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MICHAEL J. DORMEYER
COL, USAF

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325 CHENNAULT CIRCLE
MAXWELL AFB AL 36112-6427

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TQM, WILL IT WORK IN THE DOD?

by

Michael J. Dormeyer
Colonel, US Army

A RESEARCH REPORT SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM
REQUIREMENT

Advisor: Colonel Charlie Jones KHALAL

MAXWELL AIR FORCE BASE, ALABAMA

April 1994

ABSTRACT

This paper examines the Deming management methodology known as TQM (Total Quality Management) in an attempt to determine its suitability for use with the Department of Defense (DOD). The author's thesis is that this management methodology was not designed for use in the military environment and therefore will not perform up to the expectations that it has delivered in the civilian sector. This study in Deming's TQM application in the DOD identifies numerous areas which contrast with the Deming model. Likewise, peculiarities of the DOD environment are highlighted against the backdrop of the TQM approach and conclusions reached by the author that either substantiate the suitability of elements of the TQM model for application within the DOD or argue that they cannot be applied. This paper, while focusing extensively on the Deming model, deliberately ignores other management theories in terms of their suitability for application within the DOD. While the author's conclusions are that Deming's TQM is not an appropriate management model for the DOD, he does endorse elements of the model's use as valuable to improve efficiency within the DOD.

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BIOGRAPHY

Colonel Michael J. Dormeyer is an army officer with a primary specialty of armor and cavalry unit operations and a secondary specialty of operations and force development. He has commanded at the platoon, company and troop levels, and at the battalion and squadron levels. His staff experience includes Chief of War Plans at division level and Plans and Policy Officer at the unified command level. He has served three overseas tours including an exchange instructor tour with the Australian Army. His military schooling includes Armor Officer Basic and Advanced courses, the Army Command and General Staff College, the School of Advanced Military Studies, and he is currently a classmember of the Air War College Class of 1994.

TQM, Will It Work In The DOD?

Purpose.

The intent of this paper is to examine the Deming management methodology referred to as TQM (Total Quality Management) to determine if it is suitable for use in the Department of Defense (DOD), and then assess its likelihood of producing the kinds of positive organizational efficiencies in the DOD that have become so well known in the private sector. It is the thesis of this paper that Deming's TQM is not suitable for use by the military as an all encompassing philosophy or environment and that its adaption by the DOD in spite of this fact forces it to be bastardized to such an extent that the synergy of TQM can never be realized to achieve the well known level of efficiency that it is designed to produce in suitable organizations. I must emphasize again that this paper focuses only on Deming's TQM, not the myriad of other management theories in existence.

Scope.

Due to the administrative constraints governing the length of this paper, the analysis to determine answers to the questions presented above will be limited to a broad look at how Deming's methodology fits the DOD, and how his prescription for implementing TQM in an organization compares with how it is actually being implemented within the DOD, using the United States Air Force and Army as examples. Although an in-depth analysis of each facet of the TQM methodology will, by constraint, not be possible in this paper; adequate review and assessment of the principles upon which TQM is founded and their application within the DOD will nevertheless permit sufficient analysis to arrive at the answers sought in this study. By using this approach, the painstaking examination of the entire TQM methodology can be avoided, thereby permitting this complex issue to be reduced to a fraction of its magnitude, and achievable within the limitations of this paper.

Research Methodology.

In order to accomplish this task, an evaluation criteria has been chosen as the basis for assessing the principles that embody TQM as they are applied to the DOD. This evaluation criteria is like management theory itself, ages old and though simplistic, it will provide a constant to ensure that the assessment criteria does not change during the course of this analysis. It is the criteria taught in schools to evaluate whether or not a statement or question is true or false on a true/false test. Essentially, the convention holds that if any part of a question or statement is false, then the entire question or statement must be considered false.

Using this criteria: first; the suitability of TQM for the military environment will be evaluated by analyzing each principle of TQM for applicability and secondly, the DOD's method of implementing that principle will be evaluated against the criteria prescribed by Deming. If any part of a single principle is found to be unsuitable for use in the DOD, then that principle will be considered not applicable and the second part of the evaluation process not required. If however, a principle is considered suitable but the DOD's implementation of that principle is not in conformance with Deming's mandate, then that principle will be considered as ineffective, jeopardizing the entire TQM methodology. Similarly, if any single principle (part of the whole) is considered unsuitable then the whole (TQM methodology) will be considered unsuitable because its founder states emphatically that TQM must be thought of as a philosophy, an environment that either exists or does not. He states,

It cannot exist in part.(9:32) To adapt to TQM is to change... not just patch up...not just to work downstream. It is easy to do that, with very little help.(9:24)

As stated in the purpose statement, the objective of this paper is to look at Deming's TQM with a critical eye. It is important to have confidence in a new approach if one really wants to sell it to others. Confidence only comes from knowing if it will succeed or not. Perhaps only in the academic environment will anyone have the opportunity or courage to challenge, or at least question, what has been already directed by our Nation's senior civilian and military leaders. Even if this paper successfully demonstrates what the thesis contends, it is really a moot point because it will have no impact on the preplanned course of events. What it may contribute is an awakening, perhaps just a flicker of light that sparks the way for

others to ask the tough questions. Will an environment of fear keep this issue behind locked doors? Only time will tell, and only moral courage will serve as the key to opening that door.

Introduction.

Although TQM has been around the DOD for almost ten years, it has been only in the last twenty-four to thirty-six months that a great deal of interest and emphasis has been generated within the Department of Defense (DOD) on this subject loosely referred to as "quality" in order to finally get the ball rolling and get it implimented. What is this thing called "quality" and what does it have to do with the armed forces? What's more, why has it all of a sudden attracted so much attention within the respective military services and the DOD as a whole? The answers to these questions begin to shed light on a very controversial issue, to say the least. These questions and their answers, as you will see as we explore this subject, are not the really pertinent ones. They are easy in comparison to the root issues of this subject called "quality". The tougher questions, those concerning specific definitions and how TQM will be applied within DOD, are much more difficult to get one's arms around. Questions such as: Is it good or bad for the DOD? Is it even applicable to the DOD, and if it is, is it equally applicable to all the services? If it is applicable to all the services, is it applicable in the same way, or should it be?. All these questions beg to be addressed during this critical time of transition within the DOD. This paper will attempt to provide answers to these questions.

Change: Is It One Bridge Too Far?

At no other time in recent US history has the DOD been faced with so many challenges to undergo at the same time. The New World Order has brought about changes which affect the basic foundation of America's defense apparatus, the processes by which it operates, and how it will function in the 21st century. Political change brought about by a new administration with a decidedly different American focus on the world both internally and externally, coupled with a world situation perhaps more uncertain now than at anytime in the past 45 years, add up to a tough time to be making any kind of change that affects stability both at home and abroad.(2:1-4) Some change is necessary to keep pace with the changing world and is understandable and essential. Other changes, as change for the sake of improved efficiency while

desirable, may not fall into the "must do immediately" category because of the multitude of other things going on which competes for resources, time and human energy. What must be viewed with caution is the quantity and magnitude of simultaneous change across the spectrum of government, the military, society and the world at large. One must ask the question, "Is there such a thing as too much change at a given time?" Is TQM one of those necessary essential changes that must be done now, or is it a nice to do, albeit important change that can wait for a better (less hectic time) to be implemented? Is the timing right, that is the question?

The answer to this last question is not the purpose of this paper, but it is useful in keeping the issues concerning the subject of "quality" in proper perspective. The act of undergoing the shift to a "quality" DOD is a major undertaking in and of itself, and assuming that it is the right thing to do, is not a problem. The problem is...what takes priority. If the effort required to complete the "quality" transformation, as it is viewed by the US Air Force for example, takes away from more important warfighting requirements during the transition period, could readiness suffer? If the answer is No, then there is no need for concern. If the answer is Yes, as I believe it could be, then perhaps a conscious prioritization would be appropriate wherein the "quality" transformation would begin after the service completes its downsizing evolution or some other phase of transition caused by the New World Order. Since this is not the primary purpose of this paper, I will leave this issue as simply a point for consideration in the bigger picture. At the very least, if one recognizes that *almost any change, that alters processes significantly, causes some decrease in the* organization's efficiency and performance, at least initially (as the change is becoming institutionalized), then raising this caution has served its purpose. The danger that this raises is - what would be the affect of this reduced efficiency and performance if war broke out in the midst of DOD's transition to the New World Order footing?

Background: Evolution of Management Theories.

TQM is another in the long line of management theories that have been developed worldwide since around 1900. Some of the major theories that have surfaced since that time include Frederick W. Taylor's theory on Scientific Management which he published in his book *The Principles of Scientific Management*

in 1911 in which he laid out management's duties in four principles; the German sociologist Max Weber's Bureaucratic Management theory in which he laid out how enterprises are structured and asserted that there are certain essential characteristics fundamental to ideal bureaucracies; the Human Relations Management theory of Lillian M. Gilbreth, a social scientist who began emphasizing the personal dimension of management in the 1920s and later teamed up with her husband, Frank Gilbreth, an engineer who added the scientific management principles to his wife's human resource aspects to produce the "one best way"; the Hawthorne Research Study (1924-1932), a part of the human relations theories which focused on high performing work teams and the importance of motivation of workers; and the Administrative Management theory of Henri Fayol, a French theorist, who proposed the Upper Administrative theory in which he identified the five functions of management and prescribed how managers should apply them.(3.2-2 thru 2-5)

This short course on the evolution of management theory serves a purpose; that being to demonstrate that there is nothing new about management theories. The early theories defined above gave way to more refined study in the field of management and the birth of more contemporary views on both the wide range of theories and new approaches for implementing them. Some of the more common approaches in use today include:

* the Behavioral Science approach which utilizes psychology and sociology to assist in understanding human behavior in the work place

* the Management Science approach (also called Operations Research (OR) approach) which strives to solve technical rather than behavioral problems using mathematical formulas

* the Systems Approach (SA) is a hybrid of the two aforementioned approaches and views organizations as total systems with integrated parts and a single purpose (often combined with the OR approach and called ORSA)

* the Contingency Approach assumes that there is no best way to plan, organize, or control (matches different situations with different management methods)

* Management By Objectives (MBO) is sometimes thought of as an approach but is really just a key part of most management systems (is based on specific planning for and pursuit of future organizational or individual objectives)

* Results Management is a spin-off of MBO. It establishes a practical and usable framework for managing and planning work to achieve accomplishment and results (1:2-5)

So that brings us to TQM. DOD's chosen management theory for the 21st century. TQM is the brainchild of Dr. W. Edwards Deming, who during WWII was working for the American Standards Association (ASA). During his tenure with the ASA, he developed a statistical application for quality control of war materials and manufactured products which included the establishment of standards and control charts which permitted the expeditious production and quality control of war supplies. ASA adopted Dr. Deming's approach to management and that style evolved into what is today's Total Quality Management (TQM). Dr. Deming is best known for his assistance, on behalf of the US government, to Japan beginning in 1947 in advising the Japanese on management theory and application during their rebuilding effort following WWII. The remarkable feats of the Japanese in becoming a major economic power in the world today are largely credited to Dr. Deming's methods and provide the basis for the high degree of credibility given to the TQM approach.(1:2-11)

Quality, What is It and Why Do It?

Quality is short for Quality Air Force (QAF), the US Air Force's term for the DOD recognized management theory called Total Quality Management (TQM). The US Army refers to this same theory as Total Army Quality (TAQ). This is what DOD says TQM is:

TQM is not just another program. TQM is a comprehensive, highly-structured, disciplined management methodology directed at continuously improving the overall performance of an organization. It focuses on the achievement of continuous process improvement, through the application of quantitative management techniques and total employee involvement, in order to simultaneously increase quality and reduce the cost of products and services.(1:2-10)

So why TQM instead of some other method? Its track record is the primary reason why the US government has declared it to be the management theory of choice and because we in the military services

have been directed by our civilian leadership to implement it. In 1988, the Secretary of Defense announced that DOD would implement TQM throughout all DOD activities. Referring to the federal government's change to a "quality" society (implement TQM), our current President said in November 1992,

...the road to quality in all federal government operations is long and full of obstacles. It's time the journey is joined by committed leadership at all levels.(1:2-11)

TQM's Applicability.

It is important to keep in mind that while TQM was developed and used by a governmental agency (ASA), Deming modified it several times for use in civilian industry (9:33). As a methodology it has never been used in the military. This is an important point to keep in mind and will become a crucial factor in this study. It is a business management theory/methodology that has only been demonstrated/proven in the mainstream conventional business sense. It is a methodology rooted in the business notion of profit and loss and places significant emphasis on "customer" orientation. This customer orientation carries with it an almost obsession with a notion of "quality" (used with a variety of meanings), as the means to achieve both good business results (profits), happy "customers" (translates into more profits), and a harmonious group of employees (experiencing "quality" in the work place and their lives). Sounds like a pretty good way of doing business and since the United States is now, more than ever, concerned with saving money and finding more efficient ways of doing things, this certainly seems to be just what the doctor ordered; or is it?

It may work in some parts of the American government because they are not fundamentally and uniquely different from business enterprises in the private sector. There are some differences, but not insurmountable ones; not ones that derive from the basic character and being of the organizations themselves. Such is not the case when it comes to the DOD. There are fundamental and basic differences in the DOD that are not found in any civilian business or governmental agency or department. Does that difference, which will be examined in great detail later, imply that TQM will not work in the DOD? This author believes it does and this paper will attempt to highlight why the TQM methodology is a mismatch for use in the DOD and why it will never be able to achieve results even reasonably approximating those that have been documented by organizations around the world. This is not to imply

that TQM is bad, or that parts of it could not be put to good use within the DOD; they certainly could and should. The intent is, however, to point out that Deming never envisioned its use within the military, and for that reason some of his constructs are unsuitable for use in the DOD.

Just how different is different? The key to understanding the suitability of TQM for the DOD lies in understanding the target organization (business in the private sector) for which it (TQM) was originally developed. This is crucial in understanding how a theory or methodology designed for one type of organizational environment may not function in a different environment. The military environment is very different in many important respects from a civilian business environment. A detailed look at the major differences quickly identifies obvious areas that are different to the extent that they can hardly be compared. Let's looks at the most important and fundamental differences:

Category	Military Org.	Business Org.
Purpose for being:	To fight and win America's wars	To make a profit from products/services
Decision-maker Org. answers to:	President of U.S. (external to Org.)	CEO (internal to Org.)
Ownership:	Publicly owned	Privately Owned
Relationship to Employees:	Owns Employees 24 hrs a day and controls them	Rents Employees time clock or salary
Motivation of Employees:	Service to Country (money is secondary)	Bought allegiance (no money no work)
Commitment of Employees:	Sacrifice one's life	Lookout for self
Focus of Effort:	Changing frequently	Consistently constant

A summation of the comparisons above reveals very important differences in the two types of organizations which, I believe, Deming never considered. First, they differ in their purpose and in the case of the DOD, in a way which cannot be measured by metrics and plotted on charts like all businesses can. The DOD's purpose of fighting and winning America's wars actually translates to "killing America's enemies and destroying their facilities and property" This is impossible to measure until after the fact Post war/conflict analysis can provide insights into how well the DOD did its job - how many lives were snuffed

out, how many tanks, trucks, airplanes or boats were destroyed and how much real estate devastated. Calculations can even be made to determine how cost effective that destruction was in terms of dollars per life taken or vehicle or building destroyed. Point is, it is not a management tool at that point, it is a box score, a post mortem. It's like reading the annual financial report on your company for the first time after going along the whole year or forty years without knowing for sure how you were doing. That's crazy and no business operates that way. None that is except the DOD. Training evaluations, as realistic as we try to make them, are still not the real thing and never will be. They provide indications of how we are doing, but are only as valid and believable as the relationship that the training is to real warfare. So, where civilian businesses engaged in manufacturing of a product can measure how well they're doing on a daily, weekly or monthly basis in real terms, military organizations cannot.

DOD, like civilian business organizations, can measure many things that are a sub-part of the whole organization. How well support units function, how timely airplanes fly, how accurate tanks hit plywood targets, how accurately submarines can be located and destroyed in simulation, all these things and thousands more <u>can</u> be measured using TQM but that's not TQM. TQM, by definition must measure and improve the product or service that is the essence (or the objective) of why that organization is in business.(9:30) TQM cannot measure something that does not exist - war, until it happens. THIS IS ONE OF THE MOST FUNDAMENTAL DIFFERENCES THAT INVALIDATES TQM AS A MANAGEMENT METHODOLOGY FOR THE DOD, THERE ARE OTHERS.

The notion of "customer" is central to Deming's TQM philosophy.(9:20-28) Without exploring the full range of customers, internal and external to an organization, it is important to again identify a fundamental difference between military organizations and any civilian business. While internal customers, those within the organization - whether it be a military unit or a business, can be identified and measured, the military organization at the macro-level has a problem identifying its primary external customers. Those would be the recipient of the DOD's product or service. Simply stated, that is the enemy's military personnel, equipment and property in terms of facilities, transportation network and terrain, etc. How do we apply metrics to such a customer? Do you ask him how well he thought we killed him and destroyed his homeland? Do we ask him to rate if we could have done the job more thoroughly or perhaps quicker? Do

we ask if he would like us to do it again sometime or recommend us to his neighboring country, should they want to be destroyed? Pretty absurd I know. But it illustrates a point: these are exactly the kinds of things that a civilian business would do. If you make cars you would ask how well the customer likes the car. How much trouble has it been? Will you buy another one and would you recommend buying one of our cars to a friend. The difference is that the business can apply TQM practices to determine what "quality" his products or services are achieving and the "customers'" level of satisfaction with them. DOD cannot do this for its principle external customer. THIS IS THE SECOND MAJOR DIFFERENCE THAT INVALIDATES THE DEMING TQM PHILOSOPHY.

Another extremely important part of Deming's TQM philosophy is his notion of "quality".(9:24-32) "Quality" is supposed to be a state of being for the organization as well as a product. This relates to the internal aspects of the organization. Let's look at the employees of the two comparison organizations. On the surface one would not think there is too much difference between a mechanic repairing airplanes for Delta Airlines and an airman mechanic repairing airplanes for the US Air Force aside from pay. Fact is, there are significant differences which greatly impact on the working relationship between the employer and the employee.

The civilian mechanic is motivated foremost by pay. If a crisis comes up and a particular aircraft must be repaired immediately requiring the mechanic to work 16 hours to complete the job, he knows he will be compensated in overtime (1 and 1/2 times his normal hourly rate and 2 times on week ends and holidays). This fact is the prime motivator that allows the company (Delta) to get the mechanic to perform this work. The mechanic's sense of professionalism may cause him to perform his work in an exemplary manner because he knows the nature of his work could result in the loss of many lives if he does it poorly. But I would argue that his devotion to his job or love for the company he is working for has nothing to do with it. He would not work if he was not going to be paid for his extra time and would not work if he did not desire to. He could always pull seniority and call upon the union to force the company to find another mechanic or he could simply quit his job. The airman mechanic on the other hand, will not get paid any additional pay for working longer than his 8 hour day, except perhaps compensatory time, if his supervisor wants to give it to him. He also has no recourse such as turning to a union for help or walking off the job

without fear of disciplinary action taken against him. Oh yes, I almost forgot; the airman may be asked to do his job in a war zone with the imminent threat of loss of life all around him. His civilian counterpart experiences none of these things. So the question in this case is; did Deming take this into account when he designed TQM? Clearly, the answer is no. Asking employees to place their lives on the line without specific compensation for just that eventuality is well beyond Deming's view of management in TQM. That bring me to the final difference that TQM does not address.

Command! A phenomenon that is unique to military and para-military organizations is clearly not considered in Deming's TQM methodology. Nowhere in the Fourteen Principles or the Seven Deadly Diseases is it addressed. Is it significant, oh yes, very much so. The concept of command does not exist in civilian business structure and very much runs against the grain concerning full implementation of the notion of empowerment and "quality". The operative in that statement is "full" implementation of empowerment. It is easy to empower where you want (when and where the commander perceives there is little at stake or it doesn't matter). It's a different story to empower in the sense that Deming implies - total and complete for the good of the organization, a total new mind-set and environment. There are other factors, such as legalities of command and prerogatives of command (imposition of disciplinary action and punishment) that have no counterpart in civilian business organization. The US Army states that

Command is a concept which makes the profession of arms uniquely different from any civilian contemporary institution.(1:5-7)

The accompanying diagram depicts how the Army views the element of command as an inseparable part of a triad with leadership and management.(1:5-1)

If the presence of the notion of "command" hinders full implementation of TQM in accordance with Deming's prescription, can it be successfully implemented? I believe not. At least not and still have the full synergy that TQM is supposed to provide in the organization. Can a lesser form of TQM exist in an organization which has consciously decided not to fully implement it? I believe the answer is no. Deming himself said that TQM cannot be patchwork implemented. It must be all or nothing to be TQM. Partial implementation of TQM is nothing more than using principles or techniques "borrowed" from TQM and applying them along with borrowed pieces from other management or leadership theories. Basically, that's the way the military has always done business.

The proponents of TQM would say that this proves nothing. It is illogical to argue that just because something is different, it will not or cannot work. They would argue that it is more logical that the methodology would have application within the military, as have bits and pieces of other management theories over the years. Accepting TQM as parts or pieces of the whole, rather than a complete methodology is counter to the basic teaching of Deming concerning the notion of TQM as an environment, a philosophy. The synergy produced by the "whole" will be lacking if it is implemented piecemeal. **It is in this context of piecemeal implementation of selected principles of Deming's methodology that I believe most people accept the implementation of TQM.** It has already been said by several high ranking General Officers within the Air Force that they pick and choose which parts of TQM they wish to

use in their organizations and ignore the rest. Such implementation is not implementing TQM as Deming has prescribed it must be implemented. It is instead using TQM as simply more tools in the kit bag of management and leadership tools that leaders and managers have at their disposal. This is certainly not new, we have been using bits and pieces of all the management and leadership theories developed from their inception in a hunt and peck manner for a hundred years. It is definitely not a new environment or philosophy of management. It is not, by Deming's definition, TQM. If this is the only way in which TQM can be made to "fit" the DOD, then it has already failed and the purpose of this study achieved.

Now that the fundamental differences between military and civilian business organizations have been examined and their impact on TQM discussed, it is time to look at the very fiber of TQM itself and see how it relates to the military organization. TQM consists of Fourteen Points, Seven Deadly Diseases, and Thirteen Obstacles which Deming considers the essence of his management methodology. Let's start with the Fourteen Points:(9:33-88)

The Fourteen Points

1. Create constancy of purpose for improvement of product and service.
2. Adopt the new philosophy.
3. Cease dependence on mass inspection.*
4. End the practice of awarding business on price tag alone.*
5. Improve constantly and forever the system of production and service.*
6. Institute training.*
7. Institute leadership.*
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations and targets for the work force.*
11. Eliminate numerical quotas.*
12. Remove barriers to pride in workmanship.*
13. Institute a vigorous program of education and retraining.*
14. Take action to accomplish the transformation.

* Represents those points that should be implemented within the DOD. Some may require changes to traditional ways of doing things including the repealling of regulations and laws to permit necessary changes to occur. These points are considered suitable for use in the DOD.

Each of the points not identified with an asterisks is considered unsuitable for use in the DOD. Rationale for this determination will be presented separately below.

Point No. 1: Create constancy of purpose for improvement of product and service. This point is clarified by Deming as meaning

...rather than making money, it is to stay in business and provide jobs through innovation, research, constant improvement, and maintenance.(9:34)

This principle is a perfect example of where the implementation of the principle, not the principle itself renders the it unsuitable. The DOD has always existed in one form or another, since the birth of this nation. It has never feared for its existence because it is not profit that guarantees its survival but the eternal need for the protection of the American people and their way of life. The only threat to its existence would be the end of the United States as we know it. Even if the DOD is or has been in the past guilty of being inefficient; there has never been any danger of it going out of business because its "customers" (the American people) decided to shop elsewhere for a protector. As far as creating constancy of purpose is concerned, the DOD has no trouble doing this for its primary role - fighting wars. The problem related to this principle for the DOD, if this principle could be applied, is that the DOD's "bosses" (the President, SECDEF, Congress, and the American people) have not always provided the DOD with clear direction concerning what its mission and tasks are. This causes serious uncertainty and wasted effort, as well as squandered fiscal resources. The current dilemma concerning the DOD's role following the collapse of the Cold War is a perfect example.(2:4-8)

Point No. 2: Adopt the new philosophy. Deming was referring to the American work ethic in this principle. He stated, *Americans are too tolerant of poor workmanship and sullen service. We need a new religion in which mistakes and negativism are unacceptable.*(9:34) Applied to civilian business organizations this principle makes sense and is doable. For the DOD, it has no application because the nature of the military has always been to be unforgiving of poor quality or performance. Such expressions as "Second to None" and "No Slack" are just slogans but they embody a mind-set that permeates down through every member of the organization. They refer to a sense of comradery that ensures that each man can and does place his life in the hands of his fellow soldiers/airmen/sailors/marines. There is no equivalent to this in civilian business organizations. Similarly, the military has long been accustomed to facing seemingly impossible tasks and getting the job done. This is best captured in the "Can Do!" motto

espoused by most military organizations. Negativism is an anathema to a military organization. The notion put forth in this principle that mistakes are not to be tolerated is inappropriate for a military organization. That marks a return to a "zero defects" mentality. That proved to be a poor leadership and management technique for the military years ago. Such an attitude fosters inaction and thwarts learning in an environment where trial and error are sometimes the only procedure that works. A principle that advocates this style of management is totally unsuitable for the DOD

Point No. 8: Drive out fear. As defined by Deming, this principle would appear to be suitable for the DOD. It becomes incompatible with the DOD because of the DOD's failure to fully implement the TQM methodology. Specifically, the military will never eliminate the role of "commander". Because commanders must exercise command, they often instill fear in their subordinates because of the power they possess and in some cases abuse. Additionally, the military's refusal to acknowledge and eliminate one of the Seven Deadly Diseases (which will be discussed later). No. 3 - Evaluation by performance, merit rating, or annual review of performance, serves to foster fear within the organization. Lacking the will to eliminate this disease, TQM will fail.

Point No. 9: Break down barriers between staff areas. Deming describes this principle as

> *...often staff areas - departments, units, whatever - are competing with each other or have goals that conflict. They do not work as a team so they can solve or foresee problems. Worse, one department's goals may cause trouble for another.*(9:35)

On the surface, there should be no reason why the DOD could not institute this principle. It is suitable for use in the DOD. Problem here is like the previous example. DOD, or at least some of the organizations within DOD choose to ignore this principle. Some services deliberately pit like units against each other and consider this healthy competition. There are also adversarial relationships between headquarters staffs of the senior commander and junior commanders because inspection results affect ratings. As long as these things go on within the military, this principle cannot be realized and TQM as a methodology will fail.

Point No. 14: Take action to accomplish the transformation. Deming summarizes this principle by saying,

It will take a special top management team with a plan of action to carry out the quality mission...a critical mass of people in the company must understand the Fourteen Points, the Seven Deadly Diseases, and the Obstacles.(9:36)

Here again, the problem is not one of unsuitability of the principle for the DOD, but rather, of the DOD's unwillingness to apply the principle. As long as key leaders in the military services consciously decide not to fully implement TQM, it will fail by the sum of its deleted parts. Now let's look at the Seven Deadly Diseases:(9:89-93)

Seven Deadly Diseases

1. Lack of constancy of purpose.*
2. Emphasis on short-term profits.*
3. Evaluation by performance, merit ratings, or annual review of performance.
4. Mobility of management
5. Running a company on visible figures alone.*
6. Excessive medical costs.*
7. Excessive costs of warranties, fueled by lawyers that work on contingency fees.*

* These diseases are either not present in the DOD or the DOD has a firm handle on them such that they cannot affect the organization.

Disease No. 3: Evaluation by performance, merit ratings, or annual review of performance. Deming says,

...the effects of these are devastating - teamwork is destroyed, rivalry is nurtured. Performance ratings build fear, and leave people bitter, despondent, and beaten. They also encourage mobility of management.(9:36)

DOD has already gone on record saying it will retain the practice of performance ratings. Numerous general officers in both the Air Force and Army have publicly stated that enlisted and officer evaluations will not change because "quality" is being implemented. This blatant disregard of Deming's warnings seems tantamount to conscious acceptance that TQM will not be implemented as Deming has prescribed. This admission will go a long way toward not only preventing the ability of TQM to deliver the kinds of results it is expected to attain, but will also frustrate the efforts of those charged with implementing this change from convincing the rest of the DOD that this effort is genuine. In this author's opinion failure to rid the DOD of this disease will kill TQM.

Disease No. 4: Mobility of management. Deming says,

Job-hopping managers never understand the companies they are working for and are never around long enough to follow through on long-term changes that are necessary for quality and productivity.(9:36)

The DOD is terminally ill with this disease. The practice of moving personnel from job to job around the world is so ingrained that even during times of constrained budgets, it cannot be curbed. Frequent moves, in spite of stability rules to the contrary, only serve to frustrate personnel and add to the lack of "quality" in the work place. Rotation of commanders into organizations has an even greater traumatic effect because it fosters the "reinventing the wheel" syndrome. The DOD, for reasons well known and appropriate (provide as many officers with command opportunities as possible) will not be able to cure this disease. As a result, TQM will fail because this disease prevents the organization from having the environment it needs in which to grow.

Lastly, let's examine the obstacles (9:93-95) that Deming forewarns us will pop up as barriers to the successful implementation and execution of the TQM methodology, if we allow them too.

Obstacles

1. Neglect of long-range planning and transformation.
2. The supposition that solving problems, automation, gadgets and new machinery will transform industry.*
3. Search for examples.*
4. Our problems are different.
5. Obsolescence in schools.*
6. Reliance on quality control departments.
7. Blaming the work force for problems.
8. Quality by inspection.
9. False starts.
10. The unmanned computer.
11. Meeting specifications.
12. Inadequate testing of prototypes.*
13. Anyone that comes to try to help us must understand all about our business.*

* These obstacles are not present in the DOD and should not be a factor in preventing TQM from being implemented and/or executed.

Unfortunately, all of the remaining 8 obstacles, in one form or another, are alive and well within the DOD. If left unchecked, they will hinder successful implementation and execution of the Fourteen Points and the process of ridding the DOD of the Seven Deadly Diseases.

Obstacle No. 1: Neglect of long-range planning and transformation. Deming says,

Even where long-range plans exist, they are frequently neglected because of so-called emergencies. Often, company policies that are essentially frivolous take up the time of top-level management. Policies on attendance and promptness can consume large amounts of executives' time whereas in a climate of good management they would not be issues (9:93)

This obstacle is certainly present within the DOD. Putting out fires is a common practice in all the services. Such things as. changing training schedules at the last minute to accommodate a visiting VIP are common. The requirements for commanders to meter out UCMJ action to their personnel for "failure to repair" or "AWOL" is still very routine. Will DOD eliminate these requirements in the name of "quality"? It is possible, but highly unlikely since these kinds of things run against service time-honored traditions and fever up cries of "It's good for the order and discipline of the service". Such habits are hard to break, and so, TQM will take a back seat yet again.

Obstacle No. 4: Our problems are different. Deming says, *this obstacle is often offered as an excuse.(9:94)* My suspicion is that the DOD will fall back on this obstacle a lot for justifying everything it cannot live with that is counter to Deming's teachings. It will be used to explain why performance ratings are needed and why personnel must be moved so frequently. Its presence will definitely hinder the DOD's implementation and execution of TQM.

Obstacle No. 6: Reliance on quality control departments. Deming says.

Quality belongs in the hands of management, supervisors, managers of purchasing and production workers. They have the most to contribute. But quality departments wielding figures that show what happened in the past - not what will happen in the future, which they cannot predict - often mystify managers to the point that they continue to leave quality in the department's hands (9:94)

If you read Inspector General, Internal Review and Audit, and General Accounting Office, etc. in the case of the DOD, as the quality control departments referred to by Deming, then yes - the DOD has this obstacle. Is it likely that these agencies will be eliminated in the transformation to "quality", not on your life. You will be told that their roles have changed and that they are now "quality" organizations. A rose by any other name is still a rose. TQM will fail as long as this barrier exists.

Obstacle No. 7: Blaming the work force for problems. Deming is really referring to systemic verses worker issues here. He says.

Workers are responsible for only 15% of the problems, the system for the other 85%. The system is the responsibility of management.(9:94)

In this context, the DOD has a big problem with systemic barriers to "quality". There are countless examples of the "system" (regulations, policies, and bureaucratic red-tape) preventing people from doing things a better, smarter or a cheaper way. As long as such systemic barriers exist, TQM will struggle to survive.

Obstacle No 8: Quality by inspection. Deming says,

companies that depend on mass inspection to improve quality will never improve quality. Inspections are too late, unreliable, and ineffective.(9:94)

The DOD, especially some services like the Army and the Marine Corps are great believers in inspections of all kinds. There are uniform, billets, vehicle, equipment, weapons, records inspections and the list could go on and on. The likelihood that commanders will eliminate these inspections when they perceive their report cards depend on these inspections to keep them straight is zero! This will remain an obstacle to TQM because it is tradition.

Obstacle No 9: False starts. Deming refers to false starts as "instant pudding". He says,

they make it appear as if something is happening. They only provide temporary comfort (9:95)

He refers to the implementation of statistical methods and quality control in organizations in the name of management methodology as examples. The DOD, has in the past had its share of false starts. During the period 1973-1985, Organizational Effectiveness (OE) was the thing of the day. A school to teach OE to military personnel was created at Monterey, California. Personnel were trained and assigned to units in the field in slots specifically labelled on TO&E's (Tables of Organization and Equipment) as OE officers and NCOs. Their task was to assess/evaluate organizations based on their unit health (command climate, morale, espirit de corps) and effectiveness (mission performance capability). It ended as suddenly in 1985 as it appeared, gone without a trace. Will TQM meet the same fate?

Obstacle No. 10: The unmanned computer. The danger with this obstacle, warns Deming, is that

although a computer has its place, it can also serve as a repository for data that is never used (9:95)

The DOD clearly suffers from this problem. It is almost a joke and commented about in terms like " information overload" and "garbage in, garbage out" referring to data requirements. This systemic problem looms largest at the lowest levels of the organization where the data collection effort is viewed as simply another additional effort that produces no return for that effort. This tendency wears down the unit, hurts efficiency, and is detrimental to the notion of "quality" work place.

Obstacle No. 11: Meeting Specifications. Deming says that meeting specifications *is not sufficient if quality and productivity are to improve.*(9:95) I believe that this is a good example of a concept that Deming only intended for application to industry when he developed it. It has no application to the DOD, although its message can be translated to a warning for the DOD that specifications need to be constantly reviewed for validity over time and changed if found to be wanting. In the case of the military, meeting well defined specifications (standards) may be the "best" form of metric to ensure "quality".

In summary, the analysis of Deming's TQM for applicability to the DOD and implementation revealed the following: (1) Five of the Fourteen Points (36%) are either unsuitable or cannot be properly implemented within the DOD. (2) Two of the Seven Deadly Diseases (26%) are present in the DOD with no sincere effort being made to cure the organization of them. (3) Eight of the Thirteen Obstacles (62%) that Deming describes as barriers to successful implementation and execution of TQM within an organization are present within the DOD. With an aggregate of only 59% of the TQM methodology being applicable and implemented within the DOD, it appears highly unlikely that it can function as a viable philosophy/methodology, at least not in its present form. Having said that, let's look at how the Air Force and Army are implementing TQM within their respective services.

QAF.

The Air Force has chosen to modify TQM by blending "bits and pieces" of several management theories with Deming's TQM. It has taken a formal approach to the implementation of the TQM methodology. It has established prescriptive literature describing QAF for the Air Force. This literature explains, in great detail, the Air Force's "plan of attack" to institutionalize "Quality" throughout the Air Force. It is presented in a very positive and dictatorial manner. It is taking care to ensure that the entire Air Force understands that this

methodology is top-down directed (from the CSAF), and that the Air Force's senior leadership is firmly committed to this effort. It does not however, identify where the methodology does not apply or has shortcomings so that its implementation by the field can "work around" around them. It also does not acknowledge that certain senior Air Force leaders have publicly stated that they do not endorse some parts of the "Quality" methodology and will not implement those parts. On the surface, the literature tends to make one believe that TQM is entirely doable and being done in the Air Force today. This, we know, is flatly not the case. This author believes that this intentional disconnect creates a credibility problem for the Air Force with its members. TQM will fail as a methodology for the Air Force because of its inherent design flaws but, the Air Force will benefit by better leadership and management practices produced by those parts of TQM that are employed by the Air Force's leaders.

TAQ.

The Army has taken the opposite approach from the Air Force in its implementation of TQM. Recognizing that its basis in leadership and management theory is strong, the Army has stated that

> *...Although the implementation of TAQ philosophy is not optional, the unique nature of the Army requires that the leadership of each organization tailor their approach to best fit their own circumstances.* It goes on to say, *Anticipating and meeting the needs of combat units engaged in activities which span the operational continuum may require measures not easily justified by theories developed from experience in the marketplace or routine bureaucracy. The fusion of military art and science into emergent management theory is a significant part of the military management process.*(1:2-12)

Unlike the Air Force, the Army has not distributed formal literature on TAQ throughout its organization. It considers the process of implementation of TQM satisfied by a top-down chain teaching education of its personnel followed by PME for new accessions into the Army. TQM is considered nothing more than fine-tuning good leadership, not a new process.

Conclusion.

TQM, as a philosophy, a prescriptive methodology cannot be applied directly to the DOD as Deming envisioned for other organizations. Some of its principles are unsuitable, in their present form, for use in the DOD.

Since TQM has been directed for implementation within the DOD, the degree to which its use will be seen will be determined by the complexion and disposition of each service. This is perhaps the only correct solution to this difficult problem; short of requesting relief from implementing the methodology in the first place from the senior leadership within the DOD. One thing is certain, what will ultimately appear in each of the services will not be the TQM that Deming would approve of. It would perhaps be better not to refer to this hybrid of TQM as "TQM" at all within the DOD. Perhaps the Air Force has the right idea; maybe just "Quality" is the right name for this new approach after all. Parts of TQM are good for the DOD and will improve leadership and management within the ranks. The truth is, however, we will use them like we always have, by reaching into that "tool bag" and using whatever principle, technique, procedure we need at the moment to handle the leadership/management challenge. TQM or more correctly Quality is really nothing new, its getting serious about doing what we've always known as military leaders: take care of your people and they will take care of you; do things right the first time and you won't have to do them again; do it smarter and better; the guy at the top does not have a corner on the market of good ideas.

Disclaimer.

The views expressed in this paper do not reflect the views of the Air War College, Air University or any service within the DOD. They reflect the views of the author only. As such, it is hoped that there may be some value to be derived from this study, if only to highlight and identify areas that may pose problems for personnel struggling with TQM in the field. Regardless of the eventual results, its implementation will require careful application and reasoned judgment by seasoned military professionals knowledgeable of the expected outcomes of the processes during each step of implementation. Large variances from traditional norms in the wrong direction should be immediate cause for alarm and corrective action until the cause can

be ascertained and overcome. Wholesale, blind implementation of this or any other theory or methodology goes without saying is foolhardy.

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