

AU/ACSC/268/1998-04

AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

CONTEMPORARY QUALITY LEADERSHIP PRINCIPLES:
DO THEY FIT THE AIR FORCE MODEL?

by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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Maxwell Air Force Base, Alabama

April 1998

REPORT DOCUMENTATION PAGE

Form Approved OMB No.
0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 01-04-1998	2. REPORT TYPE Thesis	3. DATES COVERED (FROM - TO) xx-xx-1998 to xx-xx-1998
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4. TITLE AND SUBTITLE Contemporary Quality Leadership Principles: Do They Fit the Air Force Model? Unclassified	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S) Springs, Bruce E. ;	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME AND ADDRESS Air Command and Staff College Maxwell AFB, AL36112	8. PERFORMING ORGANIZATION REPORT NUMBER
--	--

9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS ,	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
APUBLIC RELEASE

13. SUPPLEMENTARY NOTES

14. ABSTRACT
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15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:	17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19. NAME OF RESPONSIBLE PERSON
a. REPORT Unclassified	Public Release	56	Fenster, Lynn lfenster@dtic.mil

<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border: none;">b. ABSTRACT Unclassified</td> <td style="width: 33%; border: none;">c. THIS PAGE Unclassified</td> </tr> </table>	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified	19b. TELEPHONE NUMBER
b. ABSTRACT Unclassified	c. THIS PAGE Unclassified		
	International Area Code Area Code Telephone Number 703767-9007 DSN 427-9007		

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Contents

	<i>Page</i>
DISCLAIMER	ii
PREFACE.....	v
ABSTRACT	vi
INTRODUCTION	1
Overview	1
Research Objectives	2
Specific Problem.....	3
CONTEMPORARY MANAGEMENT THEORIES	5
Introduction	5
Early Pioneers in Quality.....	6
Crosby.....	6
Deming	7
Juran	8
AIR FORCE ROADMAP TO QUALITY	11
Background.....	11
Total Quality Management.....	12
Quality Air Force	14
Putting the Pieces Together	15
ANALYSIS	16
Does it work?.....	18
QAF vs. Contemporary Practices: Are We Doing it Right?	19
Is it Working?	22
Role Ambiguity.....	23
Management of Violence—The lost Art	26
Deliberate Moves to Change the Direction	28
THERE IS A WAY OUT	31
More Remains to be Done.....	33
CONCLUSIONS.....	34

APPENDIX A: CROSBY’S FOURTEEN STEP QUALITY IMPROVEMENT PROGRAM.....	36
APPENDIX B: DEMING’S 14 POINTS FOR QUALITY IMPROVEMENT	38
APPENDIX C: JURAN’S 10 STEPS TO QUALITY IMPROVEMENTS.....	39
APPENDIX D: GOVERNMENT PERFORMANCE AND RESULTS ACT GOALS	40
APPENDIX E: “PROFESSION OF ARMS” INITIATIVES	41
Vision for the 21 st Century Air Force	41
Air Force Strategic Plan	42
Operationalize Quality and Evaluations.....	43
Air and Space Basic Course	44
BIBLIOGRAPHY	47

Preface

I was introduced to Total Quality Management in 1988 and quickly became convinced the program would substantially improve the efficiency and effectiveness of the United States Air Force. Fast forward to 1997 and it was difficult to recognize the quality program which I was so enamored nine years earlier. I was at a wing preparing for a Quality Air Force Assessment (QAFA). Everyone was consumed with quality. You could hear quality discussed during meetings, articles in the base paper praised quality initiatives, and every leader discussed the metrics that proved the wing had truly embraced quality. The problem, however, was that none of this had anything to do with the mission of the wing—the management of violence. I selected this topic to trace the roots of the Air Force quality program to determine if I had been fooled in 1988 or if quality had been inappropriately applied. The answer, it turned out, was both.

I would like to acknowledge several people who made large contributions enabling me to complete this research project. TSgt Sarah Poelker, Maxwell Air Force Base Quality Office, helped educate me on the Quality Air Force (QAF) program. Lt Col Mike Gethers, Air Staff plans directorate, provided guidance on the strategic direction of QAF. My advisor, Lt Col Ed Bergemann, Air Command and Staff College faculty, helped shape my arguments and provided extraordinary editing support. Finally, my wife Sandy gave up several of our Saturdays giving me time to complete this project. Thanks go out to all of you for making it possible.

Abstract

Quality Air Force (QAF) was supposed to allow the Air Force to deal with complex environmental changes by stressing the concepts of organizational vision, strategic planning, continuous improvement, empowerment, teamwork, and customer focus. This paper shows the results, however, have not dealt with environmental changes but instead have de-emphasized leadership at the junior officer and NCO levels, and taken the focus away from mission effectiveness.

Recent changes may allow the Air Force to get back on course through the creation of symbols of shared identity. The launch of the Global Engagement vision, the development of a strategic plan, decisions to operationalize quality, and creation of the Air and Space Basic Course, re-elevate the importance of the “profession of arms” preventing the slide back into a cultural emphasis too heavily centered on process-centered civilian models of quality.

Chapter 1

Introduction

Quality is not a static description, but a dynamic process for an attitude of continuous improvement within the constraints of available resources. Quality does not stand alone, but is measured by its contribution to the Air Force Mission.¹

—Dr Sheila E. Widnall
Former Secretary of the Air Force

Overview

Global Engagement: A Vision for the 21st Century Air Force is based on a new understanding of what air and space power mean to a nation – the ability to hit an adversary’s strategic centers of gravity directly as well as prevail at the operational and tactical levels.² This is the vision selected to chart the Air Force into the next century and is the brainchild of the senior leadership of the Air Force. Having this far-reaching vision clearly defines “where we want to go” and allows everyone to contribute to the accomplishment of the mission. Mission success, however, especially for aerospace forces, depends on organizations possessing the flexibility to adapt to rapidly changing circumstances and to exploit new tactical situations.³ It would seem obvious then, the key to succeeding in the 21st Century is to couple a clear vision with continuing development of leadership capable of operating in a complex environment. What would be the solution? Quality Air Force (QAF) was selected to deal with the Air Force version

of a complex environment: fiscal realities of a declining defense budget; a push to bring about fundamental changes in how the government operates; and a need to be able to transition to fighting major theater wars from substantial levels of peacetime engagements overseas as well as multiple concurrent smaller-scale contingencies. This paper will show the results, however, have been a aerospace force that de-emphasized leadership at the junior officer and NCO levels, and concentrated on continuous improvement instead of mission effectiveness. Recent changes will allow the Air Force to become more focused because it has now created symbols of shared identity. The launch of Global Engagement, the development of a strategic plan, decisions to operationalize quality, and creation of the Air and Space Basic Course, re-elevate the importance of the “profession of arms.” These changes should prevent the slide back into cultural emphasis too heavily centered on process-centered civilian models of quality.

Research Objectives

There were four objectives of this research paper. The first was to identify quality principles espoused by contemporary quality management authors. The second objective was to capture the history of the Air Force quality program, and implementation guidance in Air Force Instructions and training programs. The third objective was to conduct analysis of QAF to determine if quality works, if the Air Force guidance matches contemporary quality management designs, and identification of operational implementation problems. The final objective was to identify the new directions in the QAF program.

Specific Problem

Executive Order 12552, dated February 1986, challenged all federal agencies to achieve a three-percent productivity increase and the goal of the Government Performance and Results Act (GPRA) is an effective, efficient, and results-based government. To meet these demands, QAF was implemented and has stressed the concepts of organizational vision, strategic planning, continuous improvement, empowerment, teamwork, and customer focus to emphasize a leadership style that is necessary to improve Air Force effectiveness and efficiency. These concepts work best in organizations that have order, control, and a certain degree of predictability. The Air Force, however, is a “profession of arms” that must deal with crisis action and emergency situations on a regular basis in an unstable environment. If QAF was the correct solution to the GPRA challenge, three questions should have been answered: do the principles of quality work? Can they be applied to the Air Force? If so, has quality made the Air Force a more effective and efficient fighting force? This paper will answer these questions by literature review and analysis of contemporary quality management practices, and QAF guidance, practices, and results. Further, organizational behavior and leadership models will be examined to form a mission effectiveness baseline. Once this baseline is established, a conclusion will be made whether organizations with quality programs have seen improvements. In addition, this paper will determine whether the Air Force, which was so effective during the Gulf War, applied quality correctly, and has seen improved mission-effectiveness.

Notes

¹ Quoted in Air Force Handbook (AFH) 90-502, *The Quality Approach*, August 1996, 1

² United States Air Force, *Global Engagement: A vision for the 21st Century Air Force*, (Washington, D.C.: Office of the Secretary of the Air Force) 1

³ Air Force Manual (AFM) 1-1, Basic Aerospace Doctrine of the United States Air Force, Vol. I, March 1992, 19

Chapter 2

Contemporary Management Theories

...we are not weak, if we make proper use of the means which the God of nature hath placed in our power...the battle, sir, is not to the strong alone; it is to the vigilant, the active, the brave.

—Patrick Henry

Introduction

Quality as a “buzzword” began in the 1980s and continues today. The search for quality excellence, quality improvement, and related product/service enhancement philosophies still occupy the limelight in technical/professional journals. Quality training programs are increasingly popular in both the manufacturing and service industries. The value of quality is being appreciated as not just an advantage, but as a necessity.

What must leaders do? It is not enough for management to have their people do their best. Management scholar Dr. W.E. Deming noted, “everyone is already doing their best. Efforts, to be effective, must move in the right direction. Without guidance, best efforts result in a random walk.”¹

Deming advocated that quality should be the building block for improvement. Profits have been most often used to determine the success of a company, but Deming stated, “Paper profits do not make bread: improvement of quality and productivity do.”²

Early Pioneers in Quality

Much of the basis for quality comes from such notable scholars as Dr. Phillip Crosby, Deming, and Dr. J. H. Juran. The works of these three pioneers point to a basic premise. An organization that gets involved in quality improvement will face two challenges: First, instead of trying to improve product quality, it must concentrate on improving the quality of the process that produces the product; and second, the company must assure ongoing quality improvement throughout the organization.

An examination of the road maps these three offer for success follows.

Crosby

According to Crosby, it is difficult to reach the mind of someone who is enthusiastically agreeing with you. Crosby points out, in a world where no one is against quality, very few have it.³ He says everyone thought they understood it all but they do not. To overcome this lack of understanding, he provides four absolutes answering the questions—what is quality? What performance standards should be used? Finally, what measurement system is required?

In the first absolute, quality has to be defined as conformance to requirements.⁴ Crosby states quality improvements are built on getting everyone to do it right the first time. The second absolute points out the system for causing quality is prevention not appraisal.⁵ He says the most visible expense in quality control practice is in the area of appraisal. The third absolute states the performance standard must be zero defects, not that's close enough.⁶ While setting requirements is a process easily understood, Crosby says the need to meet requirements each and every time is not as easy to understand. The measurement of quality is the price of nonconformance, not indices, is the fourth

absolute.⁷ The price of nonconformance involves all the expenses incurred in doing something wrong.

Quality will continue to be a major problem until management believes there is absolutely no reason we should ever deliver nonconforming products or service to customers. Crosby believes Americans have the problems they do with quality because they don't take the subject seriously. He feels it is the role of management to establish requirements, provide the wherewithal to meet them, and then spend all its time getting the requirements met."⁸

To assist with establishment of quality in an organization, Crosby outlined a fourteen-step quality improvement program (see Appendix A).⁹ Where Crosby emphasized the need for management to create a common understanding about quality among employees, Deming stressed the onus on quality should rest with management and not employees.

Deming

Deming was an advocate for managerial philosophies to achieve higher quality. Author and management consultant Myron Tribus pointed out "Deming had one of those brilliant flashes of insight that few of us are privileged to have. Like Newton with the apple, Einstein with relativity, and Freud with subconscious, so Deming saw a new way with management."¹⁰ Demings said, "if management is to be responsible for improving something as complicated as a modern assembly of machines and people, managers must have a way of learning which problems are caused by the workers and which are caused by the system."¹¹ According to Deming, good quality does not mean high quality. It is,

rather, a predictable degree of uniformity and dependability, at low cost, and suited to the market.”¹²

Deming believed no permanent impact has ever been accomplished in improvement of quality unless the top management carried out their responsibilities. These responsibilities, he stated, never cease; they continue forever. “Failure of your own management to accept and act of their responsibilities for quality is, in my opinion, the prime cause of your problems.”¹³ He also cautioned against using experience. His fear is managers and employees a like try to rely on experience to guide decisions but suggest instead experience be used only if statistical methods are in place to verify them.

Deming advocated sustained management involvement in participation in quality and introduced 14 points for improvement (see Appendix B).¹⁴ Though Juran shared Demings passion for management to take responsibility for sound quality and Crosby’s plea to create a common understanding, Juran was more concerned with defining what quality was and was not.

Juran

According to Juran, there are two types of quality: fitness for use and conformance to requirements. To illustrate the difference, he says a dangerous product could meet all specifications, but is not fit for use.¹⁵ Juran states there are three main branches of the quality function: acceptance, prevention, and assurance. Acceptance is the traditional “passing or rejecting” job of the inspection department and is the oldest and best developed. Prevention, the job of preventing defects from happening, has long been recognized as a need and is, he says, only now being developed into a working function. Assurance, the job of overseeing the quality function, has only recently been recognized

as important. That is why it is the least well-developed in quality programs. Assurance, he states, bears the same relation to the quality function that auditing does to the accounting function. Where acceptance and prevention are the action phases of the quality function, assurance is the reporting phase carrying back to management the story of how well the quality function is being performed.¹⁶

Juran also warned companies should avoid “campaigns to motivate the workforce to solve company’s quality problems by doing perfect work” because these are “exhortations only.” Approaches and slogans “fail to set specific goals, establish specific plans, or provide the needed resources.” Sarcastically he notes, however, that upper managers like these programs because they detract from the actual time spent doing quality the way it is supposed to be.¹⁷

Juran has asserted the US economy is facing a quality crisis, therefore the response must be a revolution in quality. Such a revolution requires bold “stretch” goals be established.¹⁸ Revolutionary goals cannot be met merely by more intense application of traditional ways of managing for quality. In fact, he warned many subordinates would conclude that the goals are not attainable and therefore, states improvements to quality could be made only if sharp breaks from traditional ways of doing business are made.

Juran identified 10 steps to quality improvement and they are outlined in Appendix C.¹⁹

Each of the quality giants offers slightly different definitions for quality. To Crosby, quality is conformance to requirements. Deming describes quality as a predictable degree of uniformity and dependability at low cost and suited to the market. Juran defines quality as fitness for use.²⁰ Though they may be different with their definitions and

approach, they offer common themes of leadership involvement, empowerment, decentralized organizations, and training. The next section will examine the history and guidance of the Quality Air Force program to determine if it parallels the approach espoused by these contemporary management authors.

Notes

¹ Handout distributed at the Defense Management College Regional Center, St Louis, Mo., Jack McGovern, subject: Total Quality Management Selected Readings, November 1988.

² Ibid.

³ Phillip B. Crosby, *Quality Without Tears*: (New York: McGraw-Hill, 1984), 58.

⁴ Ibid., pg. 64

⁵ Ibid., pg. 73

⁶ Ibid., pg. 86

⁷ Ibid., pg. 86

⁸ Phillip B. Crosby, *Quality is Free*: (New York: McGraw-Hill, 1979), 173.

⁹ Phillip B. Crosby, *Quality Without Tears*: (New York: McGraw-Hill, 1984), 175 - 257

¹⁰ Myron Tribus, "Deming Way," *Mechanical Engineering*, 110 no.1 (January 1988): 29

¹¹ Ibid., pg. 29

¹² Ibid., pg. 30

¹³ W. Edwards Deming, *Out of the Crisis*, (Cambridge, Ma: Massachusetts Institute of Technology, 1982): 387

¹⁴ Ibid., pg. 24-86

¹⁵ J.M Juran, *Quality-Control Handbook*, (New York: McGraw-Hill, 1951): 6

¹⁶ Ibid., pg. 318

¹⁷ Ted A. Lowe and Joseph Mazzo. "Crosby Deming Juran: Three Preachers, One Religion." *Quality*, 27: no. 24, (September 1988): 22-25

¹⁸ J.M. Juran, *Juran on Leadership for Quality*, (New York: Free Press, 1989): 57

¹⁹ Ibid.

²⁰ Ted A. Lowe and Joseph Mazzo, "Crosby Deming Juran: Three Preachers, One Religion." *Quality*, 25, (September 1988): 24

Chapter 3

Air Force Roadmap to Quality

Unless each officer and noncommissioned officer has capabilities greatly in excess of the responsibility he holds, he is basically an unprofitable part of the military machine.

—General Omar Bradley

Background

The United States Government, industries, and service sector began transformation into organizations deeply concerned with quality. Customers began demanding quality because they were offered more choices. In fact, a study conducted by Gallup for the American Society for Quality Control found people would pay a premium to get what they perceived to be higher quality.¹

The Executive and Legislative branches of government also recognized quality played an important role. In February 1986, Presidential Executive Order 12552 (revised April 1988, Executive Order 12637) was signed with the aim of making agencies significantly more productive.² The 1986 Executive Order challenged all federal agencies to achieve a three-percent increase in productivity each year. Federal agencies were required to develop and implement an annual productivity plan and to assess their progress on a yearly basis. The 1988 revision to the order supplemented the program by asking federal agencies evaluate the performance of managers and leaders based on their

achievements. In 1993, The United States Congress enacted the Government Performance and Results Act (GPRA) into public law (Law 103-62).³ The intent of GPRA is to bring about fundamental changes in how the government operates.

Total Quality Management

The Department of Defense (DOD) began an effort to identify and refine those actions that can be improved to help meet or exceed the President's three-percent goal and comply with the intent of GPRA. Continuous improvement was selected as the appropriate response because the constant pressure to trim the federal budget deficit left defense spending declining with not much hope for the trend to change. The need for a strong defense, however, remained the same. The challenge was to find innovative approaches to meeting defense requirements that would use limited dollars efficiently. Attention to quality was the approach selected. In 1989, the initial DOD strategy for continuously improving performance at every level was called Total Quality Management (TQM). TQM was defined as, "A philosophy and a set of guiding principles that represent the foundation of a continuously improving organization."⁴

The original goal of TQM was to instill a "cultural change" within DOD and all external activities associated with defense acquisition.⁵ "Its goal is to manage the country's defense efforts in a manner consistent with the age of the B-2."⁶ Former Commander, Air Force Systems Command, Gen Bernard Randolph, added, "In World War II, fighters were averaging nearly one mission a day. Current surge tests with F-15 units in Europe have demonstrated rates of better than four a day."⁷

TQM was supposed to allow DOD to continue the higher surge rate trend. No one can afford to have poor quality.⁸ Initial Air Force quality efforts were not implemented

Air Force wide. Only the manufacturing and acquisition communities, and to a lesser extent, logistics and engineering research and development, through the reliability and maintainability efforts, were impacted by the quality movement. Former Under Secretary of Defense for Acquisition, Dr Robert Costello, issued a message 19 August 1988 outlining his agenda for the TQM program stating he wanted it applied to the “acquisition of defense systems, equipment, supplies, and services to ensure continuous improvement of products and services.”⁹ This was preceded by a joint letter from the former Secretary of the Air Force, the Honorable E. C. Aldridge, and then Chief of Staff, Gen Larry Welch, supporting the DOD push toward quality improvement. They added, personal support at all levels throughout the Air Force is essential in achieving quality and attaining the goals of TQM and urged senior leaders to “give this endeavor your full support.”¹⁰

Both Air Force acquisition commands supported this edict. At a 17 December 1987 Air Force Logistics Command (AFLC) quality council meeting, former commander, Gen Alfred G. Hansen stated, “the time has come for us to shift our emphasis away from evaluating the goods and services we provide at the end of the process...and toward the process itself by which goods and services are actually provided.” The General added, “my intention is to bring AFLC in line with the quality revolution. It is time we substitute an ounce of prevention for a pound of correction.”¹¹ General Randolph sent out a letter 12 May 1988 where he stated he “makes no distinction between TQM and the mission of AFSC.”¹²

Quality Air Force

It wasn't until February 1991 that USAF senior leadership supported an Air Force wide commitment to Total Quality. The Air Force Quality Center was formed, August 1991, to provide the concepts, tools, methods, and advice to achieve a quality Air Force. The Quality Air Force (QAF) program was implemented in 1992 and continued to evolve into its current version. QAF is defined as, a leadership commitment and operating style that inspires trust, teamwork, and continuous improvement everywhere in the Air Force.¹³ QAF is built on a foundation of leadership and an integrated system of three components. The first is quality focus, which includes strategic planning, senior-level guidance and cultural implementation throughout the Air Force. Secondly, quality in daily operations which applies QAF concepts to the work-center. Finally, the improvement process which is a structured team environment and a disciplined approach allowing people to work together toward a shared objective. Added to the foundation are the Air Force core values which set the standard for our behavior and is Air Force service and treatment of one another.

In 1993, the 103rd Congress enacted the Government Performance and Results Act (GPRA) into public law (Law 103-62). The intent of GPRA is to bring about fundamental changes in how the government operates. Air Force leadership, fulfilling the spirit and letter of the law has shown its commitment throughout policy guidance and support for training at all levels.¹⁴ The purpose and goals of GPRA are listed in Appendix D.

Putting the Pieces Together

This paper has already looked at the quality principles espoused by three contemporary quality management authors. Further, it has explored the history of the Air Force quality program. The next section will be an analysis of QAF to determine if quality works, if the Air Force guidance matches contemporary quality management designs, and if there are operational implementation problems.

Notes

¹ Spencer Hutchens Jr., "What Customers Want. Result of ASQC /Gallup Survey" *Quality Progress* 22, no. 2, (February 1989): 33

² Carolyn Burnstein, and Kathleleen Sedlak: "The Federal Quality and Productivity Improvement Effort," *Quality Progress*, (October 1996): 38

³ Air Force Handbook (AFH) 90-502, *The Quality Approach*, August 1996, 8

⁴ DOD Directive 5000.51, *Total Quality Management*, 16 June 1989

⁵ Lt Col Edward J. Rowland, DSMC Faculty, Interoffice Memorandum to Program Management Division Faculty, School of Systems and Logistics, Wright Patterson AFB, Oh, 23 November 1988.

⁶ Frank C. Carlucci, Secretary of Defense. Presentation to the Dayton Chapter of the American Defense Preparedness Association. Dayton, Oh, 28 January 1988.

⁷ Secretary of the Air Force, Policy Letter, subject: Quality Makes a Difference, 2 March 1989.

⁸ Here are some statistics that drive the point home: If the U.S. had service suppliers who did their job right 99.9% of the time; there would be some 20,000 wrong prescriptions filled each year; unsafe drinking water almost one hour each year; two long or short airplane landings a day at Los Angeles and New York; 500 incorrect surgical operations per week; and 2,000 lost articles of mail per hour every day. In the defense arena, given one million grenades with a 99.9% quality level, there would 999 duds and one would go off in '0' seconds.

⁹ Department of Defense, Letter, subject: Implementation of Total Quality Management in DOD Acquisition, 4 August 1988.

¹⁰ Secretary of the Air Force, Letter, subject: Air Force Quality Kicks Off, 6 July 1988.

¹¹ John C. Brownlee, Working Smarter: A History of Quality in the Air Force Logistics Command, (Wright Patterson AFB), June 1989.

¹² Commander, Air Force Systems Command, Letter, subject: *Total Quality Management in AFSC*, 12 May 1988

¹³ Air Force Handbook (AFH) 90-502, *The Quality Approach*, August 1996, 1

¹⁴ *Ibid.*, 8

Chapter 4

Analysis

Wars may be fought with weapons but they are won by men. It is the spirit of men who follow and the men who lead that gains the victory.

—General George S. Patton

When the Quality Air Force (QAF) program was adopted, senior leaders in essence declared processes essential. By default, we became an aerospace force that de-emphasized leadership and results accountability at the junior officer and NCO levels and in their stead concentrated on continuous improvement and management of processes. Process improvement works in a civilian-manufacturing environment because there is a stable environment. Quality control measures demand a constant striving for order, control, and predictability. However, “for a company to be capable of creativity and novelty, it must be able to operate in the area of instability”¹

In the environment of the 1990s, the Air Force has been anything but stable. The defense budget has decreased 35 percent since fiscal year 1986 when it was \$414 billion dollars (constant year 1998 dollars) to \$270 billion in 1998.² During the same period, Air Force personnel strength dropped 37 percent from 681,199 to 381,100.³ Not only have there been decreases in funding and personnel strength, but there have also been radical changes in the strategic environment. The dramatic events comprising the end of the Cold War and the demise of the Soviet Union, as well as longer-term economic,

demographic, environmental, and technological developments, have profoundly altered the international security environment. The security challenges of a largely bipolar world have been replaced with more ambiguous and, in some cases, equally dangerous problems.⁴ Adopting a process improvement model, which assumes a stable environment, to operate in an environment with as many radical changes as the military experienced could work only at the expense of making us incapable of interacting to create an alternate future.⁵

The timing of the QAF introduction is also troubling. Beginning in August 1990, the United States Air Force (USAF) deployed the equivalent of the Oklahoma City—all of its people, all of its vehicles, all of its food, all of its households—halfway around the world after the Iraqi invasion of Kuwait.⁶ Once there, USAF flew 60,000 sorties and dropped 65,490 tons of ordnance as the US and coalition forces defeated the Iraqi military in a mere 43 days.⁷ Air Force fighters suffered one shoot down for every 3,200 combat sorties and only three deaths overall. Additionally, mission-capable rates climbed to 95 percent.⁸

These statistics are what make the QAF excursion so ironic—that the Air Force would abandon the professionally-based people and product approach to quality that produced the outstanding results of the Gulf War in favor of a flawed process model, when the Air Force could have taught the outside world lessons on a viable quality approach.⁹ The impact of QAF has altered the focus within the Air Force. Mission effectiveness, or the management of violence, and leadership development of Junior NCOs and Officers is de-emphasized. This lessens the ability of future leaders to deal with an unstable environment in the future. Let's take a closer look at QAF and its

impact on mission effectiveness and leader development. First, we will examine if quality works. Not only is it important to know if it works, we must also examine if it is being done correctly by comparing the QAF approach to the contemporary quality practices. Finally, we must answer the most important question of all—is it working to make the Air Force a more effective and efficient fighting force?

Does it work?

The effectiveness of quality programs will be gauged by in the future by the results obtained from implementing quality. Are organizations better off from using the principles and procedures of quality? There are several examples where implementing quality produced dramatic improvements; however, not everyone shares that enthusiasm.

One attempt to systematically evaluate total quality's impact was reported by the General Accounting Office (1990) in a report called "Management Practices: US Companies Improve Performance through Quality Efforts."¹⁰ The report was based on surveys, interviews and performance indicators in 20 companies that received high scores competing in the Malcolm Baldrige National Quality Award in 1988 and 1989. The GAO concluded companies' commitment to quality did lead to higher corporate performance.¹¹ One flaw of the study, however, was it represents a very biased sample of companies—only those receiving the highest scores on the Baldrige criteria. "A fair and complete verdict should also consider those other companies that were less successful in quality implementation."¹²

Despite some headline success stories, there is mounting evidence quality programs of many companies are failing dismally. A survey of 500 American manufacturing and services companies by management consultant, Author D. Little, found only a third felt

their quality programs were having a significant impact on their competitiveness.¹³ Further, a study by another management consulting firm, A. T. Kearney, of over 100 British firms, showed a mere fifth of those surveyed believed their quality programs had achieved tangible results.¹⁴ Florida Power and Light possessed one of the more exhaustive efforts in quality. They had a 85-member strong quality department and 1,900 quality teams involving three quarters of its employees, and a rigorous, highly statistical quality review system. “But, while customers saw some improvements in the quality of services, these were insignificant when set against the sheer scale of the firms quality effort.”¹⁵ Finally, surveys revealed only 28 percent of executives felt their quality programs increased profitability or market share and 63 percent of those companies achieved less than a 10 percent reduction in defects from their quality efforts.¹⁶

It is tough to tell whether quality works. Unfortunately, failed programs far outnumber the successes, and improvement rates remain distressingly low.¹⁷ However, it is safe to say the Air Force hastily embraced quality without being sure it would work.

QAF vs. Contemporary Practices: Are We Doing it Right?

Previous sections of this paper highlighted the works of three leading contemporary leaders in quality: Crosby, Deming, and Juran. Though there are common themes between the three, a quick skim of the author’s works would quickly show not all three speak the same language. Each has a different emphasis and focus. This is not only common with the three authors noted in this paper. One study pointed out the Air Force Space Command Guide to Quality Improvement lists 16 suggested readings that have different views on how to implement quality.¹⁸

The QAF excursion represents an honest attempt to find innovative, faster, better, and cheaper ways to accomplish the mission. But, as we look back, we see the Air Force has always been a quality outfit. We are the best Air Force in the world—no doubt. Air Force Leaders in every generation, at all levels have practiced a leadership style that has promoted initiative, innovation, and continuous improvement. “Many of the philosophies espoused by the quality gurus have long been practiced by the Air Force. We’ve used these principles long before TQM became fashionable.”¹⁹ QAF borrowed heavily on ideas from the civilian world and its various quality gurus—and far less on the conceptual and structural framework that provided the 1991 force that performed so splendidly in the Gulf War.²⁰

There are four principles between all quality improvement and implementation programs, including civilian practices and QAF, that parallel: leadership involvement, empowerment, decentralized organizations, and training. The first principle paralleling with civilian practices is leadership involvement. Crosby states leadership is “100 percent responsible for the problems with quality—and their continuance.”²¹ A QAF basic principle declares leadership involvement includes setting the vision, policies, priorities and strategies, and clearly communicating them.²² Leaders create the environment of trust, teamwork, risk taking, initiative, reward and continuous improvement. Leaders have to recognize if they are going to have quality improvement in their areas, everyone has to agree on what is going to be done and work to that end.

Another principle paralleling with civilian practices is in the area of empowerment which the QAF basic principles state gives our people the opportunity, authority, and resources needed to get the job done.²³ Juran charges the “experienced amateurs,” or

subordinates in the organization, have a requirement to become proficient using the tools of modern day quality management.²⁴ Though overall responsibility resides with the managers, every subordinate also has the responsibility to assist. He adds, leaders must demand this type of contribution but at the same time provide them with the tools and authority to act accordingly.

The third parallel with contemporary practices is in the area of decentralized organizations. Deming states a need to break down barriers between staff areas as one of his fourteen points for quality improvement.²⁵ Barriers between departments result in multiple interpretations of a given message. QAF adds decentralized organizations result when we tear down barriers and eliminate unnecessary layers of bureaucracy.²⁶

The final parallel with contemporary practices is training. Crosby stated, “all the members of the quality function must have attended executive and management education.”²⁷ Further, every employee of the company, without exception, must have a complete education in the understanding of quality and what it means to him or her and to the company.²⁸ Borrowing from this theme, many civilian experts have called for the need for cultural change brought about by training the work force to prepare for this change. The Air Force has also embraced this approach. In fact, a generation of leaders vigorously and publicly committed themselves and their units to QAF. All military and civilian members have been trained in quality.²⁹

In the final analysis, are we doing it right? In some areas where QAF has been directive, such as Air Force Instructions (AFIs) outlining QAF Assessments (QAFA), its sources were either imprecise or in conflict with professional values.³⁰ Overall, there is no question that we are very much in sync with the common themes espoused by

qualities contemporary experts. But do we need to do it at all? It could be argued that most civilian companies enter quality programs to achieve what is already resident in the Air Force: “a work force characterized by loyalty, self-discipline, adaptability, and teamwork.”³¹ How can loyalty of airmen be disputed given the conditions they work, the separations from families during deployments, and operating in harms way at lower wages than civilian counterparts? Who is more self-disciplined than a wingman in formation or security forces patrolling the base perimeter or flight line? Who is more adaptable than airmen whose challenges range from air strikes over Iraq to humanitarian relief efforts in Africa? And where else can teamwork be better demonstrated than four wings simultaneously deploying to Kwang Ju AB, Korea, flawlessly executing an exercise plan? Examples like these are produced every day. Should we turn to our civilian counterparts to learn how successful organizations should operate? The next section will look at how effective quality has been within the Air Force.

Is it Working?

Brigadier General Hugh Cameron, former Commander, Air Force Quality and Management Innovation, noted, “the first problem with QAF was that it started off as a separate entity from the Profession of Arms, and there was the appearance that it was being pushed down from on high but there was no indications that the leadership on high had bought into it.”³² This is not a problem unique to the Air Force. Total quality management is being taught at many business schools yet the number of businesses using it to guide their own decision making is very small.³³ One of the consequences of this gulf between Air Force leaders and the troops required to implement QAF was a failure

to detect soon enough or with sufficient certitude how QAF's values clashed with those of our profession. As one study put it, by that time:

...professionals operating within the military culture had become accustomed to and comfortable with the tight link between system design and desired end goals. In contrast, QAF distracted airman from the pursuit of expertise, blurred professional accountability, weakened the practice of leadership necessary for responsibility, and fragmented the cohesion that supports corporateness.³⁴

If QAF was designed to help us find innovative ways to improve the way we do business due to the challenges facing our nation and service in the coming years, one could contend we have not achieved the expected results. In fact, the Air Force became an aerospace force that has de-emphasized leadership at the junior officer and NCO levels, and concentrated on continuous improvement instead of mission effectiveness. Specifically, our venture has been the cause of role ambiguity between leaders and followers, and future leadership less concerned with the management of violence. These two concepts serve as the basis for further analysis.

Role Ambiguity

Private companies began quality programs to raise productivity and increase profits. A promise made by advocates of quality was it best did that by empowering followers. The aim was to proceed from point A where the organization currently existed to the B of the organizations strategic vision. The empowered subordinates would get more freedom to make decisions which is assumed to be a better means of getting there than direct command and control. But what impact did empowerment have on organizations?

Joint Publication 3-0 states the purpose of Unity of Command is to ensure unity of effort under one responsible commander for every objective.³⁵ A sentiment echoed in Air Force Manual 1-1. This clearly subscribes to a chain of command through which mission

accomplishment must evolve. Few aspects of leadership are more vital than making decisions. Leadership and decision-making go hand in hand. There are a variety of approaches used to make decisions. There are some situations in which leaders should seek input from their subordinates and other situations in which they should not. A number of factors determine which approach is preferable such as whether subordinates have access to relevant information, whether their acceptance of the decision is critical to its successful implementation and occasionally, time.³⁶

In the corporate world empowerment has flattened the organizational chart thereby displacing middle management. The empowered follower now has more responsibility, no doubt, but do they want it? Certainly some will, but others may not. Then there's the long-term impact on those that want it. Some organizations have experienced two scenarios when subordinates are offered this newfound responsibility. First, there is the subordinate that makes a suggestion that is adopted. This person may believe they are on equal footing with the actual leaders. Once they realize this is not the case, they begin to look at the leaders as hypocrites. The second outcome is the subordinate that makes a suggestion that isn't adopted. They become cynical of the entire quality program.³⁷ QAF's emphasis on empowerment and decentralization as concepts devoid of professional distinction led individuals to distort the notion of a chain of command from where they fit in the chain to where the chain fits them.³⁸ The military environment demands order and discipline to carryout its mission. The tendency for empowerment under QAF makes everyone on the team feel equal which subordinates the leaders authority.

Another element of QAF confusing subordinate and leader alike has been the nebulous quality training. The vocabulary expanded to include terms like customers and suppliers, Kaizen and Kanban, and indicators and variations. Ironically, the terms airmen were most familiar with—such as leader and follower—are not found in the quality lexicon.³⁹ And the importance of the squadron level leader continued to erode. Prior to implementation of QAF, the squadron level had been—in the language of the time—the stars of the show. During the QAF era they did not even appear on the marquee—an absence reflecting a blind spot to the crucial role the front line plays in the failure or success of the overall organization.⁴⁰

QAF has lent itself to the notion everyone in the organization is equal. As such, many feel the squadron should be a place representative of one person—one vote and majority rule which has led to diffused accountability. Further, these ideals lead to individually focused behaviors such as addressing peers, subordinates, and superiors by first name, relaxed dress codes, and conducting meetings outside the workplace to facilitate openness.⁴¹ This type of organizational structure without sufficient constraints can have unwanted and undesired consequences for the military profession, such as a breakdown of leadership, organization, and discipline. Whether operating at the strategic or tactical level of war, leadership, organization, and discipline are essential. During high operations tempo of war is not the time to stop and vote on a course of action. Or as Gen William T. Sherman stated, “no Army can be efficient unless it be a unit for action; and the power must come from above, not from below.”⁴²

Management of Violence—The lost Art

Given the success military enjoyed during the war with Iraq, it would be easy to assume changes in how we do business were not necessary. However, due to spiraling budgets and a changing global environment, it became obvious that we were due to make adjustments. QAF seemed like the most sensible approach to make this happen. After all, who could find fault with the desire to do things right the first time? Is there anything wrong with developing metrics, empowering subordinates to monitor them, and solve problems without senior leadership involvement? Why not develop an assessment that measures successful implementation of a quality program? On the surface, all of these efforts seemed noble and thus QAF principles were adopted.

The Air Force strayed when they adopted civilian practices for quality improvement. Contemporary practices as well as QAF relied on continuous improvement. Continuous improvement involves removal of assignable (specific) causes of variation from a given process.⁴³ Better stated, it involves removal of all the things from a process you don't want. This conventional wisdom seems to make sense. As we rid a process of deficiencies, steady improvement ought to result. In fact, simple arithmetic almost mandates never-ending improvement. Unfortunately, our experience tells us this has not been the case with QAF. Despite taking QAF to new heights, Air Combat Command (ACC) had still under-flown its annual flying-hour program, a key measure of combat training and future readiness.⁴⁴

The problem with this approach was best summed up by Russell Ackoff of Pennsylvania's Wharton School of Business: "Classic American business style may be characterized as a collection of projects, going on perpetually, aimed at removing deficiencies from the operation...But when you remove the things you don't want, you

don't necessarily get what you do want."⁴⁵ More succinctly, you can't use continuous improvement tools alone to run an organization. What's needed is leadership.

This concept wasn't lost, nor did it go unnoticed, at the wing level. After all, could we truly expect the Wing Commander's leadership role to be reduced to reading control charts and making adjustments to ensure our statistics were "in control?" It became apparent to most the charts were generated just to satisfy the QAF requirements and had nothing to do with the mission. Hence the role of the quality officer was created leaving the commander free to worry about the important things like mission effectiveness. Maj Gen John Handy, the Air Force Chief of Staff's quality watchdog, described the disconnect between official and actual productivity this way:

We created a fairly succinct stove-piped workforce called upon to 'manage the quality program.' They were unable to work quality into mainstream war-fighting concepts of doing business; they focused on handling the quality program. And so, they created a culture of people who could produce reports, who could conceive metrics, who worried about the quality program...but none of that was having a substantial impact on how wings did business.⁴⁶

Saved for the moment are the general officers and colonels who grew up in an Air Force where leadership and not control charts were stressed. Unfortunately, the emerging leaders, today's flight commanders and element leaders, haven't been forced to lead. How will they perform when they take the reigns of senior leadership? Gen Mike Loh, former ACC Commander, stated, "the essence of command and leadership is to create a climate throughout the unit that inspires all to achieve extraordinary goals and levels of performance at all times and under all conditions—especially in the stress of combat."⁴⁷ We are robbing our company grade and junior non-commissioned officers of the opportunity to lead by making them produce charts that have nothing to do with "the wings business." Further, combat may not be the only place they will be asked to lead—

a vice wing commander at 52FW, Spangdahlem, stated in 1993, “in the past year, child abuse cases increased 20 percent, spouse abuse reports increased 9 percent, and alcohol abuse was up 11 percent.”⁴⁸ The vice-commander “attributed the increases to stress caused by long and repeated separations and said readiness ultimately would suffer.”⁴⁹ The ability to handle this problem is dependent on leadership that has an eye on the mission.

Deliberate Moves to Change the Direction

All the problems identified in this section may be troubling to some. Who among us didn't look at the implementation of a quality program as a positive for the Air Force? Though mission effectiveness, or the management of violence, and leadership development of Junior NCOs and Officers is de-emphasized under QAF, there is a way out.

Notes

¹ Simon Caulkin, “Chaos Inc.,” *The Across the Board* 32, no. 7 (Jul/Aug 1995): 32

² Air Force Magazine 80, No. 5, May 1987, 40

³ Ibid., pg. 31

⁴ Joint Chiefs of Staff, National Military Strategy of the United States of America, 1995

⁵ Simon Caulkin, “Chaos Inc.,” *The Across the Board* 32, no. 7 (Jul/Aug 1995): 32

⁶ General Merrill A. McPeak, *Selected Works: 1990-1994* (Maxwell AFB, AL: Air University Press. 1995): 17

⁷ Ibid., pg. 30

⁸ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 23.

⁹ Ibid., pg. 12

¹⁰ Richard C. Hughes, Robert C. Ginnett, and Gordon J. Curphy, *Leadership: Enhancing the Lessons of Experience*, (Burr Ridge IL:Richard D. Irwin, Inc., 1993): 475

¹¹ General Accounting Office. Management Practices—US Companies Improve Performance through Quality Efforts, (Washington, D.C., 1990), 2.

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¹² Richard C. Hughes, Robert C. Ginnett, and Gordon J. Curphy, *Leadership: Enhancing the Lessons of Experience*, (Burr Ridge Il:Richard D. Irwin, Inc., 1993): 475

¹³ “The Cracks in Quality,” *Economist* 3, no. 23, 18 April 1992, 67.

¹⁴ *Ibid*

¹⁵ *Ibid*

¹⁶ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 36

¹⁷ David A. Garvin, “Building a Learning Organization,” *Harvard Business Review* 71, July - August 1993, 81.

¹⁸ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 50

¹⁹ General Merrill A. McPeak, *Selected Works: 1990-1994* (Maxwell AFB, Al: Air University Press. 1995): 263

²⁰ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 26

²¹ Phillip B. Crosby, *Quality Without Tears*: (New York: McGraw-Hill, 1984), 34.

²² Quality Awareness Course Handout, Headquarters USAF, December 1993, 14

²³ *Ibid*.

²⁴ J.M. Juran, *Juran on Leadership for Quality*, (New York: Free Press, 1989): 84

²⁵ W. Edwards Deming, *Out of the Crisis*, (Cambridge, Ma: Massachusetts Institute of Technology, 1982): 62

²⁶ Quality Awareness Course Handout, Headquarters USAF, December 1993, 14

²⁷ Crosby, Phillip B., *Quality is Free*, (New York: McGraw-Hill, 1979): 170

²⁸ *Ibid.*, pg. 161

²⁹ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 2.

³⁰ *Ibid.*, pg. 50

³¹ *Ibid.*, pg. 11

³² *Ibid.*, pg. 27

³³ David A. Garvin, “Building a Learning Organization,” *Harvard Business Review* 71, (July - August 1993): 86

³⁴ Quoted in Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 27.

³⁵ Joint Pub 3-0, *Doctrine for Joint Operations*, 1 February 1995, A-2.

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³⁶ Richard C. Hughes, Robert C. Ginnett, and Gordon J. Curphy, *Leadership: Enhancing the Lessons of Experience*, (Burr Ridge Il:Richard D. Irwin, Inc., 1993): 392

³⁷ Personal observation of the author

³⁸ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 45.

³⁹ Ibid., pg. 50

⁴⁰ Ibid., pg. 59

⁴¹ Ibid., pg. 48

⁴² Robert Debs Heinl, Jr., *Dictionary of Military and Naval Quotations*, (Annapolis, Md. : United States Naval Institute, 1966): 48

⁴³ J.M. Juran, and Frank Gryna, Jr. *Quality Planning and Analysis*, (New York: McGraw-Hill, 1980): 289

⁴⁴ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 51.

⁴⁵ Russell Ackoff, "Integrated Process Management: A Quality Model," *Quality Progress* XIV, no. 5, (May 91): 75.

⁴⁶ Quoted in Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 27.

⁴⁷ General Mike Loh, "What it takes to be a Commander." *Air Force Times* 55 (17 October 1994): 41

⁴⁸ Julie Bird, "A Time for Bold Tactics." *Air Force Times* 55 (17 October 1994): 4.

⁴⁹ Ibid.

Chapter 5

There is a Way Out

*Beware of rashness, but with energy and sleepless vigilance go forward
and give us victories*

—Abraham Lincoln

There appears to be widespread acknowledgement of Quality Air Force's (QAF's) inability to fully meet its expectation to improve the Air Force's efficiency and effectiveness. The analysis from the previous section isolated the root cause: an aerospace force that de-emphasized leadership at the junior officer and NCO levels, and concentrated on continuous improvement instead of mission effectiveness. The effects of quality were reflected in a separate six-month long analysis chartered by the United States Air Force Chief of Staff. This Chief of Staff Blue Ribbon Commission on Organizational Awards and Evaluations (named the Hosmer Commission for its director, Lieutenant General Brad Hosmer, USAF, retired) released its report in a briefing 29 January 1997. Among the findings of the analysis were:¹

1. Inadequate guidance from Headquarters Air Force on key priorities and results
2. Air Force Quality was in disarray and achieving far short of its potential
3. Operational Readiness Inspections were not optimized and missed some real-world requirements and opportunities

Over the past year, the Air Force Secretary and Chief of Staff have begun to dismantle QAF and restore a fuller sense of the profession. A 16 January 1998 Air Force News Service release announced the suspension of Quality Air Force Assessments,

effective 1 January 1998, as an initiative to decrease the tempo of operations. Further, the Air Force has begun an aggressive approach to bring the “profession of arms” to the attention of all Air Force members. This will be a prodigious task given the quality drift has captured a large portion of the Air Force—over one-third of the active duty force today has never known an alternative to QAF.² These initiatives by senior Air Force leaders are consistent with widely held positions which state, “a healthy community affirms itself and builds morale through ceremonies that honor the symbols of shared identity and enable members to rededicate themselves through shared goals.”³ The initiatives include creation of a global vision, development of a strategic plan, operationalizing quality, and development of the Air and Space Basic Course.

These four initiatives work in concert to reestablish the Air Force’s focus. This focus is considerably enhanced because the Air Force has reminded the force it has a shared culture, that is, norms and values. In addition, it has shared history, tradition and symbols of group identity, which can be retold often through each of these initiatives. Samuel Huntington, Director of John M. Olin Institute of Strategic Studies at Harvard University, characterized this as “corporateness” stating, members of a profession share a sense of organic unity and consciousness of themselves as a group apart from non-professionals.⁴ The moves by senior leaders appear to be acknowledgement of the main reasons for QAFs failure: it changed the focus from people and products, failed to provide the systematic structure for airmen to follow, and disconnected the link to the profession. By spelling out and communicating the vision, norms, and values, and conducting inspections reflecting day-to-day and real world missions ensures expectations are explicit. “Values that are never expressed are apt to be taken for granted

and not adequately conveyed to the young and newcomers. The well functioning community provides many opportunities to express values in relevant action.”⁵ A review of each of these initiatives is in Appendix E.

More Remains to be Done

The initiatives discussed in this section are right on target for fixing the problems caused by QAF. Though not as powerful as it once was, QAF is not gone and some of the side effects still exist. Junior officers and NCOs who have been raised under QAF are now holding positions of more responsibility without the opportunity to develop leadership and management skills at lower grades. The Air Force must acknowledge this and implement bold measures to ensure that when this class of leaders inherits senior leadership positions, the Air Force has the ability to operate in the era of instability.

Notes

¹ Final Report Briefing of the Blue Ribbon Commission to the Secretary and Chief of Staff to the Air Force. *Chief of Staff of the Air Force Blue Ribbon Commission on Organizational Evaluations and Awards*, (29 January 1997)

² Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 2

³ John W. Gardner, *On Leadership*. (New York: The Free Press, 1990), 116.

⁴ Samuel P. Huntington, *The Soldier and the State*. (Cambridge, Massachusetts: Harvard University Press, 1957), 10.

⁵ John W. Gardner, *On Leadership*. (New York: The Free Press, 1990), 116.

Chapter 6

Conclusions

The Air Force has endured a variety of challenges during its fifty-year history. None of the challenges rival what the Air Force has had to overcome over the past decade. One challenge has been declining resources. The defense budget has decreased 35 percent and personnel strength has dropped 37 percent. Another challenge has been the dramatic events comprising the end of the Cold War and the demise of the Soviet Union, as well as longer-term economic, demographic, environmental, and technological changes that have profoundly altered the international security environment. The security challenges of a largely bipolar world have been replaced with more ambiguous and, in some cases, equally dangerous problems.¹ Quality Air Force (QAF) was selected to deal with these complex challenges.

This paper was intended to answer three questions: do the principles of quality work? Can they be applied to the Air Force? If so, has quality made the Air Force a more effective and efficient fighting force? It is tough to tell whether quality works. Unfortunately, failed programs far outnumber the successes, and improvement rates remain distressingly low. It can be safely stated, however, the Air Force hastily embraced quality without being sure it would work.

Though this paper has identified significant problems with quality, certainly segments can be applied by the Air Force: vision, strategic planning, empowerment, teamwork, and customer focus. The Air Force Strategic Plan, Volume two, *Mission Performance Plan*, when completed, will contain the standards for managing, tracking, and enhancing performance in the Air Force thus operationalizing quality.

This paper also identified, despite the effectiveness of the Air Force during the Gulf War using a mission-oriented approach, the Air Force incorporated untested civilian process-centered improvement models. As a result, QAF decreased the future leader's effectiveness, de-emphasizing their development by stressing continuous improvement instead of mission effectiveness.

The visionary leadership of senior Air Force officials to alter the destructive path of QAF is exemplary. Not because it halted a movement that was on a dead end, but because it replaced QAF with conscience efforts to restore a fuller sense of the profession. The key to succeeding in the 21st Century is to couple a clear vision with continuing development of leadership capable of operating in a complex environment. Deliberate actions were required to undo the damage caused by QAF. The launch of Global Engagement, the development of a strategic plan, the decision to operationalize quality, and the creation of the Air and Space Basic Course, re-elevate the importance of the "profession of arms." These changes should prevent the slide back into cultural emphasis too heavily centered on process-centered civilian models of quality.

Notes

¹ Joint Chiefs of Staff, National Military Strategy of the United States of America, 1995

Appendix A

Crosby's Fourteen Step Quality Improvement Program

- **Management Commitment.** The goal of management commitment is to make it clear where management stands on quality. They serve as the role models for the entire quality program and their actions set the state of mind for everyone else.
- **Quality Improvement Teams.** The purpose of these teams are to run the quality improvement teams by laying out an improvement program and ensuring that it is followed.
- **Quality Measurement.** This is to provide and display current and potential non-conformance problems in a manner that permits objective evaluation and corrective action.
- **Cost of Quality Evaluation.** This is done to define the ingredients of the cost of quality, and explain its use as a management tool. This cost can be categorized either as failures, preventions and appraisal.
- **Quality Awareness.** This is to provide a method of raising the personal concern felt in the organization toward the conformance of the product or service and the quality reputation of the organization.
- **Corrective Action.** The purpose is to provide a systematic method of resolving forever the problems that are identified through previous action steps.
- **Establish an Ad Hoc Committee.** Establish an Ad Hoc Committee for Zero Defect programs. The goal of this step is to examine the various activities that must be conducted in preparation for formally launching a Zero Defects Day.
- **Supervisor Training.** This should be accomplished to define the type of training that supervisors need in order to actively carry out their part to the quality improvement program.
- **Zero Defects Day.** To create an event that will let all employees realize that there has been a change is the purpose of this step.
- **Goal Setting.** This is done to turn pledges and commitment into action by encouraging individuals to establish improvement goals for themselves and their groups.
- **Error-cause and removal.** This is done to give the individual employee a method of communicating to management the situations that make it difficult for the employee to meet the pledge to improve.
- **Recognition.** This step is important to appreciate those who participate.
- **Quality Council.** This is done to bring together the professional quality people for planned communication on a regular basis

- Do it again. Purpose: to emphasize that the quality improvement never ends.

Appendix B

Deming's 14 Points for Quality Improvement

- Create constancy of purpose for improvement of product and service. The manager must set the direction in which the organization is to go.
- Adopt the new Philosophy. All people in the organization should embrace the view that the customer is the focus of all action.
- Cease dependence on mass inspection. Require statistical evidence, that quality is built in to eliminate the need for inspection on a mass basis.
- End practice of awarding business on the basis of price tag alone. Equipment and services should be bought on the basis of quality as well as the price.
- Improve constantly and forever the system of production and service. Never ending improvement strives to continuously reduce variation within specification limits.
- Institute training. All employees in an organization should be trained in their job skills.
- Adopt and Institute Leadership. The aim of supervision should be to help people, equipment, and systems do a better job.
- Drive out Fear. Fear exists when individuals in an organization feel powerless because something or someone is controlling their lives.
- Break down barriers between staff areas. Barriers between departments result in multiple interpretations of a given message.
- Eliminate slogans. Deming places the responsibility for the system and its variability squarely on the shoulders of the manager.
- Eliminate numerical quotas. Deming points out a lot of managers use work standards or quotas to monitor performance improvement.
- Remove barriers that rob people of pride of workmanship. Management must work to remove the barriers that deny workers the right to feel good about their work and limit their contributions to the organization.
- Encourage education and self-improvement for everyone. As new equipment comes on the market, workers need to be trained in the use, care and maintenance of that equipment.
- Take action to accomplish the transformation. Top management must work at putting the fourteen steps into practice that first calls for them to recognize that change is necessary.

Appendix C

Juran's 10 steps to Quality Improvements

- Build awareness of the need and opportunity for improvement
- Set goals for improvement
- Organize to reach the goals (establish a quality council, identify problems, select projects, appoint teams, and designate facilitators)
- Provide training
- Carry out projects to solve problems.
- Report progress
- Give recognition
- Communicate results
- Keep score
- Maintain momentum by making annual improvement part of the regular system and processes of the company.

Appendix D

Government Performance and Results Act Goals

- *Improve confidence* ... of the American people in the capability of federal government, by systematically holding federal agencies accountable for achieving program results.
- *Initiate program performance* ... with a series of pilot projects in setting program goals, measuring performance against these goals and reporting publicly on their progress.
- *Improve federal program effectiveness* ... and public accountability by promoting a new focus on results, service quality and customer satisfaction.
- *Help managers improve service delivery* ... requiring they plan for meeting program objectives and by providing them with information about the program results and service quality.
- *Improve congressional decision making* ... by providing objective information on achieving statutory objectives and on relative effectiveness and efficiency of federal programs and spending.
- *Improve internal management* ... of the federal government by requiring agencies to submit:
 - a. Strategic plans—beginning September 1996 covering a period of five years
 - b. Annual performance plans—beginning Fiscal Year 1997
 - c. performance reports—beginning Fiscal Year 1998
 - d. The GPRA requires structured strategic planning and measurement systems that indicate how well agencies are achieving results based on their strategic performance plans. It shifts the focus to outcomes—how the program affects the public.

Appendix E

“Profession of Arms” Initiatives

Vision for the 21st Century Air Force

The Air Force has published a new strategic *vision*—*Global Engagement: A Vision for the 21st Century Air Force*. This document is grounded in the Chairman of the Joint Chiefs of Staff concept of how we will fight in the early 21st Century —*Joint Vision 2010*. Further, it provides base-line direction from which the long-range plan will be developed to make the vision come true.

Key and essential to this document is the identification of core values: integrity first, service before self, and excellence in all we do.¹ This returns the spotlight to the people since it is quality people, not just processes, which define the Air Force. From the flightline to the depot to the workstation transmitting on-orbit satellite repair instructions, it is the professionalism and dedication of people which makes the Air Force the preeminent air and space force to meet the nation’s needs.² This effort comes closer than anything else written in the 1990s to restoring a sense of institutional identity by grounding the role of air and space power in the profession.³

Another key element of this vision document is the identification of the core competencies Air Force men and women carry out. These competencies represent capabilities the Air Force contributes to the Joint Force Team, and when combined with

the other services, present combatant commanders the ability to consider all options available to tailor campaign plans to meet mission objectives. Our nation's Air Force develops, trains, sustains and integrates the elements of air and space power to produce six competencies.⁴

The first competency is Air and Space Superiority which is control over what moves through the air and space. Global attack is the second competency. This is the ability of the Air Force to attack rapidly anywhere on the globe at any time. Rapid Global Mobility is the third competency. This characterizes the ability to rapidly move forces, supplies, equipment and personnel to any spot on the globe. Precision engagement, the ability to apply selective force against specific targets to achieve discrete and discriminate effects, is the fourth competency. Information superiority is the next competency which is the ability to achieve battlespace awareness. Finally, Agile Combat Support is the sixth competency. This is the flexible efficient support of combat forces through time definite re-supply, total asset visibility and improved command and control.⁵

Air Force Strategic Plan

The next initiative is development of a strategic plan. The Blue Ribbon Commission recommended the Air Force publish a Strategic Plan. This plan would provide a needed roadmap for the entire Air Force (active and reserve). The commission contended the power of strategic planning is alignment.⁶ In the Air Force's case, a strategic plan would align the Secretary of the Air Force's staff, the Air Staff, and the major commands (as well as subordinate units) in a common direction. Further, this plan would focus the service as a whole allowing guidance to cascade from the Secretary and Air Staff all the way down to the wings.⁷

The Air Force has adopted this recommendation and has developed a draft strategic plan. Air Force strategic planning encompasses two major elements: organizational performance planning and future capabilities planning. Organizational performance planning is aimed at enhancing the performance of near-term mission essential tasks. Future planning is aimed at developing the future capabilities the Air Force needs to achieve its vision.⁸

The draft plan is written in four distinct but closely integrated volumes. Each volume uniquely contributes to the implementation of the Air Force vision and supports the Air Force mission through its emphasis on critical issues that affect the total force. Volume one is *Future Security Environment*. This volume addresses what hostile space and air space will look like in the future and what environment must we fight and win. The second volume is the *Air Force Mission Performance Plan*. This volume develops what are we going to do in the near term to improve our current performance and capability to perform in the future. Volume 3 is the *Air Force Capabilities Investment Plan*. This volume provides authoritative direction to develop future Air Force capabilities answering what we need to be able to do (near, mid and long-term) to be ready. Volume four is *Exploring New Challenges, Opportunities and Concepts*. This final volume provides senior leadership guidance for the Air Force as it plans to meet the military challenges of the 21st Century.⁹ With the direction spelled out at the Air Staff, major commands and wings/units can develop supporting plans to align themselves.

Operationalize Quality and Evaluations

Operationalizing quality and evaluations is the third initiative. One of the problems the Hosmer Commission identified in their examination of Air Force evaluations was the

quality was separate from mission performance.¹⁰ The Air Force Strategic Plan, Volume two, represents priorities of the Air Force senior leadership to improve near term performance of tasks. As General Mike Ryan, Air Force Chief of Staff, stated, “if we perform our assigned mission tasks with excellence and improve that performance in a measurable way, we are operationalizing quality.”¹¹

Volume two, the *Mission Performance Plan*, contains Air Force and DOD goals, and Air Force tasks, performance measures (metrics) and performance standards. This Plan is the cornerstone for managing, tracking, and enhancing performance in the Air Force. Enhancing performance begins with finding better, faster, and cheaper (the three things measured) ways of executing the Air Force mission. This will be realized through a commitment to continuous improvement that will require a revitalized approach to quality.¹²

The goals contained in the Mission Performance Plan will serve as a beacon to which the MAJCOMs and other subordinate units can align their strategic plans. This volume employs a plan, perform, measure, and improve approach to operationalizing quality and addresses the requirements for goals, objectives, and performance measures to support the legislative requirements of the Government Performance Review Act.¹³

Air and Space Basic Course

The final initiative is development of the Air and Space Basic Course (ASBC). The genesis of ASBC is the result of a survey briefed to Air Force senior leaders at an annual fall meeting (called CORONA Fall) in 1996. The survey identified three main problems: lack of common view of what it means to be an airman; existing stovepipes and careerist attitudes; lack of knowledge of air and space power doctrine and history. Direction from

this meeting led to the development of ASBC.¹⁴ The mission of ASBC is to inspire new Air Force officers to understand their roles as Airmen who understands and live by Air Force core values, articulate and demonstrate Air Force core competencies, and who dedicate themselves as warriors in the world's most respected Air and Space force.¹⁵ Through a dynamic shared experience, ASBC seeks to develop lieutenants into 21 century Airmen who can not only meet the demands identified in the mission statement, but who also can advocate how 21st century air and space power can contribute to successes in joint operations.¹⁶

Notes

¹ United States Air Force, *Global Engagement: A vision for the 21st Century Air Force*, (Washington, D.C.: Office of the Secretary of the Air Force): 3

² Ibid.

³ Lt Col Evan J. Hoapili and Lt Col George R. Gagnon, *Total Common Sense: Choosing Professionalism at the Air Force Quality Crossroads*, National Security Program Discussion Paper Series 97-001. (National Security Program, John F. Kennedy School of Government, Harvard University): 68

⁴ United States Air Force, *Global Engagement: A vision for the 21st Century Air Force*, (Washington, D.C.: Office of the Secretary of the Air Force): 9

⁵ Ibid., 9-17

⁶ Blue Ribbon Commission, Report to the Chief of Staff, United States Air Force, Organizational Evaluations and Awards (Washington, D.C.: Department of the Air Force, 1997), 10.

⁷ Ibid.

⁸ United States Air Force Strategic Plan Volume 2 (Draft), *Mission Performance Plan*, February 1998, 1.

⁹ Ibid., 2-3.

¹⁰ Blue Ribbon Commission, Report to the Chief of Staff, United States Air Force, Organizational Evaluations and Awards (Washington, D.C.: Department of the Air Force, 1997), 4.

¹¹ Quoted in United States Air Force Strategic Plan Volume 2 (Draft), *Mission Performance Plan*, February 1998, 4

¹² United States Air Force Strategic Plan Volume 2 (Draft), *Mission Performance Plan*, February 1998, i

¹³ Ibid., 2.

¹⁴ Capt Patty Buckman, "Air & Space Basic Course School," briefing slides, given to ROTC cadets various dates and locations.

Notes

¹⁵ Col Stefan Eisen Jr, "Air and Space Basic Course," 25 August 1997; on-line, internet, 7 March 1998, available from <http://www.au.af.mil/au/asbc.html>.

¹⁶ Ibid.

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