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Editor: Gwen Bowers at 402-432-3444
or email: PSAN@nebraskasurveyor.com

FALL 2019

Contents
President’s Letter ...................................................... 4
Upcoming Events ...................................................... 4
The Land Surveyor’s Guide to the Supreme Court of Nebraska—Chapter 51 ............. 5
Photos from 2019 Summer Seminar ................................... 9
Summary of Board Meeting Minutes .................................. 11
A Millennial’s View of Land Surveying .............................. 14
National Trig-Star Winners ........................................... 16
PSAN Sustaining Members ............................................. 16
Washington as a Public Land Surveyor ............................. 17
Sustaining Members Ad Index ......................................... 19

Professional Surveyors Association of Nebraska
The Nebraska Surveyor is the official publication of the Professional Surveyors Association of Nebraska (PSAN). It is published quarterly: Winter, Spring, Summer, and Fall. All issues are published on the PSAN website. Material published is not copyrighted and may be reprinted without written permission as long as credit is given.

Articles and columns appearing in the publication do not necessarily reflect the viewpoint of PSAN, but are published as a service to its members, the general public, and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes, or deletions as to its contents.

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Greetings Everyone.

Fall is here and Winter isn’t far away. I hope everyone is having a prosperous year!

The PSAN Board of Directors recently held our third quarter meeting. One of the items discussed was the upcoming nominations for Officers and Board of Directors. We have three seats opening up for the 2020-2021 term, if you are interested in serving as a Board Member please reach out to any current board member, myself, Boni Edwards (nominations Committee Chair), or send an email to Gwen Bowers at PSAN@nebraskasurveyor.com, and let us know of your interest. Also, nominations for Vice President and Secretary seats are open, if you would like to nominate someone or throw your hat in the ring I would encourage you to do so. Please let us know prior to the next Board Meeting schedule on December 6th.

The Board is also looking for nominations for the Honorary Life Membership and the Head Chainman Awards that get presented at the annual Winter Seminar. This year’s conference will be held in Kearney, Nebraska, January 30-31, 2020. The criteria for the Honorary Life Membership is listed in the PSAN Constitution, which can be found on the PSAN website along with requirements for the Head Chainman award. This is an opportunity for us to recognize the mentors who have shaped us. If you know of someone who you feel meets the requirements, please consider nominating them.

Submit your nomination to Gwen, and she will forward it on to the PSAN Award Committee for consideration.

Sincerely,

Todd Whitfield
PSAN President
The Land Surveyor’s Guide to the Supreme Court of Nebraska

Chapter 51 – Ohm v Clear Creek Drainage District (1950)

Two years after the completion of the Hallowell case, just previously reviewed, properly defining intent was once again the principal focus of the Court, although in an entirely different context, in order to resolve a controversy resulting from the creation of a right-of-way. The law relating to right-of-way and easement issues contains many nuances which differentiate it from boundary and title law in some respects, but right-of-way and boundary issues also contain many similarities, since every right-of-way has boundaries, and one of the numerous fundamental principles that is equally applicable to all conveyances is the controlling value of intent. Many courts have reiterated the ancient maxim that "intent is paramount", as we have noted in reviewing the Kinkead case for example, making evidence of intent always highly relevant, and the ultimate question in a great many cases is simply which form of evidence, among those presented, embodies the controlling intent. The Court’s decision in the Hallowell case, as we have just seen, was based on a landowner's intent, as expressed through his physical use of his land. The area was surveyed and described in the typical manner in that case, but the survey did not control the outcome, it merely represented confirmatory documentation showing the extent of the subject area. In our present case however, land use is not a principal or controlling factor, so as we will observe, the decisive element proves to be the interpretation of the intent expressed in the relevant document, which is a deed in this case. While intent can certainly be derived from many sources, the survey data that comprises a typical metes and bounds legal description is typically not a prime indicator of the intent of the parties to a conveyance, their intent is framed primarily by the language that is either employed or omitted by the parties themselves, rather than technical description elements, such as bearings and distances, which are not under their personal control. The case we are about to review presents a superb example of this, demonstrating that both the value and the coverage provided by a legal description can be either severely limited, by the failure of a grantor to state certain reservations which he may have intended to make, or significantly expanded, by the operation of principles of law, such as the extent of riparian ownership to the center of a body of water in this scenario. Lastly, the presence of a right-of-way here allows us an opportunity to take notice of certain subsequent cases delving more deeply into that branch of the law, which show how the same principles that control the result of this case apply in the context of dedicated and vacated streets.

Prior to 1912 – Peters owned a ranch of unspecified size and shape in Saunders county, which included a substantial amount of land that was bounded on the east by a portion of the Platte River. How or when Peters had acquired his tract is unknown, but his title to it was undisputed, and it apparently included all of the land in Sections 17, 18, 19 and 20 lying west of the river. The west bank of the river evidently ran in a generally southerly direction through part of the east half of Section 18, before angling southeasterly through part of the south half of Section 17 and then continuing on southward through the east half of Section 20, so it formed the east boundary of the Peters property for a distance of at least two miles. The land of Peters was evidently prone to flooding, so once the Clear Creek Drainage District was formed, Peters agreed to allow Clear Creek to construct a dike along the west side of the river, covering the river’s full length through his property, in order to bring the river under control. The land required for this construction project was deeded to Clear Creek by Peters at an unspecified date, and who prepared the legal description of the subject area is unknown.

1912 – Clear Creek constructed an earthen dike, extending an unspecified distance along the west side of the river, covering the entire portion of the bank that passed through the Peters property, and a fence was built at the base of the dike, apparently about 13 feet from the center of the embankment, running along the full length of the west side of the dike.

1913 to 1919 – The dike performed its intended function during this period, restraining the river without incident, and no problems or issues arose.

1920 to 1932 – The dike continued to function properly, and an unknown number of earthen jetties were built at unspecified intervals extending out into the river, in an apparent effort to reclaim the westerly part of the riverbed, while forcing the river to the east, but by the end of this period the dike had nonetheless apparently suffered some degree of erosion.

1933 to 1934 – It was decided that allowing the cattle from the Peters ranch to walk back and forth across the dike and the jetties might help to compact the material that had been placed along the river for reclamation purposes, so several holes were cut in the fence running along the base of the dike, to allow the cattle to trample the fill material in the process of coming and going from the water.

(Continued on page 6)
1935 – Peters sold his ranch to the Ohm brothers, who continued to utilize the land just as Peters always had. Whether or not Peters told the Ohm brothers anything about the history of the dike or the ongoing reclamation project is unknown.

1936 to 1940 – The jetties were repeatedly extended by dumping additional fill material, gradually reaching farther and farther out into the river, and at the end of this period, an additional operation was conducted, in which a boat fitted with a pump sprayed sand from the riverbed onto the area secured by the jetties, converting it into a substantial beach, extending eastward from the dike.

1941 to 1947 – The jetties were extended still further to the east, and by the end of this period the west edge of the river was about 700 feet east of the dike. A cabin was built by an unspecified party on the land that had been created by Clear Creek, lying east of the dike, at an unspecified location adjacent to the Ohm ranch, and the occupant of the cabin paid rent to the Ohms, who believed that they owned all of the land in their sections, extending eastward past the dike to the river. At the end of this period, while reviewing county land records, the Ohms learned that Clear Creek held an interest in the strip of land occupied by the dike.

1948 – The Ohms evidently believed that the deed to Clear Creek, which had facilitated the construction of the dike, had created only an easement crossing their property, and their fee ownership still extended all the way to the relocated river. The Ohms apparently contacted Clear Creek however, whereby they discovered that Clear Creek claimed to own the land occupied by the dike in fee, and Clear Creek also claimed to own all of the land lying between the dike and the river. Clear Creek evidently then informed the Ohms that it held the right to rebuild the fence along the dike and exclude the Ohms and their cattle from all use of the dike and the other land east of the fence, so the Ohms filed an action against Clear Creek, seeking to quiet title to all of the land within their sections lying west of the relocated river.

The Ohms initially argued that the conveyance from Peters to Clear Creek represented only an easement, so they had acquired fee title to all of the land in dispute from Peters, they eventually dropped their easement argument however, and argued instead that they had acquired the dike area and the area lying east of it by means of adverse possession. The Ohms also argued that even if the deed from Peters to Clear Creek was a fee conveyance, it conveyed only the small strip of land upon which the dike had been built, and it included no land east of the original dike location. In addition, the Ohms asserted that since the water no longer reached the dike location, it had been legally abandoned and it no longer served its intended purpose, therefore the land that Peters had deeded to Clear Creek for diking purposes had reverted to Peters, once the river was relocated, and the strip containing the dike had then been conveyed to the Ohms by Peters, after being reunited with the Peters ranch through reversion. Clear Creek argued that the deed from Peters to Clear Creek conveyed the land needed for the dike to Clear Creek in fee, and the title thus conveyed was not limited to the location upon which the dike was built, it extended eastward to the center of the river. Clear Creek further argued that all of the land which had been reclaimed from the river by the work of Clear Creek belonged to Clear Creek, and it was really just an expansion of the dike, so the dike was still in use, and reversion was therefore inapplicable to the situation. In addition, Clear Creek argued that adverse possession was inapplicable to the situation, since Clear Creek had agreed to allow the holes to be cut in the fence, to allow the cattle from the ranch to enter the contested area east of the fence, so all of the use of that area by Peters, or by the Ohms and their tenant, was genuinely permissive land use, which was not adverse in character. The trial court agreed with the Ohms, that Clear Creek had acquired only the narrow dike strip described in the Clear Creek deed, and the dike was no longer in use, so it had reverted to the ownership of Peters and it had been sold to the Ohms, quieting title in them as they had requested.

The adverse possession claim made by the Ohms was not a serious factor and was dismissed by the Court, agreeing with Clear Creek that it had always maintained both jurisdiction and active control over the land at issue, so it was clearly impossible for the Ohms to prevail on that issue. In addition, there was no controversy between the litigants over whether or not the sand that had been piled up east of the dike was genuine accretion or not, as both parties considered it to be accretion, so the Court engaged in no discussion regarding any possible ramifications of the artificial manner in which the vast beach had been created, and the area in contention was treated by the Court just as if it had formed naturally. Whether or not Peters understood that he had deeded away a strip of land along his east boundary, cutting his own land off from access to the river in that area, is unknown, he may have had river access in some other area, or he simply may not have realized the full legal implications of his deed. Since the Ohms misunderstood the rights of Clear Creek however, when they acquired their ranch, and they failed to inquire about the situation at that time, they were now stuck with the legal consequences of the deed that had been executed by Peters to Clear Creek. Since the deed was agreed to be a fee conveyance, the only two remaining issues were how much land Clear Creek had acquired by virtue of the deed, and whether or not Clear Creek had lost the land that it had thereby acquired to reversion, resulting
from disuse of the contested area. Regarding the reversion issue, after confirming that a right-of-way can be conveyed in fee and defining the difference between a conditional fee and a determinable fee, the Court distinguished the fee acquired by Clear Creek as conditional in nature. This required the Ohms to prove that the dike was truly no longer in use, which they were unable to do, making it impossible for them to prevail on the matter of reversion, thereby reducing the contest to a battle over how much land had actually been conveyed to Clear Creek under the legal description which appeared in the Clear Creek deed. Numerical data, such as measurements and dimensions, the Court recognized, does not represent a controlling source of intent, because it is not a direct expression of the intent of the parties, having been created on their behalf by others such as surveyors, who as professionals are presumed to understand that their work is subject to interpretation under the relevant legal principles pertaining to conveyances. Mindful that Peters had neglected to insist upon the inclusion of any reservation relating to his riparian rights in his deed to Clear Creek, the Court decided that intent on the part of Peters to preserve the riparian nature of his tract was absent. The dispositive issue was therefore the question of whether or not the riparian rights of Peters had been acquired by Clear Creek, thus in outlining the controlling principles, the Court set forth the relevant legal description, in order to illustrate that the specific calls of the deed, running to and along the bank, were not restrictive elements, on the contrary, they operated to enhance the conveyance:

“The foundation of the claim of appellant ... is the warranty deed to it from Peters ... it contains the condition that the real estate conveyed is to be used for ditching, diking and drainage purposes, and if abandoned or not used for that purpose to revert ... the position of appellees was ... that the deed ... created a fee simple determinable. This contention is without foundation ... fee simple determinable ... provides the estate shall automatically expire ... a condition subsequent is created by any limitation which provides that ... some person has the power to terminate ... such an estate does not end automatically ... the deed to the district created and conveyed to it an estate in fee, subject to a condition subsequent ... the description ... is by metes and bounds ... thence east on said line to the west bank of the Platte River, thence northwesterly along the west bank of said Platte River ... being a strip of land along the west bank of said Platte River, thirteen feet west and parallel to the center line of the top of the levee or embankment, and east from the center line of the top of said levee or embankment to the west bank of the Platte River ... appellees contend ... that the deed did not convey to the center of the stream ... and conveyed no part of the bed of the river ... the grant extends to the center of the stream ... an owner of land on the shore ... owns to the thread of the stream ... the district purchased ... the west bank of the Platte River, from 13 feet west of and parallel to the center line of the top of the dike as located ... jetties were constructed .... as land was formed by them, they were covered up ... the area deeded to the district was fenced ... appellees ... knew the district had maintained and repaired the dike and jetties ... the evidence does not show ... adverse possession.”

By operation of law, the Court concluded, any deed describing land constituting the bank of a river carries title to the central thread of the stream, despite the presence of metes and bounds calls running along the bank, because such descriptive calls do not manifest a clear intention to prevent the title from embracing the submerged portion of the property, so the Court reversed the lower court ruling, and quieted title in Clear Creek to all of the formerly submerged land east of the fence. Although the Peters ranch had originally been a riparian tract, the fence now marked the fee boundary between the Ohm property and the Clear Creek property, thus the property acquired by the Ohms was no longer riparian, and the Ohms had no right to make any use of any land east of the fence, for access to the water or for any other purpose, for at least the past 4 decades, only the Clear Creek property had been riparian in character. The same centerline boundary principle, carrying title and ownership beyond their nominally described limits, which was so well illustrated in the Ohm case, was again a very important factor in a different context just a decade later, controlling the outcome of Dell v City of Lincoln (1959 & 1960) a case which established a noteworthy precedent relating to the impact of dedication and vacation upon boundaries of land platted along with city streets. Dell was the owner of a typical platted lot situated on 69th Street in Lincoln, and in 1956 Lincoln vacated the portion of that street upon which Dell resided. Lincoln then proposed to sell the vacated public right-of-way, thereby asserting that it was public property, owned in fee by the city, but Dell protested that the vacation had the legal effect of uniting his portion of that right-of-way with the rest of his lot, and he filed an action to have Lincoln judicially compelled to acknowledge his ownership of the contested area. The trial court rejected Dell's proposition, but the Court decided that he was right, and reversed the lower court ruling, quieting Dell’s title to his portion of the platted public street, thereby confirming that the centerline of the street, and not the right-of-way line, was the true boundary of Dell’s lot. The principle upon which the Court based this decision was the same one that the Court had referenced in the Ohm case, reminding those representing the city that there are different types of fee ownership, and not all fee titles are absolute in nature. In this instance, the Court ruled that Lincoln held only a determinable fee title to the street at issue, although it had been dedicated in fee, by means of a legitimate plat, so the act of vacation had cost the city it’s ownership of the

(Continued on page 8)
street, which had automatically and immediately reverted to Dell, at the moment when it was vacated, thus extending his lot boundary to the centerline of the former right-of-way. In legal effect, the Court had wisely reduced the status of the fee ownership of such streets held by cities to the status of a mere easement, which of course simply ceases to exist upon being vacated, thus preventing local officials from using vacation as a tool with which to generate unauthorized revenue at the expense of individual land owners. However, in the case of Valasek v Bernardy (1993) the Court clarified that all city streets and alleys dedicated by plat are presumed to be dedicated in fee simple, so the city can retain ownership of a right-of-way following the vacation thereof, unless the fee title held by the city represents only a determinable fee under a statute mandating reversion, such as the one which was applicable in the Dell case.

This article represents a portion of a book written in 2013 for professional land surveyors, the complete book is available from the Nebraska State Historical Society Library or free of charge upon request directly from the author (bportwood@mindspring.com).

Don’t forget to check out the PSAN website!
nebraskasurveyor.com

We would LOVE if you’d submit pictures from the field or articles to add to the website, etc. The goal is to keep the website updated with information that’s important to you!

The website is another location for announcements and important information.

We’re still connecting all the links and will continuing to add more content.

Send website content to: Administrative Secretary
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Photos from the 2019 Summer Seminar
Hosted by LaVern Schroeder and Steven Rames
PHOTO CONTEST

5th Annual

Send in your best land-surveying related photo and you could have it on the front cover of the Winter 2020 The Nebraska Surveyor issue!

Guidelines:
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- Must include your name & a short description of the photo
- Must be taken in Nebraska
- Must be a PSAN Member to be eligible

Prize:
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- 2nd & 3rd Place winners will have their photos appear inside of the Winter 2020 newsletter

Deadline: November 30, 2019

Send to: Editor Gwen Bowers at PSAN@nebraskasurveyor.com

PSAN reserves the right to print all photos entered in The Nebraska Surveyor and/or post on the PSAN website, with appropriate credit.

All 3 top place winners will have their photos displayed at the PSAN Winter Conference. The photos will be sold at the auction to raise money for the Historical Fund.

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The PSAN Board of Directors Meeting on September 13, 2019, was held at 10:00am at Kinkaider Brewery in Grand Island, Nebraska. The roll call was as follows: President Todd Whitfield (present), President-Elect Jeremy Feusner (present), Treasurer John Berry (present), Administrative Secretary Gwen Bowers (present), Director Jerry Penry, Director Matt Tinkham (present), Director Bonita Edwards (present), Director Brian Foral (present), Director Eric Schaben (present), Director Jay Dubs (present), SENLSA Affiliate Denny Whitfield (present).

Minutes from the June 7, 2019 meeting were amended and approved. The Board approved the Treasurer’s report dated August 31, 2019. The Conference Committee discussed earned PDHs for the 2019 Summer Seminar. President Todd Whitfield made a report. The following standing committees reported: Education, Historical, Legislation, Nominations and Membership, and Ethics and Standards. Old business consisted of discussing RFPs from the additional communities for future Winter Seminars. The 2020 budget, scholarships, and nominations were discussed under new business.

The next Board Meeting is scheduled for December 6, 2019.
NSPS ANNOUNCEMENT

The NSPS Young Surveyor’s Network is proud to present our new website, www.youngsurveyors.org. We worked with myheartcreative, an Oklahoma web design company with a history of working with surveyors, to develop a site that will give our current and prospective members all the information they need to stay connected. The new site will also allow individual state representatives to control their content and post events.

The definition of a Young Surveyor is someone under the age of 35 or who earned their Degree within the past ten years. All surveyors, regardless of licensure, however, are welcome to join, but the focus will remain on supporting those new to the industry.

We would like to ask anyone who would like to join or may have joined in the past to join on the new site as we are rebuilding our membership list using an easier to manage system. This should allow for better organization and quicker mobilization on those issues important to us.

NSPS YSN President
Denver Winchester, PS
Please be sure to complete the form in its entirety and use only one form for each person.
Make your dues check payable to: Professional Surveyors Association of Nebraska and

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Gwen Bowers, Administrative Secretary
Professional Surveyors Association of Nebraska
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Please help and volunteer to better serve your organization!

I would be interested in serving as a PSAN officer. Yes No
I would be interested in serving as a PSAN board member. Yes No
I would be interested in serving on a committee for PSAN. Yes No

PLEASE BE SURE YOUR DUES ARE PAID BEFORE October 31, 2019
A Millennial’s View of Land Surveying
Introduction by Field Notes editor, Scott Martin

Thank you, Anthony, for stating what we all need to hear. From mentoring, to degree requirements, to continuing education, to understanding the fundamental principles of technology, you hit all the major elements of what is needed—or not needed—to “save” our noble profession.

We, being licensed professionals, NCEES, NSPS, state associations, state boards, and members of academia, all need to heed the thoughts and opinions of our young surveyors if we are to see our profession sustained. Better yet, enhanced. If we are to invest our time and experience, as Anthony so correctly asks us to do, we need to use the road map they provide us to do so. Where do they want our profession to go? What do they see as negatives preventing or deterring them from getting there?

If we don’t listen to the future members of our profession to help us with the present and near future, they may not have a future as surveyors, or not one worth pursuing. I don’t know about all of you, but I plan to do whatever I can to keep that from happening. Will it impact my career if surveying goes away in a decade or two? Not at all, but that is not an acceptable reason to not invest in it.

Our mentors, leaders, and business owners invested in us. There has never been a bigger need for us to “pay it forward” than there is right now.

“Dying Profession”: This term is mentioned quite a bit when discussing the land surveying profession these days. Many believe that, with the continuing advancement of technologies related to data collection, construction staking, and GIS mapping, there will soon be almost no need for the professional surveyor.

If that isn’t a major deterrent for someone who may just be getting involved in the profession, then I don’t know what is. Do I think that drones and scanners are going to wipe surveyors off the map (pun intended)? Absolutely not.

However, if we don’t stop sabotaging ourselves the way that we have been in recent years, I honestly believe it could happen somewhere down the road. It is up to us, the land surveying community, to do whatever we can to keep this great profession alive and thriving.

MENTORS ARE NEEDED
We are allowing time, money, technology, and workload to dictate how we train the newer generations of surveyors.

It used to be that a novice surveyor worked alongside the same party chief for about four years or so before he or she possessed the knowledge and skills to become a party chief themselves. That is at least four years of daily field calculations, boundary evidence gathering, stakeouts, topo surveys, and, most importantly, questions. These days, many surveying and engineering firms are teaching their field surveyors just enough so that they can take their data collector to the field and throw stakes in the ground.

This generation of surveyors is missing a gigantic piece of what was once the professional standard, the one-on-one mentorship and guidance with someone who knows much more than they do. It is your responsibility as a professional land surveyor to make time to teach your subordinates in a similar manner in which you were taught as a junior surveyor.

Every PLS should make it a personal goal to help develop truly skilled professionals and not just someone who knows how to operate a data collector. Sit down with them, review plats, discuss what should be done when they are unable to find monumentation in particular situations, explain how mistakes can be prevented by taking check shots or making sure a tie in point elevation matches the plan set, etc.

Depending upon what type of company you work for, you may have to do some of this on your own time, and I fully understand that sometimes it just isn’t ideal for you, or for the junior surveyor, but it is our responsibility to make the profession as good as it can be. To me, that means that we are responsible for training our people appropriately.

EDUCATIONAL REQUIREMENTS
These are a major deterrent for many young surveyors. Simply put, someone who does not...
The above-described individuals are not the only ones whom we as a community have now steered away from the profession. Even men and women who plan to attend college now have a serious decision to make about their education and futures. It is no secret that on average civil engineers make more money than surveyors, and when these people are deciding what they want to go to school for, what professional track do you think they are going to choose when the cost of a four-year degree is the same and the field of study is within the same industry?

I understand wanting to make the profession as good as it can be and filling it with educated minds. However, the truth is that we have created a burden for potentially great surveyors, and I don’t doubt that we have lost the interest of many who would have turned out just fine.

**STAYING UP TO DATE**

Continuing Education Units requirements (CEUs) are one of the best ways that we can ensure that fellow professionals are staying up to date with technology advancements, changes to state laws or national standards, and generally important information related to the profession. This requirement is enforced by state law and typically regulated by the state’s governing surveying board (board titles vary state to state) and is put in place so that licensed professionals are required to attend a certain amount of continuing education courses in order to renew their professional license.

This means that every single licensed land surveyor is required to learn or refresh their knowledge within a multitude of different topics related to the profession, within a particular timeline set forth by said board. While most states that do currently require CEUs have instituted an annual or biannual licensure renewal timeline, I would like to see some states adopting a three- to five-year timeline instead.

I feel that requiring CEU submittals for licensure renewals on a biannual (or less) basis creates more problems for the professionals than it resolves. (Aside from possible counterproductive timeline requirements, I do feel that CEU requirements will provide a professional surveyor an excuse to take a course on a subject that he or she doesn’t fully grasp or that they otherwise may not ever familiarize themselves with.)

I think there are quite a few surveyors out there operating in this highly complex equipment without having nearly a firm enough understanding of how it truly works. If you believe that you have a firm understanding of GNSS equipment, quiz your field crews and see that they share your understanding.

It is just as, if not more, important that they comprehend what they are doing in the field with this equipment as it is that you do. With CEUs as a requirement, the professional is almost guaranteed to improve their comprehensive knowledge and understanding without the heavy burden of affording a college degree.

You may know a lot. You may even know everything, but if your field crews are not taken care of and are not being groomed as if to—maybe one day—have your position in the company, then their work will either inevitably be flawed, or you will never see them grow to their full potential. In today’s surveying world, having a knowledgeable and skilled party chief is just as important as having an excellent professional surveyor.

It is your license on the line. Your party chief may know how to locate the rebar with the shiny new cap in the ground but may have had no idea that the 80-year-old fence line 10 feet away could have mattered as well. The next generation of licensed surveyor’s skills, competencies, and professionalism are heavily dependent upon the values, work ethic, and follow-through that you instill into them as being the standards for our profession. It is imperative that we do not let deadlines and money pull us astray from the overall greater good of our work.

**ARTICLE BY ANTHONY WHITLOCK**

Anthony is a land base services senior at Colorado Springs Utilities. He has more than 10 years of land surveying experience.
The National Society of Professional Surveyors (NSPS) is pleased to announce the recipients of the 2019 Richard E. Lomax National Trig-Star Awards. The Trig-Star committee met on July 12-13, 2019 to determine the three top high school students from the national examinations submitted by state winners. This year there were thirty-six state winners submitted. A past president of NSPS, Richard Lomax was the driving force behind the elevation of the local Trig-Star program to the national level. In October 1994, Board action named this high school trigonometry skill award in his honor.

The Richard E. Lomax National Trig-Star Awards are as follows:
- First Place: $2,000 Qingfeng Li, Laramie High School, Laramie, Wyoming
- Second Place: $1,000 Austin Mazenko, Cherry Creek High School, Greenwood Village, Colorado
- Third Place: $500 Henry Hein, Scholars Academy, Myrtle Beach, South Carolina

The Richard E. Lomax National Teaching Excellence Awards are as follows:
- $1,000: Paul Street, Laramie High School, Laramie, Wyoming
- $500: Jim Padavic, Cherry Creek High School, Greenwood Village, Colorado
- $250: Jennifer Zhang, Scholars Academy, Myrtle Beach, South Carolina

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Washington as a Public Land Surveyor
Washington created surveys and maps from his boyhood through the French and Indian Wars

Boyhood and Beginnings

George Washington was born February 22, 1732, to Augustine and Mary Ball Washington at Popes Creek Plantation in Westmoreland County, Virginia. When his father died in 1743, eleven-year-old George inherited the small Ferry Farm on the Rappahannock River where he was then living with his mother and siblings, while his older half brother Lawrence Washington inherited the larger farm at the junction of the Little Hunting Creek and Potomac Rivers that he renamed Mount Vernon. As he grew to maturity, young George had little use for the meager prospects at the Ferry Farm plantation. After flirting briefly with the idea of a career in the Royal Navy, he began studying geometry and surveying, using a set of surveyor’s instruments from the storehouse at Ferry Farm.

Among the earliest maps attributed to Washington are sample surveys included in Washington’s so-called “School Boy Copy Books,” housed in the George Washington Papers in the Manuscript Division of the Library of Congress. The schoolbook includes lessons in geometry and several practice land surveys Washington prepared at the age of sixteen. These include a survey of the turnip garden belonging to Lawrence Washington, on whose Mount Vernon estate he had been spending increasing amounts of time. Early in 1748, with as few as three practice surveys under his belt, George Washington accompanied George William Fairfax and James Genn, Surveyor of Prince William County, on a month-long trip west across the Blue Ridge Mountains to survey land for Thomas, Lord Fairfax, 6th Baron Cameron. Although the surveys were actually performed by the more experienced members of the party, the trip was Washington’s formal initiation into the field and led him to pursue surveying as a profession. The trip also marked the beginning of a lifelong relationship between Washington and the powerful and influential Fairfax family that gave the young surveyor access to the upper echelons of Virginia society.

The Fairfax Connection

In the Northern Neck of Virginia, the extensive region between the Rappahannock and Potomac Rivers, land matters were governed by the Proprietor, Lord Fairfax, and his Virginia representative and first cousin, William Fairfax, through the Northern Neck Proprietary Office. In 1649 King Charles II of England had deeded five million acres lying between the rivers to a group of loyal supporters, including the Fairfax family. Through death and marriage the land was consolidated under one man, Thomas, Lord Fairfax, who established his seat at Belvoir, approximately four miles upstream from Mount Vernon. Later, he moved west of the Blue Ridge Mountains to Greenway Court in Frederick (now Clarke) County, Virginia.4

Prospective settlers in the Northern Neck were required to obtain a survey warrant from the Northern Neck Proprietary Office for a set amount of acreage in a specific location. The survey warrant, issued directly from the Northern Neck Land Office to the county surveyor, instructed the surveyor to make a “just and true” survey of the land, thereby officially determining and limiting its boundaries. Because they were responsible for laying out the land claims, surveyors had a unique role in Virginia society. Their appointments guaranteed a certain social prominence, since nearly all parties interested in gaining title to an area of land were required to deal with the surveyor. Surveyors were also among the best-educated Virginians and were often in the best position to purchase land for themselves. It was not unusual for surveyors to acquire large estates from the many opportunities they had to patent land in their own names. Additionally, their intimate knowledge of the land and official capacity as representatives of large land holders such as the Fairfaxes made their participation politically and practically essential to large land companies such as the Loyal Land Company of Virginia, the Ohio Company, and the Mississippi Land Company.5

In July 1749, at seventeen years of age and largely through the Fairfax influence that he had cultivated, Washington secured an appointment as county surveyor for the newly created frontier county of Culpeper, where he served until November 1750. He then continued to work in the Northern Neck with the permission of the Fairfax family from November 1750 to November 1752.6 During his three years on the frontier he established a reputation for fairness, honesty, and dependability, while earning a very decent living. Philander

(Continued on page 18)
Chase, the current editor of the Washington Papers at the University of Virginia, writes that frontier surveyors "could earn an annual cash income that was exceeded only by the colony's finest trial lawyers." From the records documenting the 199 professional surveys attributed to Washington it is clear that he did not confine himself to Culpeper County, even while he served as its official surveyor. Rather, Washington did the majority of his surveying in Frederick and Hampshire Counties, the westernmost counties of the Northern Neck. Partly because of his close relationship with the Fairfax family, he may have had a distinct advantage over other Northern Neck surveyors.

**Culpeper, the Frontier, and Alexandria**

Of the 199 surveys credited to Washington, fewer than seventy-five are extant today. All display a finished, stylized, and symmetrical appearance. The Geography and Map Division of the Library of Congress has several examples of Washington surveys, including a November 17, 1750, survey plat for John Lindsey of 460 acres along the Great Cacapon River, on which Washington used the initials "S.C.C.," Surveyor of Culpeper County, to denote his official role. This is one of the last survey plats Washington prepared in his capacity as county surveyor.

In addition to the public surveys he made on the western frontiers of the Northern Neck, Washington prepared two remarkable maps of the area that became the city of Alexandria, Virginia, on the Potomac River. The earliest is the *Plat of the Land whereon now Stands the Town of Alexandria*, drawn in 1748. As the title suggests, this map is a simple outline of the future town, with the land area annotated as "Area 51 acres, 3 Roods, 31 Perch." The site map shows the location of existing structures such as a tobacco-inspection warehouse and includes notes on the land within the proposed town limits indicating its suitability for use. The map also provides soundings and shoal locations in the river, information vital to the operation of any port city. The absence of a street grid suggests that the map may have been drawn sometime between March 1748 and July 1749, when the town of Alexandria was formally incorporated.

The second map, entitled *Plan of Alexandria, Now Belhaven*, includes a street grid but, as the title suggests, may have been made just before the town's incorporation, when it was still known by its earlier name of Belhaven. This map may have been used for the sale of lots, which took place on July 14 and 15, 1749. It lists the name of the holder of each lot, its location, and the price paid for it. The names of Washington's older half brothers, Lawrence and Augustine, of William Fairfax, and of George William Fairfax appear on the list.

Based on these maps, some have erroneously concluded that Washington personally designed or was at least heavily involved in the city's formation. While both maps are clearly in Washington's hand, no documentary evidence supports this claim. As he had with the maps he prepared during his first surveying trip, Washington probably derived or copied these from originals drawn by someone else—in this case John West Jr., Deputy Surveyor of Fairfax County, who is generally credited with the actual surveys.  

**The French and Indian War**

Washington's decisive involvement in the French and Indian War, in which he served as lieutenant colonel of the newly formed Virginia Regiment, was due in part to the backcountry knowledge and map-making skills he had gained from surveying. In 1753, one year before Lieutenant Governor Dinwiddie called for additional troops under Washington's command to defend Virginia's Ohio Valley frontier, Washington was chosen to deliver an ultimatum to the French at Fort Le Boeuf (site of present-day...
(Continued from page 18)

Waterford, Pennsylvania), insisting that they withdraw from the valley. When his report of this venture, The Journal of Major George Washington, was printed in Williamsburg and then reprinted in London, it catapulted him onto the world stage.

Although an engraved map was issued with the London edition of his journal, Washington prepared a sketch map of his journey to accompany the original publication. There are three known manuscript versions of this historically important map, two housed in the British Public Record Office and one in a private collection. Although older published maps were available to British colonial interests, this sketch map alone represents the state of geographical knowledge at the outbreak of the war. Together with Washington's report, the map dramatically illustrates the French threat in the Ohio Valley. It also contains one of the first references to the construction of a strategic fort at the junction of the Monongahela and Allegheny Rivers, the site of present-day Pittsburgh. Washington's role in beginning the French and Indian War seems to have been inescapable. He not only volunteered to deliver the message to the French authorities but produced a propaganda map highlighting the French threat and ambushed a French detachment in the war's first skirmish in 1754.

EDWARD REDMOND
Senior Reference Librarian
Geography and Map Division
Library of Congress
Washington, DC

Endnotes


6. Hughes, 93.


8. Ibid, 160.; Redmond, p. 18


10. The map that appeared in the London edition of Washington's journal was Thomas Jefferys's 1754 Map of the Western Parts of the Colony of Virginia. This map is apparently an enlarged version of an earlier map engraved by John Gibson with the same title (Geography and Map Division call number G3880 1754 .M Vault) that was published in the London Magazine, June 1754. For a reproduction of Jefferys's map as well as other maps relating to the French and Indian War, see Seymour I. Schwartz, The French and Indian War,1754-1763: The Imperial Struggle for North America (New York: Simon & Schuster, 1994).

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