Past president David Landecker presents Ted Kemna, a winner of all three of the society's major awards: William Kelley Memorial Award (1994), EA Rathbun Memorial Award (1996), Surveyor of the Year (2002) with a special Lifetime Achievement Award for his continued hard work and dedication to the society.

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“The liberty of the press shall forever remain inviolate and all persons may freely speak, write and publish their sentiments on all subjects, being responsible for the abuse of such right…”

— Minnesota Constitution
From the President

Tony Blumentritt

I have to be careful about what I write in this article due to the timing of MSPS events. I am writing this just prior to the March 4 board of directors meeting, to meet a publication deadline. I can’t write about some of the issues facing MSPS, because issues and board actions will be addressed in the News and Views, which will be distributed prior to the publication of this issue of the Minnesota Surveyor. It’s kind of a paradoxical situation. Consequently, I can’t really write about future issues. However, I can write about MSPS related events that have happened.

The MSPS annual meeting is now part of history. By all accounts, it was a successful event. The educational and social events were all well received, our budget and income targets were all very close to those predicted, and we got some business done. There is a new slate of directors with whom I am looking forward to a productive year. Your current officers are Tony Blumentritt, President; Lowell Schellack, Past President; Henry Nelson, President Elect; Dennis Honsa, Secretary; Linda Brown, Treasurer; Chris Ambourn, NSPS Governor; and Directors Charlie Christopherson, Clint McLagan, Connie Villari, Paul Vogel, and Pat Veraguth. If any of you have any suggestions as to issues MSPS could (or should) address, please contact one of us and let us know. Remember, this is your organization. Contact information for the officers is available on the MSPS website.

During the past couple of months, I had the privilege of representing Minnesota at both the Wisconsin Society of Land Surveyors (WSLS) Institute held at the Kalahari Resort located in the Wisconsin Dells, and at the Association of Ontario Land Surveyors (AOLS), held at Deerhurst Resort in Huntsville, Ontario.

The Wisconsin Institute had about 830 registrants and about 36 vendors. The Wisconsin educational structure was similar to that of Minnesota’s, with varying surveying topics being discussed simultaneously in different meeting rooms. The presentations were between one and two hours in length. There was no all-day seminar. The State of Wisconsin implemented mandatory continuing education for land surveyors effective February 1, 2010. The Wisconsin continuing education requirements are similar to those in Minnesota, except that the continuing education credits have to be in three categories: general surveying, state statutes, and ethics. A minimum of two hours in each category during each renewal period has to be acquired. There were two major fundraisers benefitting the WSLS educational foundation. One was a raffle for which tickets cost $20 each. The grand prize was an all terrain vehicle and trailer. Other prizes were also part of the raffle. The other foundation fundraiser was “Bucky’s Challenge,” a trivia contest sponsored and put together by the foundation. For the challenge, teams of three to eight people would purchase a table for $275. There were 18 teams present. The challenge was a series of between eight and ten questions posed on various topics. The winning teams received tee shirts, bragging rights, and had a team picture placed on the WSLS website.

The Ontario Annual General Meeting had about 500 attendees, including guests. The topics addressed at the meeting included some of the same issues that Minnesota faces. A couple of the issues presented included an aging membership and a gradual decline in the number of licensed members. The meeting was based on the theme “Global Thinking, Local Impact.” Throughout the educational portion of the meeting, the profession of surveying was examined from the long view perspective of where the profession is heading. Contractors are doing their own construction layout; title insurance companies, which are gaining market share, are not requiring property surveys as a condition of a real estate transfer; and other factors are leading to a changing role of the surveyor. One of the motions acted on at the meeting called for a study of how surveying and GIS could combine to assist both professions. The professions of Geographic Information Management and Land Surveyor appear to be intertwined.

The educational foundation fundraiser was part of a welcoming party held in the exhibit hall. The foundation placed raffle items at each exhibitor booth. Raffle tickets were available at the cost of five tickets for $20. Tickets were then placed in boxes next to the raffle item. At the end of the evening, a drawing for each of the items was held, and the items distributed. What was impressive about this arrangement was that it combined the foundation, the vendors, and the attendees in a setting which was beneficial for all involved.

Besides representing MSPS at these meetings, one of the goals of attending other meetings is to see how other organizations handle their meetings, observe the issues facing other organizations, glean possible solutions for some of the issues facing land surveyors in Minnesota, and bring some of these ideas back to MSPS for consideration.

Continued on page 9
From the President-Elect

Henry D. Nelson

I am proud to have been a part of the Minnesota land surveying community for more than 30 years. In 2006, I became more involved in MSPS. I served a two-year term as Director and was involved in various committee workings. Learning more about the operations of MSPS and having the opportunity to meet many fellow surveyors proved to be a rewarding experience. In 2008, I stepped up my involvement and in 2009 I was again selected as a Director. Now, it is a great honor and privilege as I serve the members of the Minnesota Society of Professional Surveyors as President-Elect.

MSPS is an organization that is looked upon by other states as the society to emulate. This is due in large part to the wisdom and hard work of past MSPS boards and presidents. They discovered early the benefits of working together with the state society, and reaching out to its chapters and its members. The society is solid and steadfast, and that makes my job — and that of the others who will follow me -- much less difficult and that much more fulfilling. I thank those before me who have shared their wisdom and dedicated their service to the society.

I continue to praise the selection of Ewald Consulting — a strong management company, and specifically, Eric Ewald as Executive Director — to serve MSPS. Eric and his staff do a great job of keeping us on track and doing the background work that needs to be done on a daily basis to make the society successful and run smoothly for the MSPS Board Members. Our major events (the annual meeting, the summer meeting, and our spring and fall seminars) seem to run effortlessly. I look forward to working with Ewald this coming year.

As we are all well aware, those in our profession are going through some tough economic times. During my own three-month “vacation/early retirement,” as I liked to think of it, I had the opportunity to visit with several metro firms, and heard stories of many outstate firms. The majority were down 50-70% from the highs of 2007 and most are in “survival mode” — making adjustments in staff, reductions in salaries, reductions in hours worked in a week, time off with no pay, employees laid off but retained on contract basis, and permanent layoffs. Some companies have already closed their doors and I imagine there will be a few more before the economy recovers. Successful companies are thinking “outside the box” — looking for new opportunities and trying to be more efficient, and doing more with less. Keeping the best employees who will look for new opportunities such as energy and transportation will help move our members into the future.

The economy will improve, as it always does, but it will take time.

I am looking forward to the prospect of the travel to our neighboring states and provinces that comes with this office. I have already had the opportunity to travel to Fargo, ND, to attend the North Dakota Society of Professional Land Surveyors annual meeting. It proved to be a very informative meeting with discussions, seminars, and issues similar to Minnesota. The people I met are strangers no more.

I urge you all to become more active — or to continue your involvement — with MSPS, whether it be getting more involved with your chapters (the lifeline of MSPS), serving on committees, or considering a position on the Board of Directors. It is work; however, the rewards can be great. It’s possible to make many new friends, to share ideas with fellow surveyors and learn from them, which would be rare opportunities without this professional involvement, and to understand surveying from a much larger perspective than the everyday work experience. Without volunteer contribution, there would be no MSPS.

The educational opportunities are outstanding; there isn’t a better or more cost effective way to obtain continuing education credits. And, of course, there are always opportunities to build new friendships and renew old ones, to network and build relationships with colleagues. I look forward to meeting with many of you in the upcoming year.

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So as I watched this year’s Winter Olympics, I was struck by the ability of the commentators to make the most mundane, boring, anti-climactic events, sound as dramatic, interesting and exciting as possible. Somehow they lured me into caring that the Argentinean 7-man bobsled team was up .001 of a second at the halfway point over the current leader. Similarly, I was given to cry out “oh no!” when the world’s leading biathlete, who had won something like his last 3,020 races, missed target after target in the final race. Let me be clear on that last one; I yelled at my TV during an event that combines cross-country skiing and shooting .22 rifles. Now don’t get me wrong, I like both of those things and I appreciate that it must be a very difficult event — but if they made everything that is hard an Olympic sport, I’d need to add on to my house to store all the “Getting my kid to stay in bed” gold medals (OK… bronze medals). And don’t even get me started on the curling coverage; let’s just say I was on the edge of my seat for the whole 34 hours that each game took.

I’ll be traveling to the ACSM conference this April for three days of meetings during which I fully expect to be overwhelmed by information, names and ideas. When I get back I will do my best to channel the spirit of those brave Olympic commentators in a report for this publication — because much like certain Olympic events, the goings-on of NSPS require a certain amount of enthusiasm and fervor in order to hold folks’ attention. But it is a job that I think is important, whether you’re a member of NSPS or not. We all benefit from the work that is done at the national level, whether it’s through protecting the role of surveyors in government contracts through lobbying efforts on Capitol Hill or producing Trig-Star materials, or any of the many other initiatives that they take on.

My interest in serving as NSPS Governor is based on my personal belief that surveying is quickly approaching a crossroad, and that the demographics of our membership combined with technological advances will result in the loss of some areas of our practice that we’ve taken for granted for many years. I believe we need new ideas and to take bold steps in order to maintain our value to society and to continue to be considered professionals (or re-build our image as professionals). And I need to work for about 30 more years and I really don’t want to go back to school. If you have ideas or thoughts on the future of surveying please drop me an email (chrisam@bolton-menk.com). I’d especially like to hear from new professionals because I think that fresh perspectives are very important in times like these.

Before I close, I’d like to take a moment to acknowledge my predecessor in this position, John Freemyer. John encouraged me to pursue the position and has gone out of his way to bring me up to speed on the duties of the job. I appreciate his time and thoughts very much; I would have struggled to fulfill my duties without them. His are large shoes to fill— but I will do my best to follow his example, which has served our organization so well for many years.
From the MSPS Executive Director

Eric P. Ewald, CAE

Renew, Reinvest and Reap the Benefits of Association

MSPS serves a vital role for the surveying community in Minnesota by helping shape public policy, sponsoring training and education opportunities, helping support our schools and raising the public’s awareness of the surveying profession. The organization has been doing great work on behalf of the profession since 1953. This is thanks in large part to the active participation of the organization’s 500-plus members throughout the state who create a wonderful community that benefits from the sharing of experience and knowledge.

MSPS volunteers do a lot of work to keep this organization operating in a way that adds value to membership and to hold the organization up as the professional and social center of the surveying profession in Minnesota. These same volunteers will also attest to the great value that they receive back for their work.

Participating in the work of a committee or the Board helps members develop leadership skills that serve them well in their work. They are also networking and “in the know” regarding what is going on in the profession. Volunteers become appreciated as leaders and it sets them up for future growth in the association—or other leadership opportunities. This is true with MSPS and also with associations and other nonprofits nationally. We are a nation with very strong volunteerism.

In January 2010, the U.S. Bureau of Labor Statistics released new statistics on volunteerism in America. Both the number of volunteers and the volunteer rate rose over the year ending September 2009. Approximately 63.4 million people, or 26.8% of the population, volunteered through or for an organization at least once between September 2008 and September 2009. In 2008, the volunteer rate was 26.4%. We are truly a nation of volunteers and our societies and associations are a great place for professionals to invest their volunteer resources.

The current MSPS committee chairs and the Board of Directors have been working hard over the past year to re-align committees and take a fresh look at each committee’s goals and responsibilities. This focus on MSPS governance will pays dividends to the Society for years to come. We will publish a full list of standing committee charges as soon as this process is complete. In the meantime, a lot of work continues to take place on via our current committees. We encourage you to consider ways that you can contribute to the Society and enjoy the benefits of deeper involvement and networking at the same time. Call me or President Blumentritt if you want to get more involved and/or have any questions about where your talents would best fit.

We wish you a happy and productive spring and look forward to seeing you at the Summer Conference, sponsored by MSPS Chapter 6, July 29-30 at Treasure Island Resort and Casino!

MSPS UPCOMING EVENTS

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<tr>
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<th>Event</th>
<th>Location</th>
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<td>April 15, 2010</td>
<td>MSPS April Board of Directors Meeting</td>
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<tr>
<td>June 3, 2010</td>
<td>MSPS June Board of Directors Meeting</td>
<td>Ewald Consulting</td>
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<tr>
<td>July 29-30, 2010</td>
<td>MSPS Summer Meeting, sponsored by Chapter 6</td>
<td>Treasure Island Resort and Casino</td>
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<tr>
<td>July 29-30, 2010</td>
<td>MSPS July Board of Directors Meeting</td>
<td>Treasure Island Casino</td>
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<tr>
<td>Jan 26-28, 2011</td>
<td>MSPS Annual Meeting in St. Cloud</td>
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For registration and full event details, please visit our website at www.mnsurveyor.com.
Available From the MSPS Office:

MLSA/MSPS History, 1953-2003 50th Anniversary • $35 (Members or Nonmembers)
Public Land Surveys: History, Instructions, Methods • $24.30 (Members or Nonmembers)
Recommended Guidelines for the Practice of Land Surveying 1999 • $5 Members, $20 Nonmembers
Report 1: Public Land Survey in Minnesota • $14.73 (Members or Nonmembers)

Additional publications and pins are also available!

Use the secure online payment system at www.mnsurveyor.com or call the office at (651) 203-7256 to get an order form.
From the President, continued from page 4

This begs the question: What did I bring back from these visits?

The first is that surveyors are the same sort of person, no matter where you go. Surveyors are intelligent, for the most part practical, and stubborn. These traits will help us in dealing with the issues facing us as professionals and the issues facing the profession as a whole. Second, there are myriad ways for the educational foundations to raise money. In speaking with both the foundation representatives from Ontario and from Wisconsin, they simply persevered until they found a fundraiser that worked for them. Third, many similar issues face the surrounding organizations as well as Minnesota surveyors. One of the ways to deal with these issues is to take the long view of the profession by asking some basic questions. How did land surveyors get to our current position in society, and more important, where do we go from here? The focus of the Association of Ontario Land Surveyors’ Annual General Meeting was on the future of the profession. The Wisconsin Society of Land Surveyors has diligently worked on its strategic plan to focus the organization. While opportunities such as construction staking may slip away, other opportunities — such as taking a more active involvement with Geographic Information Systems — will appear. It is our ability as a profession to recognize these opportunities and act on them that will preserve, enhance, and promote land surveying. Please give this matter some thought. Discuss it at your chapter meetings. Bring the topic up on the surveyors forum on the MSPS website. It certainly appears our profession is changing, and one of our challenges is to embrace these changes.

Thank you for reading this article. I do look forward to serving this great organization in the upcoming year.

From the President-Elect, continued from page 5

The support of my wife, Kathleen, and our two talented daughters has been invaluable to my career in land surveying. They have been by my side (or the next room!) throughout my education, testing, practice, business development and job search. They have endured one-sided conversations in my house, filled with the jargon and talk we develop as part of our passion. As you can imagine, they have endured many road trips as I point out different projects that I was involved with. Not surprisingly, they didn’t have quite as much enthusiasm for the projects as I did. Nonetheless, I would not be where I am today without the loving support of my family.

My goals as President-Elect for the next year are: first and foremost to serve this organization in the best way possible; to assist President Blumentritt as needed; and to learn about the issues facing us as an organization, locally at the chapter level as well as the regional and national levels.

As members of the Board continue to change, I have come to know each one of them and I have been impressed with the dedication and commitment each one makes to their respective roles. The people I have met and the relationships established have enriched my life as I never imagined. MSPS members need to step up and serve on the committees and the Board of Directors — “new blood” provides fresh ideas and different insights to ensure the long-term success of MSPS. My only regret is that I was not more involved at an earlier time in my life.

I thank the MSPS membership for electing me to the office of President-Elect. Please know that I am aware of the awesome responsibility this office holds. I do take this responsibility very seriously, and pledge to do my very best to serve this society over the next three years. If any member of the society has any concerns, questions, or comments that I can be of service for, please contact me at HNelson@EVS-Eng.com. I am anxious to be “on the job” and serve you as best I can.
Historic Recollection of the Hennepin County Plat Checking Manual
By Gary L. Backer, RLS

The Hennepin County Surveyor’s Office has had a long surveying history, beginning with its first county surveyor named C. W. Christmas in 1853. To the present, 26 county surveyors have served. I worked under six of them since 1962, retiring early from the Surveyor’s Office in 1994. We had a number of important functions at our office to work on. Today, I’ll discuss the history, as best as I can remember, of plat checking and the beginnings of the Plat & Condominium Manuals.

The Hennepin County Surveyor’s Office began in 1936 under the WPA (Works Progress Administration), a remonumentation and resurvey program, using nine field crews of five men each and an office staff of twelve men. John W. Shaffer was the Hennepin County Surveyor at the time. The intent was to locate and tie in the Kettle River Sandstone monuments set by P. M. Dahl under that remonumentation in 1890. Those field crews completed 175 sections with perimeter angles and measurements and tying in the sandstone monuments. Along the way, some 5-foot concrete monuments were set to replace some missing sandstones. They started in Township 27, Range 24 (Bloomington). From the field measurements they were able to draw a few half-section maps from the resurvey folders in the late 1930s and early 1940s. In the late forties through the 1970s a more ambitious half-section program began. When I came into the office in 1967, we hand drew half-sections on linen with a pen and bottle of black ink at a scale of 1 inch=200 feet.

The current plat checking program started in the Hennepin County Surveyor’s Office in 1954, when Alver Freeman was drawing up a half-section map in Bloomington. Alver was having trouble scaling a submitted Registered Land Survey to fit with adjoining platting and the half-section map by some twenty feet. Also, some tract distances were missing, some angles shown were incorrect, and many other inconsistencies were found on the RLS. Because one discrepancy led to another he decided to run a mathematical closure around the perimeter of the RLS. It turned out that it had a misclosure of considerable feet and not to 3rd Order Control. Also, in checking other plats, Alver found lot numbers missing, lot distances and street widths missing and many other inconsistencies in the submitted plats. But the main item he found occasionally was that the legal description stated on the plat did not agree with the drawing on the plat. So began the inception of plat checking in the Hennepin County Surveyor’s Office.

Our resurvey and remonumentation program began in 1956 and was more or less finished in 1964. The field information was then compiled from our resurvey information and used for the drawing of half-section maps. I started in the Surveyor’s Office in 1962 (see my autobiography as submitted in 2007 on the internet) on a three-man field crew working on the remonumentation and resurvey crews. In 1967 I was asked to come into the office to help update and redraw half-section maps. In 1970, I had the opportunity to start checking subdivision plats and registered land surveys. Through the years, I estimate that I’ve checked or double-checked more than 5,000 subdivision plats, registered land surveys and condominium plats.

When I began to check plats, the Surveyor’s Office had only a couple of sheets of requirements for reference written down. At that time, also, I had to be very careful when discussing corrections to the private land surveyor. We did not have much leverage unless it was from the platting law Statute 505 or the Registered Land Survey Statute 508. There were no standardized requirements set by Hennepin County except the Statutes. Consequently, a plat checking meeting was held in early 1970 between the Hennepin County Surveyor (Elmer Peterson) and the plat checkers, and we decided to formulate a standard manual for plat checking. Soon a plat checking manual was devised and sent out to all land surveyors within Hennepin County. The plat manual had more details of what we wanted on the plats. We also ran it by the County Attorney’s Office for the legality of it. (I wish I would have kept our original manual, but left it at the office when I retired).

I updated and completely revised our manual in 1975 and again in 1980. In 1985 Mike Reiter, plat checker, and I revised it. By this time, the adjoining counties had their own plat checking manuals with their requirements, basically using our manual as example and now taken over by our State Surveyors Association.

I broke into plat checking abruptly by getting chewed out by a couple of land surveyors who did not take my corrections over the phone lightly. After holding the phone a half-foot from my ear, I almost decided to hang up plat checking. They used every expletive and then some. Most land surveyors have settled down and have accepted our advice on their plats now, but in the early days the private surveyor was always right and the county surveyors were an irritation.

Continued on page 11
One Hennepin County Association (before the State Chapters were formulated) meeting was held in the early ‘80s; I spoke to the land surveyors and technicians on the benefits of the plat checking manual. This meeting upset some old time surveyors to the point that Alver Freeman, Assistant County Surveyor, had to intercede for me in some heated discussions. The surveyors thought that we were telling them how to draw their plats, which was the furthest from the truth. We were just trying to standardize the plats so that all information agreed with the needs of the recorder’s office and fulfilled our requirements. It was not an easy thing at first to implement the plat manual. At that time it took a certain individual to work as a plat checker — I called it the “Blood Pressure Pill Unit.” In 1970, 157 subdivision plats and registered land surveys were submitted for checking. The highest number of plats submitted was in 1978 at 439. During the 1970s we averaged 277 checked per year. In the 1980s we averaged 305 plats checked per year. As a comparison, in 1990 through 1992 we averaged only 202 plats and registered land surveys. As most of you know, not all plats checked were recorded. I also checked some surveyors’ out of state plats on request. Some controversial plats ended up in the Hennepin County Title Examiner’s Court Room, where I was an Expert Witness in several court cases.

In 1978, because of the great number of plats submitted, we always had a backlog of plats for checking. Of course, the plat checkers took the brunt of complaints; tempers were thin on both sides. We only had two plat checkers, and I also had Torrens inspection requests as one of my job functions as the Senior Land Surveyor, along with plat checking. Besides, the County only provided us with one HP86B calculator, which the plat checkers passed back and forth to each other. I was told that Hennepin County could not afford to spend money on another calculator. We used two people to check one plat — the initial check and the double check. I triple-checked some plats because of their complexity.

When I started out, we used closure sheets with the Friden calculator for mathematical closure; then came the County computer system, where we had to program all plat information and write it out on computer sheets, then send it to key punch operators to punch cards to then be put in sorters and sent through County computers. Sometimes it took a couple of days before we had an answer on closure. Then came a real boon in 1974 when we got Tech-Mac into our office, an online computer to Wayne, Michigan. The plat checkers would write the program out on paper and then type it out on a yellow paper tape, which would be inserted into the Tech-Mac machine and the math information was sent by telephone line to Wayne, Michigan. If the line was not busy, the computer would spit out the closure information in seconds. That really increased our plat checking output. Then came the next machine, a 9830 HP calculator, etc.

The hardest and longest plat I ever checked was in 1974: a 13- or 14-sheet Rauenhorst Construction plat called “OPUS” in Minnetonka just south of Highway 62 and West 18, aka Highway 169. It was a nightmare of non-concentric curved roads and lots. Harry Johnson & Associates did the original plat with Harold Peterson doing the computing. I think it was in their Tech-Mac computer for several months, if not a year.

Do you remember when we field checked plats? We checked over 100 plats in the field in the early and middle ‘70s. Most surveyors were appreciative of the fact that we checked their boundary lines in the field, especially new surveyors doing work in Hennepin County and those surveyors working along our platted County right-of-way road plats.

We started checking condominium plats in 1980; we had four submitted that year. I believe the first one was either an Egan, Field & Nowak and/or a Cherrier-Winter one. There were no guidelines as a manual to prepare or draft a condo, except Statutes 515 and 515A, let alone to check one. Since there were no guidelines for checking, I put together a checklist as a start, similar to our plat manual, and along with Mike Reiter, the other plat checker, we put together the first condo manual in 1980. Today it has been built upon and used around the State.

An early history of plat and Registered Land Survey checking fees as approved and passed by the County Board is as follows:

<table>
<thead>
<tr>
<th>Date Passed</th>
<th>Amount of Increase</th>
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<tbody>
<tr>
<td>June 24, 1969</td>
<td>$25/plat and $2/lot</td>
</tr>
<tr>
<td>October 21, 1976</td>
<td>$50/plat and $5/lot</td>
</tr>
<tr>
<td>August 1, 1981</td>
<td>$80/plat and $8/lot</td>
</tr>
<tr>
<td>October 1, 1986</td>
<td>$100/plat and $10/lot (as proposed)</td>
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When we become licensed, we take an oath to safeguard the life, health, property, and welfare of the public. I believe that in our direct contact with the public, all of us strive to practice ethical standards to achieve this lofty goal. However, an area that is frequently overlooked is discipline within our own ranks. Often, we come across an error or infraction made by a fellow registrant. Part of our professional responsibility is to inform the regulatory board of any person or firm that is in violation of statutes or regulations.

I agree that it is uncomfortable to make a report against a colleague; however, if an infraction is not addressed, the damage to our profession can be dramatic. Being self-employed for over two decades, I can tell you that it takes 20-plus well-satisfied clients to overcome a poorly completed project. If a member of the public is harmed in some way by a colleague’s work, it damages our whole profession. Most of the public do not have the tools or training to review a professional’s work; it is really our responsibility to police our own ranks.

Most of the time, infractions are very minor in nature; being human, we all make errors. Most statutes or regulations have no clear procedures for addressing infractions we find in the course of our activities. Therefore, I believe the first step is to make a courtesy call to the registrant and inform him or her of what you have discovered. True professionalism is demonstrated by 1) making the call and 2) how we respond to receiving a call. I, myself, have received a number of these calls over the last 40 years of practice. I appreciate them and do everything in my power to correct the error and rectify any damage caused.

Often such a discussion will bring to light information that had a bearing on the project, and the caller will conclude that, in fact, there is no infraction to report. These discussions are also a great learning opportunity for both professionals (especially the younger ones) and, for the sole registrant in a small office, an opportunity to get another’s view on the complexity of difficult projects. I think most professionals would feel the same way.

Unfortunately, there are those who do not respond favorably to these calls and will ignore the problem. It is then incumbent on us to follow through with reporting infractions to the board.

It is our responsibility to do this, whether we work in the private sector, municipal, state, or even federal government. We do more damage to our profession by allowing these practices — and the practitioners — to continue. I, personally, am very proud to be working in my chosen profession and to have the trust of the public. Let’s not lose that trust.

I enjoyed plat checking as a job. It really helped me in passing my State examination for Land Surveyor, and I got to know and talk to many people including the owners, attorneys, engineers, contractors, surveyors and technicians. The surveyors called us “Nit Pickers,” but our purpose in checking plats was to have the recorded plat as correct as possible, fitting the Recorders’ and Surveyors’ needs following the State Statutes and the Plat Manual.

About the author: Gary L. Backer, RLS in Arizona and Minnesota, retired early from the Hennepin County Surveyor’s Office in 1994, but continued to work for two-and-a-half years as a consultant to the Examiner of Titles. Before his employment at Hennepin County, he worked at the City of Minneapolis Engineering Department from 1957 to 1962. He began teaching at Dunwoody College part-time in 1975, teaching continuously for 32 years, evening and day classes, finishing in 2007. He has been working in private surveying up to the present.
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Introduction

On May 29, 1848, Wisconsin became a state with the St. Croix River as its western boundary. Excluded from the new jurisdiction was the area between the St. Croix and Mississippi rivers, an area previously part of Wisconsin Territory, that had already been surveyed by deputies awarded contracts by George W. Jones, the Surveyor General of Wisconsin and Iowa. The field notes of the deputies, who had quite naturally treated the St. Croix as just another water obstacle, and the township plats, based on the information contained in the notes, had been approved and certified by the Surveyor General. The following year, on March 3, 1849, Congress created a new jurisdiction, Minnesota Territory, to include the surveyed area between the St. Croix and Mississippi rivers. As a result, the approved field notes and certified township plats needed to be revised, as Justin Butterfield, the Commissioner of the General Land Office, explained to Caleb Booth, who replaced George W. Jones as Surveyor General of Wisconsin and Iowa in a letter on July 9, 1849:

By the 1st Section of the Act of 12th June 1840 entitled “an act for the discontinuance of the office of the Surveyor General in the several districts” etc. it is provided that “whenever the surveys and records of any such district or State shall be completed, the Surveyor General thereof shall be required to deliver over to the Secretary of State of the respective States, including such surveys, or such other officer as may be authorized to receive them all the field notes, maps, records and other papers appertaining to the land titles within the same.”

In view of the provisions of law, it is requested that you will cause the field notes of the surveys in Wisconsin to be kept separate and distinct from those of the surveys in Minnesota and the same course should also be pursued with reference to the lands in Iowa, and Minnesota after the Northern boundary of Iowa shall have been established. Separate plats of the surveys will also be required.

In fact, federal legislation enacted in 1833 had established the principle of closing the public land surveys against state boundaries. Booth replied several weeks later:

During the years 1847 & 8 & before the question of boundary between Wisconsin and Minnesota was definitely decided, the surveys in the vicinity of the boundary were pushed rapidly forward – the subdivision being extended from the Mississippi river very nearly to the point where a line drawn due south from the Rapids of the St. Louis river will intersect the St. Croix river. The field notes & plats of these surveys, consequently, embrace the lands upon either side of the boundary in all instances where a township is traversed by the St. Croix.

I have already found it necessary to construct new plats and descriptive lists of thirteen fractional townships, lying East of the St. Croix and which are divided by that stream, for the use of the Register at the mouth of the Willow river in Wisconsin all of which had once been prepared and forwarded to the Register formerly at the falls of St. Croix but now at Stillwater in the Terr’y of Minnesota.

As there exists no immediate necessity for the separation of the original field notes and plats of these surveys, I presume it will be proper for me to direct a portion of the force of my office to that object, during the intervals of pressing, current duties.

He subsequently noted in his annual report for 1850,

During the quarter closing on the 30th ultimo, I directed a part of the regular force of my office to the separation of the field-notes and plats above named. The field-notes of three large districts of township lines, the subdivision and traverse of thirteen townships, and the original plats of the same thirteen townships, had to be, and now have been, copied, examined and certified.

Here, we describe how Surveyor General Booth carried out that work by examining the field notes and township plats existing for Minnesota and for Wisconsin. Initially we supposed that the field notes and the plats in the Wisconsin Board of Commissioners of Public Lands collections would be the certified records describing how deputies carried out when both sides of the St. Croix were part of Wisconsin Territory. The notes in the Minnesota Secretary of State collections, on the other hand, would be certified copies of the original notes and plats describing the work of the deputies only on the west side of the River, in Minnesota Territory. What we found, however, was a lot more complex and we briefly describe the relevant field notes and township plats that exist in the two collections. Our concern is not with the details of the actual surveys, but with the records of the surveys that exist and are available to be used by modern land surveyors. Our purpose is to alert surveyors working in these townships, and in other areas where the public land surveys preceded the establish-
The Public Land Survey Lines, continued from page 14

ment of a territorial or state boundary, about the nature of such survey records.

The Rectangular Surveys

On May 22, 1847, George W. Jones, the Surveyor General of Iowa and Wisconsin, awarded a contract to Henry A. Wiltse to run the 3rd Correction Line from the 4th Principal Meridian to the Mississippi River, and a contract to James M. Marsh to establish townships both north and south of the Correction Line on both sides of the St. Croix.1º He awarded three deputies contracts to subdivide townships adjacent to the St. Croix: John Dunn on August 30, 1847, Henry Maddin on September 6, 1847, and William A Jones on July 18, 1848. (Figure 1)

Township Exteriors Field Notebooks – Wisconsin

Henry Wiltse ran the 3rd Correction Line, the line between T30 and T31, in July and August 1847. The title page of volume 146 of the Wisconsin field notes carries the word “compared.”¹¹ These notes begin at the 4th Principal Meridian, some 100 miles east of the St. Croix, and end at the township corner between R20 and R21 about 7 miles west of the River. He chained across the St. Croix River in R19, setting a meander post on each bank, and in his affidavit stated that he had “regularly surveyed that portion of the Third Correction Parallel which commences in the Fourth Prin. Mer. W.T. and extends West to the line dividing Ranges 20 & 21.” The notes were certified by George W. Jones on August 20, 1847.¹²

The exteriors run by James Marsh crossing the St. Croix are found in six volumes, 148-153, in the Wisconsin collections. Interestingly, although of unknown relevance, none of his notes were certified by George W. Jones; rather, the requisite affidavit in each volume was witnessed by J. B. Covey, Judge of Probate at Stillwater, St. Croix County, on October 30, 1847.¹³ In the affidavit, Marsh stated that he had carried out the surveys described in the notes in Wisconsin Territory. Volumes 149, 150, 151, 152, and 153 contain the words “duplicate” and “compared” on their cover or title page; volume 148 does not, however.

The exteriors north of the 3rd Correction Line can be found in volumes 148 and 149. In volume 148, Marsh ran westward on the north line of T31, chaining over the St. Croix, setting a meander post on each bank, and then continuing westward until he reached the Mississippi on August 24.¹⁴ In volume 149, he established the northern exterior of T32 at Range 19 on September 3, setting a meander post on the east bank of the St. Croix, chaining over the river, 22.68 chains wide at that point, noting “Quarter post in River,” and continuing westward, reached the Mississippi on September 8.

The exteriors south of the 3rd Correction Line can be found in volumes 150-153. In volume 150, titled No. 3 on the cover, Marsh described establishing the northern exterior of T26N R20W as he chained westward on September 22.¹⁵ Arriving at the east bank of Lake St. Croix, he noted “Section corner in lake” and then “Over lake & set meander post” continuing to the NW corner of the township, after which he ran the western exterior of the township south to the Mississippi. In volume 151, he described running the western exterior of T27 R20 northward on September 23 and running the north exterior westward on September 28-29. He reached the east bank of St. Croix Lake, where he set a meander post, noting “Quarter Section post in Lake.” He set a meander post on the west bank of the lake, at that point 31.62 chains wide, and continued to the Mississippi, which he reached on September 30. This procedure of setting meander corners on both banks of the St. Croix and continuing west to the Mississippi continued in volume 152 for the northern exterior of T28 R20 and finally, in volume 153, for the northern exterior of T29 R20.

Figure 1. Field Note Volumes – Township Exteriors.

<table>
<thead>
<tr>
<th>Deputy</th>
<th>Minnesota Collections</th>
<th>Date of Survey</th>
<th>Area Covered</th>
<th>Wisconsin Collections</th>
<th>Area Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>v.131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>v.133</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wiltse</td>
<td>v.132</td>
<td>Aug.10-16</td>
<td>W of St. Croix</td>
<td>v. 146</td>
<td>From 4th Principal Meridian to R20/R21</td>
</tr>
</tbody>
</table>

Township Exteriors Field Notebooks – Minnesota

The field notes in volume 132 of the Minnesota collections describe the surveys Henry Wiltse ran for the Third Correction Line on the west side of the

Continued on page 16
St. Croix. There are two sets of notes in this volume. First are the notes beginning seven miles west of the St. Croix, at R20/21W that he ran west to the Mississippi River on August 13-16, 1847. In his affidavit, Wiltse described them as “the Third Correction Parallel from the line dividing Ranges 20 & 21 west to the Mississippi River.” The second set of notes begins on August 10, 1847, at the meander post on the right bank of the St. Croix River and continues west. In a second affidavit, Wiltse refers to the “foregoing portion of the Third Correction Line in the Terr’y. of Minnesota,” which was impossible — because Minnesota Territory did not exist at that time. Although the notes were certified by George W. Jones on August 20, 1847, they were also certified as copies three years later, by Caleb Booth, on July 12, 1850. Booth’s certification is for “that part… lying between [the] St. Croix River and the S.E. corner of T31 R21.” The second set of notes was clearly rewritten, as was Wiltse’s affidavit, as they begin on the west side of the St. Croix River.

The notes to Marsh’s surveys in volumes 130, 131, and 133 of the Minnesota collection describe only those lines he ran west of the River from east to west.¹⁶ All of them were certified by Caleb Booth on May 14, 1850, as “a true copy of a part of so much of the original field books containing the surveys executed by James M. Marsh, Dep. Sur. under his contract of May 22d 1847 and contains the surveys of that part of his District situated West of St. Croix Lake in the territory of Minnesota.” Volume 130 is chronologically the last of Marsh’s notes, made September 22-October 15, 1847, as he established township exteriors between the St. Croix and Mississippi south of the Third Correction.¹⁷ In his affidavit, Marsh stated that he had “regularly surveyed & established the foregoing township boundaries West of the Fourth P.M. Wisconsin Terr.” Volume 131 contains three sets of notes: Those describing the exteriors south of the Third Correction that Marsh ran west, south, and north, October 15-20, 1847; those describing the lines north of the Correction that he ran north, August 10-13, 1847; and those describing the lines north of the Correction he ran west and south, August 19-24, 1847. In his affidavit, Marsh made the same statement as appears in volume 130. Volume 133 contains the notes of township exteriors run north, August 24-27, from the southern exterior of T32N between R24/25W and R19/20W, and the northern exterior of T32N run west, September 3-8, from R19W, beginning at a meander post on the right bank of the St. Croix, to the Mississippi. In his affidavit, Marsh noted, “I have regularly surveyed & established the foregoing township boundaries West of the Fourth Principal Meridian, Wisconsin Territory.”¹⁸ Although the arrangement of the notes in the volumes is a little perplexing, as far as we can tell, all of these notes appear to reproduce the notes in the Wisconsin collection and therefore can with some confidence state that they record what Wiltse and Marsh did.

**The Township Subdivision Field Notebooks – Wisconsin**

We expected that the field notes of deputies subdividing the townships in the Wisconsin collections would describe their work in each full township. This was not the case.

William A. Jones was awarded a contract on July 18, 1848, several months after Wisconsin statehood had been established. (Figure 2) In all three townships, he closed his lines against the east bank of Lake St. Croix, by a true line run west and a meander corner set on the Lake’s east bank. His subdivision of T26 R20, surprisingly, took him more than a month. In his affidavit, Jones stated that he had performed the surveys in Wisconsin, and the affidavit witnessed by Francis Yager, Justice of the Peace, Dubuque County, Iowa on December 20, 1848.¹⁹ Although the notes for this township are not labeled “copy,” they only contain the notes for the lines he ran east of Lake St. Croix, and he received a contract to subdivide the entire township.

Continued on page 17

**Figure 2. Field Note Volumes – Township Subdivision**

<table>
<thead>
<tr>
<th>Location</th>
<th>Deput</th>
<th>Minnesota Collections</th>
<th>Wisconsin Collections</th>
<th>When Surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>T26N R20W</td>
<td>William A Jones</td>
<td>v.135 W only</td>
<td>v.135W01 E only</td>
<td>Oct. 15 - Nov. 24, 1848</td>
</tr>
<tr>
<td>T27N R20W</td>
<td>William A Jones</td>
<td>v.135 E and W</td>
<td>v.135W02 E only</td>
<td>Nov. 2-22, 1848</td>
</tr>
<tr>
<td>T28N R20W</td>
<td>William A Jones</td>
<td>v.135 E and W</td>
<td>v.135W03 E only</td>
<td>Nov 11-18, 1848</td>
</tr>
<tr>
<td>T29N R20W</td>
<td>John Dunn</td>
<td>v.135 E and W</td>
<td>v.135W04 E only</td>
<td>Nov. 1-6, 1847</td>
</tr>
<tr>
<td>T30N R20W</td>
<td>John Dunn</td>
<td>v.135 E and W</td>
<td>v.135W05 E only</td>
<td>Nov. 6-10, 1847</td>
</tr>
<tr>
<td>T31N R19W</td>
<td>Henry Maddin</td>
<td>v.119 W only</td>
<td>v.132W03 E and W</td>
<td>Dec. 30 - Jan. 11, 1848</td>
</tr>
<tr>
<td>T32N R19W</td>
<td>Henry Maddin</td>
<td>v.119 W only</td>
<td>v.132W04 E and W</td>
<td>Dec. 26-29, 1847</td>
</tr>
</tbody>
</table>
The notes for the other two townships Jones subdivided, T27 R20, a “Fractional” township in “Wisconsin,” and T28 R20 are both labeled “copy.” They describe the lines the deputy ran east of Lake St. Croix, lines that he closed against the Lake with true lines run westward, setting meander corners on the east bank. His affidavits in both volumes of notes were witnessed by Francis Yager on December 20, 1848. The notes to T27 R20 were also certified “as a true copy of that part of the original field book of the survey… as lies East of St. Croix river in the State of Wisconsin” by Caleb Booth, the Surveyor General on December 20, 1850. The notes to T28 R20 were certified by Booth “as a true copy of the original notes of the subdivision of Township 28 North, Range 20 West, 4th Meridian, as far as the same extends into Wisconsin,” on August 5, 1850.

John Dunn subdivided two townships. His notes of T29 R20 are labeled “copy” of “Subdivision of Frac. Township 29 North Range 20 West of the 4th Principal Meridian Wisconsin.” Dunn only described the lines he ran east of the St. Croix, all of which close against the River. The notes were certified November 26, 1847 by George W. Jones, and certified again, as a true copy of the lines that were made in Wisconsin, by Booth on August 23, 1850. Similarly, Dunn’s notes of the survey in which he subdivided T30 R20 only show the lines east of the River that close against the River. The certificates attached to these notes are similar to those attached to the other township subdivided by Dunn.

In contrast, volume 132 contains Henry Maddin’s notes describing how he subdivided all of T31N R19W and T32N R19W, both of which lie north of the Third Correction Line, where the river is considerably smaller than further south. Maddin described chaining over the St. Croix setting meander posts on both banks. George W. Jones certified the notes on March 7, 1848. These must be originals or transcriptions of the originals.

The Township Subdivision Field Notebooks – Minnesota

William A. Jones’ subdivision field notes for T26N R20W include only the surveys he made west of Lake St. Croix and north of the Mississippi River in Minnesota Territory. He first ran south between sections 4 and 5, then east on a true line between section 4 and 9, setting a meander corner on the right (west) bank of Lake St. Croix. He then ran south on a true line between sections 8 and 9, setting a meander corner on the left (north) bank of the Mississippi. He continued to run his subdivision lines progressing southward. His affidavit was witnessed by Francis Yager, Justice of the Peace, Dubuque County, Iowa on December 20, 1848 and the notes were certified as true copies by Caleb Booth on August 2, 1850, well after Minnesota Territory had been established. The notes of his surveys of both T27 R20 and T28 R20, however, describe the entire township on both sides of the St. Croix River, all in Wisconsin Territory. The affidavits in both volumes are witnessed by Francis Yager on December 20, 1848. Remember that the St. Croix was established as the western boundary of Wisconsin in May 1848. Clearly, the width and depth of Lake St. Croix in these townships prevented Jones from chaining across the river. On the east side, he ran a true line west and set meander corners on the left bank. On the west side, he ran a true line <east> and set meander corners on the right bank. These notes are probably originals.

John Dunn’s notes describing the subdivision of T29 R20 and T30 R20 contain the notes for each entire township on both sides of the St. Croix, then in Wisconsin Territory, both of which were certified by Jones on November 27, 1847. Once again, it’s clear that the width and depth of Lake St. Croix prevented Dunn from chaining over the water. These must be originals or transcriptions of the originals.

The notes describing Henry Maddin’s surveys of T31 R19 and T32 R19 only describe that portion of the township lying west of the St. Croix in Minnesota Territory. Both volumes were certified by Jones March 7, 1848, and as a true copy of the notes “as lies west of the St. Croix River in the Territory of Minnesota” by Caleb Booth August 21, 1850. These notes are distinctly different from those in the Wisconsin collections. In these notes, Maddin described running his subdivision lines from the western exterior of the township on a true line east to the St. Croix, terminating at a meander corner on the right bank of the St. Croix River. Clearly, the notes were rewritten to close against the St. Croix after the River had become the boundary between Wisconsin and Minnesota Territory.

The Township Plats

We initially supposed the plats in the Wisconsin collections would show both sides of the River, and the Minnesota collections would show only the west side of the River. Although this was not the case, it is relatively easy to see what did happen. Simply put, whichever jurisdiction contained the largest proportion of the township received the original map with all 36 sections, and the other jurisdiction received a certified copy showing only that part in the new jurisdiction.

Continued on page 18
Thus, the plat of T32N R19W, certified by Surveyor General George W. Jones on April 18, 1848, in the Wisconsin collections shows the entire township lying on both sides of the St. Croix River with the area west of the St. Croix marked in red ink “Copied.” 24 A second plat, in the Minnesota collections, labeled “copy,” shows only that part of the township lying west of the River in the Territory of Minnesota. It is also certified by Surveyor General George W. Jones, April 18, 1848, and also contains an additional certification, from Surveyor General Caleb Booth on August 6, 1850, “as a correct copy of so much of the original plat of Township No. 32 N. of Range No. 19 W of the Fourth Principal Meridian as lies West of the St. Croix river in the Territory of Minnesota.” 25

**Conclusion**

Even though the Wisconsin Enabling Act had identified the western boundary of Wisconsin at the St. Croix River in 1846, the surveys performed in 1847 and 1848 continued past the St. Croix, and westward to the Mississippi River. When statehood finally arrived for Wisconsin on May 29, 1848, the resulting dilemma for Surveyor General Booth was to close the surveys on each side of the state boundary. As we stated, the principle of closing the surveys against state boundaries had been established in 1833. Of course, the true principle was to establish and survey the state boundary prior to closing the rectangular survey.

This leads to the next requirement, which was distribution of the completed surveys to each state according to the
Act of 1840. These efforts to separate the surveys and close the surveys on each state boundary led to the revisions we find in the field notes and the drafting of revised plats at the St. Croix River. The associated costs were not welcome as Booth wrote in his Annual Report of 1850, “when the survey precedes such boundaries, much difficulty may be experienced and expenses incurred in causing the requisite separation.”

There appears to be no consistency regarding how Booth separated the field notes for the townships made fractional by the St. Croix River, and therefore which jurisdiction got the originals notes and which got the revised copies. Perhaps there was a method behind his actions and some of the notes have been lost in the following 160 years! On the other hand, Booth seems to have handled separating the township plats in a purely pragmatic fashion. The jurisdiction in which the larger portion of the township lay received the original plat, and the jurisdiction in which the smaller portion of the township lay received a revised copy. Surveyors today should be aware of the revisions made to the notebooks that comprise the townships divided by the St. Croix River at the Minnesota-Wisconsin boundary.

Endnotes

1 The article was prompted by Report on the Direction of the East-West Quarter Line Section 30, T.32 N., R. 19 W.; Position paper on the government survey crossing the St. Croix River (Washington County Public Works Department, Survey and Land Management Division, November 2007) written by Marc Senjem.

2 In fact, the St. Croix had been defined as the western boundary of Wisconsin in the Enabling Act a number of years before, on August 6, 1846 (9 Stat. 56).


4 The Organic Act, establishing Minnesota Territory, can be found in 9 Stat. 403.

5 Butterfield to Booth July 9, 1849 (National Archives, Microcopy No. 27, Roll 13, Page 175, General Land Office, Letters Sent to Surveyors General.


8 His report was dated November 11, 1850, and can be found in United States, Congress, Senate, General Land Office, Annual Report for 1850. <S. exec. doc. 2>, 31st Congress 2nd session. Serial Set 588, pp. 49-50.

9 The field notes and the township plats relating to the eastern side of the St. Croix can be found in the collection of the Wisconsin Board of Commissioners of Public Land, online at http://bcpl.wisconsin.gov/category.asp?linkcatid=2824&linkid=1440&locid=145. Field notes for the seven townships lying west of the St. Croix in Washington County can be found in the collections of the Secretary of State in the Minnesota Historical Society, index online at http://www.mnhs.org/library/findaids/secst025.pdf. The plats for these seven townships can be viewed online at http://www.gis.state.mn.us/GLO/Index.htm.

10 Jones also awarded a contract to J. E. Freeman to run township exteriors. See Rod Squires, “The First Township Exteriors in Minnesota,” supra note 3. All of the surveys were run under the instructions that Surveyor General Jones had issued on May 28, 1846, see White, supra note 7, pp. 340-355, especially pp. 342-243, that describe how township exteriors and subdivision lines were to be run.

11 On the basis of this, which appears on several other notebooks, see below, and the fact that there is a remarkable uniformity of handwriting in the Wisconsin field notes, suggest these notebooks are transcriptions of the original notes.

12 We do not know why Wiltse ran the Correction Line from the Principal Meridian to a particular corner of a township as appears in the Wisconsin collections, and not to the Mississippi River.

13 Marc is convinced of the Justice’s name. Rod thinks it may be J.B. Casey or J.B. Coney.

14 Remember, he was surveying according to the 1846 instructions, see Squires, supra note 3.

15 We do not know the significance of the No. 3.
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The Public Land Survey Lines, continued from page 19

16 The field notes in the Wisconsin collections are found in six volumes. In the Minnesota collections, they occupy three volumes.


18 There seem to be some erasures in Booth’s certification.

19 Of course, the surveys did not take place in Wisconsin Territory; the jurisdiction no longer existed.

20 We could presume, since the bulk of the township was in Minnesota, the original notes were in the Minnesota Collection.

21 On August 30 1847, Surveyor General Jones issued the following special instructions to Dunn:

Herewith you will receive five blank diagrams upon which you are required to note the topography variation of the compass upon each mile & the length of the exterior lines of each township of your district, as also the length of the exterior lines of closing on lake St Croix or St. Croix river which you are hereby required to meander on both banks, as far as they extend in you district. You will obtain these notes together with the description of all section corners on your exterior lines from James M. Marsh, Dep. Sur. Who you will find within or near your district.

In establishing all East & West lines intersecting Lake St. Croix where the width is too great to connect the surveys on each sided. You will run them as true lines observing to place your quarter section corners forty chains from the point of beginning and your meander corner at the first point of intersection with the Lake if within one mile and regulating your variation by that of the E & W line immediately south of the one to be run.

Should these lines exceed one mile, you will place a Section corner at 80 chs & from thence continue your E & W line to the Lake: and afterwards run the necessary N & S lines from the section corner last made.

You are hereby required to make the returns of the field notes of said survey in person.

22 Maddin’s notes refer to St. Croix River while Jones uses the term “Lake St. Croix.”

23 The question now becomes, which notes are “original” and should prevail?

24 Just who wrote “copied” and when is unknown.

25 Interestingly, Surveyor General Jones’ certification statement on the plat dated April 18, 1848, describes the township as being in Minnesota. This, of course is not correct. In April 1848, the township was in Wisconsin Territory. On the earlier “original” plat, the certification statement shows the townships as being, correctly, in Wisconsin Territory. Such a discrepancy clearly suggests that the certified copy was made after Minnesota became a Territory.


27 However, a large number of the township plats that were made before Minnesota Territory was established, in the area between the St. Croix and Mississippi rivers, were certified as being in Wisconsin Territory, and were not altered to reflect the new reality.
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Red Wing, Minnesota

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I would like to thank Mr. David J. Meyers, Esq., for writing the article “Minnesota Appellate Court Decisions on Torrens Law That Every Surveyor Needs to Understand,” which was published in the Winter 2009-2010 issue of the Minnesota Surveyor. I would also like to provide some additional insight on one of the cases cited in the article.

I have personal knowledge of the first case cited in the article: “Re Hauge, 766 N.W.2d 50 (Court File No. A08-0908) (Minn. App. 1908). An affidavit prepared by me as Washington County Surveyor is referenced in the Court of Appeals Analysis.

Mr. Meyers provided a brief version of the case; however, there is much more to the story and I believe there are additional lessons that can be learned from this case.

Mr. Meyers stated in the article that the land involved in the dispute is described as “property lying south 50 feet of the north line of Government Lot 3, and terminating at the shore of Clear Lake (the adjacent lake).”

This description appears to be a misquote of the description found in the Court of Appeals file. The property is basically a 50-foot wide strip of land. The actual record description is a simple “bounds” description that describes the land as being bound on the north by the Government Lot line, on the south by a line 50 feet south of and parallel with the Government Lot line, on the east by a Township road and on the west by Clear Lake. More simply stated it is “The north 50 feet of Government Lot 3 lying west of the Township road.”

Mr. Meyers’ article stated that Government Lot 3 was brought into the Torrens System in 1960 in a single registration. This registration actually included portions of Government Lot 3 and Government Lot 2 (to the north) together with other real estate. The entire property was owned by one party, the Lees. That property was surveyed and became RLS No. 34.

Some History

In 1962, the Lees conveyed a portion of RLS No. 34 to the Menaldinos, including said “north 50 feet of Government Lot 3 lying west of the Township Road.” A Certificate of Title was issued.

The land in dispute is a portion of a peninsula that extends into Clear Lake. A determination of the westerly terminus point of the north line of Government Lot 3 is one issue that is important to this case. The specific question is: Does the Government Lot line terminate at the shore of a small bay or does the line continue westerly across the small bay and a small peninsula and terminate at the shore of the main lake?

In 1963, a Certificate of Survey was prepared for the Lees. This survey shows the north line of Government Lot 3 terminating at the easterly shore of the small bay (the line does not extend out across the bay or peninsula). The survey also shows the south line of the north 50 feet of Government Lot 3 falling south of the southerly end of the small bay and extending west, past the bay, out to the shore of the main lake. The entire length of the south line of the north 50 feet was monumented. A total of five iron monuments were set on the line with one set at each end of the line and three intermediate monuments set at intervals along the line. The monument on the east end of the line was set on the westerly right of way line of the town road and the monument on the west end of the line was set 15 feet from the water’s edge of Clear Lake. In other words, the end monuments were set at the feature that “bounded” the description on both the east (road) and the west (lake).

The survey was most likely prepared to delineate and monument Lee’s conveyance of the north 50 feet of Government Lot 3 to the Menaldinos and appears to represent the intent of that conveyance. Why else would the Lees have the south line of the north 50 feet of the Government Lot surveyed and monumented?

In 1965, Registered Land Survey No. 62 was prepared for the Lees. The

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Figure 1. Sketch of 1963 Certificate of Survey

[Diagram of the 1963 Certificate of Survey showing the north line of Government Lot 3]

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A Response to David Meyers’ Article, continued from page 23

RLS was prepared by the same surveyor who prepared the Certificate of Survey of the north 50 feet of Government Lot 3.

RLS No. 62 shows the small bay extending south of the south line of the north 50 feet of Government Lot 3. The north line of the Government Lot and the south line of the north 50 feet are both shown terminating at the easterly shore of the small bay. The peninsula is shown on RLS No. 62 as part of Tract K.

Not surprisingly, the land in dispute is that part of the peninsula (Tract K) that is within the north 50 feet of Government Lot 3 when the lines are extended across the bay and peninsula.

Mr. Meyers stated in the “Comment” portion of his article that sending the case back to the Trial Court “… was probably the right decision, from a strict legal viewpoint, because the area of the peninsula included in Tract K of RLS 62 was never owned by the people who developed RLS 62.”

I agree that sending the case back to the Trial Court was the correct decision but I disagree with the reason stated by Mr. Meyers. The entire peninsula and all the land in question were in fact owned at one time by the Lees, who developed RLS 62. However, the Lees may no longer owned the peninsula at the time they created RLS No. 62. As the Appellate Court stated, the reason the case was sent back to the Trial Court is the genuine issue of material fact, which I believe is: “where does the Government Lot line terminate?” The answer to that question may establish who owns the peninsula.

Mr. Meyers also stated the following in regard to the court not ruling in favor of the owners of Tract K: “Here, the court left open the question of whether the people who bought Tract K owned the land described in the Certificate of Title for Tract K.”

I believe the Appellate Court left that question open because they expect the Trial Court to make the ownership determination based on a consideration of the issue of material fact, i.e., “where does the Government Lot line terminate?” In regard to leaving the question of ownership open, the same holds true for the owners of the north 50 feet of Government Lot 3, who also have a Certificate of Title for their property.

Opinions and Conclusions

Having reviewed the available evidence and information surrounding this case I have arrived at the following opinions and conclusions:

- Lees owned the entire parcel at one time.
- Lees conveyed the north 50 feet of Government Lot 3 to the Menaldinos.
- The north line of Government Lot 3 extends across the bay and peninsula and terminates at the outer shoreline of Clear Lake.
- The south line of the north 50 feet of Government Lot 3 also extends west to the outer shoreline of Clear Lake.
- A Certificate of Survey was prepared showing and monumenting the south line of the north 50 feet of Government Lot 3. The survey shows said line extending out to the outer shoreline of Clear Lake.
- The Lees, Menaldinos and the surveyor who prepared the Certificate of Survey and RLS 62 should all have been aware that the south line of the north 50 feet of Government Lot 3 extends west to the shoreline of Clear Lake.
- Regardless of the location of the westerly terminus point of the Government Lot line, the Certificate of Survey appears to represent the intent of the parties relative to the location and extents of the south line of the north 50 feet of Government Lot 3.
- RLS 62 shows found monuments along the south line of the north 50 feet of Government Lot 3 in the locations shown as “Set Iron Mon.” on the previous Certificate of Survey, with the exception of the iron monument near the shoreline of Clear Lake, which is shown as an “Iron Mon. Set.” The monuments being shown as “found” on RLS 62 verify that the south line of the

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north 50 feet of Government Lot 3 was in fact surveyed and monumented per the previous Certificate of Survey.

- The Lees had already conveyed the north 50 feet of Government Lot 3 prior to creating Tract K of RLS 62.

- An examination of historical aerial photography indicates that the bay as shown on RLS 62 may not be accurate. It is questionable whether the bay ever extended as far south as it is shown on RLS 62.

- Current aerial photography indicates that the south end of the bay is a substantial distance north of the south line of the north 50 feet of Government Lot 3. The current location of the bay is more consistent with its depiction on the Certificate of Survey than its depiction on RLS 62.

- The bay is shallow and the shoreline is susceptible to significant fluctuations depending on water levels. If the Government Lot line terminated at the easterly shore of the bay, the riparian rights of some landowners north of RLS 62 could be severed if the bay recedes. Terminating the Government Lot line at the bay could also result in some odd deflections of the boundary line between Government Lot 3 and Government Lot 2 as the bay recedes.

- I do not know if any attempt was made to contact the Lees or Menaldinos, or if either party is still alive. It is possible that they could answer questions regarding the intent of the conveyance and purpose for the Certificate of Survey.

Unanswered Questions

- I wonder about the involvement and input of the surveyor who prepared the Certificate of Survey and RLS No. 62. Clearly he should have had ample knowledge and opportunity to identify the potential for future problems. He could have suggested measures to prevent the mayhem that has resulted from the situation. Maybe he did?

- Was the Certificate of Survey showing the monumented south line of the north 50 feet of Government Lot 3 prepared to represent the conveyance of the north 50 feet? If not, what was its purpose?

- Did the Surveyor cause the problem by including the peninsula within Tract K because he was not aware of or understand the previous conveyance to the Menaldinos?

- Did the Surveyor act as “an advocate for his client” and knowingly look the other way when the Lees included the peninsula as part of Tract K even though it had already been conveyed to the Menaldinos?

- Was the Surveyor not in proper “responsible charge” of one or both of the surveys and not aware of the conflict between the Certificate of Survey and RLS No. 62 when he signed the two surveys?

- Were the Lees and Menaldinos in agreement on the configuration of Tract K? Documents could have been recorded with the Menaldinos releasing any claim to Tract K… but that didn’t happen.

- Did the Lees knowingly sell the peninsula more than once?

- What about the Title Examiner who issued the Certificates of Title for both parcels? It seems like the buck stops there. Should the Title Examiner have identified the conflict? Is the Title Examiner qualified to identify such conflicts?

- Should the Certificate of Title for the north 50 feet of Government Lot 3 prevail since it predates RLS No. 62?

- Should the Certificate of Title for Tract K of RLS No. 62 prevail since it was a survey filed for public record and has been of record for many years?

Lessons to Be Learned

Land Surveyors, Attorneys and Title Examiners may all have an opportunity to learn or reaffirm some relatively obvious lessons from this case.

Land Surveyors need to be in responsible charge and fully aware of what they are signing.

Land Surveyors need to conduct adequate title research and analysis as part of a survey.

Land Surveyors need to be proactive when they see conflicts or potential future conflicts.

Land Surveyors should not act as advocates for their clients to the detriment of others.

Land Surveyors and Attorneys both need to make sure that conveyance descriptions unambiguously represent the intent of the parties and that those descriptions will stand the test of time long after the original parties are out of the picture.
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**Subdividing Sections: What Every Surveyor Needs to Understand**

_By John E. Freemyer_

The previous issue of the *Minnesota Surveyor* magazine included the article “Minnesota Appellate Court Decisions on Torrens Law That Every Surveyor Needs to Understand” by David Meyers, Esq. He should be commended for pointing out some of the potential pitfalls in surveying Torrens property, but his comments on section subdivision relative to Romain v. Stael (Court File # A04-2227), warrant some feedback.

The basic dispute in Romain v. Stael dealt with the proper direction of the government lot line between Government Lots 2 and 3, Section 20, Township 115, Range 20. At first glance, this appears to be a fractional section subdivision question, but on closer examination the meandered lake lies entirely within the section. All of the section corners and quarter section corners were set during the original government survey and none of those perpetuated positions were being disputed. The proper layout of the government lot lines would be nearly identical to the procedures used for determining quarter lines and quarter-quarter lines in a regular section. Why then the confusion over the proper direction for the line between two of the government lots?

In reading the unpublished opinion of the Appellate Court, it is apparent that some basic principles of boundary law were misapplied. Issues considered by the court included double-proportional measurement and obliterated restoration using collateral evidence. These are issues related to restoration of PLS corner monuments and had nothing to do with the issue being considered — the direction of a government lot line. Nowhere in the opinion is there any mention of the proper method for determining the government lot line according to state and federal law.

Another issue considered by the court dealt with the position of an old fence line and the acceptance of the fence line as the government lot line by at least two different land surveyors. Even though the fence line in question was several feet different than the proper position of the government lot line, the court ultimately decided that an old fence line represented the government lot line.

Mr. Meyers wonders why surveyors often ignore or reject collateral evidence and instead use proportional measurement to determine a section subdivision line. He further advises us to “Use proportional measurement only as a last resort and then explain that it is a mathematical calculation and not a true boundary survey.” It is true that proportional measurement is the least desired option for replacing a missing section corner, but for most aspects of section subdivision, it is the fundamental method to be used.

The issue of how to properly subdivide a PLS section is well settled. State statutes mandate that land surveyors “shall follow the rules established by or pursuant to the acts of Congress,” when subdividing sections.1 Those acts have been summarized in a set of BLM “General Rules” that uses words like “shall” and “must” in describing the running of straight lines between proper corners and proportional measurement for determining quarter-quarter corners, etc.2 When subdividing a section, one of the foremost responsibilities should be to measure the proper corner markers on the section exterior and determine the required interior subdivision lines. If those lines are not in close conformity with lines of occupation, then further investigation and client consultation is likely necessary prior to setting any ground markers.

The Minnesota Supreme Court has provided possibly the best guidance for distinguishing the difference between PLS subdivision lines and collateral evidence, stating: PLS subdivision lines “must” be run in accordance with federal rules and “no extrinsic facts or parol evidence can be resorted to for the purpose of controlling or varying the description.”3

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Land Surveyors and Attorneys both need to be aware that it’s possible for Torrens property to have title problems. Mr. Meyers advised surveyors that it is necessary to review the Certificate of Title that is the basis of an RLS and stated: “This puts uncertainty in real estate law, where certainty is supposed to be the benefit of title registration.” This statement reflects what may be a fairly common misconception regarding title registration, i.e. registration eliminates all title problems. In reality, registering title may not always eliminate uncertainty. It is entirely possible to take a parcel of abstract property with an ambiguous legal description, register the title, and end up with a Certificate of Title for a Torrens parcel with an equally ambiguous legal description. The chance of this occurring can be reduced if Attorneys involved with title registrations work closely with a Land Surveyor.

Attorneys should consider boundary registration in conjunction with title registration.

Title Examiners should work closely with the County Surveyor. In Washington County, we have implemented a process whereby the Title Examiner forwards all applications for registration and most proceedings subsequent to the County Surveyor for review and recommendations. Prior to implementing this process there may have been some Certificates of Title issued with questionable legal descriptions.

It is my understanding that the owners of the north 50 feet of Government Lot 3 are currently pursuing Boundary Registration to resolve the issue over ownership of the peninsula.

In closing, it’s possible that there may be one more lesson that can be learned from this situation, which applies to Mr. Meyers and which I state somewhat in jest. When writing an article in a surveying publication advising Surveyors how to survey or how not to survey, it would be a good idea to accurately quote the example legal description. Otherwise, there is a risk of substantiating some Surveyors’ belief that Attorneys should not be allowed to draft or transcribe legal descriptions.

Subdividing Sections, continued from page 27

The court likely understood occupation lines may contribute to perfecting unwritten property rights, but that does not change the mandated method of subdividing a section. Each of those issues is simply a different aspect of our laws. That is why in performing boundary surveys and preparing supporting drawings and reports, care should be taken to not refer to a PLS line and an occupation line as one and the same, when they clearly are not.

Few section subdivision surveys represent an original effort, thus there may be retracement considerations. Do we accept an existing marker intended to represent a subdivision corner if it’s reasonably close to the calculated position? What is reasonably close? These are subjective decisions that the retracement surveyor has to make. We do have some guidelines, such as: the importance of supporting records/notes; consideration for measurement methods used in earlier time periods; and whether the previous surveyor attempted to use proper subdivision procedures. Those who simply accepted things like a fence line as a government lot line, when they were clearly not one and the same, could hardly be thought of as providing a good faith effort.

Long ago, the U.S. and Minnesota Supreme Courts stated they do not have the authority to interfere with the original public surveys.³ Arbitrarily referring to a line of occupation and a section subdivision line as one and the same, when they clearly are not, introduces chaos into the PLS system. If the courts do not have the authority to move PLS corners and lines, then land surveyors certainly do not, either.

Restoration of PLS corners, subdivision of sections and property rights associated with lines of occupation are important elements of boundary control, but cannot be improperly intermixed and applied as the court did in Romain v. Stael. It should also be noted that some appellate court decisions are unpublished and restricted on how they can be legally cited. Romain v. Stael is such a case, which is good considering it contradicts Supreme Court precedence and is poor application of basic land boundary principles.

Endnotes

1 Minnesota Statutes § 389.04
3 Beardsley v Crane, 54 N.W. 740, 52 Minn. 537, Supreme Court of Minnesota, 1893
4 Chan v Brandt, 47 N.W. 461, 45 Minn. 93, Supreme Court of Minnesota, 1890; Cragin v Powell, 128 U.S. 691, U.S. Supreme Court, 1888.
Concepts from Differential Equations are Mandatory to Solve Boundary and Legal Issues

By Clinton McLagan, L.S. Esq

It has been 50 years since I solved a differential equation. I would not know one if it bit me in the nose; nevertheless, there is an important concept from differential equations that must be applied in solving legal and boundary issues.

Our math professor at the University of Minnesota told us to picture five boxes – each containing an apparatus for solving a different kind of differential equation. Our task was to learn how to operate each apparatus, recognize the type of differential equation that fits in each box, place the equation in the proper box and make the apparatus work to solve the equation.

This same concept must be used to solve legal and boundary issues. For example, substitute public land survey issues for differential equations. To solve public land survey issues, there are two very different boxes. One box solves section subdivision issues and the other box solves remonumentation issues.

The apparatus to solve section subdivision issues is the act of Congress, approved Feb. 11, 1805, now codified as 18 U.S.C. 752. Congress has provided the sole operating apparatus for the box that solves section subdivision issues.

The apparatus in the box for solving remonumentation issues is made up of case law. Some of the case law in Minnesota has recognized the B.L.M. pamphlet on remonumentation as authoritative. The cases in the remonumentation box hold the site where the original monument was set by the deputies making the public land survey controls. The task is to locate this place as closely as possible. If there is insufficient evidence to do this, as a last resort proportional measurement can be used.

It is wrong to solve a section subdivision issue using the apparatus in the remonumentation box. Very few surveyors or lawyers and virtually no judges have taken a course on differential equations. It is not uncommon for surveyors, lawyers and judges to solve a public land survey issue by putting it in the wrong box, coming up with a wrong solution and having no clue as to how wrong this is.

Many examples could be given. Consider the unpublished case of Romain v. Stael (Court File A04-2227) (Minn. App. 2005) The legal issue was how to run a quarter-quarter line. Because it was between two Torrens parcels, using laws based on possession to determine the ownership line was impossible. The problem had to be solved in one of the public land survey boxes. The proper box to use was the section subdivision box where problems are solved using 18 U.S.C. 752. Our surveyor found the proper method of locating the quarter-quarter line was to start from a point on the section line that was halfway between the section and quarter corner and run to a point in the quarter line which was halfway between the quarter corner and center of section. The opposing lawyer determined these halfway points were found by proportional measure and found a case that stated one should use proportional measure only as a last resort. The district court and court of appeals agreed.

This is a glaring example of solving a public land survey problem in the wrong box. Our surveyor used the section subdivision box, followed the federal law and has been publicly criticized. How dare he ignore collateral evidence and use proportional measure? Because Congress said so. That is why.

People who should know better have shown they do not. Mr. Lucas discussed this case all the way from Alabama, and wrote in P.O.B. magazine that this surveyor should not be allowed to do boundary surveys. He even mentioned the surveyor by name in that national publication. Mr. Meyers from St. Cloud, discussing this case, wrote in the Minnesota Surveyor he does not understand why a surveyor would ignore collateral evidence and use proportional measurement. Like the district court and the court of appeals, these “experts” must learn to use the method taught for solving differential equations.

The answer to solving most boundary and legal issues is to follow the concept from differential equations. Know the separate boxes. Learn how to operate the apparatus used in each box to solve each type of problem and be sure to put the problem in the proper box.
The Minnesota Society of Professional Surveyors recently held its 58th Annual Meeting in Saint Cloud, Minn. The newly installed Board of Directors includes: President Tony Blumentritt of Blumentritt Land Surveying, Winona; Past President Lowell Schellack (retired), Park Rapids; President-Elect Henry Nelson of EVS, Inc., Eden Prairie; Treasurer Linda Brown of Bonestroo, Saint Cloud; Secretary Dennis Honsa of BDM Consulting Engineers and Surveyors, Saint Paul; NSPS Governor Chris Ambourn of Bolton & Menk, Inc., Willmar; Directors Charles Christopherson of Hakan-son-Anderson Associates, Anoka; Clinton R. McLagan of Boundary Litigation Seminars, Inc., Eagan; Connie J. Villari of Cornerstone Land Surveying, Inc., Stillwater; Paul A. Vogel of LHB, Inc., Duluth; and Patrick Veraguth of Winona County Highway Department, Winona.

The organization also presented its annual awards at the Annual Meeting. Surveyor of the Year went to Richard Morny with the Minnesota Department of Transportation, Saint Paul. This award is given to an active member of MSPS for recent and significant contributions of time and talent to the benefit of the society.

The E.A. “Bud” Rathbun Award of Merit went to John Freemyer, Carver County Surveyor, Chaska. This award is presented to an active member of MSPS who has served the society over a long period of time in a specific capacity.

The William S. Kelley award was presented to Dennis Pederson of Bogart Pederson and Associates, Inc., Becker. This award is given to MSPS Members who have contributed greatly to the community at large.

Congratulations MNSurveyor.com!

The MSPS website, www.mnsurveyor.com, has been awarded Honorable Mention in the Website category of the 2009 NSPS Excellence in Journalism Contest.

Congratulations to web manager, Anna Wrisky, and the MSPS leadership and members for their contributions.
Lloyd Schellack passes gavel to new president, Tony Blumentritt

Glen Everhart entertains at Presidents Banquet

MSPS Foundation representatives Peter Jenkins and Denny Purcell with “traveling trophy”

MSPS past president David Landecker presents William S. Kelley Award to Dennis Pederson

2010 Board of Directors inducted by NSPS Region 5 Director, Jan Fokens
Special Thanks from Ted Kemna

By Ted Kemna

Words do not express the heartfelt gratitude that swept over me on Friday, January 29, 2010 when David Landecker called my name as a person being on the top of his surveyors Hall of Fame list. Receiving this “Lifetime Achievement Award” for selfless dedication and contribution of time, talent and leadership to the society is an award that is not anticipated or expected. Receiving any award is a great honor, but receiving this award from and before your peers is one of the greatest honors that one can receive.

As I reflect back on the many years that I have been a member of the Minnesota Land Surveyors Association (MLSA) and now the Minnesota Society of Professional Surveyors (MSPS) and thinking of the many people who have had an influence on my life or were an encouragement to me in my surveying career and involvement in activities in the society I see and feel the advantages of being involved. My involvement with the society dates back to the early 1960s with the Legislative Committee and work on Chapter 505 as well as many other positions over the years. I look forward to returning from Florida to attend the annual conference not only to learn of the newest technology, but to meet and greet people who are not only great surveyors but very close friends.

As Eric Ewald has stated several times in his comments at meetings, this is a great organization of volunteers. This is most certainly true and it is through the many volunteers who encourage others that keeps me involved in the many committees. The current involvement with the education of young people at St. Cloud is an example of being involved and seeing what the future generation of surveyors is going to be like.

It is with great dignity, honor and humility that I receive this award and thank everyone who had a part in creating such an award and naming me as the first recipient.
Coordinator's Note: I sincerely apologize for the delayed processing of this wrap-up article. I wish I could blame the time lapse on an unexpectedly heavy workload here at the office, or on the 2009 spring flooding. However, our workload was disturbingly light until recently, and the massive spring flooding here in the Valley was, in my case, a fortunately manageable problem. Instead, I am chalking it up to other personal and professional glitches that are hopefully behind me for 2010. Thanks to the Board of Directors and to the general membership for your patience and understanding.

Wow — some new schools, a brand-new traveling trophy, and another successful year of Trig-Star is in the books! Before I give the usual breakdown of the top scorers, etc., let me start with a big thank you to Fletcher Koos, Janele Fowlds, Rod Gunderson, and several other members of the MSPS Board and administration for developing the traveling trophy concept and bringing it to fruition in such a short time. If you haven’t seen it, a brief description and photos are available via Fletch. It will be awarded annually to the school that posts the best combined score for its top ten students (please note that schools with less than ten participants are welcome to participate for local/state prizes, but are just excluded from picking up this traveling “team” trophy). I think it is primo, and I am confident that it will add to the number of students participating at each school as well as to the number of schools asking to “get in the game.” Thanks again!

Okay, now for the wrap-up. As always, the format for this contest is 60 minutes max, high score wins, and time elapsed is used as the tie-breaker. In the first two lists below, an asterisk (*) indicates a score of 100%. Local prize money varies among the Chapters; please contact your Chapter’s Trig-Star rep (listed below) if more information is required. State prizes and medals are awarded for the top three contestants. Each state winner takes another exam, and National prizes are distributed to the top three participants and their instructors following that effort.

$350/Gold First Place: Yinshuo Zhang, Mankato West (17:36)*
$250/Silver Second Place: Kim Kawatra, Mankato West (30:50)*
$200/Bronze Third Place: Mitchell Campbell, (Duluth) The Marshall School (37:30)*
School Team Best (Trophy): Mankato West High School, 895 points (of a possible 1000)

In Chapter order, not in order of finish, the local winners at each of the participating schools from across Minnesota are listed below. Congratulations to all winners, as usual, and thank you to all participants — let’s meet again for the 2009-10 Contest, if you’re still enrolled at the high-school level. We encourage any and all students from other schools to contact the undersigned, or another Trig-Star rep, or a local surveyor, for more information on participation. Numbers in parentheses indicate order of finish on a Chapter-wide basis.

Chapter One/Southwest
(Trig-Star Rep: Janele Fowlds)
Fairmont High School: Jami Riley
Granada Huntley East Chain High School: Henriette Borgund
Mankato West High School: Yinshuo Zhang * (1) (17:36), Kim Kawatra * (2) (30:50)
New Richland-Heartland-Ellelland-Geneva Senior High School: Steven Sletten
St. Clair High School: David Rosen
Sleepy Eye Public High School: Steven Walter
Sleepy Eye St. Mary’s Senior High School: Brett Ubl * (3) (43:50)
United South Central High School: Kirsten Amberg
Waseca High School: Steven Flogstad

Chapter Two/Northwest
(Trig-Star Rep: Terry Freeman)
Breckenridge Senior High School: Regan Whitney
Park Rapids Area High School: Jake Grimes * (45:45)
Walker-Hackensack-Akeley: Mikaleen Lowe

Chapter Three/Hiawatha Land
(Trig-Star Rep: Peter Oetliker)
(Rochester) Lourdes High School: Matt Techentin

Chapter Four/Arrowhead
(Trig-Star Rep: Fletcher Koos)
(Duluth) Central High School: Trevor Cotter
(Duluth) Denfeld High School: Andy Switzer (3), Elaina Hintsala (6)
(Duluth) The Marshall School: Mitchell Campbell * (1) (37:30), Kelsey Klug (2), Jong Yun Kim (4), Tony Hanson (8)
Hermantown High School: Ryan McEachern (5)
[Superior, WI, High School: Dylan Holck (7)]

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Chapter Five/Central Lakes
(Trig-Star Rep: Shannon Bollman)
No participation

Chapter Six/Metro
(Trig-Star Rep: Marcus Hampton)
Hopkins High School: Krishna Shankar

As for the National contest, the results are as follows:
$2,000 First Place: Tommy Scott, Patuxent High School, Lusby, MD
$1,000 Second Place: Anthony T. Pabillano, Flour Bluff High School, Corpus Christi, TX
$500 Third Place: John Berman, John T. Hoggard High School, Wilmington, NC

Other notables:
Minnesota (15), North Dakota (19), Montana (22), Puerto Rico (30), Wisconsin (31), South Dakota (35). Iowa did not have an entrant this time. Total number of entrants: 36.

Some final notes on this year’s Contest:
• Our State Trig-Star doesn’t graduate until 2012! Do the math; that’s a great National effort!
• Does the National runner-up sound familiar? He should— he WON last time! That’s impressive!
• For the first time in almost ten years, Moorhead High School and Eden Prairie High School did not participate— the former because of school make-ups due to major flooding in the Red River Valley, the latter due to other scheduling conflicts. We hope to see you both in 2009-10!
• This year’s top scorer at WHA (Mikaleen Lowe) reportedly smoked that school’s previous high score with a slappy 95%, and doesn’t graduate until 2010!
• Several repeat attendees recorded excellent scores again this year; among them were Jake Grimes (Park Rapids) and Kelsey Klug (Duluth, The Marshall School). Again, that’s impressive! Thanks to all re-participants!

I’m sure many readers noted with interest the participation of an out-of-state (Superior, WI) school in our Minnesota State contest (see group test in Chapter Four). NSPS rules make the State Coordinator decide local matters of this nature, and when asked prior to the test, I okayed it — I am encouraged by the interest of new schools and the renewed participation of previous entrants. Any positive exposure of students to our profession — students who may or may not become surveyors, but who will almost certainly require a surveyor’s services somewhere along the line — is, I believe, a good thing. As far as what would happen should an out-of-state student outscore the rest of our State’s participants, I believe his/her test would be given due consideration for the State prizes in whatever State the school is physically located. The Contest rules are very specific regarding the administration of only one test per school per year, and the testing is proctored according to the same rules regardless of location, so I see no problem with this decision. Do you? Let me know, I’d like to consider your comments on this or any other issues regarding the Trig-Star program. That’s why they keep me around, I think (obviously, it isn’t because of efficiency or appearance; those are in Janele’s domain).

Thanks again to all surveyor/sponsors, teachers and students for another great year for the Trig-Star Program! I will keep you posted on what changes arise, if any, now that a new NSPS Trig-Star Committee Chairman is in place at the National level. As of a couple of months ago, the new Chairman told me via phone calls that he saw no need for a major re-write of the 10-Year Plan which is due to expire shortly, and since both he and the former Chairman participated in its formulation, and the former Chairman is still a member of the NSPS Trig-Star Committee, I understand his optimism. Funding increases are still under discussion, but obviously our nation’s economic issues affect those requests. I was fortunate to see first-hand the effort that went into that 10-year document, and I believe the program is in good hands with the present Committee make-up.

Best wishes for a successful 2010!

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### Firm Member Directory

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<thead>
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<th>Firm Name</th>
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</tbody>
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HARRISON markers are highly magnetic with the tenacious position-holding features that surveyors need.

If struck by a plow the top can crack off, and the bottom will hold its position.

HARRISON MARKER CO.
Box 66, Anoka, MN 55303
Telephone (763) 421-1445

NOTE THE MARKER'S UNIQUE SHAPE

—AND SEE HOW IT RESISTS SIDE AND PULL-OUT THRUSTS.