

**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 the 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 Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE <b>APRIL 1994</b>	3. REPORT TYPE AND DATES COVERED FINAL
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4. TITLE AND SUBTITLE <b>AIR LOGISTICS CENTERS AND THE UNION: WHAT CAN THEY LEARN FROM INDUSTRY'S TQM</b>	5. FUNDING NUMBERS <b>AD-A280 673</b>
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6. AUTHOR(S) <b>HOWARD E. CREEK LT COL, USAF</b>	
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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AIR WAR COLLEGE 325 CHENNAULT CIRCLE MAXWELL AFB AL 36112-6427	8. PERFORMING ORGANIZATION REPORT NUMBER Unnumbered AWC research paper
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9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	10. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A
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**DTIC ELECTE JUN 24 1994**

11. SUPPLEMENTARY NOTES PAPER IS WRITTEN TO FULFILL ACADEMIC RESEARCH REQUIREMENTS FOR AN IN-RESIDENCE SENIOR SERVICE PROFESSIONAL MILITARY SCHOOL.
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12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED	12b. DISTRIBUTION CODE
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13. ABSTRACT (Maximum 200 words)
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**94-19296**



**94 6 23 134**

14. SUBJECT TERMS <b>AIR, UNION, INDUSTRY'S, TQM</b>		15. NUMBER OF PAGES <b>28</b>	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLAS	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLAS	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLAS	20. LIMITATION OF ABSTRACT UL

AIR WAR COLLEGE

AIR UNIVERSITY

AIR LOGISTICS CENTERS AND THE UNION: WHAT CAN  
THEY LEARN FROM INDUSTRY'S TQM EXPERIENCES?

by

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

Advisor: Dr. David Blair

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input checked="" type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification .....	
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Distribution /	
Availability Codes	
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A-1	

MAXWELL AIR FORCE BASE, ALABAMA

APRIL 1994

Headlines *Atlanta Constitution*, July 5, 1995: AIR FORCE TO  
CLOSE TWO DEPOTS -- 24,500 LAYOFFS.

I didn't believe they would do it. Our Center is the largest employer in our state. This states' congressional representation is one the strongest in Washington. Our city turned out in mass to show its support for our base. The Chamber of Commerce put together a stunning presentation that I knew would convince the committee that they should not close this Center. We were unique and a national asset. But now it has happened. Twelve thousand people at our base and twelve thousand four hundred at the other Center will be out of work. And what about the ripple effect in our city? It will be devastating.

We should have listened to Norman. He told us that we needed to take more drastic action to make our Center more effective and efficient. He told us that we should learn from the experiences in civilian industry both in the United States and in Europe. Norman was an expert. His specialty was in the field of Total Quality Management (TQM) and labor relations. He was hired by our Center Commander to show us how we could improve our efficiency and our labor-management relationship. His task was to turn our Center, both labor and management, into a team. He tried very hard, but we didn't think we needed to change that much. We just didn't believe that our politicians would let us down and allow our Center to be closed. We constantly fought Norman's ideas. At least we only paid them "lip service" thinking this base closure stuff will soon be over. Then we

could then file this "quality adventure" on the shelf along with all the others. But times now are different. The Department of Defense is getting less and less of the federal budget and the civilian defense industry is also hurting from these smaller budgets. Industry really wanted our work to help offset the loss of contracts for new equipment. Now I guess they will be getting it.

If you really think about it, Norman had some very good ideas. They weren't earth shattering. Mostly common sense. I remember the first time we met. It was in the Commander's Conference Room and the General introduced him to the staff. Norman would be with us for about a year. He would be the one who would be our "coach" in our effort to win the "race for the BRAC." The Base Realignment and Closure Commission (BRAC) would analyze the depots and decide which, if any, should remain open and which should close. Our Center had survived the 1993 BRAC but since then we had slipped back into our old ways and the General thought that an outside advisor might be what we needed to change our attitude. Norman gave us a short presentation, an overview of the basics of TQM and how Total Quality could improve our labor-management relationship. Then he shared some successes from private industry and told us he would go into more detail when he got down to our workcenters. He said he would give us advice on how to reorganize and that he would show us how we could better measure our processes. He would be our trainer and advisor but that we would have to become "believers" and make

some major changes in how we did business. Norman closed his briefing with statements from two very wise men. First, from Robert Fulghum:

All I really need to know about how to live and what to do and how to be I learned in kindergarten. Wisdom was not at the top of the graduate-school mountain, but there in the sandpile at Sunday School. These are the things I learned:

Share everything.  
Don't hit people.  
Put things back where you found them.  
Clean up your own mess.  
Don't take things that aren't yours.  
Say you're sorry when you hurt somebody.  
Wash your hands before you eat.  
Flush.  
Warm cookies and cold milk are good for you.  
Live a balanced life - learn some and think some and draw and paint and sing and dance and play and work every day some.  
Take a nap every afternoon.  
When you go out into the world, watch out for traffic, hold hands, and stick together.  
Be aware of wonder. Remember the little seed in the Styrofoam cup: The roots go down and the plant goes up and nobody really knows how or why, but we are all like that.  
Goldfish and hamsters and white mice and even the little seed in the Styrofoam cup - they all die. So do we.  
And then remember the Dick-and-Jane books and the first word you learned - the biggest word of all - LOOK. <sup>2</sup>

The second statement is from Jesus during his Sermon on the Mount. "So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets." <sup>3</sup>

Norman said that winning the "race for the BRAC" would not be as simple as these two statements but elements from both would be helpful. There must be some give and take between management and labor and that both sides must be willing to change and treat each other fairly. He then said he was looking forward to

working closely with each of us and that he would see us soon.

The General got up next and added that he could decree many changes that would implement Normans' ideas but he wasn't going to do that. He believed in every principle that Norman would be presenting and he was hoping that Norman could sell us on these principles using his examples from private industry. He said he would be following up, and he asked that we keep an open mind.

The next morning Norman was out in the workcenters. He set up training sessions that began with top managers and went down to the newest worker. The key points of this training session were the basics: "a leadership commitment and operating style that inspires trust, teamwork and continuous improvement throughout the Air Force." <sup>4</sup> These are the principles of the Quality Air Force (QAF) and they are very similar to the basic TQM principles which are: "1.) a focus on the customer; 2.) continuous improvement based on measurements; 3.) preventing rather than detecting errors; 4.) top management commitment and involvement; 5.) strategic business focus on quality; and 6.) employee involvement." <sup>5</sup> Norman told us that these principles have produced many successes and failures in civilian industry. We could apply the lessons learned from those successes and failures to improve our Center. Norman didn't have much trouble convincing the top managers and he was surprisingly convincing to many of us blue collar workers. But I noticed that many of the first level managers didn't seem to be very interested and I also noticed that he did not make a great impression on some union

leaders (mainly the stewards). Norman could tell that some union members and union leaders were concerned that TQM was just another means by management to weaken union strength. Their perspective was that past management actions and attitudes were focused on "mistrust, misinformation, and suspicion of change." <sup>6</sup> Put another way, "Managers may see improvement as a 'motherhood and apple pie' issue; unions do not always take that point of view." <sup>7</sup> He noted that another union concern is loss of union membership. "During the past two decades, union membership has declined from one-third to less than one-fourth of the total U.S. work force. Clearly this is of concern to labor leaders."<sup>8</sup> According to Coopers & Lybrand research, unions "have two major fears about quality programs: Threats to job security from heightened productivity, and concern that TQM will weaken collective bargaining and grievance procedures." <sup>9</sup> TQM principles have been successful in reducing grievances which were, in the 1970's, the "highest priority for union attention ..." <sup>10</sup> With grievances reduced, the primary relationship the union has with its members is diminished, thereby weakening the relationship of individual workers to the union. This produces a union fear "that, with TQM, employees will no longer want unions, since they will be satisfied with management." <sup>11</sup> Some union officials are vocal in their opposition to TQM. One union official stated, "I haven't seen quality work life put an extra slice of bread on anybody's plate." <sup>12</sup> Thus, Norman explained, there is some inherent distrust and both management and labor

have their work cut out for them in order to develop trust, teamwork, and continuous improvement. Personally I thought Norman had some really common sense ideas. What was most convincing for me was the private industry examples he used.

Norman began with an example from the automobile industry. This example appealed to some of us from the production divisions because we could easily compare the automobile manufacturing business to our aircraft depot repair lines. He told us that in 1990 the United Auto Workers (UAW) and the Big Three automakers held labor-management negotiations and that the union realized they were in a crisis in the competition with foreign automakers and that the union would be the "frontline defender of quality."<sup>13</sup> UAW members wanted to have a greater voice in quality programs which would allow them to contribute more to the successes of Ford's Taurus/Sable, Cadillac's Seville, and Chrysler's Neon. They created many workcenter teams that developed hundreds of cost saving and process improving ideas. "In fact, they have proposed more than 4,000 changes to the car and production process, many of which have been adopted."<sup>14</sup> At Ford's Cleveland Engine Plant No. 2, UAW and Ford have joined together to form the joint UAW-Ford Best In Class quality program. This program is giving union members a voice in the development and production of the new modular V-6 engine. UAW employees are working with product and process engineers in a program called simultaneous engineering. They are also working with Ford's suppliers to ensure that consistently high quality

engine parts are provided to the plant. UAW and the Big Three have also negotiated job security provisions and education and training programs. These programs are key factors in improving quality.<sup>15</sup> UAW President, Owen Bieber, believes "The UAW has proven that a strong union working with management in an environment of mutual respect is a winning formula for quality improvement."<sup>16</sup>

Next Norman described a situation at Xerox. Xerox is a company which is somewhat similar to a depot. They manufacture copiers in shops much the same as ALC electronics shops. Norman then explained that in the early 1980s Xerox was rapidly losing market share in the copier industry. As a result, the Amalgamated Clothing and Textile Workers Union (ACTWU) and Xerox began a number of employee-involvement and quality initiatives that created one of the best labor-management success stories in American manufacturing in the 1980s. Union employees and management participated together to make improvements in the quality of their copiers. Management trusted its employees and empowered them with the ability to make changes and to challenge the wisdom of management. Organizational changes were accomplished through a participatory process involving the union as an equal partner.<sup>17</sup> In one instance this new management-union relationship cut costs by 30 percent, achieved a level of quality required by a contractor, saved the company \$3.2 million, and preserved 180 union jobs.<sup>18</sup>

Another example cited by Norman was American Telephone and

Telegraph (AT&T). This is a company which is in the business of serving, an activity very similar to the depots' product management divisions (System and Item Managers). The Communication Workers of America (CWA) and AT&T became a team and in March 1993 introduced the Workplace of the Future. This work place consisted of four components: 1.) Workplace models were developed where union employees and AT&T managers work together to improve the business. The union and the company decided that both must agree on the structure of the workplace models. 2.) The company created a Business Division Planning Council. This council is made up of management and labor and they help plan future work force requirements. 3.) AT&T created the Constructive Relationship Council. This is a management and labor council which addresses problems affecting AT&T and approves specific cooperative trial ventures. 4.) The fourth component is the Human Relations Board. This is a management-labor-outside expert board which addresses broad strategic concerns and human resources over long range time frames. They concentrated on working conditions, education, training, future needs, and outside problems such as health care.<sup>19</sup> Mort Bahr, President, CWA, stated, "I am absolutely convinced that for the United States to be competitive in the next century, unions and companies will have to make the kind of changes in their relationships that are envisioned in models such as Workplace of the Future."<sup>20</sup>

Norman's fourth example of union-management cooperation was with the United Steelworkers of America. The steel industry and the United Steelworkers believed that "achieving and maintaining high standards requires the full involvement and empowerment of the workers and their unions." <sup>21</sup> United Steelworkers of America have been working with companies to improve quality through labor-management participation teams which focused on involvement of employees from the shop floor. A key issue with the United Steelworkers is the security of workers in the event of a downturn of the company. This is comparable to the depot situation with the BRAC, Norman explained. The United Steelworkers of America and National Steel have worked out an agreement where rather than laying off employees, "workers are available for a variety of tasks, training, or both and continue to make a valuable contribution to the company's and their own development." <sup>22</sup> This commitment deals directly with one of the key fears of quality programs - that employee contributions that improve productivity will cost them their jobs. National Steel has saved over \$100 million in a single year and has kept their promise not to layoff employees. According to the United Steelworkers of America president, Lynn Williams, "The program is working extremely well for both parties. Employment is secure. Grievances are at a minimum. Productivity and quality are on the rise." <sup>23</sup> The electro-galvanizing venture at LTV in Cleveland is another steel industry example of what participatory employee-management approaches can accomplish. At LTV employees were

fully empowered to operate the plant with only a limited number of supervisors. Supervisors were tasked mainly with facilitating information transfer, providing training, and developing and monitoring goals. Because of these quality initiatives "the American steel industry has risen to world-class levels of quality and productivity." 24

It is not always easy to make changes and not all union-management ventures are fully successful. Norman then described an unsuccessful TQM attempt between Caterpillar and the UAW. Caterpillar and UAW had a very good continuous improvement program called the Employee Satisfaction Process (ESP). This program empowered workers to improve processes within the Caterpillar plants. Teams were extremely innovative and in one two month period they developed and implemented many ideas which saved almost \$5 million. However, in 1991 management decided to challenge the UAW in contract negotiations over a wage and benefit issue and the union's demand to have a voice in determining which parts were to be made in-house and which were to be contracted from outside suppliers. This challenge resulted in a breakdown between UAW and Caterpillar and led to a strike at two Caterpillar plants. The strike was unpleasant for both management and labor but ultimately the union workers returned under company-imposed conditions; however, the UAW suspended all ESP activities. As a result, management-labor relations were poor. Without employee-involvement programs, such as ESP, worker complaints rose dramatically and grievances rose over 500

percent. One employee stated that "All you see is people doing the minimum to get by." <sup>25</sup> This is an example of how the failure to develop trust and teamwork can severely affect the quality in a plant. This illustrates one of the main dilemmas with implementing TQM. Sometimes competition or downsizing forces management to make decisions that hurt the work force. Everyone should strive to minimize these situations but both labor and management must recognize that they might occur.

Then Norman really hit home with several examples in the aircraft industry. His first example was with a major U.S. defense contractor. The Vice President of a defense contractor recently told him that his management philosophy is basically the same as TQM principles and he is using these principles to help in downsizing his portion of the company. His management philosophy is to treat everyone in his division as if they were adults and in doing this they work hard to make the division survive. He said he believes in TQM principles but not in establishing a large bureaucratic staff to administer it. He provided the necessary TQM training to almost every employee so they would have the necessary tools to make the company better. He reorganized his company to reduce the layers of management and then he empowered managers to resolve their problems (such as changes in working conditions and appraisal ratings) at the lowest possible levels. He established work center teams and empowered these teams to develop ideas and solutions to improve the quality and productivity of the company. He said he was a

firm believer in continuous improvement based on measurement. "If you don't measure it, it is not done," was the way he described this principle. Work centers, with guidance from management, develop their own measures of productivity and publicize these measures in their work areas. Employees understand that the division's survival is based partially on improved productivity. A visible measure of how the work center is performing helps motivate employees to remain productive and seek ways to continuously improve the division. He is in constant communication with the employees of his division and with union representatives. He keeps them abreast on the status of defense contracts and how these contracts will effect the number of employees in the division. This executive stated that when he arrived as CEO of this plant that management-labor relations were fraught with distrust. The union and the blue collar employees did not fully realize the impact of the decreasing defense budget. In the past the local members of Congress had made sure there was always a contract ongoing and that the plant was secure. Now, even with a strong representative, the plant was severely cutting back. This CEO worked hard to improve relations with the union. His reorganization removed many middle managers from the company which showed the union that downsizing would not just take place in the blue collar workers. He communicated to everyone when layoffs would take effect and who would be affected. He communicated this information as much as a year in advance thus

allowing employees to plan their future and seek other employment opportunities. Through his efforts he convinced the union and the entire labor force that downsizing was inevitable and that TQM techniques would help the company survive. He believed that these management principles: reducing middle management, empowering the employees, constant communication, and continuous improvement based on measurement, were just common sense ways to treat everyone like adults. He said if you treat them like adults, they will act like adults and then the whole division will become a team. His efforts were so successful that the union recently elected to take a pay and benefit reduction to help the company become more competitive. <sup>24</sup>

Next, Norman cited several examples from European defense industry. He stated that he had recently visited a number of defense contractors in France and England and that each of these contractors had used TQM principles to help them in their downsizing efforts. At Aerospatiale, a large defense contractor in France, managers stated that they have been pursuing TQM principles for several years; however, they do not have a formal TQM program or an organization dedicated to the management of their Total Quality program. Management at Aerospatiale have embarked on a number of efforts to show that they are committed to a Total Quality company. First, they reorganized to eliminate several layers of middle management, thus not taking all downsizing cuts from the blue collar workforce. They also spent a considerable amount of money on TQM training for all employees.

The company created workcenter teams which produced innovative ideas to help increase the effectiveness, efficiency, and productivity of the company. They then empowered these teams to implement their ideas. Additionally, top management was committed to communicating their management philosophy to everyone in the company. Because of these TQM principles, Aerospatiale has convinced most employees that management is dedicated to treating everyone fairly. As a result, labor-management relations are at an all time high, grievances are down, and there has not been a strike since TQM principles were adopted. <sup>27</sup>

At Thompson-CSF, another French company, TQM was in its formative stages but they too were seeing positive labor-management results. Thompson recently established a small staff to manage their Total Quality program and had begun TQM training. They had established some workcenter teams and management was beginning to empower these teams to implement their process improvement ideas. <sup>28</sup>

Norman then told us that he was most impressed with British Aerospace (BAe) Dynamics, Rolls Royce, and BAe Military Aircraft's implementation of TQM and their resulting improved labor-management relationship. Due to reduced military spending in the United Kingdom, BAe had undergone major downsizing during the past six years. BAe Dynamics has reduced from nine sites to three and reduced their number of employees from 16,500 in 1988 to 4,040 in 1994. BAe managers attributed their ability to

improve productivity, improve the quality of their products, increase profit, and downsize the company largely to their TQM efforts. Downsizing goes against the grain of TQM principles but BAe viewed downsizing as mandatory to company survival. Specifically, BAe reorganized reducing the layers of management from 15 down to 5 or 6. This reduction in middle management showed the blue collar workforce and the union that the company would not downsize just by cutting blue collar labor and thus earned a significant amount of trust from the blue collar workers. Management believed in continuous improvement based on inputs from workcenter teams. TQM training was provided to every employee with the focus being on the small workcenter team. These teams were encouraged to produce ideas which would improve the productivity of the company and improve the quality of their products. But more important than producing ideas was that the teams were empowered to implement the ideas with very little supervision from management. Management was involved at all levels of the company communicating goals and TQM philosophy. Managers knew their employees personally and showed an interest in their well being. Managers believed in measuring process improvements and encouraged workcenter teams to develop meaningful performance indicators. These key performance indicators were used by both blue collar and management employees to develop incentive pay bonuses. Thus, everyone had a stake in continuous improvement. Blue collar workers, the union, and management all became involved in the downsizing process with

everyone producing ideas. Two specific ideas were multi-skilling employees and changing the method of selecting personnel for possible lay offs. Multi-skilling involved a commitment by management to provide necessary technical training so an employee could become proficient in more than one skill. Employees agreed to accept the new training, the new tasks, and, in some incidents new levels of pay. The union and the blue collar work force had an input into changing the way employees were selected for reduction-in-force. This change, which was brought about as a result of legislation by the Thatcher government, was not the union's idea but at least they did have a say in developing the new procedure. The union, the blue collar work force, and management discarded the traditional method of employees with the most seniority being the last to be laid off and developed a new program based on a series of factors such as productivity, customer service orientation, commitment to the organization, teamwork and cooperation, and team leadership. Using this type of criteria, the entire company became more team oriented and nonteam players were "weeded out" of the company. An area of continuous improvement unique to BAe Dynamics was in their health and safety programs. Management empowered the employees to take individual ownership of their personal safety and health. The company provided, at no cost, stop smoking clinics and medication to help them stop smoking. The company also provided training and time to do aerobic exercise. The company then provided incentives, such as extra pay, for becoming more healthy and safe

and totally empowered the employees to implement their own health program.

TQM at BAe has produced impressive results. Quality has improved and they are winning contracts. At BAe Dynamics, in 1993, the new safety and health program was so successful that there was only one major accident in the entire company and many employees stated that they are healthier because of the company's emphasis on fitness. Union grievances at both BAe Dynamics and BAe Military Aircraft are at an all time low and during the downsizing there was not one labor strike. BAe managers stated that TQM taught them to treat everyone fairly and as a result labor has greater trust that management will indeed treat them fairly. The union and union workers became partners with management and believe that TQM is helping develop the continuous improvements which will result in the survival of the company. 29 30

Rolls Royce stated that they too had implemented TQM partially to help them become more competitive and to help them downsize. Quality has been an important part of Rolls Royce since the company reemerged into the market in 1987; however, the entire company really began to believe in the quality program when Rolls Royce implemented TQM about two years ago. As with other European defense industries which implemented TQM, a first step was to reorganize and reduce middle management. This reduced the layers of management and showed the blue collar labor force that the company would not downsize just by eliminating

union workers. Rolls Royce made a major commitment in TQM training which started with top managers and went all the way through the company to the most junior employee. Senior managers stated that their key to TQM success was process improvement and senior managers communicated this to every employee. This commitment by senior managers proved to the employees that they believed in TQM and thus almost all of the employees now also believe in TQM and its principles. The company used process action teams to obtain ideas on how to continuously improve quality and productivity and these teams were empowered to implement their ideas. These teams also generated many of their own performance indicators and they displayed these indicators prominently in their work areas so everyone would know how they were performing toward their goals. <sup>31</sup>

"What can ALCs learn from labor-management relationships in private industry?", Norman asked us. "Can TQM principles help ALCs become more effective and productive?" He told us that he believed we needed to break down the fears that union officials and some union members have. These fears are similar to those that unions and some union members had in private industry. They feared that quality programs threatened job security and that the improved relationship between workers and management, especially in the area of grievance resolution, would weaken the power of the union and would result in unions no longer being necessary. Management at the ALCs, especially first level managers, need to constantly work with union leaders educating them on the quality

efforts. Norman told us that he believed the key is trust. Management trusting the union and its members to help implement TQM and the union trusting in management that management will be fair. TQM is not a management ploy to eliminate the union. There will always be grievances simply because there will always be some conflict between people; therefore, the depots will always have the option to have a union. However, hopefully TQM will reduce the number of grievances because of the increase in trust. Reducing grievances is good for both labor and management since fewer grievances is generally a sign of more teamwork and being a strong team will make the entire Center better.

The world is different now and as a result the DoD is downsizing. That downsizing will most likely effect the depots. Depots need to take big steps toward becoming more efficient and productive. Norman told us that he had given us several examples from private industry and he had described their successes and failures. He strongly suggested that first we take the steps necessary to reorganize and reduce some of our middle management. This was one of the keys to the successful downsizing at the U.S. defense company he discussed and also a major factor in the European defense industry.

Norman knew that the ALCs had put a great deal of time and energy into TQM training and he told us that everyone needed to take this training serious and begin implementing TQM principles. TQM training emphasizes the small workcenter team and stresses that this team must develop new ways of improving productivity

and quality. However, the team cannot do this without the support from management. Management must trust the team with the power to implement their ideas. Management should consider boards and councils, such as those created at AT&T, to help create an atmosphere of teamwork and cooperation. Management needs to constantly show the union, like the steel industry did, that employees will be retrained when quality innovations result in reductions in some jobs.

Unions also need to learn from private industry examples that management can be trusted. This does not guarantee that there will not be further reductions since politics drives the budget and the budget is one of the factors which decides if bases should be closed. Norman told us that two way trust is a major ingredient to a successful team. Thus, he told us that he believes that the successes in private industry prove that working with the union and developing trust and teamwork leads to continuous improvement resulting in more efficient and effective organizations. Empowerment, like the LTV example, is trusting employees to develop ideas that will improve the ALCs. These TQM principles work when employees and management believe in the principles and agree to cooperate and put the principles to work.

After training all of the workcenters Norman noted that top management and most employees agree with TQM principles. He also noted that he thought the main stumbling block in embracing quality principles lies with first level supervisors and with some union officials. Norman said he thought the problem was one

of power and training. Many first level supervisors have risen "through the ranks" to become supervisors over the same employees with whom they used to work. Suddenly they are "in-charge" and have the power to tell a former co-worker what to do. He told us that he had observed that some of these new supervisors have very poor interpersonal skills and frequently manage their workcenter by power rather than management techniques. This is an abuse of power which often causes a breakdown in the labor management relationship and is contrary to the TQM principle of teamwork. Secondly, the new first level supervisor is frequently given his or her new position in management without any training on how to be an effective manager. In the Noncommissioned Officer (NCO) ranks, before an airman can become a NCO, he or she must attend the Airman Leadership School. This school teaches basic leadership principles and the basic principles of TQM or QAF. Similarly, officers receive this same basic leadership training in their military studies at the Air Force Academy, Officer Training School, and Reserve Officer Training Course. Norman suggested that we develop a training program for civilian first level supervisors along with a screening or trial period to test them to determine if they want to be or are capable of becoming managers.

Norman then cited a private industry example which has already developed an excellent first level supervisor training and screening program. The Federal Express Corporation, a company which has been recognized as a leader in the quality

movement, has a program called Leadership Evaluation and Awareness Program (LEAP) which you could emulate to select and train supervisors. The LEAP program teaches manager candidates "three 'transformational leadership behavioral dimensions,' plus six 'leadership qualities'".<sup>32</sup> These dimensions and qualities are: Charismatic Leadership, Individual Consideration, Intellectual Stimulation, Courage, Dependability, Flexibility, Integrity, Judgment, and Respect for Others.<sup>33</sup> They embody the principles of TQM and would thus instill QAF principles into managers at the earliest levels. Federal Express teaches this program on a Saturday on the worker's own time thus requiring a commitment from the worker if he or she really wants to become a manager. Norman told us that this would take a change in policy from DoD but it might be worth exploring. Even if you don't do it on the employees' own time you should look into developing a program such as LEAP during duty hours to help you find out who really wants to become a supervisor and thus provide them with the necessary basic supervisory training. The program also has "a three- to six- month period during which the candidate's manager evaluates and coaches the candidate based on the leadership attributes... Then the manager makes a written recommendation supporting or opposing the new candidate's bid for management."<sup>34</sup> Norman said that he felt that if a program of this type is undertaken that it would improve the labor-management relationship and educate supervisors on how much power they really have and how to effectively use the power they do

have. Furthermore, he said that this training should be offered to key union personnel (stewards and elected office holders). The result would be union leaders who have a better understanding of leadership and TQM principles and thus, the trust and teamwork relationship between management and the union would be improved.

Norman also recommended that teams explore ways to place more emphasis on the individual taking responsibility for safety and health. Management has already provided the opportunities to take stop smoking classes and receive other health and safety classes during duty hours. Every depot has a gym on their base which provides the facilities necessary to get fit and stay fit but now the emphasis needs to be placed on the individual to take advantage of these opportunities. He then suggested that management empower the union and some of the workcenter teams to develop their own incentives to help the employee want to improve his or her personal safety and health.

Norman further recommended that labor and management work together to develop a new method of determining who should lose their jobs when a reduction-in-force becomes necessary. He recommended that labor and management work together to develop a method such as the one used at BAe using criteria such as productivity, team leadership, commitment to the organization, and teamwork and cooperation. This is another area which would require approval from DoD and also the Department of Labor. Since the DoD is drawing down so dramatically this idea should at

least be explored thus enabling the depots to draw down in the smartest way possible.

Norman also strongly suggested that the depot examine the idea of multi-skilling its employees. He recommended that workcenter teams develop several multi-skilling options. One option he suggested as a starting point was combining welding, machinist, and sheetmetal skills into a single specialty skill. This multi-skilling idea along with the new method of selecting people for a reduction-in-force would allow the depot to better utilize its personnel thus making the entire organization more effective and efficient.

Ringgggggg, went the alarm clock. I rolled over and turned it off. I ran to the front porch and picked up the paper and looked at the date. July 5, 1994. It was all a dream. The BRAC had not yet met and so our depot was not closing. I still had my job. There wasn't a Norman but I had been to TQM training and my workcenter had formed several teams. We were empowered to develop new ideas to continuously improve our processes and our quality. This dream made me realize that I, along with many other employees, hadn't taken our TQM training seriously. We were just paying it lip-service. But we still have time to make some major changes. We can become more productive, effective, and improve our quality. If we make these changes maybe we can convince the BRAC that we are the best depot and then our base can stay open. I now see that TQM principles are sound management ideas. They are not really new ideas but they are

good ideas, based on trust and fairness, packaged in an easily understandable way. I am going to do my part to convince my fellow union members that TQM is not trying to eliminate our union but that TQM is one way we can help save our jobs. It's time to do things differently. It's time to remember what we learned in kindergarten and treat everyone fairly. It is time to learn from the examples in industry. If we all, both management and labor, decide to get along we can become a team.

Authors' note: Obviously this paper is a fictional story. However, The lessons from industry both U. S. and European are true. The examples from Europe came from my Air War College Regional Studies Analysis trip and subsequent interviews at the five defense industries listed. Additionally, I have had assignments at two ALCs, Headquarters Air Force Logistics Command, and have spent a large amount of time on temporary duty at the other three ALCs and I believe the attitude of the fictional employee is representative of many ALC employees. The ALCs have been pursuing TQM for several years. Large numbers of employees have taken TQM classes, many workcenter teams have been formed, and top level managers have empowered these teams to develop and implement ideas. However, it is my opinion that many employees are like the fictional employee in this paper: they do not believe that their politicians will allow their ALC to close, they do not think they will loose their jobs because of the BRAC, and therefore they do not take TQM seriously. Politics will most likely influence the BRAC 95 decisions; however, if ALCs would

take some of the private industry lessons learned cited in this paper and put them into action they could improve their effectiveness and efficiency and thus improve their chances of surviving the 1995 BRAC.

## NOTES

1. Aspin, Les, *Department of Defense Base Closure and Realignment Report*, March 1993, pp 1-12.
2. Fulghum, Robert, *All I Really Need To Know I Learned In Kindergarten*, Ivy Books, 1986, pp 4-5.
3. *The NIV Study Bible*, The Zondervan Corporation, Grand Rapids, MI, 1985, pp 1452.
4. Air Force News Agency, *Building A Quality Air Force*, pp 1.
5. Levine, Marvin J., "Labor and Management Response to Total Quality Management," *Labor Law Journal*, February 1992, pp 109.
6. *ibid*, pp 111.
7. Carr, David K. and Ian D. Littman, *Excellence in Government: Total Quality Management In The 1990s*, Coopers & Lybrand, 1993, pp 147.
8. Levine, "Labor and Management Response to Total Quality Management," pp 112.
9. Carr and Littman, *Excellence in Government: Total Quality Management In The 1990s*, pp 147.
10. Levine, "Labor and Management Response to Total Quality Management," pp 112
11. Carr and Littman, *Excellence in Government: Total Quality Management In The 1990s*, pp 147.
12. Rose, Robert L. and Alex Kotlowitz, "Back to Bickering: Strife Between UAW and Caterpillar Blight Promising Labor Idea," *The Wall Street Journal*, November 23, 1992, pp A1.
13. Bieber, Owen, "United Auto Workers," *Quality Progress*, September 1993, pp 61.
14. *ibid*, pp 61.
15. *ibid*, pp 62.
16. *ibid*, pp 62.
17. Sheinkman, Jack, "Amalgamated Clothing and Textile Workers Union," *Quality Progress*, September 1993, pp 57.

18. Levine, "Labor and Management Response to Total Quality Management," pp 113.
19. Bahr, Mort, "Communications Workers of America," *Quality Progress*, September 1993, pp 59 - 60.
20. *ibid*, pp 60.
21. Williams, Lynn R., "United Steelworkers of America," *Quality Progress*, September 1993, pp 63.
22. *ibid*, pp 63.
23. *ibid*, pp 63.
24. *ibid*, pp 64.
25. Rose and Kotlowitz, "Back to Bickering: Strife Between UAW and Caterpillar Blight Promising Labor Idea," pp A8.
26. Interview and Air War College lecture, Vice President of a major U. S. defense contractor, 13 & 14 January 1994. (\*)
27. Interviews, Vice President and several senior managers from Aerospatiale, Paris, France, 8 February 1994. (\*)
28. Interviews, Several senior managers from Thompson - CSF, Paris, France, 9 February 1994. (\*)
29. Interview, Several senior managers from British Aerospace - Dynamics, Samlesbury, England, 11 February 1994. (\*)
30. Interviews, Several senior managers from British Aerospace - Military Aircraft, Preston, England, 15 February 1994. (\*)
31. Interviews, Several senior managers from Rolls Royce, Bristol, England, 14 February 1994. (\*)
32. *Blueprints For Service Quality: The Federal Express Approach*, AMA Membership Publications Division, 1992, pp 22.
33. *ibid*, pp 23 - 25.
34. *ibid*, pp 25.

\* Note: Names withheld for academic non-attribution.