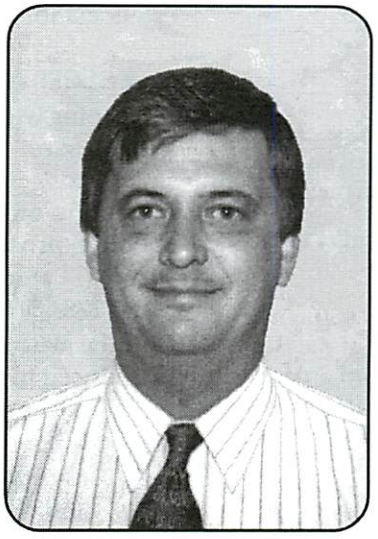
Saskatchewan Land Surveyors' Association

Newsletter

President's Message to the Membership

By M. L. Waschuk, SLS, P. Surv., President



I am very proud and honoured to be serving as the President of the Saskatchewan Land Surveyor's Association and truly thank the membership for this opportunity.

Outgoing members of Council, Roy Pominville, Walt Schoenfeld, and Jeff Sketlton will indeed be missed. Their dedication, hard work and contributions to the Association were substantial.

This year's Council is made up of a good blend of individuals with different survey backgrounds, a Public Member (Walter Streelasky) who always provides valuable input, and last but certainly not least, our Executive Director (Carl Shiels) who just keeps getting better and better. This special blend of people should prove to be very beneficial in upcoming meetings. I especially look forward to working with new members of Council, Guy Craig, Jim Clarke and Al Jensen.

On June 16th I was in Trois-Rivieres, Quebec to sign the Mutual Recognition Agreement (Agreement on Labour Mobility for Land Surveyors in Canada) on behalf of our Association. All but three of the Provincial Associations were in attendance for the signing. Now that the Agreement has been signed, its implementation will require a lot of work from our Board of Examiners, Council and the general membership. While in Trois-Riveres I was able to attend part of the annual general meeting for L'Ordre des arpenteurs-geometres du Quebec and was exposed to some Quebec hospitality.

The Information Services Corporation of Saskatchewan (ISC) is experiencing some problems with on-line plans and plan searches, new regulations, a new fee schedule, etc. We have to remember that this new system is

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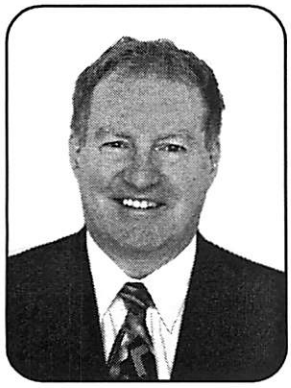
Council Highlights

By: A. Carl Shiels, M. Sc., P. Eng., Executive Director



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

Deadlines for articles will be the last Friday in December, March, June and September.

The opinions of the contributing writers may not be consistent with those of the Council of the Saskatchewan Land Surveyors' Association. Articles may be reprinted with appropriate credit given to the authors, unless it is under copyright.

Address all correspondence to:
408 Broad Street #230
Regina, Saskatchewan S4R 1X3
Phone: 306/352-8999
Fax: 306/352-8366
e-mail: slsa@sk.sympatico.ca
web site: www.slsa.sk.ca

Office hours are from 9:00 a.m. to 12:00 p.m. and 1:00 p.m. to 5:00 p.m. on all business days.

May 22, 2001 - Meeting #8

The President called the meeting to order at 1:00 p.m. and reported on his attendance at the ALSA annual meeting in Jasper, Alberta. The WCBE meeting, which had been held just prior to the ALSA meeting, was a significant topic for discussion. In particular, the U. of C. had offered to continue to provide a person to serve in the capacity of registrar following the departure later this year of Prof. Ballantyne. However that offer had been rejected. Instead, the Board had appointed Prof. Ballantyne as temporary registrar until July and they were recommending that the four provincial associations which make up the WCBE accept an offer from the ACLS to have Jim Simpson act as interim registrar until such time as a national board of examiners is established.

New SLSIT

In keeping with their new policy, Council met briefly with Messrs. E. F. Twarowski, SLS and R. J. Eichel, SLSIT to 'get acquainted' and to respond to any questions or concerns they might have about the articling process.

SASTT/SLSA

Council was advised that a bill was about to be introduced in the legislature which, if passed, would repeal the consequential amendment to section 23 of the LSPS Act contained in the SASTT Act. It would also remove the exemptions for all persons other than Community Planners from the scope of practice section of the LSPS Act and insert a section making it absolutely clear that there was no prohibition from carrying out any of the activities contained in the definition of the practice of professional surveying by persons who are not Professional Surveyors.

U. of C. - GELC and Spring Camp

J. T. Skelton had agreed to present one of the nine lectures at the Spring Camp. A number of members of council agreed to help Mr. Skelton come up with topics for his presentation.

Western Canadian Board of Examiners

Council indicated their support for the appointment of Jim Simpson of the ACLS as interim registrar for the WCBE pending the establishment of a National Board of Examiners

Labour Mobility - MRA Draft #VI

Council reviewed the most recent draft of the MRA from the CCLS office and concluded there had not been any significant changes from that which had been endorsed earlier. Council also noted that Dave Gurnsey would be speaking to this issue at the annual meeting. The executive director was asked to have additional copies of the MRA available at the annual meeting.

Resort Village of B-Say-Tah

Council heard that another meeting had been held on May 17 in an attempt to resolve a long standing problem with a survey. Of particular interest was the fact that ISC had been prepared to spend approximately $25,000 in an attempt to resolve the problem which could otherwise cost some of the property owners several thousands of dollars each if the matter were to go to litigation. The approach being taken by ISC has set a significant precedent in pro-actively attempting to bring resolution to problems which stem from uninsured survey errors.

Distance Education Steering Committee

R. J. Pominville reported that the committee had sent out an invitation to several educational institutions in Canada requesting expressions of interest in providing distance educational services to the land survey community. Responses had been received from four institutions and they have since been contacted asking for more details.

The committee has recognized that development of the kind of distance education program that is required will be expensive but there is likely to be federal and/or provincial funding available for such a program. Council approved a request from the committee for a one-time levee of not more than $5.00 per member to retain the services of a consultant with specific expertise in identifying government funding opportunities.

New Land Surveyor in Training Agreements

Council approved Land Surveyor in Training agreement signed between C. R. Sakundiak and D. J. Quirk, and between R. Shrivastava and W. J. Peters.

Results of Professional Examinations - 2001

Council was advised that, based on the results of the professional examinations in April, there would be no new commissions granted this year.

Amendment to Bylaws Article VII, Section 1

Council was advised that, since the Saskatchewan Association of Certified Survey Technicians and Technologists (SACSTT) has changed its name to the Saskatchewan Association of Geomatics Technologists (SAGT), certain changes to the Bylaws were required.

Council moved to amend Article VII Section 1 of the bylaws by replacing all references to "Saskatchewan Association of Certified Survey Technicians and Technologists" and its acronym "SACSTT" with "Saskatchewan Association of Geomatics Technologists" and its acronym "SAGT".

Resignation of Executive Assistant

Council learned that the person hired to fill the role of executive assistant had tendered her resignation effective May 27. The Executive Director explained that he would not be filling the position immediately since the office was about to head into its slow period and he may be able to handle the duties of both positions himself.

Convention Committee

The president reported that there were approximately 102 persons registered for the annual meeting including 52 persons who had signed up for the golf tournament.

Practice Committee

C.B. Swenson reported that the Practice Committee was expecting to meet at 7:00 p.m. on May 31 following the ISC seminar in Saskatoon. They hoped to continue their work on the Suggested Schedule of Fees and were going to look at the requirements for monumentation at oil well sites.

The meeting adjourned at 3:45 p.m.

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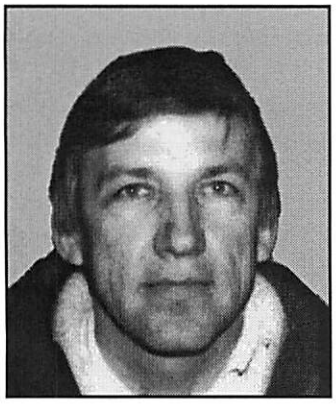
Councillor's Report



*HI-TECH....*CAN WE MEET THE CHALLENGE?

Computers have moved to the front lines in everyday living as well as doing business between ourselves and the rest of the world. The transition to E-Life, however, may require some of us to adopt a new 'Mind-Set' in order to make the adjustment to the new world.

By W. Larson, SLS, P. Surv.

History has shown us all, time and time again, that man is capable of creative thinking: inventing tools that can be a benefit to all mankind, all the way from the wheel to the automobile to space rockets and satellites.

Today's world is becoming more and more dependent on the beast called the computer, and the endless number of computer driven applications. I would liken the computer to fire... a good friend but a bad enemy. If all systems are functioning normally, computers can achieve amazing feats. However, if there is a 'malfunction at the junction'... well, that's another story! The point is that they are here, and it looks like they are here to stay.

You all know how the computer has enhanced the life of the Survey Industry... from use in calculating, bookkeeping, accounting etc.... to computer applied tools such as Electronic Distance Measurement and Global Positioning Systems (GPS) (which by the way, have evolved from one of the first land measuring techniques... pacing... we still pace today... but now we have a GPS in our hands).

And so it is with the rest of society, computers are used as a base for many applications such as e-mail, faxing and the Internet. Computers have moved to the front lines in everyday living as well as doing business between ourselves and the rest of the world. The transition to E-Life, however, may require some of us to adopt a new 'Mind-Set' in order to make the adjustment to the new world.

The Province of Saskatchewan, through the Information Services Corporation (ISC), is presently going through such a transition from a paper world to the new E-world. This new land management or tenure system was kicked off in June 2001 with the availability of 'online' Legal Survey Plan searches on the Internet, as well as Title searches in the Moose Jaw Land Registration District, and is seen as great benefit to all of Saskatchewan, both now and for generations to come.

The growth of something new, however, sometimes experiences 'growing pains'. In his latest President's Update Memoranda of June 29, 2001, Fraser Nicholson spoke of "rough roads" along the way.

I would challenge each member of the Saskatchewan Land Surveyors' Association to examine his own "Mind-Set" on how to smooth this rough road. To paraphrase the words of the late John F Kennedy...

"Ask not what my Province can do for me, but rather ask, what can I do for my Province?" ❀

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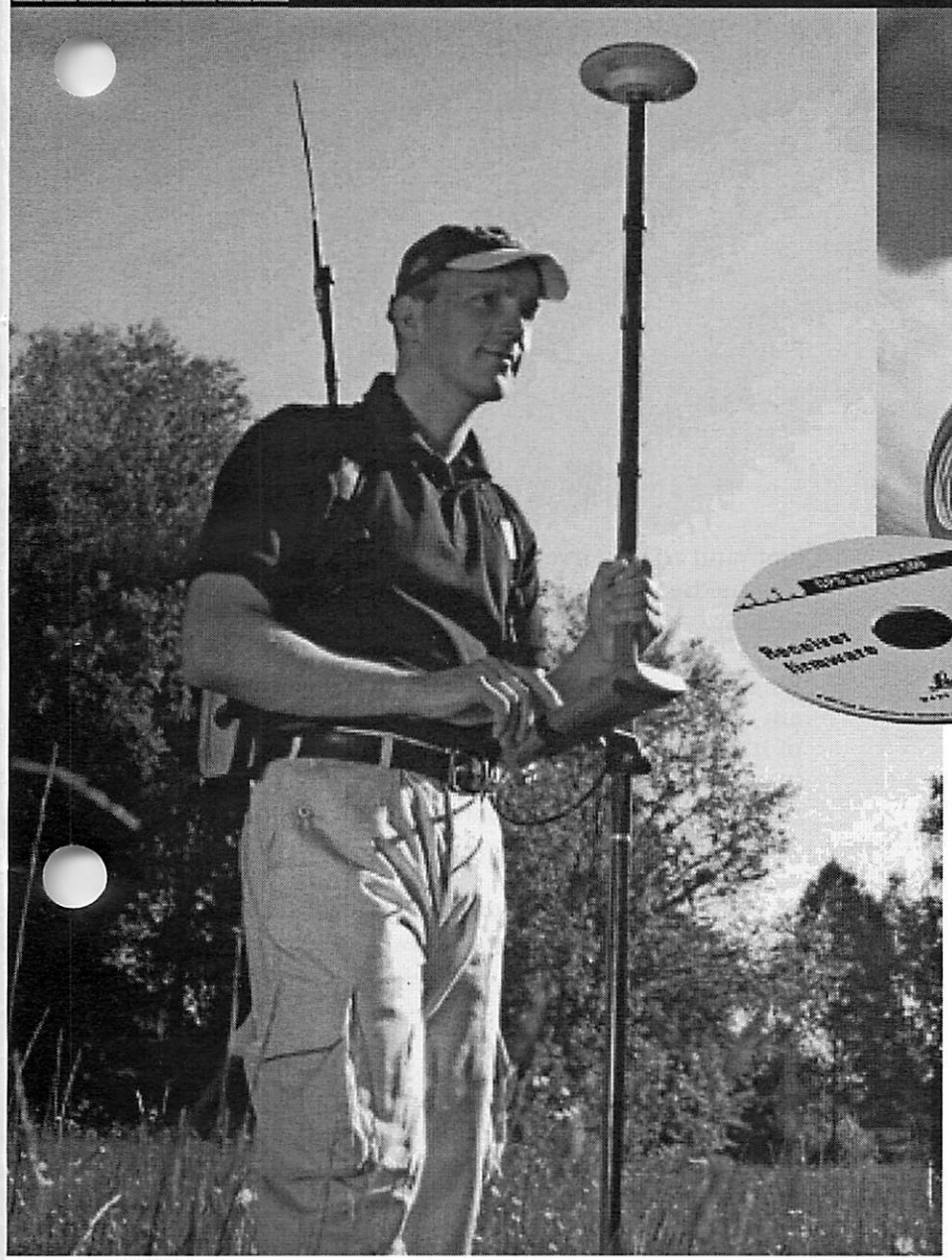

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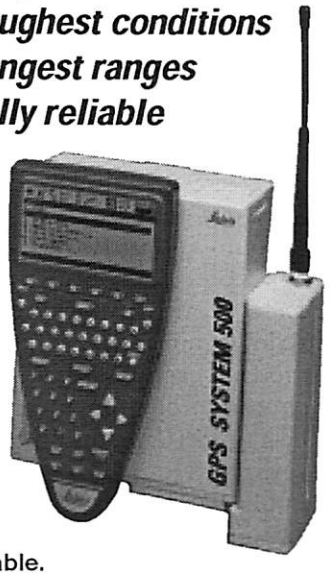

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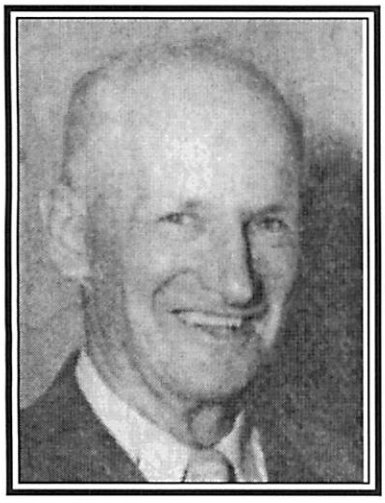
BIOGRAPHY

By John H. Webb S.L.S. (LM)



Ernest William Murray (1884-1962)
S.L.S; D.L.S; Prof. Eng.

There are not many of us left who remembers Ernie. A gentleman who gave of his time to the younger surveyors and to articled pupils.

Born in Seaforth, Ontario, in 1884 where he took his early education. He attended the University of Toronto and in 1907 graduated from the faculty of applied science. Shortly thereafter he apprenticed on a Dominion Land survey party near the Yellowhead pass in Alberta for a year, returning to the University of Toronto to take a post-graduate course in civil engineering. Following his graduation in 1910, he qualified as a Dominion Land Surveyor and joined the Saskatchewan Department of Public Works. While there he obtained his Saskatchewan Land Surveyors' Commission number 29 in 1911. Later he went with the Saskatchewan Department of Highways as a district engineer and land surveyor for many years.

When Mr. M. B. Weekes, S.L.S. retired in 1940, Mr. Murray was appointed Director of Surveys, which he held until his retirement from the Government in 1947, at age 63.

Not content with sitting around, he went into private practice and was most happy doing subdivision and road surveys in the Qu'Appelle, Regina, Regina Beach, Lumsden and other areas near Regina.

When Ernie finally retired he is quoted as saying "I am one of those who thinks that despite the rigors of it's winters, Saskatchewan is still a good place in which to live and I don't intend leaving." He still remains here as he was placed to rest in the Riverside Memorial Park in Regina.

Mr. and Mrs. Murray were well known in Regina circles. They were blessed with two daughters, Mrs. Eileen Smith, California and Mrs. Harvey Dryden, Regina.

In his youth, Mr. Murray was very athletic, being captain on a soccer team when they played New York and Philadelphia in 1905 and 1906, and winning the intercollegiate soccer championship of America.

In Regina he played with the old National Football team along with being active in hockey, tennis and badminton. Mr. Murray was President of the Saskatchewan Land Surveyors Association in 1924. In the late 1960's the then Controller of Surveys Mr. A.I.Bereskin, honoured Ernie by naming "Murray Rapids" after him on the Churchill River near Missinipe, Saskatchewan.

His daughter Annabel Dryden did an article about her dad called "From the Membership. Early Surveyors. The shaping of a Province." I assume it was published in a Regina magazine or paper after Mr. Murray passed away ❀

The Golden Age of Surveying

By Milton Denny, PLS

Reprinted with Permission - The Georgia Land Surveyor
May - June, 2001

The 1950s were a grand time in the history of surveying. The development of the equipment had progressed to a point where the surveyor could produce a quality survey with minimum effort. In many ways these were the golden years. The dedication to service, the attention to detail and the willingness to do an accurate survey regardless of cost, resulted in the groundwork being laid for many modern resurveys. Today, if you follow in the footsteps of some of these surveyors, you will be surprised at the accuracy of their work.

I was one of the lucky ones to have started a survey career before the boom '60s, when six weeks of experience qualified you as a party chief. Let's roll back time to these simpler days, and explore the world of surveying in the '50s: where learning the trade of surveying was from the ground up, and it took months to become a good rodman. Many spent years as an instrument man before becoming party chiefs, and many never made the transition from party chief to registered surveyor. We are going to take a look at tree distinct areas of surveying during the '50s: equipment, field crew procedures, and the quality of the work and its lasting impact on our profession.

Equipment

Surveying had survived the compass and chain era and progressed after World War II to the survey transit and steel tape, more commonly called a "chain." There were only three big names in survey equipment: Gurley, K&E and Dietzgen and brand loyalty was almost unnatural. Field people were loyal to the instrument brand on which they learned to survey. Snide remarks about instruments were common, such as, "Never saw a Gurley that would double center," or "A K&E will never double an angle properly." All such comments were true only in the eyes of the beholder. Remember, most surveyors had only had one transit in their career, it was purchased new, and it was treated like a member of the family. It was scheduled for cleaning and adjustments on a semi-annual basis and field adjusted between formal visits to the repair shop.

Transits were available in different types and quality such as the Surveyor's transit with A-shaped standards; the more costly Engineer's transit with U-shaped standards; or specialty transits such as the mining transit. Transits were graded for accuracy on the graduation of their horizontal circle, the least desirable being a one-minute circle. Most surveyors wanted a 30-second transit, and if you were really uptown, you could get one of those new 20-second guns. (Yes, the transit was always lovingly referred to as the gun.)

The real art to making it as the instrument person was the ability to read the gun more accurately than the manufacturer's specs, such as estimating the one-minute gun to 30 seconds and the 30 second gun to 15 seconds. This was accomplished with a magnifying glass that the instrument person wore suspended around the neck on a piece of cord. This glass was worn as a badge of honor that said you had arrived and were no longer a lowly rodman.

Reading the transit was an art form. You had to carefully hold the magnifying glass parallel with the horizontal circle, study the graduations on the circle, and proudly proclaim the proper reading. The doubling of the angle would be the mathematical proof that you truly had mastered the art of reading the circle. The standard tripod was straight legged, cheaper than an extension leg tripod, and weighed 16 to 20 pounds. It took years of practice to set up the straight leg transit in all the situations encountered in surveying. The ultimate test of a good instrument person was to make sure that the plate attached to the transit head always remained as parallel as possible to the transit and to use the adjustment as seldom as possible. A party chief seeing a poorly set-up transit would pull it

up, set it next to the point and say, "Set it up again." A plumb bob was used to get the transit over the point. It took many years of experience to get over the point on a windy day.

Measuring was done with a 100-foot steel tape that had a lead babbitt at each foot on which the distance from the end of the tape was stamped. Most survey crews received a new tape about once a year. Near the end of the year most tapes had been broken and repaired a number of times. Sometimes, the lead had worn off from being pulled over the ground, making the numbers very hard to read and increasing the chance for error. The chain was affected by temperature, as well. Most field surveyors adjusted about 1/100 of a foot for each 15 degrees of temperature change from a benchmark of 68 degrees. On a traverse, this adjustment may be made in the office, on stakeout work; the correction was made in the field. Most old plats have a statement as to what temperature the distances are adjusted. It was common to see a surveyor with a field thermometer.

Most crews had wooden range poles for sighting; leveling rods for vertical surveys (for the most part a small percentage of the work); and other items, such as arrows or marking pins (chaining pins); plumb bobs and sheaths; and a machete or bush hook for clearing line. Most crews also had some sort of sack, similar to a cloth newspaper delivery bicycle bag, to carry flagging, stakes and a hammer. While reels for steel tapes, retractable plumb bobs and tension handles for chaining were available from survey supply houses, these were considered unnecessary. The field vehicle was a station wagon or a pickup truck with a homemade wooden box for the equipment.

Office equipment was simple: drafting tables, filing cabinets and equipment to make blue prints (Sometimes this was a window box put out into the sun to expose the print paper to light. Developing was done with a wet process, many times in the bathtub. Remember these turned out to be blue prints - white lines on blue paper. Sorry, no prints on a cloudy day; (this item was called a Solar Printing Frame.) The drawings were always in ink with a drafting set consisting of beam compasses and ruling pens. The original drawing was on vellum or linen drafting material. Many companies had pre-printed standard sheets with title blocks.

Field Crew Procedures

Most field crews consisted of four people: a party chief, an instrument man and two-rod men. Some crews may have had a fifth person for flagging traffic and driving stakes. Learning to be a good rodman was very complex. Your main tool was a plumb bob, attached to a special string, long enough to allow you to plum above your head the length of your extended arms. The main duty of a rodman was measuring.

Even the rodman classification had a class structure. The lowest job was rear rodman. As rear rodman, your duty consisted of holding your plumb

The care and running of the instrument was the responsibility of the instrument person, including jumping in front of a truck to save it if need be.

bob at the end of the tape, plumbed over the survey point or chaining pin no matter how hard the front chainman pulled. To get the tape level, you may have been holding it over your head. When you were perfectly over the point, you would shout out one of about 20 different signals, the most common being "Stick, ho, mark."

If you think this sounds easy, get a plumb bob and hold it over your head while holding a rope on which someone is pulling as hard as they can. The most important job of the rear rodman was to read the correct distance off the tape when the distance was less then a full 100 feet. The correct procedure was to look at the foot you are holding, and then look at the foot ahead and the foot behind before calling out the distance to the party chief. The front rodman set the pace for the crew. It was important to move ahead as quickly as practical and yet still do a correct job of measuring.

If the rod men were the arms and legs of the crew, then the instrument was the heart. As a party chief once told me, 'I don't care how hot or cold it gets you will never see me look through the instrument. It is yours to stand behind come hell or high water.' The care and running of the instrument was the responsibility of the instrument person, including jumping in front of a truck to save it if need be. No one was allowed to look through or practice with the instrument without his or her permission.

One of the most difficult things to do on a survey crew was to work around the instrument when it was setup and ready for use. Near where the legs were pushed into the ground were one-foot radius circles, where no one was allowed to step. This was a problem because most distances originated from the point over which the instruments occupied and the plump bob hung from a hook on the bottom. While the instrument person would be giving the head rodman alignment on the direction to measure, the rear rodman would have to climb under the transit, holding the end of the tape on the plumb bob string while the head rodman pulled as hard as he could on the head of the tape. The trick was to do this while staying one foot away from the tripod legs on the ground and not touching any part of the transit. The instrument person was always supposed to anticipate which way the crew would be measuring from under the transit. If the instrument were set-up so the tripod leg was on the line, the party chief would pick up the instrument and say, "Set it up right!"

Many books could be written about the party chief. In the '50s, many of the better party chiefs were also registered surveyors. The best party chiefs ran their crews much like an Army drill sergeant. Most of the old time party chiefs that I knew spent their whole lives in the field, wanting to complete just one more survey. Because of this, they could not be counted on to attend kids' baseball games, school plays or any other family activity. Most of the drafting was done at night and on weekends. Since the collection of fees was never high on the list of things to do, many died having never been paid for many surveys. Most would have surveyed for free because that was their calling in life. It's easy to see why the children of these surveyors never wanted to follow in their footsteps.

Running the crew, making sure each member performed their duties properly and training were part of the party chiefs job. He had to make sure the instrument person was not taking a short backsite and the rod men were plumbing properly and measuring correctly. But the second part of the party chiefs job was by far the most important: keeping

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David Thompson

Wilderness Astronomer of the Great Northwest

By Stephen R. Bown

This article first appeared in the March/April 2001 issue of Mercator's World and cannot be reprinted without the permission of the author. Reprinted from the Ontario Land Surveyor.

When the young David Thompson disembarked from a creaking ship on the barren and bleak shores of Hudson Bay in 1784, cartographers knew the interior of North America essentially as a great void, an embarrassing terra incognita on their maps. Yet by the time Thompson, a fur trader with a passion for surveying, departed the Northwest for good in 1812 the entire region was accurately represented on several detailed charts. Despite the time-consuming and difficult process of measuring the wilderness, Thompson had accurately plotted the main routes of travel and delineated the physical features of approximately 1.7 million square miles depicted the most remote, inaccessible streams and lakes, all in almost perfect relation to each other.

The rudimentary sketch maps in common circulation at the time mostly showed a rough and only vaguely correct line linking the trading forts along the major rivers, combined with a route description to make it useful. They were practically useless for anything other than delivery instructions for fur traders. Created with no means of precisely calculating the distance he traveled, Thompson's charts provided the first accurate cartographic overview of perhaps a quarter of a continent and would be of practical use even today.

For several decades after Thompson produced the first version of his master-piece in 1813, nearly every major map shamelessly pirated the information on it without giving him credit - or compensation. When he died in 1857 at the age of eighty-seven he had never seen his work published under his own name.

Uncharted Territory

David Thompson spent most of his life in the fur trade in North America. He was born in London to Welsh parents in 1770. When Thompson was a small boy of three, his father died. When he was seven, his struggling mother enrolled him in the Grey Coat School of Westminster Abbey, a charity school where he was raised with "piety and virtue.. [and] a foundation for a sober and Christian life." He also received a basic grounding in Latin, mathematics, geography, and navigation. In 1784, at the age of fourteen, he signed on as an apprentice with the Hudson's Bay Company and departed his native land forever.

While in the employ of the Hudson's Bay Company, Thompson developed skills as a surveyor and mapmaker, and advanced quickly as a trader along the chilly rim of Hudson Bay. But the torpid life of a Bayman was not to his liking. "Neither reading nor writing was required," he later remarked in sour humor, "and my only business was to amuse myself, in winter growling at the cold and in the open season, shooting Gulls, Ducks, Plover and Curlews, and quarrelling with Musketoes and Sand Flies." The Hudson's Bay Company showed little interest in properly surveying the wild terrain under their trading monopoly, at one point specifically ordering young Thompson to stop his surveying and concentrate solely on procuring furs from the Indians.

In 1796 Thompson abandoned the Hudson's Bay Company and joined its adventuresome arch rival, the North West Company, hoping to explore the vast continent spreading south and west from the isolated huts strung out along the shore of the bay. "How very different the liberal and public spirit of this North West Company of Merchants of Canada from the mean selfish policy of the Hudson's Bay Company styled Honourable," he remarked, pleased with his new circumstances.

(The "Honourable" company was at the time forwarding all of the survey notes from his journals to the London map publishing company owned by Aaron Arrowsmith, to create the map produced for Alexander Mackenzie's account of his explorations to the Arctic and Pacific Oceans in 1789 and 1793.)

Thompson's first assignment for the Nor'Westers was more than he had hoped for. Over the next ten months he was to travel more than 4,000 miles in almost uncharted country from Lake Superior to Lake Winnipeg, down through Manitoba and Saskatchewan, following the length of many of the smaller rivers, to the upper Missouri and then over to locate the head-waters of the Mississippi. "Every necessary I required [was] to be [put] at my order," he wrote proudly. In the following sixteen years with the North West Company he roamed over 55,000 miles by canoe, on horseback, and on foot throughout what is now the Canadian West and the American Northwest. He slowly and methodically compiled journals of thousands of survey notes taken along his many routes, an area that was eventually bounded by Hudson Bay in the north, the Missouri River in the south, the Mississippi River in the east, to the Pacific Ocean in the west.

Thompson earned a reputation as a fair and honest trader with the native peoples, with whom he spent most of his time. On one occasion "several old Indians made a bargain with me," he noted. "If they should die in winter, I should not demand the debt due to me in the other world - namely, heaven. To which I always agreed." He also refused to trade liquor after witnessing the devastation it had inflicted on native communities, a stubborn act of defiance that earned him the respect of some, but the irritation of others. "I was obliged to take two kegs of alcohol, overruled by my partners," he complained, "...who insisted upon alcohol being the most profitable article that could be taken for the Indian trade. When we came to the defiles of the mountains I placed the two kegs of alcohol on a vicious horse, and by noon the kegs were empty and in pieces." He then sent a note to his partners clearly informing them that he would do the same with any other casks of liquor he found in his annual supplies.

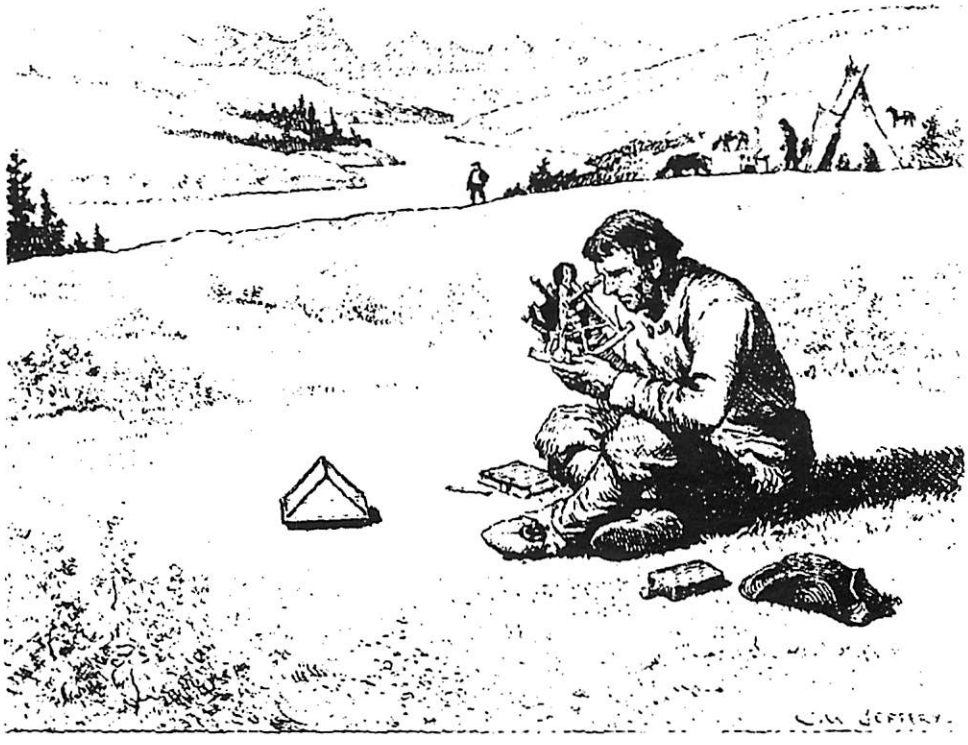
In 1807, following instructions to open new trade routes, Thompson first clambered over the Continental Divide through what is now known as Howse Pass, a route frequently used by the Kootenay Indians. He descended into the verdant valley of the upper Columbia River with ten pack horses loaded with trade goods. His troupe included his wife, the beautiful and multi-lingual Charlotte Small, daughter of an Indian princess and a wandering fur trader (Thompson had married her au façon de pays in 1798, when she was fourteen); and their three young children, the youngest a fifteen-month-old bundle strapped to Charlotte's back. Here he founded Kootenae House trading fort, just north of Lake Windermere in eastern British Columbia, and settled into a domestic-nomadic life tramping over the dry brownish hills, following rivers through much of interior British Columbia, western Montana, Idaho, and Washington, inviting the Indians to trade at his post. He measured the lengths of rivers, the heights of mountains, and the width of plains, and kept careful notes of his surveys wherever he went.

Thompson reached the mouth of the Columbia in the summer of 1811, several weeks after a contingent arrived from John Jacob Aster's Pacific Fur Company, (a priority that would later strengthen the U.S. claim to Oregon Territory). He and his entourage slowly followed the length of the river to its headwaters in eastern British Columbia, establishing contact with the Indians and verifying his calculations. "Thus I have completed the survey of this part of North America from sea to sea," he concluded, "and by almost innumerable observations have determined the positions of the Mountains, Lakes, and Rivers, and other remarkable places of the northern half of this Continent; the Maps of all of which have been drawn, and laid down in geographical position, being now the work of twenty-seven years."

By the Sun and the Moon

Surveying the wilderness in Thompson's era was a difficult and demanding endeavor involving huge amounts of time. Not only was the interior of North America not charted, it had not even been explored by Europeans. When Thompson canoed down a river he often had only the vaguest concept of where it might lead, based on the accounts of natives or other fur traders. The shape and size of lakes were totally unknown. When he came to the Rocky Mountains in 1807, he had no idea of what lay be-

tween the mountains and the coast, which had been accurately charted by George Vancouver the previous decade.



C. W. Jeffreys/National Archives of Canada, C-073573 **"David Thompson Taking an Observation"**

Apart from the calculation of latitude, which on land and at sea was determined by measuring the angle of altitude of the sun, the techniques used on a land survey were quite different from those on a nautical survey. The greatest difference was in the calculation of longitude. The simplest solution was to carry an accurate clock, or chronometer, set to Greenwich time and to observe the difference between Greenwich time and local time at high noon. However, the prototype chronometers that James Cook and George Vancouver brought on their voyages were too finicky and bulky to survive years exposed to the elements on an overland journey tramping and paddling through the wilds.

Thompson used a far more time-consuming and error-prone method involving the observation of celestial bodies. By squinting through a telescope and noting the exact moment of the eclipse of one of Jupiter's moons at local time (Thompson carried a primitive watch that was accurate for about six hours at a time), he could consult a set of tables that told him when the eclipse occurred in Greenwich. The time difference between observing the same eclipse was translated into degrees of longitude. When the moons of Jupiter were in eclipse or were obscured by clouds, Thompson would measure the angle of the moon against two fixed stars, consult a set of astronomical tables known as the Nautical Almanac, and determine Greenwich time. Each of these methods was reliable but painfully slow, particularly the method of lunar distances, which consumed about three hours.

Thompson spent thousands of hours over the years calculating latitude by the sun and longitude by the stars. After he had fixed the longitude and latitude of given points, he would mark the positions in his journal and perhaps on a crude field chart as an anchor point. He then track-surveyed to fill in the detail between the "peg points." When he set out to create his great chart after retiring from the fur trade, he began with such a well-balanced skeleton of astronomically fixed points that his accuracy was virtually assured.

Publishers And Piracy

On Thompson's final trip east in 1812, a committee of the principal partners of the North West Company at Fort William voted in favor of "a resolve ... that David Thompson now going down on Rotation shall be allowed his full share of the Company's profits for three years ... that he is to finish his Charts, Maps, etc. and deliver them to the agents in that time."

His ambitious cartography project consumed the first year of his retirement on a rural estate near Montreal. From his copious astronomical readings and distance estimates he diligently created a great chart showing the terrain west of Hudson Bay to the Pacific Ocean. It was drawn with dark ink on

twenty-five separate sheets of rag linen, measuring about ten feet wide and six and half feet tall. The North West Company hung it in a prominent location on the back wall of their conference and dining hall at Fort William, and it was no doubt of great interest to the hundreds of fur traders passing through on their way to the western frontier. Today the Map of the North-West Territory hangs at the Archives of Ontario.

In 1816 the North West Company published a pamphlet that included a copy of Thompson's map without giving credit to its creator. Decades earlier the Hudson's Bay Company had passed on Thompson's calculations to the London-based map-publishing company Arrowsmith, which incorporated his data into its maps of North America - astutely giving thanks to the company but failing to mention Thompson. When the Hudson's Bay Company and the North West Company merged in 1822, Arrowsmith was given access to Thompson's other charts and notes. A Map Exhibiting All the New Discoveries in the Interior Parts of North America, originally published by Aaron Arrowsmith in 1795, was updated nineteen times before the 1850s.

In 1843, as a final insult, the colonial government in Canada asked the Arrowsmith company to estimate the value of the final version of Thompson's map. The value was set at a paltry 150 pounds, which was the only known financial compensation Thompson ever received for his work.

But Thompson wasn't completely accurate in his charting. Just west of Boat Encampment on the Pacific Slope rises a watercourse romantically named the Caledonia River, described to Thompson by Indians. It curves southwest and then disgorges into Puget Sound between the Fraser and the Columbia Rivers. The Caledonia River, however, doesn't exist. Although Thompson corrected his error the following year, in 1814, on an even more accurate chart of the region, the phantom Caledonia is prominently featured on Arrowsmith maps of the region as late as 1824. It also found its way onto virtually every other map for the next twenty years, a clear marker for the various pirated editions of his work.

In 1826 Thompson, just finishing ten years as chief astronomer and surveyor for the British contingent of the International Boundary Commission (where he had divvied-up the land between the St. Lawrence River and the Lake of the Woods), sent the British government an even more updated and accurate version of his chart of the west to help them in deter-mining the international boundary west of the Rocky Mountains. He must have been flabbergasted when his offer was turned down. The British government thanked him, but indicated that they already had maps of the region given to them by the Hudson's Bay Company. Ever optimistic, Thompson again sent the British, during the U.S.-British boundary dispute in the mid-1840s, a revised, final, and perfected edition of his map. Again his maps were ignored. Despite such rejections, his work remained the basis for all maps of the region for much of the century, with the Caledonia sneaking in occasionally long after he had eliminated it.

By 1827 Thompson had resigned from his position as surveyor for the International Boundary Commission. A series of bad debts and the depression of 1837 claimed a good portion of his investments, and at the age of sixty-seven, returned to work surveying the Muskoka Lake district in southern Ontario. Later he began to write an account of his journeys in the West, but his failing eyesight prevented his work from ever being completely finished or published.

In 1843, as a final insult, the colonial government in Canada asked the Arrowsmith company to estimate the value of the final version of Thompson's map. The value was set at a paltry 150 pounds, which was the only known financial compensation Thompson ever received for his work. Arrowsmith promptly pirated from this latest chart to update its own charts and for inclusion in a new Hudson's Bay Company pamphlet. Thompson, not surprisingly, wasn't mentioned. The colonial government didn't publish the chart with proper credit to Thompson until after his death fourteen years later.

It was the famous explorer and geologist J.B. Tyrell who, after purchasing the original manuscript of Thompson's narrative and publishing a version of it for the Champlain Society in 1916, tried to set

Continued on page 73

True North

By: Jeffrey N. Lucas, PSM

Reprinted fromThe Treasure State Surveyors, April 2001

"What is truth," asked Pontius Pilate. My inquiry isn't nearly as profound as Pilate's but have you ever wondered what the term "True North" really means? To slightly re-phrase Pilate's question, "what is true north?" I have heard many answers to this question given by regurgitating the question in the form of an answer. "True north is true north!" This is no answer at all. It's a circular argument that gets us nowhere in discovering the "truth." I think this term "True North," had a specific meaning at one point in time, but is now misused and has no real meaning at all. It should be struck from our surveying vocabulary and banished to the wilderness never to be heard from again. Those who use the term should be forced to surrender their survey license for failure to join the twentieth century (not to mention the new one coming up or already entered into, depending on your persuasion). And this would be a time for a clean break. If you failed to join the last century, you shouldn't be a part of the next one.

To begin my inquiry, I turned to the *Glossary of the Mapping Sciences, 1994* edition, jointly published by the American Society for Photogrammetry and Remote Sensing (ASPRS), the American Congress on Surveying and Mapping (ACSM), and the American Society of Civil Engineers (ASCE). After all, it's not knowing all the answers; it's being able to find the answers that separate the men from the boys, right? Unfortunately, the glossary was a big let down. They don't have a definition for "true north." They don't even have a definition of "north" for crying out loud. I turned to *Black's* next and started to make some headway. I found "true" and I found "north." It's now becoming apparent that I'm going to have to break this problem down into its constituent parts in order to come up with a satisfactory answer.

First of all, and before I go into that, let me run down the "north's" that I have come to know. There is, of course astronomic north. This is probably the basis for origination of the term "True North" as it relates to surveying. After all, most of the country, with the exception of the original thirteen colonies and places like Tennessee and Kentucky, were subdivided during the public land surveys. In the early days, at least, these surveys were run with a compass. The principal meridian of any given subdivision was to be run on a "true" north-south line. How did they define "true?" Some of the earliest instructions to deputy surveyors state that they were to hang a plumb line, observe Polaris, and adjust their compass accordingly-thus calibrating to "true north."

Along these same lines and in keeping with the thought of the Subdivision of the Public Domain, "true north" has also been interpreted to mean the cardinal directions run along the meridional lines of the sections.

The bearing of a compass when pointed "due north" has also been interpreted to mean, "true north." Of course we know that magnetic north is subject to change and is somewhat unreliable due to local attraction, so this definition does not garner much support.

Grid north is sometimes referred to as "true north." This definition is also somewhat suspect. After all, this definition is subject to change depending on your location, as well. The three state plane coordinate zones for the State of Florida all have their own reckoning of grid north. Other states with multiple zones have the same situation. In addition, grid north will be different given the source datum. Coordinates derived from the *1927* adjustment will be different than coordinates derived from the *1983* adjustment, and subsequent adjustments will further define and redefine the location of grid north. How can it be true, if it's constantly changing?

How about "true north" based on the ellipsoid? The first question to ask here is which ellipsoid? One that we used for a long time was Clarke of *1866.* This is what the North American Datum on *1927* was based on, but there were plenty of others. Airy

of *1830,* Bessel of *1841,* Clarke of *1880,* Everest of *1830,* Fischer of *1968,* GRS *1967,* Hough of *1956,* WGS *60 - you* get my point. Each of these mathematical representations of the Earth has a different definition of north. If one definition is true, then the others must be false, true?

Other, less common definitions of "true north" include reference to a deed line or reference to a line on a recorded plat. After all, in both of these cases, the world within which you are working (the deed or plat) is based on the north that was used to derive the system of bearings and angles revealed on the document, thus controlling your orientation and thereby making north-"true north" for your closed system. Another less obvious north is the north derived from the rotational axis of the Earth. Maybe it's abundantly obvious to you, but I had never even thought of this "north" until a few weeks ago when it came up in a conversation I was having with a surveyor in Ohio. Apparently he has an instrument, a type of gyro, that will orient itself to north based on the rotation of the Earth.

One last "north" that I just recently came across was at a seminar in Gulf Shores. I was foolish enough to ask the question: "What is true north?" And someone replied that it was "General North." We quickly concluded that General North was a Yankee general who marched on Meridian, Mississippi during the Civil War. Ah hum! And I'm sure there are many other definitions and I've probably only scratched the surface, but we must press on.

We have now exhausted, at least in my mind, all of the obvious answers and must now break our term down in order to determine the "Truth" of the matter. Let's start with the easy one first, "north." I can tell you the definition of north without even looking it up in a dictionary: It's the opposite of "south." But just for yucks, I'll look it up in *Black's.* According to Mr. Black, north "means due north; opposite direction of south." Funny how those things work out. Now let's move on to the word "true." *Black's* defines "true" as "conformable to fact; correct; exact; actual; genuine; honest. In one sense, that only is "true" which is conformable to the actual state of things." *Webster's* defines "true" as "in agreement with fact." All of the definitions of north that we discussed above are in agreement with some set of facts, aren't they? Give me an ellipsoid and the orientation to north will be "in agreement with fact[s]" concerning that ellipsoid. Similarly, give me a state plane coordinate zone and grid north is "conformable to [the] fact[s]" of that zone. So "true north" is what ever is conformable to the facts of a given system and it's the opposite of south. But when you consider ALL systems *together* there can be no "True North" because no one direction, which is the opposite of south, is "conformable to the actual state of things." It's everything and it's nothing! At the end of the matter we are left with our opening question, "what is true north?" ❀

SURVEYOR'S PRAYER

Almighty God,
Surveyor of the Universe
and the
True Point of Beginning
for all things

Bless that parcel of time
more particularly described as life
and
guide us as we traverse through it.

May we accurately follow
the courses you have set forth
giving full measure of our
time and talents
in a manner that will make our lives
worthy of a place in the
record book of eternity.

We submit the sum of
our being; less and except those
errors by your grace forgiven.

Witnessed by those present
in your Holy Name.

Amen

From
The Louisianna Society of Professional Surveyors
Home Page

Distance Learning, Is It for Surveyors?

By Indrajith Wijayratne, Surveying Program Coordinator,
Michigan Technological University, Houghton MI 49931

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May-June, 2001

Distance learning: What is it'? Who needs it? The concept of distance learning is not new. Correspondence courses, which were delivered through the Postal Service, were in existence for quite some time. With the change in technology, the delivery methods have changed but the concept remains the same. Now, distance learning or distributed learning has taken a new meaning. The United States Distance Learning Association, an advocacy group founded in 1987, defines distance learning as the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance. Technology is transforming American education in many positive ways, but some educators think its greatest contribution will be linking students and teachers even if they are geographically far apart. Over the past decade or so, the distance education has grown tremendously to facilitate the delivery methods. Satellite broadcast, one-or two-way video, computer networks such as the Internet, and a host of other methods are being used for delivery of instruction.

Distance education has become a significant component of delivery of education in the United States as well as in other countries. Faced with retraining 50 million American workers, corporate America is using distance learning for all aspects of training both internally and externally. Some countries in Europe and Asia have an open university system in which there are not physical campuses, and the students may be scattered all over the world. They are pursuing degree programs including graduate and professional degrees at their own pace. The Open University of Great Britain has a total enrollment of 160,000 students, out of which 120,000 are enrolled in degree programs including science, engineering, and professional degrees. Distance education also does not mean lower standards in education. The institutions offering the programs have a responsibility to ensure that the high academic standards are maintained.

An academic degree earned through a distance education program is not substandard to a degree earned by spending time on a college campus. The quality of education is not measured by the length of time spent on a college campus or how far one has to travel to get that education.

Distance education is most suitable for students who are unable to attend a regular college. They are mostly adult learners who wish to further their education for a variety of reasons. Some may be seeking to advance their careers by acquiring new skills and some may need additional education for registration \ licensing in their chosen professions. In certain professions, continuing education is a necessity in order to maintain professional status. Most adult learners are not in a position to attend a regular class at a college or university because they find it nearly impossible to balance home life and/or work with traditional modes of higher education. Students participating in distance learning

Most adult learners are not in a position to attend a regular class at a college or university because they find it nearly impossible to balance home life and/or work with traditional modes of higher education

are motivated to seek the higher knowledge and have the maturity to work independently. The typical distance learning student is an active learner in comparison to the more common passive learning found in regular classrooms. This does not imply, however, than an eighteen-year-old student just out of high school should stay home and get a degree through distance education. There is more to learn at a university community than merely attending classes. This certainly is not the case with an individual who is 35 years old and has been working for ten to fifteen years.

Surveying is not a profession that can be learned through an apprenticeship. Apprenticeship is nec-

essary for lower level, technician-type training. A professional surveyor needs an education, not training. Many skills such as survey research, contract negotiations, project planning and personnel management needed by a professional surveyor are acquired on the job. Although most classes taught in college have some hands-on type laboratory work, mathematical and logical reasoning as well as problem solving skills are learned through advanced courses. Distance education is a vehicle for delivery of such advanced courses when the student already has the background knowledge and has the maturity to grasp the concepts covered in these courses. Some innovative thinking is necessary by the teaching faculty to structure the courses in such a way that high standards of course content and integrity of tests are maintained. To this writer's knowledge, at least one individual who earned the degree through distance education has been successful at the licensing examination the first attempt. This is a testimony to the fact that the distance education certainly meets the standards set by NCEES and the state licensing boards.

Distance learning is an avenue available for many workers in the surveying field to advance their knowledge or to earn college credit and other academic credentials required for licensing. If one is pursuing an undergraduate degree, most introductory level surveying courses can be and should be completed at a nearby institution such as a community college. These courses need to be taken onsite because of the practical nature of the courses. General education courses such as humanities, social sciences, basic sciences, computer sciences, and mathematics also can be completed at such institutions. This can be done without loss of any time on the job and with little or no burden on the family. Only the advanced core courses need to be completed through distance learning. Employers of these workers are able to play an active role by providing financial incentives to them and allowing the company facilities to be used as distance learning sites. The more knowledge and skills the employee acquires, the more productive the employee becomes. Colleges offering surveying degree programs also are the beneficiaries as the generally low enrollment found in surveying programs gets a boost. Distance education programs help attract students who otherwise may not consider a college education.

A considerable amount of information on distance education is available at various World Wide Web and other Internet sites, which are too numerous to list here. Anyone interested may access the sites indicated below or any other site by keywords such as distance education or distance learning. There are also several publications dedicated to distance education.

United States Distance Learning Association

http://gopher.usdla.org/

Open University of Great Britain

http://www.open.ac.uk/

Indrajith Wijayratne, Surveying Program Coordinator Phone (906) 487-2446, Fax (906) 487-2583
School of Technology (EERC Room 319A)
MichiganTechnological University idwijay@mtu.edu
1400 Townsend Drive, Houghton, MI 49931-1295

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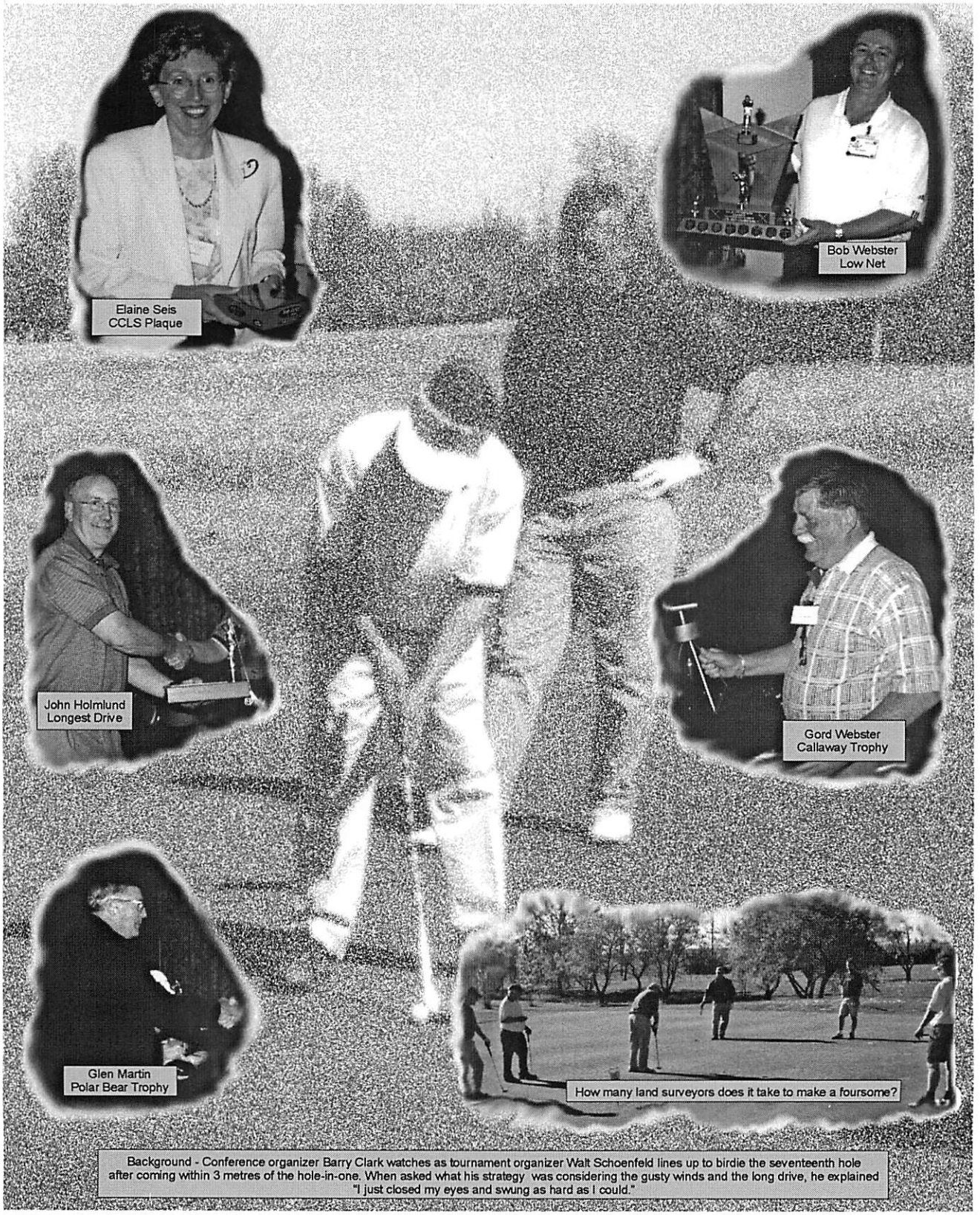
SLSA Golf Tournament - 2001



Elaine Seis
CCLS Plaque

Bob Webster
Low Net

John Holmlund
Longest Drive

Gord Webster
Callaway Trophy

Glen Martin
Polar Bear Trophy

How many land surveyors does it take to make a foursome?

Background - Conference organizer Barry Clark watches as tournament organizer Walt Schoenfeld lines up to birdie the seventeenth hole after coming within 3 metres of the hole-in-one. When asked what his strategy was considering the gusty winds and the long drive, he explained "I just closed my eyes and swung as hard as I could."

Annual Meeting - Social Functions

A genuine cause for celebration
Joanne Soroski, Joanne Joerissen,
Roy Pominville, Bill Soroski

The "Presidential Hand-off"
Bill Soroski, Carolyn Waschuk, Mike Wachuk, Joanne Soroski

The "Fifty Year" Club
J. H. Webb & T. N. H. Crump

Guest Speaker and
Author of "People Places"
Bill Barry

Seven familiar faces from the 74th Annual Meeting in 1964
R. A. Webster, J. J. Schaeffer, M. R. Skelton, J. H. Webb, B. E. Hoever, D. Babiuk, W. M. Schwartz

Background - A.M.L.S. President Dunc Robertson addressing the President's Banquet on behalf of the visiting presidents.

The Survey of John's Little Acre

by L. M. Powell, LS

Reprinted from the Utah Foresights, March 2001

This is an essay that holds a lot of meaning for land surveyors. It says, simply enough, that the land does not move.

In the beginning, God created Heaven and Earth and the great flood and the Ice Age passed, and there were stones and soil and minerals on John's little acre.

In 2500 BC, by a strange mutation, surveyors were created and their work became a profession. At the time, doctors were still rattling bones and chanting to cure their patients, and lawyers were meting out justice on the "eye-for-an-eye, tooth-for-a tooth" principle. And each spring the Nile destroyed the survey markers and they had to be remeasured so taxes could be levied, and trees grew on John's little acre.

Years passed and, in England, the common law was established and it was good - it was horse sense. To fulfill the claim of land ownership, metes and bounds descriptions were prepared, such as: Beginning on the bridge across Spring Creek at the west edge of the town of Evonshire, England, thence north along the center of Spring Creek to the stone fence along Jones' south line, thence west along said stone fence to a lone oak tree; ... and once each year the people of the village walked the property lines and each owner performed a ritual which laid claim to his land, and grass grew on John's little acre.

The compass was invented, the world became round, sailors navigated, America was discovered, the Mayflower sailed, and buffalo grazed on John's little acre.

The Colonies were formed and wars were fought; Washington and Lincoln were surveyors; and birds sang on John's little acre.

In 1803, the Louisiana Purchase was made which placed a value of 4 cents on John's little acre. The sectionalized system of land surveying had been in use for some time when the surveyor entered Bitterroot Valley in 1872 and determined that Section 23, T6N, R21 W. PMM included John's little acre.

And stones were set and witnessed every half mile around Section 23 and the Government said, this is good and proper, and these markers shall govern the perimeter and the aliquot parts of Section 23 regardless of errors in the original measurements and the SW 1/4 of Section 23 included John's little acre.

In the year 1890 a homestead was patented to a man named Bill which covered the SW 1/4 of Section 23, and Bill thought he owned exactly 160 acres bounded by lines bearing due north, south, east and west, but he didn't; the acreage was short and the lines crooked, but it still included John's little acre.

The two men agreed on the boundaries, paced the distances, and drove buggy axles on the four corners

Now John was a friend of Bill's, so when he moved to the Bitterroot Valley in 1895, Bill deeded him an acre of land for his homesite. The two men agreed on the boundaries, paced the distances, and drove buggy axles on the four corners. They then estimated that the SW corner was about 200 yards NE of the SW corner of Section 23 and a point of beginning was established for John's little acre. In 1898 John decided to get married and mortgaged his acre to acquire funds to improve the house. The bank required a survey of the property, so a man with a compass and chain was hired. Due to a deposit of iron ore near the SW corner of Section 23, his bearings were erratic, and since the area was brushy, his distances left something to be desired, but the buggy axles were there and still marked the true boundaries of John's little acre.

By 1910 the orchard boom was on. The area had been cleared and planted to apple trees. The bearing trees had been cut and the section corner stone

covered with soil. An orchard development company had purchased Bill's 160 acres and directed their surveyor to locate the exception which was John's little acre. The surveyor, assuming that the section corner was lost, found the four buggy axles and, using the erroneous data from the previous survey, set a pipe to mark the SW corner of Section 23. Using a transit and steel tape, he retraced the angles and distances between the four buggy axles and prepared a new description (the third) for John's little acre.

In 1960, a theodolite was used, and the bearings corrected slightly on John's little acre. In 1970, and electronic measuring device was used and the distances corrected slightly on John's little acre.

And so it came to pass that, by 1970, John's little acre had numerous descriptions, but it had in fact never changed. The true boundaries were still marked by four buggy axles, the bearings and distances bore little resemblance to the original deed, the acreage was actually 1.265 acres, but it was still John's little acre ❀

Why Surveyors Turn Grey

Original Editor's Note: A member sent us this article he found in an old publication. Although we don't know who Henry McGaughan was, George De La Mater was the Society's first President. Henry McGaughan sends us this one via George DeLaMater. Quoting from the Probate Court Records, Hartford, Connecticut, a section describing transfer of land in 1812 (The Michigan Professional Surveyor, January - February 2001):

"147 Acres, 3 roods and 19 rods after deducting whatever swamp water, rock and road areas there may be included therein and all other lands of little or no value, the same being part of said deceased's 1280 acre colony grant, and the portion hereby set off being known as near to and the other side of Black Oak Ridge bound and described in particular as follows to wit:-Commencing at a heap of stones about a stone's throw from a certain small clump of alders, near a brook running down off from a rather high part of the ridge, thence by a straight line to a certain marked white birch tree about two or three times as far from a jog in the fence going around said ledge and the "Great Swamp" so called, thence in line of said lot in part by another piece of fence which joins onto said line, and by an extension of the general run of said fence to a heap of stones near a surface rock, thence aforesaid to the "Horn".. so called and passing around the same aforesaid, as far as possible, to the "Great Bend" so called, and from thence to a squarish sort of jog in another fence and so on to a marked black oak tree with stones piled around it and thence by another straight line in about a contrary direction and somewhere about parallel with the line around by the "Great Swamp" to a stake and stones bounds not far off from an old Indian trail, thence by another straight line on a course diagonally parallel, or nearly so, with "Fox Hollow" run, so called, to a certain marked red cedar tree out on a sandy sort of plain, thence by another straight line in a different direction to a certain marked yellow oak tree on the off side of a knoll with flat stone laid against it, thence after turning around in another direction and by a sloping straight line to a certain heap of stones which is by pacing just 15 rods more from the stump of the big hemlock tree where Philo Blake killed the bear, thence to the corner begun at by two straight lines of about equal length which are to be run in by some skilled and competent surveyor so as to include the area and acreage as herein set forth" ❀

Legal Issues

The Crown, et al vs Norman Monty Porter - Supreme Court, Victoria, BC

(Reprinted with Permission - From "The Link", April 2001)

The above case not only involves the Corporation of BC Land Surveyors' office, in Victoria, as the complainant to the Central Saanich Police about an apparent falsification of a document, but also a few practising land surveyors in the Greater Victoria area. A copy of the initial letter of complaint, included within the court documentation, is herewith reproduced as background to the Crown's prosecution of Mr. Porter on a charge of forgery. This letter was directed to the Central Saanich Police on July 28th, 1998:

(By Hand)

Central Saanich Police
Central Saanich Municipal Hall
1903 Mt. Newton X Road Saanichton BC

Dear Sirs:

Re: Falsification of a Document, Impersonation and Intent to Commit Fraud

Please find enclosed a copy of an official document, a building location certificate, which are commonly prepared by British Columbia Land Surveyors for confirming placement of a building on a site to the property limits and to meet the requirements of a municipal permit. In this case, the referred document is noted as being prepared by a 'Lenard Scofield', BC Land Surveyor of 153 Melrose Road, Duncan, BC, under date of November 14th, 1996.

Although there was a Stuart Schofield commissioned to practice as a British Columbia Land Surveyor in 1915, there is currently no such Lenard Scofield rostered as a British Columbia Land Surveyor, or is there any such address as that shown on the document in Duncan BC. The document appears to be a deliberate attempt to misrepresent the site, a building, to the Municipality of Central Saanich.

The matter was reported to us by copy of a letter from Michael E. Claxton, BCLS written to a Wilfred Oppel, Barrister and Solicitor of Victoria on behalf of Mr. Claxton's client, a Mr. Don Henderson, the owner of adjoining property on which, it appears, the building of issue encroaches. Other surveys including a site plan prepared by Mr. Len Orrico, an authorized practicing land surveyor in Victoria, indicates that the building of concern, in fact, encroached over the property line onto the adjacent property of Mr. Don Henderson - Lot 3 of Plan 18836. Also it was found by Mr. Claxton, on attending the site in January of this year, that the legal survey post originally at the south east corner of the offending property, Strata Lot 4 of Strata Plan 469, was out of position and appears to have been moved approximately 10 feet to the east of the corner. If this was deliberately undertaken in order to confuse or in an attempt to misrepresent the boundary between the parcels, that as well would constitute an offence under the criminal code of Canada - Section 442, interfering with boundary lines.

It appears obvious to this writer, in comparison of the drafting from the site plan prepared by Orrico and Associate to the falsified document as submitted to the Municipality that the perpetrator has cut and pasted the graphical depiction of the building on Strata Lot 4 and used a portion of the dimension on the side limit, i.e. 1.527 metres from the line figure 71.527 metres, in order to show the building clear of the property line, meeting a minimum set back of 1.5 metre or approximately 5 feet. We also enclose, for your information a copy of the letter from Mr. Michael Claxton and his plan of the 14th of January, 1998. Section 59 of the British Columbia Land Surveyors Act is herewith attached, indicating that any person, other than a member of the Corporation of BC Land Surveyors in good standing, must not act or profess to act as Land Surveyor or use the designation British Columbia Land Surveyor, and if so, commits an offence. Albeit, in this case the name Lenard Scofield is also a falsification.

We have spoken to a building inspector at the Municipality of Central Saanich, a Mr. Barry Mahoney, who informs us that the municipality is aware of this situation and in fact they did receive the plan of concern from which the (doctored) building placement was accepted. It is our understanding that the building location certificate was submitted by a Mr. Norm Porter, an owner of Strata Lot and a former municipal employee of the district.

We are very concerned that this situation has taken place. It appears to be an attempt to utilize an official designation i.e. BCLS, for purposes of misrepresentation for personal gain and benefit and attacks the basis for reliance on licensing of professionals for the protection of the public.

The Corporation of British Columbia Land Surveyors presents this information for your review, investigation, with a recommendation for prosecution of the party responsible.

Yours very truly
Gordon M. Thomson
On Behalf of the Board of Management

Following the police investigation, the Crown issued the charge. The matter was first set for court in March of 2000 adjourned to July and again scheduled in October of 2000. Staff of and BCLS members L. Orrico, M. Claxton and D. Carrier (who was subsequently involved), all presented evidence as did the builder of the offending structure. The accused then fired his initial defence counsel, hiring Mr. Douglas Christie, Barrister, who proceeded to file for dismissal. That request was rejected, and the trial re-scheduled for mid-January 2001. The Corporation had presented a victim impact statement to the Crown prosecutor's office for the court's review.

The court was then adjourned until Friday, February 2nd, 2001, at which time Justice Allan Melvin, following a detailed summary of the evidence and the court proceedings, stated Mr. Porter displayed a callous disregard for the truth, calling Mr. Porter's version of events completely and utterly unbelievable, claiming that everyone is wrong except for him. Norman Monty Porter was found guilty on four counts of fraud, forgery, uttering a forged document and interfering with a boundary marker.

Sentencing was put off for written submissions by counsels until March. On March 12th, 2001 the hearing commenced at 10:00 a.m. in courtroom 401 of the Supreme Court of British Columbia in Victoria. Shortly before 3:00 p.m. the judgement of the court was given - Norman Porter was sentenced to one year in jail.

Gord Thomson, BCLS,
Secretary-Treasurer and Registrar, Victoria, BC ❀

Preserving E-mail and Electronic Evidence

Like paper documents, computer files must be disclosed

By Michael Fitz-James, LL.B., B.C.L.

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TORONTO - Even when a document has no physical existence outside a computer disk, it still may be ordered produced as evidence for a present or future lawsuit, says Toronto's Teresa Howarth, a litigation counsel with Blake Cassels & Graydon LLP.

Many businesses assume that because of its informality, e-mail and other electronic data doesn't count as something that needs to be preserved and later produced, she told an October 26 seminar entitled "Litigation Briefs: A Snapshot of Recent Developments in The Realm of Litigation."

Howarth points out that every Canadian jurisdiction has court rules which impose a specific obligation on both plaintiffs and defendants to "secure and disclose documents which are not privileged."

In Ontario for example, Civil Procedure Rule 30.02 requires disclosure of "every document" relevant to any matter in issue - and "document" is broadly defined to include "information recorded or stored by any means or device."

Ontario's courts, she says, have already determined (specifically when the Reichmann family sued Toronto Life magazine for libel) that material merely stored on a computer disk, even if it's never been printed out, must still be produced for a lawsuit.

"In our own practice, we see e-mail becoming significantly important in commercial disputes," she says, "and once litigation is started, or even contemplated, a duty arises to preserve such evidence. "A decision to destroy such documents carries a significant risk. Courts have imposed sanctions on businesses which have destroyed documents when they knew, or ought to have known, that the information was required for litigation."

The destruction of electronic documents can leave a party vulnerable to an adverse inference that the information was detrimental to the destroyer's case.

Moreover, clients should be aware there can be significant Criminal Code penalties when there's a wilful destruction of documents required for criminal proceedings.

Howarth stresses that businesses preserving electronic data should segregate communications that are privileged from those that aren't. Electronic exchanges with legal counsel are almost always privileged, as are communications about a lawsuit itself or its settlement.

But everything else is produceable, including material which may have already been deleted, but nevertheless remains on the hard drive. While the content of the wastepaper basket may have be recycled long ago, an electronic trashcan can be a gold mine of evidence, says Howarth.

Witness Oliver North in the Iran-Contra hearings, she says, when investigators discovered deleted e-mails on an automatic back-up tape and used them to undermine North's testimony.

Plus it's not enough, she points out, to write "confidential" on a document to preserve its private or privileged character, especially if it's been given a wide distribution.

An employer's published e-mail policy can do much to head off lawsuits in the first place, and if they do happen, offer some protection against adverse evidence being captured by an opposing party.

Employees should be made aware that the computer system is the property of the company and should be used only for legitimate business purposes. Moreover, employees should be advised that anything produced on them is subject to production in a lawsuit, says Howarth.

As well, guidelines should be created to prohibit defamatory, discriminatory, sexist or harassing material, with employees clearly informed that discipline or dismissal could result from violation of this policy.

As well, a company-wide document retention and destruction policy should be created, says Howarth, to guard against inadvertent deletion of data which may be useful in litigation.

Ottawa lawyer Lewis Eisen, executive director of the Canadian Society for the Advancement of Legal Technology, says many employers aren't sure how far they can go to stop their workers using the company e-mail to ride their private hobbyhorses.

Eisen says it's easy to snoop on employee e-mail - there are many low-cost software packages which allow this. While there haven't been any Canadian court cases on e-mail privacy, U.S. cases have consistently found if the employer owns the machine, it owns the information inside the machine as well - even if it's the employee's personal correspondence.

But snooping is time-consuming and a hassle says Eisen. He doesn't believe there's a lot of snooping going on, but many companies tell employees their computer use is being monitored so they'll be careful about what they write.

In a recent financial services industry seminar, Geoffrey Horrocks, Chief Compliance Officer with the Toronto Dominion Bank says there's been a "great hue and cry" by U.S. compliance officers who are having trouble "supervising" the mind-boggling flow of e-mail coming out of financial service firms.

There are software solutions, he says, which target specific "naughty words" in outgoing e-mail - terms like "guarantee," "buy it back," and "apologize" - but "there's a huge amount of personal communication going on - and the staff don't like you looking at their personal business."

Plus "compliance resources are scarce," says Horrocks, and he doubts whether a comprehensive job could be done in supervising employee e-mail ❀

21 Reasons Why English is Hard To Learn:

1. The bandage was wound around the wound.
2. The farm was used to produce produce.
3. The dump was so full that it had to refuse more refuse.
4. We must polish the Polish furniture.
5. He could lead if he would get the lead out.
6. The soldier decided to desert his dessert in the desert.
7. Since there is no time like the present, he thought it was time to present the present.
8. A bass was painted on the head of the bass drum.
9. When shot at, the dove dove into the bushes.
10. I did not object to the object.
11. The insurance was invalid from the invalid.
12. There was a row among the oarsmen about how to row.
13. They were too close to the door to close it.
14. The buck does funny things when the does are present.
15. A seamstress and a sewer fell down into a sewer line.
16. To help with planting, the farmer taught his sow to sow.
17. The wind was too strong to wind the sail.
18. After a number of injections my jaw got number.
19. Upon seeing the tear in the painting I shed a tear.
20. I had to subject the subject to a series of tests.
21. How can I intimate this to my most intimate friend?

Perspective

What is in the Future for the Surveying Profession?

By Robert R. Prescott, LS, President, New York State Association of Professional Land Surveyors

Reprinted with Permission - The Empire State Surveyor, May 2001

No, I am not clairvoyant but I do believe that I can extrapolate from my own experiences and from the trends of the recent past to make some reasonable prophecies about our future. Part of this will come from reading many of the magazines and journals that I get, and from discussions with people I consider to be leaders in the profession.

When I started working in the surveying profession in 1966, the company that I worked for had several survey parties that normally had a complement of three people: a party Chief, an instrument person, and a rod person. On occasion we would run a four-person crew when we needed an additional person for greater efficiency or safety.

The company was one of the more advanced firms in the Rochester area in that it had made a partial transition from using transits to a mix of transits and theodolites. We had one Wild T2 and two Wild T1's. The T1's had inverted images that took some getting used to if you had not run one before. For measuring, we used 100 and 200-foot Chrome Clad tapes that were on reels. The standard issue plumb included a Gammon Reel, although there were some old time party chiefs that still liked to put the string around the back of their neck. The company had tried out EDM's by renting both Electro-Tapes and Tellrometers at different periods prior to my arrival.

After a short period in the field and a summer job that I previously signed up for, I came back to the firm in the fall and start working in the office. The total calculating equipment for surveying, mapping, and engineering consisted of four Monroe Electronic Calculators, four sets of Peters Trigonometry Tables (they provided sine, cosines, tangents, and cotangents at one second intervals from 0 to 90 degrees to eight significant figures). Maps and plans were drafted by hand.

In general, the leadership of the firm could be considered to be progressive in that we were one of the early adopters of new technology in the Rochester area. The firm was one of the first in the area to have an electronic programmable calculator (the Olivetti 101 could generate a sine and cosine function in approximately 15 sec and could do the basic COGO functions), and a Geodimeter Model 6 EDM.

Since that time, our profession has embraced technology in many ways. Much of the data we collect is "untouched by human hands," as we use total stations with data collectors to collect the data, download the data into a computer, post process the data in the computer to insure that there is an integrity to the data, and then transfer it to a CAD program to complete a final map which is plotted on a plotter. At the same time the field crews have shrunk from three or four person crews, to a crew of two persons and occasionally one person. Things certainly have changed during my professional life.

But what of the future? It is said, "the past is prologue to the future." Here are some of the areas in which I think we will see many more changes in the way things are done. You may have areas that you will also feel are just as important. Some of these technologies could have a significant impact on the way that we do business:

Construction Stakeout: While the crew size has changed, surveyors are currently doing most of the stakeout for construction projects. We now have tools that allow us to position the point that we set easily but we are still pounding something into the ground and placing a mark on the lath for the construction crews. Recently, I was reading the *Leica Reporter* (No 46), a magazine sent to customers of Leica products. The feature article in the magazine was on the construction of a taxiway at the Zurich,

Switzerland Airport. This new taxiway was laid out with two Leica TCA2003 total stations, which controlled a slip-forming machine that was laying a slab that was 6 m wide and 36 cm thick. There were no stakes set, and the machine doing the pour was controlled by a Leica machine guidance system that received the instructions from the two total stations and made corrections for the direction and height of the slip forming machine as it moved along the path of the new taxiway. The tolerance requirements were 1 cm horizontally and 3 mm vertically. The article noted that the tolerances were met and that pour was done with greater speed and precision than could be done with the conventional stakeout approach.

The same equipment was also used in the preparation of the site prior to laying the slab. The article noted that the Construction Manager estimated that the system helped to cut 50% off the time to prepare the site versus using conventional methods. While this is just one example of what is happening, we should expect that there will be many more examples as owners and construction companies look to cut construction costs and improve the quality of projects in the coming years.

Improvements within GPS: Some of my friends that are members of ACSM who I consider to be in the know sat down one day to postulate what advances we would see in GPS. They believe that sometime between 2010 and 2015 there will be more than 50 satellites (contrast this with the current situation where we have less than 30 satellites with some of them in poor operating condition). The additional satellites could possibly come from the proposed European system that should be using the same frequencies that we do. At the same time there is the possibility of adding enhancements to future satellites that could help to increase the accuracy of the system in regard to future receivers. These same people believe that we will see improvements and decline in cost of receivers to somewhere between $500 to $2000. They expect the improved receivers to be able to provide positioning within 0.1 m. of ground truth operating as a single unit and that the average person will be able to use these units with little training. I have seen many property surveys that do not meet this level of precision as I'm sure that you have also.

LIDAR (Light Detection And Ranging): I think that most of us have seen some of the articles in the two surveying magazines (P O B and Professional Surveyor) extolling what these systems can do for the surveying community. LIDAR as used in an airborne system has a minimum uncertainty of about 0.15 cm with favorable conditions. Coupled with airborne GPS it can provide reasonable ground mapping. The system also provides the ability to strip away the over-story vegetation so that one can get a facsimile of the shape of the ground under the overshort. At this time, this type of mapping cannot compete with what surveyors do in regard to the precision required for engineering design projects, but it can provide reasonable mapping of a site for planning purposes.

Perhaps the most notable use of LIDAR is in the Cyrax device that is able to create an electronic representation of 3D structures in great detail. At this time the Cyrax is an extremely bulky device that has shown a remarkable potential to faithfully represent complex surfaces. The Cyrax has been used successfully in mapping rock faces. With the resulting map making it possible to accurately compute the quantity of material that has been removed from a rock cut or situated in large piles of material. There is no way that conventional surveying techniques can easily compete with the results from the Cyrax scan. Measurements taken on scanned models have routinely shown to be within 6 mm of measurement taken on the actual structure. Leica has recently completed the purchase of the Cyrax Company and will operate it as a wholly owned subsidiary of Leica. Currently the technology is very expensive but is in its infancy and has the potential to change our approach as to how we will be doing certain types of topographic surveys in the future

Title Companies: As surveyors, I believe we have had very mixed feelings about the role of title companies. We should recognize that most title companies are really in the insurance business and their main business is insuring against the risk of defective title to a piece of property. Title companies may still have as part of their activities the preparation of abstracts of title which most of us depend on for providing the chain of title about a property in question. At the same time, title companies still need the services of surveyors to provide a picture of the shape of the parcel in question along with any encumbrances to the property that exist (for a resource on this issue I suggests reading:

Land Surveys, A Guide for Lawyers and Other Professionals, 2nd Edition, Mitchell G. Williams, Esq., LS, Editor - I note Mr. Williams final statement in the Preface: "In short, surveys still matter"). Once they have the fruits of our work, it is fairly easy for them to use that work for future transactions, to continue to make decisions about the marketability of a parcel of land. I believe that the issue of liability and fair use continues to be a significant issue for our profession.

I suspect that in the future we will see title companies begin to use other geo-referenced tools to help them make their decisions about the need for a new survey. With the advent of more accurate GIS parcel mapping tools and availability of geo-referenced satellite photography at a reasonable scale (0.5 m pixels), it will be easy for a person to overlay the GIS mapping on the geo-referenced rectified photography and come to a decision whether a survey is necessary. Once again, we need to remember that the title companies are in the business of assessing risk, not providing abstracts for our use.

In all of the above areas, the tools mentioned are tools that surveyors are currently using (and many of us probably consider them to be in the domain of the surveyor). However the use of these tools are not the private domain of the surveyor. Many other professions also use these tools to promote their own objectives. While discussing these issues with another surveyor, his comment was, "as a profession, we need to recognize that the future will bring changes for us, and if we are able to assess these changes before they occur, we will be better off for it." I believe we have adapted fairly well to change in the past, but it takes a while for change to permeate the majority of the profession.

Consider that one of the major changes that came to our profession in the last fifty years has been the development of the electronic distance meter (EDM). The first EDM was available to the public in 1949 - 1950. The equipment required several people to get it to the place where the measurement needed to be made. It was not until the early 80's before EDM's were really common throughout the surveying profession, or about 30 years for the new technology to fully penetrate our profession. Consider GPS equipment. GPS became commercially available in 1980. 1 believe that it will be sometime in the second decade of the twenty-first century before GPS will commonly be used by a majority of practitioners in the profession.

At the same time what is happening to people that make up our profession? Are our people becoming better educated? Will they be able to make a living that will support their families? Will we be able to cope with the changes that are currently underway, and will we be able to contend with the changes that will be coming in the future? Will our members have the ability to retire if they desire to do so? As a prediction ... we will need less licensed surveyors and more qualified technicians. We will need to concentrate on how to recognize and qualify technicians through such processes as certification so that we can insure we have qualified technical staffing. Professional Surveyors will need a command of management, financial, technical, and professional skills in order to be a successful professional. The question for the leadership of NYSAPLS is how can we help our membership and our profession in New York make the transition to a position that will allow the membership to achieve the above goals? ❀

Fellow Members:

As Seen in the Empire State Surveyor, March 2001.

I am writing this note to all, trapped in my office by a raging snow storm and I'm thinking how miserable it's going to be working this week with even more snow on the ground. Just last week, I was looking forward to spring! I was out "setting up" in the woods outside of Newburgh, a warm, sunny day, deep blue sky and 15 feet away from me a baby deer stood unafraid and "curiouser" than a cat about what I was doing. What a great feeling about being so lucky to be a surveyor and out on such a great day. I felt blessed!

That is how surveying is. Just when we get down in the dumps about the state of our profession. How it's the "other" surveyors' fault for low fees, substandard work, clients that drive us nuts, no body respects us or a "blizzard" of other negative stuff. We all should be aware of how great being a surveyor really is and how few of us can get to do this job that's a challenge, a headache sometimes but we get to leave behind a little history with our work, it's important work that not everyone is capable of doing. I think I'm blessed (or nuts!)

Frank Hoens DHLSA

Council Highlights

Continued from page 43

May 25, 2001 - Meeting #1

The President called the meeting to order at 11:15 a.m. and congratulated the new members of council.

Items from the AGM

Since there were no matters from the annual meeting that required immediate consideration, this item was tabled until the next meeting.

Committee Liaison

The members of Council who agreed to serve as liaison with the standing committees were:

C. B. Swenson	Practice
A. I. Jensen	Education
D. J. Clarke	Public Relations

2002 Annual Meeting

Council authorized President M. L. Waschuk to make such commitments and expenditures as may be reasonably required for the preparation of the 2002 annual meeting. The meeting is tentatively being planned in North Battleford at the Tropical Inn during the week following the May long weekend.

Committee Workshop

Council agreed to hold a committee workshop at 9:00 a.m. on Monday, September 10th in Saskatoon to establish the fall and winter workplans for the standing committees.

Next Meeting

The next meetings were tentatively scheduled for 9:00 a.m. July 6 at the Council office in Regina, and 9:00 a.m. September 10 in Saskatoon.

The meeting adjourned at 11:35 a.m. ❀

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Whether you're a seasoned pro or just getting to know GPS, Locus is today's simple solution for smart surveying.

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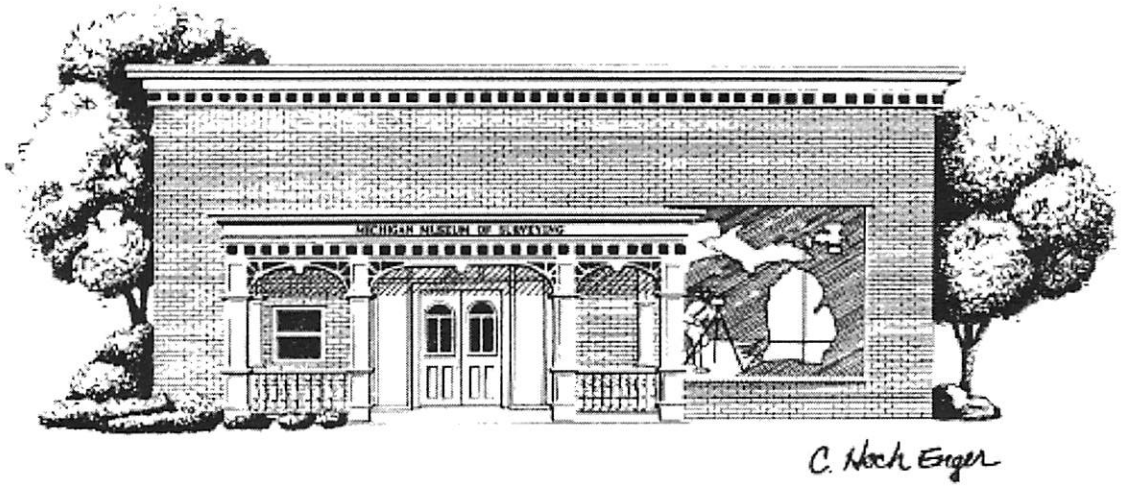
SURVEYING'S HERITAGE HAS A HOME

The Northwest Ordinance of 1787 set the plan for an orderly survey of the "Old Northwest Territory." The rectangular survey system used was repeated throughout most of the American West. Across this land, surveyors have left a significant mark on the cultural landscape; so much so that the rectangular survey system and the Great Wall of China are the only man-made creations visible from space.

The Museum of Surveying in Lansing, MI is the only museum in the United States (and possibly the world) dedicated solely to the profession, history, and technology of surveying. Its unique collection of historic artifacts related to surveying contains everything from chains, solar compasses, and original bearing trees to astronomical theodolites, aerial surveying cameras, and a circular dividing engine used to scribe verniers on a compass face. Visitors are able to view instruments used by William Austin Burt, Deputy Surveyor and inventor of the solar compass and the typographer (typewriter.) The Bausch & Lomb display houses surveyors' instruments made by the optical company, which has not produced this line of product since America entered World War 1.

The Museum of Surveying is also the home of an active re-enactment group, which travels throughout the region displaying artifacts and recreating the job of the original surveyors. This mobile museum, and the volunteers who support it are able to reach many more individuals who would otherwise not be able to visit the Museum. In another outreach program, the Museum of Surveying has been working in connection with the Virtual Museum of Surveying on the internet at www.surveyhistory.org. Virtual visitors can view surveying instruments from collections across the country, date their own instruments, and contact many groups such as the Museum of Surveying and the Surveyors Historical Society.

If you would like information regarding visits to the Museum of Surveying, our museum store, or research capabilities, please contact the Director at 517-484-6605 or museumofsurvey@acd.net.



SLSA Editor's Note: After reading the above article on the Museum of Surveying in Lansing, Michigan, it reminded me that the SLSA display at the Regina Plains Museum is no longer on display. The museum has moved into a smaller space and our display is in storage somewhere. Should it be moved to another location? Should we build on Tom Crump's efforts and make it current with new display features? Should it become a "Traveling" display where smaller communittees would have the opportunity to experience the land survey world? Your comments would be welcome and would be published in the next newsletter.

D.A.B.

The Golden Age of Surveying

Continued from page 49

proper field notes of found evidence and making the correct decision based on the evidence for the location of the property corners.

Keeping field notes is an art form lost in today's culture of computers and high technology. Surveyors of my generation can take a good set of field notes from this era and retrace the survey as if it had been done yesterday. (Fifty years from now, I doubt you'd be able to do that with a set of today's computer data.) The party chief of this era had the ever-present field book. Most of the notes were kept with a hard pencil and it was an unforgivable sin to erase in the field book. The incorrect entry was lined through and the new entry was placed above it. Some of the old field notes are a work of art.

Lasting Impact

Why do I call the '50s the golden years of surveying'? First of all, between 1920 and 1960 the 100-foot steel tape replaced the link survey chain. The link chain was a poor measurement tool and left many discrepancies in land measurements. The surveyors with their transits and steel tapes documented and redistributed these discrepancies. With the great building boom following World War II, surveyors were called upon to lay out many new subdivisions and remonument old subdivisions that make up the core of many of our modern cities. New road right-of-ways were more accurately surveyed giving a network of surveying that still binds together many metropolitan areas.

This era allowed for a little extra time in the field working out difficult survey problems. Today we somehow think the answer to that difficult survey is found in the computer. It never was and never will be - the answer has always been in the field evidence. Lastly, these great men monumented their work so we can follow in their footsteps. I am sure glad I experienced these times first hand. I wish you could have been there with me ❀

David Thompson

Continued from page 53

the facts straight on Thompson's contribution to the cartographic history of North America. He offered this explanation of how the continent's greatest astronomer and field cartographer could have died without receiving recognition for his life's work. "The record of that [Thompson's] survey was made on maps and not in books," he observed. "The people who study maps are few compared to those who read books, and consequently, often great maps may remain in manuscript unpublished when even trivial books are published with profit and read with enthusiasm."

Finally, more than half a century after his death, Thompson received the credit for his maps that he never enjoyed in life. In a 1937 article Tyrrell went even further, noting the "seemingly insurmountable difficulties" Thompson had overcome, his remarkable devotion to surveying, and the magnitude of his accomplishment. "The accuracy of his observational work by which he determined the positions of the places on the earth's surface to form the framework of his great map of northwestern America, and the care which he used in filling in the geographical details between those determined positions, by the best means available to him, consistent with strict attention to his fur-trading business, give the measure of the man."

Original Editor's note:

Upon further research, it is noted that David Thompson was responsible for the first survey in Muskoka District which still governs the direction of boundaries in Muskoka. Early Exploration and Surveying of Muskoka District by Robert J. Boyer, Herald-Gazette Press, Bracebridge 1979 ❀

Check out these Web pages:

www.gis.com

www.fourmilab.ch/earthview/vplanet.html

www.geosask.ca/conference2001

THOUGHTS TO GET YOU THROUGH ALMOST ANY CRISIS

- Indecision is the key to flexibility.
- If you find something you like, buy a lifetime supply, because they will stop making it.
- All things being equal, fat people use more soap.
- You can't tell which way the train was going by looking at the track.
- There is absolutely no substitute for a genuine lack of preparation.
- Nostalgia isn't what it used to be.
- Sometimes too much to drink isn't enough.
- The facts, although interesting, are irrelevant.
- The careful application of terror is also a form of communication.
- Not one shred of evidence exists in favor of an idea that life is serious.
- Someone who thinks logically is a nice contrast to the real world.
- Things are more like they are today than they ever have been before.
- The other line always moves faster until you get in it.
- Anything worth fighting for is worth fighting dirty for.
- Everything should be made as simple as possible, but not simpler.
- Friends may come and go, but enemies accumulate.
- It's hard to be nostalgic when you can't remember anything.
- I have seen the truth and it makes no sense.
- Suicide is the most sincere form of self-criticism.
- If you think there is good in everybody, you haven't met everybody.
- If you can smile when things go wrong, you have someone in mind to blame.
- One seventh of your life is spent on Monday.
- The more you run over a dead cat, the flatter it gets.
- Experience is the ability to recognize a mistake when you make it again.

President's Message

Continued from page 41

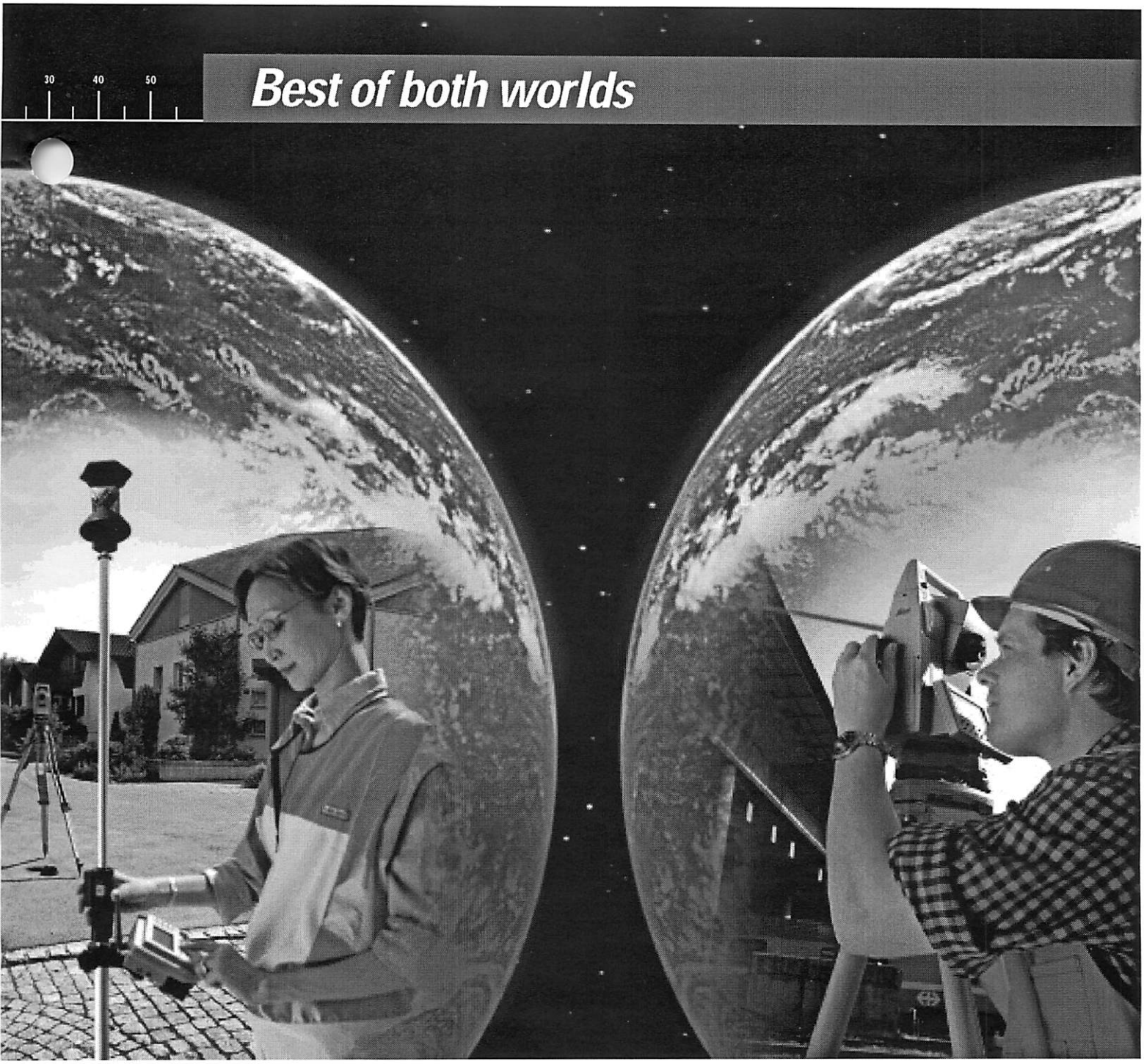
in it's infancy and that lots of wrinkles will have to be ironed out as time progresses. Hopefully ISC will realize that by working more closely with the SLSA and it's members this new system can develop into a model for others to follow. Remember to send a description of any problems you are experiencing to Carl at the SLSA office. Council will then work with ISC to resolve them.

At our AGM the hard work of LAND Project Committee chairman Larry McLeod was quickly acknowledged. As a member of that committee I can tell you that he spent many many hours going over every line of every revision of the new Land Surveys Act and Regulations and at times was extremely frustrated. I would personally like to extend a special 'Thank You' to Larry for all his hard work on the LAND Project Committee.

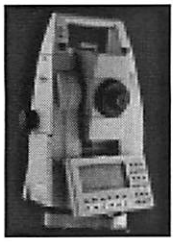
Council will continue to work on some unfinished business. We are currently working with SIAST to improve/enhance their Geomatics Program to the benefit both SIAST and the SLSA. The WCBE and the move towards a National Board of Examiners are also being discussed. New items, such as an annual meeting of all the Executive Directors of the Provincial Associations including the CCLS and the ACLS will also be dealt with.

It is now officially summer and I hope you are as busy as you would like to be. In today's fast paced world, try to keep safety in mind. I hope to see you all in the fall ❀

Best of both worlds



Leica's new TCRAplus. Robotic and Reflectorless in one amazing package.



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Looking Ahead...

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