

May 1986



## PRESENTING YOUR 1986-87 EXECUTIVE

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A new executive committee with officers and standing committee chairmen have been elected. We have filled all positions. There are many new faces on the executive, showing a strong, continued interest in A. S. Q. C.. The outgoing executive has done a good job and provided us with a varied program for the year. They have also contributed strongly to finding new people to serve on the 1986-87 Executive Committee.

The officers are:

Charles Cheun, Chairman; last year he was your Secretary, keeping full records,

Lin Humphries, Vice Chairman; last year's Chairman who provided a full program and leadership,

Deborah DesLaurier, Secretary; chair of last years Program and Arrangements Committee who put together many interesting meetings,

R. Stewart Levalliere, Treasurer; chair of last year's Publicity Committee who increased the size of our news letter,

Committee chairmen are:

Alan Smith for the Education Committee ; he is a new member of the executive,

Edmund Ratneiya for the Program Committee; he is a new member of the executive,

Gerry Heiman for the Arrangements Committee; he is a new member of the executive,

George Andrews, who will remain chair of the Membership committee,

David Tozer for the Publicity Committee; he is a new member of the executive,

Jean Pierre Amiel for the Newsletter Committee; he is a new member of the executive,

Denis Martin for both the Relations and Quality Progress Correspondent committee; he is a new member of the executive,

Len Barth, who will continue to chair the Section Management, History and Saddoris Award for the next year,

Lin Humphries for the Examining Committee; Lin's contribution is well known to many of us in ASQC,

Anthony Don, who will continue to chair the Ottawa Subsection.

Your Executive will be meeting regularly and letting you now about activities. This year we expect to make Quality Month a more significant event than it was last year. Let us see if we can get our companies involved in Quality Month.



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QUALITY MONTH:

Quality month is in October. This year we would like it to be known in Canada.

Mr Alan Smith is our representative on the Quality Month Committee and he has just returned from Toronto where he attended discussions on the subject.

Mr Claude Taylor, the Chairman of the Board of Air Canada will be the Canadian Quality Month Chairman. It is expected that FORTUNE magazine will run a special 'focus' on Quality in its October 86 issue.

If you have suggestions or wish to volunteer your help, contact Alan Smith at 430-6131.

LET'S TELL EVERYONE ABOUT QUALITY THIS YEARREGIONAL DIRECTOR:

Congratulations to Mr Liguori Lefebvre, a member of the Section Québécoise of the ASQC, he has been elected Regional Director of the ASQC.

Mr Lefebvre is a past president of the Section Québécoise.

P.O. BOX 444, POINTE CLAIRE — DORVAL H9R 4P3

NOTES ON PRESENTATION

ASQC Meeting at GM of Canada  
OR  
1 Defect in 1,000,000 Parts

27 January 1986

January's ASQC meeting was held at GM's plant in Ste Therese. It consisted in the viewing of a 60 minute videotape made by GM on the Japanese and their methods.

VERY INTERESTING ! ! !

Here are some of the items that I remember from this presentation:

- o The tape was made in 1981, by one of their engineers who lived and worked in Japan and Korea for a year.
  - o The Japanese are more productive than the Americans, typically a Japanese worker assembles 66 cars per year, an American (GM) 10 cars a year!
  - o Salaries in Japan are based on seniority and sex. A woman makes 1/2 of that of a man. A young employee makes 1/6 that of a senior employee.
  - o There are no company pension plans. You get a lump sum payment. So, Japanese save approximately 20% of their earnings a year. Americans save 3%. I believe Canadians save more..6% (?)
  - o Group/team philosophy is applicable. All employees believe that their success depends on the company's success. Therefore they make the company succeed. They even help automate their plants. Everyone wears the same uniform.
  - o If a plant is technologically obsolete it is torn down and rebuilt. Toyota built a plant and tore it down 4 years later so as to upgrade it.
  - o The Japanese remain fiercely competitive because they are afraid of the Koreans and Chinese developments. Korean steel is already coming in cheaper than Japanese steel products. Japanese steel is still much cheaper than American steel. The Koreans have learned from Japanese "errors".
  - o The Toyota plant is actually a complete community. They have concentrated all their vendors and factories in one area. This way they eliminate a lot of the costly transport and storage costs.
  - o At Suzuki, they use a lot of job shops. (So do other companies). These shops, basically "Ma and Pa" outfits, receive all the material, technological support, assistance and transportation required. They manufacture in short runs.
- A truck, running on a fixed schedule, picks-up these small runs of products from the different vendors and delivers them directly to the work station on the assembly line...NCR? What's that. Defect rates are one in a million parts.
- o Quality Circles are the thing. However, you are expected to do a lot of problem solving on your OWN time after hours.
  - o All employees are on the same team and its goal is to win. These company "teams" have been very successful as productivity improvement of 30% a year while GM is barely doing 10%.

The Society of Professionals Dedicated to the Advancement of Quality

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- o Robotics is very common. One plant, the size of the Ste Therese plant was run by 60 employees. If a problem occurs he has sixty seconds to clear it. After that the line stops.

If the line stops for more than three minutes, the signal goes up to all levels of the company and everyone participates in solving the problem. Huge billboards atop each production line indicates the constant status of that line.

- o To accomplish that, every employee has received the necessary training to operate and maintain each machine on his line. He has also participated in the creation of work instructions and manuals for the machines (ON HIS OWN TIME), and is expected to provide suggestions on improving the operations or processes.
- o The production line runs typically 5 to 6 hours. Then it is stopped, and PREVENTIVE maintenance performed. This means that equipment does not run till it croaks, as is typical in US.
- o During the introduction of new processes/products all employees are given instruction and a chance to assist in improving the design. !!
- o The Japanese are becoming more American in their dress and food. They like fast foods and jeans. Families, however, live in two or three room apartments, share a common toilet facility in the building and go to the public bath houses.
- o Unlike Americans, however, women are still a second class citizen. The company hires them young (in electronics, \$1/hr) and by the time they are twenty the company is arranging marriages for them since they are not as fast and agile. These marriages are sometimes with other company employees.
- o Japanese companies which have built plants in the states have achieved the same rate of productivity as in Japan. There goes the myth that their success is because of their culture or social structure.

The above notes indicate that there are many things that can be learned from this videotape or the Japanese way of doing things. Starting with communicating. This is the first step.

J.P. Amiel  
Canadian Marconi Co

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:
:          CONGRATULATIONS !!!!
:
:          WE WISH TO CONGRATULATE OUR
:          NEW CERTIFIED QUALITY ENGINEER
:
:          Mr Bruce SINNOTT, Plant Manager
:          CHAMPLAIN CABLE CORP
:          WINOOSKI, VERMONT
:
:          Bruce wrote the CQE exam in December
:
.....

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**NEW MEMBER CORNER**

The Executive Committee and all members  
of the ASQC, Montreal Section, welcome  
YOU in the 'Quality' family:



JANUARY NEW MEMBERS

- |  |   |
|--|---|
| 1. Michel Banil<br>QA Director<br>Bombardier Inc.<br>Lapocatiere, Que.       | 2. Serge Benard<br>Plant Manager<br>Alcan Bldg Products<br>Anjou, Que.        |
| 3. Vlastimil Blazek<br>QC Manager<br>Dectron<br>Montreal                     | 4. Jacques Bonin<br>Sibbec Dosco<br>Montreal                                  |
| 5. Lahcen Boukhriess<br>QA Technician<br>Jamesbury Canada<br>Ottawa, Ontario | 6. Alain Chagnon<br>Manager Metallurgy<br>Sibbec Dosco<br>Montreal            |
| 7. Ivan Morse<br>Quality Manager<br>ITT Flygt Can.<br>Pointe Claire, Que.    | 8. Michael Nameth<br>Quality Analyst<br>ITT Flygt Can.<br>Pointe Claire, Que. |

FEBRUARY NEW MEMBERS

- |   |  |
|---|--|
| 1. Vernon K. Graham<br>QC Supervisor<br>Phillips Cables Ltd.<br>Dartmouth, N.S. | 2. Erich F. Kohn<br>Director QC, R & D Lab<br>Rol Mfg. Canada Ltd.<br>Quebec                     |
| 3. John D. McLeod<br>Quality Manager<br>Michelin Tires<br>Kentville, N.S.       | 4. France Montgrain<br>Ass't. QC Manager<br>Polylab Div., Christie Group<br>St. Eustache, Quebec |
| 5. Salim Ramji<br>Software QA Engineer<br>Canadian Marconi<br>Montreal, Quebec  |  |

MARCH NEW MEMBERS

- |   |   |
|---|---|
| 1. Thomas Bass<br>Sr. Analyst<br>Bell Canada<br>Montreal, Quebec                                  | 2. Jacques Bonin<br>QC Supervisor<br>AES Data Inc.<br>Montreal, Quebec                        |
| 3. Tony Calabres<br>QC Supervisor<br>AES Data Inc.<br>Montreal, Quebec                            | 4. Steve Chan<br>NC Programmer<br>CMR Circuits Ltd.<br>Montreal, Quebec                       |
| 5. Zaven Deyirmendjian<br>Project Engineer<br>Northern Telecom Canada Ltd.<br>St. Laurent, Quebec | 6. Dat Huynh<br>Quality & Reliability Engineer<br>Mitel Semiconductor<br>Bromont, Quebec      |
| 7. Brian MacKenzie<br>QC Supervisor<br>Ship Repair Unit Atlantic<br>Dartmouth, N.S.               | 8. Michael McDonnell<br>Product Assurance Manager<br>Canadian Astronautics<br>Ottawa, Ontario |
| 9. Allen McWilliams<br>Technical Coordinator<br>Co-op Atlantic<br>Moncton, N.B.                   | 10. Darryl Roode<br>QC Supervisor<br>Ship Repair Unit Atlantic<br>Bedford, N.S.               |
| 11. Frederick Taylor<br>Engineering Manager<br>Godfrey Div. Howden Canana Ltd.<br>Montreal        | 12. Ricardo Tozzi<br>Manager Quality Assurance<br>AES Data Inc.<br>Montreal                   |
| 13. Leslie Vinton<br>Quality Engineering Specialist<br>Ontario Hydro<br>Toronto, Ontario          |   |

QUALITY EXPO TIME

APRIL 22 TO APRIL 4, 1986

CHICAGO, ILLINOIS

This year again, Quality Magazine, sponsored its 6th Annual QUALITY EXPO TIME, a series of conferences and a large trade show of equipment and systems.

The show consisted of three halls at the Chicago O'Hare Expo Center filled aisle to aisle with various test, inspection, measurement and evaluation equipment and software vendors. It seems that all those involved in the domain of Quality were present. As I had the opportunity to attend the presentations and the conferences at this exposition, I would like to give you a feel for this event.

A. Key-note Presentations:

1. Total Quality: The Corporate Improvement Vehicle (Dr A. O. Gunneson, Chairman & Chief Executive Officer, The Gunneson Group International, Inc)

A most lively presentation in which we were told that the problem with American industry was the lack of Chief Executive Officers' (CEO) or Presidents' presence in Quality matters.

He concentrated his talk on the amount of time wasted within the organization, specifically "...doing things which should'nt have to be done...", by his conservative estimate a good 40% of the employee's time (Think of the \$\$\$ lost).

Like most of the speakers at the conferences, he re-iterated that any form of Quality improvement MUST start with a commitment from the CEO, and each company must create its own process particular to its business for improvements to succeed.

2. Quality's Impact on Defense Readiness (Mr E. D. Ellis, Deputy Executive Director of Quality Assurance of the US Defense Logistic Agency)

If the US military buy it, his group inspects or tests it, and they buy \$12 Billion a year of consumer goods on 30 Million purchase orders. There are also 7,000 Defence Contract Administration Services (DCAS) employees administering over 317,000 contracts for \$68 Billion of defence purchases. Of all these, about 50% are done by subcontractors. It is because of this that they are now ensuring that major contractors exercise better controls on all their sub-contractors. To achieve this, they have initiated training of DCAS personnel and are doing reviews of contractors, so far 76% of the Quality plans that were verified were rejected as inadequate.

Here is a brief summary of the inadequacies found;

- a. Some Quality programs neglected to verify Purchase Order Quality clauses inclusions,
- b. Supplier evaluations were not being performed,
- c. Receiving inspection was not adequate,
- d. Lack of self-review mechanisms,
- e. Scrap & Rework Cost analysis not performed.

Waivers and Deviations will not be accepted by the US anymore since they represent acceptance of non-conforming material, similarly Material Review Board activities will be avoided. In future the US will be requiring that Statistical Process Control (SPC) be implemented by its subcontractors to improve the Quality of the procured items.

3. How to Compete with Japanese Manufacturers in Four Difficult Lessons (V. L. Beals, Chairman of the Board & CEO of Harley Davidson Motor Co, Inc.).

Mr Beals told of how his company had to make radical staff cuts and nearly had to close down due to the extreme competition they suffered from Japanese motorcycles. At one point the Japanese were introducing one new model EVERY week.

Eventually the company tried the 'Japanese way', they introduced Quality Circles and trimmed the operations by concentrating on one product line (Large engine cycles) which they proceeded to improve and use as the 'flagship' of the company. They eventually introduced Just In Time (JIT) procurement, obtained the necessary Management Commitment towards Quality and finally implemented SPC. They are starting to show a turn-around, their market share has come back up to 20% from 5% that it had fallen in 1980. He then concluded by stating that it would have been faster had they obtained Management Commitment from the start.

B. Conferences:

1. Mr L.J. Schrader of FMC Corp. (Ordnance Div. Eng'g) explained that his company finally implemented Quality Cost review in the engineering as a measurement for process control. He showed how a \$1 error not corrected at the drawing board could cost \$1,000 to correct in the field and even as much as \$1,000,000 if it became part of a judgement from a lawsuit.
2. Mr D.C. Anderson, the inventor of 'Pink Poly' used to protect electronic equipment from electrostatic discharge damage (ESD), explained in a 'Vaudeville-like' style what ESD was, how it was created and what its impact on product Quality was. A most entertaining and educational presentation.
3. "Quality suffers and so do profits when decisions cannot be made on time", so said Mr J. Houston to explain the principles of 'on-line' or 'real-time' data acquisitions for shop-floor processes. He then further explained what Henry Ford had meant when he said "If you need a new machine and you don't buy it, you pay for it without getting it" (Chew that one for a while).
4. Mr J.P. Doege presented his various impressions on the Quality software packages and the computer hardware available to those wanting to implement computerized Quality systems. Briefly, FIRST select the software package that does what you want to achieve and THEN look for the computer hardware and options that will make it work.
5. Those involved in the manufacturing of electronic equipment for Defence contracts for the US were told that the US will soon require that this equipment be Environmentally Stress Screened (ESS). This was first introduced by Mr E.D. Ellis in his presentation (see above), and then discussed by Mr M. A. Huizinga, a 'chief' in the Product Assurance Directorate of the US Army Armament, Munitions and Chemical Command (AAMCC).

Because the US Army has found that in some cases the defect rate of Integrated Circuits may be as high as 11%, they decided that it was cheapest to find infant mortality type failures at the supplier's plant. On the contracts evaluated, the savings to the military, resulting from the implementation of ESS, about \$920 Million (!!!).

They ran some tests on various combinations of temperature and vibration to obtain the optimum ESS combination. Basically, the product is powered-on for about 20 minutes while being subjected to 8 cycles of random vibration and temperature changes. This is done at selected levels of the assembly process (sub-assembly, module and system). Typically, the traditional final system burn-in finds about 50% of latent defects, ESS has been shown to be 85% successful in 'weeding-out' pinched or loose wires, bonding failures, cold solder joints, loose and defective parts, etc.

This requirement is already showing up on new US Army contracts and it is expected to 'spread' to other Defence agencies. It is believed that the cost of the equipment would be quickly recovered by the savings in lost material and time by both the supplier and the US.

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From :



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