



Total Quality Management Bulletin

INDUSTRY, SCIENCE AND
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BIBLIOTHEQUE

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ISTC/AIAC Aerospace Total Quality Initiative Update

Our November 27, 1991, planning session came off extremely well. Over 30 companies were represented and everyone had something to contribute. ISTC gave an overview of the Survey 1991 findings and recommendations which was followed by presentations by Tai Wai Li of Andersen Consulting and Andrew Campbell of Campbell & Associates. We then broke out into focus groups to discuss and formulate recommendations. The four groups were lead by Tai, Andrew, Peter Rethazy of Garrett Canada, and Sud Jain of Vadeko International. Our thanks to these four for their enthusiastic and able assistance.

What did we accomplish? Well, the report recommendations were reviewed, reaffirmed and expanded upon. Some excellent suggestions regarding need and approach were provided by attendees and this input will be helpful in furthering our initiative. Of course, sector companies are at various states of TQM awareness and implementation and, to the extent that it is possible, this has to be taken into consideration when developing our strategy. This will present a challenge when it comes to prioritizing the recommendations and further close consultation with sector representatives will be required before any final decisions are made.

What are we looking at? First and foremost, a means of achieving management buy-in, not just tacit agreement but **total and sustained management commitment**. Next, we hope to be able to devise a means of assisting companies in identifying their TQM implementation requirements. Finally, the means of meeting those requirements, training, seminars, various types of manuals to provide implementation guidance, best practices surveys, benchmarking, case studies with

lessons learned, and methods of networking to mention the main ones.

What's our schedule? Nothing firm yet but we are committed to proceed with this initiative as quickly as possible consistent with available resources, both personnel and financial. Expect us to be more definitive in the May issue of this Bulletin.



For Your Calendar

- *Taking TQM to the Bottom Line: Making World Class a Reality* is the theme of the QPMA Spring 1992 TQM Conference to be held March 23-26, 1992, at the Holiday Inn Crowne Plaza, Redondo Beach, CA.

Several pre-conference sessions are planned and will include topics such as Getting Started in TQM, Benchmarking, and Quality Assessment Using Baldrige. Two and one-half days of parallel sessions will deal with important issues such as Integrating TQM and Strategic Planning, Surveying Customers and Employees, and Utilizing Technology and Innovation. These sessions will be interspersed with three keynote and two luncheon speakers who will share lessons learned as well as thoughts/plans for the future. Call 1-708-619-2909 for more information.

- The 2nd ANNUAL TQM SEMINAR FOR AEROSPACE AND DEFENCE will be held April 6-8, 1992, at the Sheraton Hotel, Harbor Island, San Diego, CA.



Aerospace Industries
Association of Canada

Association des Industries
aérospatiales du Canada

Sponsored by the Aerospace and Defence Industry and hosted by General Dynamics, Missiles and Electronics Group, this seminar boasts ten comprehensive workshops, extensive exhibit shows, and noted DoD, Union and Industry speakers, including Dr. Peter F. Drucker, noted business management consultant and author.

Participants will have the opportunity to learn the essential tools of lean manufacturing and discover key insights of TQM implementation utilized by industry and government experts. Call 1-714-954-7612 for more information.

- The American Society for Quality Control will hold its 46th Annual Quality Congress, May 18-20, 1992, at the Opryland Hotel in Nashville, Tennessee.

Those who come early can attend one of six scheduled pre-conference tutorials covering topics such as Team Building, Concurrent Engineering, and SPC. Stephen Covey, author of *Seven Habits of Highly Effective People* will give the keynote address which will be followed by two days of parallel sessions with something for everyone. There will also be more than 100 exhibitors in attendance. Call 1-414-272-8575 for more information.



Quality Links

There are many sources of total quality-related information, technologies and services throughout North America. Our intent is eventually to prepare and distribute a comprehensive Total Quality Source Guide for our readers. In the meantime, everyone should be aware of the role and services of the following non-profit associations:

Canada Quality Council

The CQC was established in 1989 to provide an umbrella organization to represent the views of the various quality-related associations and societies operating in Canada. The mission of the CQC is "to foster global competitiveness through the advancement of Total Quality." Membership in the Council includes most chapters of the ASQC, the AQQ, the AQP, and the Statistical Society of Canada, with several provincial quality councils having expressed interest in joining.

The CQC is responsible for the coordination of National Quality Month in Canada as well as providing support for the adjudication process of the Canada Awards for Business Excellence Total Quality Award.

For more information contact Wayne Levin, Managing Director, 1-416-398-8900.

Association Québécoise de la Qualité (AQQ)

The Association Québécoise de la Qualité (AQQ) is a non-profit organization that was established by companies and private individuals concerned about introducing and promoting total quality management in Québec. Supported by the government of Québec, as well as businesses and professional associations, the AQQ numbers 500 individual members and 276 corporate members. It has a permanent business office with 3 full-time staff, and an administrative council made up of 21 members.

The AQQ provides a forum for members to exchange ideas and information, (regional conferences, annual congress), opportunities for training and skill enhancement with respect to quality matters, a directory of members, as well as publications and video documents and individual and corporate subscriptions to *Qualité* magazine.

AQQ is headquartered in Montreal and has chapters throughout Quebec. For more information contact Mr. Andre Turgeon at 1-514-353-7191.

American Society For Quality Control (ASQC)

Founded in 1946 to provide leadership in the development, promotion and dissemination of quality-related technologies. The ASQC is anchored by more than 700 corporate sustaining members and more than 70,000 individual members and is the administrator of the Malcolm Baldrige National Quality Award.

The ASQC is headquartered in Milwaukee, Wisconsin and has local chapters throughout Canada. Call 1-800-248-1946 for an information package.

Quality and Productivity Management Association (QPM)

The QPMA was founded in 1979 as the APMA (American Productivity Management Association). Their mission is: "To encourage, facilitate and serve as a catalyst for improving organizational effectiveness in productivity, quality and customer satisfaction." The QPMA places strong emphasis on networking of quality experts and has two conferences per year, one in the spring and one in the fall. They also have Councils located in eight geographic areas which meet bi-monthly to provide local networking between national conferences.

QPMA headquarters is in Schaumburg, Illinois and the Association has over 1,000 corporate and individual members. More information on this Association can be obtained by calling 1-708-619-2909.

Association For Quality and Participation (AQP)

The AQP is an excellent source of the entire range of quality information with particular emphasis on employee involvement and self-directed workteams. The Association organizes two conferences every year and has local chapters

throughout North America. The AQP was founded in 1977, has over 8,000 members and has its head office located in Cincinnati, Ohio. More information on the AQP can be obtained by calling 1-513-381-1959.

American Productivity and Quality Center (APQC)

The APQC is a membership organization that works with business, labour, government and academia to improve productivity, quality and quality of work life. The Center has support from over 350 founders, sponsors, and members and provides a broad range of advisory, research and information services. The APQC was co-administrator of the Malcolm Baldrige National Quality Award from 1988 to 1991.

APQC was founded in 1977 as the American Productivity Center and is headquartered in Houston, Texas. Call 1-713-681-4020 for more information.



Considering an Investment in AMT? Here's Help

ISTC's Information Technologies Industries Branch (ITIB) has just published an excellent guide that is aimed at executives of small- and medium-sized Canadian manufacturers. The guide is intended to help the executives make informed decisions about investing in Advanced Manufacturing Technology (AMT).

Entitled *The Competitive Enterprise: An Executive's Guide to Investing in Advanced Manufacturing and Processing Technology*, this easy to use guide was developed by ITIB in collaboration with Deloitte & Touche Management Consultants and with the participation of several target clients. The step-by-step method proposed in the *The Competitive Enterprise* has been very well received in the companies where it was pilot tested and at a recent seminar based on the publication's content.

This guide is a must for those of you considering new AMT investments. A limited supply of *The Competitive Enterprise* is available from ISTC business service centres or from ITIB's Pierre Gautreau at 1-613-954-3467. While quantities last, the guide will be available free of charge, so call right away.



Sharing

Commencing with this issue of our Bulletin, we will report on Total Quality experiences and practices of sector companies. This will be your forum for communicating lessons learned and ideas on TQM and productivity issues to others. Its success depends on your contributions. First

off the mark is Allied-Signal Aerospace Canada, Garrett Canada who have given us permission to print the following excerpts from the December 1991 issue of their **Customer Focus Bulletin**:

Customer Advocate Program

In November, we launched our new initiative: our Customer Advocate Program.

This program is designed to provide Executive Management exposure to Customer needs and expectations and to provide a basis such that a rating of Garrett Canada's fulfillment of these needs and expectations may be generated. These ratings will be used to identify areas where action by Garrett Canada is required to ensure a satisfied Customer.

Garrett Canada's Customer Advocate Program is a key element in achieving Customer satisfaction through actions that are clearly visible to both Customers and the Company. Customer satisfaction is the main element in defining Garrett Canada's mission and in achieving the mission goal.

How does the advocate program work?

Each management advocate has the assignment to determine through personal contact what we need to do to satisfy that Customer. In determining Customers' perceptions of Garrett Canada, areas where opinions should be sought include: Quality, Delivery, Technology, Pricing, Aftermarket Services, Technical Support/Problem Solving (customer and field service, training, publications, etc.) to mention but a few.

Customer Advocates will provide quarterly reporting on Customer Satisfaction status and will inform key members of the Management Team at regular meetings.

Customer Focus: Mini Self-Analysis

Quality, Customer Satisfaction and Total Quality Management (TQM); more and more we hear these words, but could we just pause, sit back and take a minute or two to answer these questions:

- What does Quality mean to me?
- Who are my internal and external Customers?
- What do my Customers need?
- How do I communicate with my Customers?
- Who are my Suppliers?
- Do they know what my needs are?

Has Garrett's strong emphasis on customer focus really worked? Well, read the following excerpt from the January, 1992, issue of Allied-Signal Aerospace Company's "Horizons" magazine and judge for yourself:

Northrop Award Is Singular Achievement For Garrett Canada

Allied-Signal Aerospace's Garrett Canada has received Northrop Corporation's Quality Key Award, marking the first time the award has been presented to a supplier outside of the United States.

The award recognizes the division as an outstanding supplier of quality products to Northrop's Aircraft Division with an on-time delivery and quality rating above 99 percent.

"I attribute this success to our Total Quality Management philosophy which has focused our employees on satisfying the customer," said Garrett Canada president Ken Kivenko.

Only some 70 of Northrop's approximately 850 suppliers have achieved this performance milestone.

By receiving the award, Garrett Canada now is permitted to act on Northrop's behalf in final acceptance of products destined for Northrop programs.

Also eliminated is the need for Northrop to conduct source inspections at the division.

If any of you would like to learn more about Garrett Canada's approach to TQM give Peter Rathazy, Manager TQM, a call at 1-416-798-6699.



Total Quality Management and Quality Assurance Standards

Many people today are asking which way should we go with our quality program. Should we be working toward a specific Quality Standard, i.e. Z299 or ISO 9000, or should we be into Total Quality Management?

Quality management has evolved through three phases: Inspection Oriented Quality Control, Process Oriented Quality Control, and Total Quality Management. Many companies are still in the first two phases.

In the first phase, Inspection Oriented QC, the goal was to prevent the shipment of nonconforming products, largely through the efforts of the Quality Control department. Concerns were raised during this phase. It was impossible to be 100% effective, there was a delay or no feedback to manufacturing on quality problems, and QC were police rather than helpers. It was recognized that problems could be prevented by controlling the process involved in the manufacture of the product and it was much more economical and effective to prevent problems than find them.

This led to the next phase, Process Oriented QC. The goal with this approach was to control the manufacturing process thereby eliminating the root causes of the non-conformances. This process also began to involve other departments that affected the manufacturing process - purchasing, production engineering, marketing, and subcontractors. However there were also concerns with this approach. It did not address the design of the product, nor did it focus on the customer needs and expectations. There were many other areas in the business that were not being addressed but did impact quality in major ways.

Total Quality Management evolved to respond to the additional requirements. The goals are to meet customer needs/expectations, to provide an enjoyable and challenging environment for employees, to give adequate profit for stockholders, and to be a responsible corporate citizen. Total Quality involves participation of all functions, company-wide; new product planning, design, research, manufacturing, accounting, human resources, and labour relations. It also embodies the concept of continuous improvement for all functions.

An integral part of a Total Quality program is a Quality Assurance system. Management cannot manage if there is no system of checking. Product and processes must be clearly specified to ensure control and then an audit procedure is put in place to ensure conformance with specified procedures. There are several concerns, however, with using a Quality Standard (such as Z299 or ISO 9000) to design/develop a Quality Assurance system rather than designing a QA system to fit into a Total Quality program. Standards are focused on specifications, not on customer needs/expectations. No standard is complete enough. Even if a standard is strictly followed, non-conformances exist. Quality programs should be prevention oriented to determine the root causes and correct them so that non-conformances do not occur. Many areas affecting quality are not covered by the standard, such as financial, human resources, personnel, research, etc. While a quality standard is an excellent guide to assist in developing a QA program, these concerns must also be addressed.

The challenge to managers is not to decide on Quality Standards or Total Quality Management but rather how can they develop a QA program that integrates with a Total Quality Management system.

Editor's Note: The above article appeared in a recent issue of the University of Waterloo's Institute for Improvement in Quality and Productivity (IIQP) Newsletter and has been reprinted with the permission of its author, Mr. Dennis Beecroft. Mr. Beecroft is Managing Director of the IIQP and an Examiner for the Canada Awards for Business Excellence Total Quality category.

The Institute at the University of Waterloo was established in 1985 as a non-profit organization to provide training and consulting to business and industry in quality improvement. It provides both public and in-house courses. Their areas of expertise include: statistical methods, experimental design,

statistical thinking, total quality management, cost of quality, and working with teams to support total quality. Mr. Beecroft can be reached at 1-519-888-2146.



SOMETHING TO THINK ABOUT

The significant problems we face cannot be solved at the same level of thought we were at when we created them.

Einstein

Editor's Note: Those of you who may not think this applies to the ordinary guy should remember that everything is relative.



Canada Awards For Business Excellence

The Canada Awards for Business Excellence (CABE) program was created in 1984 by the Government of Canada to honour businesses in all industry sectors for their outstanding achievements. These coveted awards have since become synonymous with the best in Canadian business.

The 1992 Canada Awards for Business Excellence will honour achievement in eight categories: Entrepreneurship, Environment, Industrial Design, Innovation, Invention, Marketing, Small Business and Total Quality. The awards will be presented on October 28, 1992, in Ottawa.

Benefits of Competing

Participating in the Canada Awards for Business Excellence competition is a productive and rewarding experience. Many entrants have reported that preparation of the application itself was worthwhile because it required a thorough examination of the company's strengths and presented opportunities for further improvement. As well, focusing on the company's accomplishments significantly enhanced team spirit.

Each 1992 entrant will receive a complimentary copy of a research report on Total Quality compiled by the Conference Board of Canada on behalf of the Canada Awards program.

Entries must be received by close of business, Wednesday, April 8, 1992, so you will have to act quickly. Call your

CABE representative at 1-613-954-4079 for more information.



The Quality Gurus

"Improve quality and you automatically improve productivity. You capture the market with lower price and better quality. You stay in business and you provide jobs. It's so simple".

W. Edwards Deming

W. Edwards Deming, Joseph M. Juran and Philip B. Crosby are generally recognized as the Big Three in total quality consulting. Although these master motivators differ somewhat in their respective approaches, their basic doctrine is the same: in brief, quality improvement is a never-ending process to which the entire organization must be committed.

Deming is credited with pioneering Total Quality Management in the late 1940's and early 1950's. Statistical methods form the basis of his approach which served the Allies well during the war but was pretty much ignored after. In 1950 he went to Japan to spread his message to business leaders over there. They listened to what he had to say and the rest is history. Deming's 14-point program for managing productivity and quality is set forth in detail in his book *Out of the Crisis* which is one of the classics of TQM.

Joseph Juran also has a background in statistics although he emphasizes quality as a "discipline of management, analogous to finance". Like Deming, he was also invited to Japan (1954) where his ideas received enthusiastic response. He is a strong advocate of employee involvement and contends that management is responsible for 80% of all quality problems (Deming puts the figure at 85%). To assist management with change, Juran developed his "Quality Trilogy" which consists of three basic quality oriented processes: quality planning, quality control, and quality improvement. His contribution to the library of TQM classics is his *Quality Control Handbook*, the first edition of which was published in 1951.

"Zero defects" is Philip Crosby's battle cry. He claims that "the problem with statisticians is that there's no zero in statistics". He is a formidable motivational speaker whose 14-step approach is non-technical but provides an excellent structure to get an organization started in quality improvement. Crosby's ability to focus on behaviour among people helps to adjust their attitude toward quality. His four "Absolutes of Quality Management" and 14-step

approach to implementation are detailed in his books *Quality is Free*, written in 1979, and *Quality Without Tears*, written in 1984.

There are, of course, many other quality notables and we will discuss them in future issues. One that should be mentioned now, however, is Armand V. Feigenbaum who is generally credited with coining the term *Total Quality Control* when he published a book of the same title in 1951. Feigenbaum, at one time, was General Electric's top quality expert and now has his own quality consulting firm. He believes that "quality has been crucial to the industrial strength of the United States" and although gains are being made there is still a long way to go. To Feigenbaum, "accelerating the rate of quality improvement is the single most important competitive challenge facing the United States."

Speaking of quality notables, the following credo is posted on the walls of J.C. Penny stores throughout America:

The J.P. Penny Idea

(Adopted 1913)

To serve the public as nearly as we can to its complete satisfaction.

To expect for the service we render a fair remuneration and not all the profit the traffic will bear.

To do all in our power to pack the customers dollar full of value, quality and satisfaction.

To continue to train ourselves and our associates so that the service we give will be more and more intelligently performed.

To improve constantly the human factor in our business.

To reward the men and women in our organization through participation in what the business produces.

To test every policy, method and act in this wise: "Does it square with what is right and just?"

**NOW, WILL THE REAL FATHER OF TQM
PLEASE STAND UP!**

