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Space Systems Division  
**CN Total Quality Management NEWS**  
Defense & Surveillance Deputate

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## NEWSLETTER TO PROMOTE CN TQM

Welcome to the first edition of the CN TQM NEWS for Space Systems Division's Defense & Surveillance Deputate.

The objective of this newsletter is to provide a means of education about the various facets of Total Quality Management (TQM), to note recent TQM achievements in the different CN programs, and to provide a sounding board for any questions concerning TQM.

Because of the push for Total Quality Management throughout the DoD, Gen Cromer announced that he wants to have TQM as a "way of life within Space Systems Division." Training in TQM theory and methods has started within SSD at the executive level, and by mid-1990 everyone in SSD will be given TQM training.

Some programs, notably Advanced Launch System (ALS) and CN's Space Based Interceptor (SBI), have established TQM already, including training and implementation of techniques. Results are just coming in, and they are positive.

Assistant Deputy Commander, Col William O'Brien, wants to move ahead in establishing TQM within CN, so he has started this newsletter as a medium to help that establishment.

Hopefully, this newsletter will help in those efforts, as well as to inform everyone in CN on the progress being made to implement TQM.

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## **TQM LEADERS NAMED**

Total Quality Management (TQM) starts at the top. The leader of any organization must be responsible for setting an example of what TQM represents, as well as making policy for his or her people to follow. This is true within the Defense & Surveillance Deputate (CN) as well as the individual SPOs in CN.

Maj Gen Robert Rankine is the CN Deputy Commander and Col William E. O'Brien is the Assistant Deputy Commander. They provide the leadership and are ultimately responsible for TQM within the CN organization.

A "TQM expert" is often necessary to assist in the implementation of TQM in an organization. Lt Col James Ledbetter has been named CN TQM Implementation Manager.

### **CN SPO LEADERS**

Each system program office (SPO) or directorate has a leader responsible for TQM within that organization, as well as a TQM Implementation Manager.

Boost Surveillance & Tracking System SPO (CNB) is lead by Col David M. Thomas and the CNB TQM Implementation Manager is Lt Col Clifton E. Groves.

Defense Support Systems SPO (CND) is lead by Col John Kidd and the CND TQM Implementation Manager is Mr. Michael Friedhoff.

Strategic Defense System Integration (CNI) is lead by Lt Col Brent R. Collins. Directed Energy Weapons SPO (CNID) is lead by Lt Col John L. Williams and the CNID TQM Implementation Manager is Capt Thomas Schaefer.

Space Defense Experiments (CNIE) is lead by Lt Col Frank Pitoniak and the CNIE TQM Implementation Manager is Mr. Ron Rookey.

SDS Integration Analysis Directorate (CNIR) is lead by Maj Pat Nutz and the CNIR Implementation Manager is 2Lt Doug Price.

SDI Survivability Directorate (CNIS) is lead by Lt Col James Ledbetter and the CNIS TQM Implementation Manager is 2Lt Jerry Rutkowski

Kinetic Energy Weapons SPO (CNIW) is lead by Col James Simmons and the CNIW TQM Implementation Manager is Mr. Ron Kurtus.

Space Surveillance & Tracking SPO (CNS) is lead by Col Charles F. Stirling and the CNS TQM Implementation Manager is Capt James Stewart.

### **MORE TO COME**

These individuals are responsible for providing the TQM leadership, education, and policy in their respective organizations. In the following issues of this newsletter, we will present achievements and activities of the various TQM programs. ###

# WHAT IS TQM?

What is TQM? That's a good question.

The Air Force Systems Command defines TQM as: "A leadership philosophy, organizational structure, and working environment that fosters and nourishes a personal accountability and responsibility for quality and a quest for continuous improvement in products, services, and processes."

Now that is a mouthful, but it certainly summarizes TQM in one sentence. Let's look a little closer at some aspects of TQM.

## TQM GOALS AND ENVIRONMENT

Within DoD and the Air Force, major goals are to reduce the "cost of defense", to improve acquisition excellence, and to enhance technological superiority. These goals led to implementing TQM.

A new working environment is needed to implement TQM. One reason for this is because TQM is everyone's responsibility. Each person from the secretary to the Commander must work to improve his or her performance.

TQM is prevention oriented. That prevention is achieved by identifying high cost drivers in each job, task, or program and working for continuous improvement in quality to reduce those costs. As quality guru Dr. Deming says, "Nobody seems to understand, except the Japanese, that as you improve quality you improve productivity and reduce cost."

The primary goal of TQM is customer satisfaction. (NOTE: Who are the "customers" on your program? In SDS programs the main customer is SDIO. In all government programs the ultimate customers are the taxpayers).

## MISCONCEPTIONS

There are a lot of misconceptions of what TQM is and is not. For one thing, TQM almost requires a cultural change in the way people think and do business. It is not an overnight cure.

TQM requires responsibility of top management, and it is not something to be simply delegated to subordinates. It is a systematic way to improve products and services. It is not a "new program."

TQM is a structured approach to identifying and solving problems. It is not simply "fighting fires." It is long term as opposed to short term, and it is conveyed by "action", not just slogans. Everyone in an organization should practice TQM, because it is not just a specialist discipline.

## FACTORS FOR SUCCESS

A key factor for TQM success is top down, committed, and active management leadership. That leadership must establish clearly understood and agreed upon goals.

Innovation and breakthrough thinking is required in TQM. Also, measurement of process performance is necessary to monitor improvement and those breakthroughs.

Teamwork is vital in TQM. Everyone must also be well trained in their technical, management, people, and TQM skills. (The Japanese spend 7 times as much as we do on training). The final factor in success is sharing, promoting and reinforcing the successes of the individuals working for and with you. Sarcasm and unfair criticism are loser attitudes.

What is TQM? Now, you have an answer.

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## LT GEN CROMER COMMITTED TO TQM

Lt Gen Donald Cromer issued the following statement as the Commander's Policy in the Space Systems Division TQM Implementation Plan, January 1989:

*"I am committed to make TQM a way of life at SSD. It has my full support, but will take a dedicated, long-term effort by all of us. Acquisition excellence starts here, at the front door of Space Systems Division! Only you can make it happen: First by the way you do your job, and second by the way you support others in doing theirs. We must go beyond 'good enough,' as we strive for continuous improvement in how we do our jobs. Let's make SSD a quality place to live and work. Make it an example for our contractors to follow. Make TQM a way of life."*

Lt Gen Cromer's remarks should be taken to heart by all of us working in SSD.

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**"People forget how fast  
you did a job ---  
but they remember  
how well you did it."**

*Howard W. Newton*

## JAPANESE CHALLENGES AMERICAN INDUSTRY

Konosuke Matsushita, founder of Matsushita Electric Industrial Co. in Osaka, Japan, made the following statement in 1986:

*"We will win and you will lose. You cannot do anything about it because your failure is an internal disease. Your companies are based on the old Taylor management principles. Worse, your heads are Taylorized too. You firmly believe that sound management means executives on one side and workers on the other; on one side men who think and on the other side men who can only work.*

*"For you, management is the art of transferring the executives' ideas to the workers' hands. For us, management is the entire work force's intellectual commitment to the service of the company, without self-imposed functional or class barriers.*

*"We have measured -- better than you -- the new technological and economic challenges.... Yes, we will win, and you will lose."*

A statement like that certainly is a slap in the face! But the truth hurts. The outmoded attitudes of management toward the worker that Matsushita talks about have been seen here within the various SPOs, in the relationship of SDIO toward the work done on SBI, SSTS and BSTS as well as the relationship of Congress toward SDIO.

DoD's emphasis on implementing TQM is an effort to take on this challenge and improve our methods, so that we will not be the "loser" that Matsushita predicts. All of us working for the United States Government - within the CN SPOs, at SDIO and above - should look at the role of management as inspiring the entire work forces' commitment to the service of the defense of the United States. Then, we can take this challenge and win.

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**"It's not whether  
you get knocked down.  
It's whether you  
get up again."**

*Vince Lombardi*

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## SBI PILOT TQM PROGRAM

In 1988, the Commander of Space Defense Initiative Organization (SDIO) Lt Gen James Abrahamson named the Space Based Interceptor (SBI) program as the pilot program for Total Quality Management within SDIO.

Since that time, the SBI program office has been implementing TQM in the way they do their business. Both SBI contractors, Martin-Marietta and Rockwell International, have also started SBI TQM programs. The results thus far have been promising.

The most notable results are potential savings of \$20 million to the program in the Flight Experiment and \$30 million in life cycle costs in software development. Other results include improved communication and better attitudes in the relationship with the contractors.

Program Director Col James Simmons stated that he was firmly behind TQM. Contractor program managers Rich VandeKoppel at Martin and Rich Arras at Rockwell also stated their support for TQM. This leadership commitment to excellence is vital.

After learning the fundamentals of TQM, most people in the SPO and those working for the contractors have become enthusiastic about the potential of TQM. But that doesn't mean that everyone in the SBI SPO is accepting these new concepts. Some hard-heads have been resisting TQM and say it's a lot of "b.s.". Rumor has it that several of those people will be transferred to Greenland next month.

The successes and failures of implementing these new TQM concepts within the SBI program is being watched by SDIO in Washington. As the pilot TQM program, they plan to use SBI's successes to facilitate implementing their own TQM program. Knowledge of what works and what doesn't work can also help other SPOs within CN.

TQM is new to all of us, so don't be afraid to try original ideas to improve your job and your program. Innovation is part of the TQM philosophy.

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