#### Spring 2021

# THE NEBRASKA Surveyor



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Theodolite Surveyor's Transit Patent Print

Published June 6, 1939



#### 2021 PSAN Officers

Jeremy Feusner, President (2020-2021) Matt Tinkham, President-Elect (2021) David Forsythe, Secretary (2020-2021) John Berry, Treasurer (2021-2022)

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Size of Ad	Sustaining	Reg. Rate
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Full Page	\$100	\$150
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#### Conventions.

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- All ads must be professional in nature.
- PSAN reserves the right to reject any advertisement of whatever nature, without cause.
- Published quarterly Winter, Spring, Summer, Fall.

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





#### SPRING 2021

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#### **Professional Surveyors Association of Nebraska**

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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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## *The Nebraska Surveyor* deadlines to submit content for publication:

Winter:	February 15
Spring:	May 15
Summer:	August 15
Fall:	November 15

## President's Letter

#### May 25, 2021

Summer is nearly here! As the State of Nebraska and local communities continue to lift pandemic restrictions, I am thankful that our Board decided to postpone our PSAN Winter Conference to July 22 & 23, 2021. Our summer conferences are generally significantly less attended than our winter conferences, but we are hoping that our members take time from their busy schedules to attend. I think we will have a good range of topics presented by several high-quality professionals.

I know that many of our surveying companies only send their licensed land surveyors or SIT's to the conferences. Some view the conferences as merely a requirement to obtain professional development hours (PDH's), and not so much as an opportunity to learn and grow as land surveyors. I'd pose this rhetorical question though... How do you expect your field surveyors and CAD technicians to grow professionally when they aren't encouraged or allowed to also learn at these types of conferences? Like a plant, you will only grow what you water.

Consider what impact these conferences might have on one of your surveyors. They might learn something. They might get a huge morale boost. They might even make new friends. I think you might be surprised what the dividends pay on an investment in education and learning.

Sincerely,

nemy D. Flusner

Jeremy D. Feusner PSAN President





## Summary of March 26, 2021 Board Meeting

Subject to approval by the Board of Directors

The PSAN Board of Directors Meeting on March 26, 2021, at Chances 'R Restaurant at 10:05AM CT.	He has been working with a new scanner, scanning large books (18 x 24), that scans the open book flat, witho warping the image: it crops and turns the image etc.	
The roll call was as follows:	Sherlock also reported that the article regarding patent plats	
President, Jeremy Feusner – Present	received a very positive response and made a bigger impact	
President-Elect, Matt Tinkham — Present	than anticipated.	
Treasurer, John Berry — Present		
Secretary, David Forsythe — Present	SENSLA representative, Dennis Whitfield submitted a written	
Administrative Secretary, Gwen Bowers — Present	report. SENSLA held its first seminar of the year on March 20,	
Directors	2021. They had two speakers who presented on GIS about	
Jay Dubs — Present	setup and usage. SENLSA plans on holding three more	
Brian Foral — Present	seminars this year.	
Warren Headlee — Present		
Grant Miller — Present	Standing Committees	
Jerry Penry — Present	Historical: Jerry Penry noted that due to COVID, not much is	
Eric Schaben — Present	going on out there. The US Forest Service in Spearfish, SD	
Casey Sherlock, State Surveyor — Present	reached out to him regarding some monuments that are	
Dennis Whitfield, SENLSA Affiliate — Absent	related to mining.	
Guests:	CIS: Matt Tinkham, reported that CIS is planning on having a	
Rex Heiden — Present	symposium in October and that he is trying to get a surveying	
Minutes from the December 4, 2020 meeting were read and	breakout session included. There will be a presentation on	
approved.	the conversion to the international foot.	
	It was also noted that there is conversation about having	
The Board approved the Treasurer's report dated March 24,	someone come speak to PSAN about the Nebraska map as a	
2021.	possible break out session at an upcoming conference.	
	The next GIS meeting is April 28, 2021.	
Conference Committee	Publications, Curan Devremented the Minter Neuroletter had	
Dan Martinez submitted a written report stating the hope to	hoon nublished She continues to ask membership for	
have the 2021 Summer Conference in July, in Kearney, as	articles content photos etc.	
"normal" conference; including a keynote speaker, break	articles, content, photos, etc.	
outs, workshops, etc.	Ethics and Standards: Joromy Fousner made a presentation to	
	the Nebraska Board of Examiners regarding the process DSAN	
Officer reports were given.	took to update the Minimum Standards, showing due	
	diligence. Jerry Penry thanked all who were on the	
Director Reports	committee, it required much more time than anyone	
Director Jerry Penry made a report regarding a case in North	anticipated, but all involved wanted to get it right. Casey	
Carolina where the local Board of Examiners are trying to	Sherlock added that the Board of Examiners is starting the	
shut down a drone operator who is making maps, but is not a	process to incorporate the Minimum Standards into the Rules	
licensed land surveyor. This drone operator is fighting the	and Regs, hopefully by July 2022. The board plans to have a	
case. Casey Sherlock added that in Nebraska, our Board of	Session on the Revised Minimum Standards at the 2022	
Examiners has not legal authority to pursue someone who is	After additional discussion regarding the Minimum Standards	
doing unlicensed land surveying, only the option to report it;	undate a motion was made and passed to request the	
most other states have the authority to take legal action.	Nebraska Board of Examiners to look into requiring a 2-hour	
state surveyor, casey sheriock reported that he has been	hiennium course on the Minimum Standards for license	
informed that other state society members are having issues	renewal I Feusner will reach out to the Roard of Evaminers	
with receiving scamming emails; a reminder to everyone to	renewal. 3. reasher win reach out to the board of Examiners.	
be watchiul.	(Continued on page 6)	
	(continued on page of	

## Summary of March 26, 2021 Board Meeting (con't)

#### (Continued from page 5)

Constitution & Bylaws: David Forsythe is reviewing the PSAN Constitution and Bylaws and will send any comments to the committee for review. Any comments that need discussion will be brought to the next Board of Directors meeting.

Public Relations: Eric Schaben submitted a written reports encouraging members to tag PSAN's social media handles when publishing work site photos.

Associate: Brian Foral has reached out to Dan Martinez for ideas on ways to reach out to younger members. There is still uncertainty about who this committee is supposed to target.

NSPS: Dan Martinez submitted a written report regarding Virtual Day on the Hill in April 2021. PSAN is given the opportunity to have a couple of members meet, virtually, with state representatives. The Board submitted Dan Martinez, Jeremy Feusner, Todd Whitfield, and Casey Sherlock.

Pursuant to Article IV, Section 10 of the PSAN Constitution, the Board must elect a Chairman of the Board. Jerry Penry was nominated, the motion passed.

#### **Old Business**

PSAN Shirts: Jeremy Feusner ask Tiffany Thompson to create a couple of designs to promote PSAN and maybe, raise a little money for the association. It would be an online store with no upfront costs to PSAN. A motion was made and passed to have J. Feusner look into options for shirt to have at the summer seminar.

#### **New Business**

Applications for Membership: Three applications for membership were reviewed and approved.

A thank you note was received from an SCC student who received the Scholarship from PSAN.

The meeting was adjourned at 1:38PM CT.

After the complete March minutes are approved by the PSAN Board, they will be published to the PSAN website. https://nebraskasurveyor.com/meeting-minutes/



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## Superheroes of the Survey Site

alifewithoutlimits.com

March 1, 2021 by Michelle Brooks



Look out! Is that a bird? Or a plane?

No... it's a surveyor!

While surveyors already think they are superheroes, it's likely that the world at large might need a little bit more convincing. That's why it is exciting to have a dedicated comic book series placing young surveyors-in-training in that hero position.

GeoSquad highlights the comic adventures of four students-turned-surveying superheroes. Running since 2019, it is the brainchild of Get Kids into Survey, the team behind a whole host of fantastic surveying resources that brings the world of surveying to life for young people.

#### The story so far

Surveying might seem like a very complicated area from the outside, but the genius of GeoSquad is in being able to highlight the important role surveyors play in our world – and perhaps inspire the next generation of surveying professionals!

The comic book series revolves around four friends: Maddison, Kwame, Setsuko and Miles. On the hunt for an interesting job at their local career expo, they discover one stand that shows promise amid a sea of dull and listless career paths – a stand holding four technologically-advanced headsets. Putting the headsets on, the group gets a terrifying glimpse into what their home town is going to look like 30 years into the future. Skyscrapers are falling down, cracked roads snake every which way, and smoke rises from the wreckage.

It is a world without surveying.

This is the first step in an adventure which sees the gang team up with the Last Surveyor and a high tech computer programme to become the GeoSquad. This crew of robot



...a team for today - fighting to save tomorrow!

superheroes is tasked with restoring the future using the abilities and technology of surveyors.

With eye-catching full colour illustrations, the GeoSquad comics use exciting characters and a vibrant story to demonstrate what surveyors do, and how integral surveyors are in our modern world.

#### A career that really jumps off the page



There are a lot of primary and secondary school students today that are falling in love with STEM subjects. The question that many have though is how does STEM translate to a real world job after school?

Surveying, of course, is a great way to funnel an affinity for geography and math into a rewarding career.

Get Kids into Survey is doing great work promoting surveying and geospatial science to students of all age levels. It isn't just the comic book that has begun to inspire the surveyors of tomorrow; the Get Kids into Survey brand has a huge array of resources available to teachers, parents and educational groups.

There's more to uncover about GeoSquad though. If you want to investigate for yourself, make your way towards the Get Kids into Survey website. To head straight to the comic series, you can find it free to download here.

### 5 Essential Elements of a High-Productivity Survey Controller

Bob Kilburn, csengineeringmag.com, April 1, 2021

If you're looking new ways to optimize your surveying efficiency, have you considered your survey controllers? Regardless of which survey equipment you use, your controllers are at the heart of your work. They can either slow you down or give you a boost in efficiency and confidence. But with so many options available, how can you be sure to make the best use of this technology? Here are five essential elements to consider when evaluating your options:

#### 1. Durability

Is the controller rugged enough to stand up to all weather the screen large enough to easily see your data? For the conditions? Can you confidently use it in dirty or dusty highest performance and maximum flexibility, it's hard to beat environments? If it's a tablet, will it break if you drop it? What a Windows-based controller. But look for other capabilities as happens if you drop it in the water? A quick check of the well. For example, touch screen technology that allows you to operating temperature range and IP rating can give you a good view and process data in the field can give you a significant indication of durability. Keep in mind that while a traditional productivity advantage. surveying controller with buttons might give you the widest operating temperature range, the newest tablets come pretty **3. Connectivity** close. Look for a rugged design and extremely high IP rating for Few situations are more frustrating than encountering poor proven ability to be fully dustproof and waterproof, even signal strength and slow internet connections while you're when immersed in several feet of water.



based Leica CS30 temperatures ranging from -25 to +55°C (-13 to +131°F) and The combination of easycarries high IP ratings of IP6x to-use buttons and touch for dust resistance, IPx6 for screen technology on the

for water submersion, making it a practical option for day-to- allows you to view 3D data day field use in any conditions.

#### 2. Flexibility

Can you quickly and easily access all the apps you use for your surveying operations. day to day work, including legacy apps? Is the operating system powerful enough to allow you to open multiple apps at

the same time? If it's a traditional controller with buttons, is

trying to transfer data. Look for a solution that provides a seamless link between the field and office along with fast The rugged new Windows- internet speeds and reliable, consistent connectivity. Fast data tablet transfers and effortless access to shared servers and browserpictured above can be used in based data viewers should be standard.

water spray resistance and IPx8 Leica CS20 field controller and process data in the field, making it a solid choice traditional for



## **PSAN 2021 SUMMER SEMINAR**

## Thursday & Friday, July 22-23, 2021

#### Join us at the 2021 Summer Seminar this July!

#### We've missed you!

This year's conference host, Dan Martinez, has been working hard to create an educational, informative, and engaging line up.

We are excited to have **Keynote Speaker**, **David Doyle**, presenting the Modernization of the National Spatial Reference System on day one and History of Geodetic Datums of the United States on day two.

Joining us for the afternoon session of day one is **Gordon Decker**, to present Mentorship as a Form of Leadership.

Great break-out sessions are planned.

Fun times are to be had catching up with colleagues and friends.

We look forward to see you!



14 possible Professional Development Hours

## **Break-out Sessions**

The Nelson Buck Massacre Jerry Penry

Improved Elevation Certificate Chuck Chase

The Art of Construction Surveying Jeremy Feusner

United States Location Monuments Jerry Penry

Carlson Precision 3D Topo TransitWorks / Steve Cummings, software developer with Carlson Software

#### Hotel Information Holiday Inn Convention Center 110 South 2nd Ave Kearney, NE 68847 308.2375971

A limited number of rooms have been reserved until July 1st for PSAN attendees

PSAN or NSPS Member in Advance \$200

Non-Member in Advance:

SCC Land Surveying Student :

#### **PSAN 2021 SUMMER SEMINAR REGISTRATION FORM**

#### Thursday & Friday, July 22-23, 2021

Register Online now at www.nebraskasurveyor.com OR complete this form today.

		· · · · · · · · · · · · · · · · · · ·
	Late Fee	\$15
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	Yes No	
CITY: STATE: ZIP:	Additional lunch tickets	\$15
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Make checks payable to <b>PSAN</b> .		

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## MAPLand Act Gathering Support

xhyt.com Published May 21, 2021



The Modernizing Access to our Public Land (MAPLand) Act, "Our nation is blessed with some of the most incredible scenic which would direct federal land management agencies to landscapes and outdoor spaces in the world," said Moore. digitize and standardize mapping records, has won the support "But each year, millions of Americans venture into the great of the National Society of Professional Surveyors (NSPS).

millions of other federal land users to access essential hikers, bikers, hunters, and all who seek to enjoy our federal information about public lands as well as help federal land lands have access to the information they need to fully management agencies identify public lands with limited or experience our country's natural wonders." nonexistent public access points and take proactive steps to open them to the public.

commends the bipartisan leadership ... with their introduction parks and recreation areas our country has to offer. of the Modernizing Access to our Public Land (MAPLand) Act Modernizing and standardizing information so people know while recognizing the importance of Global Positioning how to access our public lands will allow Washingtonians and Systems (GPS) technologies," said NSPS Executive Director visitors from across the country and world to enjoy our great Curtis Sumner. "NSPS stands ready to help with the objectives outdoors." of this important federal land and ownership data reform legislation, and strongly encourages congress and the Currently, more than 9.52 million acres of land in the West president to enact the MAPLand Act into law."

on May 11 by Blake Moore (R-UT), Russ Fulcher (R-ID), Joe have been digitized and uploaded to an electronic database. Neguse (D-CO), and Kim Schrier (D-WA). The Senate version of the bill, S. 904, was introduced earlier this year with bipartisan The MAPLand Act would help give federal land management sponsors.

outdoors without having the most up-to-date data on land access ... The MAPLand Act, which would address this by The legislation, H.R. 3113, will allow hunters, anglers, and digitizing tens of thousands of records to ensure that fishers,

"My family treasures the time we spend hiking, biking, and fishing across our region," said Schrier. "We are fortunate to "The National Society of Professional Surveyors (NSPS) live in a state full of natural beauty, with some of the best

lack permanent and legal access points for public use, and information on these lands is still kept on paper files. The legislation was introduced in the House of Representatives Approximately 5,000 of the Forest Service's 37,000 easements

> agencies the resources they need to digitize these files for public use, as well as require these agencies to provide

information on seasonal vehicle restrictions on public roads public land users to stay safe and follow the rules while out in and trails, hunting boundaries, and watercraft restrictions.

Agriculture, and the U.S. Army Corps of Engineers become better stewards of federal and public lands and better land managers by bringing their records into the 21st Century," said U.S. GEO founder John Palatiello.

"Access is one of the most important issues facing hunters and anglers today, and the MAPLand Act is a commonsense on public and private lands and when and how to best protect investment to ensure all Americans can take full advantage of them. The MAPLandAct will help us do just that," said Jessica the recreational opportunities on our public lands," said Whit Wahl, executive director of the Outdoor Recreation Fosburgh, president and CEO of the Theodore Roosevelt Roundtable. Conservation Partnership. "In addition to making it easier for

the field or on the water, this bill would allow our agencies to manage and plan more effectively while also reducing the "This legislation will help the Departments of the Interior and potential for access-related conflicts between recreators and private landowners. Simply put, this legislation promises to help more people get outdoors."

> "In order for us to continue to grow this important sector that makes up 2.2 percent of the national GDP and employs 5.2 million Americans, we need to know where we can get outside

### 5 Essential Elements of a High-Productivity Survey Controller

#### (Continued from page 8)

#### 4. Size

drawings? What about 3D visualizations? Can you see what solution. A controller with hot-swappable batteries will enable the instrument sees to ensure your data is right? Can you you to keep working seamlessly until you get the job done. easily work with your data on the display in the field? Do you need a large screen for graphics and the most powerful More than just the means to manage your instrument and processing capabilities, or would a mid-sized screen and mid- data, your survey controller is a high-tech piece of survey gear range performance be a better fit for your requirements? Is in its own right. Recent technology innovations give you more the controller portable enough to carry all day and use in all visibility into your data and easier access to your apps without tasks? You don't have to compromise; some of the newest compromising portability, durability or performance. Whether tablets provide a good balance between price and efficiency as you're upgrading your entire fleet of survey equipment or well as size and power.



The CS35 tablet has a slim yet you. robust design with a 10.1" high-resolution imagery.

#### 5. Efficiency

What is the battery life? If you tend to work long days in the field, the standard eight-hour battery life might not be Is the screen large enough to enable you to easily work with enough; stopping to charge the batteries isn't a practical

> looking for other ways to improve your efficiency in the field, be sure to look at the latest survey controllers. Their ability to Windows-based Leica influence the speed and quality of your work might surprise

screen and high-performance The new Leica CS30 tablet operation, making it ideal for combines a 7-inch sunlightsurveyors who regularly work readable multitouch screen with with complex 3D datasets and a durable, lightweight design, high-performance operation and hot-swappable batteries.



"Land surveyors can spend as much time reading legislation, bylaws, and engineering documents as we spend in front of an instrument in the field or calculating coordinates for a subdivision.

We are mathematicians, historians, project managers, advocates, engineers, and even chainsaw operators"

Mark Mason

## BOARD OF EXAMINERS FOR LAND SURVEYORS

#### CASEY C. SHERLOCK Secretary

www.nbels.nebraska.gov



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#### REPORT OF THE NEBRASKA STATE SURVEYOR

#### AND THE NEBRASKA BOARD

#### OF EXAMINERS FOR LAND SURVEYORS

June 7, 2021

The Board of Examiners for Land Surveyors met for regularly scheduled board meetings on March 11, 2021 and May 20, 2021.

The meeting schedule for the Board of Examiners for the 2021 calendar year is as follows: January 21, March 11, May 20, July 15, September 23, and November 18. Meetings are scheduled to begin at 9:00 a.m.

#### REGULATION ENFORCEMENT ACTION

The Board discussed Complaint 19-2 and determined that all requirements of the Board and the complaint had been met. The complaint was closed without further action.

The Board discussed Complaint 21-1 with the LS present and determined that all requirements of the Board and the complaint had been met. The complaint was closed without further action.

Jeremy Feusner, President, Professional Surveyors Association of Nebraska (PSAN), gave an overview of PSAN's Minimum Standards Revisions. PSAN members and Southeast Nebraska Land Surveyors Association (SENLSA) members were involved in the process enduring two years. First adopted in 1989, the minimum standards were revised, approved and adopted by PSAN membership on February 12, 2021. The Board authorized Secretary Sherlock to proceed with the process of amending the Board's Rules & Regulations to incorporate revisions of the minimum standards.

The Board once again at the March meeting discussed the lack of compliance with the current minimum standards for surveys in Nebraska by licensed Land Surveyors. The Board directed the Secretary to send a letter to the Licensed Surveyor requesting an update on the progress of filing surveys prior to the May Board meeting. At the May meeting the Board discussed the requirements of the minimum standards and the requirement for the filing of surveys and based upon the action and response from the Land Surveyor, dismissed the issue without further action or formal charges.

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#### LICENSING AND REGISTRATION ACTION

The Board denied one Class 1 application.

The Board approved the Class 2 applications of Scott Bruce from Wyoming, Christopher R. Badtke from Wisconsin, and Kenneth Dale Huffman from Colorado for land surveyor registration by reciprocity and approved that they appear before the Secretary of the Board for an interview and land surveyor examination.

The Board considered the Class 2 license application and examination for registration of Brian L. Yentes by reciprocity from Iowa and decided that he satisfied the requirements for registration and that he be granted registration certificate No. 829.

The Board issued a Class 3 registration as a Surveyor-In-Training to Walter R. Johnson under Certificate No. 290 and Josh Siel under Certificate No. 291.

The Board granted the Class 4 application for inactive registration to Victor A. Beenblossom, LS 461.

The Board failed to approve the license registration reinstatement of a reciprocity application at the March meeting as the registrant has never filed a survey in Nebraska; therefore, the Board requested that the applicant submit samples of surveys completed while actively registered in Nebraska and that the application for reinstatement would be considered at the next meeting in May.

At the May meeting the Board reviewed a letter and samples of surveys completed by the applicant and after a brief discussion, approved the reinstatement of Jerry Froese, LS 551, reciprocity license from Kansas. The Board also approved the reinstatement of Mark E. Johnson, LS 794, reciprocity license from South Dakota.

#### 2021-2022 LICENSE REGISTRATION RENEWAL PROGRESS

As of the March meeting there were still 28 active Land Surveyor registration renewals and 4 inactive Land Surveyor renewals still pending. There are 2 active registrations pending renewal that are on the audit list. The Board reviewed 9 renewals with PDH audits and documentation.

As of the May meeting, 290 active Land Surveyor Registrations and 10 inactive Land Surveyor Registrations have been received, reviewed, and approved by the Board for renewal. In addition, there are three non-renewing Land Surveyors; four non-renewing inactive registrations; ten active Land Surveyor registrations converting to inactive registrations; two deceased inactive registrations and four deceased active Land Surveyor registrations, eight delinquent Land Surveyor registration renewals; and three delinquent inactive registrations.

The Nebraska resident Land Surveyor registrations represented a 7.1% decline in active registrations.

## BOARD OF EXAMINERS FOR LAND SURVEYORS

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#### MISCELANEOUS BOARD ACTION

The Board approved the Electronic Government Service Level Agreement and Addendum Two with NIC Nebraska for the project to provide and online application process. After a demonstration of the on-line application processes, the Board approved and authorized Secretary Sherlock to proceed with the online application process thru NIC – Nebraska Interactive.

The National Council of Examiners for Engineering and Surveying (NCEES) Central Zone virtual meeting was conducted by virtual meeting on April 29.

The Board approved the travel and attendance of Board Member Pro and Associate Member Sherlock as the NCEES funded delegates to attend the NCEES Annual Meeting in New Orleans, LA in August.

The Board approved the agreement for 10% of office staff and 10% of space rental used by the Board in the State Surveyor's Office in the Board of Educational Lands and Funds Office Building for FY 21-22 thru FY 24-25. Payment shall be paid annually in advance in July.

The Board authorized that board members and staff for the Nebraska Board of Examiners for Land Surveyors have blanket approval to travel within the State of Nebraska in performance of their official duties while attending board meetings or seminars as the official representative of the examining board. This blanket approval is also granted for these members and staff when necessary to claim reimbursable travel expenses. Written authorization, in the form of a motion in the meeting minutes, is necessary for out-of-state travel for Board members and staff.

The Board elected Denny Whitfield as Chairperson and Mary Pro as Vice-Chairperson effective July 1, 2021.

LB 224, changing provisions for appointment of a county surveyor in certain counties was approved by the Governor on April 23, 2021.

Respectfully submitted on behalf of the Board of Examiners and State Surveyor's Office.

Casey C. Sherlock State Surveyor

# Insurance Program

## Committed to specialized insurance for the NSPS members!



NSPS Insurance Program has made a longterm commitment to the land surveying and design professional industry by establishing an insurance program to offer competitively priced policies custom-fit to your specific operations and needs. Our sales agents have extensive experience and in-depth knowledge with the insurance coverage, loss control/risk management, and claims handling required for the land surveyor and/or the design professional.

Working with our multi-carrier partners, the NSPS Insurance Program offers flexible coverage with highly competitive pricing. The program provides industry-specific insurance products via coverage forms written specifically for land surveyors, civil engineers, and GIS professionals that work within municipal, commercial and residential arenas. Our flexible program includes but not limited to; land surveyors who specialize in boundary or property surveys, topogrammetric surveys, photogrammetric surveys, construction stakeouts, geodetic or control surveys, mapping or cartography, and other survey or design related services.

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THE NEBRASKA SURVEYOR / Spring 2021

#### The Land Surveyor's Guide to the Supreme Court of Nebraska

#### Chapter 64 – Pokorski v McAdams (1979)

Our next case is one that could very easily have faded into obscurity, as most cases do, and proven to be of no particular significance, but instead it is worthy of being featured here because it marks the moment when an important idea pertaining to a subject of special relevance to land surveyors first emerged in Nebraska, making this case a watershed, which has exerted a great influence on numerous subsequent decisions of the Court. Even though the Court had been incessantly dealing with land rights issues for well over a century by this time, the topic of legal descriptions remained one which had been squarely addressed by the Court only infrequently, and as we have repeatedly seen, the Court had taken a generally flexible position on the question of what constitutes an acceptable legal description under varying conditions and circumstances. In the vast majority of boundary cases prior to this time, the manner in which the lands of the litigants were described was treated as a matter of little significance by the Court, and the legal descriptions of the properties in contention were only rarely even mentioned by the Court, due to the Court's distinct preference for reliance upon physically defined boundaries. At this point in time however, in part due to dramatic advances in measurement technology, which enabled more precise or exact descriptions of land to be created with a higher degree of confidence or certainty in their correctness and reliability, the Court's flexible attitude toward descriptions began to change, and proposed legal descriptions began to come under closer judicial scrutiny. This increasing judicial focus upon achieving greater precision when describing land had already begun to appear in other states, and one branch of the legal arena in which this new judicial perspective began to manifest itself was that of adverse possession. In the 1977 case of Teson v Vasquez for example, the Missouri Court of Appeals took the position that "One overriding requirement to establish adverse possession of a particular piece of property is that the precise location of the land claimed must be identified ... absent proof by the claimant of the exact location of the lands claimed, any judgment would be void." Strict enforcement of this new emphasis upon precision and exactness in the creation of legal descriptions was employed in some states as a means of limiting the use of adverse possession, by making it more burdensome for a party to rely upon adverse possession, since this description requirement effectively compels the adverse possessor to obtain the assistance of a land surveyor, to create a complete metes and bounds description of the subject area. As we will see, the Court did not immediately embrace this approach to restricting adverse possession, but in reviewing future cases we will watch as the Court gradually elevates the description requirement to a level of critical importance, all based upon the idea first announced by the Court in the case we are about to review.

Prior to 1963 – A portion of the Missouri River forming the boundary between Nebraska and South Dakota ran in a generally easterly direction through a certain Section 15, before gradually arcing to the south just as it crossed into Section 14, and then proceeding in a southeasterly direction through that section. The land lying southwest of the river in Section 14 was owned by McAdams, and his tract was bounded on the west by the property of Stillman, who owned a smaller tract situated in Section 15, which had only about 400 feet of river frontage. How or when either of these men acquired their land is unknown, but their titles to their respective tracts were never questioned, and presumably they both occupied and used their tracts without any issues arising between them for many years. This portion of the river was evidently eroding away the Nebraska bank in these sections however, so the Corps of Engineers stepped in to mitigate the ongoing damage to the properties lying on the south side of the river. Whether or not the action taken by the Corps was requested by the owners of the land in this area is unknown, but a plan was devised by the Corps to protect and secure the Nebraska bank in these sections from further erosion.

1963 – The Corps installed a series of dikes in Sections 14 and 15, apparently comprised of rip-rap, evidently projecting an unspecified distance out into the southerly portion of the riverbed from the south bank of the river. These dikes were placed several hundred feet apart, each one being a ridge of rock reaching from the shore out into the river, like the fingers of a giant hand, to deflect the force of the river away from the Nebraska bank, although no details pertaining to their size or length are known. Instead of installing these dikes running due north from the bank however, the Corps ran each of them in a northeasterly direction, approximately perpendicular to the southeasterly course of the river, in the vicinity of the boundary between Sections 14 & 15. How the locations at which each dike departed from the shore were chosen is unknown, but one of them, perhaps intentionally or perhaps by mere coincidence, happened to connect to the bank of the river at the same point where the section line struck the bank. This particular dike therefore rested entirely upon the portion of the riverbed lying just a short distance east of the section line, and it thus had the effect of creating a physical barrier between the submerged portions of these two sections.

1964 to 1973 – Sandbars soon began to form in the areas between the dikes, as sediment built up in those areas, but these sandbars were highly unstable and they were frequently rearranged or washed away by the action of the river during times of high water, yet the project was a success, because the erosion of the Nebraska bank was thereby reduced, if not completely stopped. McAdams was apparently not a sportsman, so he made little or no use of his river frontage, but Stillman and his family and friends, which included Pokorski, soon began using the sandbars for hunting and fishing, and their activities extended eastward into Section 14, as far east as the aforementioned dike, projecting northeast from the upland end of the section line. Throughout this period, Stillman and his tenants and other companions regularly used the triangular portion of the riverbed lying east of a northerly prolongation of the section line and northwest of the section line dike, which contained about 36 acres. Their use of that area was limited to recreational activities however, since the majority of that area evidently continued to be submerged beneath shallow water at most times, interlaced with perpetually shifting sandbars, which evidently never coalesced into a permanent island.

1974 – Stillman conveyed his tract to Reno, who had been among those using the diked portion of the riverbed for several years, but after only a few months Reno conveyed his property to Pokorski. The use of the triangular area may have increased once Pokorski made this acquisition, because McAdams soon took notice of it, and he had a fence built, extending out into the river from the bank, along the section line, cutting off Pokorski's access to the 36 acre portion of the diked area lying east of the section line. How the section line location was ascertained by McAdams is unknown, since there is no indication that any resurveys were ever conducted, or that any survey monuments were ever found in this area, yet no dispute ever arose over this section line, so it's location was

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presumably clearly understood and well known to all of these parties. Pokorski responded to being shut out of a portion of his hunting ground by filing an action against McAdams, seeking to have title to the triangular area that he had been using quieted in himself, which would authorize him to remove the fence.

Pokorski argued that Stillman and the guests of Stillman, including himself, had adversely possessed the disputed northwestedy portion of Section 14, lying northwest of the section line dike, through their ongoing use of that area, in combination with the failure of McAdams to ever make any use of that area, making the dike the southeastern boundary of the Pokorski tract. Pokorski did not argue that the dike represented a genuine riparian boundary or a legal division of the accreted land at issue, although his use of the area in dispute clearly indicated that he viewed the dike as such a boundary, he asserted only that all of the land lying on his side of the dike had become part of his property as a consequence of adverse land use. McAdams argued that none of the use of the area in question was ever sufficient to justify adverse possession, and that the land in that area remained unstable and partially submerged, so his own disuse of that area was of no legal significance, and in fact the contested area was still part of the riverbed. The trial court held that the dike had been treated as a boundary by both parties, and the land northwest of it had been used in a manner which qualified as adverse possession, quieting title to the 36 acre triangular area in Pokorski, as requested by him. At an unspecified subsequent time, prior to the arrival of this case before the Court, McAdams conveyed his property to Olson and McAdams departed the area, leaving Olson to step into the shoes of McAdams and engage Pokorski on appeal.

The circumstances presented by this case, involving only very marginal use of a vague and fluctuating portion of a riverbed, were ideally suited to the imposition of a new judicial position on the proper definition of boundaries by the Court, which began it's analysis of this scenario by observing that this was not an island case, because no island had ever come into existence in the subject area. In reality, Pokorski clearly had a very weak position in several respects, first and foremost, as we have had occasion to note previously, the Court had long been resistant to hunting or other purely recreational acts as a basis for adverse possession. In addition, no structures aside from duck blinds were ever erected in the subject area, the point in time when the regular use of that area actually began was highly unclear, and lastly the fact that the diked area had been long ignored by McAdams was both quite understandable and justifiable, so his lack of intervention in the contested area was insufficient to signify that he held no title to that area. It should also be recognized that the location of the riparian boundary between the adjoining properties at issue, extending across the artificially accreted area, was never a factor in this case, since none of the litigants made any effort to justify any particular boundary location on the basis of accretion division. Pokorski's claim that the dike was his boundary was based solely upon land use, and McAdams simply maintained that he owned all of the land east of the section line, so the principles of accretion division were never brought into play by any of the parties, and they were therefore never addressed by the Court. In addition, Pokorski was seeking in effect to obtain a personal benefit from the work of the Corps of Engineers, the Court realized, yet he had neglected to have the area that he was claiming quantified by means of a survey, and he would have good reason to regret that decision, since it had the effect of inviting the Court to strike down the lower court ruling in his favor. There was no precedent in Nebraska law, the Court noted, supporting the notion set forth by Pokorski that submerged land could be adversely possessed, and the Court was entirely disinclined to adopt such a position at this time, so the absence of any solid, definitive or permanent landform in the subject area also made Pokorski's chances of prevailing highly dubious. Aerial photos of the relevant area taken from 1965 through 1971 showed differing conditions, indicating that the sandbars had never stabilized in any given location, and Pokorski conceded in his own testimony that even in 1978 the subject area was still only partially above water, leaving his case on very soft ground indeed. The Court could therefore have simply held that the use of the relevant area by Stillman, Pokorski and others was inadequate to support adverse possession of any land, regardless of how well that area was described. The Court elected instead however, to accept the invitation provided by these circumstances to join the courts of several other states in placing particular emphasis upon the manner in which the adverse claimant had outlined the particular area to which the adverse title being sought was purportedly applicable:

"Stillman ... testified that he had used the "island" to fish ... however he could not state exactly when this commenced ... he gave his tenants permission to hunt in the area between the dikes ... Reno ... testified that he hunted and fished in this area ... while we have held that title to an island ... may be acquired by adverse possession ... we have never specifically passed upon the question of whether land covered by water was subject to adverse possession ... land covered by water would be most difficult to resolve as a practical matter, if not impossible ... Pokorski ... falls far short of establishing any claim by him of property underlying the water surrounding an island ... there is absolutely no evidence to indicate that the "island" and any accretion thereto covered the entire area ... the "island" was, during certain periods, covered by water ... no evidence was introduced to identify or distinguish ... any islands ... there is no persuasive evidence that there was any land ... subject to adverse possession must further show the extent of his possession, the exact property which was the subject of the claim of ownership, that his entry covered the land up to the line of his claim, and that he occupied adversely a definite area, sufficiently described to found a verdict upon the description ... Pokorski did not establish the extent of his predecessor's possession ... this failure ... necessitates a reversal of the decree."

Historically, the Court had always required the limits of the land being claimed by any adverse possessor to be adequately defined in some manner, but the language introduced by the Court at this time created a new opportunity for land surveyors to play a vital role in the adjudication of land rights, by intensifying the specificity of the descriptions provided for judicial review by adverse claimants. Only rarely, such as in the 1948 Hallowell case, featured earlier herein, had an adverse possessor provided either an actual survey, or a legal description produced by means of a survey, in support of his case, but the Court was now prepared to begin insisting upon a properly written and technically sound description from every adverse claimant, in order to approve any acquisition of title by adverse means. The comments of the Court regarding the inherently nebulous nature of Pokorski's claim were well justified, in the context of the situation presented here, but the Court's use of the terms "exact" and "definite" established a new higher bar for description standards, essentially mandating that all adverse possession claims must be accompanied by a legal description written to the standards generally employed by professional land surveyors. The description requirement adopted here, as it was destined to be utilized by the Court going forward, had the effect of eliminating adverse possession claims that were crudely described, such as the one successfully made by Kenyon in the 1965 Converse case, featured previously herein, based solely upon a physical object, and lacking the metes and bounds calls typically supplied by a surveyor. Given that

Pokorski's case was legally full of holes and was defective in many respects, its no surprise that the Court reversed the lower court ruling in his favor, but the Court's decision on this occasion would soon have extensive implications for adverse parties with more legitimate claims, as we shall see. At least since the case of Omaha & Republican Valley Railway v Rickards (1894) the Court had acknowledged the importance of composing legal descriptions with proper care, as in that instance the Court ruled that the railroad had not acquired certain platted lots across which the railroad claimed to have a right-of-way, either through condemnation or by deed, due to description errors that were made by the railroad. Only at this point in time however, did the Court deem it necessary to put in place a description requirement expressly targeted at restricting adverse possession, by preventing adversely acquired areas from being described only with reference to a physical object, such as a road, a fence, a wall, or a dike in this particular case. Its quite possible that the efforts of one or more land surveyors may have been instrumental in convincing the Court to take legal descriptions more seriously, in order to allow surveys to more frequently control boundaries, on the basis that the land surveying profession had become worthy of greater respect, since the advent of professional examination and licensing of land surveyors. While no specific references to input from land surveyors on such judicial policy issues have been made by the Court, its well known that the Justices have many friends and advisors in the larger professional community, so its entirely possible that some unknown land surveyor, when talking as a friend with one or more of the Justices at this time, successfully impressed them with the need to be mindful of the value of professionally prepared legal descriptions.

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 (<u>bportwood@mindspring.com</u>).

#### Surveying—Historical Tidbits

#### One of the Oldest Known Professions

Surveying is one of the oldest known professions. The Egyptian Land Register, created around 3,000 BC, is the first known land ownership record. This record showed the owners of various areas of land and also recorded the locations of this land. Surveys such as those used to create the land register were based on geometry, as well as declarations by landowners of the believed boundaries of their land.

The duties of the surveyor in Ancient Egypt covered a number of aspects, including boundary definition and building construction. The annual flooding of the Nile, something that significantly impacted the life of the Egyptians, often resulted in a change of the shape of the land on the banks of the river, or the disappearance of the stones marking the boundaries. A surveyor was required to re-measure the land and to replace the marks as required, so that any disputes between neighbors could be resolved.

The role of the surveyor was an important one, as shown by the evidence of the work of the surveyors in the form of pictures on the walls of tombs. The position of the surveyor in the Egyptian society shows they were one of upper class and were very well educated individuals.

#### **Early Surveying Tools**

In Greece and Rome, surveyors were people held with exceptional esteem, as they were responsible for the straight angles and perfect lines that shaped the remarkable buildings and coliseums that are still present today. They used a simple surveying



tool called a Groma. The Groma was comprised of a vertical staff with horizontal cross-pieces mounted at right angles on a bracket. Each cross piece had a plumb line hanging vertically at each end. It was used to survey straight lines and right angles, thence squares or rectangles. They were stabilized on the high ground, and pointed in the direction it was going to be used. The helper would step back 100 steps and place a pole. The surveyor would tell him where to move the pole and the helper would set it down. The Groma is believed to originate from about 400 BC in Mesopotamia, which is today's Iraq.

#### **Captain James Cook**

Captain James Cook is one of the most famous surveyors in the world because he is one of the first who sailed into every ocean and surveyed all the areas he discovered. He mapped lands from New Zealand to Hawaii in the Pacific Ocean in greater detail and on a scale not previously charted by Western explorers. He surveyed and named features, and recorded islands and coastlines on European maps for the first time. He displayed a combination of seamanship, superior surveying and cartographic skills, physical courage, and an ability to lead men in adverse conditions.





## **New Datums Are Coming!**

#### NOAA is Replacing NAD 83 and NAVD 88.

NOAA's National Geodetic Survey (NGS) will be replacing the datums of the National Spatial Reference System (NSRS), including **the North American Datum of 1983 (NAD 83) and the North American Vertical Datum of 1988 (NAVD 88)**. NGS will provide the tools to easily transform between the new and old datums. Read the NGS Ten-Year Plan and visit the **New Datums Web page** on our site to learn more.

#### Benefits

The new reference frames (geometric and geopotential) will rely primarily on **Global Navigation Satellite Systems (GNSS)**, such as the Global Positioning System (GPS), as well as on a gravimetric geoid model resulting from NGS' **Gravity for the Redefinition of the American Vertical Datum (GRAV-D)** Project.

The target accuracy of differential orthometric heights (heights relative to sea level) in the geopotential reference frame will be 2 centimeters over any distance, where possible.

#### What You Can Expect

The magnitude of change with the new datums will vary depending on the datum you are using and your geographic location. The new geometric datum will change latitude, longitude, and ellipsoid height between 1 and 4 meters. In the conterminous United States (CONUS), the new vertical datum will change heights on average 50 centimeters, with approximately a 1-meter tilt towards the Pacific Northwest.

#### **How You Can Prepare**

- Learn if legislation or other formal documents referencing NAD 83 and NAVD 88 need to be changed in your state.
- Transform existing data to the latest NSRS datums and realizations; i.e. NAD 83 (2011), GEOID18, and NAVD 88.
- Obtain precise ellipsoidal heights on NAVD 88 bench marks, and visit the GPS on Bench Marks Web page to learn more.
- Require and provide complete metadata on all mapping contracts. See our website for more details.



The new datums will extend across CONUS and U.S. territories. The terrestrial reference frames replacing NAD 83 will be consistent with geocentric global reference frames defining latitude and longitude. The geopotential datum replacing NAVD 88 will be based on a gravimetric geoid model, enhanced by data from NGS' Gravity for the Redefinition of the American Vertical Datum (GRAV-D) Project.

National Oceanic and Atmospheric Administration 

National Geodetic Survey





#### **PSAN Board Meeting**

June 25, 2021 10:00am—3:00pm Location TBD

#### 2021 Summer Conference

July 22-23, 2021 Host: Dan Martinez Kearney, Nebraska

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