

2

AD-A276 868



1993
Executive Research Project
CS5

The Navy's Quality Journey: Operational Implementation of TQL

S DTIC
LECTE
MAR 14 1994
F **D**

Captain
Donald C. Hefkin
U.S. Navy

Faculty Research Advisor
Dr. Rita Wells

This document has been approved
for public release and sale; its
distribution is unlimited.



The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

94 3 10 092

94-08034

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS	
2a. SECURITY CLASSIFICATION AUTHORITY N/A		3. DISTRIBUTION / AVAILABILITY OF REPORT Distribution Statement A: Approved for public release; distribution is unlimited.	
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE N/A		5. MONITORING ORGANIZATION REPORT NUMBER(S) Same	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) NDU-ICAF-93-085		7a. NAME OF MONITORING ORGANIZATION National Defense University	
6a. NAME OF PERFORMING ORGANIZATION Industrial College of the Armed Forces	6b. OFFICE SYMBOL (if applicable) ICAF-FAP	7b. ADDRESS (City, State, and ZIP Code) Fort Lesley J. McNair Washington, D.C. 20319-6000	
6c. ADDRESS (City, State, and ZIP Code) Fort Lesley J. McNair Washington, D.C. 20319-6000		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8a. NAME OF FUNDING / SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	10. SOURCE OF FUNDING NUMBERS	
8c. ADDRESS (City, State, and ZIP Code)		PROGRAM ELEMENT NO.	PROJECT NO.
		TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) <i>The Navy's Quality Journey: Operational Implementation of TQL</i>			
12. PERSONAL AUTHOR(S) <i>Donald C. Heffkin</i>			
13a. TYPE OF REPORT Research	13b. TIME COVERED FROM <i>Aug 92</i> TO <i>Apr 93</i>	14. DATE OF REPORT (Year, Month, Day) April 1993	15. PAGE COUNT <i>113</i>
16. SUPPLEMENTARY NOTATION			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
19. ABSTRACT (Continue on reverse if necessary and identify by block number) SEE ATTACHED			
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified	
22a. NAME OF RESPONSIBLE INDIVIDUAL Judy Clark		22b. TELEPHONE (Include Area Code) (202) 475-1889	22c. OFFICE SYMBOL ICAF-FAP

Abstract

The Navy's Quality Journey: Operational Implementation of TQL

by

Captain D. C. Hefkin, USN

Admiral Frank Ke'iso, the Chief of Naval Operations, has personally directed the widespread implementation of Total Quality Leadership (TQL) throughout all units in the Navy. Thus, the Navy's TQL effort escaped from the labs and industrial facilities (where it had been quietly improving processes since the mid 1980's), and is starting to make its way to Navy ships, squadrons, staffs and other field activities. What has followed from the Navy leadership should prove as a textbook for "how to start" the quality revolution in a large bureaucratic organization. This paper examines the Navy's progress in the implementation of TQL into operational units. It identifies high level Navy implementation strategies, looks at high level Navy TQL organizations, reviews Navy wide TQL training programs, comments on the TQL efforts of the Navy's operational forces, compares these efforts to current research in TQL, proposes a simplified "getting started" implementation model for the unit commander wanting to implement TQL in his/her ship or squadron, discusses why TQL efforts fail, and concludes with recommendations to help the Navy-wide transformation.

1993
Executive Research Project
CS5

The Navy's Quality Journey: Operational Implementation of TQL

Captain
Donald C. Hefkin
U.S. Navy

Faculty Research Advisor
Dr. Rita Wells



The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

Accession For		
NTIS CRA&I	<input checked="" type="checkbox"/>	
DTIC TAB	<input type="checkbox"/>	
Unannounced	<input type="checkbox"/>	
Justification		
By _____		
Distribution/		
Availability Codes		
Dist	Avail and/or Special	
A-1		

DISCLAIMER

This research report represents the views of the author and does not necessarily reflect the official opinion of the Industrial College of the Armed Forces, the National Defense University, or the Department of Defense.

This document is the property of the United States Government and is not to be reproduced in whole or in part for distribution outside the federal executive branch without permission of the Director of Research and Publications, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C. 20319-6000.

Abstract

The Navy's Quality Journey: Operational Implementation of TQL

Admiral Frank Kelso, the Chief of Naval Operations, has personally directed the widespread implementation of Total Quality Leadership (TQL) throughout all units in the Navy. Thus, the Navy's TQL effort escaped from the labs and industrial facilities (where it had been quietly improving processes since the mid 1980's), and is starting to make its way to Navy ships, squadrons, staffs and other field activities. What has followed from the Navy leadership should prove as a textbook for "how to" start the quality revolution in a large bureaucratic organization. This paper examines the Navy's progress in the implementation of TQL into operational units. It identifies high level Navy implementation strategies, looks at high level Navy TQL organizations, reviews Navy wide TQL training programs, comments on the TQL efforts of the Navy's operational forces, compares these efforts to current research in TQL, proposes a simplified "getting started" implementation model for the unit commander wanting to implement TQL in his/her ship or squadron, discusses why TQL efforts fail, and concludes with recommendations to help the Navy-wide transformation.

Table of Contents

<u>Topic</u>	<u>Page</u>
1. Abstract	i
2. An Overview	1
3. TQM Navy-style	3
- The Term is now TQL!	
- Dr. Deming's theory emphasizes leadership	
4. DON's Two Phased Approach	5
5. Establishment of High Quality Navy TQL Training	8
- Implementation strategy	
- Train-the-trainers, a mission accomplished	
- TQL E&T administration	
- Does everyone need to understand the theory?	
6. Fleet Implementation	14
- CNO's pilot programs	
- CINC's NOTICE 4800: implementation plans	
- CNO's Starter Kit	
- The Navy's new video: <u>TQL Welcome Aboard</u>	
- Implementation models	
7. "Getting Started" in TQL: A Simplified Model	19
- Stage I: The CO's buy-in and personal commitment	
- Stage II: The CO forms the unit's critical mass	
- Stage III: The ESC develops the unit's strategic plan	
- Stage IV: The ESC and QMB's take on pilot projects	
- Stage V: The unit practices strategic management	
8. Mistakes to Avoid: the Common Pitfalls	34
- False starts	
- Too busy	
- Functional thinking instead of systems thinking	
- Short-term focus on programmatic objectives	

Table of Contents (continued)

<u>Topic</u>	<u>Page</u>
9. Why TQM/TQL Methods Fail	37
- Lack of leadership	
- Emphasis on measurements over improvements	
- Misguided incentive programs	
- Failure of management to respond to its new role	
- Unrealistic expectations	
10. Recommendations	40
11. Conclusions and Parting Thoughts	45
12. Appendix A: Literature Review	48
- Implementation models	
13. Appendix B: In the Beginning	56
14. Appendix C: CNO's 14 Points	58
15. Appendix D: DON High-Level Organization	62
- DON's Strategic Plan	
- NAVOP 018/91	
16. Appendix E: DON's TQL E&T Curriculum	84
17. Appendix F: Excerpts from "TQL Welcome Aboard"	88
18. Endnotes	94
19. Bibliography	100

The Navy's Quality Journey: Operational Implementation of TQL

"Total Quality Leadership is our long term program to improve the way we do business. It is not a quick fix, but it promises to affect every aspect of naval operations from procurement to maintenance to personnel practices."

**ADM. Frank Kelso, II, Chief of Naval Operations
Naval Institute Proceedings, July 1991.**

An Overview

Admiral Frank Kelso II, the Chief of Naval Operations (CNO), is personally leading the Navy's transition into the world of process improvement, empowerment and quality awareness. In August 1990 Kelso started the Navy's TQL transition by clearly transmitting his commitment in a memorandum to his flag officers. In his memorandum the CNO said, "I want to structure a quietly effective effort to improve quality in the Navy....I want to continue that initiative ashore and expand it to include Operating Forces."¹ Next, after nearly a year of senior level TQL awareness training, the CNO sent out two messages to all commanders, commanding officers and officers in charge, NAVOP 011/91 and NAVOP 018/91, in which he personally directed the implementation of TQL throughout all units in the Navy.²

Thus, with the stroke of CNO's pen, the Navy's TQL transition escaped from the labs and industrial facilities (where it had quietly been improving processes since the mid 1980's), and is making its way out to the fleet and into the Navy's ships, squadrons, headquarters, staffs and other field activities. Based on past history, most unit commanding officers (CO's) expected CNO's direction to be followed by a series of strongly worded "me too" messages cascading

down the chain of command. Messages issuing complicated tasking, establishing urgent implementation deadlines, and initiating comprehensive and time consuming reports. Well, the messages never came and the reports were never solicited, and what followed from CNO's office should prove as a textbook for "how to start" the quality revolution in a large bureaucratic organization.

This paper examines the Navy's progress in the implementation of TQL into operational units. Specifically, it identifies high level Navy implementation strategies, looks at high level Navy TQL organizations, reviews Navy wide TQL training programs, comments on TQL efforts currently underway in the Navy's operational forces, compares these efforts to current TQL/TQM research, proposes a simplified "getting started model" for the unit commander wanting to implement TQL in his ship or squadron, discusses why TQL efforts fail, and concludes with recommendations to help the Navy wide transformation. In addition, a review of recent Navy research in TQM/TQL is included in Appendix A.

As a matter of clarification, the term "DON" means Department of the Navy. The "DON" incorporates all Navy and Marine Corps people, equipment and programs (including SecNav's civilian and military staff, Navy military and civilians, and Marine Corps military and civilians). The term "Navy" means Navy military and civilians including the CNO's Staff, the Systems Commands, the Navy CINC's (CINCPACFLT, CINCLANTFLT and CINCAVEUR), the Navy Type Commanders and so on. The Navy is a subset of the DON.

"We call our quality approach Total Quality Leadership, or TQL...substitution of the word 'leadership' reflects the new responsibilities of commands."

**Hon. H. Lawrence Garrett III, Secretary of the Navy
TQLeader Vol 1, Issue 2, Fall 1991.**

TQM Navy-style: The Term is now TQL!

The Navy has been "doing TQM" since the early 1980's. Appendix B provides a short discussion of these early TQM efforts, most of which were pioneered at the Naval Personnel Research Development Center (NPRDC) San Diego, California. Despite TQM's early successes in Navy depots, it was not until late 1990 that CNO decided to expand the TQM to the entire Navy. Faced with declining budgets and reduced force levels, and well aware that TQM was responsible for "revolutionary improvements in quality in the Navy's shore establishment,"³ CNO felt the "fleet" needed TQM. His idea was that by improving Navy processes, the impending reductions of programs and people could be partially offset by more efficient operations. In August 1990, Admiral Kelso told his flag officers to do some reading on the subject of total quality and get ready to embrace quality methodologies.⁴ To emphasize the importance he placed on the issue, he changed the name of TQM to a more active term, Total Quality Leadership (TQL). He felt TQL better captured the, "unique role that Navy leadership plays in developing and implementing operational objectives."⁵

In June 1991, CNO issued two Navy wide policy directives, NAVOP 011/91 and NAVOP 018/91. These directives clearly established the commitment, the tone, the type, and the time line for Navy wide implementation of TQL. The quality revolution was now underway,

full speed ahead, but still...., one step at a time.

Why are we "doing Deming?"

"We do Deming in the Department of the Navy for two very important reasons: Deming (1) emphasizes leadership responsibility and (2) offers us a systems approach to managing work and leading people."

Dr. S. L. Dockstader, TQLeader Vol 1/Issue 2, page 10.

Dr. Deming's Theory Emphasizes Leadership:

Researchers at NPRDC used Dr. Deming's theories as a basis for its early TQM work. Accordingly, CNO's ideas about TQL are understandably classic Deming, and Navy TQL methodologies rely heavily on Deming's fundamentals (instead of the fundamentals of other quality experts such as Juran and Crosby). By adopting the Deming method, CNO has indicated his clear preference for the type of quality revolution he is leading. According to Dr. Deming, process improvement needs to be implemented 100 percent of the way by using all of his 14 steps and avoiding his deadly diseases. "Halfway measures will not do."⁶ As such, CNO expects TQL to affect a cultural change to the way Navy people work and think, just as much as he expects TQL to affect a structural change to the way the Navy does business. The Navy's emphasis on Deming's theory is an important point. This point will be reinforced again and again when looking at how the Navy is proceeding with TQL implementation in its operational units.

Not surprisingly, the CNO has adopted 14 points for Navy TQL which he published widely throughout the fleet in August 1990.⁷ The CNO's 14 points are listed in Appendix C. Notions such as constancy of purpose, smarter inspections, fostering teamwork, driving out fear,

and better training and leadership are as fundamental to Navy TQL as to Dr. Deming. CNO's comment, "TQL is a systematic approach to improving the way we operate, and it depends on scientific method and using hard data to improve processes on a continual basis.",⁸ sound almost as if it was from Deming's, "Out of the Crisis."

As if reading the minds of TQL critics, CNO's comments in an Aviation Week & Space Technology article indicate he is looking for much more than just picking the "low hanging fruit" by switching to TQL. He said, "A basic tenet of TQL is that quality cannot be inspected in, but the Navy has a habit of inspecting everything from a sailor's haircut to how ships handle nuclear weapons. If you look at inspection reports over the years, you'll find that some of the same deficiencies surface over and over again. The reason for that is our focus on results rather than process - we correct the problem and then move on to something else rather than examining the process to see if it is the source of the deficiency. As we implement TQL and improve our processes we'll be able to rely less on inspections."⁹

Powerful words from CNO, words that reflect a significant change in philosophy in the way Navy CO's should now lead their people, manage their processes and attack the problems they encounter in their commands.

"The first order of business is for managers to acquire the knowledge they need to lead the transformation."

**Hon. J. Daniel Howard, Under Secretary of the Navy
TQLeader Vol 1, Issue 1, Fall 1991.**

DON'S Two Phased Approach

The Secretary of the Navy (SecNav) and the CNO adopted a strategic planning model for

TQL implementation that NPRDC originally developed in the late 1980's as a follow-on to their "TQL pioneer" work with NADEP North Island in 1983. This two-phase approach is based on NPRDC's early TQM research and expanded upon using the research in organizational change being done at that time (i.e., E.J. Metz's 1984 National Productivity Review article, "Managing Change: Implementing Productivity and Quality Improvements,"). According to Dr. Linda Doherty, then NPRDC's senior research scientist for TQM, "One characteristic of Navy organizations (and one of Deming's 'deadly diseases') that is troublesome when considering TQM implementation is the short duration of commanders' tours -- typically between 18 months to 3 years. A major tenant of TQM is 'constancy of purpose,' which requires long-term and consistent leadership commitment....to assist Navy organizations in addressing this problem and others, NPRDC has developed a 'two-phase approach' to implementing TQM."¹⁰

According to the NPRDC model, in Phase I the organization's leadership refocuses the organization to the needs of the customer, starts the strategic planning process, develops a critical mass and begins to improve existing processes. Phase I activities include educating top management, developing a business plan, adopting a quality philosophy, implementing "massive" training, establishing methods for organizations to "practice total quality" and organizing for change by breaking down bureaucratic barriers.¹¹ It is in Phase II that the organization starts to address long term issues and theoretically the quality transformation occurs. Appendix D provides a discussion of early Phase I work done by SecNav's Executive Steering Group, called the DON ESG, and CNO's Executive Steering Committee (ESC). The Appendix also provides a discussion of how the groups were formed, how they are supported, and how SecNav and CNO have recently downsized, reorganized and refocused each of their Steering Groups.

Is the DON Ready for Phase II?

While some may view the DON's restructuring of the ESG and the reconstitution of the Department of the Navy Review Commission (DONRC - see Appendix D) as signs the Navy is moving into Phase II's organizational transformation, this view takes the "bulldozer approach" to the task of achieving a quality transformation. A more critical (and realistic) evaluation places the Navy at some mid-point in Phase I. The Navy has made a great deal of progress, particularly in the areas of strategic planning, development of core TQL education and training, and improving cross-functional working relationships. Many activities are using TQL methods to improve existing processes. However, there is no evidence that the DON or the Navy is ready to tackle the difficult and long standing bureaucratic and structural barriers that still remain in the organization and serve to stifle the transformation. We should expect this at this stage since neither the Secretary nor CNO expect the TQL transformation to be evolutionary. They fully expect TQL to require revolutionary change!¹²

"It is the manner-of the boll weevil, not the bulldozer, that best leads to change."

Peter R. Scholtes and Heero Hacquebord, August 1988.

SecNav and CNO are not "Bulldozing" DON into Phase II!

Readers should not view that the DON is still in Phase I as a problem or as a reason to conclude that TQL is not working (or will not work). Readers should view this as evidence that the Navy still needs to do more work in Phase I. In reality, the need for more work is a fact of life in such a large and complex public organization as the Navy. According to Peter Scholtes,

"The transformation to a quality organization is a complex, difficult undertaking. The way to go about it is not in the manner of the bulldozer; rather, you can accomplish transformation in the manner of the boll weevil: patiently and persistently, inch by inch and row by inexorable row....eliminate one barrier after another."¹³ The two-phase approach appears to be valid and working at this time. Especially in the area of TQL education and training.

Dr. Kaoru Ishikawa
"Guide to Quality Control"

"QC begins with education and ends with education. To implement TQC, we need to carry out continuous education for everyone, from the president down to the line workers." (1981).

Establishment of High Quality
"In-House" Navy Wide TQL Training

In February 1991 the DON ESG formed its second high level QMB, the Education and Training (E&T) Advisory Group. The E&T Advisory Group's job was to develop a DON wide TQL (E&T) program. Chaired by Vice Admiral John Fetterman Jr., the Chief of Naval Education and Training (CNET), this flag level QMB was assisted by an Advisory Support Group consisting of senior Navy captains, senior executive service (SES) civilians and government service civilians grade GS-15 who were TQL and/or education subject matter experts. Vice Admiral Fetterman felt that, "Education of our senior people and of what we call the 'critical mass' is essential to successful implementation. The critical mass are those people with sufficient power, knowledge, and influence to sustain a cultural transformation. To change a mind set, you have to influence that group."¹⁴ Experts from SecNav's TQL Office estimated that a critical mass would represent about 15 percent of the work force. With a total force of

about a million military and civilian members, the critical mass in the DON represents about 150,000 people.¹⁵ The E&T Group now had their target - they had 150,000 customers, many of whom had never heard of TQL.

Admiral Fetterman had to make one important decision before proceeding with developing a strategy to accomplish this massive effort - **who should do this training?** There were two basic options. Should it be done "in-house" by the Navy? This option required an expensive and time consuming investment to develop an in-house capability. Alternatively, the Navy could contract the training out to one of the many firms that did TQM consulting for major U.S. industries. This option was also expensive, but was quicker to get on line and seemed to have lower long term costs. By contracting the training out the Navy would have to invest less in overhead - materials, equipment, instructors, and the like. However, the Navy was already running one of the largest (and arguably one of the most effective) in-house training operations in the world. Accordingly, the ESG/E&T Advisory Group decided to expand existing resources and do TQL training in-house because: (1) the concepts and the delivery of these concepts would be consistent across the DON; (2) the quality of instruction and of the materials would be manageable; and, (3) costs could be contained.¹⁶

Implementation Strategy:

With the decision made to do TQL training in-house, the E&T Advisory Group next developed an implementation strategy for the TQL E&T curriculum. Specifically:

The first to be trained are to be top leaders. This was where Navy TQL training started - at the top. Since January 1991 the Navy has taught the Senior Leaders Seminar (SLS)

at the Naval Postgraduate School in Monterey (later expanded to include the Washington D. C. area). Attendance is limited to flag officers, CO's, executive officers (XO's), SES's, and GM and GS-14/15's. Senior leaders must have attended this four day course before TQL representatives from their commands can attend the other DON TQL courses.

The E&T Group selected a train-the-trainer concept. A cadre of 60 "master TQL specialists" completed 18 weeks of training, and were qualified to instruct over 3,000 unit TQL coordinators and advisors. These people will in turn conduct training for their respective units and advise their respective CO's.

The training would be from the top on down. The senior leaders of an organization must get trained first via the SLS course before their command representatives can receive TQL curriculum training. The E&T Advisory Group has just implemented this rule.

Education before training. The E&T Advisory Group felt everyone needed some education in TQL theory, why TQL is needed, and training on how to apply TQL methods.

Skills training should be just-in-time training. TQL courses are set-up in training modules for students to complete in a given sequence. Not everyone needs to complete all courses. Training in TQL tools and/or team training is to be done after basic TQL training, and only when and if needed. It should not be taken just to put an "x" in the block.

Team training. Some courses are set up so that a unit can send entire teams (QMB's and PAT's) to the schoolhouse for training.

Integrated training. Courses that currently make up the DON TQL curriculum are to be integrated (in time) into curricula of service schools, pipeline and general training.

Continuous training. Continuous improvement requires continuous training.

Train-the-Trainers, a Mission Accomplished:

Having established the method and strategy for delivering TQL E&T, Vice Admiral Fetterman's next hurdle was to train the master TQL specialists. Fortunately the DON still retained the "seed corn" of Navy TQM/TQL knowledge - NPRDC San Diego and former NPRDC personnel assigned to SecNav's TQL Office. According to Dr. Linda Doherty, Director of the TQL Office, "the TQL Office has worked closely with CNET in developing a TQL curriculum and in implementing a train-the-trainer strategy. Staff members have provided much of the instruction needed to prepare TQL specialists."¹⁷ This "distinguished group" of TQL instructors provided training in the first five DON TQL core courses. The group included subject matter experts from CNET, the TQL office, NPRDC, and the Naval Education and Training Program Management Support Activity.¹⁸ The core group of initial master TQL specialists completed their training in October 1992. Navy wide TQL training was now "ready to roll!"

TQL E&T Administration:

CNET administers the DON TQL E&T program. The CNET plan allocates five percent of the quotas to SecNav, 70 percent to CNO, and 25 percent to the Commandant of the Marine Corps. The Chief of Naval Technical Training (CNTECHTRA) administers CNO's TQL training, and coordinates quotas for the CNO's staff and for the various echelons of his operational commanders.¹⁹

Training is conducted out of two separate but equal "schoolhouses," one at the Amphibious School at Little Creek, Virginia, and the other at the Amphibious School at Coronado, California. Administration of TQL training at these schoolhouses is assigned to the

U.S. based Navy CINC's. CINCLANTFLT administers operations at the Little Creek facility through his staff TQL Office, and CINCPACFLT administers operations at the Coronado facility through his staff TQL Office. Each of the two master training sites, which were fully operational in October 1992, is staffed with 30 master TQL specialists and 6 Senior Leadership Seminar (SLS) instructors.

These instructors are divided into teams for surface (ships), air (aviation squadrons) and submarines, each specializing in the unique requirements of the different naval warfare areas. Currently, fleet units send their people to the schoolhouses for training, but plans have been made to make the teams available, sometime this year, to do site training in areas with high concentrations of Navy activities. This initiative will make the training more readily available, and will reduce travel expenses and family separation for the fleet operators.

Master TQL specialists or command level instructors teach four of the five courses in the TQL curriculum (a sixth course is under development). The TQL E&T curriculum consists of: the Senior Leaders Seminar (SLS); the Fundamentals of TQL; Implementing TQL; the Methods for Managing Quality; Team Skills and Concepts; and a Systems Approach to Process Improvement (still in development).

Only the master trainers are qualified to teach the SLS course. Except for the SLS course, each course has two versions - one taught by the master TQL specialists designed to train-the-trainers, the other version taught by command trainers at the unit level. In addition, a separate one day TQL overview course is available for command trainers to use for unit level TQL awareness training. Material for this course is available to command level trainers after the complete training from the master trainers. A brief description of the TQL curriculum as taught

my the master TQL specialists is listed in Appendix E.^{20 21}

"Dr. Deming's 'Out of the Crisis' is the 'War and Peace' of the literature written about total quality. I personally had to work my way up to it."

The author, in a talk given on TQL at the Naval Postgraduate School, Monterey, CA in January, 1992.

Does Everyone Need to Understand the Theory to do TQL?

The one day TQL awareness course covering the basic elements of TQL taught at the unit level by command trainers is the bread and butter of general TQL training. It covers: (1) why the Navy needs to adopt TQL practices; (2) Deming's 14 points (briefly); (3) profound knowledge (video of the red bead experiment); and (4) basic methods and tools for process improvement. Attenders are given an Instructor Guide, a Student Guide, and the view graphs of the course to use when they conduct their unit training.

Although this author has not attended any DON TQL courses, they certainly "look good on paper." Overall the TQL E&T curriculum appears to be focused, well organized and, with the exception of the one day Introduction to TQL course, "right on the mark." The one day introduction course seems "long on" Dr. Deming (theory) and short on TQL's more exciting features. The utility of teaching fundamental TQL theory in a one day general awareness course that is targeted primarily for the "troops" is questionable. While the theory needs to be resident in our senior leaders, process owners, coordinators and advisors, educating the troops in the theory should be just-in-time, and only if needed or if interested.

In contrast, awareness training should emphasize concepts that inspire interest in the "unaware workers." Awareness training that gets the message and power of TQL out to our

troops should not rely on Dr. Deming videos, 14 points, seven measurement tools and deadly diseases. Instead, awareness training should use Tom Peters and/or Joel Barker videos to teach our eighteen year old E-3's and our twenty-four year old O-3's exciting notions such as empowerment, teamwork, leadership, process control, quality, and continuous improvement. This author feels awareness training should stimulate workers to learn more, to question more, to take ownership of processes and to join the quality bandwagon.

**Admiral Frank Kelso II, CNO
NAVOP 011/91**

"Now we must expand our (TQL) efforts....In the short term, it will mean more work for all of us as we undergo formal training, outline processes, identify problems, gather data and find solutions. But in the long haul, TQL promises to make our jobs and our lives better." (May 23, 1991).

Fleet Implementation

CNO's Pilot Programs:

To get a better idea of how to implement TQL at the operating unit level, the CNO through NAVOP 011/91, established a pilot (or prototype) program to take TQL into the fleet. The program consisted of five ships (USS Conolly (DD 976), USS Durham (LKA 14), USS Fox (CG 15), USS Emory S. Land (AS 39) and USS Trenton (LDP 14)), one submarine (USS Baltimore (SSN 704)), and five aviation squadrons (HS-10, HSL-41, VA-35, VF-103 and VS-41). The units are balanced between east coast and west coast home ports, and represent a cross section of typical fleet commands - power projection ships, a submarine and submarine support ships, amphibious ships, helicopter squadrons and jet carrier-based squadrons.²²

The purpose of the prototype effort was twofold: (1) to get TQL "up and running" early on in operational units; and more importantly, (2) to provide the CINC's teams of master TQL specialists with test beds to refine the TQL E&T curriculum and adapt TQL courses to meet the needs of the customers - the fleet operators. According to Admiral Kelso, "We knew we would need data from the operating ships and squadrons on adapting TQL to their needs...Our units were selected to represent the diversity of operational commands...We selected units in various phases of the (deployment) cycle, including units just returning from deployment, units doing maintenance and overhaul, and units doing pre-deployment work-ups. These commands will be very important to the overall success of TQL. Their experiences and their proven approaches to using TQL techniques at various stages in the deployment cycle will provide models to other units as we take TQL to the fleet."²³

The CINC's TQL training teams went out into the prototype commands and worked with the leaders and members of the units. The leaders and members learned about TQL while the CINC's teams learned about the fleet, the fleet's needs and how best to carry the revolutionary message of TQL to all the other operational units in the Navy.

CINCLANTFLT/CINCPACFLT NOTICE 4800; TQL Implementation Plans:

To formalize Navy implementation efforts, Admiral R.J. Kelly, CINCPACFLT, and Admiral Paul David Miller, CINCLANTFLT, published a joint notice on April 3, 1992 that serves as a fleet guide for TQL matters, and virtually standardizes TQL practices between Atlantic and Pacific Fleets. The document, CINCLANTFLT/CINCPACFLT Notice 4800, joins NAVOP 011/91 and NAVOP 018/91 as key TQL implementation directives.

In this official notice, the CINC's define the TQL responsibilities of our senior leaders and the roles of TQL Coordinators and Quality Advisors. Further, the notice is a source document on TQL E&T quota allocation, course prerequisites, and course descriptions. Finally, it provides a list of points of contact and telephone numbers for both the Pacific and Atlantic Fleet TQL organizations, including the TQL training teams and team leaders.²⁴

CNO's "Starter Kit for Basic Improvement":

With the Navy's highest levels of leadership busy stimulating interest in TQL, the demand for TQL training and related information exceeded the supply the schoolhouses could support. According to the CNO, "one of the drawbacks of implementing anything Navy wide is the amount of time necessary to deploy education and training to all hands."²⁵ As a stop-gap measure, in November 1992 the CNO's TQL Office sent out a "Starter Kit for Basic Improvement" to all operational commands, whether or not the command had started TQL implementation. The kit includes: (1) Basic Information about TQL - definitions of TQL and why TQL makes sense, DON's strategic plan, DON's vision, guiding principles and strategic goals, and how to get started in TQL; (2) Team Handbook for Basic Process Improvement - the 12 steps for improvement, appropriate tools and techniques for each of the 12 suggested steps, and suggested tools and techniques for process improvement (setting ground rules and agendas for meetings, brainstorming, multi-voting, and measurement tools); and (3) Additional Resources - Parts I and II of the Scholtes and Hacquebord article, "Beginning the Quality Transformation," and a section containing DON TQL course information.

The Starter Kit was a good idea. It provides high quality information and is a resource

for CO's to use to "begin attacking problems and making improvements within commands immediately."²⁶ The kit can be used prior to a unit receiving formal TQL E&T, or in conjunction with formal training already completed. The starter kit complements formal TQL E&T information and materials. Further, it is an inexpensive, but high quality tool that should accelerate TQL efforts throughout the fleet.

The Navy's New Video: "TQL Welcome Aboard":

The CNO's TQL Office has completed another important project to further the understanding and acceptance of TQL. The CNO commissioned the Naval Imaging Command in Anacostia, Maryland to produce a video to document the progress of Navy wide TQL implementation. The video features the insights of Navy people actively involved in making the TQL transition. It is a story of acceptance, growing appreciation, and support for TQL concepts and methods.

For thirty days in late 1992, media experts and a camera crew from the Naval Imaging Command visited 16 different units involved in implementing TQL, including a couple of the prototype units previously discussed. Some of the commands visited were: the Navy's latest aircraft carrier, the USS George Washington (CVN-73); Destroyer Squadron TEN and the NADEP in Norfolk; the Navy Legal Service Office and Navy Ammunition Depot in Charleston; helicopter squadrons HSL-41 and HS-10 in North Island; the Naval Hospital, and the USS McKee (AS-41) in San Diego; and the Ships' Intermediate Maintenance Activity, Alameda.

The media team conducted a total of sixty-one interviews while the camera team used 34 reels of tape documenting the fleet's inputs. The people interviewed ranged from the senior

officers commanding the units, to senior enlisted leaders, to mid-grade officers and enlisted members, and to the most junior enlisted members assigned. The range of those interviewed went from the top to the bottom of the rank structure.

The product is a 35 minute video titled "TQL Welcome Aboard." The CNO and the CINC TQL Offices will use the video in the TQL E&T curriculum and for general TQL awareness training. The CNO's TQL Office plans to widely distribute the video to command level trainers for unit awareness training. Navy public affairs people will also use the video to "get the Navy's TQL message out" to the general public and to industry.

The video is extremely informative, interesting and positive. This is understandable since the mission of the project was to promote TQL. The producer, Mr. Joe Thomas, selected positive clips for the final product. However, after reading the scripts from all 34 reels of tape, the author was impressed to find there were no "negative clips." All those interviewed were generally positive in their responses. This fact should not have been surprising either since the people interviewed were probably picked because of their positive attitude and/or their experience with TQL. Regardless of the universal (and expected) positive outcome of the interviews, there were many remarkable insights offered by our officers and sailors. Excerpts have been extracted from the script and included in Appendix F. The selected comments do not glorify the efforts to date (the excerpts included are not all accolades), but they demonstrate some of the concerns and key observations articulated by our fleet operators.²⁷

These interviews say a lot about how TQL is progressing. Based on the results of the interviews, and as evidenced from the extracted remarks, TQL implementation appears to be progressing at a reasonable and measured rate. Officers and sailors in the fleet are being exposed

to the concepts, the language and the culture of total quality. As expected, progress is slow and deliberate. What is also clear is that most of the progress to date has been made within the Navy's traditional organizational structure. There is no indication of Phase II's organizational transformation. This should neither be surprise nor discourage the reader - it is just too early to expect structural changes.

TQM Implementation

"There is no cook book recipe for the right way to implement TQM in an organization.....Any implementation program requires a well thought out plan, built on a foundation of understanding TQM philosophy, and a lot of training and education for all - from general to sergeant."

Col. Harry D. Gatanas, USA, "Leadership and Total Quality Management" pages 23 to 24 - April 15, 1992.

Implementation Models:

A number of public and private sector TQM/TQL implementation models, both general and specific, are available in the literature. The Federal Quality Institute (FQI) TQM Documents Catalog and Database User Guide has a section devoted entirely to recent research in TQM/TQL implementation. This section was particularly helpful for this research paper.²⁸ The implementation models the author found most useful are listed at the end of Appendix A.

"Getting Started" in TQL: A Simplified Model

The following is a simplified implementation model for the CO who has not attended the Navy's Senior Leader Seminar, but who wants to get started implementing TQL in his/her command. This five stage model is a synthesis of experience and research. It is based on the

author's personal experience trying to implement TQL in his last command, experience tempered by time and the author's research in TQL theory, methods and implementation models.

A common thread noted in all implementation models is that TQL is leader-driven.²⁹ However, this "leader-driven catalyst" may not be resident in all commands. In fact, a CO may have a number of reasons (or excuses) to wait to implement TQL in his unit. For example, if the CO's immediate superior has not started TQL implementation in his/her upper level organization, the CO can use this as rationale to wait to start until his boss starts. Another reason often cited is, "the unit is just too busy right now, maybe later." The CO can use this as rationale to postpone implementation until "after this inspection and after that milestone, and once we get this done," and so forth. In effect, the CO postpones implementation until his command tour is over, leaving the work of TQL implementation to his relief. Still another excuse is, "the CO has not attended the Senior Leaders Seminar." A CO may wait to start implementation until after completing the SLS course, and in the meantime, he/she has lost valuable time in getting the quality ball rolling in the outfit.

Why this delay? Because of change. Implementing TQL will bring about change, profound change, and great change to any organization. Some CO's may wait to implement TQL because "business as usual is comfortable," and they really do not want to change.

"People don't resist change, they resist being changed."

Scholtes and Hacquebord - July 1988.

The fact is *most people resist change* (or resist being changed) - even commanding officers! Why? Because change demands new tools for adjusting, leading, managing, communicating and

coping.³⁰ **Change is hard work.** Before any CO attempts to make a change on the magnitude of TQL, he/she must first understand the inevitable resistance to change they will encounter, manage that resistance in him/herself, and serve as the change agent for others in the command. According to R.E. Channell, "the leader is the ultimate change master and his true skill lies in his ability to conceive a new vision and aid it is transition into reality."³¹

Simplified TQL Implementation Model
The Five Stages of Implementation

- I. CO "buys-in" and makes a personal commitment
- II. CO forms the unit's critical mass
- III. ESC develops the unit's strategic plan
- IV. ESC and QMB's take-on pilot projects
- V. Unit practices "strategic management"
 - Training expanded
 - Quality reach extended

Stage I:
The CO's "Buy-In" and Personal Commitment

The First Step is Getting Started!

The CO need not wait for TQL to come to the unit, or wait until after he/she attends senior officer TQL E&T to implement TQL in the command. Waiting wastes time, and since some command tours are only 12 months long, there is good reason for the CO to get started right away. A great deal of improvement can be made even without formal TQL E&T. It is the CO who must decide when to get started.

The Second Step is Doing Some Personal TQM/TOL Reading.

The CO needs to be personally committed and to "buy in" to the TQL movement. The CO must take some personal time and read a couple TQM books. The author does not recommend starting with Dr. Deming's, "Out of the Crisis," or Ishikawa's, "Guide to Quality Control." Instead, one of the Walton books, "The Deming Management Method," or "Deming Management at Work" is recommended. Crosby's, "Quality is Free" and Goldratt's, "The Goal" are also good starter books, but since the Navy is heavy into Deming methods, the Walton books are preferable. After reading a starter book, Carr and Littman's, "Excellence in Government" and/or Imai's, "Kaizen" are worthwhile follow-on reading. All of the starter books are available in paperback. The follow-on books are available in most libraries.

Third, the CO Must Get a Quota for Senior Officer TQL E&T.

The CO can get the TQL ball rolling in his/her outfit while waiting to attend the SLS, but eventually he/she must attend the Senior Leaders Seminar Course. This is a high priority. Obviously the CO should get a quota to attend the SLS as soon as feasible. The CO's completion of this course is a prerequisite for other members of the command to attend TQL E&T. The CO can not carry the TQL load by him/herself.

Fourth, the CO Should Read the CNO's Starter Kit Cover to Cover.

The kit contains excellent basic information and useful techniques for starting process improvement. The kit will be especially valuable if a starter book has been read before hand.

Fifth, the CO Must Try to View the Organization Differently.

This is most difficult, but instead of viewing the command as an organization of functions (or departments), the CO must view the command as a system of cross-functional processes. The CO's ability to use a systems approach over a functional approach, and do "systems thinking" is critical to successful long term TQL implementation. The leader adopting "systems thinking" is vital to the organizational transformation.³²

Stage II: Developing the "Critical Mass"

The First Step is Co-Opting Trusted Advisors.

The CO needs others to become committed to TQL. It is critical the CO get the support of the unit's second in command (the Chief of Staff, the Chief Staff Officer, the XO, etc.) and from the senior enlisted leader - the Command Master Chief. Both must be brought in on the plan from the beginning. The CO should discuss CNO's guidance, TQ theory and the Starter Kit with them and have them read a starter book. The CO should hold follow-on meetings to discuss the book, the theory and the implementation process.

The Second Step is Forming a TQL Study Group.

The CO, XO and Command Chief must decide who next to bring into the process. This starts the "cascading effect" as the leadership searches for the unit's critical mass. This is a difficult step. CO's have a tendency to follow the traditional organization structure at this point

and assume their department heads by definition constitute the unit's critical mass. As such, CO's bring in all their department heads at this early stage of TQL implementation and consider them the critical mass.

This is often a bad assumption. To the contrary, the leadership should not expect the critical mass to conform to the organizational chart. Instead, the TQL literature recommends the CO recognize the "informal organization."³³ This means bringing together a cross-section of people into a "group" - a TQL study group. The group should be made up of the movers and shakers in the unit, the peer leaders of different ranks and groups, the marketeers and people with special access to information and/or materials. The group should be kept small. The CO and XO should lead initial discussions covering the general plan, TQL theory, and key concepts. The CO and XO need to stimulate free and open discussion. The leadership should assign group TQL readings and follow-up with additional group TQL awareness sessions to discuss the readings. Further, the leadership should have study group members brief different TQL concepts to the other group members at follow-on sessions.

The Third Step is Selecting People for Key TQL Positions.

The ESC should select a TQL Coordinator and a TQL Advisor from within the TQL study group. These assignments are critical and the leadership must make them wisely. Selection should be based on communication skills, overall ability, enthusiasm, common sense and commitment. Rank (officer or enlisted) is not critical, except the selectees must be experienced - an O-3 or above for an officer and an E-7 or above for an enlisted member. The ESC needs to select people who have at least 15 months left in their tour. This ensures they have time to

complete TQL E&T and have at least a year to help the CO implement TQL in the unit. They also provide continuity after the CO's tour is over and a new CO takes command.

The Fourth Step is to Let Everyone Know TQL is Coming.

The CO should tell the entire command that the ESC has formed a TQL study group, what the group will be doing and what to expect as the message of TQL gets out and about. The CO should use all media tools at his disposal to talk TQL to his/her people; unit bulletin boards, all hands meetings, speeches, dinners, awards ceremonies, news articles in station papers, and so forth. The CO needs to use the language of quality in all endeavors.

The CO must also let his/her immediate superior know that the command has started to implement TQL. This announcement need not, should not be made with a big fanfare. The author recommends a Plan of Action (POA) be sent up the chain of command. Updated as needed, a POA keeps senior officers apprised of the unit's progress and may prevent meddling on the part of senior commanders. More importantly, the immediate senior may have ideas and resources to assist the implementation effort - resources the CO should not overlook.

Fifth, the ESC should Start Unit Wide TQL Awareness Training.

The ESC must do frequent and widespread awareness training, training for everyone! **Train, train, train.** Awareness training should be basic, interesting and motivational, and be done in cross-functional sessions (vice by department or by work center). The CO should do some of this initial training himself. This clearly demonstrates his/her commitment to TQL and lets everyone know TQL is really important. In the Recruit Training Command, the leadership

made a short video (informal and home grown) to explain the basics of TQL in a language the members of the command could understand.³⁴ This is a great idea! The TQL Coordinator could use a home grown video with CNO's "TQL Welcome Aboard" video and other motivational videos such as those by Tom Peters or Joel Barker to make for a very effective TQL awareness program. Once the TQL Coordinator and TQL Advisor have received TQL E&T, the Introduction to TQL course should be taught, still using the home grown videos for "color."

Stage III: Strategic Planning

The First Step is Modifying Command Organizational Structures.

The leadership must establish the ESC and some standing QMB's. There are two basic ways to modify the organizational structure. One way is passively, by folding the ESC and QMB's into the existing organizational chart. This approach usually results in an ESC composed of the CO, XO and the Department Heads, and standing QMB's organized by function and chaired by the department heads (administration, maintenance, safety, operations, training, etc.). The QMB Chairmen provide linkage between the ESC and the QMB's.³⁵ While this method represents the least change, there are some problems with this approach. First, since it looks like a change in name only, this approach may result in a "business as usual" attitude and keep TQL from ever really getting off the ground. Second, the larger the ESC the more difficult it will be to gain consensus and formulate strategic direction. Third, the Command Master Chief should be an ESC member. The workers may assume excluding the Command Master Chief implies the ESC is only for "officers," a delineation limiting in scope and inconsistent with TQL.

An alternate approach replaces existing structures with a smaller ESC and cross-functional standing QMB's. The CO, XO, Command Chief and two or three other key members of the command would make up the ESC. The other members may be officers, civilians, or enlisted. These other members may be ESC members in full standing, ESC advisory members, or ESC temporary members - it depends on the command and the command plan. The ESC should organize standing QMB's by processes rather than functions, and the most qualified person - officer or enlisted, department head or chief petty officer, military or civilian worker should be the QMB chairman. There are obviously also some problems with this method. First, it represents the greatest change to the status quo, especially with the department heads (middle management), and it will meet with the most institutional resistance. Second, it does not always provide for direct linkage between the ESC and the QMB's. Despite these institutional problems, this type of structure should be the goal of the organization.

Given the above, at first a "combined approach" may work best. During the steps of forming the critical mass, holding awareness training and doing initial strategic planning, the CO would build a large ESC and set-up functionally organized standing QMB's. This elicits the greatest participation in the least threatening environment. However, once the command completes the implementation process through the initial strategic planning step, the CO should modify the ESC and standing QMB's along cross-functional lines as soon as feasible.

The Second Step is Modifying Meetings to Conform to TQL.

The leadership should change the unit's standing meetings (and other rituals such as reenlistment ceremonies, awards presentations, retirement ceremonies and so forth) to reflect ESC

and QMB structures (vice departmental structures). Regarding standing meetings, TQL must be the first agenda item discussed. The ESC should change department head meetings, all officers meetings, departmental meetings and the like to ESC meetings, QMB meetings, and Process Action Team meetings. Most commands use standing meetings primarily for passing and sharing information rather for making decisions, investigating problems and generating ideas (tasks normally done in meetings held in a TQL environment). Changing the names of meetings is purely cosmetic until people learn to operate, communicate and share information in cross-functional ways. However, this symbolic change is an important step as it facilitates the fundamental shift in the purpose and focus of a unit's standing meetings and rituals. Naturally commands will still need to hold some functional meetings for information sharing, but their frequency and importance should diminish as the command institutionalizes TQL.

Step Number Three is Conducting an Organizational Assessment.

The TQL Coordinator will learn about organizational assessments in the E&T TQL Implementation Course. The ESC, with the help of the TQL Coordinator and Advisor, should decide the type of assessment to conduct, its scope, its focus, its timing, and its intended use. The TQL Coordinator should also consult the FQI TQM Handbook as it has a section on conducting an organizational assessment including how to order a DOD Self-Assessment Guide that the Coordinator could use while crafting a command assessment.³⁶ In addition, the CINC TQL teams may be helpful in tailoring a generic command assessment for specific organizations. The assessment establishes a command TQL baseline. It identifies the existing culture and management style of the unit, and highlights potential barriers to TQL implementation within

the command. Further, it provides target areas for early process improvement and more.

The Fourth Step is "Benchmarking."

Now that the ESC has been formed and trained, awareness training is ongoing, and the organizational assessment is underway, it is time to see how the best do business. The leadership should visit organizations

recognized as world class outfits, ones that have already implemented TQL.

This is called benchmarking - a term that means

**USAA says, "Get outside your Box - Benchmark!"
Visit:**

- **Direct competitors (similar units)**
- **Industry leaders (the "best" of similar units)**
- **Latent competitors (other units/similar mission)**
- **World class leaders (govt/industry - pick 'em)**

copying the best practices of organizations that excel at performing their mission. USAA suggests in the box above four categories of organizations to benchmark.³⁷ The entire ESC should participate in benchmarking visits and "get out of their box."

Caution - Caution - Caution: Benchmarking will not improve performance unless a unit already has a comprehensive quality program. If a unit does not have a quality-oriented infrastructure in place and has not trained its members in quality principles, trying to imitate the best will probably just disrupt operations.³⁸ This is why TQL researchers recommend benchmarking be delayed until this stage of the implementation process.

The Fifth Step is to Develop the Command's Strategic Plan.

Two of the ESC's most important jobs are to draft the command's mission, vision and

guiding principles statements, and follow-up with a set of strategic goals based on the vision and guiding principles. Typical ESC's develop their plans during an off-site retreat. ESC members, the TQL Coordinator and the TQL Advisor prepare for the retreat by reviewing the mission, vision and guiding principles statements of their chain of command (DON, CNO, CINC, Type Commander, etc.), and then travel to an off-site location. This action frees the ESC from their normal work routine so they can concentrate on developing the command's strategic plan.

The ESC should develop this strategic plan by focusing on the organization's ultimate purpose, its core values, and its major processes.³⁹ At this stage the CO's vision should be clear and understood by the entire ESC and standing QMB's.

Stage IV: Take on Pilot Projects

The First Step is Actually Practicing TQL - Start Doing Some of It!

The ESC should select a few pilot projects to exercise TQL mechanisms. These projects should be small, highly visible and not too complicated. The ESC should pick sure winners, ones that will allow for early successes and serve to motivate the command for more projects. The ESC should empower QMB's to form PAT's to attack these few problems and projects. The organizational assessment should identify problems bothering a large cross section of the command. The QMB's should draft the project problem statements which the ESC approves and the QMB's send out to the appropriate PAT's for action.

The Second Step is Doing Just-in-Time Training for the PAT's.

The QMB's must form the first PAT's with great care and great fanfare. The PAT membership and the problems tackled should be cross-functional. Before starting on the problems, the ESC must provide team and tools training for the PAT's. The CINC's TQL Training Teams may be available for a visit, or the ESC can send the teams to the schoolhouse for formal training.

The Third Step is Getting the QMB's and PAT's to Work Together.

QMB's and PAT's must use their training to help them define and solve problems. It is important PAT's and QMB's work closely to ensure project definition is clear, and all involved understand the problem. At this point the PAT's are cut loose to work on the pilot projects using the 12 step process improvement guide in the CNO's Team Handbook for Process Improvement.⁴⁰

The Fourth Step is Reporting Results to the ESC.

The PAT's are to report their findings and recommendations to the QMB's for further action by the ESC (if necessary). At this stage, PAT leaders should personally brief the ESC on their findings using whatever charts and graphs they developed during their work. This is an important step. It gives the PAT's access to the ESC. Conversely, it enables the ESC to look at the methods used by their PAT's.

The Fifth Step is Formal Acknowledgement of the PAT's Work.

The CO should use his various means of communication to let everyone know what the PAT's did, what they found, what they recommended, what is being changed as a result of their efforts and what will happen next. The ESC must recognize the work of the PAT's and spread this recognition throughout the unit. Leadership should reward the PAT for their efforts (if appropriate). The ESC should also do another command wide "media blitz" to recognize the team's accomplishments and to get more people interested in TQL.

Stage V: Expand Training and Extend the Quality Reach

At Stage V the command starts to engage in strategic management. There are no specific steps to this stage other than more and more of Stage IV's actions. The command must expand team and tools training to include more and more people and more and more PAT's. Awareness training must be ongoing. The command starts to extend its quality reach by taking on more important projects. Cross-functional relationships become the rule, single function actions become the exception. The following characterizes Stage V of implementation:

The CO's Schedule Tells It All!

On the CO's daily schedule events like ESC meetings, QMB/PAT briefs, TQL awareness lectures, and team award presentations replace department head meetings, issue paper reviews, inspection findings and the like. Quality takes a priority over crisis management on the CO's daily schedule.

The ESC Expands Rewards and Recognition Programs.

The ESC increases the command's awards programs, and frequently and openly recognizes the good work of deserving teams. More and more the recognition goes to entire teams rather than to individual officers, senior enlisted members or just to the team leaders.

QMB's and PAT's Start to Attack Core Processes.

As the command becomes skilled in systems thinking, the QMB's and PAT's take on more difficult issues such as safety, readiness, training, and performance evaluations. The command's strategic goals identify the unit's priorities to the QMB's and the PAT's.

The ESC Handles Crisis Management Situations "in Stride."

When problems arise the ESC contains them and handles them at the lowest possible level. The ESC takes on the recurring problems, decides on their priority and refers them to the QMB's for definition, PAT assignment, process analysis and solution. The unit learns to use TQL to prevent "future fires, not put unexpected fires out." The command has become a quality organization.

Mistakes That Cripple Quality

- o Failing to focus on strategic objectives
- o Ignoring infrastructure - ESC/QMB's ignore need for cross-functional teams and empowerment
- o Neglecting rewards
- o Not assuring job stability
- o Looking at the quality process as a program
- o Giving up - TQM takes time and effort

**"Who's Killing Quality" by Kevin Doyle,
Incentive, August 1992, page 16.**

Mistakes to Avoid: the Common Pitfalls

The literature is full of pitfalls and barriers that a leader will encounter that slows TQL implementation. These pitfalls are part of the transformation process. CO's and the ESC must expect, anticipate, manage, and avoid pitfalls whenever possible. The DON TQL E&T courses cover many of the various pitfalls.⁴¹ Still, CO's and ESC's will make mistakes.

It is the CO's job to handle pitfalls as they happen. When problems occur early-on in TQL implementation, people in the command will scrutinize the way the CO and the ESC handle them. If the leadership "walks the talk" and uses process improvement methods and empowerment to attack the pitfalls, the ESC's performance will reinforce the TQL effort. If the leadership reverts to knee jerk actions and authoritarian methods, the troops will see this and the TQL effort will be damaged. As such, the CO and the ESC must manage pitfalls with care, and take a long term view as to the best way to handle them. There are four general pitfalls that can occur in any of the stages of implementation. The four are by no means all the pitfalls the ESC

will encounter - they are pitfalls the literature most frequently mentions. Specifically:

False Starts:

When breakdowns occur in the command's TQL implementation plan, the ESC should consider this a false start. A false start is when a quality initiative fails. The CO and/or the ESC are usually the cause of these problems. The leadership often tries to move too fast and use TQL methods before the command is committed, trained, focused and ready. For example, there may be a problem forming the critical mass or scheduling awareness training or conducting an operational assessment. The ESC should openly recognize a false start occurred, publicize why the effort failed, and assign people to get the program back on track. Simple as that!

Too Busy:

The CO's may think their command is too busy to spend time now to save time later. Unfortunately, the workload does not stop to allow our unit's to stand down and transition from "management by event" to management by process improvement. The people interviewed for the CNO's video frequently mentioned this conflict as causing problems.⁴² For a significant period of time during TQL implementation, conflicts will occur as the command tries to operate two organizational structures. All too often during these busy times TQL may be overcome by events (OBE), and the ESC may shelve TQL implementation until a "better time" comes along. This is another case when the CO and ESC must "walk the talk" if TQL is to be successful.

Functional Thinking Instead of Systems Thinking:

A unit can get stuck in its functional paradigm. Shifting to systems thinking and a systems approach will not come naturally. Cultural barriers, organizational structures and standard operating procedures will block serious attempts to make the Phase II organizational transformation. A transformation that will only happen by moving to a "systems approach" for leading and managing the organization. Again, the leadership of the command must be the role model for the shift from functional thinking to systems thinking.⁴³

Short-Term Focus on Programmatic Objectives:

TQL requires organizations to have a long-term focus on strategic goals. However, many units do just the opposite. They display a short-focus on programmatic goals.⁴⁴ This is a major pitfall. For example, a CO and the ESC may focus on next month's fleet exercise and make decisions to optimize the unit's performance during the event. However, later on in the year these decisions "come back to haunt" the ESC by causing major problems for the unit. This is classic problem many operational units frequently encounter!

Having a short time horizon is a common false start. Command mission, vision, guiding principles and strategic goals that are focused primarily on the next two to three years (the time horizon of the current ESC membership) are indicators that the ESC's time horizon is too short for good strategic planning. If this happens, the ESC should reconvene for a day or two of closed session to rework the strategic plan and make it truly strategic. A visit from a CINC TQL Team or a trip to the schoolhouse by the ESC are options that should help.

"First you take the low-hanging fruit and eventually get to a point where you've fixed things, soon improvements flatten off and people get frustrated and start to think TQM was a fad."

**Jim Paulson, Executive Director for Corporate Quality, Ford Motors.
August 1992.**

Why TQM/TQL Methods Fail

Reports and articles have started to appear in major publications like The Wall Street Journal, The Economist, and Newsweek reporting that U.S. companies are having trouble with TQM.⁴⁵ Douglas Aircraft and Deming Prize winner Florida Power & Light are two such companies. "In less than two years, Douglas's version of quality management was a shambles, largely because the program's advocates hadn't anticipated massive layoffs that poisoned labor-management relations."⁴⁶ At Florida Power & Light the new CEO, James Broadhead, eliminated most of his TQM department because workers had complained that TQM's "emphasis on indicators, charts, graphs, reports and meetings took time away from serving the customers and participating in community affairs."⁴⁷ A study by McKinsey & Company found that, "of quality initiatives in place for more than two years, as many as two-thirds of them have sputtered out due to lamentable results."⁴⁸

That TQL can easily falter makes sense. Considering just the four pitfalls discussed earlier, obviously a lot can go wrong to cause the quality movement to fail. Not surprisingly, most of the frequently mentioned reasons for failure apply to the Navy. Specifically:

Lack of Leadership:

Harvey Brelvin, President of the American Productivity Center in Houston said, "I would

say a primary reason for the failure of TQM is a lack of leadership." There is no surprise here, one of the most "studied subjects" in the public and private TQM/TQL literature is leadership. TQL is driven from the top!

Emphasis on Measurements over Improvements:

QMB's and PAT's often misapply the measurement function of TQL. Teams may substitute data in place of analysis and confuse measurable activities for substantive information.⁴⁹ This makes measurements "ends in themselves." Many teams over measure. Edmund Metz noted, "Some companies have gotten so bogged down in analysis and measurements that they have made little progress in their productivity and quality efforts."⁵⁰ The correct notion is to measure what needs to be improved rather than improve what can be measured.

Misguided Incentive Programs:

Kevin Doyle, in his article "Who's Killing Total Quality?," stressed that incentive and recognition programs help promote the cultural changes associated with TQM. Some of the consultants and companies he interviewed noted that, "another reason programs (TQM) fail is that companies don't always restructure their reward systems to help promote quality."⁵¹ Tom Vanderpool, a quality consultant interviewed by Doyle said, "Incentive systems are typically geared to reward people for bailing the company out of fires, not preventing them. A company that ignores its reward system when it turns to quality management will continue to drive the wrong kinds of behavior and never make the transition to total quality."⁵² These remarks very much apply to the current Navy system for rewards and incentives. The Navy must "fix" its

awards, incentive and promotion processes because the way they are managed now imposes a major barrier to the quality transformation.

Failure of Management to Respond to Its New Role:

TQL calls for a transition from authoritarian leadership and hierarchical decision making to participatory leadership, empowerment and decentralized decision making. In an organization with committed leadership and empowered workers, the role of the middle managers has changed dramatically. In TQL, the role of management changes from problem solver, program owner and resident expert to that of leader, coach, facilitator, advocate, team builder, information and resource provider, and so forth. These role changes may cause problems with the middle managers. During the transition to a quality organization managers will generally fall into three categories: (1) those that buy-in, learn and accept their new role; (2) those that resist TQL and conduct business as usual; and (3) those that abdicate their old role, but fail to assume their new responsibilities and end up doing nothing.⁵³

Accordingly, leadership must pay close attention to the training, attitude, motivation, performance and recognition of their middle managers. The middle managers will probably resist the change to TQL more than any group. This group has the most to lose and the least to gain, especially if they fail to rightfully assume their new role. When this happens in Navy units, the people involved lose out and the command loses out as well. Fortunately most of these leadership roles (or types) are already resident in the Navy's cadre of chief petty officers and junior officers. This should prove a source of organizational strength during the transition.

Unrealistic Expectations:

Stated directly, "Too many companies try to do in a year what Baldrige winners accomplish over many years."⁵⁴ In industry, firms seek profit and increased productivity. Their "managements expect it (TQM) to be instant gratification, and that is one of the key reasons for failure."⁵⁵ So far however, SecNav and CNO have been satisfied with the Navy's progress in TQL implementation. It is important that subordinate commanders follow the lead of SecNav and CNO, and not push for unrealistic results or try to implement TQL too quickly and haphazardly.

Recommendations

What Fleet Operators Need from Senior Leaders.

By all accounts TQL is proceeding into the fleet at a measured pace. The SecNav and CNO have issued their vision, guiding principles and strategic goals, and the Fleet CINC's have issued their implementation notices. The TQL E&T schoolhouses have been built and a Navy wide TQL network has emerged to do the work of quality. One must ask, what comes next? A good question.

The author suggests it is time for the highest level of the DON leadership to re-engage and attack a new set of problems and barriers to TQL's implementation - the hard stuff. The stuff that will move the DON closer to the cultural transformation necessary to make the Navy a quality organization. This is easily suggested, but right now there may be great reluctance for our highest leadership to "walk the talk." They are really busy. The new Administration, the

draconian budget cuts, Tailhook scandal, gays on our ships, and the DON is still waiting for the Administration to name the Secretary of the Navy and his/her assistants. If these reasons (or excuses) for delaying TQL sound familiar, they should because they have already been discussed in this paper. There is always a good reason to wait. The problem is the DON may wait so long that the changes may never happen. If so, Navy wide TQL will surely falter.

It is critical for the leadership to re-engage in this time of great change and uncertainty. The Navy must overcome its resistance to change because in times of uncertainty and change there is also opportunity. Our leaders must realize that it is time to press on, and seize the opportunity to manage this change. The Navy's leadership should capitalize upon the disruption of the times and engineer some of the structural changes necessary to facilitate the cultural transformation the Navy needs to proceed beyond Phase I. With all the turmoil and other changes being made in DOD and the DON, the changes resulting from the four recommendations below may be "lost in the noise."

#1: Institute TQL E&T from "Cradle to Grave."

As good as the TQL E&T curriculum is, it does not go far enough. Training organizations must inculcate the language of quality into all Navy training. The TQL E&T program does not have the reach necessary to "cover the Navy." To reach all levels, the leadership must institutionalize and implement Navy TQL E&T into all layers of the organization, in particular at accession points and during refresher training. The Naval Academy, NROTC Universities and Officer Candidate Programs need to teach TQL to all officer

accessions. Navy basic training (boot camp) and the technical training schools ("A" schools) need to teach the Introduction to TQL Course to all enlisted accessions. Training administrators need to insert TQL segments into all "pipeline curricula," making room in the curricula by eliminating less important training.

The E&T Advisory Group must also institutionalize TQL training for senior officers and senior enlisted. CNET needs to revise the Navy wide Leadership and Management Education Training (LMET) program so that it conforms to the TQL format. The E&T Advisory Group should add TQL to all command and staff courses, Surface Warfare Officer refresher training, to the curriculum at the Senior Enlisted Academy and to the curriculum at the Naval War College. Finally, CNO should recommend adding TQL courses to the curricula at the National Defense University and at the CAPSTONE.

There is no need to reinvent the wheel - CNET has already developed the courses, now the training administrators need to distribute them and integrate them into the training pipelines. Since TQL is such a high priority, time must be made available from within existing curricula to do the training of quality. It is understood that curriculum managers will have to eliminate other subjects to make room for the TQL courses.

#2: Performance Evaluations Must Be Revised.

The Chief of Naval Personnel has formed a QMB and PAT to investigate the evaluation issue. This is an outstanding first step because the performance rating system is in need of

revision. It no longer meets the needs of the Navy. Seniors typically inflate enlisted evaluations and officer fitness reports such that the reports poorly serve their customers (the customer of an evaluation being the individual, selection board members, and assignment and detailing officers). Revising performance evaluations to emphasize TQL attributes, professional qualifications and war fighting skills is a good place to start. Stressing team accomplishments over individual achievement and devising a less specific ranking system are other areas for primary consideration.

#3: Award Criteria (Personal and Unit) Must Be Revised.

The Navy's awards and incentive systems are 100% in conflict with the notion of TQL. We typically reward the one or two performers who have "done the best." The stars who have shone the brightest, and those most skilled at putting out fires. The existing awards system recognizes the problem solvers and forgets the problem finders. This is an easy fix. Team awards (ribbons, medals, certificates, plaques, and so forth) should be devised and widely distributed down the chain of command. The CINC's and Type Commanders should empower their lower echelon commanders to give out these awards to their deserving teams. Individual awards should be reserved for specific acts of heroism and unusual accomplishment, and used to document the sustained excellence over the course of a tour (called "end of tour awards") for our very best performers.

Most unit awards are also oriented to only one winner. The Navy Unit Citation and Meritorious Unit Citations are a notable exceptions, but the number of these awards the Navy

gives out each year is very small compared to all the Navy units in existence. The rest of the awards: the Battle Efficiency Award; the Golden Anchor (retention award); readiness awards; training awards; maintenance awards; safety awards; and so forth, are all designed to select one winner from a group of similar units. This leads to fierce competition at a time when Navy units must work closer and closer together and must work smarter not harder. Sub-optimization is a virtual certainty when units compete rather than cooperate. This problem is also an easy fix (although it is also a huge cultural leap of faith). The Navy should adopt a Baldrige or FQI President's Award format, set high standards and develop new awards for their units. Senior commanders would present awards to all organizations that meet the criteria, not just the ones that score the highest.

#4: "Walk the Talk" - Revamp Navy Inspection Programs.

The operational Navy is a classic case of inspecting for quality at the end of a process. This is expensive, ineffective and time consuming. Navy commands go through an exhaustive regime of inspections during their at home training cycle. The purpose of the inspections is to ensure the unit (people and equipment) can perform the mission. The inspectors become the command's customer, and the unit does all it can to delight the inspector, sometimes at the expense of its real customer - the operational commander. If a unit fails an inspection, bad things usually happen. Seniors hold people accountable and the unit comes under even closer scrutiny. To avert failure, local commanders often schedule pre-inspections which are as difficult and time consuming as the formal inspections. Our sailors are working twice as hard, but they are working harder for all the wrong reasons. They are working "not to fail" when they should

be working to make the system better. The approach of working "not to fail," is dead wrong!
It must be fixed.

Functional and Type Commanders should attack this problem. They should devise ways to determine a unit's mission readiness by looking at the way the organization does its day to day business. Looking at a command's core processes, reviewing process data and interacting with PAT's and QMB's are ways to inspect quality into an organization. Senior commanders should adopt notions like the industrial activities technique of "in-plant quality evaluation" (IQUE) as a way to measure the "in process" performance of his/her operational units. This concept obviously needs refinement, but the DON ESG and CNO's ESC must consider similar ideas if the Navy is to change its reliance on "end state" inspections.

Conclusions and Parting Thoughts: A Job Well Begun

DOD's Leadership Commitment is Missing from the TQ Effort.

In 1988 then Secretary of Defense Carlucci issued a high level memorandum that provided the original impetus to adopt the TQM philosophy in the Department of Defense. While the Navy's efforts had been going on since 1983, Carlucci's 1988 memo was the spark that elevated TQM awareness in DOD. Now, five years later, Secretary Carlucci is gone, Mr. Cheney is gone and SecDef's TQM initiatives have been few and far between.

In the Navy, the lack of strong SecDef interest did not discourage the DON's efforts to

implement TQL. Secretary Garrett and Under Secretary Howard had the profound knowledge and were the initial champions of the DON's quality movement. They provided the strong, informed and focused leadership from above to start TQL cascading down throughout the Navy. However, they are both gone, still without replacement, and the CNO is left alone to lead the quality effort. He and the Navy's TQL organizations are left to wonder if the new Navy Secretary and his Under Secretary will be as committed as their predecessors. How the new Secretary feels about TQL is "the" critical question for the future of TQL in the Navy.

The DON is Not Ready for Phase II.

The Navy is in the middle of Phase I of TQL implementation, but will progress no further until the highest levels of leadership re-engage and attack the fundamental problems that still exist. High level leadership needs to remove the cultural barriers that resist organizational change. Systems thinking and process improvement must replace program thinking and event based management. Leadership at the flag officer level and above must institutionalize TQL training, revise award and incentive programs, reform military and civilian evaluation methods, remove institutional competition that causes sub-optimization of resources, and change the Navy's inspection mentality from methods that focus on the end results to methods that inspect quality in to our processes and systems.

Still, Much has been Accomplished.

Having said the above, the Navy's progress in implementing TQL is impressive. Fleet operators from Admiral to seaman, from SES to the lowest civilian worker are learning about quality, teamwork, empowerment and continuous improvement. Navy schoolhouses have a strong TQL E&T program. Further, Navy unit commanders are starting to base decisions on data rather than hunches, and focus on long term strategic goals rather than on a short time horizon spanning only a two year command tour. Just as important, the Navy's maintainers and sailors are starting to realize, "if it ain't broke, improve it, and improve it, and improve it!" All of this is very good. The Navy should be pleased with its work.

To most organizations these accomplishments would constitute a success story. A reason to celebrate. However, the Navy is a long way from success. There is so much more to do. Strong leadership is still required, and our "critical mass" needs to stand up and be counted. TQL progress in the Navy is not yet a success story. However, what can be said about the Navy's progress in implementing TQL is that it is a, "**job well begun.**"⁵⁶

Appendix A

Literature Review

Academia's interest in TQL/TQM is yet another indicator of the progress of TQL implementation. The notion is that the academic literature reflects intellectual stimulation in high priority topics. High priority topics should attract the interest of the officers and Navy civilians attending postgraduate schools, civilian university fellowships and military service schools. Theoretically, these individuals should produce course papers and articles that reflect the high priority interests of the Navy. Specifically, academia's research into TQM/TQL might tell something about how TQL implementation is perceived and is progressing. This seems like a reasonable assumption.

TQM/TQL Literature Search:

Two government maintained-databases were searched in preparation for writing his paper. The Defense Technical Information Center (DTIC) database was searched using the first level terms "total quality management" and "organizations." Also, the Federal Quality Institute's (FQI's) Federal TQM Documents Catalog and Database User Guide (May 1992) was reviewed in depth. The literature searches identified that significant public research has been done in the quality area over the past three years (1989 through 1992). Most of the work has been sponsored by high level government organizations such as DOD, Department of Health and Human Services, NASA, EPA, IRS, the Forest Service, the Departments of the Army, Navy and Air Force, and

so forth. As should be expected, NPRDC has been (and remains) a major contributor to TQL/TQM research.

The databases were searched for research papers written specifically by military members attending service schools. The searches were independent of each other. That is, many papers appeared in both databases. The author did not attempt to combine the data to arrive at a figure for the total number of papers in the combined data bases. The number would be in excess of 40 papers published in the last three years. The Naval Postgraduate School (NPGS), the Air Force Institute of Technology (AFIT), the Air War College (AIR), the Army War College (ARMY), the Navy War College (NAVY), the Industrial College of the Armed Forces (ICAF), and the National War College (NAT'L) are the military schools that stimulated most DOD TQL/TQM research. The search yielded some interesting information.

The DTIC search identified 29 research papers written by military members attending service school between mid-1989 and mid-1992.⁵⁷ The FQI database contained 34 papers written during the same approximate time frame.⁵⁸ The papers revealed four areas of primary interest: (1) leadership; (2) implementation; (3) training; and (4) tools (statistical methods). Table I displays where the papers came from and the frequency of each sorted by the four areas of interest. For comparison, the DTIC information is **bolded**, the FQI information is in parentheses (xx).

Table I - TOM/TQL Military Research Papers (1989 - 1992)

(Sources: DITC in bold, FQI TQM database in parentheses)

School	Leadership	Implement	Training	Tools	Totals
NPGS	1 (1)	8 (9)	1 (1)	1 (2)	11 (13)
AFIT	1 (1)	6 (6)	1 (2)	0 (4)	8 (13)
AIR	3 (2)	2 (3)	0 (0)	0 (0)	5 (5)
ARMY	2 (1)	2 (1)	0 (0)	0 (0)	4 (2)
NAVY	0 (0)	0 (1)	0 (0)	0 (0)	0 (1)
ICAF	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
NAT'L	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	8 (5)	18 (20)	2 (3)	1 (6)	29 (34)

The data in the table reflect DOD wide TQM/TQL research. DOD wide data are included to offer a comparison across all services. However, of specific interest are papers written by Navy personnel. Of the 29 DITC papers, six were written by naval officers - one paper was written by a commander attending the Army War College, the rest were written by lieutenant commanders and lieutenants attending the NPGS. Of the 34 FQI papers, 13 were written by naval officers - one paper was written by a senior officer attending the Naval War College, the rest were written by junior officers attending the NPGS.

What Does All This Mean?

First, it is impossible to tell from the data whether a lot of TQM/TQL research is being done, whether a little TQM/TQL research is being done, or whether the amount of research being done is that expected given the number of students and the overall number of research papers written for other fields of study. However, the data are useful to make inferences about TQM/TQL interest, awareness, focus and implementation. Specifically:

The NPGS faculty has generated significant interest in TOM/TOL.

The primary focus of junior naval officers attending NPGS and writing about TQL has been implementation of TQL in their particular specialty area (aviation, ship, maintenance, acquisition, etc.). This supports an assumption that our junior officers are more concerned in making TQM/TQL work than in the other areas of primary interest (leadership, training and tools).

Senior naval officers have not written very much about TOM/TOL .

There is not much in the databases written by naval officers above the rank of O-4. This could be because of all the officers in the Navy, relatively few officers this senior are assigned to the military service schools or NPGS. The fact could also show a lack of interest in, or awareness of TQL/TQM. That there is just one paper from the Naval War College in this large database of public research seems significant.

AFIT's data are comparable to NPGS.

The AFIT has done more TQM/TQL research than the Air War College, just as NPGS has done more TQM/TQL research than the Naval War College. Also, the primary area of interest to AFIT students is TQM implementation - the same as NPGS students.

The senior service schools are not stimulating much TOM/TOL research.

The Army and Air War Colleges have stimulated more interest in TQM than the Navy War College, ICAF and National War College. Although the data are limited, interest at the senior service school level is split between leadership and implementation, a fact to be expected as senior officers, who have tried TQM during their command tours, begin to document their efforts.

The NDU has generated only one paper in the databases.

The lack of TQM/TQL related research papers from the National Defense University (the ICAF and the National War College) is disturbing, especially in ICAF's case. The ICAF is focused on the defense-industrial base, the performance of key U.S. industries, U.S. economic policy, the U.S. work force, U.S. defense acquisition policy and industrial competitiveness. The relationship between these subjects, the quality movement and the implementation of TQM in DOD should stimulate research, however, it has not.

The data may represent a "TQM research" status quo.

It appears Navy junior officers, and their Air Force counterparts at AFTT, are intellectually stimulated, active, interested, and engaged in TQM/TQL research. This is encouraging. It appears the data represent the "status quo" of the Navy's interest level in TQM before CNO's proclamation of force wide implementation. If so, as officers currently involved in implementing TQL leave their operational assignments for academic tours, the Navy should expect more and more TQL research in the years that follow. Hopefully this will prove to be the case. Overall, however, it is clear that Navy leadership must step up efforts to sponsor, encourage and actively promote officer research in TQL, especially in the areas of leadership, training methods, and statistical tools.

Implementation Models:

There are many implementation models, both in the public and private sector, available in the current literature. Many were professionally developed - that is many were developed by large bureaucracies or by quality "think tanks" specializing in organizational management or by quality experts designing implementation models for specific businesses or organizations. The TQ literature is full of professionally developed models!

The author found three professionally developed models most applicable for the unit commander and TQL Coordinator wanting to learn more about TQL implementation. This author suggests reviewing the models listed on the next page.

- (1) NPRDC's, "Managing TOM Implementation: A Matrix Approach."⁵⁹
- (2) DOD's, "Total Quality Management: A Guide to Implementation."⁶⁰
- (3) FQI's, "How to Get Started Implementing TOM."⁶¹

In addition to the professionally developed models noted above, several naval officers have developed organization "specific" TQL implementation models. The author found six of these most applicable to Navy wide implementation. What is notable is that these efforts were done by junior naval officers "doing their thing" at Harvard, at NPGS or at the Army War College. They are "must scans" for TQL Coordinators and TQL Advisors, and excellent reference material for CO's and ESC's. This author drew from them extensively. Specifically:

- (1) "Implementing TQL in a U.S. Navy P-3C 'Orion' Squadron" by Harms & Harris ⁶²
- (2) "Applying TQL to an Aviation Squadron" by Knighton & Melnick ⁶³
- (3) "Implementing TOM at the Intermediate Level of Aircraft Maintenance" by Salvanera. ⁶⁴
- (4) "TQL at it Applies to the Surface Navy" by Lacson & Morgan. ⁶⁵
- (5) "Commanders' Implementing Guide for TOM" by Whitehead. ⁶⁶
- (6) "TOM Coordinator as Change Agent in Implementing Total Quality Management" by Johnston. ⁶⁷

Appendix B

Where the Navy's Journey Started Back to the Beginning:

The DON's quality journey started in an unlikely place, the Quality Support Center of the Organizational Systems Department of the Naval Personnel Research and Development Center (NPRDC) in San Diego, California. In 1983 the Chief of Naval Material tasked NPRDC to do an applications and feasibility study of production process improvement methods.⁶⁸ NPRDC did the study, and based on their findings, strongly endorsed the quality concept.

In 1985 term TQM was, "coined.....by staff members from NPRDC and the Naval Air Systems Command (NAVAIRSYSCOM) during a joint meeting to decide upon a common reference to a management technology based largely on the teachings of W. Edwards Deming."⁶⁹ Jumping on the quality bandwagon," NPRDC quickly gained experience in TQM as it related to core processes associated with naval aviation, and started to develop a reputation as a government "quality pioneer." Ever since these early efforts, NPRDC has been the "technical spearhead" for the Navy's TQM efforts, and has become a recognized leader in public sector quality management research.

Following their 1983 report on the positive aspects of process improvement methodologies, NPRDC researchers assisted in the development of a TQM pilot project at the Naval Aviation Depot (NADEP), North Island, California. According to Captain Tom Giardina, the CNO's current TQM advisor who was the Production Officer at NADEP North Island, "the new

management tools were so effective they quickly spread throughout the aviation depot system and on to the rest of NAVAIRSYSCOM.⁷⁰ Since the successful pilot program at NADEP North Island, TQM has been widely implemented and has been steadily improving processes in NADEP's such as Cherry Point, Jacksonville and Norfolk, and in industrial facilities such as the Naval Avionics Center. The result has been reduced costs, fewer defects and shorter turn around times for the Navy's logistics organizations, industrial facilities, and supply centers.

Appendix C

CNO's 14 Points of TQL ⁷¹

1. Understand the mission and principles of the Navy. Have a clear grasp of how your command supports the Navy's mission and how the principles apply to your day-to-day actions.

**** We are developing the words to send you for the Navy's missions and principles. From these you can develop the mission for your organization.**

2. Quality is the essence of TQL. Insist on quality performance and material. Do the job correctly the first time.

3. Know your job. Analyze and understand every facet of your responsibilities and those of your people.

4. Words alone don't solve problems. Look first at the process and the system for faults and solutions, not the people. Improve the process, train the people.

5. Quality training is the key to success. People must be fully trained to do their jobs. You are never too senior to learn.

**** To do your best is not good enough unless you are properly trained to do the job.**

6. *Use analytical methods to understand and improve your jobs. Graphs and charts, properly used, are invaluable tools in this effort.*

7. *We are a team. We must work together across departments and commands.*

**** We must listen to the most junior people. All are charged with making the work place and quality of life better. All suggestions for improvement must be explained and action taken or rejected by the leadership.**

**** The leader must provide those who suggest improvements and ideas with feedback as to what is being done with the suggestion. The leadership will not necessarily adapt all ideas but the leadership must provide the feedback on every suggestion.**

8. *Create an atmosphere of trust and open communication where everyone shares a sense of pride in their work.*

**** Get fear out of the work place. Create an atmosphere in which people tell you what is wrong in order that it can be fixed.**

**** Unless we recognize the problems we cannot improve.**

**** We need to reward people who have the courage to tell us what they see that needs improvement so we can get better.**

**** Good ideas and lessons learned must be transmitted and shared between departments and commands.**

9. *Inspect smarter. Inspections should be methods of learning and improvement rather than threatening events.*

**** As all learn to do the job correctly the first and every time, the number of inspections will decrease.**

10. Demand quality, not quotas.

**** Quality in the work place and in our lives is what we strive for.**

**** If we get quality, all other goals and quotas will follow.**

11. Education and self-improvement are just as important as training. We must always get better.

**** Everyone must be involved in training and self education.**

12. All improvements, big and small alike are important.

13. Be a leader. Your job as a supervisor is to guide and assist your people.

**** The leader gets his people tools and training they need to do their jobs correctly.**

**** It's the leader's responsibility to ensure his people are properly trained for the job before they are placed in a position of standing a watch, starting a pump, lighting off a radar, firing a gun, loading a missile, etc.**

14. All hands from seaman to admiral, must learn and use TQL.

Appendix D

TQL Implementation at the Highest Navy Levels

The Secretary of the Navy's (SecNav's) Executive Steering Group, called the DON ESG, is the Navy's primary executive steering body and is ultimately responsible for the directing the TQL actions of the DON, both day-to-day and for the future. In addition to SecNav's ESG, four other high level TQL headquarters organizations have been established to help senior leadership guide the quality transformation using an integrated top down approach. These organizations are: (1) CNO's TQL organization, charged with taking TQL to the operational units; (2) the Chief of Naval Training's (CNET's) organization, charged with implementing DON's TQL Education and Training (E&T) Plan; (3) and (4) the TQL organizations of each of the Fleet Commanders, the Commander in Chief, Pacific Fleet (CINCPACFLT) and the Commander in Chief, Atlantic Fleet (CINCLANTFLT) - parallel organizations charged with "providing guidance and coordination for the implementation of TQL in the Fleet."⁷² It is through these five senior level organizations that the DON is directing its Navy wide efforts.

The DON's Executive Steering Group (ESG):

In 1989 the Secretary of the Navy, the Honorable H. Lawrence Garrett III, formed the first DON ESG to, "lead and guide the quality transformation throughout the Navy and Marine Corps."⁷³ Chaired by the Under Secretary of the Navy, the first ESG was composed of the Department's top 28 civilian and military leaders all located in or near the Washington D.C.

area. This first ESG met on a monthly basis, and was initially concerned with acquisition and programmatic issues relating to the DON's shore establishment.

In the past two and a half years the DON ESG has expanded its work significantly from acquisition and programmatic issues. It has been involved in crafting the Navy's strategic plan for the future and in coordinating the work of two main subgroups (Quality Management Boards), the Shipyard Advisory Board and the Education and Training (E&T) Advisory Group.⁷⁴

Arguably the most important work of the DON ESG has been in the area of strategic planning. In the fall of 1991 the ESG published DON vision and guiding principles statements, followed on the 10th of February 1992 with the signing of the DON strategic goals document. The finalizing of the goals document represented 15 months of hard work on the part of all ESG members, who used a strategic planning process to incorporate the quality philosophy into these top level planning documents.⁷⁵ According to Dr. Linda Doherty, Director of the TQL Office, "These documents lay the foundation for the Department's strategic plan. They say, in effect, that the entire organization will focus on quality as it plots its course for the future."⁷⁶ The documents are reproduced for reference in Appendix D-1.

The DON ESG is provided technical guidance by the TQL Office of the Office of the Under Secretary of the Navy. This office is comprised of a small cadre of civilian TQL/TQM experts, a dozen or so, who have formed the "corporate memory" of the Navy's quality efforts since

1983. In fact, several members of the staff, including its director, Dr. Linda Doherty, were part of the original group of researchers that looked in to TQM for the Chief of Naval Material Command in 1983. This office is obviously well qualified in TQL/TQM theory and practice, and ideal to serve as the DON's technical advisor.

Aside from assisting the ESG by providing technical advice, the TQL Office acts as the Under Secretary of the Navy's agent in sponsoring and supporting DON wide TQL activities. This includes responsibilities for providing education and consultation, managing the technical and conceptual content of the DON's TQL education and training curriculum, publishing TQL reference materials and information guides (including the TQLLeader, the Navy's TQL newsletter), and representing the DON in TQL-related public affairs and information networks.⁷⁷

DON's TQL Office:

- Education and Training
- Consultation
- Networking
- Program Management
- Publications

The CNO's Executive Steering Committee (ESC):

In parallel with the DON ESG, the CNO established the Navy Executive Steering Committee (ESC) in mid 1990 - about the same time he sent his memorandum to all flag officers directing Navy wide implementation of TQL. Initially the Navy ESC consisted of ten members; the CNO, the Vice Chief of Naval Operations (VCNO), the five Systems Command Commanders (SYSCOM's) and the three Navy CINC's - CINCPACFLT, CINCLANTFLT and CINCNAVEUR. The CNO and VCNO provided policy expertise, the SYSCOM Commanders provided

equipment and design expertise, and the CINC's provided operational and supporting forces expertise to represent the Navy's primary customers - the Unified and Specified Commanders.⁷⁸ Since the VCNO was also a member of the DON ESG, he provided the linkage between the CNO ESC and the DON ESG.

A small TQL coordinating group assigned directly to the CNO provides technical assistance to the Navy ESC. Headed by a Senior Executive Service (SES) civilian, Mr. Joe Bizup, and a senior Navy O-6 with extensive TQM/TQL experience, Captain Tom Giardina, this group assists and advises the CNO and VCNO on TQL matters, coordinates with the CINC's TQL organizations, publishes Navy unique TQL training and media materials, provides TQL coordination services to the ESC and the CNO's Staff, represents the CNO at various TQL/TQM activities, conferences and functions, and serves as the Navy point of contact for the DON and the CINC's TQL Offices. Prior to the establishment of this office, the CNO Executive Panel, the CNO's advisory group for strategic planning and special interests, did the CNO's TQL staff work.

As was the case with the DON ESG, two of the most important contributions of the CNO's ESC and TQL Office were in the areas of strategic planning and basic TQL "staff work" (CNO's 14 points for Navy TQL, NAVOP 011/91 and NAVOP 018/91). While the staff work for CNO's 14 points was done by the CNO's Executive Panel, the CNO's Mission, Vision and Guiding Principles Statement was the product of the hard work of the ten original members of the Navy ESC (as assisted by Mr. Bizup and Captain Giardina). This particular document stands out in striking contrast to the DON's vision, principles and goals documents. While the documents are

consistent in policy, tone and content, the clarity and simplicity of the CNO's Mission, Vision and Guiding Principles Statement clearly reflects the operational nature of its origin, and the needs of its intended users - the fleet sailors and airmen. As far as being readily understood, NAVOP 018/91 is a remarkable piece of work. The document is reproduced in Appendix C-2.

Restructuring the DON's ESG and CNO's ESC:

In 1992 as the message of TQL became more widespread throughout the DON, and the numbers of military and civilians who understood, accepted and practiced TQL increased, both SecNav and CNO decided to restructure their executive steering bodies. At this time the reasons behind the decision for restructuring are unknown. Either the initial size of each body, 28 for the DON's ESG and 10 for the CNO's ESC, proved unwieldy and cumbersome, or since much of the hard work of strategic planning, consensus building, and setting up education and training curriculums was finished, large executive steering bodies were no longer necessary. The truth is probably a combination of both of these factors. Whatever the rationale, the size of both the DON ESG and the CNO's ESC have been reduced dramatically.

According to a special edition of the TQLeader published in December 1992, "the DON is well on its way to achieving the transformation to a quality-based organization. To continue the transformation process, a new configuration is required at the top of the organization. Therefore, the original ESG and its supporting subgroups have been disestablished and a reconstituted ESG has been installed to provide DON top-level commitment and leadership."⁷⁹

The new DON ESG is a corporate executive body of the highest level. Its members include only the Secretary of the Navy, the CNO and the Commandant of the Marine Corps. The Under Secretary of the Navy is the Executive Secretary of the ESG and provides the link between the ESG and a restructured DON Review Commission (DONRC).

The DONRC was "established in 1991 to realign the DON in order to maximize efficiency and realize substantial improvements in defense management overall."⁸⁰ Its members include the VCNO and the Assistant Commandant of the Marine Corps, all the Assistant Secretaries of the Navy, the SYSOM Commanders, several Deputy Chief of Naval Operations, the General Counsel, the Directors of the Office of Program Appraisal, of Training, and of Programming, and several other senior officials - 22 members in all. The Under Secretary of the Navy is the Chairman of the DONRC, the Director of the Office of Program Appraisal is the Executive Secretary, and the DON TQL Office is the DONRC's technical support organization.

The reorganization makes the reconstituted DONRC the implementing board for the DON. As such, the DONRC's job is to, "translate the issues identified by the ESG into strategically guided actions."⁸¹ The DONRC links the Strategic Goal Advisory Boards (or DON QMB's) to the ESG by providing DONRC members for the Advisory Boards. These members in turn provide linkage through the Under Secretary to the DON ESG. The DONRC combines most of the key players from the former steering bodies into a cross-functional board tied directly to the pursuit of the DON's strategic goals.

As a result of DON ESG/DONRC restructuring, some of the ongoing work previously done by the CNO's ESC has been assumed by the DONRC. Accordingly, CNO reduced the size and scope of his ESC to include only himself, the VCNO and the three Navy Fleet CINC's. This new "lean" ESC appears to reflect a more operational make-up, suited primarily for dealing with fleet-type organizational issues and providing better focus in representing the needs of the Navy's primary customer, the Unified and Specified Commanders.

In addition to reducing the size of his ESC, CNO has decided to eliminate his TQL Coordination Office. The office will close in mid-1993. In the future the DON TQL Office will support the CNO. The amount and type of support for the CNO are as yet unspecified.

Appendix D-1

DON Vision, Guiding Principles, and Strategic Goals ¹²

Vision:

The fully integrated Navy-Marine Corps team remains the world's premier force to carry out the national will in an increasingly hostile global maritime environment. It deploys a high quality, multi-purpose, flexible force designed to meet a variety of the most likely contingencies.

In order to respond to the volatile and unpredictable nature of the world-wide threat, our forces must provide deterrence through presence and an ability to project power quickly.

The combined force is sustained in this mission by a support establishment which has dramatically decreased the time necessary to field new weapons systems, alter training cycles, accomplish overhauls, etc.

These and other supporting services, including medical care, are of uniformly high quality because our leadership accepts responsibility for continuously improving all the systems and processes which govern our support establishment.

The support establishment consists of:

Leaders prepared to exercise their responsibilities with quality as the principal focus.

Properly maintained necessary shore and support facilities.

Acknowledged experts in the technologies key to maritime operations.

Acquisition and maintenance strategies which will strengthen the public/private relationships to produce quality products and services faster and at competitive prices.

Well-trained professionals dedicated to excellence with confidence and pride in their Navy and Marine Corps.

Guiding Principles:

The purpose of the DON support establishment is to provide our Sailors and Marines with the ability to go anywhere, anytime, to defend the nation's interests successfully and survive.

In achieving this purpose, the following principles will guide our decisions and actions:

We will accomplish the mission.

We recognize the central fact that our Sailors and Marines are the best prepared and that our units have the highest rates of operational readiness in our history. They are at the heart of our ability to perform the mission. We must maintain that quality.

We are responsible for accomplishing the mission. That is our first loyalty. We must strive to find new ways to cooperate within the DON which look beyond a single service warfare community or traditional role and responsibility. Pride, professionalism and a sense of community are extremely important but we must ensure that they are not rigid barriers to our interoperability. The valuable process of competing for resources and roles must not be carried to divisive and destructive extremes.

We accept responsibility for taking control of and improving all the systems and processes through which we support Sailors and Marines. We can ensure that the weapons, ammunition, training, transport, health care, housing and all other goods and services which constitute that support are of predictable high quality and available on time and in sufficient quantity for any task they may be called upon to perform.

We must use innovation to meet current and future requirements and challenge ourselves to develop creative methods, including new technologies, to enhance our support to our operating forces.

We are committed to honesty and integrity, recognizing that the public trust and defense

of the nation requires the highest standards of moral conduct. By integrity we mean that we will make decisions which are in the best interests of the Navy, the Marine Corps and the nation without regard to personal consequences.

We have adopted the term "Total Quality Leadership (TQL)" as the general term under which we will pursue total quality efforts. However, we understand that it is the concepts and the content of those efforts that is important--not what they are called.

Strategic Goals:

We the leaders in the Department of the Navy, will optimize the effectiveness of the Navy-Marine Corps team by leading our people and managing our systems as an integrated force within a quality-focused organization. We will work to influence our future by translating our vision, mission, and guiding principles into goals, strategies, and actions so that resources and improvements are aligned with the same intent.

We believe that everyone has a legitimate contribution to make in accomplishing these goals; Navy and Marine Corps; military and civilian; operational and support. In starting this transformation, we have developed a vision and identified five major strategic goals for the Department of the Navy. These strategic goals are: Integration; Human Resources, Education, and Training; Acquisition; Innovation and Technology; and Facilities. We believe that continuous improvements in these areas are mandatory if the Department of the Navy is to meet the challenges that confront us.

The Department of the Navy will:

Integration

--operate a fully integrated Navy-Marine Corps team that will provide maximum operational capability, capitalizing on the synergism of our operating forces and our support establishment.

Specifically, the DON will:

--develop broad strategies and tactical doctrines that maximize naval service combat effectiveness within the framework of joint and combined operations of the National Military Strategy.

--create and maintain a consolidated naval acquisition, maintenance, and logistics infrastructure that is efficient and responsive to the building, support, and sustainability needs of our naval service forces.

--integrate the focus and efforts of staffs and management organizations to facilitate interaction; and educate our personnel, both military and civilian, in multiple disciplines that affect naval service capabilities and applications.

Human Resources, Education, and Training

--continuously improve the quality of our military and civilian work force through fact-based, innovative systemic changes affecting recruitment, training, and quality of life.

Specifically, the DON will:

--identify and remove the barriers to equal opportunity for all our people.

--improve the military recruiting system through better requirements determination, resource allocation, and day-to-day operations.

--improve determination of military training requirements, feedback systems, delivery of training to meet fleet requirements and foster student success; properly fund training and eliminate redundancies in the system.

--improve the civilian recruiting and hiring system through better requirements determination and resource allocation and by assessing national versus local recruiting responsibilities and needs.

--improve civilian training by improving requirements determination, training delivery, and by adjusting resources to match requirements.

--enhance the working environment to improve the performance of quality military and civilian personnel.

Acquisition

--continuously improve the acquisition process to achieve timely design, development, test, manufacture, and support of maritime weapon systems for our Navy-Marine Corps team.

Specifically the DON will:

--reduce the time from concept definition to fleet introduction.

--stress reduced operating and support costs in all aspects of system design; field fully supported systems with emphasis on interoperability and operational availability.

--foster contractor/government working relationships, emphasizing teamwork built on trust, sound business practices, and the highest standards of ethical behavior. Ensure that an industrial capability for unique naval requirements is maintained.

Innovation and Technology

--continuously improve the process of identifying and introducing new technologies. Ensure our recognition as a world leader in key technologies. Create a climate that fosters innovation and invention.

Specifically, the DON will:

--improve the process of selecting and evaluating technology opportunities; focus DON investment on those technologies that form the foundation of future Navy-Marine Corps system developments; introduce cost-effective technologies into our system as they become available.

--improve the interaction with our sister services, academia, industry and our allies to support the DON technology investment.

Facilities

--operate an adaptable and responsive shore facilities establishment that is properly sized and supported to allow continuous improvements in the quality of service to the operating forces; that consists of well-maintained and attractive facilities, resulting in improved living and working conditions and increased productivity at all its installations; and that consistently performs in an environmentally responsible manner and contributes to the quality of life in the communities of which it is a part.

Specifically, the DON will:

--define and implement "quality standards" for facilities that support mission requirements, family and bachelor housing, family support functions, and morale, welfare and recreation activities.

--provide the resources to achieve the defined quality standards over time and maintain the support establishment at these levels; in addition to traditional military construction, consider innovative financing and management arrangements (e.g., cost-sharing, public-private venture, leasing).

--integrate environmental awareness into all DON planning, management, and operations to comply with all applicable environmental laws and to protect the natural resources found on Navy and Marine Corps installations. Minimize waste, conserve energy, and adopt pollution prevention measures to avoid adverse impacts on the environment.

Our vision and associated strategic goals require a significant transformation throughout the naval services. By pursuing our vision, we believe we will enhance our ability to determine our future. Achieving these strategic goals will be neither quick nor easy; however, we believe that our people are capable of meeting the challenges confronting the Navy-Marine Corps team. We recognize that all members of the team have valuable contributions to make to our strategic efforts. As leaders, we will strive to provide the direction and support required for this transformation.

Appendix D-2

Navy-Wide Implementation of Total Quality Leadership (TQL)

Navy Vision, Mission and Guiding Principles (NAVOP 018/91 dated Oct. 22, 1991) ⁸³

1. Four months ago, in NAVOP 011/91, I outlined our goals for implementation of TQL throughout the Navy. One of TQL's key principles is constancy of purpose. As an effective team, we must hold a shared mission and vision for our future. We must be guided by the same enduring principles as we pursue individual and command excellence and inject quality into every facet of our jobs and lives. To that end, the CNO Executive Steering Committee has developed the following statement of mission, vision, and guiding principles for U.S. Naval Forces, to be used in implementing TQL Navy-wide.

2. The Navy-Marine Corps team is the world recognized premier naval and expeditionary force, fully capable of conducting operations in support of United States' national objectives in an unpredictable global economic and political environment.

3. *Our mission is to provide combat ready forces to support the requirements of the unified commanders so our nation can deter aggression, encourage political stability, provide forward presence, establish sea control, and project power from the sea against any threat and win.*

4. *Our vision is a naval force that has the full support of the American people and advances the bounds of:*

- *Personal excellence, dedication and integrity.*
- *Technology.*
- *Joint, expeditionary and combined operations.*
- *Combat tactics and doctrine.*
- *Maintenance, logistic support and staying power.*
- *Quality of life for our people.*

5. *We will be guided by the following principles:*

- *We:*

- *Value tradition but encourage and embrace innovative change.*
- *Include education and training as an integral part of our mission.*
- *Safeguard people, resources and the environment.*

- *We will:*

- *Accomplish our mission through teamwork.*
- *Train and equip our forces to operate with the Army, Air Force, Coast Guard, our friends and allies.*
- *Provide a clear and accurate portrayal of our capabilities and operations for all.*
- *Make decisions in the best interests of our mission, putting aside parochialism and old habits.*
- *Promote the dignity of our people and their families.*
- *Encourage maximum personal development.*

- Provide top notch service to all.

- We are committed to:

- Honesty, integrity and the highest standards of moral and ethical conduct.

- Equal opportunity for all.

- Open and effective communications.

- Quality and continuous improvement.

- Decisions based upon data and knowledge.

- Being good stewards of the taxpayers' resources.

- Maintaining the chain of command.

6. As we progress toward full implementation of TQL, the mission, vision and guiding principles will ensure we are all working toward a common purpose. I know I can count on your continued support.

7. Released by ADM F. B. Kelso, II.

Appendix E

DON E&T Advisory Group's E&T Curriculum

The DON TQL E&T Curriculum is taught at the two DON TQL training sites, the Amphibious Base in Little Creek, Virginia and the Amphibious Base in Coronado, California. The schoolhouse doors "opened for business" in October of 1992. According to the DON TQL Office, "The focus of the DON's TQL training program is to provide education and training for senior leaders and key members of their organizations who will fill roles of TQL coordinators and/or quality advisors."⁸⁴

The DON ESG guidance follows: "TQL implementation and training proceed top-down through the DON. Prior to sending command personnel to TQL training, the organizational leader must attend the SLS. Command leaders should send their TQL coordinators and quality advisors to the DON TQL training sites in preparation for establishing their own TQL implementation strategy, and in-house training capability to assist teams in their process improvement efforts."⁸⁵

Quotas for Navy personnel are arranged through the CINC TQL offices. The following constitute the core TQL courses:

Senior Leaders Seminar (SLS):

A four day overview course. Provides TQL concepts and philosophy (including Deming's 14 points and his system of profound knowledge), introduces strategic planning, and discusses implementation techniques. Designed for flag officers, SES's, O-6/O-5 CO's and XO's, and GS/GM-14 and above.

Fundamentals of TQL:

A 10 day education course to describe the basis of TQL. It is organized around Deming's four elements of profound knowledge: (1) systems theory; (2) statistical theory and variation; (3) theory of psychology; and (4) theory of knowledge. Teaches the application of Deming's 14 points, the PDCA cycle, the seven tools, and the relationship between productivity and quality.

Implementing TQL:

A 10 day training course in "how to" implement TQL using the DON approach. Designed for TQL coordinators, it covers: (1) managing a cultural change; (2) strategic planning; (3) development of in-house TQL training, (4) conducting a readiness assessment; (5) chartering improvement teams; (6) establishing TQL administrative and support mechanisms; and (7) developing a command specific implementation plan with the CO.

Methods for Managing Quality:

A 10 day training course focused on process management at the QMB level. Designed for TQL coordinators and quality advisors, it uses a case study to teach a process management model. The course covers: (1) the seven management tools; (2) identifying customers and their requirements; (3) the purpose of the QMB; (4) identifying critical processes; (5) collecting baseline data; and (6) streamlining and standardizing processes.

Team Skills and Concepts:

A 10 day training course designed to be taught to command level teams. It covers: (1) team development and dynamics; (2) traits noted in successful teams; (3) communication skills; (4) decision making; (5) roles of the team leader and quality advisor; and (6) team documentation and results.

Systems Approach to Process Improvement:

A 15 day training course in quantitative methods and statistical tools This course is currently under development.

Introduction to TQL:

A one day TQL awareness course covering the basic elements of TQL. Taught at the command level by command trainers, it covers: (1) why the Navy needs to adopt TQL practices; (2) briefly covers Deming's 14 points; (3) profound knowledge (video of the red bead experiment); and (4) basic methods and tools for process improvement. Attenders are given an Instructor Guide, a Student Guide, and the view graphs of the course.

Appendix F

CNO's Video "TQL Welcome Aboard" Comments

The author extracted the following excerpts from the script of 34 reels of video tape that the Naval Imaging Command Anacostia used to make the new CNO video, "TQL Welcome Aboard." The producers of the video transcribed the comments directly from the tape clips taken by the film crew. The final product, a 35 minute video, is available through the CNO's TQL office in the Pentagon or SecNav's TQL Office. The comments:

Captain Tom Weaver, Commander, Destroyer Squadron TEN. ⁸⁶

"It's perceived to be a touchy feely or hug them and love them type program and I think that it's just the opposite.....I think some of the people in the Navy have used bits and pieces of TQL for years and years. Some people in the Navy have used very little of TQL for years and years, and I don't think anybody has used TQL in the total package.....You have to be patient....if you think that something is going to happen in a very short period of time, a month or four or five months, you're wasting your time. So, I think we've got a good foundation and I'll be the first to admit it has been painful to take people away from their other duties."

Captain Bob Nutwell, CO, USS George Washington. ⁸⁷

"I think it's proper that there should be a healthy skepticism. We have had leadership fads before and they haven't always worked out as well as we hoped, but TQL is not a leadership

fad. And if you really take the time to learn about it you realize it isn't. So I guess the way you persuade skeptics is...two ways. One is to encourage them to learn about it and you give them some training so they can learn the truth about TQL....and the second one is you see it working and you can see it working on this ship. Finding the time to do TQL whether it's training and education or just the time spent on QMB's and PAT's and Steering Councils and things like that, that's probably our biggest constraint."

Chief Petty Officer Charles Bell, USS George Washington. ⁸⁸

"TQL is hard work, it's not easy, it's difficult. It's hard to learn the language, the lingo and the jargon that goes with TQL, but as far as what we're doing, it's no different that what we've been doing in the Navy for 200 years. Constantly trying to make our job easier and better."

Commander Jack Schenk, NADEP Norfolk. ⁸⁹

"The best thing that you can do is to provide yourself with the education and training needed and also kind of hang on tight, don't be convinced that this (TQL) is going to solve all your problems because it isn't. Don't be convinced that it's easy because it isn't."

Captain Ron Scholz, CO, Naval Legal Service Office, Charleston. ⁹⁰

"First of all I got my XO on board. It's probably the most important thing a commanding officer can do. I don't think even in a command this small that a commanding officer can carry TQL on his own shoulders."

Ms. Michelle Stubbs, Naval Legal Service Office, Charleston. ⁹¹

"Our CO gave us training. We had quite a few training lectures. He's made them interesting, explained TQL, and put us on the other side of being a customer."

Commander Ed Quirk, CO, HSL-41. ⁹²

"From what I've seen so far the difference is the systematic way of data analysis which I think is probably foreign in large part in most organizations. At least most military organizations."

Lieutenant Commander Dave Bailey, HSL-41. ⁹³

"Well the other organizations are not nearly as far along as we are and they have faltered several times in trying to get TQL implemented...We have not had that experience. We have gone a lot slower than they have. We have used the tools that are there for us to use without skipping right from brainstorming right to the final implementation plan....(before TQL) You put an action in and you get an immediate result. And that's not the case with TQL. It's a long involved process. It necessarily needs to be that way to bring out the little innuendos of your different processes."

Commander Bob Ortmann, CO, SIMA, Alameda. ⁹⁴

"We had the traditional barrier between production and planning and production and quality assurance. Those I think are universal in an industrial activity. Breaking them down (barriers) took awhile. The initial teams ran into suspicion, hostility, sheer anger. We had people come

in yelling about people pounding them for their mistakes and plotting their mistakes and graphing their mistakes. How could they do such a thing?

If you're impatient, you'll be unsuccessful. The time involved on the part of the command was incredible. In fact it changed my job. In fact it changed lots of peoples' jobs. And as you get deeper into this, it changes your philosophy towards your command. It changes how you think your command is doing. But it did change my job. I found I had a little less time to walk around. I am spending more time teaching. I was spending time meeting with my PAT's. They were doing the work for me."

Chief Petty Officer Charley Andrews, SIMA, Alameda. ⁹⁵

"What's different now is that we're able to utilize that data and we're doing something with it. We're not just stockpiling it and setting it in a corner somewhere. We're able to identify areas of problems and sometime when we thought there was a problem area, it wasn't that area at all. It was another related area."

Captain Charley Sapp, CO, NADEP North Island. ⁹⁶

"It's a long, long journey. We've been here for over a decade working the issues, and in some cases we're no further along than we were ten years ago. It's very hard, philosophically to understand it (TQL). It's hard culturally to accept the change that comes about. But it is something that I think is worthwhile...Are we better off now than had we not embarked on the journey ten years ago? I'm firmly convinced we are."

Petty Officer Third Class Jody Moses, USS McKee, San Diego. ⁹⁷

"Well I was a bit disappointed because I'd come from a fully TQL implemented command and when I came here TQL wasn't even down to the division officer level. So I felt disappointed and a little skeptical of what was ahead because I felt like they were behind the times and I was anxious, saying, hey catch up, catch up."

Lieutenant Commander Bob Archer, USS McKee, San Diego. ⁹⁸

"I was probably the grumpiest person on board about TQ. One, it was presented to me on Saturdays and I resented that. Two, it challenged the way I'd been doing business for the last 24 years. I felt they were wasting my time. I did not see any benefit from it and I really couldn't see the point to it...But within nine months we have our ammunition transaction reporting errors down to zero and people are calling us from all over the place saying, hey, can we get some training from you? I say no you can't you have to get it from the guy who owns the process, my E-6."

Endnotes

1. F. B. Kelso II, Admiral, USN., Chief of Naval Operations (CNO), Memorandum to All Flag Officers on Total Quality Leadership (August 13, 1990), p. 2.
2. F. B. Kelso II, Admiral, USN., CNO, NAVOP 011/91, Navy-Wide Implementation of Total Quality Leadership (May 23, 1991), p. 1.
3. CNO Aug 13, 1990 Memo, p. 2.
4. Ibid, p. 1.
5. Ibid, p. 2.
6. Daniel V. Hunt, Quality in America (Englewood, IL, 1991), p. 59.
7. CNO Aug 13, 1990 Memo, pp. 6-9.
8. James Stavridis, "The Challenge of Total Quality Leadership," Shipmate (December 1991), p. 4.
9. Breck W. Henderson, "Navy Orders Full Speed Ahead on Total Quality Program," Aviation Week & Space Technology (December 9, 1991), p. 61.
10. Linda M. Doherty, Ph.D., Senior Research Scientist for TQM, Naval Personnel Research & Development Center, Managing the Transformation: A Two-Phase Approach to Implementing TOM (May 30, 1990), pp. 1-6.
11. Steven L. Dockstader, Ph.D., Managing TOM Implementation: A Matrix Approach (November 1987), p. 8.
12. The Department of the Navy's Total Quality Leadership Newsletter, TOLeader, Vol I, Issue 1 (Fall 1991), p. 4.
13. Peter R. Scholtes and Heero Hacquebord, "Six Strategies for Begining the Quality Transformation, Part II," Quality Progress (July 1988), p. 11.
14. The Department of the Navy's Total Quality Leadership Newsletter, TOLeader, Vol I, Issue 2 (Winter 1991), p. 1.
15. Ibid.

16. TQL Publication No. 92-05, Department of the Navy Total Quality Leadership Course Catalog (November 1992), p. iii.
17. Ibid, p. 1.
18. Ibid.
19. TQLeader Vol I, Issue 2, p. 2.
20. DON TOL Course Catalog, pp. 11-31.
21. CINCLANTFLT/CINCPACFLT NOTICE 4800, Fleet-Wide Total Quality Leadership Implementation, Enclosure 2, (April 3, 1992), pp. 1-4.
22. NAVOP 011/91, p. 1.
23. TQLeader Vol I, Issue 2, p. 3.
24. The Department of the Navy's Total Quality Leadership Newsletter, TQLeader, Vol I, Issue 3 (Spring 1992), p. 14.
25. F. B. Kelso II, Admiral, USN., CNO, Memorandum for Commanding Officers on The Starter Kit for Basic Process Improvement (November 17, 1992), p. 1.
26. Ibid.
27. The Naval Imaging Command, Anacostia, Maryland, Script for the CNO Video, "TQL Welcome Aboard," (December 1992), pp. 5-83.
28. Federal Quality Institute's Information Network, Federal TOM Documents Catalog and Database User Guide (May 1992), pp. 34-45.
29. Harry D. Gatanas, LTC, USA., Leadership and Total Quality Management, U. S. Army War College Military Studies Program Paper (April 15, 1992), p. 14.
30. Cornelia de Groot Whitehead, CDR, USN., Commanders' Implementing Guide for Total Quality Management (TOM), U. S. Army War College Military Studies Program Paper (April 7, 1992), p. 26.
31. Ronald E. Channell, LtCol, USAF., Leadership - The Key to Successful Implementation of Total Quality Management, Air War College Research Report (May 1991), p. 33.
32. Peter R. and Heero Hacquebord, "Six Strategies for Beginning the Quality Transformation, Part I," Quality Progress (July 1988), p. 2.

33. Edgar Schein, Organization Culture and Leadership (New York, 1985), p. 143.
34. de Groot Whitehead, Commanders' Guide, p. 30.
35. Federal Total Quality Management Handbook, How to get Started Implementing Total Quality Management (June 1991), pp. 20-29.
36. Ibid, pp. 35-36.
37. Beverly McClure, USAA Quality Representative, USAA's Quality Program, Presentation to the Industrial College of the Armed Forces (ICAF) TQM Study Group (April 15, 1993).
38. Otis Porter and Geoffrey Smith, "Special Report: Quality - Small and Midsize Companies Seize the Challenge - not a Moment too Soon," Business Week (November 20, 1992), p. 68.
39. TOLeader Vol I, Issue 3, p. 2.
40. Chief of Naval Operations Executive Steering Committee, Team Handbook for Basic Process Improvement (November 1992), p. 30.
41. DON Total Quality Leadership Course Catalog, pp. 11-28.
42. CNO's Video Script, pp. 2-4.
43. Six Strategies, Part I, p. 2.
44. Edmund J. Metz, "Managing Change: Implementing Productivity and Quality Improvements," National Productivity Review (Summer 1984), pp. 308-309.
45. Kevin Doyle, "Who's Killing Total Quality," Incentive - Managing and Marketing Through Motivation (August 1992), p. 12.
46. Jay Mathews and Peter Katel, "The Cost of Quality," Newsweek (September 7, 1992), p. 49.
47. Ibid.
48. Who's Killing Total Quality, p. 12.
49. Michael S. Leibman, "Getting Results from TQM," HR Magazine (September 1992), p. 36.
50. Metz, p. 306.

51. Who's Killing Total Quality, p. 13.
52. Ibid, p. 14.
53. Ibid, p. 16.
54. Ibid, p. 19.
55. Cost of Quality, pg. 48.
56. Louis E. Monteforte, AT&T Network Systems Group, AT&T - 1992 Baldrige Award Winner for Manufacturing, Presentation to the Industrial College of the Armed Forces (ICAF) TQM Study Group (February 17, 1993).
57. Defense Technical Information Center, Technical Report Summaries, Search and Control No. (GG022F - 92/10/16). Computer Search of First Level Terms: "Total Quality" and "Organization" (October 16, 1992).
58. Federal Quality Institute's (FQI's) Information Network, Federal TOM Documents Catalog and Database User Guide (May 1992).
59. Steven L. Dockstader, Ph.D., Managing TOM Implementation: A Matrix Approach (November 1987).
60. Office of the Deputy Under Secretary of Defense for Total Quality Management (ODUSD (TQM)), Total Quality Management: A Guide to Implementation (March 1991).
61. Federal Quality Institute's (FQI's), How to get Started Implementing Total Quality Management (June 1991).
62. Alan Harms, CDR, USN. and Harry B. Harris, LCDR, USN., Implementing Total Quality Leadership in a U.S. Navy P-3C "Orion" Squadron. Course Paper, JFK School of Government, Harvard University, Cambridge, MA (May 18, 1992).
63. Edward L. Knighton II, LCDR, USN., and Norbert F. Melnick, LT, USN., Applying Total Quality Leadership to an Aviation Squadron. Masters Thesis, Naval Postgraduate School, Monterey, CA (December 1991).
64. Rolando C. Salvanera, LCDR, USN., Implementing Total Quality Management at the Intermediate Level of Aircraft Maintenance. Masters Thesis, Naval Postgraduate School, Monterey, CA (December 1990).

65. Ernani Morena Lacson, LT, USN., and Harold R. Morgan, Jr., LT, USN., Total Quality Leadership as it Applies to the Surface Navy. Masters Thesis, Naval Postgraduate School, Monterey, CA (December 1990).
66. Cornelia de Groot Whitehead, CDR, USN., Commanders' Implementing Guide for Total Quality Management (TOM). U. S. Army War College Military Studies Program Paper, (April 7, 1992).
67. Larry Wayne Johnston, LCDR, USN., The TOM Coordinator as Change Agent in Implementing Total Quality Management. Masters Thesis, Naval Postgraduate School, Monterey, CA (June 1989).
68. Implementing Total Quality Management at the Intermediate Level of Aircraft Maintenance, p. 17.
69. Doherty, Managing the Transformation: A Two-Phase Approach to Implementing TOM, p. 1.
70. Henderson, Navy Orders Full Speed Ahead on Total Quality Program, p. 60.
71. CNO Aug 13, 1990 Memo, pp. 6-9.
72. CINCLANTFLT/CINCPACFLT NOTICE 4800, p. 1.
73. TQLeader Vol I, Issue 1, p. 1.
74. TQLeader Vol I, Issue 2, p. 4.
75. TQLeader Vol I, Issue 2, p. 5.
76. Joyce Ward, TQL Publication No. 92-01, Rev 1, Total Quality Leadership Source Guide (October 1992), p. i.
77. TQLeader Vol I, Issue 1, p. 5.
78. Tom Giardina, CAPT, USN., CNO's TQL Office, Telephone Interview with the Author (February 16, 1993).
79. The Department of the Navy's Total Quality Leadership Newsletter, TQLeader, Special Edition (December 1992), p. 1.
80. Ibid.
81. Ibid.

82. Total Quality Leadership Source Guide, pp. 3-9.
83. F.B. Kelso II, Admiral, USN, CNO, NAVOP 018/91, Navy-Wide Implementation of Total Quality Leadership (October 22, 1991), p. 1-2.
84. Total Quality Leadership Source Guide, p. 11.
85. Ibid.
86. CNO's Video Script, pp. 5-6.
87. Ibid, pp. 10-12.
88. Ibid, p. 13.
89. Ibid, p. 26.
90. Ibid, p. 34.
91. Ibid, p. 41.
92. Ibid, p. 47.
93. Ibid, p. 48.
94. Ibid, p. 68.
95. Ibid, p. 72.
96. Ibid, p. 76.
97. Ibid, p. 80.
98. Ibid, pp. 80-81.

Bibliography

1. Barker, Joel Arthur. Future Edge - Discovering the New Paradigms of Success. New York: William Morrow and Company, Inc., 1992.
2. Blank, Lancing J. New Paths to Quality Products. Ft. McNair, Washington D. C.: Executive Research Report, The Industrial College of the Armed Forces, 1989.
3. Byron, John L., CAPT, USN. "Welcome to the Revolution." Proceedings, The U.S. Naval Institute, Vol 117/10 (October 1991). pp. 30-35.
4. Carr, David K. and Ian D. Littman. Excellence in Government: Total Quality Management in the 1990s. Arlington, VA: Coopers and Lybrand, 1990.
5. Channell, Ronald E., LtCol, USAF. Leadership - The Key to Successful Implementation of Total Quality Management. Montgomery, AL: Air War College Research Report, May 1991.
6. Crosby, Philip B. Quality Without Tears - The Art of Hassle-Free Management. New York: McGraw Hill, 1984.
7. Crosby, Philip B. Quality is Free - The Art of Making Quality Certain. New York: McGraw Hill, 1979.
8. de Groot Whitehead, Cornelia, CDR, USN. Commanders' Implementing Guide for Total Quality Management (TQM). Carlisle Barracks, PA: U. S. Army War College Military Studies Program Paper, April 7, 1992.
9. Deming, W. Edwards. Out of the Crisis. Cambridge, MA: MIT Press, 1982.
10. Dockstader, Steven L., Ph.D. Managing TOM Implementation: A Matrix Approach. San Diego, CA: Naval Personnel Research Development Center, November 1987.
11. Doherty, Linda M., Ph.D. Managing the Transformation: A Two-Phase Approach to Implementing TOM. San Diego, CA: Naval Personnel Research Development Center, May 30, 1990.
12. Doyle, Kevin. "Who's Killing Total Quality." Incentive - Managing and Marketing Through Motivation, (August 1992), pp. 12-19.
13. Gabor, Andrea. The Man Who Discovered Quality. New York: Penguin Books, 1990.

14. Gatanas, Harry D., LTC, USA. Leadership and Total Quality Management. Carlisle Barracks, PA: U. S. Army War College Military Studies Program Paper, April 15, 1992.
15. Goldratt, Eliyahu M. and Jeff Cox. The Goal - A Process of Ongoing Improvement (Revised Edition). Croton-on-Hudson, NY: North River Press, Inc., 1986.
16. Harms, Alan, CDR, USN. and Harry B. Harris, LCDR, USN. Implementing Total Quality Leadership in a U.S. Navy P-3C "Orion" Squadron. Harvard University, Cambridge, MA: Course Paper, JFK School of Government, May 18, 1992.
17. Henderson, Breck W. "Navy Orders Full Speed Ahead on Total Quality Program." Aviation Week & Space Technology (December 9, 1991), pp. 60-61.
18. Hunt, V. Daniel. Quality in America. Homewood, IL: Business One Irwin, 1991.
19. Imai, Masaaki. Kaizen - The Key to Japan's Competitive Success. New York: McGraw-Hill, 1986.
20. Ishikawa, Kaoru. What is Total Quality Control? Englewood Cliffs, NJ: Prentice-Hall, Inc., 1985.
21. Ishikawa, Kaoru. Guide to Quality Control. White Plains NY: Quality Resources, 1990.
22. Johnston, Larry Wayne, LCDR, USN. The TOM Coordinator as Change Agent in Implementing Total Quality Management. Monterey, CA: Masters Thesis, Naval Postgraduate School, June 1989.
23. Juran, J. M. Juran on Leadership for Quality: An Executive Handbook. New York: The Free Press, 1989.
24. Kelso, F. B. II, Admiral, USN. "Total Quality Leadership: The Way of the Future." Proceedings, The U.S. Naval Institute, Vol 117/5 (May 1991), pp. 107-109.
25. Kelso, F. B. II, Admiral, USN. Memorandum to All Flag Officers on Total Quality Leadership. August 3, 1990.
26. Kelso, F. B. II, Admiral, USN. NAVOP 011/91. Navy-Wide Implementation of Total Quality Leadership. May 23, 1991.
27. Kelso, F. B. II, Admiral, USN. NAVOP 018/91. Navy-Wide Implementation of Total Quality Leadership. October 22, 1991.

28. Kelso, F. B. II, Admiral, USN. Memorandum for Commanding Officers on The Starter Kit for Basic Process Improvement. November 17, 1992.
29. Knighton Edward L. II, LCDR, USN. and Norbert F. Melnick, LT, USN. Applying Total Quality Leadership to an Aviation Squadron. Monterey, CA: Masters Thesis, Naval Postgraduate School, December 1991.
30. Lacson, Ernani Morena, LT, USN. and Harold R. Morgan, Jr., LT, USN. Total Quality Leadership as it Applies to the Surface Navy. Monterey, CA: Masters Thesis, Naval Postgraduate School, December 1990.
31. Leibman, Michael S. "Getting Results from TQM." HR Magazine (September 1992), pp. 34-38.
32. Mathews, Jay and Peter Katel. "The Cost of Quality." Newsweek (September 7, 1992), pp. 48-49.
33. Metz, Edmund J. "Managing Change: Implementing Productivity and Quality Improvements." National Productivity Review (Summer 1984), pp. 303-314.
34. Total Quality Management: A Guide to Implementation. Washington D.C.: Office of the Deputy Under Secretary of Defense for Total Quality Management (ODUSD (TQM)), March 1991.
35. Peters, Tom and Nancy A. Austin. A Passion for Excellence - The Leadership Difference. New York: Warner Books, 1985.
36. Porter, Otis and Geoffrey Smith, "Special Report: Quality - Small and Midsize Companies Seize the Challenge - not a Moment too Soon." Business Week (November 20, 1992), pp. 66-74.
37. Salvanera, Rolando C., LCDR, USN. Implementing Total Quality Management at the Intermediate Level of Aircraft Maintenance. Monterey, CA: Masters Thesis, Naval Postgraduate School, December 1990.
38. Schein, Edgar. Organization Culture and Leadership. New York: Jossey-Bass, 1985.
39. Scherkenbach, William W. The Deming Route to Quality and Productivity: Road Maps and RoadBlocks. Washington D.C.: Creep Press Books, 1991.
40. Scholtes, Peter R. and Heero Hacquebord. "Six Strategies for Beginning the Quality Transformation, Part I and Part II." Quality Progress (July 1988), pp. 1-11.

41. Scholtes, Peer R. The Team Handbook. Madison WI: Joiner Associates Inc., 1988.
42. Stavridis, James. "The Challenge of Total Quality Leadership." Shipmate, U.S. Naval Academy Alumni Association (December 1991), pp. 4/66.
43. How to get Started Implementing Total Quality Management. Washington D.C.: Federal Quality Institute, June 1991.
44. Script for the CNO Video. "TQL Welcome Aboard," Anacostia, MD: The Naval Imaging Command, December 1992.
45. TOLeader, The Department of the Navy's Total Quality Leadership Newsletter. Vol I, Issues 1 through 3, and the Special Edition (Fall 1991 through December 1992).
46. Walton, Mary. The Deming Management Method. New York: Dodd, Mead & Company, 1986.
47. Walton, Mary. Deming Management at Work. New York: G. P. Putnam's Sons, 1990.
48. Ward, Joyce. Total Quality Leadership Source Guide. Crystal City, VA: TQL Publication No. 92-01 Rev 1, October 1992.
49. Warmington, Jeffery A., Lessons Learned from the Implementation of Total Quality Management at the Naval Aviation Depot, North Island, CA. Monterey, CA: Masters Thesis, Naval Postgraduate School, December 1988.