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TOTAL QUALITY...SO WHAT IS NEW?

by

William J. Beck, Jr.
Lieutenant Colonel, USAF

A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM

REQUIREMENT

Advisor: Dr. James H. Toner

MAXWELL AIR FORCE BASE, ALABAMA

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ABSTRACT

TITLE: Total Quality...So What is New?

AUTHOR: William J. Beck, Jr., Lieutenant Colonel, USAF

Perhaps one of the biggest challenges faced by Air Force leaders during the last decade of the twentieth century will be establishing a total quality culture where trust, teamwork, and continuous improvement are a way of life. Although a lot of time, money, and effort is currently being expended in pursuit of this goal, the question still remains whether total quality is just another fad in a long line of management initiatives, or a genuine attempt to establish a new leadership framework.

This paper attempts to answer those questions by examining personal experiences, and comparing Total Quality Management to some of the management initiatives used throughout the Department of Defense and the United States Air Force over the last forty years. It further looks at the applicability of Dr. W. Edwards Deming's *Fourteen Points* to the Air Force, and emphasizes the role of leadership in implementing the principles of total quality.

BIOGRAPHICAL SKETCH

Lieutenant Colonel William J. Beck, Jr. is a member of the Air War College Class of 1994.

He is a Master Missileer who has served as a crew member, instructor, operations officer, and squadron commander in the Minuteman Intercontinental Ballistic Missile System. He has also served on the headquarters staff of the former Strategic Air Command, where he worked on future missile concepts, nuclear strategy and policy, and various arms control issues. Colonel Beck holds a B.S. from the University of Maryland and an M.P.A. from Golden Gate University. He is also a graduate of Squadron Officers School and the Air Command and Staff College.

Is The Air Force Serious About Quality?

When future military historians examine the decade of the 1990's, perhaps the best single word they will use to describe this period is *change*. The chroniclers of Air Force history are likely to contrast the last ten years of the twentieth century with the periods following World War I, World War II, and Vietnam. They are most to likely show that considerable changes to doctrine, strategy, force structure, and organization that occurred in the aftermath of the cold war were predictable outcomes. After all, the American tendency to demobilize and retrench after major conflicts is a customary cycle not unlike the boom and bust nature of the stock market, but somewhat more predictable. These historians might also permit themselves a wry smile if they remember the American poet Robert Frost's comment that: "Most of the change we think we see in life / Is due to truths being in and out of favor."

Perhaps one of the biggest changes they will cite that occurred during the 1990's will be the efforts to create a "Quality Air Force" that is characterized by "...a leadership commitment and operating style that inspires trust, teamwork, and continuous improvement everywhere in the Air Force."¹ Records will show that considerable time, expense, and efforts were expended to infuse the tenets of Total Quality Management (TQM) into daily operations. But just how serious is the Air Force about TQM? Do all the articles, briefings, and training sessions constitute institutional lip service, or a genuine commitment to a different philosophy? Is TQM really something new, or just an old truth that is currently in favor?

To help answer these questions, we will look at a few examples of things the Air Force is doing to institutionalize TQM. We will then compare TQM against some of the management

¹ United States Air Force, The Quality Approach...Your Guide to Quality in Today's Air Force, Maxwell Air Force Base, AL: Air Force Quality Center, (Fall, 1993), p. I-1.

initiatives the Air Force has used over the last forty years to try and determine if it is really something new, or just the latest fad in the management and leadership arena. Finally, we will talk about the role leadership plays in implementing a "Quality Air Force."

It is a bright and sunny winter day at an air force base located twenty miles from the Canadian border. The men and women assigned to this unit have a vital mission that goes on twenty four hours a day, every day of the year. They operate, maintain, and safeguard the bombers, "tanker" refueling aircraft, and intercontinental ballistic missiles that support the United State's strategic nuclear deterrence strategy. It is a busy mission, and the recent reductions in military budgets and force levels means there are less dollars and less people available to perform the same basic mission that has been going on at this base for over twenty years. The wind chill is thirty degrees below zero as the cars begin to arrive at the base education center. On this particular day, all the commanders on the base will spend the entire afternoon attending a course offered via satellite by the George Washington University School of Engineering and Applied Science. The subject has nothing to do with nuclear weapons effects or advanced aerodynamics. Today's lesson is entitled: "Total Quality Management--Magic Words or Hard Work: A View from the Real World." Subsequent lessons over the next month will feature modern management gurus with names like Juran and Deming. In spite of shrinking budgets and demanding duty schedules, senior leaders from across the base will spend thousands of dollars and over thirty hours of their precious time to learn about TQM. This same commitment will be undertaken by thousands of air force leaders at scores of locations all across the globe.

The young airman is bewildered by the mountain of forms, the confusing acronyms, and the information overload he has received over the last two days. He is fresh from basic training, and is preparing to start work as an administrative clerk at a major command's headquarters. But first he must survive the in-processing ordeal. He has been routed from office to office across the base to take care of financial records, legal paperwork, medical records, personal equipment, safety seminars, dormitory orientation, and local traffic instruction--just to name a few! It has been difficult enough just finding his way around the sprawling base with its confusing traffic patterns and old buildings that all look the same. His anxiety continues as he wonders how he will ever remember all he has been told the last few days. Surely he will forget *something*, and end up on report. His final briefing is at the base theater. At least that was easy to find since it is situated within walking distance of his dormitory. Suddenly the room is called to attention as the base commander enters and proceeds down the long aisle to the elevated stage. Once he reaches the platform and faces the audience of newcomers, he tells them to "take your seats." This is the closest the airman has ever been to a full colonel. He nervously wonders if his uniform is properly adorned and wishes he had not put off getting a haircut. But the base commander is not there to inspect him. He is welcoming people to the unit and telling them how glad he is that they are part of the team. The airman particularly likes it when the colonel says that everyone here is no more or no less important than anyone else. The colonel says that what the newest airman thinks about the daily operation really matters, and every supervisor is constantly in search of new ideas and better ways to get the job done. Then everyone sees a video tape from the commanding general that talks about Total Quality and reinforces some of the things the base commander just covered.

The airman is impressed; a full bird colonel and an honest to goodness four star general all in the same day!

The Air War College at Maxwell Air Force Base, Alabama is the senior level professional military education school for the Air Force. Its students represent all the military services, many Department of Defense (DOD) agencies, and over forty officers from foreign nations. They are there because they have proven themselves over an average eighteen years of service as being good at their professions. More importantly, their respective institutions feel they have the potential to serve in even more demanding and important positions. That is why they will attend this school for a full year to study doctrine, strategy, leadership, history, and decision making from the perspective of senior government officials. Each student will also devote forty seven curriculum hours towards the study of Total Quality Management. As future leaders, they will learn the principles necessary to implement the Total Quality culture. In turn, they will carry that message to their organizations after graduation.

Scenes like these are being played out all across today's Air Force. The amount of time, money, and effort that it is investing seems to indicate that it is very serious about Total Quality Management. But the question still remains whether this is really something new, or just the latest fad in a long line of management initiatives. To answer that question we will examine some of the recent management initiatives that have guided the way the Air Force does business. We will then explore differences between those attempts and the current quality movement to see if there is

genuine substance or just a slick label that distinguishes what we have previously done from where we are currently headed.

SYSTEMS ANALYSIS

Many years have passed since I was a second lieutenant , but I can still remember the glossy charts that hung on the walls of my first squadron. They clearly stated the goals and objectives of our organization. Furthermore, we kept volumes of data that reflected how well we were meeting these objectives. Examples included how many crew members were certified as combat ready, pass rates on standardization and evaluation check rides, hours of training received each month, and test averages on monthly recurring written exams. All activities that contributed to achieving the overall mission were defined, measured, analyzed, and documented. When higher headquarters teams arrived for our annual Operational Readiness Inspection, the final grade would be based on how well we achieved the command standards in a variety of functional areas.

This approach to management evolved from the style of Defense Secretary Robert S. McNamara, who assumed his position during the Kennedy administration over a decade earlier. In McNamara's view, the biggest problem in the DOD was "the absence of the essential management tools needed to make sound decisions on the really crucial issues."² He subsequently institutionalized the systems analysis approach that ultimately resulted in the Planning, Programming, and Budgeting System that still governs the way DOD in particular and the US government in general does business today.

² Alain C. Enthoven and K. Wayne Smith, How Much is Enough? (New York: Harper, Colophon edition, 1972), pp.32-33.

During McNamara's tenure, advancements in computer technology and new statistical techniques made it possible to analyze vast amounts of data. This allowed managers to apply a systems analysis approach towards an entire organization. Previous efforts were limited to specific aspects of the organization, such as a particular portion of the manufacturing process.

The basic idea of systems analysis was to apply the scientific method as the model for decision making. At a glance, this may seem like a relatively simple task. The reality of doing it on such a large scale and to an organization as complex as DOD was a revolutionary undertaking in the 1960's. There were six basic steps in this process:

1. Determine the purpose or objective of the system.
2. List the feasible alternatives.
3. Evaluate the alternatives on the basis of cost and effectiveness.
4. Develop decision criteria for ranking the alternatives.
5. Check the sensitivity of ranking to assumptions and uncertainties.
6. Iterate the process, exploiting new information and insight.³

The important concept to ascertain from this discussion is that the key focus of this system of decision making and management is on *measurement* and *analysis*. Many military officers felt that this approach did not place enough emphasis on intuition and experience. Since these were not quantifiable traits, proponents of systems analysis argued they did not have a prominent role in the overall process.⁴

³ Amos A. Jordan, William J. Taylor, Jr., and Lawrence J. Korb, American National Security, Policy, and Process (Baltimore: The Johns Hopkins University Press, 1989), 3rd ed., p. 192.

⁴ Ibid., p. 197.

From the perspective of a brand new lieutenant entering the service over a decade later, the systems analysis approach was not a revolutionary concept, but an accepted way of life. The military was, after all, a traditional, autocratic organization with well defined rules and objectives. The high ranking officers made the decisions and set goals for the organization. The job of the troops was to achieve those objectives and "obey the orders of those officers appointed over me."⁵ I soon learned that one of the keys to success was to quickly learn the rules and follow them to the letter. Innovation and creativity were not common words in the vernacular of the day.

MANAGEMENT BY OBJECTIVES (MBO)

The foundation of McNamara's approach was rooted in the philosophies of one of the great management gurus of the 1960's, George S. Odiorne. In his classic treatise, Management By Objectives, a System of Managerial Leadership, he discussed the evolution of management styles over the last forty years and proposed a formula for successful managers of the modern era. (Take note of the fact that this is the first time we have mentioned *leadership*; this is a key point we will discuss later.) Odiorne suggested that from the 1920's through the 1960's, we had witnessed three basic managerial styles. The manager of the 1920's and 1930's was characterized as the "hard nose" type. He believed that workers were basically lazy. The key to his success as the boss was to be strict and demanding. Discipline was unquestionable. He was not concerned with human relations, employee motivation, conditions in the workplace, or systems analysis. All he had to do was be tough and make workers follow orders. This style gave way to the "human relator" of the 1940's and early 1950's. During this period, World War II depleted the work force

⁵ Standard verbiage from the reenlistment oath.

and it became more difficult for employers to attract workers. Now it became necessary to offer benefits and pursue initiatives to make workers happier. Business and industry sought the counsel of social scientists; their basic advice was that the way to keep production up was to keep the employees happy.

By the 1950's, inflation was cutting profits and managers found that it was not enough to have a satisfied work force to guarantee productivity. During this period, business and industry started to look at the overall system or process to identify choke points and critical areas where management could apply extra pressure in order to produce the desired outcome. The result was a "management by pressure" approach where emphasis was placed on these critical areas in order to induce greater productivity and profit. This results oriented approach rewarded the manager who could take the added pressure when it was applied and do whatever was necessary to meet a particular goal or objective.

That brings us to the 1960's, when Odiorne argued the successful manager would be a "manager of situations." The following six traits summarize what would be required for these new "captains of industry":

1. He will be judged by what his followers do.
2. He will have no definable "executive personality"
3. He will make things happen.
4. He will be more of a generalist than in the past
5. He will be an organizer.
6. He will be oriented towards results and responsibility.⁶

⁶ George S. Odiorne, Management by Objectives, A System of Managerial Leadership (New York, Toronto, London: Pitman Publishing Corporation, 1965), pp. 7-12.

As we review Odiorne's remarks, we see that there was a definite evolution of management styles over the forty year period he discussed. However, there appears to be one overriding theme that is common among all these styles--the manager is the key ingredient in the process. Without his or her efforts, the desired objectives would never be achieved. I might use the analogy of a freight train where the manager is the engine. Sometimes the engine pushes from the rear, as in the "hard nose" or "management by pressure" styles. Other times the engine pulls from the front as in the "manager of situations" style. But in each of these examples, the train goes nowhere if there is no engine. It will be important to keep these points in mind when we transition to a discussion of Total Quality.

Meaningful Measures of Merit (M3)

The final management initiative I will discuss is based on personal experiences as a staff officer during the early 1980's. One particular numbered air force headquarters embraced the basic concepts of MBO and systems analysis and came up with their own program which was called Meaningful Measures of Merit. Essentially, it repackaged what we had been doing all along. It implemented some new forms of measurement and required more frequent review; this is what systems analysts would refer to as "iterating the process." Since we had all become accustomed to the requirements generated by MBO, we viewed M3 as an unnecessary program that someone at higher headquarters had developed in order to make a name for himself.

By this time I was no longer an untested second lieutenant, but a veteran captain who had survived numerous inspections, evaluations, and higher headquarters "assistance" visits. I remember one day when the boss called all of us into the office and told us he had just received

word that the three star general who commanded our numbered air force would soon arrive for a short notice visit. Since M3 was one of the general's pet projects, we were all expected to have vigorous, visible programs in action so we could brief him on their positive benefits. The reaction was unanimous: "but sir, we don't *have* any M3 programs." Even though we had heard about it for quite some time through various correspondence from the numbered air force headquarters, our senior leadership had never really embraced the principles of M3 since it was, after all, the same thing we had been doing all along. It received the perfunctory attention whenever the headquarters required reports, but there was never any fundamental change to the way we had been conducting business over the years.

In the finest of military traditions, the "can do" spirit prevailed and I was assigned the task of building an M3 program for our unit over the next 48 hours. By the time the general arrived three days later, we had a comprehensive briefing and new charts that testified to the miracles you could accomplish through judicious application of the M3 principles!

The visit was a tremendous success, and we received high marks for our M3 program. The briefing and all the accompanying charts were subsequently placed on a shelf and were never touched again during the next year I spent in that organization. This personal experience provides a perfect example of what happens when leadership fails to support a new initiative or program. The work force will be quick to pick up on this lack of commitment from their leaders, and any hopes for success from the new initiative will be minimized. With those thoughts in mind, let us now turn to a discussion on Total Quality Management (TQM).

Total Quality Management, Is It Really New?

If we return to one of the original questions asked in the beginning of this paper, we should now be able to make some rational conclusions based on what we know about the Air Force's commitment to quality and previous management initiatives over the last thirty years. But first, we must briefly describe what quality is.

The accounting firm Coopers and Lybrand calls TQM a "...scientific common sense: seeing things as they are, and doing things the way they ought to be done."⁷ Federal Express, winner of the 1990 Malcolm Baldrige National Quality Award, characterizes quality as "Our corporate philosophy...succinctly stated: People - Service - Profit."⁸ As we have previously pointed out, the United States Air Force says: "Quality Air Force is a leadership commitment and operating style that inspires trust, teamwork, and continuous improvement everywhere in the Air Force."⁹ The former vice commander of the Strategic Air Command summed it up well when he said TQM is "...a philosophy--a strategy--a new way of doing business that focuses on continually and forever improving every aspect of the organization...The Total Quality concept is truly a way of life."¹⁰

We can see from these examples that there is no single definition, no absolute truth that supplies a text book answer to the simple question: "What is total quality?" However, if we look

⁷ Steve Ammon and Gus Plato, "TQM: Is It Just Common Sense?" Interservice, (Summer, 1991), p. 33.

⁸ Federal Express Quality Profile, Company Handout, (undated), p.2.

⁹ United States Air Force, The Quality Approach, Maxwell Air Force Base, AL: Air Force Quality Center, (Fall, 1993), p. I-1.

¹⁰ Lieutenant General Leo W. Smith II, "Quality Leadership - Our New Style," Combat Crew, Vol.XLII, No. 3, (March, 1992) p.3.

at successful organizations that have embraced the Total Quality approach, we soon discover that although they each define Total Quality in a different way, there are certain common traits.

First, TQM is not just a management initiative like MBO, systems analysis, or M3. More importantly, it is a mind set, a philosophy, or a culture that permeates all levels of the organization.

Second, TQM does not focus on a particular aspects of the organization, but rather takes a holistic approach towards creating a better product. It is not good enough to concentrate on choke points or critical parts of the organizational process to achieve success. You must create an environment where every member of the organization recognizes the importance of their singular contribution and how that impacts the collective efforts of the entire organization.

Finally, *leadership* is the key to the successful implementation of the quality culture. This focus on leadership is perhaps the single most important factor that differentiates the quality movement from previous management initiatives. Just as we saw M3 fail at one unit due to the lack of genuine commitment on the part of senior leadership, "most failures of total quality control can be attributed to the resistance of upper level management, middle management and the line workers -- probably in that order."¹¹

Conversely, organizations that have approached the implementation of a total quality culture as a fundamental leadership challenge have enjoyed great success when all echelons of leadership and management were committed to the program. One such company is Hewlett-Packard, which designs, builds, sells, and services a wide range of electronic devices on the worldwide market. The company's annual growth rate of twenty percent over recent years,

¹¹ Hal A. Rumsey and Phillip E. Miller, "Barriers to Total Quality Management in the Department of Defense" The Logistics Spectrum, Vol. 24, No. 4, (Winter, 1990), p. 3.

and their ascendance from one of the top two hundred companies in the world to the top forty is based on the keen focus of company leadership.¹² Another example is provided by Sierra Semiconductor, a company that manufactures high technology circuits for the electronics industry. Increased product demand was causing them severe growing pains and the overall health of their company was declining. By working with consultants and focusing on *quality*, as opposed to *productivity*, they reversed downward trends and now have a successful operation. If you review the consultant's report, the repetitive message is the importance of effective leadership in developing a quality culture. In fact, the authors are quick to point out that "Without effective leadership, quality and productivity will result only as fortunate accidents."¹³

The emphasis on the role of leadership in developing a total quality culture cannot be overstated. Numerous articles and books on Total Quality attest to this fact, and contend that any organization that fails to secure a genuine commitment on the part of leadership is doomed to fail in its attempt to cultivate a quality culture. A recent work by Lieutenant Colonel John D. Richards, US Army, entitled: "The Role of Leadership in TQM," summed it up well when he stated: "TQM must be viewed by leadership as 'this is the way we are going to do business from now on,' rather than 'this is another one of those things we will try until the next hot program comes along.' Employees very quickly perceive which programs leaders believe in and support and those programs in which leaders are just going through the motions."¹⁴ Our brief examples of what happened at an Air Force unit where leaders failed to get behind a higher headquarters

¹² Total Quality Management, The Key to Business Improvement, (A Pera International executive briefing), (London: Chapman and Hall, 1991), pp. 157-159.

¹³ Harry J. Levinson and Chuck DeHont, "Leading to Quality" Quality Progress, Vol. XXV, No. 5, (May, 1992), pp. 55-60.

¹⁴ Lieutenant John D. Richards, US Army, "The Role of Leadership in TQM," Military Review, Volume LXII, No. 8, (August, 1992), pp. 84-87.

initiative, and at two companies where leaders enthusiastically embraced total quality principles further attest to Colonel Richards's assertions.

The Famous Fourteen Points

To conclude our analysis of whether TQM is really something new, we must go back and review the six basic steps of systems analysis or the six traits that Odiorne suggested would characterize the new "captains of industry" operating under the principles of MBO. Here we find that the emphasis is on measurement, analysis, and results. TQM incorporates many of the philosophies and uses many of the tools of previous management initiatives, but it goes much farther by emphasizing the role of leaders in creating a *climate* or *atmosphere* that encourages and expects every member of the organization to pursue quality. In fact, students of systems analysis or MBO would find very little "hard science" when examining Dr. Deming's philosophies for building world class quality organizations.

From a military perspective, many would argue that Deming's ideas are designed for use in civilian organizations where profit is the prime motivator. They contend that Deming's tenets are not easily incorporated into military organizations. Let us examine his *Fourteen Points* that summarize the key things leaders must do to create a quality climate in their organizations, and see if they apply to the Air Force.

1. *Create constancy of purpose for improvement of product and service.* Here Deming suggests that the focus of an organization must be on the future. Too often companies get mired in the details of solving today's problems. He contends that corporate managers change jobs so often that their focus is largely short term. It is not enough for a company to have a long range

strategic plan on the shelf as an indication of concern for the future. Companies must emphasize innovation, research, constant improvement, and maintenance to show employees they are interested in the long haul and not just short term profits. This commitment will translate into security for the work force and lessen the tendency to seek better employment as soon as the opportunity presents itself. This approach would seem to directly impact the Air Force system where frequent assignments mean new leaders take charge every two or three years. Creating a constancy of purpose places the good of the organization above personal agendas, and helps everyone focus on long term improvement and productivity.

2. *Adopt the new philosophy.* Deming asserts that we have become too tolerant of poor workmanship, substandard service, and a lack of quality. He contends that we must demand quality as fervently as we demanded progress in the past. This will be a difficult attitudinal adjustment since our society is used to passing on the cost of poor performance to the customer. From the Air Force perspective, it would be hard to argue with the applicability of this point. Any organization tasked with providing security for our democratic institutions and our way of life cannot afford anything but a quality approach where the highest standards of performance are mandatory.

3. *Cease dependence on mass inspection.* Deming suggests that inspections emphasize what is bad about a product or process. Instead, he challenges us to emphasize what is right, and build quality into the product, service, or process. This does not mean inspection should be done away with. There are many situations where inspection is appropriate, like when safety interests are paramount. The Air Force could surely benefit from a close examination of this point. The traditional approach of sending a team of inspectors to a unit to conduct annual Operational

Readiness Inspections is a deeply entrenched aspect of our culture. Anyone who has been on the receiving end of these events would likely tell you that inspectors have to find something wrong with a unit's operation in order to justify their existence. This builds an adversarial relationship where emphasis is on the negative, not the positive efforts of the inspected unit. Strides have been undertaken the last several years to change this perception and put credence behind the Inspector General's assertion that he is there to help a unit improve its performance. In time, this will hopefully enhance the Air Force's pursuit of Total Quality.

4. *End the practice of awarding business on price tag alone.* Here Deming says that we must place more emphasis on the quality of a product rather than the price. He suggests that the choice of a supplier should take into consideration the overall nature of the company and include its progress towards implementing the *Fourteen Points*. He is particularly critical of the "cost plus" method of awarding contracts, and cites the resultant cost overruns with which the government has so much experience. The challenges presented by a shrinking military industrial base, declining military budget, and increasingly complex weapon systems, means the military procurement system will have some significant hurdles to overcome. A close scrutiny of Deming's thought on this matter would be warranted.

5. *Improve constantly and forever the system of production and service.* Organizations must avoid focusing on near term improvements and concentrate on continual long term efforts. Once again, Deming emphasizes that management must lead the way. This is accomplished by evaluating how the organization is doing compared to the previous year or two, versus the last month or quarter. This point is particularly applicable in an Air Force environment where the focus is too often placed on recent performances such as yesterday's sortie rates or the last

inspection results. When we focus on the latest "brush fires," the long term or strategic view of progress is clouded.

6. *Institute training.* The importance of training is a major factor in the total quality approach. Deming says workers frequently receive inadequate training and learn their skills from someone else who was never properly trained. The Air Force receives high marks in this area because of its technical training programs, on the job training initiatives, and professional military education system. Recent initiatives to focus on "The Year of Training" indicate an Air Force wide commitment to this Deming principle.

7. *Drive out fear.* When employees are not secure in their jobs, they are afraid of rocking the boat and taking positive measures that challenge the status quo. This leads to stagnation and hinders improvement. This presents a formidable challenge to the Air Force with its traditional autocratic, centralized system where lower ranking technical personnel usually perform their duties in a structured environment where rigid adherence to regulations, manuals, and technical orders are the norm. Emphasizing innovation and improvement, and rewarding creativity through vehicles like the Air Force suggestion program are ways to enhance employee security and create a culture where questioning conventional wisdom is expected and encouraged.

8. *Institute leadership.* The job of leaders and managers is much more than hiring and firing. Their primary focus should be on helping people do a better job by providing them the tools necessary to succeed. Leaders need to be motivators and coaches who are always attempting to improve the process and set strategic goals for the organization. These principles of effective leadership are readily transferable between military and civilian institutions.

9. *Break down barriers between staff areas.* Here Deming cautions that different staff areas or departments within an organization often have conflicting goals and make decisions based on what is best for an individual department, at the expense of the overall organization. This is another principle that is just as pertinent to the Air Force as it is to any civilian company.

10. *Eliminate slogans, exhortations, and targets for the work force.* Deming feels that slick slogans and numerical goals serve no real purpose and generate frustration. It is the lack of proper tools or ineffective processes that are often the cause of poor performance, and no amount of exhortations or quotas will fix the problem. The Air Force can stand some close scrutiny in this area. Perhaps the main point here is to put sincere effort behind the words, and not expect better performance to naturally result from catchy phrases.

11. *Eliminate numerical quotas.* Deming is adamant that quotas only force people to meet a goal, and remove any incentive to improve the quality of their product. It is not difficult to see how this principle can be applied to Air Force operations. Imagine the consequences of a crew chief who is more concerned about meeting a sortie production rate than providing a mechanically safe aircraft to its crew. Or how about the airman at the base personnel office who is pressured to serve customers within five minutes of arrival at the expense of making sure all appropriate actions are completed thoroughly and correctly the first time. Does quick service matter if it takes two or three repeat visits by the customer in order to complete something that should have been done in one visit?

12. *Remove barriers to pride of workmanship.* Deming reiterates many previous points when he says that misguided supervision, ineffective processes, inadequate tools, and poor training often present insurmountable hurdles to workers. It is not difficult to come up with Air

Force examples where stifling regulations and a burdensome bureaucracy inhibit total quality. This is a principle that once again has universal applications for any type of organization.

13. *Institute a vigorous program of education and retraining.* A cursory glance would seem to indicate that Deming is restating the same thing he said in point six, *institute training*. Closer examination reveals that the earlier point concentrates on work skills, while the latter talks more about educating managers and the work force on the overall quality approach, to include things like teamwork and the proper use of statistical techniques. I would describe this as giving everyone a view of the "big picture" to help them understand how individual efforts contribute the overall objectives of the organization.

14. *Take action to accomplish the transformation.* Deming says the only way a true quality effort will take place is through the concerted efforts of a nucleus of managers who develop a specific plan of attack on how to implement the *Fourteen Points*. Neither workers or management can accomplish this alone.¹⁵

Even a cursory comparison of these points against the previous lists we examined during our discussion of systems analysis and MBO indicate there are indeed major differences. The emphasis on leadership, training, commitment, communication, and purpose is a much different approach from anything we have seen since the McNamara regime of the 1960's. Although goals, objectives, measurement, and analysis are important parts of a Total Quality organization, these are merely *tools* used to support the overall *process*. The *Fourteen Points* represent some radical ideas by encouraging an atmosphere where trust, teamwork, and innovation become common expressions in today's vernacular. That is why TQM really is something new. The traditional,

¹⁵ Mary Walton, *The Deming Management Method* (New York: Putnam, 1986), pp. 34-36.

autocratic Air Force methods for conducting business is slowly but surely giving way to a more decentralized, participatory approach where the most junior line worker is encouraged and recognized for his or her efforts to achieve Total Quality. What the young airman heard on his last day of in processing from the base commander is a far cry from what the second lieutenant in our story would have imagined possible twenty years earlier. It is this fundamental change to the organizational *culture* that best summarizes what is revolutionary about TQM, and explains why it is not just another fad in a long line of management initiatives.

Conclusion

The United States Air Force is sincerely committed to creating a quality culture. Whether it be commanders attending university courses broadcast via satellite, new airmen receiving briefings from base commanders, or academic studies at the Air War College, the overwhelming evidence shows that there is a strong institutional commitment to making the Total Quality approach work. As to whether or not TQM is really something new, we have shown that even a cursory comparison between management initiatives of the past seventy years and TQM surfaces some significant differences that includes an emphasis on philosophy or culture, a holistic approach to the organization, and a distinct accent on the role of leadership in changing an organizational culture. Perhaps another way to summarize the difference is to say that Total Quality is something that is achieved from within the organization. It is a combined effort that reflects the actions of everyone from senior leadership to the newest line worker endeavoring together to implement a shared set of beliefs about the organization--a culture--where Total

Quality is the goal. It is not something that can be done *to* an organization. Unless it is internalized and believed, it is sure to eventually rest beside M3 on a dusty shelf.

In their popular book, In Search of Excellence, Tom Peters and Bob Waterman discussed some of the common things they saw in "excellent" companies. One of the first things they felt was necessary to do was develop a common language and learn to "talk the talk." Referring to their clients, they said: "Once they start talking the philosophy, they may start living it, even if, initially, the words have no meaning."¹⁶ Today's Air Force is definitely going to great lengths to talk the quality talk. Whether it, as an institution, will ever walk the way it talks will be one of the significant challenges faced by Air Force leaders at all levels over the next several years. It is largely in their hands that the prospects for success or failure lay.

¹⁶ Thomas J. Peters and Robert H. Waterman, Jr., In Search of Excellence, Lessons from America's Best Run Companies (New York: Warner Books Inc., 1982), p. 260.

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