

## Space Systems Division



# CN Total Quality Management NEWS



## Strategic Defense Initiative Programs

"TOTAL QUALITY IN OUR WORK AND OUR PRODUCTS"

NOVEMBER 1990

### **INVESTMENT IN EXCELLENCE COURSE STARTED**

A 20 hour video/discussion course, *Investment in Excellence* has been started in CN by Col Jim Simmons. Two classes have already been completed, and Col Simmons is accepting applications for future sessions.

The *Investment in Excellence* material explains the elements necessary for setting directions in organizations, as well as in personal life. It has been a highly effective course used in industry.

Ms Eva Fava has presented this course to groups in CNI, and she helps Col Simmons at the CN level. Both Ms Fava and Col Simmons were trained to facilitate this subject at the Pacific Institute in Seattle.

Those interested in the course can call the CN office at x3-0740 for information.

### **SENDING VISITOR REQUESTS MADE EASIER IN CNW**

A simple computer program that automates visitor request forms have been written by Capt Russ Vogtmann. This program makes it easier for CNW area coordinators to send security clearance requests. Using this program will save time and eliminate errors, making it a good TQM tool. Those interested in using this program may contact Capt Vogtmann at x3-8749.

### **UNDER SECDEF PRAISES CN TQM**

Deputy Under Secretary of Defense, Dr Laurie Broedling, commented in a recent letter that the September issue of the *CN Total Quality Management NEWS* was very interesting.

Dr Broedling also said, concerning the TQM activities in CN, "It is gratifying to know that such initiatives are going on."

The efforts for improvement by everyone within the SDI Programs are responsible for the interest given by people in the upper levels of DoD, such as Dr Broedling. They are just as concerned about seeing TQM succeed as we are. So, keep up the good work.

### **LAN AND E-MAIL HOOKED UP THROUGHOUT CN**

Effective communication is an essential part of TQM, especially in a highly technical organization as the SDI Programs. To improve that communication, a local area network (LAN) and electronic mail (E-mail) system have now been hooked up throughout CN, according to Ms Eva Fava of CNI.

The LAN will assure that everyone has access to the same software programs. E-mail is an easy and fast means of communicating information, memos, and such. Training classes to show how to use this effective way of communicating will be announced.

### **CN OFF-SITE STRESSES GOAL SETTING**

Leaders from CN three- and four-letter offices attended a one day off-site at Long Beach on 18 October. Col Jim Simmons facilitated an introduction to the *Investment in Excellence* course, which emphasized techniques for setting goals.

The SSD and CN vision statements and goals were first reviewed, and then managers from each program office got together to establish goals for their organizations.

The material presented not only emphasized the proper way to set goals, but it also stressed that workers must be involved in the decision making process. This directly parallels the TQM philosophy.

Lt Col Ralph Gajewski, CNS Program Director, explained that the meeting was important in focussing the goals for his changing program.

Lt Col Cliff Groves, Deputy CNB Program Director said, "Several of our division chiefs told me later that the off-site material was fantastic. I think it was very beneficial for everyone involved."

Another comment came from Mr Ray Huon, CNI, who said, "Off-sites like this help us apply TQM."

The first step in implementing TQM in an organization is establishing where the organization is going and what it stands for. This off-site made sure that step has been taken to the four-letter level.

## **PROGRAM OFFICE DIRECTION CHANGES REQUIRE TQM**

There have been a number of changes for CN program offices due to changes in emphasis from SDIO.

CNB is no longer working on BSTS, rather it has been changed to the Advanced Warning System. CNS has been redirected from a centralized SSTS to emphasize decentralized SSTS of "Brilliant Eyes" concept. CNW has enhanced its supports on Brilliant Pebbles. The roles of CNL, CNZ, CNE and CNI are also changing to a degree.

Because change often creates a feeling of uncertainty among the workers, the use of TQM practices of continuation of strong teams, responding to customer desires, and leadership's concern for the welfare of the workers are especially important at this time. The CN TQM initiative is strong, and the transitions should be smooth.

## ***WOMEN HAVE LEADERSHIP STYLE FOR THE 90s***

According to an article in the LA TIMES, the leadership style used by most women may be more suitable for running businesses and organizations in the 90s.

Male executives tend to lead by command and control, according to the article, while women tend to lead by sharing information and power.

In today's fast-changing business environment, the strict hierarchial structure is beginning to look antique. Lower-level employees need to be able to make quick, accurate decisions, and they need the shared knowledge and power to do that.

## **EXTRA AWARDS GIVEN IN QUARTERLY RECOGNITION**

Extra awards have "sweetened the pot" for the CN Quarterly Recognition Program.

Military winners now get a 72 hour pass and GS civilians receive a notable achievement award, which includes a \$100 bonus. GM civilians are presented a certificate of commendation. Previous winners received the added awards retroactively.

These added awards should be extra incentive for others to perform with excellence.



**"Gaining greater profits  
through TQM"**

## **\$500 AWARD GIVEN FOR PERSISTENCE**

Ms Joyce Anderson, CNW Executive Officer, received a surprise \$500 award at the CN all-hands for her persistence in getting the compressed work week implemented.

Her TQM idea for an improvement in CNW is now being applied throughout CN. Many other SSD offices are also following suit.

## **CNW ENCOURAGES TEAMWORK AT OFF-SITE**

Members of the Kinetic Energy Weapons Program Office (CNW), including their support personnel, recently participated in a two day off-site. The objective of the off-site was to emphasize team building and discuss ways to improve the program office.

Lt Col Don Sutula, KEW Program Director, said, "With all the cut-backs and changes in the program, there was a definite need to boost the morale of the workers and supervisors. An off-site emphasizing teamwork was the best way, in my opinion, of getting everybody back on track."

The agenda included an overview of program directions, a personality profile and team building exercise, and open discussion of issues and concerns. A team was then formed to work the resulting action items.

After the off-site, a survey of personnel attending indicated over a 90% rating that teamwork was enhanced in CNW as a result of this off-site.

## **TQM PROGRESS BRIEFED**

CN TQM Implementation Manager, Lt Col Jim Ledbetter, briefed SSD Commander, Lt Gen Donald Cromer, on the status of CN TQM at a recent Program Management Review (PMR).

As a result of interest shown in the CN Computer Resources PAT, Capt Glen Treankler later explained that PAT's progress to Brig Gen Jean Klick during the "TQ Moment" at the Commander's Staff Meeting.

## GOVERNMENT GIVES INDUSTRY AWARDS FOR QUALITY

The nation's premier quality award is the U.S. federal government's Malcolm Baldrige National Quality Award.

This award started in 1987 and is U.S. industry's equivalent to the Nobel Prize for quality. This year's winners were IBM and Federal Express.

Criteria for the award are based on the following factors:

1. *Top management leadership.*
2. *Collection and analysis of data leading to quality.*
3. *Integrating quality into business plans.*
4. *Involvement and motivation of all employees.*
5. *Processes in place for sustaining quality.*
6. *Actual quality level of products and services.*
7. *Customer satisfaction.*

These same elements are essential for the success of Air Force organizations and program offices. How does your organization rate on these seven criteria?

## AWS NEWSLETTER STARTED

1Lt Shea Long, CNB Executive Officer, has started a weekly AWS Newsletter for internal distribution in the Advanced Warning System program office (formerly BSTS).

1Lt Long said that the idea of the newsletter is to improve the dissemination of information from Washington as well as to improve the internal communication in CNB.



**You can cut unnecessary paperwork with TQM improvements, like computerized forms.**

## COMPUTERIZED FORMS STARTED

Officer Performance Reports (OPRs) will now be done on the computer, using WordPerfect and a laser printer, instead of the previous time-consuming and butt-busting method of doing them on a typewriter.

This improvement has been approved by the Air Force and is being implemented in CN as part of the TQM initiative to improve the way we do things. Another advantage of the method is that the information can be sent electronically via the LAN to CN. This is especially time saving for CNL, CNW, and CNZ in building 80.

Capt Dennis Benzer of CL wrote the program for printing out OPRs with the computer and laser printer. He has also provided us with computerized templates for Travel Order Forms and Staff Summary Sheets.

2Lt Andrew Lockwood, a member of the CN Information Systems Tiger Team, is in charge of implementing and training personnel how to use these forms.

For more information on CN applications, call 2Lt Lockwood at x3-0494.

## ENLISTED MEN HELP FEDERAL EXPRESS WIN QUALITY AWARD

Two CN enlisted men helped Federal Express win the prestigious National Malcolm Baldrige Quality Award, given each year to the company that typifies excellence in its operation.

SMSgt Ron Berry of CNOE and SSgt Brent Hill of CNBA both work for Federal Express during their off-duty hours and are proud of their contribution toward winning the Baldrige Award.

SMSgt Berry works on a team that loads and unloads 150 aircraft at a time. Teamwork and speed is essential. Berry's team tied the Fed Ex record for downloading a DC10. His team also received a safety award.

"Now, I'm in two organizations that are tops in TQM - Fed Ex and the SDI Programs," Berry explained. "I'm always doing my best to help them both excel."

SSgt Hill works on sorting packages where not only speed, but high accuracy is required. He has received praise for his error free work, which has won honors for the Los Angeles terminal.

"They said they like to hire military people at Federal Express because of their attitude and discipline," explained SSgt Hill. "Plus the emphasis on excellence there helps me with my work in CNB. It's all TQM."

This shows how education in TQM methods can help in outside endeavors. It also shows that we can learn from quality-minded businesses.

\* \* \*

## **ASK MR TQM:**

Dear Mr TQM:

I can understand how TQM can help organizations, but I'm not sure what benefits it has for individuals.

Dave Ingram, CNWT

\* \* \*

Dear Mr Ingram:

Many people have shown concern about the personal benefits of TQM. That is a valid concern, because there have to be benefits for both the organization and the individual for TQM to work.

In theory, there are three fundamental benefits people want from their jobs: continued wages, job satisfaction, and growth. Doing quality work that satisfies your custo-

mers and/or supervisors, plus having pride in what you do will improve your chances of receiving all three of those benefits.

Also, by encouraging quality from those who support, assist, or supply you, and rewarding them for their help, you will benefit by improving the quality of what you pass on to your customers and supervisors.

Nothing is guaranteed, though, but if you are working toward continuous improvement and using other TQM techniques, you are bettering your chances for success and happiness in your job.

Mr TQM

*(For his question, Mr Ingram will receive a picture of TQM guru Dr W. Edwards Deming, suitable for framing. Thanks, Dave.)*

## **VARIABILITY REDUCTION IS IMPORTANT CONCEPT**

One of the most important TQM concepts applied to the design and manufacturing of products is called **variability reduction**. This concept of engineering design states that instead of specifying an upper and lower tolerance limit to a part, a target value and acceptable distribution around that value is used.

When variability reduction is used there isn't the tolerance build-up, parts fit better, and the product is more reliable. This type of specification is the essence of Japanese quality and is being used by major American industries such as Ford and Motorola.

Designing to reduce the variability of the parts has not really been employed by DoD contractors yet. It would also be quite a deviation from the way technical requirement documents (TRDs) have been traditionally specified to the contractors.

In order to develop high quality space systems, we must first change the regulations on how designs may be specified. Then we must convince the contractors to use these new methods.

If this is not done, all the TQM motherhood in the world will do little to really improve the quality and reliability of the technical products we deliver.

## **CNS EMPHASIZES ELECTRONIC COMMUNICATION**

One initiative for implementing TQM within CNS consisted of establishing the SSTS Validation Satellite teaming arrangement with contractors Lockheed and TRW. As a result of that arrangement, CNS has set up a three way electronic communication link, according to 2Lt Junichi Kamita.

"We communicate using Macintosh computers with modems," 2Lt Kamita explained. "Spreadsheets, drawings, and program files can be exchanged, thus reducing the paper and time involved." He added that only unclassified material can be sent at this time, but they are working on establishing a secured link.

This type of communication will be useful as the program transitions to Brilliant Eyes.

## **SDIO STARTS TQM WITH PATs**

As with every agency of DoD, SDIO has also been working to implement TQM within their operations. One step they have taken is to establish two process action teams (PATs).

According to Lt Col Bob Hemm at SDIO, they have started a Newcomers Orientation PAT and a Computerized Forms PAT and are progressing with those groups.

### ***CN Total Quality Management NEWS***

*Col Bill O'Brien, Program Director, SDI Programs*

*Col Jim Simmons, Deputy Program Director, SDI Programs*

*Lt Col Jim Ledbetter, TQM Implementation Manager*

*Mr Ron Kurtus, Deputy TQM Implementation Manager*

*If you have any questions, comments, or contributions to the CN Total Quality Management NEWS, contact:*

*Ron Kurtus, (213) 363-8746.*