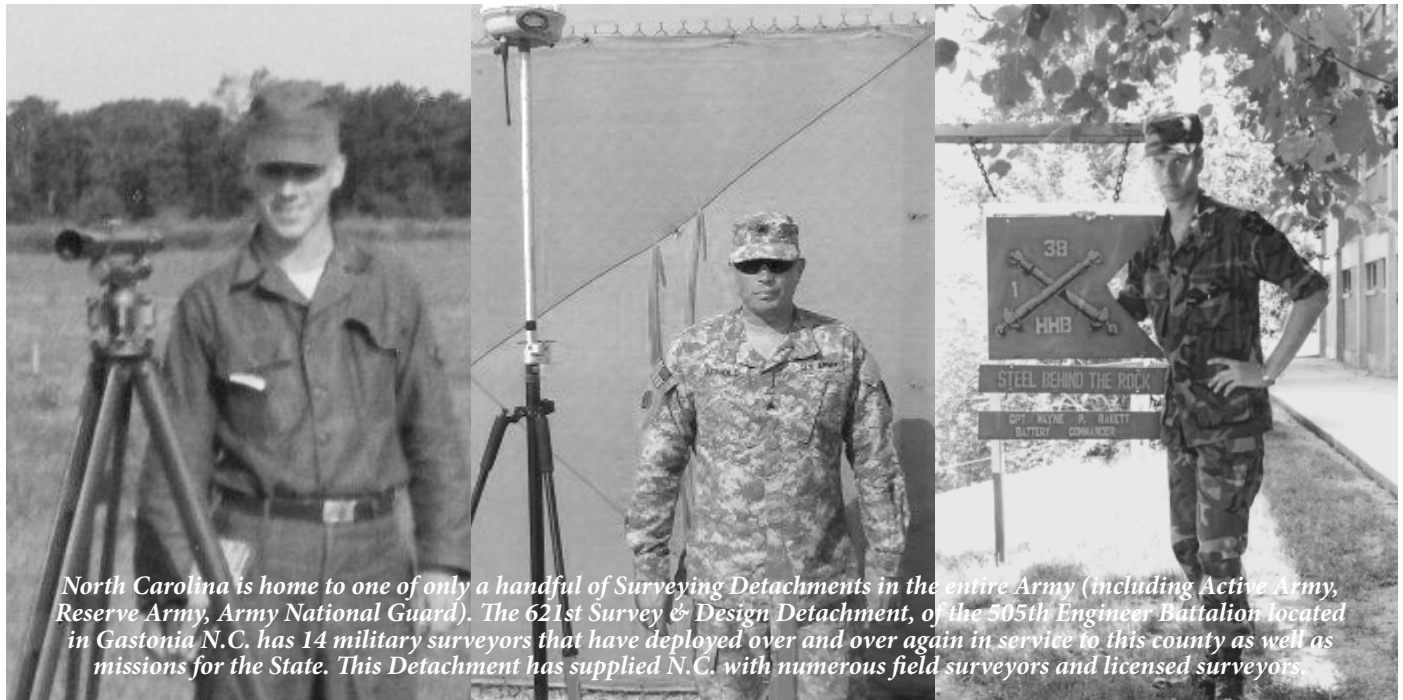
Each year, hundreds of soldiers complete their military service needing to assimilate into the private work force. Some have been soldiers for only three or four years, while others, for more than twenty years. Their ranks span private to colonel with tremendously different resumes. But they all have a few traits in common. They are dependable, loyal, and focused. They are task oriented and excel at

following orders. Some have extensive leadership skills. All have spent a bit of time in the outdoors. (For some reason, I don't think a copperhead will fluster these folks.)

The Army is very cognizant of the sometimes difficult transition for a soldier when returning to civilian life. To address that issue, they have created a program by the name of "Soldier for Life," which provides needed transitional information to the soldiers and makes them understand that the US Army will always be there for them.

But for our purposes, the second element of this program, known as the "Transition Assistance Program" or TAP is where we may find our future employees. The soldiers are given an incredible volume of individual assets for their post-military career. From personal finance, to military benefits, to interviewing skills, the program is a full-court press of necessary information provided over the final three months of their enlistment. One of the major elements of the program is the desire to find civilian employment for each soldier, so that they can transition from a military paycheck one week to a civilian paycheck the next.

This program is under the direction of a very affable gentleman by the name of Bill McMillian, Transition



North Carolina is home to one of only a handful of Surveying Detachments in the entire Army (including Active Army, Reserve Army, Army National Guard). The 621st Survey & Design Detachment, of the 505th Engineer Battalion located in Gastonia N.C. has 14 military surveyors that have deployed over and over again in service to this county as well as missions for the State. This Detachment has supplied N.C. with numerous field surveyors and licensed surveyors.

Services Manager, Ft. Bragg Soldier for Life-TAP. Mr. McMillian is a retired officer with many years of military service. This program for educational and employment service is structured so that leaving the program is similar to earning a degree – the Army’s own mini-university.

I had the pleasure of sitting with Mr. McMillian at Fort Bragg as he explained the employment program. With three months remaining in their enlistment, the soldiers will meet with a TAP counsellor to find their interests and provide them with a review of their communication skills. Here is where the surveying community may enter the process.

If you have positions available, write a very complete description of the skills required. Do not rely on position titles as a military position title, because while similar to a civilian title, it may be quite different. “Party Chief” has no meaning in the military world, but the skills may be parallel to a “Logistics Platoon Leader” or some such title. Once the description is complete, it is forwarded to whom Mr. McMillian designates and is posted for all the exiting soldiers to see. If someone is interested in the position, they create a resume to align their experience with your description and submit it to Mr. McMillian’s staff, who assist in checking and verifying the applicability to your position.

Next, those resumes are sent to you for review. You may accept all or none of the candidates. Should you see a person of interest, you may then schedule an interview with that person during one of three “interview days” at the post each year. This is not the typical “job fair”. It is an

appointment-only day where two members of your firm may have a 45 minute or so interview with the applicant you have chosen.

Then, if you indicate an interest in potentially hiring the person, you may be able to have them as an intern in your office for thirty days while they are still on the military payroll. There is no expense or obligation to your firm. If everyone is then satisfied, your firm may provide an offer of employment to the soldier when they leave the military, usually within the next thirty days.

In my opinion, this is the ultimate win - win.

This is an asset available to all surveyors in North Carolina. If you are interested, please contact Mr. McMillian at 910-396-2248 or by email at (william.b.mcmillian.civ@mail.mil_). At this point, I am not sure if something similar is available at Camp Lejeune.

This process does require patience, as you would expect dealing with the federal government. But it is a no-cost, no-obligation process which has the potential to be a benefit to your firm.



William E. Beardslee, PLS, PE, PP, is a licensed Professional Land Surveyor, Engineer and Planner with over 45 years of experience in the field of land development. He is known for his excellent presentation and writing capabilities, along with being one of the leading technical experts on land development in the engineering and surveying arena.

Ed Spitler, Jr.

SCC Professor Receives Highest NC Community College Teaching Award



The State Board of Community Colleges has announced that the 2016 recipient of the RJ Reynolds Excellence in Teaching Award is Franklin Edwin Spitler, Jr., Professor and Chair of Engineering Technologies at Sandhills Community College (SCC).

The Excellence in Teaching Award was established in October 1985 by the State Board of Community Colleges to provide recognition for full-time teachers who exemplify the highest standards of instruction and professionalism in the classroom and who consistently demonstrate excellence in service to their colleges and communities. One nominee is eligible from each college.

Spitler became a faculty member at Sandhills in 1997 and works to holistically develop students from advising to registration to the classroom and on through graduation. He began programs such as the Experience Engineering Project, a technology lab peer review assessment, and the Architectural, Engineering, Construction and Surveying student clubs that provides an honest, open forum for students to develop personally and professionally. According to his nomination, Spitler is an inspirational leader both on campus and in the community at large.

Spitler's skills and his enthusiasm for teaching led not only to his becoming chair of the Engineering Technology Department in 2010 but also made him the recipient of Sandhills' 2014-15 Excellence in Teaching award, now named in honor of Raymond and Rachel Stone.

"Ed is the epitome of a great teacher, passionate about his students and their learning — and about his learning from them," says Dean of Instruction Linda Chandler. "He exemplifies our college's core values of integrity, helpfulness, excellence, respect and opportunity."

Exceptional Job Satisfaction

For Spitler, the favorite part of his job is when graduates return to let him know how well they are doing. Over the years, he has heard wonderful success stories.

"About 75 percent of our Engineering Technologies graduates join the workforce right away, prepared for entry level positions in civil engineering, geomatics (surveying) and architecture," he reports. "The other 25 percent go on to a four-year university to earn their bachelor's degree. Either way, an associate's degree from Sandhills started them on their way to success."

Indeed, preparing students for careers in civil engineering technologies, architectural technology, and geomatics technology is a top priority with Spitler.

"The job market is full of well-paying job opportunities for our graduates," he says. "Historically, we see far more job openings than graduates to fill them."

"For Engineering Technologies students, we offer exciting hands-on learning. Many demands are put upon people in engineering technology fields and we make sure our students have the skills they need, including knowing how to work with modern surveying equipment and sophisticated software including computer-aided drafting and design software.

"Plus, we have 2+2 Articulation Arrangements with several universities into which our graduates can transfer and earn a Bachelor of Science in Architectural Technology, Construction Management, Civil Engineering Technology and Geomatics.

"Sometime we have students who want to enter the field, but have had trouble with some of the math requirements, Spitler said. "One of the biggest benefits of beginning with us is that we have great math support systems, math tutors and such a low student-to-instructor ratio that our students receive the instruction and assistance they need to get over the hump and on their way to success in their programs."

A Heritage of Instruction

A Sanford native, Spitler first came to Sandhills Community College as a student, where he earned an associate's degree in Civil Engineering Technology — and met his future wife, Callie. He transferred to UNC-Charlotte where he earned his bachelor's degree in Civil Engineering Technology. After working as a project engineer for Lee Construction Company in Charlotte, he returned to SCC to join the faculty.

continued on pg. 29



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Testifying in Court

by Ken Mills, PLS

Way, way back in time, early to middle 1969, I was beginning my adventures in the profession of land surveying. One of my mentors, Bruce Small, PLS, was telling me about testifying in court.

One case he was helping with involved the location of two neighboring boundary lines. The city to the east wanted to annex the land to the west. The land owner to the west did not want his land annexed because his taxes would go up and he would not receive city services because the location of his house and drive were on the west side of his property.

Bruce studied the problem and found the location of both boundary lines did not touch, because when the deeds were written, they began at opposite sides of the property. The east property began at a section corner to the east and was measured to the west. There was no reference to the neighbor's boundary line only a distance to a point towards the west. The neighbor's deed description began at a section corner to the west and was measured to the east with no reference to the boundary line to the east.

The distance between the two section corner monuments was surveyed, and the distance turned out to be one tenth longer than the distance of the two deeds added together. Bruce helped the neighbor win his case in court.

I was fascinated by the idea of testifying in court on survey matters and began learning all I could about the process. I attended a number of seminars presented by Walter Robillard (Walt) teaching how to testify in court so I could learn more. Fortunately, I have been able to put what I learned into practice by testifying in court on surveys I've worked on.

Walt told me and other attendees at one of his seminars that we have to keep in mind that the surveyor is the expert in surveying matters. The lawyer may think he or she knows about surveying, but they don't. It's important to remember that lawyers are experts in the use of words.

One of the first things I learned was to listen intently to the questions the lawyer asks. Think about the question for a

moment before answering so you can formulate your answer. Never, ever rush to give an answer. Remember, you have all the time in the world to answer any question. This pause also gives the other lawyer time to object to the question. This is very important when you are being cross-examined.

If you ever get a chance to give a deposition, jump on it! At the end of the deposition you will be asked if you want a copy of the transcript. Say yes! It is a written record of how you speak. The stenographer takes down every utterance you make. My first deposition showed me that my mouth got started before my brain was in gear.

Also, it helps to think of the court proceedings as a game. Not that you should play around and act silly. The lawyers and the judge know the rules of the court. Here are some things I picked up along the way:

- The lawyer who calls you to the stand can only ask direct questions.
- The lawyer that cross examines can ask leading questions.
- You, as the expert witness, have all the time in the world to answer, as long as you stick to answering the question.
- Never answer any question with a yes or a no, always go into at least some detail.
- Always be calm and speak clearly when answering a question.
- Under cross examination, if a lawyer tries to override your answer with another question, simply turn to the judge and ask, "Your Honor, may I be allowed to answer the question?" I've done this on a number of cases.

I once arrived at court early while the cross-examining lawyer was giving a witness a hard time and causing the witness to yell back at the lawyer. The lawyer was also posing questions to the witness while the witness was trying to give an answer. The witness became very agitated. I thought the situation was very interesting. While under cross examination, the lawyer tried the same thing on me, I just waited until he was finished, turned to the judge and asked, "Your Honor, may I be allowed to answer the question?" The judge told the lawyer to wait until the witness answered the question before he asked another question. I then answered the question in a calm manner.

In court, the job of both lawyers is to ask questions. The job of the jury is to listen to the questions and the answers of the witness. The jury then is tasked with bringing back a verdict following the instructions of the judge.

Since the jury decides the outcome of the trial, I always face the jury when answering any question. As I face the jury, I try to make eye contact with everyone on the jury as I answer the question. This is extremely important. I always try to make each juror feel he or she is important to me. If there is an exhibit that I can use to help clarify my answers, I'll ask the judge for permission to approach the exhibit. So far, no judge has refused my request. Once I reach the exhibit, I make sure each juror can easily see the exhibit. A number of times I've asked a lawyer to move out of the way so a juror can see the exhibit. Then, instead of pointing to the exhibit with my finger, I use a laser pointer. Using the pointer, I can keep out of the way of all of the juror's line of sight and the red dot on an exhibit is a big help. While I'm explaining the exhibit, I constantly look back at the jurors.

When preparing for court, a surveyor will be using a survey map as an exhibit. As we all know, most people can't make heads or tails out of a map. Most jurors are the same way. One case I testified on had a copy of my survey, which had a lot of lines going in all directions. I knew it was going to confuse everyone on the jury, so I suggested to my client's lawyer to let me prepare an exhibit showing only two deeds and the neighbor's survey. I didn't put any bearings or distances on the exhibit. I just added different color accents to the three sets of lines. After the trial, I learned the jury didn't look at all of the survey map exhibits, only the simple

color exhibit I prepared. They decided in my client's favor.

On another trial, the cross-examining lawyer tried to roll over my answer with additional questions before I was finished. I asked the judge if I could finish answering the question and the judge told the lawyer to wait until I was finished before asking another question. For some reason, the lawyer did the same thing a short time later. Once again I asked the judge to be allowed to answer. This time the judge instructed the lawyer to shut up until I finished answering the question. The judge looked at me and said to please proceed. The lawyer turned away and headed back to his table. At the same time I turned to the jury, smiled and began to answer the question. There were four issues before the jury in that case. My client won them all.

I think being an expert witness is an honor, and as I mentioned before, it can be a lot of fun.



Ken Mills became a PLS in 1975. He has been an active member of NCSS, serving three terms as the Western Chapter President. 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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Statute of Frauds and Why People Ignore It in North Carolina

by Kristopher M. Kline, PLS, GSI

North Carolina common law reveals a consistent adherence to the statute of frauds and to the requirement for written documentation of real property title transfers. Standardized surveying references describing the parameters of acquiescence and informal agreement seldom include sufficient detail to recognize the unique nature of each state. Several practices that are encouraged in many jurisdictions are expressly rejected by the North Carolina courts.

* * * * *

The doctrine of “part performance of an oral contract” is distinct from the concept of “parol agreement.” It includes three general requirements. Claimants must prove an actual meeting of minds that includes sufficient detail to cover critical details of the purported agreement. They must demonstrate specific actions or expenditures that resulted from the agreement. Finally, the actions relied on to prove the existence of the agreement must have no other reasonable explanation.

Legal scholars have demonstrated that the concept of part performance is almost as old as the statute of frauds itself. **Yale Law Journal**, Vol. 29, No. 4 (Feb., 1920) observes that receiving or taking possession of land with the apparent acquiescence of the previous owner can circumvent the requirements mandated by the statute of frauds. Several law review articles cite an early part performance decision from the English court. **Butcher v. Stapely**: 1 Vern. 363, 23 Eng. Rep. R. 524 (1685) was recorded within 10 years of the original enactment of the statute of frauds.

The Virginia court considered the concept recently as it might apply to informal written statements. **Moorman v. Blackstock**: 276 Va. 64; 661 S.E.2d 404 (2008). This case considers the relationship between part performance and the statute of frauds. *“In reviewing a claim for specific performance of an oral contract for the purchase and sale of real property, the evidence relied upon to establish the contract and its part performance by the party seeking to enforce it must be clear and convincing... Thus, if the court cannot ascertain, using this standard of proof, from the memoranda, or from other writings therein referred to, the essential terms of the*

contract, such writings do not take the case out of the statute of frauds.” Previous Virginia rulings note that all particulars of the purported agreement must be proved by clear and convincing evidence. In many states, part performance may be proved entirely by parol statements and actions.

North Carolina and Tennessee courts have rejected part performance of oral contracts even though this principle is accepted in the vast majority of states. **Albea v. Griffin**: 22 N.C. 9 (1838) is an early benchmark decision for North Carolina. This brief decision observes: *“...by our act of 1819 all parol contracts to convey land are void, and that no part performance can, in this State, take a parol contract out of the operation of that statute.”*

Justice Hudson affirms this stance in the recent decision **Powell v. Newton**: 364 N.C. 562; 703 S.E.2d 723 (2010). By contrast, both the Virginia and South Carolina courts embrace the concept. It should be noted that North Carolina will apply the concept of estoppel in appropriate circumstances. This doctrine can sometimes act in a manner similar to part performance.

* * * * *

Considered by one authority (**Michigan Law Review**, Vol. 56, No. 4 pg. 504 (Feb., 1958) **Olin L. Browder, Jr.**) to be an elusive concept at best, acquiescence may be considered as mere supporting evidence for other legal mechanisms. Some jurisdictions apply the term interchangeably with parol agreement. Other courts consider it a doctrine of repose similar to adverse possession. Yet another variant is applied by the U.S. Supreme Court as a long-standing mechanism to fix the location of state and municipal boundary lines. Finally, acquiescence may serve as an evidentiary standard when no evidence of the original controlling monuments remains.

Many states apply acquiescence in more than one context. Most consider the possibility that acquiescence by landowners may provide legitimate evidence of the location of an original monument. It is also commonly used as an alternate term for parol agreement. Acquiescence is often invoked in basic common-law requirements for prescriptive easement claims.

Russell v. Thornton: NC App. NO. COA02-1351 (2003) recognizes acquiescence as rule of evidence and also applies this term as an alternative definition for parol agreement where the original boundary is uncertain: *"The theory of acquiescence is completely independent from deed descriptions. Prior case law indicates that acquiescence is competent to determine the location of marks of the original survey...and to determine the location of a line described in a deed where the location of the line is uncertain...However, evidence of acquiescence is not admissible to establish a line not described in the deed."*

Andrews v. Andrews: 252 N.C. 97; 113 S.E.2d 47 (1960) considers rulings from other states in an attempt to clarify North Carolina common law. This case clearly limits the influence of acquiescence to the stabilization of disputed lines where original monuments are lacking: *"A multitude of jurisdictions hold that an uncertain and disputed boundary line may, under certain circumstances, be fixed permanently by parol agreement, if accompanied by sufficient acquiescence and possession, but where there is no uncertainty as to the boundary line, a parol agreement fixing a boundary line in disregard of those fixed by the deeds is void under the Statute of Frauds, as it amounts to a conveyance of land by parol."* It may also serve as evidence for adverse possession, estoppel, or laches. While common law of North Carolina and Virginia do not include acquiescence as an independent doctrine for quieting title, many states apply a more robust definition.

The recent decision **Reynolds v. Riggs: NC App. COA08-1585 (2006)** applies acquiescence and adverse possession in tandem to establish title to disputed land. The court concludes that acquiescence defined the limits of the lands claimed by the parties but the transfer of title was the result of a successful adverse possession claim.

It is abundantly clear that acquiescence is not a title doctrine in North Carolina. It may not be applied to create a new boundary line in a location clearly at variance with the location of the record line. However, this is not true in all jurisdictions.

* * * * *

While not accepted in North Carolina, the common scheme doctrine can be particularly troublesome for land surveyors who perform frequent retracements of individual parcels in subdivisions with restrictive covenants. North Carolina courts refer to this concept as the "doctrine of implied equitable servitudes." Regardless of the moniker used, this is a principle that can impose a servitude on a parcel of

land even if the relevant documents in the chain of title for the disputed tract do not create the right by express terms.

Harry v. Crescent Resources: 136 N.C. App. 71; 523 S.E.2d 118 (1999) includes a concise summary of this principle and also notes that North Carolina has not adopted it: *"Under that doctrine, the owners of lots in a subdivision in which most of the lots were conveyed subject to common restrictions, may impose those restrictions against persons whose deeds did not include such restrictions, but who were on notice that such restrictions applied to the lots in the subdivision. We have not adopted the doctrine of implied equitable servitudes in North Carolina..."*

North Carolina professionals who practice in more than one state should be aware that this principle is recognized and applied in many states.

* * * * *

These and other topics will be considered in my upcoming class in Greensboro.

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 became licensed in NC in 1991. He served for 3 years as Chariman of the NCSS Education Committee. He has spent the last several years focusing on boundary disputes. Kris lives in Alexander, NC. His books on Adverse Possession and Riparian Boundaries are now available online at www.2Point.net



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Surveying 2.0: LiDAR for the Masses

by Kris Nixon, PLS

When I am describing what I can do for a potential new client, I'm often asked "What is the accuracy?" Professionally licensed surveyors, as experts in spatial measurements, are uniquely qualified to achieve a dependable and relatable quality result every time. In fact, we bet our livelihood on it every time we get out of bed in the morning.

As a 3D laser scanning service provider with industry experience dating back to the very first generation of commercial laser scanners, I have growing concern about a recent trend. When I talk to some of my clients to find out why we haven't heard from them recently, they say, "Well, we just bought a scanner."

Upon further discussion, I learn that these new users are often utilizing equipment and methodologies that are not the same as the services and product they have a history of buying from us. Many times, they are not surveyors or even experienced in this specialized field.

There is a very clear economic reason why. If the scanner hardware industry only sold to service providers, they would only sell a few hundred units. The market must be bigger to support large investment and expected returns. When you build a market as we have had to do, you must focus on the benefits to make the sales.

The flipside is that when high-quality service providers deliver a consistent and reliable product in a competitive market, our potential clients can manage their risk by knowing they can trust in the process. In turn, they will purchase more services and hardware.

In my professional opinion, demand for reliable as-built models continues to grow on a daily basis. That demand provides an opportunity for vast sales of hardware and software, but only if the typical potential novice user can take it out of the box and be instantly successful. But how will a potential buyer (either of equipment or service) know if he or she is better off to "self-perform" or contract the work?

Potential clients who purchase scanning services now have

options to buy data capture devices that cost less than one day of a professional service team's time and expertise. They are told "Watch the software put it together quickly for you." and "You can use the data in software you already know." It is a compelling argument at first blush. My problem is this: is the drive to eliminate field time through reducing careful survey validation helping or hurting the industry?

"How do you know what the data will be used for after it leaves your office?"

My approach to the market is that buyers are exposed to the least amount of risk when they fully evaluate their options equally on technical, commercial, and cost criteria. One of the ways this has been done in the past is by controlling a market in the public interest where providers are vetted by professional licensing boards, such as for doctors, lawyers, engineers, and surveyors. Although I am not advocating that every type of scanning must be from a licensed professional, there are clearly times when standards of practice need to be applied to preserve the public safety.

3D laser scanning can provide incredible results in an as-built model, but only if rigorous quality practices are observed during collection and modeling. For a hypothetical example, let's say that on an upcoming job, a cloud to cloud work process may nearly eliminate field time (think cost) and any errors would be acceptable since the client just wants a model to help him win work to refit a stadium. Doing it that way meets his timeline, budget, and gives him exactly what he asked for.

But what happens after that client wins the work, in part by showing the owner the amazingly complete and (in his mind) accurate laser survey he had the foresight to have done? What if that data model then gets used in design or structural analysis, even though it was never intended for that purpose? Keep in mind that a good point cloud and a bad point cloud look identical from the outside view. It is only when you have the expertise, specialty software, and experience to slice and section data that you can determine the true quality fit achieved.

"Do you know that it is right - every time?"

In surveying, we have specialties, just like every other profession. It would not be appropriate for me to use a specialized camera from an airplane to provide ground contours, as a photogrammetrist would, although we hold the same type of license by the same board.

But today, I can go buy a UAV with a mounted LiDAR unit and provide a similar result using scanning. I can mount that

continued on pg. 29



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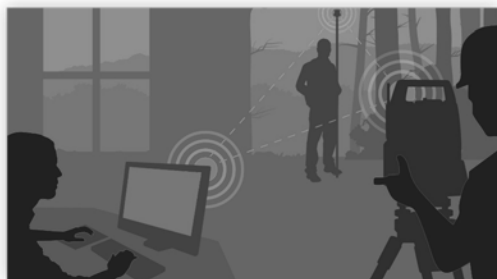
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Thomas C. Morgan

Retires as the Land Records Manager of North Carolina

by Christy Davis, NCSS Executive Director



On July 31, 2016, Thomas C. Morgan retired as the Land Records

Manager of North Carolina. He would probably love to slip away to his new place in Hoffman, NC without fuss, but how can we not take a little time to acknowledge

his contributions to surveyors and GISPs across the state?

Tom was born in Valdese, North Carolina, a small town in the Western Foothills. He graduated from NC State University with a Bachelor of Science in Geology. Out of 12 graduating geologists, only one of them had a job on graduation day. Tom was not that one. As anyone who knows Tom would expect, he decided to methodically pursue direction for his future. He formulated criteria which included the following:

1. He wanted a pathway to a profession.
2. He wanted work that was both physical and intellectual.
3. He wanted to get enough exercise to stay reasonably fit.
4. He would be able to find a job anywhere in the world.

These benchmarks (pun intended) led him to the profession of surveying beginning as a chainman with Fred Davis Consulting Engineers in Raleigh. He pursued the self-educated/experience-based track to licensure, purchasing several college textbooks to read and study along the way. He notes the importance of mentorship as he remembered the help from surveyors like Earl Smith with Smith and Smith in Apex. He was licensed in 1978 while working with Pearson and Whitman Consulting Engineers in Raleigh.

Tom took the position of Land Records Manager with the Secretary of State's (SOS) office in 2008. I asked him what project he was most proud of during his tenure there. Without much hesitation, he responded that the education provided to all related fields is what he is most

proud of. One can know very little about Tom's career and still understand that education became very important to him along his professional pathway. During the interview, he reflected that "surveyors tend to work in an education vacuum unless they search it out. They are often reluctant to talk about what they do or what they know because they are afraid of the appearance of ignorance or giving away a trade secret. The Secretary of State's office can help them move around those obstacles. We cannot be professionals unless we continually grow intellectually." Tom feels that seminars and/or college courses are important to prevent professional surveyors from becoming lumped together with other trades. He feels as though complacency is the biggest threat to the profession today.

This educational philosophy is supported by Tom's lifework within the Land Records Department which was to increase the accuracy of North Carolina's land records. The means to implement this vision was to do informative, affordable workshops with surveyors, GISPs and interested government officials as it relates to their duties to increase that accuracy. Tom followed this thought by answering the question, "Why is the Secretary of State's office an appropriate avenue for that accuracy to be encouraged?" According to Tom, "the mission of SOS's office is to make North Carolina a place where our citizens can convert goods to money and money to goods. Land is the most valuable commodity in the state and without good reliable records then the value of the commodity plummets." Therefore, he feels as though he has helped every citizen of this great state.

Tom's favorite aspect of the profession is puzzling out the old hard boundaries. To Tom, it is like a treasure hunt. "Trying to find data at the courthouse, determining the meaning of a document and tying it to the land to find the monument, is the best part of the job. It is a kick when you finally find a monument that hasn't been seen in 100 years!"



Tom teaching at the NCSS Conference & Trade Show.

I then asked Tom what he would say to a young surveyor just beginning his career. His reply I found very interesting. "Learn the laws and case law that govern our decisions in boundaries." His concern is that there is not enough of this knowledge being shared with surveyors starting upon their journey. He believes that the community colleges are sharing the basics of this information and he feels that equipment and software training are prevalent, but "case law give us the guidance we can rely on as surveyors."

Although Tom's retirement date was July 31, the

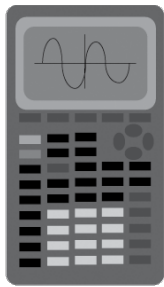


Tom with his wife Susan.

aftermath of his work continues to bring recognition. He will be traveling in November to Toronto, Canada

with Jeff Brown, Program Manager Coordinator for the North Carolina Center for Geographic Information and Analysis (NCCGIA). Tom and Jeff will accept the Urban and Regional Information Systems Association (URISA) award for Exemplary Systems in Government with North Carolina's Seamless Parcel Project. North Carolina is one of four 2016 winners in the category of Distinguished Enterprise Systems.

Tom is enjoying his retirement as he prepares to move onto several acres in Hoffman between Rockingham and Aberdeen. Even as we spoke, the remodeling crews were at his home refinishing the hardwood floors. He is recuperating from knee replacement surgery and feels relieved that his knee no longer hurts like it used to. But don't think you have seen the last of him. His future includes acting as Chair of the Land Records Advisory Committee at the request of Secretary Elaine Marshall. And, of course, I'm sure he will continue to educate surveyors across the state when the opportunities arise. Finally, Tom wanted me to introduce the new Land Records Manager, Rich Elkins. I, like you, look forward to a long and helpful relationship working with Mr. Elkins. Thank you, Tom, for your service to the people of North Carolina. We sincerely hope you enjoy your retirement with your lovely wife, Susan, of 26 years. You will be missed.



PROBLEM CORNER

by John Furmage, PLS

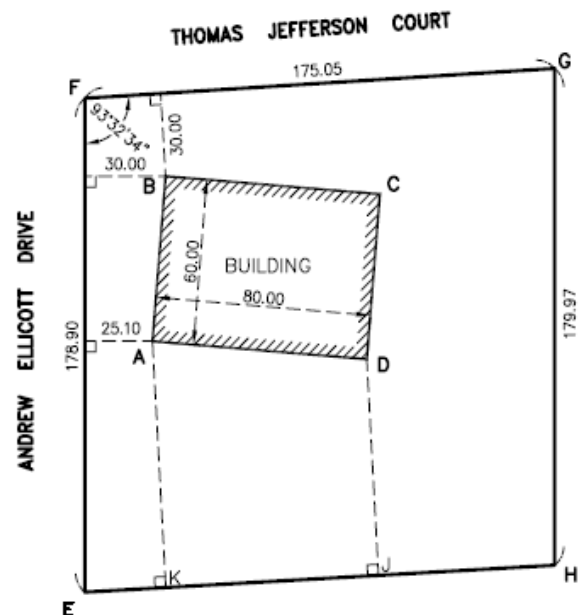
2016 TRIG-STAR PROBLEM LOCAL CONTEST

A surveyor has been asked to stake out a new rectangular shaped building as shown in the drawing below. Points a, b, c and d represent the building corners and points e, f, g and h are property corners. Line ef is parallel with line hg.

Required Answer Format: Distances: Nearest Hundreth

FIND:

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continued from pg. 18

"My mother was a teacher, and a Teacher of the Year for Lee County, and I saw the joy of teaching as well as being a lifelong learner," he says. "My parents understood the value of community college as an economical and excellent way to start a career. It's been a privilege to be a student of Sandhills and also a member of the faculty."

Spitler earned a Master of Geospatial Information Science and Technology degree from North Carolina State University in 2012. "Geomatics technologies, formerly called surveying, is an area that's changing dramatically and I wanted the advanced knowledge in order to fully serve our students," he says. "The use of Unmanned Aerial Systems is on the horizon, so it's an exciting career to enter."

While at Sandhills, Spitler completed the North Carolina Community College Leadership program, chaired the Southern Association of Colleges and Schools (SACS) Physical Resources Committee, served as Faculty Assembly president, served as the Alumni Association president for two terms, proposed the Graduate Circle and the Graduate Walk at Sandhills, served as chair of the SACS Quality Enhancement Plan (QEP) Steering Committee, and serves on the SACS QEP Executive Committee.

Spitler also coordinates FunFest, a day of competitive technology events for Moore County high and middle school students that is held at Sandhills each year. It

is hosted by the Engineering Technology, Computer Technology and Automotive Technology departments.

Spitler was appointed to serve the State of North Carolina on the Geodetic Advisory Committee in 2012 by the Secretary of the North Carolina Department of Environment and Natural Resources. He was also selected to represent the North Carolina Community Colleges on the NC A&T University Geomatics program Advisory Committee in 2012.

The Sandhills Alumni Association also named Spitler The 2015 Notable Alumni. Notable Alumni are recognized for their contributions to their profession, discipline, or community leadership roles; public service; creative endeavors; and other major accomplishments since graduation.

Spitler and his wife have two sons, Carter, age 14, and Nathan, age 11. Spitler is a trustee of St. Luke United Methodist Church in Sanford and a volunteer in many positions in the Boy Scouts of America's Dogwood District, including being Chair of a newly formed STEM Committee.

For more information on the Engineering Technology programs and their transfer opportunities, Professor Spitler can be reached at (910) 695-3797 or spitlere@sandhills.edu. The college website also contains information at engineering.sandhills.edu.

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LiDAR unit to a truck and drive around instead of fly. Where is the line for professional services versus 3D laser scanning?

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Special thanks to Kris for teaching "Standards of Practice in 3D Laser Scanning" at the most recent Otis A. Jones Educational Institute.



Kris Nixon, PLS, is Principal of Meridian 3D, Inc. Mr. Nixon specializes in industrial measurement with a particular focus on laser scanning and dimensional control in heavy industry plant and buildings. Mr. Nixon is a North Carolina PLS, licensed since 2000 with experience in 3D laser scanning since nearly day one of the technology.

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MEMBER PROFILE

Cliff C. Johnson



Current Position

Chief Surveyor at the City of Gastonia and Owner of Johnson & Johnson Surveying in Shelby, NC

Most Recent Purchase

Spectra SP80

First Job

Gaston County Recreation Department the summer of 1982 cutting grass and running the Cherryville Gym.

Favorite Movies

Forrest Gump and O' Brother, Where Art Thou?

Childhood Ambition

At a young age after watching the NASA moon walks, I wanted to be an astronaut.

Favorite Surveying Equipment

Swiss made Wild T1000. "They just don't make 'em like that anymore."

Areas of Service within NCSS

President of the SW Piedmont Chapter and Finance and Executive Committees.

Cliff joined the US Army after graduating from High School in Bessemer City in 1983. He went through basic training and was trained as an Artillery Surveyor at Ft. Sill, Oklahoma. He served as a Staff Sergeant in 3 different batteries, including Korea, Colorado & North Carolina. Cliff was in the North

Carolina National Guard in Charlotte for four years. Ironically, Michael Sprayberry, Director of North Carolina Division of Emergency Management was his Commanding Officer. Sprayberry is now Gary Thompson's boss. What a small world it is.

The methods, measurements and instruments were different in Artillery Surveying. Angles were measured in mils and distance was measured in meters. Military surveyors used the UTM grid system where the easting was first followed by the northing.

Johnson worked and learned the profession from Franklin Tanner at Tanner & McConaughy, Larry Cloninger at Cloninger Surveying & Mapping and Steve Shuler at the City of Gastonia, Engineering Department. Cliff acknowledges the influence these mentors had on his professional development. Frank Tanner once told him that surveying was a job that required self-discipline. No one is standing over you checking your work. It is up to you to take time with your work and check your accuracy. He encouraged Cliff to set his standards higher than the minimum.

Cliff works as the City Survey Chief for the City of Gastonia. He is very proud of the City Engineering staff and the work they do for the residents of that town. And that is not the only thing in his life that he is proud of.



In the field with the R8

"I am most proud of my daughters Sarah (21) and Lila (17). Sarah will be



Daughters Lila & Sarah

graduating this year from Northern Virginia Community College and Lila is a senior at Fairfax High School in Virginia. These lovely intelligent young women are both successful with high grade point averages.

Cliff's work with the SW Piedmont Chapter of the Society shows that he believes that the grass roots activity of Chapters can make a big difference. "I am honored to be a member of the SW Piedmont Chapter. We currently have about 10 active members. We are small in numbers, yet we are one of the strongest chapters in the state. These guys are professionals and I have learned a lot from them. We all appreciate our jobs as surveyors and we all would like to give back to the profession that has given us so much. Our chapter started sponsoring seminars 20 years ago, as the first chapter to partner with the Society, making education a win/win for everyone." The crowds get bigger each year.

"NCSS is the only organization in the state that is fighting for the best interest of the surveyor. NCSS deserves our time, money and support to help improve our profession." Along these lines, Johnson supports a four year degree requirement. "A surveyor with a four year degree is definitely in the public's best interest." If you are interested in becoming a part of the SW Piedmont Chapter of NCSS, please go to our website under the "About Us" tab and look for the meeting dates and locations.

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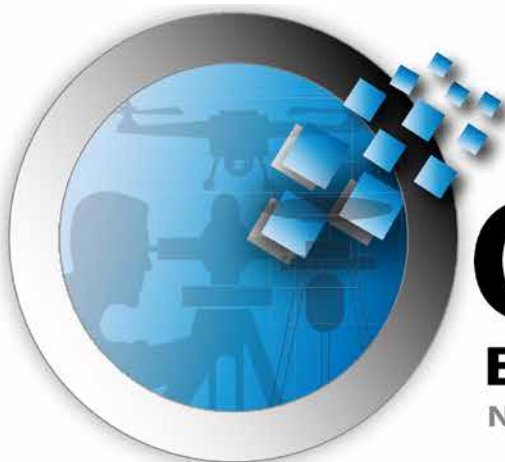


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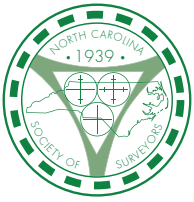
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