

SASKATCHEWAN LAND SURVEYORS' ASSOCIATION

Newsletter

President's Message to the Membership

By R. J. Pominville, SLS, P. Surv., President

This is my first opportunity to address you since the annual meeting. I would like to thank the membership for the opportunity to serve as your president and consider it an honor to do so. This should prove to be a very good year.

I would also like to thank the outgoing members of council, Tom Sansom, Wayne Adams and Pat Maloney for their hard work and dedication and welcome three new members to our council, Walt Schoenfeld, Jeff Skelton and Bill Soroski.

This year we have welcomed Walter Streelasky to council as our public member. This is a new position and new experience for council. Walter will be a great asset to us as he brings a wealth of knowledge and experience to our council. I am looking forward to his participation and perspective in our deliberations.

In early June, Joanne and I attended the Annual General Meeting of the Association of Newfoundland Land Surveyors in St. John's as well as the Canadian Council of Land Surveyors Annual Meeting that followed. We were treated to some very fine "Newfie" hospitality as well as very exciting meetings. These opportunities for interaction with the other associations are priceless. Although we have many of the same problems, the different



perspectives and solutions to these problems are very interesting. I have also gained a new appreciation for our own association from these meetings. We have avoided many of the problems that seem to plague some other associations. This is in no small part due to the excellent leadership and sound financial management that we have had over the decades. We should also be very proud of the level of participation that the membership has upheld over the years. It is second to none.

We still have a few items to deal with this year. The ongoing discussion
continued on page 892

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Council Highlights

by A. Carl Shiels, Executive Director



The Saskatchewan Land Surveyors' Association Newsletter is published by the Saskatchewan Land Surveyors' Association for circulation to its members.

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on all regular business days.**

1999/00 Council

| | |
|---------------------|----------------------|
| President | Roy J. Pominville |
| Vice President | Bill C. Soroski |
| Past President | Bob A. Webster |
| Councillors | Jim A. Boyd |
| | Robert J. Morrison |
| | Walt J. Schoenfeld |
| | Jeff T. Skelton |
| | Walter M. Streelasky |
| Public Member | A. Carl Shiels |
| Executive Director | Candy Shiels |
| Executive Assistant | Doug A. Bouck |
| Newsletter Editor | |

March 26, 1999 - Meeting #7

All members of Council were present when the President called the meeting to order at 10:06 a.m. He then reviewed some of the highlights of the annual meeting of the Association of Ontario Land Surveyors and the inauguration of the Association of Canada Lands Surveyors under their new Act. He noted that there had been no President's forum at the Ontario meeting because of the short time since the last meeting.

The Ontario Association is reviewing the issues related to copyright and their method of handling complaints.

The Vice President reported on his attendance at the annual meeting of the North Dakota Land Surveyors' Association. He noted that the annual meeting of the N. D. Association followed a similar format to ours. Highlights included:

President's Forum:

- Lots of interest in Saskatchewan's experience with mandatory continuing education
- N.D.: - has just hired a new administrator;
- have a 'Surveyor of the Year' award that is given out annually;
- Are concerned about funding for continuing education programs;
- Minn: - are working toward self-governance.

A.P.E.G.S. - Review of Scope of Practice

R. A. Webster and P. M. Maloney reported on their attendance at the meeting chaired by the Department of Highways. Another meeting was scheduled for early May.

The Executive Director reported on an article that had appeared in the SASTT newsletter which indicated that the Government was committed to revising the definitions of Land Surveying and Architecture prior to September 1 of 1999. After checking with SPMC, it was learned that no such commitment has been made by government although SASTT was attempting to elicit such a commitment.

OPEN FORUM

How the SLSA Started

Submitted by J. H. Webb, SLS (LM)

In searching various records, to date, the following information was located.

- ▲ The old records of the Association between 1913 and 1916 are missing.
- ▲ An act respecting Public Works (c10) was given royal assent on May 26, 1906, which referred to district surveyors (DLS's).
- ▲ The SLS association was initiated because the Provincial Surveys Act of 1909 defined the term "SLS".
- ▲ The SLS Act became law in December 1909, and this act defined the SLS but gave no right to self government.
- ▲ The first set of executive minutes were on March 8, 1910.
- ▲ In May 1910, a committee was formed to look into a provincial organization. The same month this group moved "that an association of Saskatchewan Land Surveyors be formed". Mr. J. L. R. Parsons was elected President of the voluntary surveyors group.
- ▲ The First Annual Meeting was in Regina on March 8, 1911, and Parsons was reelected as President.
- ▲ The Second Annual Meeting was in Regina on March 6, 1912, and Mr. A. C. Garner was elected President.
- ▲ The Association was incorporated on January 25, 1913 under "*An act Respecting Benevolent and Other Societies*".
- ▲ The SLS Act was assented to on December 19, 1913.
- ▲ The first annual dinner was held in Regina in 1913, and the first ladies night was held in 1924.
- ▲ Incidentally the first Honorary Member was Cyrus Carroll, SLS, DLS on June 10, 1913. The second Honorary Member was W. T. Thompson SLS, DLS in August 1913.
- ▲ The logo of our association was formulated between 1913 and 1916 but unable to find why or by whom.
- ▲ The logo shows a field book, chain, chaining pins, crossed axe and hammer along with a makeshift type of transit or theodolite on the upper portion of the logo and the name of our association on the base.
- ▲ Based on the above it would appear that our 90th Annual Meeting will be in the year 2000. The original meeting in 1910 should not be classed as the first ANNUAL, merely the first meeting but who's to argue. ●

More Law According to Murphy

Law of the Big Event:

You invite your friends to watch the Super Bowl on your new big screen TV, but after 30 minutes, the TV dies.

Law of Postage Due:

The taxes you dropped in the mail just before deadline are returned to you because there was no postage on the envelope.

Law of 61 Days:

A 60-day warranty guarantees that the product will self-destruct on the 61st day.

GPS and Other Measurement Myths?

By Murray Marien SLS, P. Surv.

The other evening I unfortunately decided to practice with some new GPS equipment on my front street. Our house backs on a park and is adjacent to a walkway. There also happened to be several games going on in the park and a steady stream of people through the walkway. There is nothing like planting a strange piece of equipment out front the day the world decides to pass by to attract attention. So you can see that I didn't get a lot of practice accomplished.

I was just about to give it in when my neighbor appeared from across the street. After the initial greetings and repeated explanations, he mentioned that he had a hand held GPS receiver. In discussions he also mentioned that his was good to a couple of metres. I got the same recommendations from the fellow down the street a while earlier. Although I'm a novice, I know about selective availability and the 100 metre point accuracy. So I was curious as to how he could get within a couple of metres. As he spoke, I closely examined his expression for any telltale clues. I had to discount any attachment to the US military and then remembered that he mentioned he bought his GPS at a fishing tackle shop. That completely ruled out any special equipment he might be using.

It was now getting dark and beyond my ability to accomplish anything further so I turned my attentions to my neighbor and inquired about the details of which he was more than willing to divulge. He used his receiver for boating and power tobogganing. He said that he took waypoints (a navigational term for saving coordinates of a feature), then used those points to navigate back over the same path. When he got back to a waypoint, he claimed it was within a couple of metres. The other neighbor I spoke with earlier used the route

plotting feature on his receiver but they are basically the same navigating technique and accomplish the same results.

I think both were sincere, but not very accurate or scientific in their observations. When I tried to explain the one hundred metre accuracy, both protested that the coordinates were shown to the nearest metre on their GPS device. So in their mind, they can navigate back to a location within a few metres with their GPS devices. It wasn't until I discussed these cases with my wife that I realized how they were able to do that. In reality they are most likely using the same navigational tools migrating birds use rather than their GPS equipment to accomplish it. I call it the familiarity theory.

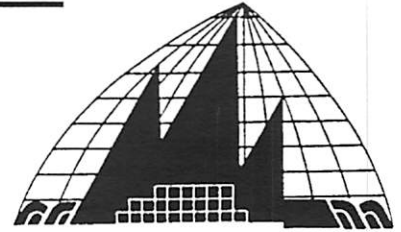
I turned my attentions to my neighbor and inquired about the details of which he was more than willing to divulge.

In the first case, the neighbor was using a motor toboggan. If you think about it, he was in a ditch or following a regular marked path. That would keep him within a few metres of the route all the time. The GPS receiver would certainly tell him that he had the proper heading and show the distance yet to travel when he was a great

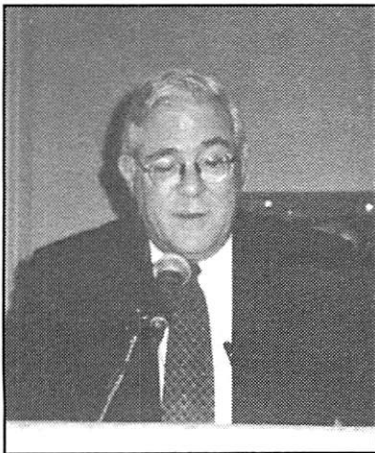
distance away. As he closed in on the original way point, familiarity most likely took over and his arrival at the original location had more to do with what he remembered when he left, rather than the accuracy of his GPS equipment. Had he been navigating solely with the GPS device, he would have had the same chance of arriving on top of his car or in the lobby of the departure lodge as he would the original point of commencement, providing they were within a hundred metres of his starting waypoint.

In the second case, the fellow navigated back across the lake late in the evening. At one narrow channel he found himself nearly on shore rather than up the middle of the channel as originally traversed. I can't remember his exact reasoning

Association of Canada Lands Surveyors



The fifteenth Annual General Meeting and Inaugural Meeting under the New Canada Lands Surveyors Act took place in Ottawa on March 18, 1999. Thanks to Bill Schwartz for the photos.



← Michael O'Sullivan, Surveyor General and Director/IBC Commissioner: Keynote speaker at the luncheon held at the Chateau Laurier.



→ New President James Statham (left) presenting Past President Terry Hauff with his plaque.



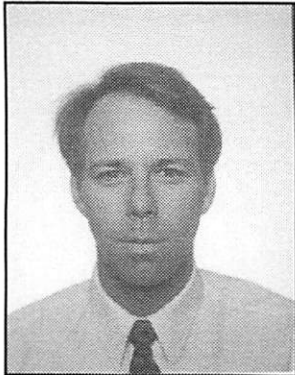
← SLS/CLS's attending the Ottawa ACLS meeting.

(Back Left) Gord Webster, Wes Jamieson, Paul Ellegood, Derek Konrad, Don Franko, Doug Bouck.

(Sitting) Bob Webster, Bill Schwartz, Roy Pominville.

Councillor's Report

By J. T. Skelton, SLS.



I was asked to write an article for this month's newsletter and given the fact that I've attended only one council meeting I felt my knowledge on most subjects related to council business was rather limited. In an attempt to remedy this situation I reviewed the minutes of the last ten council meetings and discovered that they make rather dull reading. This exercise did however enlighten me regarding the scope and nature of matters considered by council.

Although most of the issues addressed at these meetings were either for informational purposes only or have been resolved in the past, there are a few issues that seem to come up regularly which will impact on our association in the future. Two issues that, in my mind, will have the most significant impact on the future of our association are our dwindling numbers and the development of a new schedule of fees.

These two items may seem unrelated at first glance but they are not. Our inability to attract a significant number of new members to our association is due in part to the fact that the base requirements for admission to the association are sufficient for candidates to find high paying jobs elsewhere. In order for prospective members to justify the additional time, effort, and expense required to obtain a commission we must be able to compensate them accordingly. Judging by the

number of new members we have had in recent years we are not able to do this.

As we begin to develop a new schedule of fees, with the help of an outside consultant, it is important to factor in this new reality. One way or another over the next twenty years the fees charged by Saskatchewan Land Surveyors will increase significantly.

If the desire exists to attract new members, with the skills and enthusiasm they bring, then we have to accept the fact that we must compete aggressively for them. The reality is that aggressive competition means higher wages which in turn means higher fees. If we are unable to compete our membership will decline significantly over the next twenty years and result in a monopoly situation where a few members are able to charge exorbitant fees.

It could be argued that as membership declines and fees increase more members will be attracted as necessary. I feel that it is in the best interest of the association and the public for us to maintain a strong membership base through active pursuit of new members.

It's an honour to serve on council over the next two years. If I can be of assistance to anyone over this period please do not hesitate to contact me. ●

U of C Career Day

The Executive Director reported that Conrad Swenson had again agreed to attend the meeting on behalf of the SLSA. Although no report had been received from Mr. Swenson, it was confirmed that the SLSA share of the costs was within the approved amount.

Complaints Form

In response to a number of calls with questions and concerns regarding survey practices, the Executive Director was asked to draft a form which could be sent to members of the public explaining the complaints and discipline procedures of the Association. Once approved by Council, such a form might help the public decide whether they have a basis for a formal complaint and help them more accurately describe the nature of their concerns.

Honourary Membership

P. M. Maloney confirmed that, based on a 'straw poll' of members at the last educational seminar, there appeared to be strong support from nomination of Paddy Brennan for Honourary Membership.

Notices of Motion for the Annual Meeting

The Executive Director presented five draft motions for consideration at the annual meeting. These included:

Motion #1

Article IV Section 1 - changing the date and manner of appointment of auditors

Article IV Section 2 - changing the deadline for completion of audits

Motion #2

Article XI - adding provisions to limit the time period, within which Land Surveyors in Training must complete their Practical Experience, to five years with one year of grace in special circumstances and with Council's approval.

Motion #3

Article XIV - removing the lists of names of Honourary and Life members from the Bylaws.

Motion #4

Article XXI - clarifying the wording related to

fees payable prior to reinstatement of former members.

Motion #5

Article XXXIV - Setting the amount to be charged for re-reads of professional examinations.

The proposed notices of motions, as amended, would be presented to the membership at the next annual meeting.

SLSA Handbook

The Executive Director reported that the Board of Examiners for Saskatchewan Land Surveyors had reviewed the proposal from A. Jensen regarding a scaled down Handbook. They noted that the content of the Handbook need not include all of the materials referred to in the Syllabus for Professional Examinations but that copies of all materials should be made available from the Association office for students who request it. The Executive Director would prepare a proposal for two levels of handbooks, one which would contain only those items suggested by A. Jensen, and the other which would contain all Acts and Regulations that affect Land Surveyors.

Alliance Geomatics - Update

The Executive Director reported on the latest draft of the Alliance Geomatics amalgamation. The deadline for providing clear direction to the provincial representative to CCLS was going to be tight and would require input from Council prior to the Annual Meeting. If necessary, a special telephone conference call would be arranged to review the proposal after it had been received and distributed to all members of Council.

SARM Liaison

The Executive Director explained that a letter had been sent to M. A. Marien asking him to carry on the liaison with the SARM regarding survey costs. However, the matter had apparently been overlooked but would be acted upon in the very near future.

Regulations Under the Pipelines Act

The president reported on a letter that had been sent to Sask Energy and Mines, based on input from the Practice Committee, regarding the pro-

posed changes to the Regulations under the Pipelines Act. Copies of the letter were provided to all members of Council.

Posting of Bylaws on the SLSA Website

The Executive Director reported on a request that had been received from D. A. Bouck to post the mandatory continuing education provisions of the Bylaws on the SLSA Website. It was believed that this would be of considerable interest to members of other associations who are considering adopting similar provisions. It was agreed that the mandatory continuing education provisions of the Bylaws would be posted on the SLSA Web Site.

Insurance Coverage for Inactive and Deceased Members

The Executive Director explained that, in a meeting with SGD regarding the LAND Project, a question had arisen regarding the provision of assurances to the public that errors in past surveys would be covered by some type of insurance fund. Unlike lawyers, whose actions are insured in perpetuity provided that they were insured at the time of the action, the public has no protection from errors made by inactive and deceased land surveyors. The Executive Director explained that he had asked G. A. Webster to raise this matter at the next meeting of the CCLS Insurance Committee to see if consideration could be given to setting up a policy for this category of surveys and if so, at what cost.

Title Insurance

The Executive Director reported on a meeting that he had attended with B. G. Clark, Chairman of the RPR Committee. The meeting had been called by the Department of Justice to discuss a brief from the Saskatchewan Law Society regarding Title Insurance. Also in attendance at the meeting were representatives of SGD, the Land Titles Office, and the Superintendent of Insurance.

Points of discussion included placing requirements on Title Insurance vendors to disclose exactly what their policies cover as compared to that already covered by the provincial land registration system, and setting a requirement for disclosure and correction of problems on titles rather than simply 'insuring over them'.

The meeting concluded with an indication that a second meeting would be called by the Department of Justice and that Title Insurance Companies would be invited to attend.

Inquiry from AMLS Regarding Declining Membership and the WCBE

(E. J. Desnoyers, SLSA representative to the WCBE, joined council for discussion of this item.)

Council reviewed a letter received from a representative of AMLS expressing concern about declining membership in that Association and questioning the role of the Western Canadian Board of Examiners in creating barriers to prospective new members.

Written input on this question was also received from M. A. Marien.

Council and the SLSA representative to the WCBE did not necessarily share the concerns of the AMLS and felt that declining membership may be more related to economic factors. It was also noted that the number of graduates coming from the U of C could be expected to increase dramatically in the next two years with only a limited number of those graduates likely to find jobs in 'high tech' areas. This, combined with a more aggressive recruiting program by land survey companies might be expected to resolve many of the Associations' problems. E. J. Desnoyers and M. A. Marien are to discuss this matter with the representative of the AMLS at the next WCBE meeting and, if appropriate, provide further details to Council.

M. E. Putnam - Concerns about Section 191 of the Planning and Development Act.

Council reviewed a letter from M. E. Putnam expressing concern that Section 191 of the Planning and Development Act, 1983 was being misused by the Saskatchewan Department of Highways to expropriate land and interfere, without justification, with the process of land subdivision. This item was tabled pending further discussion with and background from M. E. Putnam.

Licensing Requirements of Rural and Urban Municipalities

The president explained that a call had been received at the Association Office from a lawyer in Manitoba inquiring about the need for SLSA mem-

bers to obtain business licences in each municipality in which they do business. It was noted that, although the issue has come up from time to time in the past, there have been no cases where the municipality has attempted to contest the powers set out in Section 48 of the Act.

J. K. Industries - Request for Information about Dimensions of Survey Markers

The president reported on an inquiry that he had received from J. K. Industries regarding the dimensions of survey markers. The length of markers which they proposed to fabricate, and which had been ordered from time-to-time by surveyors, appeared not to be in conformity with the standards set out in provincial regulations. W. J. Adams explained that the provincial regulations are being changed and that the dimensions proposed by J. K. Industries would probably be acceptable.

Convention Committee

The President reported that planning for the convention was well in hand and that the registration packages were expected to be mailed to the members within the next two to three weeks.

Education Committee

(No report)

Finance Committee

(No report)

Practice Committee

A report was received from the Practice Committee indicating that a telephone conference meeting had been held on March 5 to discuss the regulations under the Pipelines Act. The next meeting was scheduled for March 26 in Saskatoon.

Public Relations Committee

(No report)

Next Meeting

The next meeting was scheduled for 10:00 a.m. Wednesday, May 26 in Saskatoon.

The meeting adjourned at 5:10 p.m.

Meeting #8 - April 27, 1999

Six members of Council participated in the telephone conference meeting, along with Public Member Dr. W. M. Streeclasky, and T. R. Webb, representative to CCLS. The meeting was called to order at 8:30 a.m., to deal with the information and motions, if any, that Council wished to place before the membership at the 1999 Annual meeting regarding the establishment of an integrated national geomatics association.

The Alliance Geomatics Initiative

The President explained that he had circulated, via e-mail, a copy of the motion that had been passed by the Council of the Alberta Land Surveyors Association endorsing the concept of the Alliance Geomatics initiative.

It was agreed that the SLSA endorse the concept of the Alliance Geomatics Initiative as outlined in the report *Geomatics 2000: A Model for a Phased-Approach to the Establishment of a New National Geomatics Association*, and recommend that it be ratified by the membership at the Annual Meeting. Discussion centered around concerns that CIG, who had been one of the initial proponents of the concept, now seemed to be withdrawing their support. In particular, CIG did not appear to be prepared to contribute their proportional share of the funding (estimated to be \$50,000) for the one year trial period. Although this might lead to the termination of the project, there was a general feeling that the proposal had significant merit and that CCLS should continue to demonstrate the good faith of the land survey community by giving the proposal a fair trial.

SLSA Representative

It was agreed that the SLSA would have to appoint a representative to sit on the new Board or Council of the Alliance. Preliminary recruitment in that regard might start at the annual meeting.

Council Support For The Resolution

It was agreed that the members of Council would be prepared to speak in support of the motion at the annual meeting.

Adjournment

The meeting adjourned at 9:30 a.m.

Meeting #9 - May 26, 1999

Six members of Council were present when the President convened the meeting at 1:20 p.m. The President touched on some of the highlights from the Annual meeting of the Alberta Land Surveyors' Association. Of particular interest was the fact that the ALSA appears to be moving to sanction the use of old RPR's. Additional details from the ALSA meeting are to be published in the Proceedings of the SLSA Annual Meeting.

APEGS/SASTT

The Executive Director provided an update on discussions that had been held with APEGS and SAA regarding the latest developments with SASTT. The president circulated copies of letters which he proposed to send to The Honourable Judy Bradley and The Honourable Doreen Hamilton. The letter to Minister Hamilton outlined the concerns of the SLSA regarding the Regulatory By-laws proposed by SASTT and their apparent attempt to further establish a scope of practice within the bylaws. The letter to Minister Bradley was to confirm the agreement that had been reached by SLSA, APEGS and SAA regarding possible amendments to their respective Acts, agreement on a definitions of Professional Engineering and Professional Geoscience, and agreement on the demands that were being placed on SASTT to conform with the government's stated objective of providing nothing more than title protection in the SASTT Act.

Deceased Members' Insurance

The Executive Director explained that, as requested by Sask Geomatics as part of the re-write of the legislation associated with the LAND Project, G. A. Webster had raised the question of insurance for deceased and former SLSA members with the CCLS Public Liability Insurance Committee (PLIC). This issue was found to be of interest to other provinces and was, therefore, being pursued further with the insurer. A report was expected back from the CCLS PLIC within the next few months.

M. E. Putnam/Dept. Of Highways Expropriations

Council reviewed the concerns of M. E. Putnam as expressed in his letter of March 25, 1999. Although there was general agreement with Mr.

Putnam's concerns, it was not clear whether this was a 'cause' that the Association should be taking forward.

Geomatics 2000 - Trial Period

The Executive Director reported that a letter had been received from the Association of New Brunswick Land Surveyors indicating that their Council had voted in support of the one year trial period for a unified geomatics association.

Other

P. M. Maloney reported that he had been able to recruit another prospective candidate for the 1999/2000 Council. He was pleased to report that J. T. Skelton had agreed to let his name stand for a position on Council.

Results of 1999 Professional Examinations

Council reviewed the minutes of the last meeting of the Board of Examiners including the results of the Professional Examinations. It was noted that James A. Hume had successfully completed all professional exams and was now eligible to apply for a commission.

Recommendation of the Board of Examiners Re: Syllabus - History of Surveying

The Executive Director explained that the Board of Examiners was recommending an amendment to the syllabus for professional examinations. The amendment would involve deletion of paragraph five under "History of Surveying" which reads:

"The paper may have such topics as the development of surveying and survey instruments through the ages; the development of individual rights to own land and land titles systems; early surveys in North America; the history of the Saskatchewan Land Surveyors Association; and the careers of outstanding personalities involved in the development of the survey system affecting Western Canada and the Province of Saskatchewan."

Additional emphasis would be given to the last sentence of the previous paragraph which reads:

"Preference will be given to a paper related to a project in the candidate's practical experience report."

The objective of the change was to increase the focus on a project-related paper as opposed to the recent trend of simply 'regurgitating' the history of the survey system in Western Canada.

James A. Hume - Application for Commission

Council approved an application from Mr. James A. Hume, and granted him Commission # 280 as a Saskatchewan Land Surveyor.

David Meacher - SIAST Winner of SLSA Award

The Executive Director reported that the 1999 winner of the SLSA award at SIAST was Mr. David Meacher of Moose Jaw and that a letter of appreciation had been received from Mr. Meacher.

J. Meyer/E. J. Grenkie - Form 'O' - Land Surveyor in Training Agreement

Council approved a Land Surveyor in Training Agreement submitted by Justin Meyer and E. J. Grenkie.

Convention Committee

The President reported that there were approximately 114 persons registered for the Annual Meeting. He noted that the question of whether it was the 89th or 90th annual meeting had been receiving some attention and the discussion would probably carry over into the annual meeting. He also noted that the feedback so far seemed to favour a one day annual meeting.

Education Committee

Although there was no formal report, it was noted that an educational seminar was being held again this year in conjunction with the Annual Meeting.

Practice Committee

(No Report)

Public Relations Committee

(No Report)

Next Meeting

The next meeting was scheduled to occur at approximately 5:00 p.m. on Friday, May 28, immediately after the annual meeting.

The Meeting adjourned at 4:30 p.m.

Meeting #1 - May 28, 1999

Seven Council members were present when the meeting was called to order at 5:00 p.m., and the President welcomed all new members of Council.

Council Members' Liaison With Standing Committees

It was agreed that the following members of council would be responsible for liaison with the indicated standing committee.

| | | |
|------------------|---|------------------|
| Convention | - | R. J. Pominville |
| Education | - | J. A. Boyd |
| Finance | - | R. A. Webster |
| Practice | - | R. J. Morrison |
| Public Relations | - | W. J. Schoenfeld |

2000 Annual Meeting

The president was granted authorization to proceed with planning for the 2000 annual meeting and to make any reasonable financial or other commitments that such planning might entail.

Committee Workshop

The President explained that there is usually an annual Committee Workshop at which the work plans of each of the Standing Committees is reviewed and formalized for the coming year.

It was agreed that the President would contact each of the Committee Chairmen to confirm that they would be continuing to chair their respective committees and suggest to them that they prepare for a committee workshop early in the fall.

The Executive Director explained that each of the four councillors was expected to prepare an article for the 'Councillor's Report' column in the SLSA Newsletter.

Next Meeting

It was agreed that the next meeting would be held on Monday, July 5, 1999 at Regina. However, depending upon the extent of the agenda, the meeting might be handled by telephone conference call. This was to be decided at the discretion of the President.

The meeting adjourned at 5:20 p.m. ●

What's Happening

Next Council Meeting: Friday, September 10, 1999, at the Association office.

Next Annual Meeting: Will be held in Prince Albert National Park in Waskesiu, in May of 2000.

POB2000: Industry Summit: To be held October 15, 1999, in Orlando, Florida. The event is designed to help answer the question "How can I make my surveying business run better and be more profitable?" Topics will range from GPS and GIS to marketing and government contracting.

The POB2000: Industry Summit is an extension of POB Magazine, the leading national surveying publication for more than 20 years. For more information on POB2000, visit the web site at www.pob2000.com or call Katie Byrne at 248-244-1282.

GIAC Web Site: www.giac.ca The new site is a valuable resource to keep up to date on sector activities, to source Canadian suppliers of surveying, mapping, remote sensing and GIS technologies, data and services, or to research potential employers.

Geomatics 2000: Taking place on March 8 - 10 of 2000, in Montreal. More information will be available in the future, or see the web site: www.acsg.montreal.qc.ca. ●

President's Message

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sions with SASTT have provided a good opportunity for dialog with the Engineers and Architects. Although some headway has been made, it appears that this issue will continue for a while yet. Pat and Carl have done an excellent job of keeping on top of this situation as it sometimes appeared to be a moving target. Pat has agreed to continue to represent us together with Carl in these discussions.

The LAND Project is another issue that will require a lot of energy over the next year. Our committee has worked tirelessly to keep abreast of this project and insure that the value of surveys is not being overlooked.

I would also like to remind everyone to take a few minutes to review your educational credits. It may be easier to plan your educational requirements now than at the last minute.

Finally, I wish you all a safe and busy summer and look forward to seeing you in the fall. ●

The Law According to Murphy

Law of Xerox Happiness:

The copy machine that has broken down will work perfectly when the repairman arrives.

Law of Legs:

Vital papers will demonstrate their vitality by mysteriously moving from where you left them to where you can't find them.

Law of Waiting Room Torture:

The more boring and out-of-date the magazine in the waiting room, the longer you will have to wait for your scheduled appointment.

Law of Splat:

The first bug to hit your clean windshield lands directly in front of your eyes.

Law of "We've Got Your Size":

If the shoe fits, it's ugly.

Law of Travel Abroad:

For five years you collect articles about France, but as you land in Paris, you realize the clip-pings were left at home.

but it might have had something to do with the persistent north westerlies, and the channel had been pushed off course by the waves. Whatever his reasoning, there certainly wasn't any problem with the GPS equipment.

When he arrived back at the dock, it was within a couple of metres of where he remembered starting, so the GPS was working. Both navigators observed the differences by examining the map on the small two inch screen on their receiver. Had either bothered to take a second waypoint upon arriving back, they would see that the coordinates were more than a few metres different than the first.

It's like trying to measure out some distance with the odometer on your car. The best you could hope for is to be within the smallest unit, that being one tenth of a kilometer or one hundred metres. If you were using it to estimate when to make the next turn, you would most likely turn too soon or too late and end up in the ditch or on shore as happened above. However, if you knew the exact spot you were trying to measure to, you would drive up to it, then look at your odometer to confirm the distance. Since your odometer only shows tenths of a kilometer, any smaller units would just be assumed or estimated. And as you know, when you estimate, it's all made up so anything is possible, especially the answer you're looking for.

This theory also can be applied to our work. Just because a measurement is similar to previous measurements doesn't guarantee the measurement is correct. I see a lot of plans where the angles are to the nearest second and distances are shown to the millimeter. That is a lot better than I can survey. With my equipment, I'm lucky to get within a couple of centimeters in distance and the cross hairs are a few seconds wide so that hinders reading any angles better than a few seconds. Of course the distance is displayed to the nearest millimeter or tenth of a millimeter if I set it that way, but I know that's not the true measurement for a couple of reasons. The first being the specifications of the equipment. It may display the millimeters, but that's just an estimation

...should I be showing my measurements to three decimals on my plans and kicking around those pins that are off line by a couple of centimeters?

on it's part. It's only good to 0.005 metres plus or minus 5 ppm. That's another 0.005 metres per kilometer on top of the initial 0.005 metres uncertainty. The second reason is experience. If I

happen to setup and measure that same distance the next day it will be different. In fact all I have to do is switch ends with my equipment and the measurement is different because of centering errors and other things in addition to the instrument error. I could blame it on the wind as was suspect with the channel problem mentioned above but there are good reasons for

the differences. Recognizing them helps us deal with them properly.

So does it matter that the distance is shown to the nearest millimeter or are we just being fooled like my neighbors? I guess it may look impressive to some people, but when they run the closure and find that it is out a decimeter in a kilometer (1/10,000), the millimeters will seem quite redundant. With my equipment I routinely get 1/25,000 after eliminating all the blunders. Actually a friend of mine routinely gets 1/30,000 and I'm not as good as him so I figure I get 1/25,000. There's another estimation for you. It works out to about a foot closure around two sections.

Okay, here is the real theory as I understand it. If I take one measurement, I don't know if it is right or wrong. There is no way to test for a blunder or any error for that matter. If I take two, statistically each one has the same chance of being the correct measurement and the average is more than likely closer to the true measurement than either independent measurement. Providing there is no systematic error, the average of all the measurements I make should be the best estimate of the true measurement. Each measurement should be distributed evenly around the average. That is to say about as many will be smaller as there are ones that are larger than the average. About sixty-six percent of the measurements will be within one standard deviation of the average. The standard deviation is derived from all the measurements and can be used as a measure of how good the

...just because the measuring device displays to the nearest metre, doesn't necessarily mean that is the correct measurement.

At best it's an estimation by some equipment that is further diluted by errors in human observation.

average is. The smaller the standard deviation, the more closely the measurements are grouped about the average so therefore theoretically more accurate.

That's the theory. In practice, if the best I can do on the average is 1/25,000 then every time I measure a kilometer, it is reasonable to expect my measurement will be within +/- 0.04 metres of a kilometer. That is my average error (1/25,000) multiplied by 1000 metres. So I don't really know if the kilometer I laid out is really one kilometer other than it should be within 0.04 metres of one kilometer most of the time based on my average work. Another way of looking at it is if I find a pin off line by 0.04 metres in a one kilometer line, it could really be on line. Based on my average work, I just can't measure well enough to determine whether it is or not. If I independently measure to it several times and it's always off line by an average of 0.04 metres I could start to suspect it is off line by that amount.

So should I be showing my measurements to three decimals on my plans and kicking around those pins that are off line by a couple of centimeters? In reality, every measurement should be tested

with a closure. There should be enough redundancy in the measurements so that if some don't agree, there are enough others to determine which is in error. A least squares adjustment will deal with that one foot non closure by distributing the error among all the measurements so that the square of the residuals is set to a minimum—theoretically the best adjustment. It doesn't mean that the adjusted measurements will be closer to the truth, or that it corrects any measurements that are in error, the error is just distributed among the measurements using a least squares method. A least squares analysis is however, a good statistical test of your measurements providing you have enough redundant measurements to test them. Finally, when you see that all of your measurements are adjusted by a few millimeters, and when you measure it again it's different again by a few millimeters, you may be hard pressed showing it to the nearest millimeter with any confidence. Like my neighbors will someday discover, just because the measuring device displays to the nearest metre, doesn't necessarily mean that is the correct measurement. At best it's an estimation by some equipment that is further diluted by errors in human observation. ●

The Law According to Murphy...*A Final Account*

Law of the Fast Lane

If you change lanes, the one you just left will start to move faster than the one you are in now.

Law of Over-Exposure:

The best potential pictures always happen when you run out of film.

Law of Departure Time:

The distance to the gate is inversely proportional to the time available to catch your flight.

Law of the Soggy Lap:

The aircraft always runs into some turbulence as the stewardess is pouring your coffee.

Law of "Oh, Nuts!":

The one wrench or drill bit you need will be the one missing from the tool chest.

Historical Bearings

by J. H. Webb SLS (LM), CLS (Ret.)

The following paper was presented to the Annual Meeting, Saskatchewan Land Surveyors Association in Regina, Saskatchewan, June 1, 1979 by J. H. Webb SLS.

I was a little reluctant to prepare something that discusses the next two decades relating to the field of Land Surveying and Mapping in Saskatchewan. Firstly because our past President indicated a task force on just such a subject would be inaugurated by council. Secondly I didn't want to predict the future and thirdly I will be around in 20 years to have someone remind me of my predictions.

However, after weighing the doubts I realized that any input, no matter how small, might be of some benefit to the crystal ball gazers.

Let's see how we can gaze into the next two decades.

GAZE No. 1 - Cloudy.

I agree that we must continue to work towards an eventual degree course as the requirements for entrance to our profession in Saskatchewan BUT I do not agree that if we don't get it within X number of years we will be left behind the rest of Canada. NOT being in step does not necessarily mean one is out of phase. It could mean that we in Saskatchewan could have the better of two systems for the next few years in which to graduate Saskatchewan Land Surveyors for all our disciplinary needs.

There is a saying about graduates from University and I quote:

A Dean is a man who knows a little about a lot of things and learns less and less about more and more until he knows Nothing about Everything. A Professor knows a lot about a few things and goes on learning more and more about less and less until he knows everything about nothing. A graduate student starts out knowing everything but through his association with deans and professors he

ends up knowing nothing about nothing.

We must analyze what we want and not what we think we want because some other province has something else.

When Mr. Claire Traynor made his Presidential report to the Canadian Institute of Surveying in 1965 he said in part, "I feel that our provincial land surveyors are becoming more and more aware of their position in this rapidly changing, ever more affluent society of ours and are determined to ensure that they maintain their rightful position therein."

Gentlemen the same criteria applies now, let's not throw it away.

GAZE No. 2 - Still Cloudy.

The economy of western Canada in 1979, and in particular Saskatchewan, is well at the present but what about our roll, in the next two decades, in the field of surveying and mapping. Can we really predict that far ahead, can we have enough vision to see our profession 20 years down the cut line? I think we can, providing we are willing to make the profession jump with fire crackers and touch tone control.

"Optimism" and "Next Year Country" are the trade marks of the west. I am sure that the early surveyors must have had optimism and faith in our generation, otherwise we would not be in such a healthy survey state today. Confidence in the future must be exhibited by the young surveyor, who must be educated in both surveying and business administration if he intends to deal with future problems.

At the annual Canadian Institute of Surveying meeting held in Ottawa on February 7, 1940 the surveying activities within Saskatchewan were reported as follows:

Part of the boundary between Saskatchewan and Alberta was surveyed, seven townships surveyed,

the Hudsons Bay Trapping lease near Cumberland House was completed, operations at the Consolidated Mining and Smelting Company in Goldfields consisted of 2-66 foot tunnels, 4 open cuts, a damsite, transmission line to Vic claims and measurements of flooded areas. Various maps were also produced by the Department.

I believe our activities have progressed since then.

The land surveyors in private practice in Saskatchewan can look forward to an ever increasing volume of work. However he must be prepared to broaden his knowledge in all disciplines related to surveying and mapping. He cannot rest on his laurels.

He must be prepared not only to act as a servant of the Public, some of us have forgotten this, since he has taken an oath, but to uphold all the rights and privileges that go with his commission. In this regard I believe that we as a profession can serve the public either as an individual practitioner or within a properly controlled private corporation. There are some advocates who would and have prevented land surveyors from being associated with legitimate land surveying corporations. I am of the firm belief that the public have, can and still will be served through both channels.

GAZE No. 3 – Fair Weather.

The future of surveying cannot be tied down to antiquated regulations which refers to evidence that no longer exists. The day will come when “found wooden post hole” evidence will no longer exist.

No one uses logarithms and only a few of us still use trig tables to solve problems. Similarly the use of a shovel to locate “holes” that no longer exist will also disappear.

The technician and the technologist will, in 20 years do 90% of a land surveyor's field work. Therefore evidence of something planted in 1869 cannot survive forever. WE will no doubt replace the present system with something more practical, more readily accessible, more economical for the consumer and more horse sense for the user.

How will we do this?

There are many variations but I think there can be a simple basic formula for the majority of land

surveying in Saskatchewan. I fully realize that John Public will always want his domain located on the ground by physical monuments that will eventually be destroyed. Today we proceed to go through the endless process of planting monuments again and again. This is certainly great for the land surveyor in private practice but very costly to the consumer, whom we are obligated to protect.

I believe in future years we will have some type of co-ordinate system for every legal property corner in Saskatchewan. Our present “monument on the ground governs”; “best evidence”; “fence corner”; “hole”; “proportion for 6 miles”, system cannot and should not survive much longer.

GAZE No. 4 – Some clearing.

The free enterprise system will still be around in 2 decades but will the Cadastral Surveyor? Yes, but only if he has the fortitude to work hard and not allow state controlled programs to overtake the professional. Some of our sister provinces are having problems.

At the present time we appear to be in a solid state of self satisfaction – The fat cat outlook. However the day may come when our profession will be involved and invaded by others who think they can perform surveying better than we. The survey industry must uphold not only its image as a public servant but the privilege to perform all the rights that have been accorded to us.

To make sure that our profession will be around in 20 years it is essential that the new generation will be educated beyond the articulated pupil stage. As I have said previously the degree program or “in thing” will be mandatory soon. Ten years ago I was skeptical but now admit to a 180 degree turn in my observations. The future does hold tremendous survey potential for our industry and we must be properly educated. The resource development of Saskatchewan will increase and with it goes surveying and mapping techniques that will require better education.

GAZE No. 5 – Warming Trend.

The time is also here when young men and women no longer look to the professions as a sure fire high income life. A recent report (mind you it was from Toronto) indicated incomes from professions have lagged behind many other occupa-

tions and trades for the last decade. In some instances there may be more money at the end of a community college course than a five year degree course.

Gentlemen, the point is that non-professional occupations are creeping, no walking fast, up on the professions. We have to offer young men and women more than fresh air and Christmas day off. We must offer good wages, secure year round work, all the fringe benefits or otherwise they may be absorbed into unions like the occupational technologists are in other areas of Canada.

GAZE No. 6 – Just a great western day.

There has to be more to land surveying than staking houses, doing certificates, grid roads, building locations and all the other monotonous surveys that make us good money.

The future as I see it, can and will be a challenge to the young and new members in our association. New methods to survey across the country, more refinements in our instruments and more practical methods of calculations.

This association, if it wants to keep up with modernization must present some positive action. Looking over the past annual reports of proceedings since 1970 I found the following continuing data directed towards the membership.

1971 Nil

A 2 day seminar "Surveyor, Planning and Law".

Nil

2 seminars "Photogrammetry, Planning, Land Titles"

Nil

1972 3 seminars, "coordinates & torrens system"

1971 1 on Geodetic Calculations

1970 2 on Terrain Appreciation and Electrical Surveying.

For a grand total of 9

JUST A REAL EXCITING 10 YEARS

My recommendations for positive action.

- A workshop committee for the continual edu-

cation of surveyors. A point system for registered surveyors might even be used. The association would give points to each surveyor that attended the workshops and if a surveyor did not have points at the end of the year, haul him up on the carpet.

- An S.L.S. publication for our association. We must be the only province without one.
- A questionnaire to all surveyors and students asking them what they want in educational seminars.
- A closer tie with the Saskatchewan Association of Technicians and Technologists.
- An all out effort to bring our association before the public. Let's advertise our industry.
- A better communication between our association and the "in Province" educational facilities.

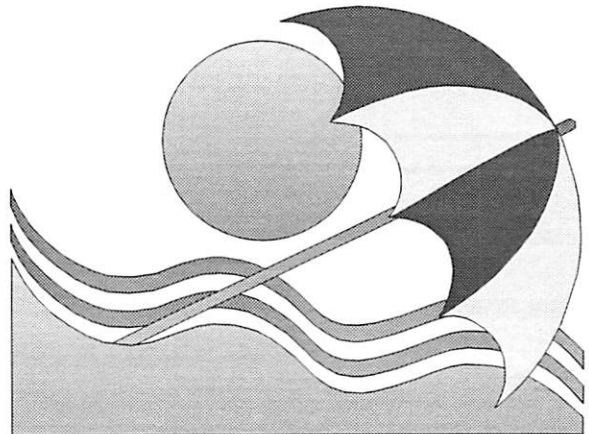
To illustrate my points I want to show you my latest invention for all future surveyors.

It is called a "Vertical positional site locator" hooked up to a "Gyro multi-purpose receiver".

The G.M.F.M.P.R. is good for not only signals from the site locator for your survey needs but will accept your favorite T.V. soap movies on site, latest stock market quotations, weather forecasts and your nagging boss on the truck C.B.

In conclusion gentlemen, "Positive Action".

J. H. Webb 1979 ●



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The Company

Peters Surveys Ltd. was established in 1979 by Wilf Peters, SLS, CLS, P. Surv. The Company currently employs 10 - 14 people, which includes 2 -3 field crews, office staff, and drafting and mapping personnel. Annual gross sales have exceeded one half million dollars the past two fiscal years. Our customer base is wide and varied, with approximately half private sector and the other half various governmental extensive AutoCAD drafting experience. The Company provides a good benefit package for permanent employees.

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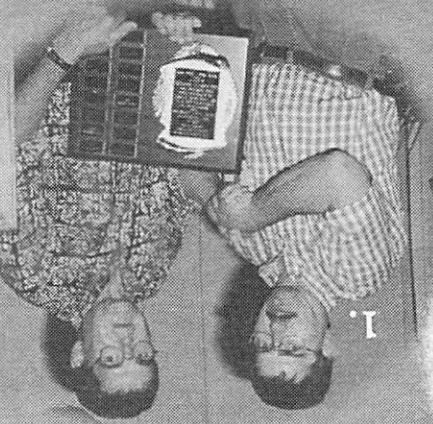
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All inquiries will be treated as confidential.

NOTE: Applications will be accepted until August 30, 1999.

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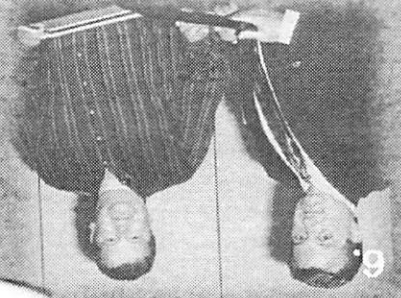
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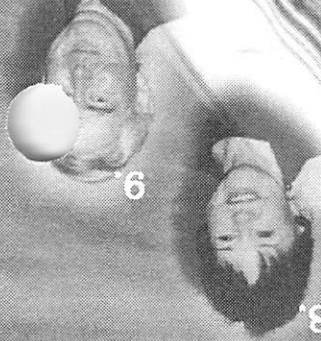
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1. Thomas Sansom (Left) is being awarded with the Third Flight plaque, Bill Soroski presented all golf prizes.

2. Glenn Martin (Left) is being awarded the Second Flight trophy.

3. Doug Bouck (Left) is being awarded the Callaway 'Low Net' trophy.

4. Mike Waschuk (Left) receives an award (Active Long Service) from SAGT. Paul Perron presenting.

5. Bob Webster (Left) receives the Low Gross trophy.

6. Roy Pominville (Left) receiving the SAGT award for Active Long Service. Paul Perron (Right) presenting.

7. Peter Unger (Left) presents to Doug Bouck a framed print of "River Dance" by Glen Scrimshaw.

8. The Honourable Ms. Carol Teichrob, presented greetings on behalf of the Province at the Opening Breakfast.

9. Mr. Michael Harding, Councillor, Ward 4, Saskatoon, brought greetings on behalf of the City of Saskatoon.

Background Left Page: Roger Morrow, at the Willows Golf and Country Club.

10. The cast of "Accommodations", the President's Dinner Theatre comedy-drama.

11. (L-to-R) Jan Webster, Paddy Brennan, Donna Jamieson, Bob Webster: Paddy receiving Honourary Membership.

12. (L-to-R) Cindy Hume, James Hume, Maureen Webster, Bob Webster: James Hume is Commissioned as an SLS.

13. (L-to-R) Maureen Webster, Norah Doyle, Neil Nicholson, Bob Webster: Neil Nicholson receives his Life Membership.

14. Ice-breaker Entertainment: a show of authentic German Dancing by the Junior German Folk Dancers.

Background: President Roy Pominville and Joanne Joerissen, Maureen Webster, and Past President Bob Webster.

How the Systematic Practice Review Process Works in Alberta

By Lyall Pratt, ALS. Reprinted with permission from ALS News, March 1999.

The Alberta Land Surveyors' Association (ALSA) initiated the Systematic Practice Review process in mid 1994. The Program is administered by the

The Program is administered by the Practice Review Board within the parameters of policies established by the Council of the Association.

Practice Review Board within the parameters of policies established by the Council of the Association. The powers and duties of the Practice Review Board are outlined in Sections 13 and 13.1 of the Land Surveyors Act.

The Practice Review Board (PRB) currently consists of seven Alberta Land Surveyors appointed by the ALSA Council and one Public Member appointed by the Government of the Province of Alberta.

The Director of Practice Review, who is appointed by the PRB to conduct the reviews, manages the Systematic Practice Review (SPR) program. Other ALSA staff are assigned full-time to assist in the review process.

The objective of the SPR program is to ensure that the interests of the public and the profession are maintained at the highest possible level. All land surveying practices in Alberta were reviewed under the first phase of the SPR program by the end of 1998 and the second round of reviews began in January 1999.

A Systematic Practice Review consists of Internal and External Audits of a land surveying practice. For the Internal Audit, the Director of Practice Review visits the practitioner's office, interviews all ALSA members practicing in that office and reviews the following specific areas of practice:

- Staff employed, as to education, experience and extent of supervision
- Volumes and types of work undertaken
- Systems and procedures employed in the administration and daily operations of the practice
- Field and office equipment utilized, including hardware, software, backup systems and calibration practices
- History of the practice and archival procedures
- Quality Control processes
- Safety policies and programs
- Advertising and promotion

At the time of the Internal Audit, project files are examined within the office for content, records systems and evidence of search methodologies employed. A sample of projects completed by the practice is selected at this time for examination under the External Audit and copies of field notes and other pertinent documents are obtained. In most cases, three projects prepared by each land surveyor in the practice are selected for the External Audit.

The External Audit consists of a thorough examination of the plan produced and a comparison of the field note information with the information presented on the plan. The plans are examined for compliance with all pertinent Acts and Regulations and the Manual of Standard Practice of

the Alberta Land Surveyors' Association. One or more of the surveys examined in the External Audit also undergoes a field inspection, the extent of which is largely determined by the results of the plan examination.

The report of the Internal and External Audits covers all aspects of the review and is sent first to the practice under review with a request for response to the recommendations contained therein. This response can be one of the most critical elements of the review process. The Director of Practice Review prepares an analysis of the response and makes recommendation to the Practice Review Board for the disposition of the review. The SPR report, practitioner's response and the Director's analysis and recommendations are submitted to the Practice Review Board for consideration.

While each practitioner being reviewed is welcome to attend the PRB meeting at which the SPR report is considered, most choose not to do so. Reports presented to the Board conceal the identity

of the practitioner under review as a means of ensuring impartial consideration of each report. The Board may make any decision or order in the disposition of a review that it deems necessary and that falls within the powers of the Board under the legislation.

Every practice reviewed receives a letter from the Practice Review Board advising of the disposition of the review approved by the Board and any conditions attached. In some instances, the Board will request a follow up review of the practice to consider the success of remedial measures undertaken by a practice.

The goal of the SPR program is to improve the quality of services and products produced by members of the Alberta Land Surveyors' Association. New technologies or successful systems employed by other practices may be recommended to a practitioner for consideration and implementation. The SPR program facilitates the sharing of expertise amongst ALSA members to the benefit of all. ●



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E-mails

Expanding Your Sphere of Influence Through Better Business Communications:

By Jane Watson. Reprinted with permission from "Words of Mouth".

People of influence are the men and women with an organization whose opinions count - not necessarily because they rank high on an "org" chart - but because they have acknowledged experience or are associated with people of authority.

Someone once said the telephone was the death of writing. If this is true, I believe e-mails are its rebirth. E-mails are now the preferred way of doing business in many companies when people want quick results. However, you will never expand the sphere of your influence within an organization, if you are guilty of sending out e-mails that cause readers to throw up their hands in despair. You know the ones: e-mails that are riddled with spelling and punctuation errors; writing styles that seem to be outpouring or random thoughts; or requests for action that are vague or difficult to interpret.

Here are some rules for writing e-mails to expand your sphere of influence.

1. To ensure the receiver actually opens your e-mail, hook the reader with the subject line. If you have a deadline, place it here, as well as in the body.
2. Start your message with the person's name (never use *Dear* in an e-mail). If you are writing to a number of people, begin with an informal word such as, *greetings* or *team*.
3. Your first paragraph should tell the reader why he should read your message. The following paragraphs provide necessary details; the final paragraph states the action required. Never write in a chronological fashion.

Today's readers don't have time for *once-upon-a-time* writing.

4. E-mails were designed for quick messages requiring quick responses. Most people dislike e-mails that go beyond three screen scrolls. Keep paragraphs under five lines long and use numbered lists whenever possible.
5. Before hitting the send key, check your e-mail for spelling and grammar errors. People won't tell you about it, but they'll certainly remember you if your e-mails don't project a professional image.
6. E-mails can come across as abrupt and demanding. Remember the words of courtesy, *please*, and *thank you*; explain why you need an action taken.
Original: I need the figures by Friday.
Revised: Please e-mail me the figures by Friday so I can complete the ABC proposal.
7. End your e-mail with a warm close, *Regards*, *Thank you*, *cheerio*, *TTFN*.
8. Don't send e-mails to "strut your stuff". Send them only to people who need the information.

Jane Watson is a consultant, trainer speaker and author whose passion lies in helping organizations to advance the communications skills of their staff. Jane can be reached .at j.watson@netcom.ca. ●

Power on the Property Line

Author unknown, reprinted with permission from the Maine Society of Land Surveyors "Bearings", Winter, 1998.

Can a power line on an adjoining tract create a prescriptive easement on the lot you are surveying? "The New Mexico Court of Appeals says yes." Here's what happened.

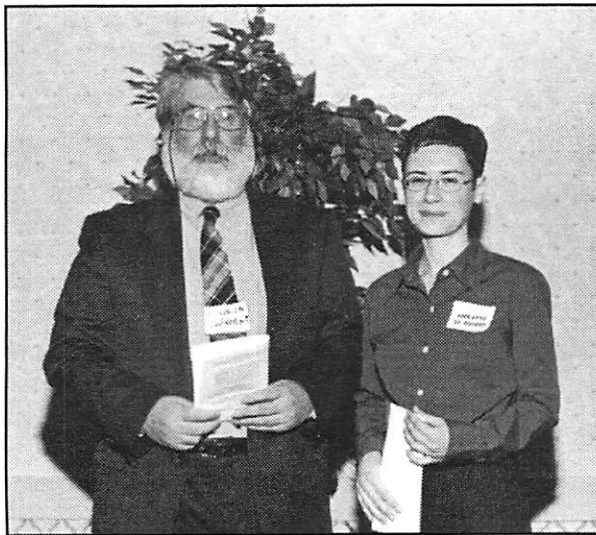
The power company constructed a power line in 1974 very close to the lot line, but none of the poles were actually on the subject lot. They did not obtain a written easement. The plaintiff bought the lot in 1986 to build a house. They obtained a building permit and were all ready to go when the power company told them that they claimed a thirty foot easement, centered on the property line which would thus include fifteen feet of their lot. The line was only a single phase line, but they said they had plans to enlarge it. This would make the lot unusable, and the owner sued.

The trial court held that the power company did not have prescriptive easement because there was no open or visible use over the plaintiff's land and they could not have reasonably known of the extent of the claimed easement. Then the judge went further and found that a three or three and a half foot easement was needed from the lot for the safe operation of the line, so he ordered the power com-

pany to tear down the line. In other words, the property owner came home with all the marbles. (Since the power company has the power of eminent domain, we can infer that the actual result would be the payment to the lot owner for the decrease in value of the lot caused by the easement.)

But the power company got that reversed. They clearly had a prescriptive easement under the line where their poles were located, but the high court said that they also have a secondary prescriptive easement over that portion of the lot which is necessary to maintain and repair the line. The trial court was directed to determine the width.

You have always known that you have a very important responsibility to detect and report any evidence of any adverse use on the tract you are surveying; a path, a pipeline, power poles, etc. but now you need to show on your plat any such use close enough to the property line which could possibly create a secondary easement on your tract. As with any adverse use, you do not have to decide whether a prescriptive right actually exists, but you do have to tell the world that it might. ●



*Congratulations to
Ms. Lizeanne St. Pierre,
for receiving the SLSA
I. W. Tweddell Memorial Award.*

The award was presented on February 4, 1999 at the 40th Annual Awards Day by Mr. Colin Sargent, Professor of Mechanical Engineering at the University of Saskatchewan.

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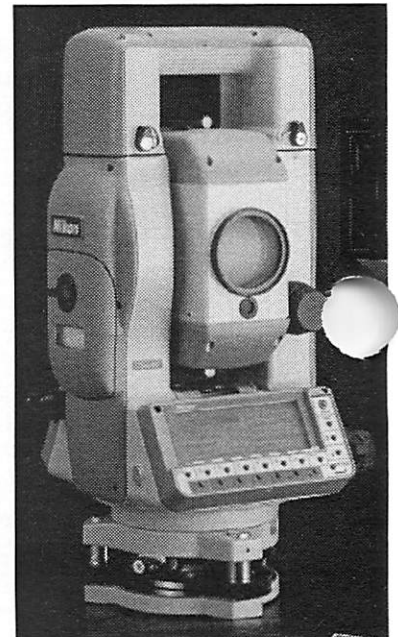
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Hot Weather Hazards

Keep cool under the summer sun.

By Grant Harris. Copyright POB magazine, Vol. 24, No. 8.

Pete Rossi knows all about the hazards of working in hot weather. As the survey manager for Cella Barr Associates in Phoenix, Ariz., he's seen how a rising mercury can turn a productive worker into a victim of heat exhaustion.

Soaring temperatures during the summer can provide a sizable obstacle for surveyors all over the country. This is especially true when the air is humid and the work requires heavy exertion. Those that don't take the proper steps may find themselves victims of heat stroke.

One way Rossi has found to beat the heat is to get his crews working well before the full brunt of the summer conditions hit.

"Generally speaking, as we get closer to summertime, we move our working hours up tremendously Rossi says. "We start at 4:30 - 5:00 in the morning. The crews are generally done around 1:00 or so."

Dr. Ronald Charles of the American College of Emergency Physicians says limiting the time spent outdoors in the summertime is a good idea. He also says the key to fighting heat stroke lies in three words: "fluids, fluids, fluids." Charles recommends a 50/50 mix of water and sports drink, which helps to keep workers hydrated and provides electrolytes to replace the salt lost in perspiration, he also cautions those taking any medications to discuss how their usage may affect working in hot weather. Certain drugs, like antidepressants and others taken to fight hypertension, can exacerbate the effects of the heat.

Another key element in fighting heat stroke is the proper attire. In many land surveying situations, those in the field crew are required to wear long pants and a long shirt, sometimes a vest. Dr. Charles suggests materials that "breathe well," noting that any fabrics that allow moisture to evaporate and the wind to pass through are preferable. Certain clothing manufacturers, like Glacier Tek Inc. in West Melbourne, Fla., also make

...THE KEY TO FIGHTING
HEAT STROKE
LIES IN THREE WORDS:
"FLUIDS, FLUIDS, FLUIDS."

specialty work gear. Glacier Tek's KoolJacket, for instance, is designed to absorb heat and use a semi-solid phase change material to maintain a comfortable 65° temperature. Rossi says the right headgear also helps.

"When I'm in the field I prefer a baseball cap with a handkerchief wrapped over my neck," Rossi says. "That way, I can always wet that down. It dries out rather rapidly, but it is a cooling process. You've got to take advantage of whatever shade you can get."

Monitoring the effects of the heat on coworkers is also necessary. Charles says those who may be lapsing into a heat stroke can start to exhibit erratic behavior and get dizzy from relatively simple motions. An increased heart rate may also signal the onset of dehydration. Rossi says these symptoms are often noticeable on hot days.

"They'll have dizziness, forgetfulness, non-attentiveness. You'll be talking to someone on the radio and you can't even get a response," Rossi says. "They might start to lose concentration. That's when we say 'Hey guys, let's go take a break. Let's hit the shade and water ourselves down.'"

When a break becomes necessary, Charles recommends workers douse their head in ice. He also says ice should be placed in high blood-flow areas, like the groin and underarm, to help bring body temperature down.

Rossi says his workers are also equipped with mobile phones and the numbers for area emergency rooms in case anybody falls ill. In the end, Rossi says playing it smart and being prepared is the best way to keep safe.

"We have some people here who run from point to point when they're out in the field. I strongly discourage that as the weather gets hotter. I want them to keep the pace reasonable because it's not worth it to get a heat stroke over production." ●

The Technical Side

Lasers and Laser Safety

By: Doug Crook, President, Ingenuity, Inc. Reprinted with permission from the author.

With the advent and proliferation of the semiconductor laser in the workplace and more recently in the public sector, there is a question as to the safety of these devices.

What is a LASER? The term LASER is an acronym for Light Amplification by Stimulated Emission of Radiation. Light can be produced by atomic processes which generate laser light. A laser consists of an optical cavity, a pumping system, and an appropriate lasing medium. The emission from a laser can vary across the spectrum and includes both visible and invisible radiation. There are basically four laser classes: I, II, III, and IV, with most having subclasses. Each class exhibits certain characteristics and has a specified power output range requiring specific safety measures. This discussion will cover only class II and III lasers, which are the ones you will likely encounter in daily life.

Where are you likely to encounter a laser? With the creation of the semiconductor laser diode, they are everywhere. In the workplace, uses include straight line and rotating laser levels for alignment, distance measurement in surveying instruments, exposure devices in copiers, laser printers, facsimile machines, CD and DVD recorder/players, computers, and medical applications. At home you will find them in audio CD players, computer CDS and laser printers.

As the cost of laser diode production has dropped, another use that has blossomed is that of the laser pointer. At first, the laser pointer was used for business presentations where it is very effective in highlighting an overhead projection. Another use for the pointers has been in aiming devices for weapons. It seems that now everybody can afford to own these very small and very bright de-

vices.

Is there any harm in any of these laser devices? Yes and no. Why is a laser so bright? By its very nature, laser light is pure radiation of a specific frequency or color. Ordinary white light (sunlight or electric light) is composed of many different colors or frequencies of electromagnetic energy. The only difference between "white" light, a red or green laser, infrared or ultraviolet light, or radio waves is the frequency. The human vision system is "tuned" to recognize a certain range of the electromagnetic spectrum, just as our ears are able to "hear" a specific range of sounds, but all part of the same spectrum.

The emission from a laser can vary across the spectrum and includes both visible and invisible radiation.

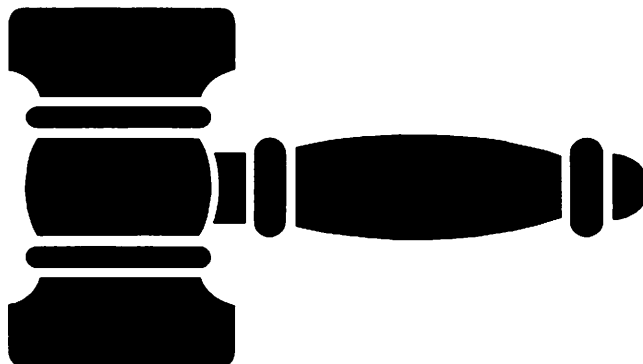
A visible laser appears to be very bright not so much because it is powerful, but because the light is a narrow frequency which is also in phase or aligned in time and space (coherent). The beam may also be aligned parallel to its optical axis by a lens system (collimated), which means

that the bright spot remains pretty much the same size as the distance increases.

What's bad about laser light? As with any concentrated electromagnetic radiation, there is the possibility that exposing a sensory system to a high level of input can cause damage or overload. Think about it: High levels of light, sound, and pressure evoke a response in the vision, auditory or nerve systems. The vision response to bright light is to blink or shut the eyelids, and hearing overload can cause pain, as can various applications of pressure to skin areas. When light is bright, the brain tells the vision system to do two things: first to blink or close the eyelids, and then to close the iris of the eye (the slower response of the two). In fact, for certain classes of lasers, this aversion response is an appropriate safeguard response. The

Who Owned it First?

By Mike Thomson, BCLS, reprinted as seen in "The Link", Vol. 22 No. 2, April 1999.



Here is a supposedly true story about trying to prove the ownership of a piece of property:

A New Orleans lawyer sought a FHA loan for a client. He was told the loan would be granted if he could prove satisfactory title to a parcel of property being offered as collateral. The title to the property dated back to 1803, which took the lawyer three months to track down. After sending the information to the FHA, he received the following reply (actual letter):

"Upon review of your letter adjoining your client's loan application, we note that the request is supported by an Abstract of Title. While we compliment the able manner in which you have prepared and presented the application, we must point out that you have only cleared title to the proposed collateral back to 1803. Before final approval can be accorded, it will be necessary to clear the title back to its origin."

Annoyed, the lawyer responded as follows (actual letter):

"Your letter regarding title in Case No. 189156 has been received. I note that you wish to have title extended further than the 194 years covered by the present application. I was unaware that any educated person in this country, particularly those working in the property area, would not know that Louisi-

ana was purchased by the U.S. from France in 1803, the year of origin identified in our application.

For the edification of uninformed FHA bureaucrats, the title to the land prior to U.S. ownership was obtained from France, which had acquired it by Right of Conquest from Spain. The land came into possession of Spain by Right of Discovery made in the year 1492 by a sea captain named Christopher Columbus, who had been granted the privilege of seeking a new route to India by the reigning monarch, Isabella. The good queen, being a pious woman and careful about titles, almost as much as the FHA, took the precaution of securing the blessing of the Pope before she sold her jewels to fund Columbus' expedition.

Now the Pope, as I'm sure you know, is the emissary of Jesus Christ, the Son of God. And God, it is commonly accepted, created this world. Therefore, I believe it is safe to presume that He also made that part of the world called Louisiana. He, therefore, would be the owner of origin. I hope you find His original claim to be satisfactory. Now, may we have our loan?"

They got it!! ●



To: R. J. Pominville,
President, Saskatchewan Land Surveyors Association
408 Broad Street, #230
Regina, SK S4R 1X3

Dear Roy,

Now that I have come back down to earth again after the memorable, for me, annual meeting in Saskatoon, I feel that I must write to you to reiterate my thanks to the association for the wonderful honour conferred on me this year. Ever since the first SLS meeting I attended as a CCLS director I have been enthralled by the prairies and the people who live there. To have had the opportunity to meet with you all has been a wonderful experience for me and now to be an Honorary Member of the association is very gratifying.

It is my hope to be able to attend your meetings for many years to come to continually renew any close association with you all.

I look forward, Roy, to seeing you at our annual meeting in Prince George next January.

With sincere thanks and best wishes to you and all Saskatchewan Land Surveyors,

Paddy ●

Idiosyncrasies of Land Descriptions

By Bill McComber, PLS. Reprinted as seen in "Side Shots", Vol. 30, No. 2, May, 1999.

"Are we relying too much on technology at the expense of good professional judgement?

Are we relying too much on our abilities as button-pushing technicians?

Are we looking for the easy solution to wrap up the problem at hand at the expense of minimizing ambiguities and avoiding future discrepancies?

Is land surveying an art?"

The "Old Man" liked my last column. Said he had enough material on the "idiosyncrasies" involved in construing descriptions to fill my columns for the foreseeable future.

I touched a few nerves in my last column when I wondered if our profession was headed in the right direction. I asked: "Are we relying too much on technology at the expense of good professional judgment? Are we relying too much on our abilities as button-pushing technicians? Are we looking for the easy solution to wrap up the problem at hand at the expense of minimizing ambiguities and avoiding future discrepancies? Is land surveying an art?"

I left you with unanswered questions. Told you to ponder them. A few of you did. The response to the question of whether surveying is an art evoked a few responses, the pattern from you and in reading the national publications evidently being: On the East Coast, surveying is definitely an art, on the West Coast, strictly a technology. We here in the middle seem to be somewhere in the middle. We're balanced on the great philosophical fence that stretches somewhere through the mid-section of the continent. If we fall forward we land on our mugs, if we fall backward, we land on our rumps. "Mugrumpers."

Another response was from a young gentleman who recently moved here from California, had passed his SIT there, and was now working to-

ward licensing as a PLS in Colorado. Highly educated and highly motivated. But, I will not embarrass him by passing on his name.

He had asked me about the PLSC refresher course and I steered him to Dr. Herb Stoughton. In the course of our conversation he wondered how we came up with such mundane and outmoded topics for course material. After all, he could come up with solutions to any mathematical problems on his calculator and didn't need to study them beyond knowing the functions on his calculator.

Further, all land had now been surveyed enough times that our role as surveyors was to "reiterate" what had already been recorded and that his computer was programmed to "check" legal descriptions for "closing" and all he had to do was insert it and the surrounding lot descriptions into his computer, do a least squares adjustment on the whole "batch", and finally, "spray" in the corners. This from a young man with a degree. Certainly not a degree from Metro.

I don't know if he ever made it to one of Dr. Herb's classes. That would be fun to watch. I would delight in being there with this young man when the lights finally came on. (Herb can do that.)

My response to his rhetoric was he should investigate the possibility of acquiring a PLS license for his computer. (I can say things like that now that I am no longer President.) ●

By the way, the last time I checked just 9 out of 471 applicants passed last year's California PLS examination. I understand BORPELS (the California board of registration) is now taking steps to rectify this situation. (Way to go CLSA—the California Land Surveyors Association.) We in Colorado are lucky as our board has long recognized the merits of including input from the professionals at the local level. We don't always agree, but we work together.

Anyway, I promised you more on "land descriptions" and here it is. By the way, is Rich Baur from Indiana?

LAND DESCRIPTION

A part of that that land that has been tored down in Fort Wayne, which is in Indianer, beginning near that Green House still up by Oliver Street at that thar iron pipe stucken in the ground near by the street; then goes tord the railroad tracks trew the trees, till it drops off to below, only don't go to far; then goes along by the tracks tord the factory that's

been tore down all the way to the crooked fence post and then one step farther; then goes strate to that green house still up to the close corner; then goes strate atord that little iron pipe where you begun, and it is about sooooo bigger, mucher or lesser.

Too the otter piece of land shaped liken a piece of pie, over younder close by the railroad tracks; which begans along that no used railroad track, just by it, then along that not used railroad track to where a stick is going to be put in the ground; then goes tord the used railroad tracks to a iron pipe stuck in the ground, but not there yet; then goes by the tracks strate to whar you begun, and this is about sooo big, mucher or lesser.

I certify that this is about as good a survey that could be did when you ain't got no more time and some nut wants it in a hurry.

Put that in your computer. More next time. I'm outta here. ●

The Following is a Radio Conversation Released by the Chief of Navel Operations (10-10-95)

Reprinted from "The Link", Vol. 22 No. 2, April, 1999

Americans: "Please divert your course 15 degrees to the North to avoid a collision."

Canadians: "Recommend you divert YOUR course 15 degrees to the South to avoid a collision."

Americans: "This is the Captain of a US Navy ship. I say again, divert YOUR course."

Canadians: "No. I say again, you divert YOUR course."

Americans: "This is the aircraft carrier USS Lincoln, the second largest ship in the United States' Atlantic fleet. We are accompanied by three destroyers, three cruisers and numerous support vessels. Demand that you change your course 15 degrees north, that's one five degrees north, or counter-measures will be undertaken to ensure the safety of this ship."

Canadians: "This is a lighthouse. Your call!"

The Field Intersection

(A Meeting of Old and New)

By Warren Ward. Reprinted as seen in "Side Shots", Vol. 30, No. 2, May, 1999.

The old man rested by the two-foot hole he had carved out of the sod. He was old as the 1/4" chiseled in the stone he had just uncovered. He was wise—the keeper of a wisdom as visionary as the meaning of the "1/4" mark itself. He was seasoned by a thousand miles of hiking, surveying the lines throughout the Rocky Mountains since his beginning as a young axeman.

He knew he would
never retire.
Not as long as his
work brought him to
these mountains.

Having dug out this stone property marker, he treated himself to a quiet view of the surrounding Rockies. Looking east, toward the Great Divide, revealed flashes of granite beyond the Spruce and Aspen forest. He marveled at the clearing he occupied, bright green from the spring runoff, once a homesteader's hay meadow. Even with layers of red Indian Paintbrush, purple Columbine and yellow Dandelion, the meadow was still bright green. He knew he would never retire. Not as long as his work brought him to these mountains. Where would he go for peace of mind should he retire? Fishing in the very stream he just waded through, probably. He was 20 years beyond retirement age anyway, he justified. 'Too late to retire', he thought, with a sly smile.

He noticed a stirring in the nearby forest, and at once trained his eyes to spot an elk, moose or black bear. But the crashing noises seemed too odd, clumsy and loud to be an elk. The crashing sounds got closer, and the aging man finally recognized the hacking of an axe. Closer and louder came the thrashing in the forest. He could see some of the Spruces shaking. He watched the

shaking branches until a human figure appeared, emerging from the treeline with prism pole, radio and axe in hand. Another surveyor! A young man, who had just cleared a long line through a thick forest.

The old man was amused
to watch this
energetic surveyor
meticulously lining himself
in with the rod,
left, right, back, forward,
until he had reached some
predetermined point.

"Line!" the young man ordered through his radio. The old man was amused to watch this energetic surveyor meticulously lining himself in with the rod, left, right, back, forward, until he had reached some predetermined point. He marked the point on the ground with a nail, some 20 feet from the old man's hole and stone. He proudly introduced himself as Igor Kidinski. "They call me Eagle," the young man proclaimed, admiring the GPS unit set up over the stone. The gentleman obliged.

'Probably thinks a logarithm is some type of hill-billy hoedown', the old man smirked silently.

'Probably thinks a CAD program is some kind of retirement home putting rug' the young man thought. "Nice to meet you, sir. What's your GPS for?"

"I'm locating this stone" explained the senior surveyor. "This used to be a hay meadow. The original notes call for this stone to be in a wooden box, nailed together and buried out of the homesteader's way for haying. I've looked hard for this stone, and couldn't find it until I realized that the old

nails could be detected. Sure enough, the wood rotted away, but my metal detector found the old nails, and led me to the stone, two feet under."

The kid wondered what "original notes" were. He pulled out his hand tape and began measuring the distance between his nail and the stone. The old man respectfully pulled the GPS tripod aside, since it had a "beer leg" thwarting the youngster's measurement efforts, and held one end of the tape. With deft precision, Igor snapped his Gammon Reel back and announced that the stone was "18.41 feet off. My traverse around this section closes at 1:100,000!" bragged the kid. "I know my nail is right!"

The old man started to explain how the government plat didn't "close" mathematically, and that new technology doesn't allow the legal "improvement" of a measurement, but smiled instead.

"You have a lot of energy, Eagle", the old man admired. "I could use your help with a new outfit

I've decided to start. We would use MY license and brains".

The kid thought a moment, knowing instantly he would accept. "It's not too often that surveyors meet this way, and I could use "direct supervision" while I work on MY license, said the lad. "I think we'd make a good team. What's our name? "Best-in-the-West?," "Never Wrong Surveys?"

"Borderline Survey Company", the old man half-joked, knowing that a name like that would stick. "I'll call you "Eager (The Kid)".

"I can't wait to get started", retorted Eager (The Kid). "I can hack a line through the forest faster than anyone. I never accept a traverse loop that closes 1:50,000 or less! What's your name, boss?"

"Just call me "Glutton", announced the new Senior Principal, smiling. The days end shadows overcame both surveyors as they headed home. ●

The Lowest Bidder

As seen in "The Quarter Post", Spring, 1999.

"It's unwise to pay too much, but it is worse to pay too little. When you pay too much, you lose a little money—that is all.

When you pay too little, you sometimes lose everything because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot—it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run. And if you do that, you will have enough to pay for something better".

John Ruskin, 1819-1900

Frequent or prolonged exposure to wooded, brushy, or overgrown grassy areas which are favorable habitats for ticks increases the risk for tick borne diseases.

from the outer coat of the bacteria that causes Lyme Disease. It induces antibodies that prevent the bacteria from causing illness in vaccinated individuals. The vaccine is approved for use in people 15 to 70 years of age. The vaccine is not approved, due to lack of information at this time, for children under 15 years old, elderly

individuals over 70, during pregnancy, or for individuals with chronic joint or neurologic illness due to Lyme disease or other types of chronic arthritis.

The vaccine **requires at least three doses** over one year (given at 0, 1, and 12 months) for maximum protection.

The vaccine is a supplement, not a replacement, for standard precautions against, and early diagnosis and treatment of tick borne diseases—it does not prevent all cases of Lyme disease for all people and does not protect against other diseases carried by the same deer tick (ehrlichiosis, babesiosis).

The vaccine is not a treatment for current or unrecognized Lyme disease.

The vaccine may interfere with laboratory testing for the diagnosis of Lyme disease; vaccinated individuals are advised to notify health care providers of immunization.

Unknown factors

There are currently several unknown issues regarding the vaccine:

- duration of post-vaccine protection
- need for supplemental (booster) vaccinations
- long term safety
- efficacy or safety in children, during pregnancy or breastfeeding, or in individuals with chronic arthritis

For more information, contact your family physician, or local Health Department. ●

Is there any way to treat Lyme Disease?

Symptoms of Lyme Disease are treatable with antibiotics. The earlier treatment begins, the easier it is to prevent the disease's long-term effects.

Is there any way to prevent Lyme Disease?

The Food and Drug Administration (FDA) of the U.S. Department of Health and Human Services licensed the first vaccine for Lyme disease on December 21, 1998.

Individuals at increased risk for tick borne disease such as Lyme Disease, based on geographic location, and activities are advised to consult their physicians regarding the vaccine.

Frequent or prolonged exposure to wooded, brushy, or overgrown grassy areas which are favorable habitats for ticks increases the risk for tick borne diseases.

Individuals are advised to consult their physicians for an assessment of tick exposures, discussion of the relative merits of protective measures other than vaccination, and the potential risks, costs, and benefits of vaccine use. Individuals should continue to take preventive measures against tick borne diseases - avoid high risk habitats as much as possible, wear protective clothing, inspect for and remove attached ticks promptly, use appropriate landscaping measures around homes or other relevant sites whenever possible). Individuals should continue to be on the alert for early symptoms of Lyme Disease and other tick borne diseases, and seek prompt medical attention if any are present.

About the vaccine

The vaccine is a genetically engineered protein

This letter was received in the SLSA office, from Beverly Bradshaw, Property Registration Branch. It is included here for your information.

June 8, 1999

To Clients of the Chief Surveyor's Office:

The Chief Surveyor's Office (CSO) is dedicated to ensuring effective support within the land titles system through the provision of expertise and handling of associated plan and survey matters.

The office faces many challenges at this time, including: the high volume of plans being submitted as a result of previous survey activity; initiatives such as Treaty Land Entitlements creating new demands and both process and transaction issues to be resolved; the significant efforts and dedication of Saskatchewan Land Surveyor (SLS) expertise from both the CSO and SaskGeomatics Division to the development of the LAND system and new related Plan Processing function.

In order to ensure that the CSO is able to provide responsive and quality service to its many internal and external clients, a number of internal adjustments are being made to maximize the effectiveness of SLS expertise.

Willard Larson, Deputy Chief Surveyor, is the primary technical resource in the CSO. Willard should be contacted for all technical issues and for the provision of technical expertise. He will also provide technical direction within the office and the land titles system. Willard can be reached at 787-8722.

Lionel McNabb is joining the CSO as part time Office Manager to facilitate the effective management and organization of workload and resources and to deal with all general management issues including service delivery.

Morley Seis will be providing senior expert consulting to Willard and staff within the office on a limited basis, supplemented by Ed Desnoyers of SGD's Legal Survey's Branch (SLB), as required. Morley's and Ed's involvement will help to ensure continuity and consistency of an important knowledge base.

The staff of the CSO are also committed to providing the maximum benefits of their accumulated and considerable experience and expertise

Ed Desnoyer in this role, is an appropriate addition to the resource complement. Ed will be primarily responsible for working with the various affected parties to develop and carry out the planned amalgamation of the CSO and LSB, creating Plan Processing as part of the LAND Project over the next two years.

Both Ed and Wayne Adams, will continue to provide back up signing authority for plans as they have over the past year.

The Master of Titles Office will of course continue to be involved in providing direction and requirements to the CSO to ensure the effective resolution of survey related title issues.

I am confident that this refocusing of available expertise and supplementing with general management skills will meet our collective needs successfully as we move towards the new ways of doing business which will be implemented with the LAND System in 2001/2002.

Thank you for your continued co-operation and interest.

Yours truly,

Beverley A. Bradshaw
Executive Director ●

.25 second that the eyelid takes to close limits the exposure to a generally safe level.

The problem area is in repeated or continuous exposure to laser radiation. The eye consists of a lens to focus an image of an object on the retina, and an iris, or variable shutter, to control the amount of light entering the eye. The problem with laser light is that it is already concentrated, and the lens of the eye focuses all of the laser energy on a very small area of the retina. This can result in retina damage, which may be recoverable through normal cell regeneration, or may result in permanent damage to the retina. How can you tell which kind of damage will result? Unfortunately, you can't. Reaction to visual stimulus will vary dependent on many factors: ambient light levels and reaction time to the eye, which can vary depending on physical condition, exposure time, and medications that produce photosensitivity as a side effect.

One of the greatest dangers when around lasers of any kind is in viewing the beam with any kind of device which may further concentrate or focus the beam. Examples are magnifying lenses, binoculars, or instrument telescopes. If these devices have to be used around lasers, then they must be fitted with special optical filters that will block the harmful emissions (sunglasses don't qualify).

While brief exposure to the common class II and III lasers may not cause permanent damage to vision or skin areas, it is always prudent to avoid direct (intrabeam) exposure. In other words, avoid being in direct line with the laser beam. If you are directing a laser beam, whether it is an alignment laser, a rotating level laser, or a laser pointer, avoid exposing yourself or others to the direct beam. Where there is more than casual exposure, certain cases may necessitate safety equipment such as protective goggles or shields.

For regulations covering lasers and laser safety, consult the information provided by the laser manufacturer, OSHA or state agencies. (For OSHA: http://www.oshaslc.gov/dts/osta/otm/otm_iii_6.html is one link.)

First of all, remember that you have a responsibility to protect yourself and others from any harmful effects of laser devices of any kind that are under your control or within your sphere of influence.

If you have questions contact us at Ingenuity Inc. 1562 Linda Way, Sparks, NV 89431, voice 775-359-9971, fax 775-359-6693, or e-mail dcrook@ingenuityinc.com. ©Ingenuity Inc., 1999. ●

New Software Saves PC Data After A Crash

Reprinted as seen in the MSPS Minnesota Surveyor, Vol. 6, No. 2, Spring, 1999 issue.

Crash is a feared word in the computer age. A hard drive crash can bring down the mightiest company, wiping out vital business data that represents days, weeks or even months of work. Coming to the rescue at a store near you is "Hard Drive Mechanic Deluxe" (Encore Software, for DOS and Windows, \$49.99), a powerful utility made for the PC user without a computer science degree.

Considering that few people back up their files on a regular enough basis, a utility that accomplishes what this utility does, is nothing short of a cyberspace miracle. A software related hard drive crash can be restored in minutes, simply following the easy to understand instructions.

Its developer claims a recovery rate of 98 percent for all types of software related crashes, typically

caused by incompatible software, viruses, flawed or stalled program installations, bad internet downloads or hacker vandalism.

"Hard Drive Mechanic Deluxe" works with Windows 98, Windows 95, and earlier versions of Windows and DOS. It works on all kinds of hard drives, even the gigabyte models used on the latest high-powered machines. It can also warn of impending problems, making it an even more valuable aid when dealing with parts that have been subject to dust, wear or power surges.

This utility software can bring considerable peace of mind and could be priceless to many PC users that are too busy or just forgetful, when it comes to backing up files. If you must crash, at least do it with a safety net. ●

Lyme Disease

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What is Lyme Disease?

It is an infection caused by a spirochete bacterium which can produce skin, arthritic, cardiac and neurological symptoms.

What causes Lyme Disease?

It is transmitted to people by the bite of a tiny tick (smaller than a pinhead), called *Ixodes dammini* (deer tick).

Where is the tick found?

In New York State, infected ticks have been found predominantly throughout Long Island, and along the Hudson Valley. However, over the years, the tick has been found throughout New York State.

June and July
are the highest
risk months
for human
exposure.

It can be found in almost any outdoor location with vegetation, as well as on animals. Household pets need to be carefully checked if they have access to any wooded or vegetated areas.

What does the tick look like?

The tick is no bigger than a sesame seed and therefore difficult to see. It is black and red before feeding. After it has filled with blood, it is the size of a small pea, and is blue/black in color.

How can I avoid being bitten by a tick?

Stay in the center of trails and paths. (Impossible advice for survey field crews). Wear long pants, with bottoms tucked into socks or boots, and longsleeved shirts. Wearing light-colored clothing makes it easier to spot ticks. Use insect and tick repellents containing the chemical DEET. Check

yourself, pets and children for ticks frequently while outside. Check again at home.

Early symptoms
usually occur
within a month
of exposure...

When am I most likely to be bitten?

Ticks feed from April through October. June and July are the highest risk months for human exposure.

What should I do if I am bitten?

A tick must feed for many hours before the disease is transmitted. If you find a tick, use tweezers, or your fingers and a piece of paper or a leaf, to grasp the tick's mouth as close to the skin as possible. Pull steadily and firmly until the tick lets go. Apply antiseptic. Save the tick, your doctor may want to see it. To save it, place the tick in a small container, such as a film container, with a small bit of alcohol to preserve it for later diagnosis. One should be careful of any tick, and regardless of type of tick, it should be saved and referred for diagnosis.

What are the symptoms of Lyme Disease?

Symptoms and severity vary. Early symptoms usually occur within a month of exposure, frequently as a circular rash, with a clear center area. Fever, headache, fatigue, stiff neck and muscle or joint pain are the other early warnings. Within weeks to months of the rash, nervous system involvement, including meningitis, encephalitis or facial palsy can occur. Heart abnormalities may also occur within a few weeks of rash onset. Months or years later joint swelling may occur and can become chronic.

No prism? No problem.



Heatherbrooke Townhomes / Architect: RDM Design, Inc. / Atlanta, GA

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SLSA Calendar

July 1999 - December 1999

July

| | | | | | | |
|----|----|----|----|-----------------|----|----|
| | | | | 1 Canada Day | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

August

| | | | | | | |
|--|----------|----------|----------|----|----|----|
| 1 1st | 2 2nd | 3 3rd | 4 4th | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 14th - 21st: 19th International Cartographic Conference and 11th General Assembly | | | | | | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

September

| | | | | | | |
|----|----------------|----|----|----|-----------------|----|
| | 1 | 2 | 3 | 4 | | |
| 5 | 6 Labor Day | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | | |
| | | | | | AMLS AGM | |

October

| | | | | | | |
|----|------------------------|----|----|----|----|----|
| | | | | 1 | 2 | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 Thanksgiving Day | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

November

| | | | | | | |
|----|----|----|----|-----------------------|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 Remembrance Day | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

December

| | | | | | | |
|------------------|----|----|----|----|----|---------------------|
| | 1 | 2 | 3 | 4 | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 Christmas Day |
| 26 Boxing Day | 27 | 28 | 29 | 30 | 31 | |

