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AtlanTECH news



*SttagN-B = Les spécialistes de la technologie au Nouveau-Brunswick
NBSCETT - New Brunswick's technology professionals*

Member Of The Year:



Society President (at left) Ken Geldart, PTech, presents the 2011 George E. Hamilton Member Of The Year Award, to long time supporter and volunteer, **Robert G. Clarke, CET.**

Society Registrar Ken C. Brown, PTech, presented Mr. Clarke's bio; grad of Civil Tech, Moncton NBCC in 1966, and has lived with his wife Evangeline in Oromocto since '67, both enjoying RVing, and Bob his Kawasaki 500. His 45 year professional career includes the past 24 operating his own design and consulting-business; and he is also a writer, speaker, designer and instructor. Other accomplishments include American Institute of Architects, CE- Passive (Solar) design stu-

dio (1981); Energy Mines & Resources Canada - Certified R-2000 Instructor (1984); and Hot 2000 Computer Energy Analysis program (1986); HR&AC Institute of Canada Qualified HRAI Ventilation Instructor and System Designer (1985). R.G. Clarke was elected to the Society Council in 1972, served as President from 1976 through 1978, then became NB-CCTT Director 1979, elected to the national executive in 1980, and served 2 terms as CCTT President, and a total of 11 years on CCTT Executive Committee. (see R.G. Clarke - Page 7)

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- * Presidents Award - page 18

mark your calendar now !

45 years of certified success

The technology professionals of New Brunswick



Annual General Meeting / 10:00 am

Assemblée générale annuelle

Saturday, April 27, 2013

and the NBSCETT/SttagN-B

Presidents Awards Luncheon -

Featuring:

presentation of 25 year,

and 40 year certificates;

new member 'swearing in';

announcing Member Of The Year;

Presidents Award recipient;

and, introduction of new Council members.

Saturday luncheon tickets \$35.00/ea

luncheon tickets must be purchased in advance from Society office.

Members and Friends Reception Friday evening, April 26, 2013.

All events at the Ramada Fredericton Hotel, 480 Riverside Dr., Fredericton (N)

Les spécialistes de la technologie au Nouveau-Brunswick

45 années de Succès Agréé

noter votre calendrier maintenant !

At the Society's 43rd Annual General Meeting "2011", the following were acknowledged for their 25 year and 40 year memberships.



Society President (centre) Ken Geldart, PTech, presented certificates and 25 year lapel pins to, **Greg Purdue, PTech** (at left), and **Stephen R. Erb, CET.**



Society President (centre) Ken Geldart, PTech presented 40 year membership certificates to, **Robert Jewett, CET** (at left), and **Michael Cummings, CET.**

Annual General Meeting

Ramada Hotel, Fredericton NB

April 28th, 2012

10:05 AM – 10:52 AM

Sponsored by.....



Participating:

Jean-Guy Babineau, PTech
Kenneth C. Brown, PTech
Cameron Campbell, CTech
Jason Clavette, PTech
V. June Connell, PTech
Troy Doyle, CTech
Steven Erb, CET
Ken Geldart, PTech
Robert Jewett, CET
Ed Leslie, CAE, PTech
Marco Morin, PTech
Samir Patel, PTech
Marvin Rathburn, CTech
Paul Roy, PTech
Melanie Schneider-MacDonald, PTech

Jules Boudreau, PTech
Tony Brown, PTech
Robert Clarke, CET
Jeremy Cline, PTech
Larry Donovan, CTech
Patricia Duffy
Cindy Garnett, PTech
Fred J. Herkert, CET
Ron J. G. LeBlanc, PTech
Jean Luc Michaud, PTech
E. James Nyers, PTech
Greg C. Purdue, PTech
Kimberly Rice, PTech
David Sheaves, PTech

AGM#12-01 President Geldart called the meeting to order at 10:01 AM, and thanked everyone for their participation.

There was a moment of silence to honour deceased Society members of the past year and those New Brunswick workers who have died on the job.

President's Report:

AGM#12-02 President Geldart reminded everyone to strive to uphold the Society's mission, objectives and beliefs.

Executive Director's Report:

AGM#12-03 E.D. Leslie reported that it was another busy year. E.D. Leslie spoke about any members in good standing who wish to use the Society Logo. In order for members to use the logo they must complete the Policy/Agreement, which can be obtained from our website.

AGM#12-04 E.D. Leslie spoke about the importance of the standards that must be met for immigrants coming to Canada. E.D. Leslie is working closely with the local and provincial Multicultural Association with these issues.

AGM#12-05 E.D. Leslie spoke about the "virtual booth", organized as a career fest with the Saint John school district, it was a great success and he hopes to continue to par-

participate in this again in the future.

AGM#12-06 E.D. Leslie spoke about the 2012 Calendar booklet that was given to all the students at the NBCC and CCNB campuses which have nationally accredited programs. Working with CCNB Bathurst, in September we are going to start using a calendar on line, so the student can keep track of all their work experience.

Registrar's Report:

AGM#12-07 K. Brown gave information about his involvement with COR (Council Of Registrars). He requests members to offer their services and to participate in the interprovincial accreditation activities.

AGM#12-08 K. Brown spoke about the Society's mandatory Professional Development Assurance (PDA) program. All Certified Members must complete the form every year. It is a program that is beneficial both to the member and the employer. Members may complete the PDA form on the website and then forward to the Society.

Introduction of Special Guests:

AGM#12-09 President Geldart introduced Past Presidents: Robert G. Clarke, CET [1976-'77]; Ken Brown, PTech [1987-'88]; Fred Herkert, CET [1994-'96]; Jim Nyers, PTech [2005-'06] and David Sheaves, PTech [2009-'10].

Board Reports:

Certification Board Report:

AGM#12-10 G. Purdue gave thanks to the current Board members and staff of the Society for their participation. The Certification Board is always in search of new members. Anyone interested in participating in the Certification Board, please contact the Society office.

Committee Reports:

Finance Committee Report:

AGM#12-11 The appointment of Auditors EPR Daye Kelly & Associates for the 2012 fiscal year was M/S (P. Duffy / J.L. Michaud). Carried

Nominating Committee Report:

AGM# 12-12 E.D. Leslie introduced the Council 2012-2013 participants.

AGM#12-13 Acceptance of the Nomination Committee Report was M/S (R.J.G. LeBlanc / T. Doyle). Carried

Human Resources Committee Report:

AGM#12-14 R. Clarke said that the HR Committee has met during the year to complete the annual performance review of the Executive Director and the operating functions of the Society. He thanked staff and volunteers for their hard work and commitment.

Canadian Council of Technicians and Technologists (CCTT) Director's Report:

AGM#12-15 D. Sheaves thanked Society staff and volunteers for their continuing work for the benefit of the profession. He has been keeping busy in the past year but found it to be very rewarding.

New Business:

Signing Officer's Resolution:

AGM#12-16 Acceptance of the signing officer's resolution was M/S (F.J. Herkert / J.G. Babineau). Carried

AGM#12-17 Acceptance of the By-Law #3.04 was amended to read: **"The Council may appoint an Executive Director who shall hold office during the pleasure of Council. The Executive Director shall be an ex-officio, non-voting member of the Council, Executive Committee, all standing Committees and Boards, and Committee/Boards as may be created by the Council."**
was M/S (J. Boudreau / J. Clavette). Carried

AGM#12-18 Acceptance of the By-Law#3.09 was amended, second paragraph to read:**"The post of provincial representative to the CCTT, and the Council position would be a term from appointment date to two (2) consecutive years. The appointment is effective immediately following the applicable CCTT Annual General Meeting."** was M/S (V. J. Connell / M. Morin). Carried

AGM#12-19 Acceptance of the By-Law #4.01, the President (b) was amended to read: **"be an ex-officio, non-voting member of all Committees and Boards."**
was M/S (J. Cline / D. Sheaves) Carried

AGM#12-20 Acceptance of the **By-Law #17.02 (f) was decided deleted**
was M/S (G. Purdue / V.J. Connell) Carried

AGM#12-21 Acceptance of the By-Law #17.02 (f) was established to read: **"All certified members, working independently, shall avail themselves of professional liability (errors and omissions) insurance. (ie: Professional liability insurance is available through the CCTT national program of LMS Prolink, Quebec)."**
was M/S (D. Sheaves / K. Rice) Carried

AGM#12-22 Acceptance of **adjournment at 10:52 AM** was moved by R.J.G. LeBlanc.

The AGM for the fiscal membership year of 2012 will be held, Saturday, April 27, 2013.

join with the Technology Professionals of New Brunswick

Joignez les professionnel(le)s de la technologie du N-B

Schedule of Society Certification Board meetings:

Please note: completed membership applications with application fee, for certified membership should be received by the Society office AT LEAST (3) three weeks prior to the scheduled meeting dates (September through June) posted on the website. Membership applications for Technology Graduate in Training or Student may be sent in at any time.

Should you have any detailed questions, do not hesitate to contact the Society office.

discover the next step in your professional career = www.nbscett.nb.ca



R. G. Clarke, CET - Member Of The Year , 2011

Bob was also a member of the Society's Legislative Committee, responsible for the enactment of the "*Engineering Tehnology Act*", 1986; and member of the Negotiation Committee amalgamating the New Brunswick Association of Certified Survey Technicians and Technologists with NBSCETT/SttagN-B. Bob has been involved with numerous Society activities and committees during the past few years including the Certification Board, and is currently Chair of the Human Resources Committee.

Other awards to Bob Clarke include: the 1990 National Achievement Award from CCTT; the 1982 Heritage Canada Foundation - restoration of the 1785 Dunn/MacQuoid House, St. Andrews; the 1981 Heritage Canada Foundation - restoration of the 1785 Sewell House, Saint John; the 1976 Canadian Housing Design Council - Senior Citizen Complex - Woodstock; and, the 1975 Council of Maritime Premiers & New England Governors Low Energy Design concepts of "Clarke One".

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Thank You to NBSCETT/SttagN-B.

Receiving the "George E. Hamilton, CET, Member of the Year – 2011" came as a complete surprise to me at the Society's April 28th Annual General Meeting. I humbly thank fellow Society members, volunteers and staff for this much appreciated honour.

As a young technologist at a Society AGM back in 1972 when I first joined the Council, I recall George Hamilton along with several other "fathers" of NBSCETT asking the newly elected Council to approve funding to send a Past –President to Ottawa to meet with representatives from other provinces to create what we know today as "CCTT". Little did I know at that time the track I was setting out on as a Society volunteer.

Upon certification, I had become a member of the Fredericton Branch of NBSCETT and before long was invited to participate on various committees and elected positions and got the "bug". I recall remarking on some previous occasion that my joining Council 1972 began a continuous 17 year track of involvement at all levels of the provincial association through completion of my CCTT service in 1989.

To the new and not so new members of NBSCETT, I encourage you to get involved at some level of Society activity; to that level your time will permit. Very early on, I realized the volunteer involvement was presenting me with an education I couldn't buy. I have had the good fortune to have worked with a lot of extremely dedicated volunteers from our technical community across Canada. I have no doubt my volunteer involvement with NBSCETT has been extremely helpful throughout my life both personally and professionally.

There are several of us, still involved with NBSCETT, who share memories of various milestones in the development of our Society. As I reflect back, being actively involved in the process leading up to the adoption of "The Technology Act" in 1986, carries a special significance to me. It was interesting to be there as the Society evolved through its various administrative office arrangements from renting space from others, to having its own offices. Also, watching the development of staff from a sole part-time person with volunteer support, to the engaging of the full time professional staff the Society enjoys today.

It is only through NBSCETT that I could have gained the national experience through CCTT and learned much about the geography and people of our great land. My nine year cycle through the national executive committee of CCTT including two terms as CCTT President, afforded me the opportunity to get to know a lot of fellow technicians and technologists and to travel to many cities across Canada. This volunteer involvement has also resulted in the development of numerous life-long friendships across this country.

Thanks to my family who through the years made it possible for me to take time to be involved with the NBSCETT. Thank You again to NBSCETT for this honour and also for the opportunity to have served through the years. And a special Thank You to Ken Brown for his kind remarks in the presentation of the award during the AGM.

All the Best to NBSCETT,
Bob Clarke, CET

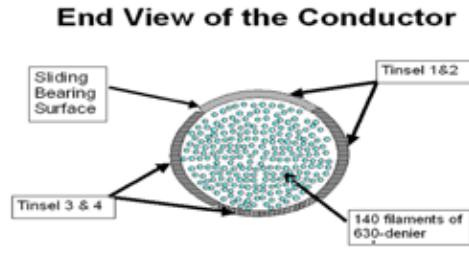
A Small Detective Story “Tinsel”

Dr. Richard Carlson wrote, “Don’t sweat the small stuff”.... But what is the small stuff?

This story may assist you to decide, in your own technical field, what should and should not be ignored.

The following narrative will take you across America and Asian countries into the “tinsel” industry to look at some very small stuff.

- Tinsel, as you may know it, is the stuff you decorate the Christmas tree. Similar in size is “**electrical tinsel**” that is an electrical conductor, less than the thickness of a hair, rolled out flat to make it into a very flexible spring. Four of these tinsels are wrapped around a 140 filaments of 630-denier nylon in the centre for strength to make a very flexible electrical conductor used in telephone cord.



This detective story starts in 1986, but the lesson of the story is just as relevant today. The first sign of trouble brewing was a small 2 % change in North American telephone sales and profit suddenly starting loose an **extra** \$2,000,000 a day or 14 million a week on handset cords that failed shortly after they were installed.

- The common curly-coiled **handset cord** is designed to last over one million pulls to its full extension, defined as doubling its coiled length. This specification simulates the “picking up” of a handset to the ear one million times. At this time there were estimated to be about 365 million phones in North America. Telephones had an average life of about 10 years. The math gives us the quantity of telephones that had to be installed each day just to keep the status quo with no growth. That number is 100,000. This telephone reliability was accurately tracked by all telephone companies. The telephone installation rate went up by 2% due to early failures of the telephones. Across USA, Mexico and Canada it was generally reported amongst the quality assurance community that the telephone cords were failing in the few days after being installed.
- In 1986, telephones were still mostly hard wired to the house and needed a telephone technician to change or repair them. It was estimated that each failed cord, although worth less than a dollar, would cost an extra \$100 to send a technician out in the telephone companies’ truck and exchange the non-functioning telephone with a new working telephone.
- This increased failure rate cost an **extra** \$2,million a day or about \$700 million a year.

Actions taken by the North American Telephone Industry

- At this time, I was working on the Canadian Standards Association (CSA) national standards:
 - C22.2 No.214 *Communication Cables*
 - CAN /CSA-T510 *Performance and Compatibility Requirements for Telephone Sets,*
 - CAN/CSA-C22.2 No. 233 *Cords and Cord Sets for Communications Systems*

Together, these three national standard provided the performance and safety requirement for handset cords for Canada. At the same time I was also working on the equivalent standards for the USA through American National Standards Institutes (ANSI) TIA TR41 committees that I jointly chaired.

Because of my involvement in the above work, a consortium of the telephone companies from across Canada, USA and Mexico with names like Northern Electric, AT&T, General Telephones, Automatic Electric, and Telmex hired me to look into their cord problem.

Researchers work plan

- I designed a critical path plan to find and cure the problem. *It appeared at first to be a rather simple problem to locate the reason for the failures.*
- I started to collect failed cords from across North America. My small home laboratory was soon full of curly cords.
- With the use of a simple ohm-metre the faults were found not to be crossed or shorted conductor but in every case “**opens**”. When continuity was measured at least one of the three or four conductors in the cord was open to the flow of electricity. As the fault “open” in a conductor could not be seen inside of the coiled plastic sheath and the insulation surrounding the individual conductors, a method of visual examination had to be developed. To cut or chemically remove the insulation off the whole cord be a very tedious undertaking and would possibly change the forensic evidence hidden inside the insulation.
- I had to find out where the “open” had occurred, possibly from anywhere from one end to the other end including the spade connectors on the cords’ ends,
- The plan I chose was to connected each conductor to a kind time domain reflectometer (TDR) (kind of Radar set

continued on page 16

NBSCETT / SttagN-B Technology Foundation

The Society's Technology Foundation was established almost 10 years ago to support students of the nationally accredited NBCC-CCNB engineering technology programs which lead to the graduates internationally recognized certification (CTech or PTech).

The Society's Technology Foundation awards at least one \$250.00 scholarship per NBCC-CCNB campus with nationally accredited programs. The Society also awards an annual \$500.00 Richard P. Jackson, CET, Memorial Scholarship to a second year student of the NBCC-Saint John Mechanical Engineering Technology program.

The Society's Technology Foundation is a registered charitable organization, managed and operated by the Society, and all donors receive a RevenueCanada tax credit receipt. To participate in support of the Society's Technology Foundation, members may donate along with their annual membership renewal. Donations may also be presented to the Society by using the form herein, or through the Society website. www.nbscett.nb.ca

NBSCETT / SttagN-B By-Law 17 TECHNOLOGY FOUNDATION - CHARITÉ TECHNOLOGIE

The Technology Foundation - Charité Technologie ("the Foundation") is established by the Society to promote the training and education of members and prospective members by providing scholarships, bursaries, grants, or financial assistance to persons attending or proposing to attend any school, college, or university, and undertaking or proposing to undertake any Engineering / applied science technology diploma study in New Brunswick or elsewhere, in programs acceptable to the Foundation. The Foundation may solicit, receive and accept all manner of contributions, gifts, bequests and legacies from any person, firm or corporation.

All donations to the Technology Foundation –
Charité Technologie are tax deductible.

I, _____,
(print name)

hereby direct that my donation of \$ _____ be held by the Technology Foundation/ Charité technologie Inc. [Registered Charity #866482334RR0001] for a period of not less than ten (10) years in compliance with subsection 149.1 (1) (e) (B) of the Income Tax Act.

X: _____ Mbr #: _____ date: _____



Society President (at left) Ken Geldart, PTech, guided new members in their 'swear-in' at the AGM (left to right); **Barry Ayles, CTech; Cameron Campbell, CTech; Robert Lockhart, CTech; and Samir Patel, PTech.**

the Technology Professionals in New Brunswick

New Brunswick Society of Certified
Engineering Technicians and Technologists

September 2012

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letters patent: January 12, 1968

45+ years of certified success

2013 January

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ANNUAL GENERAL MEETING /

ASSEMBLÉE GÉNÉRALE ANNUELLE

10:00 HR, SATURDAY, APRIL 27, 2013

PRESIDENTS AWARD LUNCHEON - 12 NOON

AT THE FREDERICTON RAMADA HOTEL

Reception 6-11 pm,

Friday evening, April 26, 2013

Les spécialistes de la technologie au Nouveau-Brunswick

Société des techniciens et des technologues
agréés du génie du Nouveau-Brunswick

*If you are interested in helping
assist in planning and participating
in special events, or have promotions/
special activities suggestions for this
week, please give your professional
association a call;
your involvement
is always welcome!*



**National Technology Week:
November 4>10, 2013
visit: www.cctt.ca**

*Si vous êtes intéresser à aider planifier
des événements, assister et participer à des
événements spéciaux ou à promouvoir/ou
avez-vous des idées à suggérer pour des
événements spéciaux pour cette semaine,
s'il-vous-plaît veuillez communiquer avec le
bureau de votre association professionnelle.
Nous pouvons toujours utiliser votre aide.*

**la Semaine nationale de la technologie:
4>10 novembre, 2013
visitez: www.cctt.ca**

45+ années de Succès Agréé

2013 May

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2013 Juillet

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2013 June

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2013 Août

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Members “struck” from the Society Registry: resigned /non-payment of dues. (2012)

| | | | |
|-------------|-----------|-------|---|
| PETER J. | ADAMS | CET | STRESCON |
| GUYLAINE | ALBERT | CET | CCNB-EDMUNDSTON |
| DEBBIE | ALLAIN | CET | PWGSC |
| DENIS | ARSENAULT | PTech | CADFACTOR INC. |
| TINA | BEAL | PTech | HORIZON HEALTH NETWORK-SAINT JOHN Reg'l |
| KAREN S. | BETHUNE | CET | DOWN EAST CAD SOLUTIONS |
| C. MARK | BOUDREAU | CET | ROGERS GROUP |
| LOUIS | BOURGEOIS | CET | ATLANTIC ALARM SERVICES LTD. |
| GERARD | BOURQUE | PTech | MEMCO CONTROLS |
| RICHARD J. | BUTTS | PTech | NB POWER |
| JOSEPH P. | BYRNE | CET | NB POWER |
| JUSTIN | CHAPMAN | PTech | ENVIREM ORGANICS INC. |
| ROBERT | COLLIER | CTech | TERRAIN GROUP INC. |
| SCOTT | CRITCH | CTech | DND/CFB HALIFAX |
| JAMES D. | DOHERTY | CET | GNB/DOT |
| STEPHANE | DOUCET | PTech | ROY CONSULTANTS |
| MERLIN W. | DOW | PTech | GNB/DOT |
| GAETAN | GALLANT | PTech | CITY OF MONCTON |
| MICHAËL | GODIN | CTech | FPM PEAT MOSS |
| DANIEL C. | GRIFFIN | CET | FCC CONSTRUCTION |
| JAMIE | GUIDRY | CET | ACUREN GROUP |
| MORGAN | GUNTER | PTech | GNB/DSS |
| ROBERT | HACHÉ | CET | HOPITAL GEORGES-L DUMONT |
| BRENT | HALLETT | CET | GNB/DOT |
| JOHN JOSEPH | HARDY | CTech | 2144 |
| KEVIN | HEBERT | CET | GNB/DOT |
| JASON P. | HICKS | CET | HICKS CSC |
| PAUL | HOLT | PTech | UNB |
| GERRY L. | HOWE | PTech | TORRENT TECHNICAL INC. |
| JOE | HOYT | CET | DILLON CONSULTING LTD. |
| DEBORAH | KAY | PTech | DEPARTMENT OF NATIONAL DEFENCE |
| MICHAEL | KNOWLES | PTech | EXXON MOBIL |
| JEFFREY P. | LAPOINTE | CET | |
| ANGIE | LAPOINTE | PTech | DILLION CONSULTING LTD |
| AARON | LAW | CET | |
| NEIL | LEBLANC | CTech | NEIL LEBLANC CONSULTING SERVICES LTD. |
| MARK | LECLAIR | PTech | AMEC |
| JULIEN | LEVESQUE | PTech | GNB/DOT |
| TIMOTHY | LONSDALE | CTech | DND/CFB GAGETOWN |
| MICHAEL | LYNCH | PTech | IRVING EQUIPMENT |
| SHAWN | MACDONALD | CET | GULF OPERATORS LTD. |

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| DAVID | MacDONALD | CTech | DND/CFB GAGETOWN |
| TABATHA | MACGREGOR | PTech | CONTROLS & EQUIPMENT LTD. |
| RODERICK W. | MACINTOSH | CET | GNB/AGR. & AQUA. |
| RANDALL | MacPHERSON | CET | GNB/DOT |
| MICHELLE | MacPHERSON | PTech | E.J. CUNNINGHAM LTD. |
| KAREN ANN | MacVICAR | CET | MARQUE CONSTRUCTION |
| TIM | MASKELL | CTech | NB POWER |
| TYLER | MATCHETT | PTech | STANTEC CONSULTING LTD. |
| PATRICIA | MAXWELL | CET | DND/CFB GAGETOWN |
| ROBERT W. | MENZIES | CET | FORNEBU LUMBER |
| WILLARD | MILLER | CTech | NB POWER |
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| BRIAN P. | MONAHAN | CET | GNB/DOT |
| DARRELL K. | MOORE | PTech | NB POWER |
| MICHAEL G. | MOREHOUSE | CET | SELF-EMPLOYED |
| EVAN F. | MORRIS | PTech | AMEC |
| PHILIP E. | MOUNTAIN | CET | SELF-EMPLOYED |
| TIMOTHY J. | O'CONNOR | CET | DEPT OF EDUCATION |
| TONY | O'HARA | CET | NB POWER |
| WAYNE | O'KEEFE | CTech | DND/CFB GAGETOWN |
| ALLEN R. | OSBORNE | PTech | HILLSIDE CONSULTING ENGINEERS LIMITED |
| GLENN | PELKEY | CTech | NEW BRUNSWICK SYSTEM OPERATOR |
| MONIQUE | PELLERIN | PTech | PWGSC |
| COLIN A. | PERRY | PTech | AECL |
| STEPHEN J. | PIRIE | CET | KENT LINE INTERNATIONAL |
| MARY JANE A. | QUIGLEY | CET | GNB/DOT |
| JEREMY | REID | PTech | IRVING PULD AND PAPER |
| PATRICIA | REILLY | CTech | |
| SERGE | ROBERGE | PTech | HOLCIM CANADA INC. |
| D. BRETT | RODGERS | CTech | |
| PATRICK | SCOUTEN | CTech | NB POWER |
| MARIO | SERRE | CET | FACILICORP NB |
| PATRICK G. | SULLIVAN | CET | |
| COLIN | TAYES | PTech | BOURQUE INDUSTRIAL LTD. |
| DANIEL | THERIAULT | PTech | AMEC |
| THOMAS | VAN WAGONER | CTech | HINZ, A ROCKWELL AUTOMATION COMPANY |
| SCOTT | WADE | CET | MCW MARICOR |
| MONIQUE | WALSH | CET | OSCO CONSTRUCTION GROUP |
| BRIAN L. | WILSON | CET | MASTER PACKAGING INC. |
| DARREL | WORKMAN | PTech | ENERPLAN |
| SUZANNE L. | YOUNG | CET | GNB |

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| JEFF ARSENAULT | PTech | J.R. DAIGLE ENGINEERING LTD. |
| JAMIE BIRD | PTech | DEXTER CONSTRUCTION |
| KEVIN BRAKE | CTech | DND/CFB GAGETOWN/CFSME |
| JAMES BRIGGS | CTech | ROYAL CANADIAN AIR FORCE |
| NICHOLAS D. BRINSON | PTech | SNC-LAVALIN O&M |
| MICHELLE CAMPBELL | PTech | IRVING OIL REFINING GP |
| STEVEN CARD | CTech | DND/LAND FORCES ATLANTIC AREA |
| BRIAN CARLETON | PTech | |
| PHILIPPE CHIASSON | PTech | PACER CORPORATION |
| IVAN CHIASSON | PTech | BELL ALIANT |
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| ROBIN COOKE | PTech | CANDU ENERGY INC. |
| DENNIS CORMIER | PTech | |
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| HARLEY DICKSON | PTech | SAINT JOHN WATER |
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| JEREMY FARRIS | CTech | FARRIS ENTERPRISES INC. |
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| JOEL GAGNON | PTech | ADVANCED ENERGY MANAGEMENT |
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| RANDY GERAWH | PTech | CITY OF SAINT JOHN |
| AMUTA GODSWILL | CTech | |
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| JEANNOT LANDRY | PTech | ACADIAN STEEL STUD INC. |
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| RICHARD LEBLANC | PTech | IRVING PERSONAL CARE |
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NBSCETT's annual membership renewal fees are due on January 1st of each new year, and valid through to December 31st of each year.

The late payment date is January 31st; and the late payment charge is \$50.00. The Registry removal date is March 31st; and employers will be notified of 'struck off' members.

Certified/Associate members who are unemployed, are full time students, or, are permanently retired from the workforce, may apply for 80% reduction in dues, upon receipt of resumés / affidavits.

Please, help your professional Society better use the resources for education, the profession, and the promotion and protection of titles. All members are urged to notify the Society office at their earliest convenience, should they have any question / concern regarding membership; and to inform the Society administration of any changes to their employment or contact information.

Le renouvellement de la cotisation annuelle à la SttagN-B est payable le 1er janvier de chaque année et reste valable jusqu'au 31 décembre.

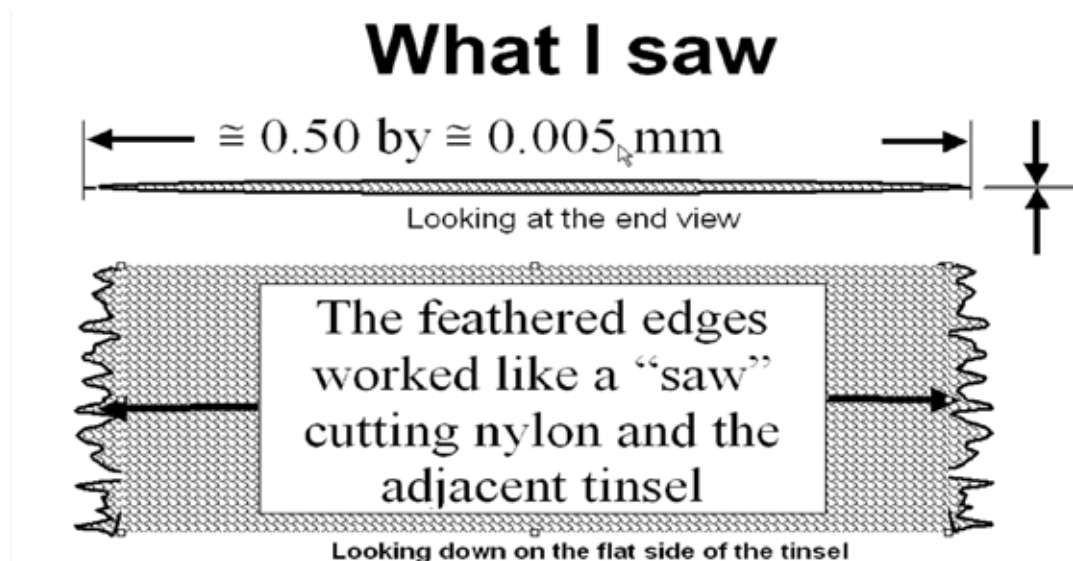
Les paiements en retard doivent être réglés au plus tard le 31 janvier et font l'objet de frais supplémentaires de 50 \$. La date de retrait du tableau de la Société est le 31 mars. En cas de radiation de membres, leurs employeurs sont informés.

Les membres agréés ou associés sans emploi, étudiants à temps plein ou inactifs de manière permanente peuvent demander une réduction de 80 % de leur cotisation en produisant un curriculum vitae et une déclaration assermentée.

Aidez votre société professionnelle à mieux utiliser ses ressources pédagogiques, professionnelles, et pour la promotion et la protection des titres professionnels. Tous nos membres sont priés de communiquer au plus tôt avec le bureau de la Société pour toute question sur l'adhésion, et de nous informer de changement professionnel ou de coordonnées.

- **A Small Detectove Story "Tinsel" - continued from page 8.....**
- and measure a short electrical pulse as it would reflect back to the TDR at the impedance change at the fault "open". I tried to mark the sheath where the open was shown by the TDR readings to be.
- As these were curly cords, this method was quickly found not to work out at all well. I had to try a different method as the effect of the spiralling caused a magnetic field that in turn caused the speed of propagation to be much slower than the speed of propagation that occurred in a straight capacitive non-magnetic cable. By experimentation, I found I could spot on the TDR any place on the curly cord that I squeezed it with a haemostat, which would increase the capacitance of the cable at one spot, in this way I could locate the fault "open" within a millimetre and mark the spot with a coloured pen.
- I used X Ray and an electron microscope (The use most graciously lent by the University of Alberta to the cause) to find that all four tinsel conductors at the break looked "ripped" apart.
- I carefully cut the insulation off the conductors at the exact fault location with a scalpel and look at the fault through my own medium-powered optical microscope to quickly find the one or more of the tinsels were dimensioned incorrectly. The correct cross sectional **rectangular** dimension of the cadmium bronze tinsel is specified as 0.444 mm wide by .0025 mm thick plus or minus 5 %.

The cross section of cadmium bronze tinsel 0.444 mm X .0025 mm



- Miles of tinsel was measured to be in tolerance, but at the faults the tinsel was "squashed" much thinner causing the edges to be feathered and "roll hardened" into an effective "saw". This saw had locked into the adjacent tinsels and cut many or all of the filaments of nylon centre weakening the cord to the effects of stretch.

After checking for the same problem in many cords I knew I had defined the problem.

Now the next step was to find the cause and solution of the problem.

- One obstacle I encountered was that all tinsel from all manufacturers looked the same and it was so small a label of any sort was not practical.
- I started to check every factory that supplied tinsel or cords to the North American telephone market.
- One by one I inspected and checked all the factories in North America, then Japan and then on to Korea.
- I finished inspecting North American tinsel manufacturers like; Northern Telecom, Western Electric, General Cable, Adirondack Cable with no progress at finding any poor quality tinsel.
- Sanyo Corporation in Japan proved to have excellent quality control systems in place. I was no closer to the source of the problem.
- It was on a bitter cold winter day I was inspecting a factory (that shall go nameless) in Puson, Korea that made tinsel on the fourth floor of a very big factory.
- I asked the same questions as I did at every other factory, "May I see the tinsel quality test results."



The quality records looked perfect, but later their quality engineer let something slip. He said, over a few after-work drinks (sometimes a loosened tongue is a valuable detection tool) that once he had to start the test over as the test cord broke as soon as started the test.

- Suddenly, I saw a big red Korean stop sign in my mind. My heart skipped a beat. I was onto something. But what, if anything would I find?
- I decided to stay at the factory to watch and test a full day's tinsel production.
- At 06:00 the next morning it was very cold in the factory. I was at the factory watching the quality engineer check the calibration of all 200 tinsel rolling machines.



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Engineering Technology Act 25th Anniversary marked with Certificate of Appreciation to Frederick C. McElman, C.M., Q.C. of Stewart McKelvy, Fredericton Since before the 1986 discussions lead to the "Engineering Technology Act" (June 18, 1986), and the independent self-governing NBSCETT/SttagN-B, Fred McElman has been the Society's legal counsel. Mr. McElman earned his LL.M. from Harvard Law School in 1979, after graduating from UNB Law School with his LL.B. the year before, and having already graduating in 1972 with a B.B.A., UNB, Faculty of Business Administration. He was called to the bar in 1978. Mr. McElman's expertise with the NFP sector is extensive as he is Past Director, NB Council of the Canadian

Bar Association; Past Chair of the Insurance Management Committee, Law Society NB, and, Past Director of the New Brunswick Law Foundation. He has also been the Board Chair and Director of Plan International Inc. (1991-2002) an international child sponsorship development agency working in 42 countries with 4,500 employees, and, the Chair of the multi-national International Board overseeing the expansion to new member countries, as well as the innovative creation of mechanisms for development fundraising, enhanced governance for effective development of services to over 1.3 million children, their families and communities, with an emphasis on development decision making at the community level and empowerment of children in decisions affecting their lives. Between 1989 - 2008 he was a Director and Chair of Foster Parents Plan of Canada, and directed the expansion of the organization to increase Canadian involvement in international development. Fred McElman has also been a Governor (1993-'96) UNB Board of Governors, as Chair Properties Committee and Chair of Audit Committee; he has also been the President of the UNB Alumni Association (1990-'93); Director Women in Transition House 1981-1983 and Chair of Personnel Committee; and was a lecturer (1985-'90) of Commercial Law for Engineers in the Faculty of Law, UNB. Among many other awards and acknowledgements Mr. McElman was awarded Member of the Order of Canada (2002) for his work in international development; and, Her Majesty's Golden Jubilee Medal. (Fred McElman (at right) receives Certificate of Appreciation from Society President Ken Geldart.)

The 2011 AGM Presidents Award presented to FacilicorpNB

Accepting the Society's Presidents Award at the Saint John offices of FacilicorpNB (photo left to right) **Mr. Derek Jardine**, FacilicorpNB VP of Information Technology; **Kirby Farris, ASCT**, Clinical Engineering Manager, accepting on behalf of his division, Society Past President **David Sheaves, PTECH**; and **Mr. David Dumont**, VP of FacilicorpNB Human Resources. Excerpt from a recent FacilicorpNB newsletter = ***The NBSCETT/SttagN-B, which Clinical Engineering Technologists are members of, awards this prize to recognize an employer who promotes and encourages certification of employees and the endeavors of the association. "It's important for us to support our employees so they may continue to improve their skills and knowledge. This allows us to continue to fulfill our mandate which is to provide safe, cost-effective and innovative support services to RHAs." said Derrick Jardine, Vice President of Technology Information and Telecommunications.***

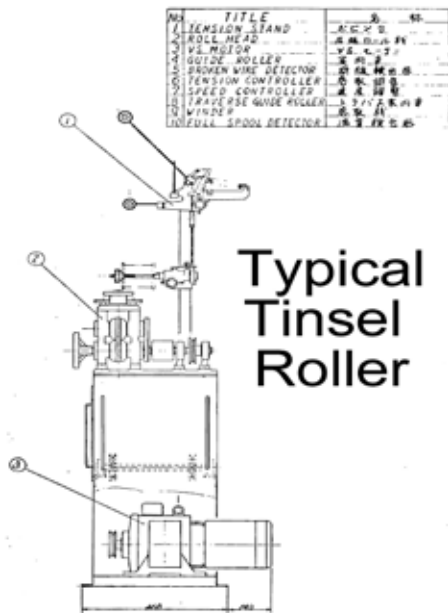


"I believe that the value of NBSCETT certification goes well beyond the certification itself, offering a credentialing baseline that other professional groups have only strived to achieve. NBSCETT Certification is a statement of an individual's commitment to a code of ethics and to life long learning. Hiring graduates of nationally accredited programs, or hiring those already NBSCETT certified helps to ensure that an individual has met a credible level of education."

Kirby Farris, ASCT, Manager Clinical Engineering / Gestionnaire Ingénierie Clinique
FacilicorpNB

- **A Small Detectove Story “Tinsel” - continued from page 16**

- The production work stated at 07:30 and at about 09:00 the sun would come streaming in the factory windows onto 15 tinsel rolling machines on the south side of the factory. The other 185 tinsel rolling machines would still be in the shade. These 15 “sunlit” machines warmed up a bit more than the rest, their rollers got bigger, by less than one thousandth of an inch and they squeezed the tinsel more than they should have done.



- This made the feathered saw edge of the tinsel instead of a slippery bearing as the cord was stretched, it became a jagged saw that sawed at the nylon and adjacent tinsel until they broke, but only in about 7.5% of the total tinsel on sunny winter (cold at set up time) days.
- We soon found that on cloudy days all 200 tinsel rollers were in specifications. All the rest of the 185 tinsel rolling machines were perfectly within specifications every day.

Corrective Action Taken

- The company fired the quality engineer for not writing up the occasional bad test result.
- The company blamed the windows and installed blinds on the windows.
- But it was too late to save the business!

Preventative Action

- The all North American Telephone companies stopped buying any more cordage from that factory and other Korean companies for several of the following years.

The End Result

- One man did not know what was “**small stuff**” and what was **important**.
 - He lost his job and hurt all Korean quality engineers’ reputations.
 - He caused 200 people to lose their jobs in one factory in Korea,
 - He caused the lost of another 2000 jobs in other Korean factories, at a yearly cost 40 million dollars due to the ripple effect of other lost contracts.
 - It took over a further **year** to find, fix and get the poor quality cordage out of the North American telephone system. Thousands of new cords were destroyed, as they were suspect not proven to have some of the tinsel made in this factory.
 - The cost was over \$1.20 billion in lost revenue and bad public relations with their customers for the telephone companies of North America.

Together we have travelled into the tinsel industry to solve “**small**” error of less than an one/one thousandth of an inch in a little product that nobody will never see... unlessyou... don’t. ...make ...itright!!!

“Don’t sweat the small stuff” “but make VERY sure it is “SMALL STUFF”

A technical article submitted by Don Cheeseman, RET - Alberta, Canada

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*No purchase required. Contest organized jointly with Primum Insurance Company and open to members, employees and other eligible persons belonging to employer, professional and alumni groups which have an agreement with and are entitled to group rates from the organizers. Contest ends on January 31, 2013. 1 prize to be won. The winner may choose the prize between a Lexus RX 450h with all basic standard features including freight and pre-delivery inspection for a total value of \$60,000 or \$60,000 in Canadian funds. The winner will be responsible to pay for the sale taxes applicable to the vehicle. Skill-testing question required. Odds of winning depend on number of entries received. Complete contest rules available at www.melochemonnex.com/contest.

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