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Looking Back:

Ship Repair Unit Atlantic — Changing 200 Years of Naval Dockyard Culture through Total Quality Management

By Capt(N) (Ret'd) Roger Chiasson, CNTHA East Coast Coordinator
(An edited excerpt from *Cape Bretoner at Large* – See MEJ 86, p. 27)

In the summer of 1990, I was posted as Commanding Officer of Ship Repair Unit Atlantic (SRUA) in Halifax, the organization that six years later would absorb Naval Engineering Unit Atlantic (NEUA) and Fleet Maintenance Group Atlantic to become Fleet Maintenance Facility Cape Scott, the largest military industrial facility in Canada. Up to that point I had held many great jobs in the Navy, but this far exceeded anything I had done before. In terms of job satisfaction in the field of naval engineering, commanding an organization of 1500 civilian dockyard workers would turn out to be the highlight of my career.

I have to say that when I was told that I was going to command the dockyard, I had very mixed feelings. Naval dockyards had always had a love-hate relationship with the Navy, something I experienced first-hand during my time as an engineering officer aboard the destroyers. There was no question that they did good work — dockyard workers accumulate their in-depth knowledge and skills through an apprenticeship program and many years as journeymen tradespersons — but they had a reputation for poor productivity. I was also aware of the poor labour-management relations in the dockyards. The management was old-fashioned and autocratic, and the trade unions were militant.

As the date approached for me to assume command, I started thinking about how I might turn things around in an organization that was steeped in a culture created over the more than two centuries since its beginnings as a Royal Navy dockyard in 1759. I knew it would be akin to altering the course of a 500,000-ton oil tanker using a rudder the size of a briefcase, but if successful, the payoff could be huge.

At the time that I assumed command, I had developed a keen interest in a concept called Total Quality Management (TQM). I had been involved for most of my career in some aspect



(Above and right) Halifax Naval Dockyard in the 1960s.

of quality assurance, and naturally gravitated to what seemed to be the latest development in the field of quality. I soon learned that there was a lot more to TQM than quality assurance, and I was taken by an adage that I had heard: "Quality assurance is about the management of quality, while TQM is about the quality of management." In fact, I was about to learn that TQM was more about leadership than management, and about more than product quality.

The first thing on the agenda after I arrived in the unit was to get to know the members of my staff and take stock of how the dockyard worked. The idea was to take the pulse of the



FCN photo

organization and to start thinking about whether or not a TQM initiative was a viable undertaking in an organization that had built up so much inertia in the way it had conducted its business for over 200 years. As I settled into the job, I made the decision that the last thing they needed from me was any guidance or instruction on how to repair ships. Their professionalism was not in question. I did conclude, however, that what the place needed was new vitality. I couldn't quite put my finger on what was needed, but I felt an urge to light a flame under the organization to move it to greater things.

About three weeks in, as I was pondering what to do to kickstart things, Maritime Command was urgently tasked to deploy three ships to assist in the United Nations blockade of Iraq following that country's invasion of Kuwait in August of 1990. The Canadian task group would consist of the Improved Restigouche-class destroyer escort HMCS *Terra Nova* (DDE-259), the Tribal-class destroyer HMCS *Athabaskan* (DDH-282), and the naval resupply vessel HMCS *Protecteur* (AOR-509). These ships were getting on in years, but a decision was taken to outfit them with some of the modern war-fighting equipment that was lying in warehouses and waiting to be installed in the new Canadian Patrol Frigates that were under construction. It was a bold, risky plan, especially as we were given what seemed like the impossible task of having to accomplish six months' worth of work in just two weeks.

What followed was a frenetic level of round-the-clock activity within the NEU — an internal naval engineering consulting organization — and the SRU. Formality was thrown out the window, but safety and quality were never compromised. Engineers from the NEU were on board talking to tradesmen, and sketching instructions by hand on scraps of paper. Cranes and welding torches worked 24 hours a day until the ships were ready. My supply officer in the SRU slept in his office most nights, and supervised the arrival and distribution of tons of materiel that was arriving at all hours of the day and night. Meetings were held several times a day to plan, set priorities and review progress. When we finally watched the ships sail out of Halifax Harbour on August 24, we realized just how brilliant this bold endeavour had been.

Things soon returned to normal, and part of my strategy as I contemplated the way ahead for the SRU was to keep alive the obvious sense of pride that I had seen in the dockyard workers

during those remarkable two weeks. In addition to the pride for country and pride of workmanship, I knew that the process of getting the ships ready on such short notice had given the workers a taste for freedom from the bureaucracy and antiquated management practices that had prevailed until then.

One day, while I was discussing TQM with my QA manager, he mentioned that his staff had all taken a course a few years before from the Juran Institute. He showed me the course material, which looked like it might be useful, but he said that nothing had ever come out of the knowledge that the QA staff had garnered during the course. I concluded from my brief exchange with him that significant change had to be directed from the leadership of the organization, and that getting one small part of the organization fired up with new ideas was doomed to failure without that leadership and commitment. In this case the leadership had approved the expenditure for the training, but had not "bought into" what the course could do for the organization as a whole.

The discussion I had with the QA manager planted a seed. I looked into the Juran Institute and was impressed with what they had to offer. The company was named after and headed by Joseph Juran, one of the US post-WWII pioneers who, along with W. Edwards Deming, introduced Japan to the principles of quality assurance and continuous improvement.

The first step in our journey was to ask the Juran Institute to run one of its "Making Quality Happen" seminars in Halifax. The seminar was conducted over three days in a downtown hotel. My senior staff and I attended, along with a few candidates from other local organizations. My motive for inviting others was a selfish one. I was hoping that we might ignite a flame under other bureaucracies to change the way they conducted their business, and to generate a multiplying effect in whatever it was we were embarking on in the dockyard.

That seminar changed my life. I was impressed with the way in which the Juran Institute structured the seminar. Prior to the formal classroom sessions the Juran consultant met with each candidate and asked a few key questions: What is your definition of quality? What do you hope to gain from the seminar? and, What is your definition of leadership? The consultant had been a key player in the Ford Motor Company's "Quality is Job 1" initiative, and was therefore very knowledgeable, and had the necessary credibility to preach the virtues of TQM. The combination of the seminar and the incredible job the dockyard had done for the Gulf War literally fired up our dockyard leadership team with not only new ideas, but also with the tools with which to transform our organization.

Our senior leadership team was made up of the Production Commander and the Planning Officer (both naval commanders), the three senior civilians, each in charge of one of the sections of the Production Department, and a civilian Administration Officer. This group had always met on Friday mornings for a staff meeting, but we now had a renewed sense of purpose. We formed a Continuous Improvement Council (CIC), made up of the same individuals, whose agenda was to lead the TQM initiative. At first our Friday meetings alternated between the staff meeting and the CIC agendas, but eventually the two agendas melded into one.

It was important that we not rush into TQM. We had learned that organizational transformations take time, and that one of the greatest hurdles to overcome is the fear of change. Also, TQM had developed a bad reputation as another term for layoffs, or what had become

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known as “downsizing.” Although we were well aware that the dockyard was inefficient, our goal was not to lay people off. Rather, we wanted to be able to do more work for the naval fleet, since the demands on our resources were always greater than our capacity.

The CIC deliberated for over six months before we formally launched a dockyard-wide TQM initiative. Those months were spent strategizing and planning our implementation. We examined a number of options for additional training that we knew would be required for a disciplined approach. Although we had chosen the Juran Institute for our initial senior leadership training, we shopped around to see what other companies were offering. In the end, we decided to continue with the Juran philosophy, and used their guidance and their tools for kick-starting the overall project.

One of the first challenges was to identify the “wastage” in the organization. Juran had a very clever way of emphasizing that every organization produced waste, which was a measure of the inefficiencies inherent in the way it operated. One of the graphics they used to illustrate the idea was a large picture of a factory, with a smaller picture of the “waste factory” beside it, implying that inefficiencies were similar to setting up separate facilities to consume resources without doing any useful work.

The problem we faced was that our currency in the dockyard was the man-hour, and not the dollar. Our output was approximately one million man-hours per year, and although we knew what the salary expense was for the unit, we had no idea how efficient or how productive we were. In fact, there had never been any emphasis on productivity, even though our customers always thought we should be more responsive to their needs. Everyone assumed that there were simply not enough resources to satisfy the demand, and that there was nothing anyone could do to improve the situation, except perhaps throw more people and money at the problem.

Juran’s emphasis on the team approach and project discipline was based on the concept that changing the leadership and management process leads to a change in attitudes, which in turn leads to culture change. The new culture embraces change, empowers workers to do the right thing because it is the right thing to do, and instills responsibility and accountability in each individual, as opposed to just the supervisors and managers.

Two Oberon-class submarines alongside in Halifax in 1996.

But culture change does not occur overnight. The CIC was well aware that all TQM initiatives are a shock to organizational culture, and thus prone to failure since most people are resistant to change, even when the change is well-intended. To overcome this organizational inertia, it was recommended that a few “starter” and “winner” projects be selected before attacking any major quality issues. Selecting small, easily-solved problems acted as the ideal training vehicle for us, and created a level of confidence in our project teams and in the rest of the organization.

One of the most striking signs of culture change was the decline in union grievances, from about 400 annually to approximately one per month over the four-year period I commanded the dockyard. Another sign that the culture had turned the corner came one day as I was rushing through the dockyard from one meeting to another. I was hurrying along a jetty where a submarine was completing refit when a “matey” called out to me, “Captain, keep up the good work!” I stopped to ask what he meant, and he said that he had been working on submarine refits for decades, and that every shop would point fingers at every other shop for the inevitable delays that occurred, but this one had been different. This time, he said, the shops had worked together, and the refit would end on budget and on schedule. “Whatever it is you’re doing, it’s working,” he said.

It takes time to turn an organization like the Halifax dockyard around, but eventually the lumbering tanker starts to change direction. That conversation I had with the dockyard worker on the jetty was a sure indication that the effect of the small rudder movement we had started three years before had taken hold, and there would be no turning back.

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RCN photo