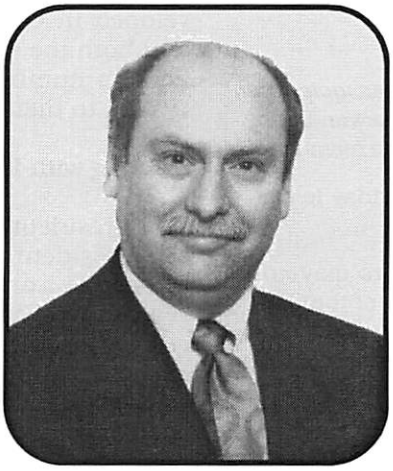
Saskatchewan Land Surveyors' Association

Newsletter

President's Message to the Membership

By G. D. Craig, SLS, P. Surv., P. Eng., President

Its beginning to look like summer has come to an end. The leaves are falling from the trees. There have been many mornings with frost and we are now talking about snowfall threatening overnight.



All these signs are a good indication that we are now into the fall season. The fall brings many activities and preparations in the survey community. One of those activities is the start of the President's travels.

Jan and I attended the Manitoba Annual General Meeting from the 10th to the 14th of September. The meeting was held in Winnipeg and we were treated to some excellent social events. The last day of the business meeting brought forward an item that I found of particular interest. There was a motion for creation of a practice advisory that dealt with the assignment of copyright for a Real Property Report.

Apparently a lawyer from Ontario had contacted one of the Manitoba Land Surveyors. The lawyer wanted the surveyor to sign a letter that would have allowed one of his RPR's to be assignable to anyone at anytime. The lawyer had also said that this was becoming standard practice. The President from the Ontario Land Surveyors' Association said that this was not standard practice within his association.

It looks as though the lawyer may have been trying to save some money and cover himself for any liability when using an outdated RPR. I am not saying that this is, in fact, standard practice by lawyers within Ontario but I believe we should be keeping our eyes open for similar incidences in Saskatchewan. It seems like more and more of the local banks and businesses are taking their direction from down East.

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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.

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

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2001/2002 Council

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2002/2003 - Meeting #3

The president called the meeting to order at 10:25 a.m. following a morning workshop with standing committee chairmen. He noted that there had been no travel since the last meeting but that he would be attending the AMLS AGM next week in Winnipeg.

Unique Identifier for Survey Monuments

All survey firms operating in Saskatchewan have been assigned unique identification numbers and none have requested different numbers for individual survey offices. The two companies in Saskatchewan that manufacture survey monuments have been contacted and neither have problems with stamping numbers on the monuments. Specifications for the numbering system have been developed in consultation with the manufacturers, and both the specifications and the unique identification numbers for each survey firm have been mailed to them.

Meeting with ISC Acting President

The president reported on a meeting with Acting ISC President Mark MacLeod. Mr. MacLeod was pleased to learn that a panel of SLSA and ISC representatives had been established to identify and resolve problems. Mr. MacLeod's main focus is expected to be on improving the usability of the LAND system from the customer's point of view. A good ongoing relationship with the new Acting President is expected.

Council noted that it would be important to keep Mr. MacLeod apprized of any problems or concerns that were not being adequately addressed.

Amendment to LSPS Act - Residency Requirements for Members of Council

A letter has been sent to the Dept. of Justice requesting an amendment to the Land Surveyors and Professional Surveyors Act allowing a minority of Council to be members who are not residents of Saskatchewan. That request has been forwarded to ISC for submission to the legislature but no problems are expected with such an amendment.

CCLS Fees

There have been some changes to the proposed fee structure for CCLS since the last draft was reviewed

by Council. However, there has been no confirmation that a fee structure has been finalized - possibly because it is still unclear whether Quebec will be joining the Association. The president recommended that we plan for an increase of approximately $5.00 per member when preparing the 2003 budget.

Notary Public Designation

The Executive Director contacted the Department of Justice about the possibility of having all SLS's designated Notaries Public in the Notaries Public Act in the same manner as lawyers. He learned that lawyers were automatically given this designation for historical reasons and that it was highly unlikely that Land Surveyors would be given similar privileges. However, it may be possible for Land Surveyors to gain restricted privileges, either in the Notaries Public Act, the LSPS Act or in the specific Act(s) that requires certain documents to be notarized. Council agreed that this matter should be investigated further.

Potential Projects for 2005 and 2010 Centennial Anniversaries.

Council considered a number of options for projects which could be undertaken as part of the Provincial and Association centennials. These included a book on the history of the Association, contributing to the development of displays on surveying at one or more of the provincial museums throughout the province, preparing a poster along the lines of that prepared by the AMLS for their centennial, and adding another plaque to the Surveyors Monument in Wascana Park.

Council agreed that J. H. Webb should be invited to chair an ad hoc committee to develop proposals for centennial projects, and to develop a budget and recruit members to assist in any such projects.

M. L. Waschuk noted that the Western Development Museum is inviting individuals, businesses and associations to submit their family or organizational histories to the WDM Virtual Museum. Council approved a $500 expenditure for registration and submission of information about the SLSA. The Executive Director was also instructed to include a notice in the next issue of the Newsletter inviting input and member participation in the centennial project(s).

Seals on Plans

Based on the current wording of the bylaws, embossed seals are required on all plans prepared by Saskatchewan Land Surveyors but, in the new age of digital plan submissions, such a requirement is unworkable. Council considered various alternatives including dropping the word "embossed" from the bylaw related to seals, inserting the word "paper" in front of the word "plans, drawings and documents" in Article XLIII, Section 3, and eliminating the requirement for seals entirely. A question was raised about whether seals of any sort are required and if so when and in what form.

This matter was tabled until the next meeting to allow the Executive Director to research the relevance and requirements of seals on survey documents.

City of Estevan - Advertising of Survey Products and Services

Council reviewed an advertisement for survey products and services, published in the local newspaper, by the City of Estevan. The ad seemed to indicate that the city is reselling Real Property Reports and offering to locate property corners. It was noted that a similar problem had arisen approximately ten years ago with the City of Regina. In that case, a face-to-face meeting had convinced the city to stop reproducing and distributing RPR's. It was agreed that the President and Executive Director would meet with officials from the City of Estevan to explain the risks to both the public and the city by the city providing the services they appear to be offering.

Unauthorized Practice

It had come to the Executive Director's attention that a person in Nipawin had prepared a document entitled "Surveyors Certificate" for a property owner in that city, and that the document had subsequently come to the attention of a lawyer in Melfort. Upon checking with SASTT, it was confirmed that the person involved was a member of that association. The Executive Director of SASTT agreed to contact their member and have him call the SLSA office. This the person promptly did and the Executive Director of the SLSA explained to him that preparation of such documents is prohibited under the LSPS Act and that the person was jeopardizing public interest and possibly creating a liability for himself by preparing such a document. The person indicated that he was unaware of the prohibition and agreed not to prepare any such documents in the future. The Executive Director then sent a letter to SASTT thanking them for their assistance in resolving the matter and confirming

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Councillor's Report

Surveyor's at War

By D. Jim Clarke

I thought the title might get your attention. You are probably wondering what kind of war this article is about. Could it possibly be the real thing or is it something to do with a difference of opinion about a boundary or perhaps a disagreement over a bidding process? Well I won't disappoint you, it is about the real thing, complete with guns, blood and death.

The year was 1885. The place was a part of the North West Territories that was to become the Province of Saskatchewan, Canada. Trouble had been brewing in the North West for sometime. The Native and Metis people had been unhappy with the government in Ottawa regarding a number of different issues and dissent turned into violence on March 26th, 1885 when the N.W.M.P. and some Metis fighters were involved in a gunfight at Duck Lake.

Canada had no army at that time so the militia was quickly organized. On April 1, 1885 a number of Dominion Land Surveyor's who were in Ottawa at the time took it upon themselves to form a unit made up of Surveyors and their assistants with experience in the west. They called themselves the D.L.S. Intelligence Corp. Upon approval from the Minister of the Militia the group elected J.S. Dennis as their captain.

The Minister, being anxious to get the Corp to the front as soon as possible, sent them by train to Winnipeg via Chicago, Minneapolis and St. Paul. The Corp then moved on to Qu'Appelle, arriving on April 14th. They were issued Winchester repeating rifles, army revolvers with holsters and cartridge belts. Their uniform consisted of slouch-felt hats with a red flannel band, black leather jackets, white canvas bandoliers with haversack, cord riding breeches, top boots and spurs.

After a few days military training the Corps was ordered to report to General Laurie at Swift Current. They and their horses traveled by train and arrived in Swift Current on April 20th. On April 23rd the Corp was ordered to patrol the country between Swift Current and Long Lake. They established their headquarters at the elbow of the South Saskatchewan River and set up picket camps at 15 to 35 mile intervals between Long Lake and Swift Current. Riders rode back and forth between these camps every day with reports on any activity in the region.

On May 6th the Corp left for Batoche arriving there on the 10th of May. The Corp had no sooner set up camp when Metis snipers hit two of their horses. Also on May 10th Corp member Arthur Wheeler was hit in the arm by a bullet. On May 11th during a skirmish, Corp member A.W. Kippen was shot dead. On May 12th during the final battle at Batoche the Corp was ordered along with Bolton's Mounted Infantry to clear the enemy from the timbered slopes above the Village. This they did with much enthusiasm and quite effectively as at least a dozen of the enemy were killed in the operation. Two more members of the Corp were injured that day although not seriously.

The Corp spent the next few days searching the country around Batoche for Louis Riel and Gabriel Dumont. On May 19th the Corp moved on to Prince Albert.

This was the last fighting that the Corp would encounter however their service was not quite over. On May 24th they moved by trail to Battleford and then on to Fort Pitt arriving they're on June 2nd. On the 3rd the Corp along with other Militia set out on the trail of the Indian Chief, Big Bear. The Corp's knowledge of travel in the difficult terrain to the

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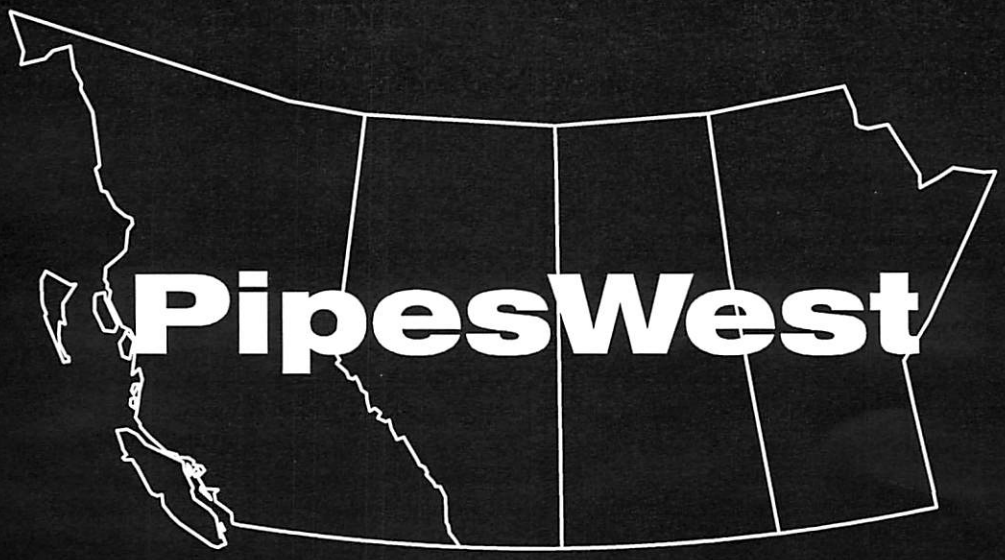

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It is also rather timely to be seeing this now since our association has just recently spoken to a municipality that was advertising the sale of copies of RPR's. It turns out that the municipality has been providing this as a service to customers for a while. After discussing the issue with the municipality we hope that we have come to a satisfactory conclusion of the issue.

While reviewing these RPR issues we felt that it was time for our Public Relations and Practice committees to consider new standards for RPR's. We now have a new Land Titles system that has a new format for legal land descriptors and under the old system we never had any such thing as a unique parcel number.

Enough of my ranting about RPR's. As you probably all know by now ISC has a new CEO/President, Mark MacLeod. I had the opportunity to meet with the new CEO on behalf of the Association. Mr. MacLeod will be CEO on an interim basis for the next 18 months or so. During this period of time ISC will be looking for a permanent CEO. After meeting with Mr. MacLeod I was encouraged that there will be some improvements seen at ISC. Mark was pleased to hear that the SLS have a panel that meets with ISC as he is looking to ensure that end-users will get a voice in the new improvements.

After a hiatus for the summer our panel has returned to meeting with ISC. It is still too early to tell if the upcoming improvements will be worthwhile. The members of our panel will continue to press for improvements and will be monitoring ISC's progress.

Council has been discussing possible projects for our Association for Saskatchewan's centennial in 2005 as well as for the Association's centennial in 2010. To that end we have asked Jack Webb to chair an ad hoc committee to deal with centennial matters. Jack will be looking for members to help out so please give him your support.

Jan and I will be heading to the Nova Scotia Land Surveyors' Annual General Meeting in mid October. I am looking forward to having another opportunity to meet with the Presidents of our sister Associations. The Presidential forums at these meetings constantly show me that all our associations have much in common and that we can learn and profit from each other's experiences.

Until the next issue of the newsletter I wish all the members a good, safe and productive fall.

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north east of Fort Pitt was of great value to the militia and all its heavy equipment. However, Big Bear, unencumbered by any such equipment soon out distanced his pursuers. On June 8th the Corp made its way to the north side of Loon Lake. The decision was then made to abandon the chase and return to Fort Pitt.

The Corp camped at Fort Pitt until June 28th at which time they were ordered to Moose Jaw and disbanded there on July 12th.

Well there you have it, a tale of Surveyors at War. Much has been said and rightly so about the contribution of the Dominion Land Surveyors to the settlement of the Canadian West. The year 1885 is noted as a year when little or no surveys were performed in the North West. In that year the Dominion Land Surveyors were contributing to the settlement of Western Canada in quite another fashion.

All of the material in this article was taken from an article by Arthur O. Wheeler, which appeared in the 1934 edition of the Canadian Surveyor.

Sculpture of Surveyor at Chamberlain, Saskatchewan

The Surveyor

In 1872 the Canadian Federal Parliament passed The Dominion Lands Act as a precursor to land settlement in the west. Eastern interest viewed settlement of the vast North West as a great economic opportunity. Essentially the American System of the square mile survey was adopted. As the land survey progressed westward, anxiety and unease quickly spread. Particularly so among the French Metis. Settlements along the South branch of the Saskatchewan River . Many Metis had migrated from the Red River area during the 1860's and 1870's. They held to their established custom of the river lot system, 8 chains wide and 2 miles long and on this basis developed farms and communities. The perception persisted among many Metis that the river lots would be readjusted to the new system and possession title would be lost to them. The failure of local, federal and territorial authorities to appropriately address these concerns were at least partly responsible for the North West Rebellion of 1885 - The Riel Rebellion *(As transcribed from the plaque on site).*

Don Wilkins - The Sculptor

The following is an edited version of a letter sent to the SLSA Executive Assistant, Kathy Clark, by Nancy Wilkins, wife of the sculptor who created the statue of the surveyor erected in Chamberlain Saskatchewan.

These are the photos of Don Wilkins' Surveyor statue which was installed at Chamberlain in late June of this year. Don belongs to regional volunteer group which meets for the purpose of regional planning and cooperation to promote rural Saskatchewan and in particular the communities along number 11 Highway. This group (Midlakes Coalition) included the communities between Chamberlain and Hanley but has recently been successful in having the government designate number 11 Highway as the Louis Riel Trail (June, 2001). This name was chosen for the high profile it could impart (controversy is always an attention grabber) in their goal to enhance tourism and economic activity along the highway corridor. In this respect the cities of Regina and Saskatoon become part of the master plan as the Highway runs from Regina to just south of Prince Albert. Don has agreed to be chairperson of the Louis Riel Trail Association in its formative years and they are currently developing a promotional package.
Don has always been a proficient welder due to the requirements of farm repairs, but has in recent years become interested in developing his artistic talents as well. In 1996 his first major work (buffalo and Red River Cart) was installed on number 11 highway at Girvin. The success of this work has inspired him to continue these artistic aspirations. The theme of his work is now related to the early history of Saskatchewan, in particular the period from 1860 to 1905. Because of the Louis Riel Trail designation, Don's work also reflects the history of the Metis people. The plaques accompanying his work are intended to convey this early history in Saskatchewan's development. The plaque beside the Surveyor identifies the early survey of Saskatchewan as a step in our development as well as the impact it would have on the Metis settlements (River Survey system vs the Western Canada Township System which was based on the United States Township System).

The Red River Cart has been chosen as the symbol for the Louis Riel Trail and at present Don has installed about nine of these on the highway from Chamberlain in the south to Duck Lake on the north

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what their member had agreed to. The letter also indicated that, so long as their member complied with his agreement, the matter would not likely be pursued any further.

The Career Education Source Book - Invitation to Advertise

Council considered an invitation to purchase a placement in a publication entitled "The Career Education Source Book" published by Genesis Publications Inc. of Mississauga, Ontario and Buffalo, NY. The publisher claimed that the publication was distributed free of charge to all career councillors in high-schools in Canada. Placements had been included in the previous year's publication by the land survey associations of Manitoba, New Brunswick and Nova Scotia. The publisher also claimed that the Corp. of B.C. Land Surveyors would also be purchasing a placement. The cost of a basic insertion, including contact information and a brief description of the profession, would be $180.

Council approved a placement in the publication subject to confirmation that schools in the province are familiar with the publication and that it is actually used by career councillors.

Vice-President's Travel - WFPS Conference, Seattle

Council approved funds for the Vice-President and his wife to attend the Western Federation of Professional Surveyors (WFPS) conference in Seattle, Washington in February, 2003. The conference is expected to deal with important international issues such as NAFTA.

Community Planning

B.G. Clark, who is chairman of the ad hoc committee considering proposed amendments to the Community Planning Act reported on the issues which he expected would be of interest to land surveyors. A letter was sent to Community Planning confirming that the SLSA is very interested in having input to the redevelopment of the new Act.

2002 Convention Committee

Council approved a report from the chairman of the 2002 Convention Committee reflecting a net surplus of $334.76 and recommending changes that would reduce the 'profitability' of the conference in future years.

2003 Convention Committee

During the committee workshop earlier in the morning,2003 Convention Chairman D. A. Bouck reported that planning was well under way for a meeting in Moose Jaw. Although conference facilities would be 'tight' he believed that they would be adequate. The new casino, along with the other tourist attractions such as the Tunnels and the Mineral Spa would provide ample options for the entertainment portions of the conference.

SLSA/ISC LAND Panel

The president noted that the first meeting of the fall was coming up soon and that there was still a fair amount of work to be done by the panel. The Executive Director noted that there were virtually no new issues being sent in for consideration by the panel. It was agreed that a reminder should go out to the members inviting them to pass along any questions or concerns that they might have to the SLSA office for forwarding to the panel.

Board of Examiners for Saskatchewan Land Surveyors

Council approved an updated syllabus submitted for approval by the Board of Examiners. Most of the changes were associated with implementation of the Mutual Recognition Agreement and the regulatory changes that had taken place with the new LAND system.

The next meeting was confirmed for sometime in late November or early December to coincide with the fall education seminar.

The meeting adjourned at 2:20 p.m.

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end of the Highway. He also has three other major works which accompany some of these carts - a Buffalo Hunter at Craik, Ox and Cart at Aylsbury and the previously mentioned Buffalo at Girvin. He also has a two dimensional buffalo installed on the highway four miles north of Chamberlain. Don is planning his 2002-2003 project, which will be based on the "bone-picker" theme. When the buffalo disappeared from the prairies, the bones were salvaged for various uses (fertilizer being one I believe). His next work will therefore include the Red River Cart full of bones plus horse and driver (his most ambitious work to date).

BIOGRAPHY

By John H. Webb SLS (LM)

JOHN GEORGE BELLAMY 1919-2002 M.L.S; S.L.S.

John, in all probability, surveyed more mineral claims in northern Manitoba and Saskatchewan than any other surveyor. His first mineral claim was surveyed and signed by himself in 1950 with his last in 1968. In this relatively short period of time he evidently accumulated enough wealth to retire and enjoy life.

Other than a few pipeline surveys, the Trans Canada in Manitoba, and some subdivision surveys his entire career was in the North on mineral claim and various other surveys. It was while I was involved on northern surveys that I came to know John. His field camps were well maintained with his staff primarily aboriginal from the north.

In Manitoba, survey plans had to be witnessed by a Notary Public or another Manitoba Land Surveyor. John and I would exchange signatures on each other's plans. An example of John's true northern exposure was on a trip with John to a "Canadian Institute of Surveying" convention at the Chateau Laurier hotel in Ottawa, Ontario. We both dressed in casual suits but John insisted on moccasins for footwear.

John was born in Abbey, Saskatchewan, on December 5, 1919, the son of Major and Mrs. Bellamy (an only child). Major Bellamy served in the Boar and First World Wars. He died in 1976 at the age of 100.

Prior to joining up in 1939, John spent two years at the University of Saskatchewan in Civil Engineering. John served overseas in World War II under George E.G.Webber, D.L.S; M.L.S; S.L.S; A.L.S. with the Royal Canadian Engineers for five years. In 1946 he articled to Mr. Webber in Manitoba, doing mineral claims in the north and with the Surveys Department, Province of Manitoba. Upon obtaining his commissions, in 1950, as a Manitoba and Saskatchewan Land Surveyor (#100) he went into private practice, working out of his own apartment block on Avenue H in Saskatoon, Saskatchewan.

When john applied to the Saskatchewan Land Surveyors' Association to write his exams he requested, from the curriculum, a book covering the examination on "Highway, Drainage, Irrigation and Water Power Engineering". However, the Registrar at the University of Saskatchewan informed him that they did not have said book and that he should apply to our Association. They also were out of said book so they borrowed one from D. Handford, student, but required John to return it within one week. At the time, John was up North so I can only surmise that he never received the book passed the exam and eventually returned the book to Don. In 1949, 1 had the same problem trying to obtain books from the University.

John's mineral claim work centered around Uranium City, Saskatchewan (Eldorado), Lynn Lake, Thompson and Snow Lake, Manitoba. He was a life member of the Canadian Institute of Geomatics.

John was a hard worker who loved and lived life as he wished, prefering camp life to city life and admitting he was hard on himself. He and I along with our Manitoba cronies, Clare Brock (deceased) and Gordon Goldsworthy (deceased) would have the odd drink when we got together at annual general meetings His home in Saskatoon was merely a mailing address whether he was in the south or in the north.

John loved the Caribbean and when he retired, he sailed among the islands every winter, even though he was threatened by pirates the odd time and used his own guns to drive them off. In the summer he

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Interesting Information

Reprinted from the "Tennessee Surveyor" Spring 2002

The following is taken from the U.S. Department of Labor, Bureau of Labor Statistics website at www.bls.gov/oco/ocos04O.htm.

Employment
Surveyors, cartographers, photogrammetrists and surveying technicians held about 121,000 jobs in 2000. Engineering and architectural services firms employed about 63 percent of these workers. Federal, state and local governmental agencies employed an additional 16 percent. major federal government employers are the U.S. Geological Survey (USGS), the Bureau of Land Management (BLM), the Army Corps of Engineers, the Forest Service (USFS), the National Oce-anic and Atmospheric Administration (NOAA), the National Imagery and Mapping Agency (NIMA), and the Federal Emergency Management Agency (FEMA). Most surveyors in state and local government work for highway departments and urban planning and redevelopment agencies. Construction firms, mining and oil gas extraction companies and public utilities also employ surveyors, cartographers, pho-togrammetrists and surveying technicians. About 5,000 were self-employed in 2000.

Job Outlook
Overall employment of surveyors, cartographers, photogrammetrists and surveying technicians is expected to grow about as fast as the average for all occupations through the year 2010. The widespread availability and use of advanced technologies, such as GPS, GIS and remote sensing are increasing both the accuracy and productiv-ity of survey, photogrammetric and mapping work. However, job openings will continue to result from the need to replace workers who transfer to other occupations or leave the labor force altogether.

Prospects will be best for surveying and mapping technicians, whose numbers are expected to grow slightly faster than the average for all occupations through 2010. The short training period needed to learn to operate the equipment, the current lack of any formal testing or licensing, and the relatively lower wages all make for a healthy demand for these technicians, as well as for a readily available supply.

As technologies become more complex, opportunities will be best for surveyors, cartographers and photogrammetrists who have at least a bachelor's degree and strong technical skills. increasing demand for geographic data, as opposed to traditional surveying services, will mean better opportunities for cartographers and photogrammetrists involved in the development and use of geographic and land information systems. New technologies, such as GPS and GIS, also may enhance employment opportunities for surveyors and surveying technicians who have the educational background enabling them to use these systems, but upgraded licensing requirements will continue to limit opportunities for professional advancement for those with less education.

Opportunities for surveyors, cartographers and photogrammetrists should remain concentrated in engineering, architectural and surveying services firms. However, non-traditional areas such as urban planning and natural resource exploration and mapping also should provide areas of employment growth, particularly with regard to pro-ducing maps for management of natural emergencies and updating maps with the newly available technology. Continued growth in construction through 2010 should require surveyors to lay out streets, shopping centers, housing developments, factories, office buildings and recreation areas, while setting aside flood plains, wetlands, wildlife habitats and environmentally sensitive areas for protection. However, employment may fluctuate from year to year along with construction activity, or mapping needs for land and resource management.

Earnings "In US dollars"
Median annual earnings of surveyors were $36,700 in 2000. The middle 50 percent earned between $26,480 and $49,030. The lowest 10 percent earned less than $19,570 and the highest 10 percent earned more than $62,980.

Median annual earnings of cartographers and photogrammetrists were $30,410 in 2000. The middle 50 percent earned between $29,200 and $51,930. The lowest 10 percent earned less than $23,560 and the highest 10 percent earned more than $64,780.

Median hourly earnings of surveying and mapping technicians were $13.48 in 2000. The middle 50 percent of all surveying technicians earned between

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Case Study No. 12 Plan Error?

Lyall Prattm ALS, Director of Systematic Practice Review
Reprinted from the "ALS News" June, 2002

This is the twelfth in a series of articles featuring problems commonly encountered in Systematic Practice Review. The purpose of these articles is purely educational, so no names or identifying legal descriptions are included. Opinions expressed are those of the author

The Problem

About two years ago, I received a phone call from a land surveyor. He had been retained by his client to locate the corners of an acreage property his client had just purchased. The subdivision for the property was registered over 25 years ago, prior to metric conversion. The plan showed a depth for the property of 320 feet. The land surveyor located all four of the corners, but found the depth of the property to be only 300 feet not the 320 feet shown on the subdivision plan.

Our Discussion

Of course the first consideration was are the monuments where they were originally placed. "Yes," the land surveyor told me, "I am positive that the iron posts are where they were placed originally. However, I think they were supposed to be 20 feet farther west."

I, of course, asked, "how do you know that?"

"Well, the plan shows 320, but they are only at 300," he replied.

"How do you know that the plan correctly shows where the monuments were supposed to be?" I asked.

"I don't," he said, "but the area shown is for a 320 foot deep parcel."

I then directed him to the *Surveys Act, Section45(4),* which states: *All the boundary lines surveyed and established in accordance with subsection (1) shall be defined by the monuments placed for that purpose as shown on the plan of the survey registered at the Land Titles Office or filed at the Metis Settlements Land Registry, whether or not the dimensions or areas expressed on the plan are found by remeasurement to be different.*

"So does that include a survey blunder?" he asked. Again who says this is a survey blunder, all you really know is that the plan doesn't match the field measurement. That is very clearly covered by the Surveys Act. I suggested that he contact the land surveyor who conducted the original subdivision survey, who is still in active practice, and ask him to review his field notes.

"Could I have my client call you?" the land surveyor asked.

"Of course," I said.

The Land Owner

The land surveyor's client called me about 30 minutes later. His first question to me was, "how do I get my 20 feet back?"

"You never had 320 feet," I said, "you purchased Lot l ." The law says that the boundary lines of Lot 1 are defined by the monuments placed for that purpose. From the very day the subdivision plan was registered in the Land Titles Office, the limits of Lot 1 have been defined by the monuments placed by the survey. The plan doesn't fix your boundary limits, the monuments do. The plan may be in error if it does not depict the correct measurements and area, but you have no claim for additional land.

"But I pay taxes based on a certain acreage, that I am supposed to own," he said.

"Your title says that you own Lot 1, containing X acres `more or less.' The Land Titles system and the survey plan do not guarantee your area," I explained.

The land owner was not convinced. He was adamant that he had lost 20 feet of property, and that someone owed him land. I suggested to him that he could always contact a lawyer but that, in my mind, the Surveys Act is abundantly clear on the matter.

Another Call

About a week later, I received a call from the land surveyor who performed the original subdivision survey. He had been contacted and had reviewed his original files. His field notes show a 20 foot offset line, and the dimension 320 feet is actually from the offset, so the distance between monuments should have been 300 feet. His question for me was how does he correct the plan dimensions and area. I directed him to the Land Titles Procedures Manual section on plan corrections and suggested to him that the changes he wants to make will require the owner's consent.

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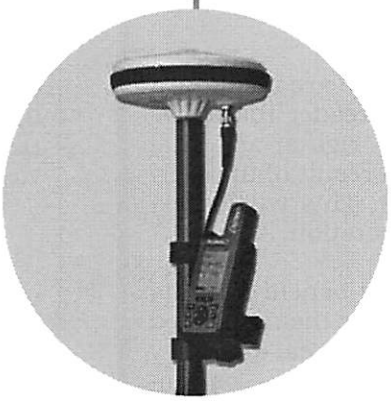

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Riparian Boundaries Part IV

By Terry W. McHenry, PLS
Reprinted from "Treasure State Surveyor", July 2002

WATER BOUNDARY DOCTRINES

Rights

Proprietorship of a riparian or littoral nature carries with it certain rights which are regarded as unique and valuable. These rights differ somewhat from those associated with upland real property, in that there is no private property interests in the substance of flowing (riparian) or contained (littoral) water itself. Where ownership interests do lie is in the underlying, supporting soil.

Rights in water are limited to usage. Generally, these rights are separated into consumptive and non-consumptive uses. Consumption of water involves removal from its naturally occurring location for purposes of domestic consumption, irrigation, or commercial and industrial applications. Non-consumptive uses include, but are not limited to, boating and navigation, fishing, swimming and related recreational activities, access and passage along the shore, wharfs or piers, and damming.

While not directly related to water boundaries, rights in usage are driven by the common law. It is not the intent of this series to delve extensively into usage beyond that which relates directly to boundary determination. Much has been written on usage of water, both consumptive and non-consumptive (see e. g., Ref. No. 4 herein). The reader is advised that statutory provisions concerning this particular subject can vary widely from state to state.

Rights in connection with doctrine are mentioned here only as a reminder to the reader that these differ from upland ownership rights, and that boundaries may be moved as a result of the exercise of certain riparian rights. This will be explained in the discussion on accretion.

A riparian or littoral parcel may benefit from its unique status, but must also bear the associated risks that attach. One may gain real property through an accretioe or relictive process, or conversely, may experience loss through erosion or the gradual and imperceptible movement of a watercourse.

Excerpted from Bonelli Cattle Co. v. Arizona, 414 U.S. 313 (1973):

"...where lands are bounded by water, it may well be regarded as the expectancy of the riparian owners that they should continue to be so bounded... The quality of being riparian, especially to navigable water, may be the land's 'most valuable feature,' and is part and parcel of the ownership of the land itself. Hughes v. Washington 389 U.S. 290(1967), at 293 .

... By requiring that the upland owner suffer the burden of erosion, and by giving him the benefit of accretions, riparianess is maintained. Finally, there is a compensation theory at work. Riparian land is at the mercy of the wanderings of the river. Since a riparian owner is subject to losing land by erosion beyond his control, he should Of

Continued on page 118

COMMENT

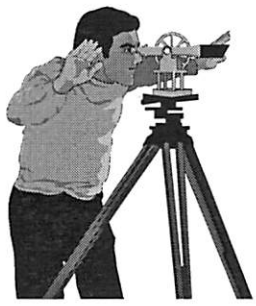
By John H. Webb S.L.S. (LM)

The June 2002 newsletter listed various discussions and recommendations by Council. It was noted that someone had met with the Western Development Museum regarding a display of early surveys etc. for the Provincial Centennial Anniversary in 2005. At the same time Council was advised by the Public Relations Committee not to proceed with a portable survey display to advertise our profession. The reason being due to a cost of eight thousand dollars being beyond our means.

Surely it's about time, we as professional Land Surveyors started to blow our own horn. If we are ever going to attract new members then we must go beyond word of mouth as to who and what we are. Eight thousand dollars is a small amount to invest in the future. If the travelling display is not feasible then let's place our dollars on newspaper ads and talking to young high school and technical students about our profession.

The Western development museum recently (July 4, 2002) asked the Saskatchewan Land Surveyors Association to contribute to the centenary celebrations of our Province in 2002. The council should, in my opinion, hire a professional person or company to create a story or history about the Saskatchewan Land Surveyors' Association and it's members. The Western Development Museum will then publish a digital local history book, the "Saskatchewan Story Album".

I have noted that the recent published advertisements in various newspapers by the Professional Engineers Association along with billboard displays has generated public awareness of their profession. Why not our Association? Saskatchewan is still a great Province to practice Cadastral Surveying.



Dear Editor,

Last week I was given the opportunity to scan, and comment upon, a set of field notes from an out-of-town firm which purported to be those of an outer boundary for a proposed subdivision bounded by three reference plans.

To say that I was aghast, shocked and appalled at the childish scribble of misguided amanuensis using a charcoal stick on absorbent paper which normally comes in rolls was my first, and lasting impression. It is most difficult for me to comprehend how any surveyor would tolerate such recording of the results of actual fieldwork, and use it as the basis of a proposed subdivision plan. [There was] no indication of any day/ date/ weather/ field staff/ north point/ County/ Township/ Concession/ Lot/ found or planted iron bars - no distances or angles or check measurements of any kind. I will venture a guess that the final boundary plan was compiled from the existing adjacent plans with necessary data added to comply with the Standards for Plans.

This is probably one of the worst examples, but not the only terrible example, of poor field notes, that occur in our insane rush to use sophisticated electronics and implicit belief in the manufacturer's glossy advertising in our panic to hurry, hurry, hurry so as to try and make more and more money. When I began surveying in the 1940's our very sophisticated equipment included a 200 foot steel tape, Abney hand Level and a 12 ounce plumb-bob. And I cannot recall ever [being] sent back to a survey [site] for lack of evidence, or apparent misclosures.

Today's re-check of some of that work reveals just how accurately it was done. Standards for surveys were produced to get everyone on an even footing, and seminars were given to remind the OLS and their staff of those Standards. [It's a] shame that we get sloppy and lazy [and] that we must rely upon the Survey Review Board and heavy insurance costs because of it. The costs of mistakes can only come out of your pocket. Do it correctly the first time and feel how happy you can get.

We have come a long way since I first saw a sheet of field notes which showed the results of an SRPR

Continued on page 99

Gleanings from the Old Files

By A. C. Shiels, Executive Director

As reported previously, I have been working my way through the files of individual surveyors, starting with commission #001, organizing and scanning all of the documents they contain. In this way, the information in the files is being duplicated and preserved and the original files can be moved into safer storage at the provincial archives.

Throughout August, I was able to complete the scanning of the file contents of the first 100 commissions. While the physical task of organizing and scanning the documents was time consuming, what really slowed me up was the urge to read the documents. And what fascinating reading it was! By inference, one could recognize the challenges of creating the association in the first place, having several new members promptly head off to "The Great War" - and not always return , cooperation with the newly established University of Saskatchewan, and the economic slump that occurred in the twenties and thirties, to name just a few. There is little doubt in my mind that there is fodder for at least one book dealing with the history of the association and the many colourful characters that were its members throughout the past 92 years.

The following are a few of the interesting statistics that I jotted down.

- The earliest born member - Cyrus Carroll, #14 - born December 6, 1834.

- The oldest practicing member - William Thompson, #13 - died July 9, 1938 at the age of 84. He became lost while surveying in the bush near Cold Lake in Northern Manitoba.

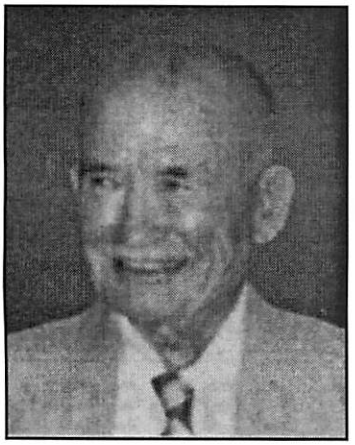
- Shortest life as SLS - Ernest Walker, #8 - Received his commission on May 9, 1910 and died on July 21 of the same year.

- First SLS to die in the service of his country - Thomas Vickers, #55 - Received his commission on July 26, 1912 and died at Vimy Ridge on April 9, 1917.

- SLS who lived the longest - M. Lukomskij, #133 - Born July 30, 1904, Received his Commission on July 10, 1955 and died at the age of 95 on August 20, 1999

- Longest membership - Jack Webb, #96 - Received his commission on June 30, 1949 and continues to be active with the Association 53 years later.

In Memorium



BELLAMY

John George Bellamy - M.L.S., S.L.S.. was born in Abbey, Saskatchewan, December 5, 1919, passed away July 18, 2002. A Memorial Tea was held Park Funeral Chapel, Saskatoon on July 31, 2002.
See Biography on page 89.

Kathy Clark - Executive Assistant

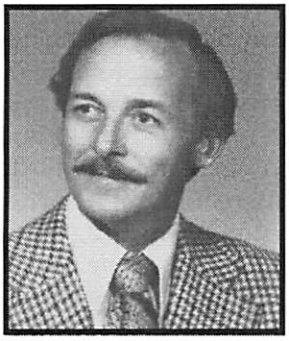
WOLLEY-DOD

William Wolley-Dod was born in Calgary July 14, 1928 to William and Valentine Wolley Dod. Upon graduation from High School he enrolled in the University of BC graduating with a Batchelor of Applied Science in Civil Engineering, in 1951. He articled to Robert McCutcheon, D.L.S., A.L.S. and obtained his A.L.S. Commission #818, March 3, 1955 Bill then challenged the S.L.S. exams in April 1956. He was granted commission #139, June 30, 1956 and also obtained his C.L.S. commission. Bill served as President of the Alberta Land Surveyors' Association in 1958 and was awarded Honorary Life Membership in 1989, he also received the Association's Professional Award in 1981. Bill was very active in the Survey Industry, representing Canada at professional gathering in the US, Accra and Ghana, as well as being a principal in the Firm of Wolley-Dod & MacCrimmon Surveys Ltd. until he retired in 1988. He served as Master of Glenbow Masonic Lodge No. 184 A.F. and A.M. G.R.A in 1995/96, and served as President of the Alberta Light Horse Association. Bill was the grandson of pioneers A. G. Wolley-Dod and W. D. Kerfoot who settled in southern Alberta in 1887 and 1882 respectively.

Bill passed away August 29, 2002. Bill is survived by two daughters and a son-in-law, Susan (Ken) Cook and Patricia Mrakawa, as well as two precious grandsons, Ryan and Tyler Cook. He was predeceased by his wife Marguerite, parents William and Valentine and brother Thomas. Funeral services were held at St. Peter's Anglican Church, Calgary, September 5, 2002. Memorial Tributes can be made to CNIB, 15 Colonel Baker Place N.E., Calgary, Alberta T2E 4Z3.

Kathy Clark – Executive Assistant

SMITH



J. Keith Smith was born July 12, 1933 to Ketha and James Smith, in Pincher Creek, Alberta. Keith worked on a seismic crew in Northern Alberta and decided he wanted to become a Land Surveyor. He then worked in road surveys in the Crowsnest Pass for the Alberta Department of Highways. After taking classes at the University of Alberta, for a short time, the attended Southern Alberta Institute of Technology, in Calgary, in the Survey and Drafting Technology Program. At that time he met his future life partner, Barbara Ann Marr, of Lloydminster. Keith obtained ALS Commission # 872 March 30, 1961 and was granted commission #202, May 8, 1969. He also obtained his Canada Lands Survey commission. In 1960, Keith formed a partnership with A.S. Dozzi in Edmonton, primarily in the oil and gas industry. Later he returned to Canadian Engineering Surveys where he was involved with oil offshore projects in the Arctic as well as other oilfield activities. He worked on the first offshore pad out of Inuvik NWT during this period. In 1986, Keith opened his own office in Drayton Valley where he practised till his death. Keith was an avid sportsman, A member of his church choir and a life member of the Knights of Columbus Council #7374.

Keith passed away June 25, 2002, after a brief illness. He will be remembered by his wife Barbara, children Douglas (Smith) Bowman, James, Morgan and Daughter Jennifer Smith (Peers). As well by three sisters and four grandchildren. His parents and brother Eric predeceased him. Donations if desired may the sent to "Respect for Life" or Ducks Unlimited.

Kathy Clark – Executive Assistant

BUSINESS PRACTICES IN THE SURVEY PROFESSION- THE CLIENT

by Robert A. Daniels, NSLS, CLS
Reprinted from the "Missouri Surveyor"

Any business person will tell you that it is impossible to operate a profitable business without clients. Even governments need clients in order to justify their existence. Professional surveyors who provide service need clients in order to survive. As every business person knows, clients come in all shapes, sizes, dispositions and financial capacities. As a general statement, in any business there are two types of clients, those who want to purchase your service or product and those who need to purchase your service or product. As we have all told our children or were told by our parents, your wants and needs are two different things. Luckily, professional land surveying services tend to fall in the "need" category.

With the best interest of society in mind, various pieces of government legislation make the land surveyor's services a necessity. Without our services, people cannot subdivide or develop land; they cannot build houses or obtain mortgage funds from various lenders. Other respected professions, such as lawyers, engineers and architects depend on survey services on a daily basis. One interesting attribute of many of the people who need survey services is that they have no idea of what we do or how we do it. All they know is that they need it.

You would assume that by having other professionals depending on your services, having your services mandated by legislation and having a clientele that really doesn't understand what you do, that making a good living would be easy! But in far too may instances, land surveyors fall victim to being told what they can charge by their client. Now it doesn't make sense to me that a client who must have your service and doesn't know what you do, has the ability to make any kind of informed decision about the value of the product and service they will receive. This unfortunate state of affairs has come about as a result of too many land surveyors being too quick to reduce their fees for fear of losing a client to a competitor.

Clients who "need" service will always have the financial capacity to pay for that service. They have no choice. Fortunately, clients of land surveyors usually have the most valuable asset of all, land. Other professionals are not so lucky, lawyers sometimes have clients who are destitute and can never pay their bills, architects may have clients who are purely fantasizing about their dream house. When the reality of what it will cost is realized, their dream may disappear along with the architect's chances of collecting for their services. In most cases, the land surveyor's clients have a valuable asset (land) that will enable them to raise the funds necessary to pay the account.

As stated earlier, clients come in all shapes, sizes and dispositions. The shape and size of a client have little to do with their potential to be a good client. However, their disposition can make you regret the day they contacted you.

When you are contacted by a client seeking your services, you can sometimes get a sense of what kind of relationship will result. In most instances, it is a good relationship, the service is provided, it is satisfactory and the client pays the invoice. These are clients worth keeping. To keep good clients, you may sometimes have to give them a little bit of special service to ensure they become return clients. Sometimes you can sense a problem client at the outset. These people are overly demanding, do not understand that it takes time and effort to provide the service. They twist what you have told them into interpretations that are for their benefit and to your detriment. This is a client we can all do without. Then there are the bargain hunters. They spend a great deal of their time contacting every land surveyor in the yellow pages to get the cheapest price for a service they know nothing about. Often you will know that these people are "shopping" for the best price, because they will tell you. If you expect to make a good living from surveying, you are better off not dealing with these individuals at all. There is little to be gained from these people. You will spend your time providing a cost estimate: they will shop until they find a cheaper price and even if you do have them as a client, there is little chance of return or future business.

Continued on page 110

I have often heard of the 20/80 rule in life. This rule can be applied to business as will. It works like this - 80% of your profit will come from 20% of your client base and 80% of your business problems will come from 20% of your client base. We could all do without the troublesome 20%.

A couple of basic principles of business are - you do not have to take on all clients that come through your door and you have a right to expect reasonable compensation for the expert services you provide.

Continued from page 92

The last I heard of the matter, the land owner would not consent to the changes, and the land surveyor was considering obtaining a judge's order to have the plan corrected.

Conclusion

I have noticed that, more often than not, surveyors consider plans to be error free. At our recent annual meeting, a senior land surveyor suggested that if a land surveyor makes an error in placing a monument the monument doesn't govern the corner. I don't see anything in the legislation that would support that claim. True, corrections can be made, and judge's orders obtained, but the monuments placed always govern the boundaries of a property. The two tests I always use are:

1. Is this the original monument?

2. Is it where the original land surveyor placed it?

If a monument passes these two tests, it defines the corner. No amount of difference between plan and field changes this fact. The message here is to be careful where you place monuments, and build redundancy into your surveys to capture blunders before the plan gets registered.

Continued from page 95 "Dear Editor"

as "House on lot - All roads are open."
The terrible examples of field notes that show up rather regularly show lack of training and lack of understanding. My only purpose behind this letter is to ask the members of our profession to do a better job for the benefit of all. And no more pleas of "But it is in the computer."

Best Regards, Rill Matec

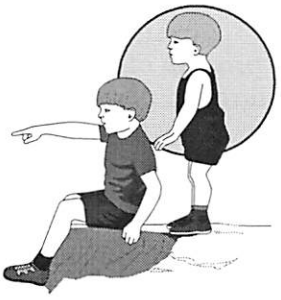
What a Great Job!

By Graham W. Bowden, OLS, OLIP
Have you ever heard kids say, "When I grow up I want to be a surveyor?" No! Well the reason isn't what you might expect. It isn't because kids don't want to grow up or don't want to become surveyors; it is just that you can't do both. What do I mean? Think about it!

Here is a list of the common activities that surveyors do.

- Wander in the forest
- Talk to strangers
- Climb fences
- Poke at "stuff' with sticks
- Find neat "stuff" that other people have lost
- See new places
- Splash in puddles
- Eat lunch outdoors
- See wild animals in their habitats
- Discover fishing holes
- Collect off road toys
- Play with walkie-talkies
- Use a secret vocabulary ("kay", "comeahead")
- Drive a truck
- Travel to exotic locales

What in this list is not a kid's idea of a great time? Maybe if we wrote out our real job description, we would attract more people to the profession.



benefit from any addition to his land by the accretions thereto, which are equally beyond his control."

Ambulatory Nature

Paramount to the various water law doctrines (accretion, erosion and reliction in particular) is the ambulatory nature of a water boundary-under certain circumstances.

To ambulate is to move about or to change. In law, ambulatory refers to that which can be changed or revoked; it is also operative in a number of realms outside of water law.

Contrary to upland boundaries, to attempt (knowingly or unknowingly) a fixing of the MHWL relative to a given point in time has the effect of countering the doctrines of accretion, erosion and reliction. Any action to "freeze" a water boundary (avulsive events excepted) has generally been viewed by the court as an unlawful taking without just compensation. Water law doctrine has evolved around the precept of an ambulatory boundary, with both the rights and risks associated therewith having been carefully guarded by the court.

Discussion of the various doctrines which follow will be categorized into those which apply in an ambulatory setting (i. e., a "living" boundary), and those circumstances which, when present, operate to supplant the ambulatory nature (i.e., a "fixed" boundary), for a given event. Terminology associated with the doctrines will be defined as they occur in conjunction with discussion of the doctrines. Because of the interplay between the doctrines it is difficult to discuss one entirely absent of another or others. Therefore, where appropriate, doctrines not yet addressed in this series will be mentioned for purposes of clarification and distinguishment, but not discussed at length.

DOCTRINES AFFECTING BOUNDARIES

Accretion

The gradual process of attachment to riparian or littoral land through deposition of sand, gravel or sediment from the action of contiguous waters is known as *accretion*. It is generally regarded as the opposite of erosion (a washing away of soil) and is distinguished from reliction (soil exposed through receding waters), both of which will be separately discussed. The material deposited by accretion is known as *alluvium*. Though not as frequently used, the term *alluvion* refers to the act or process of accretion, these latter two terms being synonymous.

Of key importance to any discussion of an ambulatory setting are the terms "gradual" or "slow and imperceptible." For it is from the definition of these terms that the distinction is made between an ambulatory boundary (one which moves with migration of the MHWL) and an avulsive event (which does not result in a boundary shift, for that event). Avulsion will be discussed as a separate doctrine.

Although the court has defined gradual in this context with many variations, there has emerged a rather clear consensus. For example, in *County of St. Clair v. Lovingston d'c Wiggins Ferry Co., 90 U.S. 46(1874),* the court stated:

"The test as to what is gradual and imperceptible in the sense of the rule is, that though the witnesses may see from time to time that progress has been made, they could not perceive it while the process was going on."

If one can stand, watch and observe, either the eroding away of material or the deposition of same, visibly and moment by moment, then it would likely be regarded by the court as an avulsive event. However, if detection of any change is only possible over time by comparison to some point of physical reference, then the court would likely rule in favor of accretion.

A riparian land owner bounded by a stream or river (navigable or non-navigable), the banks of which are moved or reconfigured by the gradual and imperceptible process of accretion or erosion, continues to hold to the watercourse as his boundary; if the land is increased, he benefits (a right) from the gain. If, however, his land is diminished, he has no recourse (a risk) for the loss sustained. Indeed, it is possible for an entire ownership parcel to be consumed through erosion and the riparian landowner's title to be extinguished forever.

A question which frequently arises in connection with accretion and a changed watercourse is whether the change was brought about through natural or artificial causes. The original notion for

Continued on page 118

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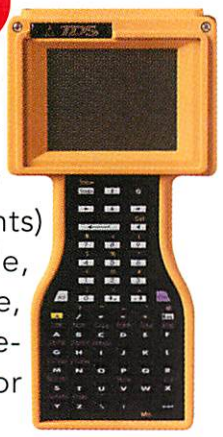

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Various colors **$ 4.95 per can**

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SECO 5-32 32 x Level **$750.00**

CST Auto Level SAL 24 x **$389.00**

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Surveyors Vest with safety strips and radio pouch, condura, Red **$89.95**

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GOVERNMENT ISSUES

Reprinted from "The Empire State Surveyor" September, 2002

Mandatory Continuing Education Chapter 135, Laws of New York, 2002
Land Surveyors Mandatory Continuing Education legislation was signed into law by Governor George Pataki on Tuesday, July 23, 2002.

The New York State Association of Professional Land Surveyors would like to extend our sincere gratitude and appreciation to bill sponsors, Senator Kenneth P. LaValle, and Assemblyman Steve Englebright, and their staff members, for all of their effort in securing passage of this legislation.

The following is a brief summary of the provisions of Chapter 135, which amends the New York State Education Law by adding Section 7211. A complete copy of the amendment may be found on the NYSAPLS website, www.nysapls.net.

2002 CONTINUING EDUCATION LAW PROVISIONS (S.3017-A - LaValle / A.5738-A - Englebright)

- All NY licensed and registered land surveyors must obtain 24 hours of CE each triennial, starting with the triennial commencing on January 1, 2004. Registrations renewing less than three years from the effective date of the new law, and on or after January 1, 2005, will be required to complete CE hours on a prorated basis for that registration period.
- At least 16 hours (of the 24) must consist of programs in land surveying and related subjects.
- Up to 8 hours may be taken outside the classroom, through such media as the Internet, teleconferencing, satellite seminars, credits for preparation, correspondence coursework, audiotape and videotape;
- CE hours may not be carried over from one triennial period to the next.
- Creates an "inactive status" for those wishing to maintain their registration but not actively in practice. These inactive registrants would be exempt from CE requirements.
- Providers of CE programs must be approved by the State Education Department (SED).

Further details regarding Mandatory Continuing Education will be provided once the Commissioner's Rules and Regulations have been promulgated

Business Practices Corner ... Questions & Answers

Reprinted from "The Link" June 2002

This will be a regular feature in "The Link" in order to allow members to get direct feedback from the Business Practices Committee on issues of Business Practices.

This will allow all members to benefit from the problems our members may have in their attempts to adhere to the Business Practice Bulletins issued by the Committee.

The first question addresses an issue that the Committee has spent a lot of time discussing - applying the business principles to all sizes of businesses:

Question: I operate a small survey firm of two to three people (BCLS, senior technician, part time chainman) and plan on continuing to operate at this size. Consequently, a lot of my time is spent doing non-professional work (typing, drafting, and calculating) that would be done by other classifications of workers in a larger firm. If I charge my time out at the rates detailed in the bulletins for non-professional support staff (i.e. administration and technical charge-out rates), how can I maintain a professional salary or income?

Answer: The first answer, as I see it, is quite simple. The more time you are able to charge yourself out at your full rate, the more easily you will be able to maintain your professional salary and income. Having said that, no one would ever question your right to structure your business to suit your lifestyle.

I have discussed this issue with a number of fellow land surveyors and BPC members and the consensus of opinion is that when you are doing non-professional, technical functions like typing, drafting and calculating, your charge out rate should be higher than if a technician had done the same work. At the very least you should be charging yourself at the technical rate plus some additional amount to cover the increased speed and experience that you bring to the task.

The challenge many small land-surveying firms face is finding a time management or accounting system that is easy to use, cheap and will easily track the many different tasks you undertake in a day. There are a number of commercially available programs on the market, one of which a number of land survey firms use, is a program called Timeslips. If you have some computer database experience and enjoy a challenge, a data base system is extremely flexible and is the method that I use with our firm. A simpler but less versatile solution is to record your time on a spreadsheet.

A simple spreadsheet can be designed using the first column for the file number, then columns for date, employee, amount of time, task, and a description of the work done. You could also include a column for disbursements (posts, printing, couriers, and LTO costs) to allow accurate tracking of job costs. A clerical staff person can keep this form up to date on a daily basis in about ten minutes per day. After the data is input, it is easy to sort the data by file number and task to determine the hours spent doing each task. Each task will have a different charge-out rate, even though several tasks may be by the same employee (the BCLS for instance) and the cost of doing the project can easily be determined. It would be a good idea to include all disbursements

To sum up, the type of person that is attracted to land surveying is often the modest, unassuming type that is most at home in the outdoors or less formal surroundings. Often this modesty creates an attitude that the job is easy and therefore they tend to undervalue themselves. If you ever feel this applies to you, take on a student and start teaching him what you know. In teaching you will be reminded of the depth of your knowledge and experience. This knowledge and experience helps your clients create wealth - make sure you get your share.

America was Discovered by "Dead-Reckoning" Columbus Did Not Know How to Navigate by the Stars

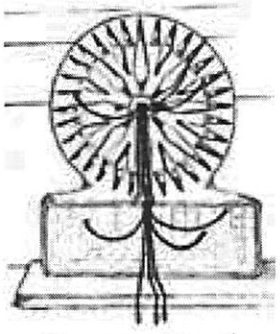
By Keith A. Pickering

Reprinted from The Maryland Surveyor - May 2001

At the end of the fifteenth century, celestial navigation was just being developed in Europe, primarily by the Portuguese. Prior to this development, sailors navigated by "deduced" or "dead" reckoning. This was the method used by Columbus and most other sailors of his era. In dead-reckoning, the navigator finds his position by measuring the course and distance he has sailed from some known point. Starting from such a point as a port, the navigator measures out his course and distance from that point on a chart, pricking the chart with a pin to mark his new position. Each day's ending position would be the starting point for the next day's course-and-distance measurement.

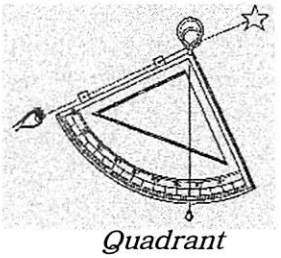
In order for this method to work, the navigator needs a way to measure his course and a way to measure the distance sailed. Course was measured by a magnetic compass, which had been known in Europe since at least 1183. Distance was determined by a time and speed calculation: the navigator multiplied the speed of the vessel (in knots per hour) by the time traveled to get the distance.

In Columbus' day, the ship's speed was measured by throwing a piece of flotsam over the side of the ship. There were two marks on the ship's rail, a measured distance apart. When the flotsam passed the forward mark, the pilot would start a quick chant, and when it passed the aft mark, the pilot would stop chanting. (The exact words to this chant are part of a lost oral tradition of medieval navigation.) The pilot would note the last syllable reached in the chant and he had a mnemonic that would convert that syllable into a speed in knots per hour. This method would not work when the ship was moving very slowly, since the chant would run to the end before the flotsam had reached the aft mark.



Traverse Board

Speed (and distance) was measured every hour. The officer of the watch would keep track of the speed and course sailed every hour by using a toleta, or traverse board. This was a peg-board with holes radiating from the centre along every point of the compass. The peg was moved from the centre along the course traveled, for the distance made during that hour. After four hours, another peg was used to represent the distance made in leagues during the wholewatch. At the end of the day, the total distance and course for the day were transferred to the chart.



Quadrant

Columbus was the first sailor (that we know of) who kept a detailed log of his voyages, but only the log of his first voyage survives in any detail. It is by these records that we know how Columbus navigated, and we know that he was primarily a "dead-reckoning" navigator.

Since dead-reckoning is dependent upon continuous measurements of course and distance sailed, we should expect that any log kept by a dead-reckoning navigator would have these records and this is exactly what Columbus' log looks like. If Columbus had been a celestial navigator, we would expect to see continuous records of celestial observations, but Columbus' log does not show such records during either of the transatlantic portions of the first voyage.

It has been proposed by some scholars that Columbus was a celestial navigator anyway, but kept his celestial records hidden for some unknown reason. (This supports some theories of where the first landfall took place.) But this hypothesis does not hold up. Columbus' ships were steered by helmsmen at a tiller, below the quarterdeck. The helmsmen could not see the sky, so the only way they could keep on course was by magnetic compass. The officer of the deck had his own compass

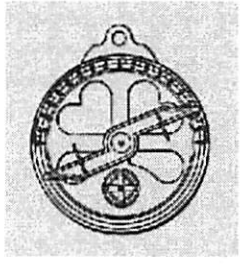
and would call down course changes as necessary. This means that the courses used aboard ship (and in the log) would have been magnetic courses.

Now suppose that Columbus was using unrecorded celestial checks on his latitude as he sailed west on his first voyage. In that case, as magnetic variation pulled his course southward from true west, he would have noticed the discrepancy from his celestial observations and he would have corrected for it. In other words, if Columbus were a celestial navigator, we would expect to see a series of small intermittent course corrections in order to stay at a celestially determined latitude. These corrections should occur about every three or four days, perhaps more often.

But that is not what his log shows. On the first voyage westbound, Columbus sticks doggedly to his (magnetic) westward course for weeks at a time. Only three times does Columbus depart from this course - once because of contrary winds and twice to chase false signs of land to the southwest. In none of these cases does he show any desire to return to a celestially-determined latitude. This argument is a killer for the celestial hypothesis and was first made by Rear Admiral Bob WNW (USN) in 1992.

Well then, could Columbus have corrected his compasses by checking them against the stars - and thus avoided the need for course corrections? This would have been possible in theory, but we know that Columbus could not have actually done this.

On his return voyage in 1493, Columbus started from Samaria Bay on the north coast of Hispaniola and he made landfall at Santa Maria Island in the Azores. We know all of his courses and distances between these two points, since they're recorded in his log. Following these courses and distances using a corrected compass puts Columbus over two hundred miles southeast of the Azores at the time he should be in sight of them. The only way to get from Hispaniola to the Azores with Columbus' recorded courses and distances is to use an uncorrected compass. He was pulled leftward by westerly magnetic variation in the Atlantic. Applying the same variations to the outbound voyage shows that Columbus must have been using dead reckoning rather than celestial navigation, because of the absence of course corrections. On the westward passage, this same magnetic variation would have pulled his fleet leftward into the southern Bahama Islands, exactly where most landfall theories put him.



Astrolab

Real Property

Reprinted from "ALS News" June 2002

COVENANTS - Court of Appeal confirms rule that positive covenants registered on title do not run with the land and refuses to adopt methods developed in England to circumvent rule.

Appellant and respondents were registered owners of adjoining parcels of land. The two parcels were initially one parcel that was owned by a developer. The developer intended to build on the parcel in two phases. The two buildings were to share certain recreational facilities that would be paid for by the owners in each building. In addition, each building would have easements over the land of the other for the purposes of support and access. Particulars of the various rights and obligations were set out in a reciprocal agreement between the developer and appellant, which was registered on title of both parcels. The agreement specifically provided that its provisions were to run with the lands. The first phase was completed and subsequently appellant condominium corporation was registered. The proposed shared facilities were located entirely on appellant's land. The reciprocal agreement obligated the developer, as the owner of the second parcel, to pay a percentage of the cost of the shared facilities. The second phase was never completed. Respondents ultimately became the owners of the land. Respondent refused to continue to pay for the cost of the shared facilities. Appellant registered a caution and issued notice of sale proceedings in accordance with the reciprocal agreement. Respondents applied for an order setting aside the caution and for a declaration that they were not bound by the agreement. The applications judge discharged the caution on the basis that the covenant to pay expenses in the reciprocal agreement was a positive covenant and did not run with the land. In addition, he declared that respondents were not bound to pay the costs of the shared facilities. Appellant appealed.

HELD: appeal dismissed. It is well established law in Canada that positive covenants did not run with the land. While such a finding may at times cause inconvenience, any reform of that principle should be left to the legislature. Defendant was not, therefore, bound by the positive covenant to pay the interim expenses under the reciprocal agreement solely by virtue of having acquired the phase two lands with notice of its terms. The issue then is, is defendant liable to pay the expenses under some other recognized legal principle? First, plaintiff places reliance on the doctrine of benefit and burden. However, this doctrine is not as wide or as settled in English law as plaintiff contends, and its adoption would similarly have ramifications that cannot be adequately addressed on a case-by-case basis. Secondly, plaintiff relies on the conditional grant of easement. The question of whether or not a provision in a conveyance is a conditional grant turns on the construction of the relevant instrument. Here, there was no link between the easements conferred under the agreement and the positive covenant to pay interim expenses so as to create a conditional grant.

Durham Condominium Corporation No. 124 v Amberwood Investments Limited, Ont. C.A., per Charron J.A. (Cronk J.A. concurring; reasons dissenting by MacPherson J.A.), Mar. 20.02. full Text Order No. 2201-020 (53 pp.)

Just for Fun

A farmer was making his way down a country road with a load of manure in his wagon. A U.S. Tourist pulled up along side and asked:

"Say, watcha got in the wagon, old man?"

"Horse manure," the farmer told him."
"What do you use it for?'
"Going to spread it on strawberries."

"Boy, you Canadians have strange tastes. Down home we use cream."

Past, Present and Future

by F C Hutchinson, BA, NSLS, CLS
Reprinted from "The Nova Scotian Survyoer" Summer 2002

Past

It was 253 years ago on June 21, 1749, that Governor Edward Cornwallis sailed into Chebucto Harbour (Halifax Harbour). Five days later the transport ships carrying 2576 passengers arrived at the harbour's mouth. It wasn't long before a town site was selected and the surveying of Halifax began. The English had been established at Annapolis Royal since the early 1700's and also had a fishing settlement at Canso. The establishment of Halifax was a serious attempt to create an English presence between French-occupied Louisbourg and Boston. Halifax was to be both a civilian settlement as well as a military garrison. As with any new land development, records must be kept in order to ensure that all parties' rights are protected. A land registry system was one of the first "orders of the day" for this new town and surrounding area.

The Registry system has not changed since the first lots were drawn for on the Halifax waterfront 253 years ago. Oh, we now photocopy, scan documents and do electronic retrievals, but Book # 6529 is still compiled and stored the same as Book # 1. The old Grantor/Grantee Index, however, will soon be replaced by a numerical identifier system, Registry 2000. The surveyor's role from the public's perspective has always been one of, "show me where I own" and that will not change. The surveyor of today needs to be aware of past surveying activities, existing title documents, statute and case law, surveying principles and modern technology. The days of carving a Crown Grant out of the wilderness with no regard for prior or adjacent title holders is gone.

Present

The surveyor of the 21st century basically performs two functions. He/she either plays the role of a technician in positioning a newly established boundary or he/she is engaged in the re-establishment of a former boundary. Yes, we do many other tasks but those are the two on which we have a monopoly by legislation. The retracement survey is most likely our greatest challenge and a challenge that never seems to be the same.

Even though the history of properties differs by virtue of deed description, ownership, occupation, geography and monumentation, the rules and approach to retracement should be consistent. Your opinion should not be swayed by personalities and you should never take the role of an advocate. The surveyor, in providing a service to the public, no matter who may be paying for the contract, needs to remain impartial and is as close to a public servant as you can get without qualifying for a pension.

We all have stories of retracement surveys from hell and many may honestly believe that the minute you pick up a deed you start to lose money. You should only lose money, however, if you work for nothing, under bid the job or are unable to provide a defendable opinion if challenged. I cannot help you if you choose to provide free service but I can offer some advice on what a defendable opinion should consist of. Defendable means that you must have a reason for your opinion other than "because" or "that's what the owner told me". The surveyor strives for full disclosure of all documents, the location of all boundary evidence, occupation and any relevant topographic feature. Competent survey and recording procedures are expected in every situation. Standards must not be compromised based on the degree of difficulty assigned to a project.

The preparation of a "Report of Survey" for a completed project seems to be an area that many surveyors have neglected. Remembering what you did may not be too great a task with the plan as a reference but why you did it may pose a problem. A written report should indicate the chronology of the job, evidence used to establish the boundaries along with evidence considered but rejected. In today's electronic world field books still have a purpose for diagrams, point identification and recording statements by concerned parties. Oh, by the way, if someone shows you a point and makes certain claims to its origin and accuracy, have them sign a statement in your book

Continued on page 110

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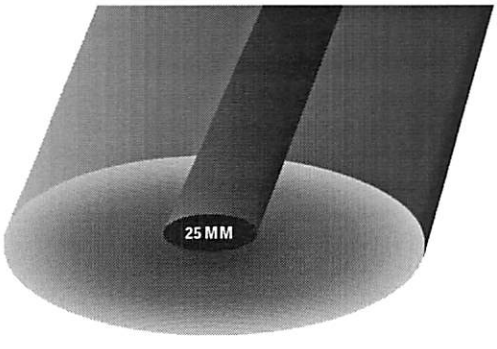

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Continued from page 108 'Past, Prresent, Future'

or initial your diagram with appropriate wording. You may find reasons not to accept their opinion but at least you have proof that you gave it consideration. The report should remain in the project file for future reference.

You need to talk to your client and indicate where the boundary line and markers will be placed. It should not be a surprise. If the location has the possibility of more than one opinion, the alternatives and rationale need to be discussed with the client as well as the adjacent land owner. You say that your client does not want you talking to the neighbor at his expense. Well maybe it is time to lay down some ground rules or be prepared to walk away from the project. Remember that your opinion of the boundary location is just that, an opinion and not a guarantee. "A penny saved, is a penny earned." Collecting your account may prove to be difficult if the client does not like the results and the neighbor may also demand your attention with no intention of compensating you for your time.

Future

Under the Land Registration Act (Registry 2000 land titles statute), title to a parcel of land will be guaranteed by the Crown. The title guarantee will be dependent on the solicitor providing a "warranted deed" and an "abstract of title" to the Crown Registrar for review and acceptance. The extent of title, however, will still be the responsibility of the surveyor. The document that controls the extent is the survey plan and/or the description in the deed. When a retracement survey or subdivision plan is done that changes the configuration of a registered parcel, a new description will be required. Presently a new property description only surfaces upon a conveyance but with R-2000 a new description will be required to update the property database once the extent of title is altered.

It is my opinion that the surveyor is the most logical and the only individual authorized by statute to provide an opinion on the extent of title. I refer you to the Land Surveyors Act, Section 2(J) -***"professional land surveying" means the advising on, the reporting on, the supervising of and the conducting of surveys to determine the horizontal and vertical position of any point and the direction and length of any line required to control, establish, locate, define or describe the extent or limitations of title"***. I interpret this statute definition to mean that the authoring of a property description is advising and reporting on extent of title.

When preparing a plan that illustrates a boundary location, the plan is first and foremost a "plan of survey". The illustration of topographic features, easements, subdivision or consolidation of lots may be the objective of the plan but it does not happen without the retracement survey first. The diagram on the plan must be neat, legible and understandable. That is, it should not be a "head scratcher" in order to determine the extent of the perimeter or the newly created lot(s). If a surveyor other than the author or a member of the public has a problem understanding the plan then how can a reliable property description be created? The survey plan and property description need to agree and be both professional and complete. The new land titles program will expect nothing less and neither should the surveyor.

Continued from page 90 "Interesting Information"

$10.46 and $17.81 in 2000. The lowest 10 percent earned less than $8.45 and the highest 10 percent earned more than $22.40. Median hourly earnings of surveying and mapping technicians employed in engineering and architectural services were $12.39 in 2000, while those employed by local governments had median hourly earnings of $15.77.

In 2001, land surveyors in non-supervisory, supervisory and managerial positions in the federal government earned an average salary of $57,416; cartographers, $62,369; geodetic technicians, $53,143; surveying technicians, $34,623; and cartographic technicians, $40,775.

Continued from page 90 "Bellamy Biography"

traveled in his van and camped right up to the end. In recent years, he also spent time in southern California. He maintained a section of farmland that I assume was near Abbey, Saskatchewan. He was a good friend to me and he enjoyed life to it's fullest. He may not have had social skills, by some people's standards, but he was a true and trustworthy person for the many years that I knew him.

John passed away in Saskatoon, Saskatchewan on July 18, 2002. A memorial tea to celebrate John's life was held in the Park Funeral Chapel in Saskatoon, Saskatchewan on Wednesday July 3 1st, 2002.

The Vermont Cornerpost Editor Writes:

By Doug Henson, Editor of the Vermont Cornerpost
(Reprinted by permission of Doug Henson)

As I have mentioned in the past, I get publications from all over the United States and Canada. It has always amazed me that the issues which face surveyors across North America are similar, with troubles caused by poor communication, having a hard time defining what surveying is, and why we should be considered professional. Unfortunately, another problem that appears to be continent-wide is the lack of interest in sending articles in to surveyors' respective publications.

In the time which I have been the editor of the Cornerpost, I have had a whopping four people contribute to this publication, and one of those was from another state. When we gather for a conference or meeting, the room is abuzz with various conversations about surveying this piece or that, and some of the interesting things that we discovered in the course of that survey. It should not be that difficult to spend fifteen or twenty minutes to write down some of those experiences for your fellow professionals. I have said for years that I get almost as much from the bull sessions between the sessions as I get from the sessions themselves.

I try to cull articles from the other publications, but it seems like the articles just pass around the country and then die off. Malcolm Moore's articles are particularly well read, and have showed up in at least ten different publications, but most of the rest of the information is specific to the various society's issues with business meeting notes and disciplinary actions taken by the state boards. I would hate to see our publication become purely a list of what has gone on in the past, with just business meetings and contest results.

This may be ridiculous, but with over two hundred members, I would be willing to bet a round of beer that I can't get articles from ten different people for the next issue, and two rounds for ten articles for the next two issues. Some may take exception with my tactics, but I would like to see some new material, even at what could be a high cost knowing this group. Personally, I think my money is pretty safe. So what do you say, make me a poor man. My cancer has been declared to be in full remission, and I need something else to gripe about.

Variation of Boundary Laws in Different Jurisdictions

By Curtis M. Brown
The Florida Surveyor. August 1999

Introduction

When I was with the U.S. Forest Service, at coffee we used to joke about transfers of station. One comment that used to surface was "three transfers is equal to one fire. A total to wipeout." Well, that can also apply to an office move. I have moved my ofJIce, either in the physical location or to other rooms within the same building at least three times in the last two years. My last move was this week from a third floor of office to a basement office that has more space and a door that opens out onto a lake. After moving bookcases, a desk, files, and numerous books and pictures of my travels and awards, I was finished. I swore, "This is the last time," however it did result in something good.

Many years ago Curt Brown asked me to assist him as the new author of Boundary Control and Evidence, one day I received three boxes by Fed Ex. All I could think was "My God, more papers. " Unfortunately I threw some away, filed some and then promptly forgot about them. Well, they surfaced on this last move. Four documents in Curt's own handwriting and typed on his own typing machine (as he used to call it). I sat there reading them and old memories resurfaced. Our trips together, his horrible jokes, almost as bad as mine, and memories of a dear friend. After reading them I thought it would be proper to share them, so here is an unedited version.

These writings certainly dispel Shakespeare when he wrote, and I paraphrase the bard "The evil man does often remains, and the good is interned with their bones."

Curt, was a pioneer in his own right in the area of legal surveys, may his writing live long. In fact, I wonder if many young surveyors even remember him. I mentioned Curt Brown to a recently registered surveyor and he responded "Curt Who?" I hope you enjoy it.

By Walter G. Robillard, ESQ., FSM

Abstract: Comments are made on the variation of laws which determine land boundary locations, especially with regard to water boundaries. Since legal elements of land surveying are so variable from state to state, it is not feasible to have a complete standardized test for all states.

Since the basic laws in most states were derived from English law, it would seem that there should be substantial agreement in the adjudication of boundary disputes. Of course, where the state was originally settled by either French (Louisiana), Dutch (New York) or Spanish (much of the west from Texas to California), for these areas expectation would be for some legal variations. For example, roads dedicated at the time the Dutch controlled New York were automatically granted in fee to the king; those dedicated after the English squired control were mere easements. Such is recognized and enforced by New York State Courts. In the west by Spanish law, flowing waters can be appropriated as based on usage, but not in the east.

When it comes to water boundaries, especially the boundaries between a state and its adjoiner, the laws regulating how to determine the division lines are unbelievably variable. In each new recent court trial it seems that a new principle was applied. A few examples of differences between states and changing opinions are as follows.

In the Massachusetts Colony a law was passed giving the upland adjoiner all land 100 rods (1650 feet) out from the sea shore. The Massachusetts court decided that the 100 rods should be measured outward from ordinary high tide line; in Maine, after it separated from Massachusetts, the measurement was declared to be from low water mark! The same original law, but a different court with a different opinion! In these early cases the opinion was generally in favor of giving private parties the maximum, but this attitude has now changed. For example, in California the adopted State Constitution gave the upland owner adjoining navigable waters title to low water mark wherever the tide did not ebb and flow. Recently in California the Attorney General decided that at the time of statehood the Federal Government had given to California the beds of all navigable rivers *In Trust For The People,* therefore the State could not give away trust lands between the low and high water mark. Those who built piers along navigable rivers to the low water mark in accordance with the

state constitution had no right to do so. In addition, the state had the right to regulate navigation; therefore piers in the way of navigation need to be removed. Now thinking has changed; the State should get every conceivable right by any theory, no matter how far fetched we see the Trust Lands Theory spreading to other states.

In order to increase the water storage capacity in Lake Tahoe a dam was built. As a result the lake's elevation was increased to the dam's spillway elevation. Later, a party who wished to assert his rights to his inundated land was prevented from doing so. The California Court reasoned that the land had been under water a sufficient length of time to give the State adverse rights to the inundated land! Was this a taking without compensation?

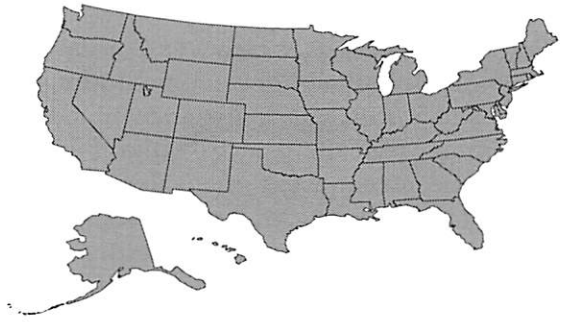
In the State of Washington the State's water boundary along the ocean was declared to be where vegetation ceased. In the Stella case, adjudicated in a Federal Court, the outcome was that those parties with a title originating prior to statehood owned to the mean high tide mark; those that had a title originating after statehood owned to the line of vegetation (no ex post facto laws). Presumably those taking title after statehood were bound by state law, not Federal law.

In Minnesota the State Court decided that the bed of all navigable streams belonged to the state and the courts definition of navigable waters was any stream capable of supporting a canoe of the lightest draft at floodtime. What about those parties whose land was acquired before statehood? Does the Federal rule apply? Possibly not because of the rather recent Corvallis Sand Company case mentioned below.

In the Bonelli Cattle Co. case (in the Colorado River) the Federal Court, in part of its opinion stated that Federal Law was applicable to the bed of navigable rivers, not state law. In the Corvallis Sand Company case in Oregon this was reversed; in a navigable river which was not a State boundary, state law applied. It appears that except for State boundaries, Federal land boundaries and Indian Reservation boundaries, the final decision pertaining to water boundaries is in the State Courts. Because of this case it appears that the Minnesota definition of navigable rivers may stand because of the state having final jurisdiction over internal navigable rivers. Of course, there is always the possibility of the Federal Court judges changing their mind again.

In Hawaii the court pointed out that in no way could the early Hawaiians have considered the upland owner's rights to extend to the mean high tide line; it was unknown in early times. Right on! The line of driftwood etc. at high tide was decreed to be the division line. A similar concept occurred in the Spanish rule; the King owned all the land up to the highest winter wave. Upon the USA acquiring Spanish lands it seems strange that this rule was discontinued. What was the authority which gave the land between the mean high tide line and the highest winter wave to the upland owner, especially in Rancho Land Grants?

In California, for some strange reason, the California Supreme Court decided that the division between the upland owner and the ocean bed was the Neap High Tide Line (the average of all high tides occurring where the moon is half way between low high tides and high-high tides), not the hourly readings of the tide over an 18.6-year period.



In California the State rule is that the upland owner owns to the neap high tide line as of its last natural condition; the Federal rule is the upland owner owns to the average high tide line, as it exists at any moment of time. Needless to say, where breakwaters have been installed the two lines are sometimes far apart (several thousand feet in the case of the Long Beach outer harbor's rock jetty). The present Federal policy is to require a fixing of the state boundary by written agreement prior to granting permission for a breakwater or jetty construction. Remember, the Federal Government has the

right to control navigation and can prevent any obstruction to navigation.

On the Oklahoma-Texas boundary along the Red River the Federal Government was protecting the Indian Reservation rights in an oil field which was under the Red River. In the final analysis the boundary of the Red River bed was declared to be a gradient line established half way between overflow points along the river's banks. All of us know that a river flows down hill; hence the boundary line on the bank of the river cannot be a level line. It seems strange that states other than Texas have not as yet adopted a gradient boundary rule. Is it because that in other states there has not been sufficient land values to make a court case worthwhile? Gradient boundaries per the Red River case are not easy to determine.

From the above few examples of variations in water boundary law between states or the Federal Government, it is quite apparent that the law varies between jurisdictions, and in addition it seems that for each new vatis boundary trial a new principle has been adopted to meet changed thinking. At the present time water boundary law, like water, is fluid.

In California the voters have created a Coastal Commission, which regulates development along the Ocean and also within a given distance inland. The commission adopted the principle that if a development has been requested, the waterfront must be dedicated to the public. In a recent court case it was decided that this was a taking without compensation. Water rights are a never-ending battle in law.

When looking up the laws regulating the surveying of boundaries of dry land, perhaps the most significant legal variations from state to state involve the rules of evidence. Since the Atlantic seaboard states were settled long before the western states, there have been a greater loss of evidence such as monuments. In general, because of the loss of evidence, the eastern courts often accept evidence of lower quality (such as hearsay) than that used in the west. In the east, direction is often recognized as more accurate than distance, whereas in the west distance is usually considered as more accurate than direction. In some states either can continue depending on the circumstances, thus, we do have legal variations of court opinions from state to state.

As to guidance as to what the Land Surveyor should do when surveying water boundaries, the following is offered. First, determine who has final jurisdiction, and the law of that ruling party must be understood and followed. Second, assume that for internal navigable rivers or lakes the state law will be applied as to the ownership of the bed. However, the Federal Government and the State have rules about obstructing navigation and who can use the water. Even if a private party owns the bed of waters, he may not be able to the enact barriers on the waters above it. Most important, since there has been so much enlargement of the state's rights adjoining waters, we should never be surprised at the court's decision, especially if it enlarges the state's control or ownership.

In the event of a court case if a surveyor is to intelligently discuss all aspects of his case, it is important that he should read general texts written about the legal principles of boundary law, it is very necessary to know how his state varies from the general rules.

Perhaps why the profession of Land Surveying is so much fun is that it stimlates thinking. Each boundary survey is a challenge to discover which piece of evidence determines where boundaries should be; seldom are any two surveys identical. Besides, there is always the thought, "if I am wrong, I may have to pay damages". Thus, in addition to using good judgment, you must be right, and you must know the law of your state.

Throughout this country there has been pressure brought to have a standard test for Land Surveyors, primarily to reduce the costs of testing. Without doubt, testing subjects, such as mathematics and scientific principles (optics, shape of the earth, etc.) can be standardized since these scientific principles do not change when crossing state boundaries (the extent and difficulty of the test may). Since the legal elements of land surveying varies from state to state as above pointed out, it is unrealistic to believe that a complete standardized test can ever be prepared for all states.

As seen in Maine Society of Land Surveyors Bearings Spring 2002

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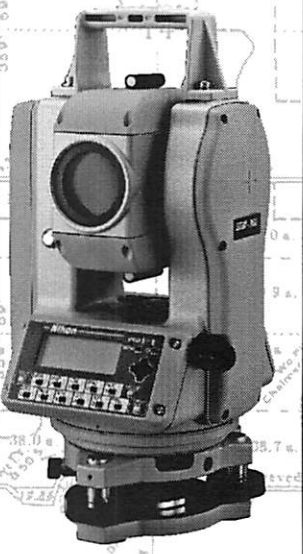

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In Land Dispute, Fence Is No Defense

Fence Location Fails as Defense In Land Dispute

BY ELIZABETH NEFF THE SALT LAKE TRIBUNE
Reprinted from "Utah Forsights" Spring 2002

Good fences may make good neighbors. But if the good fence isn't on the legal property line, Leo and Virginia Ault have a warning for you.

Tell the neighbors where you really draw the line.

It took the Aults four years of legal wrangling - in a case that reached the Utah Supreme Court to learn that having had such a conversation about the true property line was enough to protect their ownership while a neighbor used a portion of their land.

The Aults' neighbor in Vernon, a small town south of Tooele, had used a long strip of the Aults' property for years The fence between the families was placed north of the actual property line, and Darrell and Patsy Holden used the Aults' land immediately south of the fence a 30-foot by 553-foot area.

But when the Holdens erected another fence and shed on the strip and claimed the property as their own in 1997, the dispute wound up in court.

The high court resolved the case late last month by interpreting a century-old legal doctrine known as "boundary by acquiescence." The doctrine allows property owners to legally acquire a neighbor's adjoining land under these conditions if the area being used is delineated by a visible line - marked by a monument, fence or building - and if the neighbors have acquiesced to using the line as the boundary between them for at least 20 consecutive years. Third District Judge David Young had ruled the Aults had "acquiesced" to the boundary and given up their land since they did not earlier try to oust The Holdens or file a lawsuit against them. But the justices disagreed, holding that conversations the Aults had with the Holdens - where both acknowledged the fence did not represent the true property line - were enough to protect the Aults' rights.

"Record property owners are not required to take legal action or otherwise `oust' someone adversely occupying their property to maintain their legal rights in their property," wrote Justice Leonard Russon in the unanimous decision. "They must only take some action manifesting that they do not acquiesce or recognize the particular line eg, a fence, as a boundary between the properties."

Karra Porter, who represented the Aults, said the ruling has a "huge impact" in outlying counties, where fences commonly do not mark actual property boundaries.

"The district court had ruled even if you and your neighbor acknowledge the fence is not the right boundary, you still have to file suit against him or basically punch him in the nose to keep your property," she said "This says a conversation is enough as long as you as the owner point out to your neighbor that this isn't the boundary, you are protected."

Scott Broadhead, who represented the Holdens in the appeal, did not return calls. But he contended in court documents that the Holdens were entitled to the land, under the doctrine of acquiescence and because the Aults' deed allegedly was defective.

The history of the case dates to 1962, when Leo Ault decided to purchase a farm in Vernon that included the John C. Sharp Mansion, a run-down home built in 1880. The property's water rights gave his family's sheep a place to water, and he and his wife soon began restoring the old home.

In 1969, the Holdens began leasing property just south of the Aults, to raise hay and live stock. A fence ran between that property and the Ault farmland, but it was placed north of the actual property line. The Holdens bought the land in 1973, using the area up to the fence for crops.

After making a series of payments, the Aults recorded the deed to their property in 1974. The Holdens purchased another parcel just southwest of the Ault property in 1976 and also leased the

Aults farmland from 1972 to 1977. In 1978, the Aults and Holdens had the first of several conversations, during which each agreed the fence they shared was not the actual boundary.

But the Holdens kept using the strip of land south of the fence, and leased the Aults' farmland again from 1982 to 1997. When the Holdens put up a shed and the additional fence against the Aults' wishes and refused to take it down in 1997, Leo Ault said he ordered the Holdens to leave their land.

The Holdens then obtained a restraining order against the Aults, claiming the strip as their own. They argued the boundary description of the disputed strip of property was incomplete in the Aults' deed. Among other arguments, Broadhead also claimed the Holdens' deed entitled his clients to the property, as it was recorded before the Ault deed.

They also claimed the strip of land was not the subject of any of their leases with the Aults, because they were the true owners of the property.

The Aults responded to the restraining order with their own lawsuit. "They knew where the lines were, and we didn't ever agree to give any property up," said Leo Ault, 70.

The high court ruled the Ault deed clearly was intended to include the strip of land. The justices also found the Holden deed had not specifically included the strip, and that the Holdens had no possession rights to the disputed property because they were occupying it through a lease agreement when the Aults recorded their deed.

The opinion also reverses some $17,000 in attorneys' fees and costs. Young had ordered the Aults to pay the Holden's. The Aults' claims against the Holdens for unjust enrichment and trespass should now be heard by a trial judge, the justices ruled.

"*When Judge Young handed the first ruling down it was so devastating for us," Leo Ault said "We are trying to restore everything in its original state, and that includes the land around it."*

"*They knew where the lines were, and we didn't ever agree to give any property up.*" LEO AULT - Vernon Farmer

NOW AND THEN

The storm is now coming
The air's turning cold
We're going surveying
Aren't we bold!

I hate when the wind blows
And the chill factor's low
It's hard to avoid it
Wherever you go.

But jobs must be f finished
And more corners set
And we LOVE this business
Don't ever forget.

We actually do-
Tho I know I complain
We travel the same routes
And walk the terrain-

Where other surveyors
A century past
Really knew hardships
But stuck to their task.

They traveled on horses
And measured by chain
They didn't have 2-ways
They worked in the rain

They had no four-wheelers
And no GPS
And no little laptop
To help ease the stress

So it's time to stop griping
And turn up the heat
And unlike the old guys
Enjoy warmed up feet!

Brenda Logan May 3, 2002

Continued from page 94

this type of change was predicated on natural causes.

However, as man has infringed on his environment more and more heavily, this thinking under the law has (necessarily) evolved. The reader is cautioned that the answer to the question of natural versus artificial cause can vary from state to state.

The doctrine of accretion applies to changes in a watercourse due to artificial or natural causes (see *County, of St. Clair v. Lovingston, supra, at 64-69; United States v. Claridge, 416 F. 2d -933.(CA9 1969)).* Where accretions to riparian land are caused by conditions created by strangers to the land (i.e., artificially), the upland owner remains the beneficiary thereof (see Bonelli Cattle Co. v. Arizona, supra). The court has taken the position that one cannot artificially induce accretions to his own benefit. However, if in the course of exercising riparian rights one causes (absent collusion) a deviation from "natural conditions" which results in accretive action to a downstream or upstream riparian parcel, the court has most usually allowed the benefit of the attached material to stand.

Partitioning of Accreted Lands

Where accretion occurs, it frequently attaches to more than one parcel. The question then arises as to where is the boundary line over the deposited soil between two or more abutting parcels having benefited from the accretive action'?

Identification of the extent of accreted material is an important first step and one which is largely an historical research exercise. Methods and sources of research in this regard differ little from those applied to non-riparian settings, with perhaps a greater emphasis on recovering aerial photographs (over a series of time), where available. These methods are certainly nothing new to the practicing land surveyor. The underlying objective, of course, is recovery of evidence which will reveal the change which has occurred, and enable the quantification thereof.

Methods of equitably partitioning accreted lands between adjoining riparian owners are very similar to those applied in the case of reversion of streets or highways. In either instance, there is no one method that works under all circumstances. This of course is due to the infinite configuration possibilities which, in the case of watercourses in particular (given their irregularities), can create some interesting geometric shapes.

Common methods of partitioning include, but are not restricted to, the straight line extension method, the perpendicular method, the proportionate shoreline method, and others. For an excellent discussion (with illustrations) of these and other methods, the reader is referred to James A. Simpson's River and Lake Boundaries (Ref. No. 6, herein). Keep in mind that this is an area where the court tends to look very closely at the equity of the matter, again simply because there is no one accepted method workable (or equitable) in all settings. The prudent surveyor will look closely for what has been done previously on the particular watercourse or water body he is confronted with, and search out any case law pertaining specifically thereto.

Of particular import to this discussion is the connection back to the ambulatory concept of water boundaries. Just as the watercourse itself is ambulatory in nature, so arises the question of partitioning lines and whether they become fixed once established, or do they ambulate as the accretive process continues over time? If a prior apportionment has been made, must a subsequent apportionment be bound by the former? Would the subsequent apportionment begin at the terminous points of the former'? These are interesting questions supported by limited case law. If one can glean any direction at all, it would seem to be that if title has vested to a given partition line, either through agreement between adjoiners or by court decree, then the terminus of such line would likely become the beginning point for apportioning subsequent accretions. The reader is cautioned that this is a general conclusion only; it may vary from state to state, and certainly this falls within the realm of boundary law that lends itself well to deciding on the merits of each individual case.

Next: Reliction and erosion

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Reprinted with permission of the author, and from The Nevada Traverse, V01. 24, No. 4, 1997, through Vol. 26, No. 4, 1999. Terry W. McHenry, PLS, is the editor of The Nevada Traverse. He has worked in surveying since 1964, with experience in both private and public capacities. Currently he is the principal of Consulting Land Boundary Specialities, a consulting firm specializing in land and riparian boundary matters. He may be contacted as follows: 14710 Rancheros Drive, Reno, Nevada 85911, (775) 852-7290, or email at editornvtraverse@ aol.com

"Obstacles are those Frightful things you See when you take Your eyes off Your goal."

- Henry Ford

EVER WONDER

Why the sun lightens our hair, but darkens our skin?

Why women can't put on mascara with their mouth closed?

Why don't you ever see the headline "Psychic Wins Lottery"?

Why is "abbreviated" such a long word?

Why is it that doctors call what they do "practice"?

Why is it that to stop Windows 98, you have to click on "Start"?

Why is lemon juice made with rtificial flavor, and dishwashing liquid is made with real lemons?

Why is the man who invests all your money called a broker?

Why is the time of day with the slowest traffic called rush hour?

Why isn't there mouse-flavoured cat food?

When dog food is new and improved tasting, who tests it?

Why didn't Noah swat those two mosquitoes?

You know that indestructible black box that is used on airplanes? Why don't they make the whole plane out of that?

Why don't sheep shrink when it rains?

Why are they called apartments when they are all stuck together?

If con is the opposite of pro, is Congress the opposite of progress?

If flying is so safe, why do they call the airport the terminal?

THE DESIGN & CONSULTING PROFESSIONAL'S LEGAL STANDARD OF CARE AND HOW IT APPLIES

By Grant H. Weaver Jr.

Reprinted from the Nevada Travers Vol. 29, No 1, 2002

As basis for determining the legal liability of any practicing professional in the United States, whether the profession involves medicine, law, the design and consulting professions, etc., besides contractual obligations undertaken, reference is always made to the "professional standard of care." In most basic terms, this represents a standard of performance and conduct on the part of a professional practitioner which the recipient of its services and third parties affected by them have a right to expect as part of the practitioner's recognized professional standing. Furthermore, it is the standard, which, if the professional fails to meet it, and if injury or damages result, is the basis for legal liability attaching to the practitioner. Conversely, if the professional meets this standard, having done so provides a defense to claims of professional negligence by parties seeking recovery against the professional practitioner.

In specific regard to design and consulting professionals practicing in the United States, one could say that each state has some variation on a professional liability standard derived from the English common law. But broadly, the body of American law more or less presents two general views, usually referred to as the "majority" and "minority" views as the basis for the various states' case law precedents, their statutory law by way of legislative action as well as being actually iterated in civil jury instructions.

Probably one of the earlier statements of what would be considered the majority view in the United States was in the case of Coombs v. Beede, 89 Mass. 187 (1896). Finding in favor of the architect, the court held: "The responsibility resting on an architect is essentially the same as that which rests upon the lawyer to his client, or upon the physician to

his patient, or which rests upon anyone to another where such person pretends to possess such skill and ability and some special employment and offers its service to the public on account of his fitness to act in the line of business for which he may be employed. The undertaking of an architect implies that he possess skill and ability, including taste, sufficient to enable him to perform the required services at least ordinarily and reasonably well; and that he will exercise and apply in the given case his skill and ability, his judgment and taste, reasonably and without neglect. But the undertaking does not imply or warrant a satisfactory result. It will be enough that any failure shall not be by the fault of the architect. There is no implied promise that miscalculations may not occur. An error in judgment is not necessarily evidence of a want of skill or care, for mistakes and miscalculations are incident to all the business of life."

Under the broad heading of what would more or less be considered the minority view in the United States, some courts have chosen to increase the standard of liability for the design or consulting professional from negligence to an implied warranty of strict liability standard. These courts suggest that the design professional impliedly warrants general fitness of design, if not fitness for the particular purpose that a project is to serve. While there were other issues involving a possible oral warranty separate from a customary undertaking for professional services, the representative case of Tamarac Development Company v. Delamater Freund & Associates, PA., 234 Kan.618 (1984), provides a very interesting discussion, which would disagree with the majority view stated above. In essence, the Kansas Supreme Court held that while certain professionals such as doctors and lawyers are not subject to an implied warranty for their services, the work of architects and engineers is to be so held. The court's reasoning was to the effect that the work performed by architects and engineers is an "exact science," or rather is subject to the application of science, measurement and mathematics, and that therefore, one who contracts with an architect or engineer has the right to expect an exact result.

As one can see from this discussion, it is very important for a design or consulting professional to be familiar with and conversant about these views, recognizing that their professional liability may be perceived somewhat differently from one state to another. Equally important, however, is the need to recognize these issues in contractual language for retention for services.

FOR THOSE WHO TAKE LIFE TOO SERIOUSLY

1. Save the whales. Collect the whole set.
2. On the other hand ... you have different fingers.
3. Remember, half the people you know are below average.
4. I drive too fast to worry about cholesterol.
5. Borrow money from a pessimist - they don't expect it back.
6. Experience is something you don't get until just after you need it.
7. A clear conscience is usually the sign of a bad memory.
8. Always try to be modest and be proud of it.
9. Get a new car for your spouse - it'll be a great trade!
10. If at first you don't succeed, then skydiving isn't for you.

The following are tell-tale signs that you have lived in Saskatchewan too long:

1. Losing sight of the horizon, for even a few seconds, leaves you with an "icky' feeling of disorientation for the rest of the day.

2. You're confused when cars come equipped with options that would never be needed, such as curb feelers and turn signals, and yet, obvious options like trailer hitches and air-conditioning are extras.

3. You actually understand and, perhaps, can describe in detail the necessity for geographical correction lines.

4. You sort your laundry into three loads: greens, whites and green and whites.

5. You've required a total of 40 stitches over the years for various lacerations suffered while doing the butterfly at wedding dances.

6. Every birthday you receive exactly the present you most desperately need: a new curling broom.

7. You can't understand why those American television networks never settle on a schedule, instead of shifting all their programs back and forth an hour every spring and fall.

Looking Ahead...

2002 - 2003

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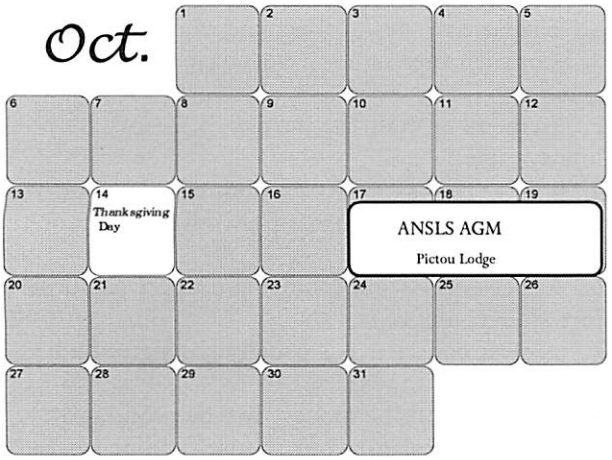

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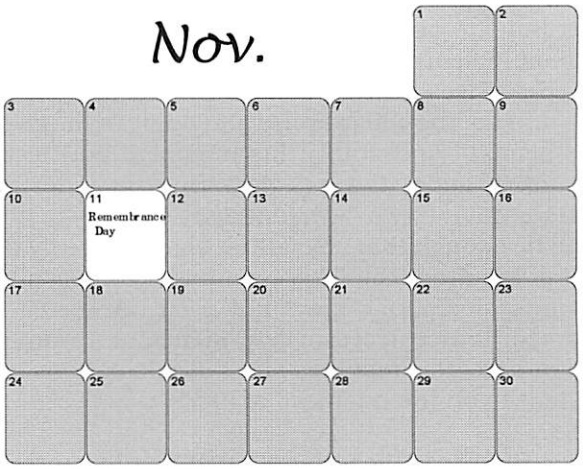

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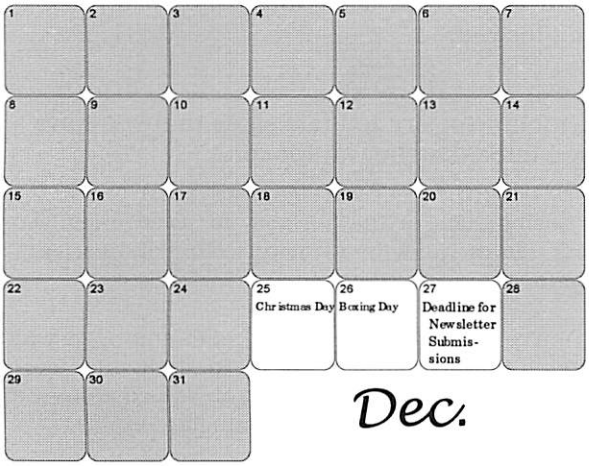

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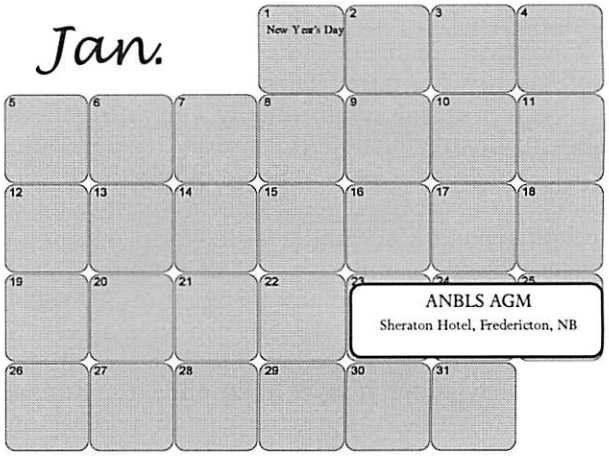

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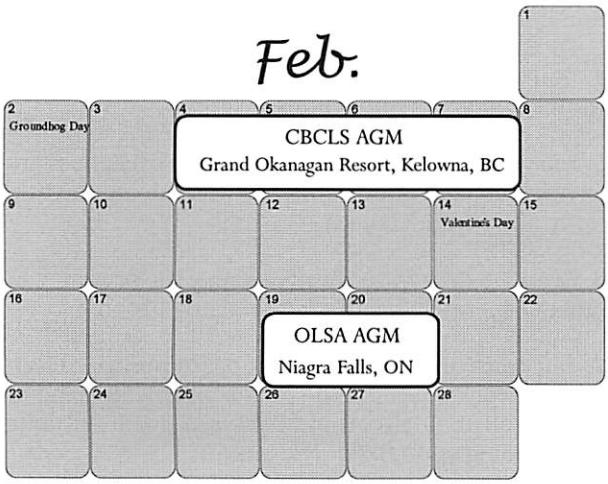

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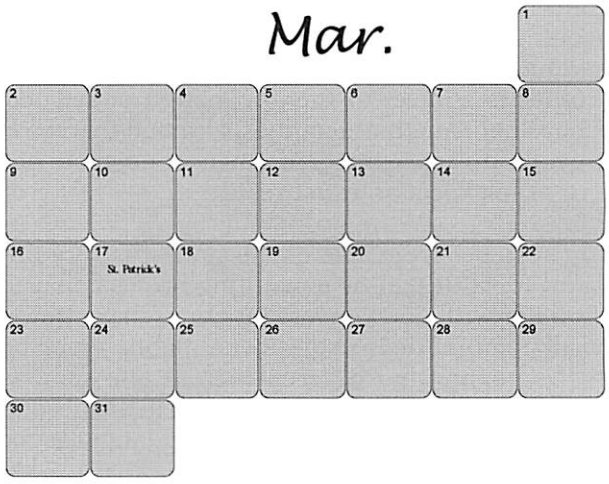

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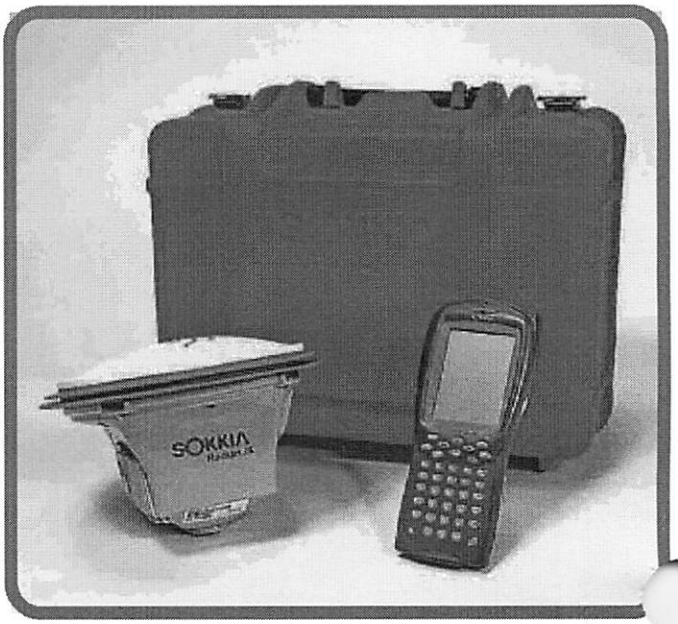

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