Cultural Analysis Case Study: Implementation of Acquisition Reform within the Department of Defense

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Abstract

The Department of Defense has mandated the armed services to change their acquisition process to drastically reduce overall program expenditures and improve efficiency in the execution of procurement of weapon systems. The direction to mandate the change was heard but how do Department of Defense organizations respond to successfully implement the change order? Is the culture within the Department of Defense preventing success in implementation of change policies?

Over the past 20 years, the DOD has attempted to reform their acquisition policies but has failed to address the significance of culture in the implementation of reform. This thesis focuses on the impact and importance of culture on implementing and sustaining long-term change efforts. Edgar H. Schein's framework for analyzing culture within the organization is the model for the analysis focusing on the essential elements; mission and strategy, goals, means, measurement, and correction.

Using case study analysis, our primary research focused on a large Navy and Air Force procurement under the new Acquisition Reform philosophy. The organizational structure of the program, roles, responsibilities, accountability, incentives and motivations of all levels within the Department of Defense workforce is defined and analyzed. The results of the analysis will be integrated into Schein's framework to identify common themes that exist across the services and the specific organizations.

We theorize that the culture within specific Navy and Air Force acquisition centers impacts the success or failure of implementing change. Through examination of specific cases of these organization's implementation of change, evaluation of the change impact at all levels within that organization, and comparison between the two services, we conclude that a shift in the culture has begun. Extensive change policies, such as Acquisition Reform, cannot be successfully implemented without total commitment and understanding of the goals of the change. We conclude that strong, effective, and sustainable leadership is a key element driving long-term commitment to change.

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Chapter 1

Thesis Structure and Methodology

1.1 Problem Definition

The United States defense industry has been under constant scrutiny for many years but until only recently has it come under intense pressure to change its business practices. The pressure has come from both internal and external sources… taxpayers, who will no longer tolerate wasteful spending and, the government, which insists on implementing cost-control measures. The shift is due, in part, to the post-Cold War challenge. Now, the defense industry is faced with new threats, unpredictable threats such as severe budget cuts, public scrutiny, congressional investigations, and rapidly changing technologies. Still, the defense industry is slow to respond to these new demands… even though initiatives have been established for many years to facilitate reform. These policy changes, the new demands, have been coined "Acquisition Reform". An acquisition is defined as a purchase. Simple enough and straight forward too; it also seems straight forward that changing the purchasing behavior of the defense industry would result in cost savings to the government and satisfy the people. It may be obvious… but when talking about large defense systems, it's not easy.

There has been a great deal written in the press regarding the importance and necessity of change in the defense industry's acquisition policies. The new strategy developed to address this problem is now being tested in major defense programs in all the services. This thesis will focus on the cultural influences on the implementation of such a strategy within defense procurement agencies.

To introduce change to a massive process such as DOD acquisition, a crisis must be identified, strong sponsorship from leaders at all levels must be obtained, and the workforce must be motivated to change their behavior. In past reform initiatives, the administration has provided strong leadership but failed to identify the real crisis… the importance of culture in implementing lasting change. Leaders often fail to recognize that some strategies cannot be implemented because the key elements of the strategy are often incompatible with basic assumptions and behaviors of the organization. Thus, a strategy is often initially readied, but the workforce fails to implement it. The workforce vacillates, assuming the strategy is another in a series, and will disappear over time. In order to mitigate this risk, leaders must understand the current culture before they can develop an implementation plan that will motivate the workforce to change.

Central to the success of Acquisition Reform is the ability to change the organization's existing views and processes. How do you form this new, agile enterprise from a mature organization that has been conducting business one way for its entire history? An agile enterprise requires a workforce which is motivated, flexible, and responsive to change. The organization must foster these traits through new procedures and incentives that encourage worker empowerment, individual creativity, and knowledge of management support of the workforce when exercising their new rights. The new organization must stress cooperation and teamwork with emphasis and support continuous.

1.2 Research and Methodology

Case study methodology is most useful for researching questions that begin with *how* and *why*. It disregards behavioral events and focuses on contemporary situations. Our research focuses on *how* the DOD culture impacts its ability to enact change and *why*, after nearly 50 years of reform measures, little change has occurred. To better understand the impact of Acquisition Reform's impact on the DOD culture, we have focused our primary research on parallel studies of a large Navy program and a large Air Force program. For purposes of this thesis, we shall refer to the large Navy program as LNP and the large Air Force program as LAP. To maintain the anonymity of the individuals we interviewed, we have used pseudonyms and, in most instances, avoided using a name altogether.

The research conducted on LNP and LAP consisted of visits to sponsor, laboratory, and contractor sites. Interviews were conducted during a 5 week period from 3 February, 1997 through 10 March, 1997. During this period, individual interviews were conducted at various levels in the organizational structure of the programs and acquisition centers. We spoke with people from every level of the organization, from the most senior directors to the junior level technical program workers.

For a large program, an interview typically lasted one to two hours. During the interviews, each author secured/scribed detailed notes which were later transcribed and cataloged on a computer. We determined that a tape recorder would not be part of our repertoire as we wished to foster a relaxed and open atmosphere. Because there were two of us taking notes, we also were more assured that details would not be missed. The transcription process was also used to provide us an opportunity to add clarifications and details from both sets of notes.

In addition to these activities at LNP and LAP, interviews were conducted at the prime contractor's facility for each program. These interviews were performed to gain

industry's perspective on the acquisition process and to obtain their views on their customer's organization and culture in comparison to their own.

Research was also conducted in each program to determine its history and organizational structure and timeline as applied to the Acquisition Reform initiatives. Finally, pertinent literature was reviewed to acquire a better understanding of the history of Acquisition Reform, the services (Navy and Air Force), and organizational structure and culture.

The authors have each been employed by the United States Department of Defense at Navy and Air Force laboratories for more than 10 years. This fact provides the authors first-hand knowledge and insight into the culture existing in these programs and at the associated government sites. The authors are part of the culture at these organizations and as members, can provide better understanding to, not only the particular program intricacies but to the organization and the people.

1.3 Thesis Structure

The thesis is organized as follows:

Chapter 2 describes the history of Acquisition Reform…past, present and future. It is meant to provide an overview of the acquisition process, a scope of defense systems, and a basis for discussion on the culture that exists in Department of Defense organizations.

Chapter 3 defines the culture and how the culture in defense organizations has been developed over many years. This chapter also defines the culture framework for our study. This framework, developed and defined by Edgar Schein, is the basis for our discussions on change, and the impact of change, on an organizations' culture.

Chapter 4 begins the case studies. A program description and the reasons why these were selected are provided. Organizational structures, timeline, and overall financial figures are discussed. The interview data, for each service, is presented following the elements of Schein's culture framework... mission, goals, means, measurement, and corrective actions. The discovery of common themes and marked differences in each program is presented.

Chapter 5 examines and analyzes the success of Acquisition Reform in these programs. Comparison of the two programs/services provide the common themes which we discuss here in detail. From the data we also determine which, in the culture and organization, is facilitating change and what is inhibiting change.

Chapter 6 provides conclusions and recommendations on the status of the culture within the DOD today. Is there a culture shift? And, to what extent can Acquisition Reform or any major policy be successfully implemented?

All direct quotes are documented in italics.

Chapter 2

Acquisition Reform - Past, Present, and Future

2.1 Overview

Imagine an industry that will spend more than $175 billion and execute more than 15 million contracts per year on research and development, systems production, equipment, and services. At the same time, this industry develops and produces the most sought after weapon systems in the world. No corporation exists today which even approaches this magnitude of business, involving such numerous transactions and expenditures.

Few other activities press the limits of existing engineering and technology innovation while facing some unique hurdles: budgets are set many years in advance; time from program conception to production is very long and; spending is used as a political platform. These hurdles force the programs to constantly work ahead of technology, creating high uncertainty. Speculating about future technologies, politics, research and development expenditures, alternative products or methods in the event technology is unavailable at time of production, are all uncertainty factors. These uncertainties, both internal and external, affect the entire industry and the methods of conducting business.

In an industry this complex, it is inevitable that inefficiencies in procurement processes will exist. The sheer size of the industry, number of employees and magnitude of contracts will lead to errors and inadequate mechanisms involving procurement. Even if a 99% efficiency ratio exists, 1% error will be huge in terms of dollars and system inefficiencies, and one that may not be acceptable. Because the industry is the U.S. Department of Defense, these errors do not go unnoticed.

The Department of Defense procurement processes have been under scrutiny for decades and are perhaps the most studied aspect of government activity. The process has undergone many changes over time and numerous reform measures have been initiated intending to reduce the inefficiencies and significantly improve the process. To understand the situation we face today in Acquisition Reform, it is beneficial to look at the history of the procurement process. Determining and identifying critical lessons from the past, we can hopefully avoid future mistakes and make speedier progress towards today’s goals.

2.2 The Defense Acquisition Process Defined

Today's goals, similar to those of past decades, are to maximize production quality while minimizing cost. A simple idea. The acquisition process too, seems simple enough. There is a logical development process representing accomplishment of a specific task or group of tasks. This process can be represented in many ways but the authors have chosen to adopt the overview presented in figure 2.1[1].

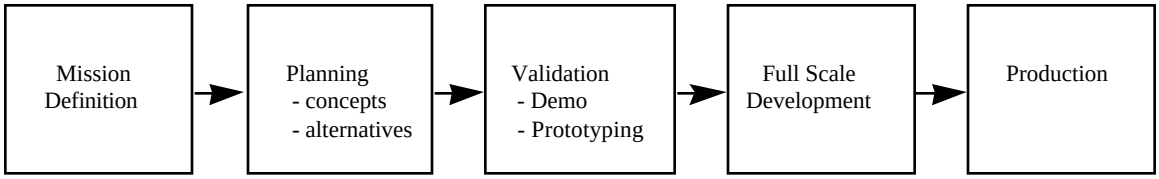

Figure 2.1. The Acquisition Process

The above diagram shows that the mission statement initiates the overall acquisition cycle at the Department of Defense. This is perhaps the most troublesome area. Without clear definition of the scope and objectives, unnecessary and unwarranted requirements can be built into the system producing over-runs in schedule, system requirements and cost. This first step normally comes from the executive branch of the government and is, traditionally, the President's mission on national defense. This Presidential guidance is typically translated by the Department of Defense into more specific operational objectives. It is these objectives then that are reviewed in the planning stage to ensure understanding of the mission, determine its feasibility, and analyze alternative methods.

Once the planning phase is complete, prototypes and demonstrations are developed in order to better assess the validity of the product. This is the design step that can usually make or break a non-government program. If the demonstrated product is deemed a failure at this point, industry will either start over or scrap the project. In government, we tend to move on to the next step, full scale development. Once a program is through the validation stage, it is very difficult to justify canceling the program due to the enormous costs already incurred. We need to remember the sheer size and cost of the systems the DOD is building.

Finally, after the full scale development phase, we have production. The number of production units varies over historical periods. History will show the number of systems built in the early years of the DOD were greater. This was a time when value was the more important driving factor and cost played a minor role. Prior to the end of the Cold War, government was more concerned about what they were buying and ensuring that there was

[1] This figure was adapted from information provided in the referenced readings regarding the overall acquisition process.

high quantities of the product. The focus was on value of the product in the defense of the nation. Whereas today, cost is the driving factor and drives the number of production units down. Defense industry remains concerned over building quality products but at much lower quantity and much lower cost.

2.3 History of Acquisition Reform - The Early Years

"The acquisition mission of the Defense Department is to contract for and oversee the development and production of weapon systems and equipment on time and at a reasonable cost." [2] What is "reasonable cost"? To understand the difficulty in evaluating costs associated with the Defense Department programs, it is necessary to understand what production of a weapon system entails. In the 1950s and early 1960s, Peck and Sherer's study of the weapon acquisition process[3] looked at the major products of the defense industry. These products were described as weapon systems. The term *weapon system* refers to technologically complicated entities such as missiles, submarines, or aircraft. The problem in evaluating the cost stems from the fact that a weapon system not only refers to the equipment (hardware) but also includes the software, firmware, subsystems, manufacture, and instruction needed to operate and support the weapon system. Due to the enormity and complexity of these systems, it is hard to arrive at general agreement on what is and is not included in a cost estimate. Different organizations, preparing cost estimates on the same weapon system may have widely differing values. Another factor in the cost estimate of our nation's weapon systems is the fact that the Defense Department does not work alone.

Since the earliest days of our nation's existence, our military has contracted with private enterprise to supply the materials needed in both times of war and peace. There is some in-house manufacturing but the armed services has never been a self-sufficient organization.

Prior to World War II, the defense industry ran as a typical manufacturing company, emphasis was placed on simplicity, throughput and reliability of the product. During the Second World War, the procurement process worked phenomenally well, not because the system somehow managed to succeed, rather the wartime urgency encouraged relaxation of traditional regulations and concerns regarding access and accountability. Because of the stress of the time and urgency in the need for weapon systems, traditional paperwork, review cycles, signature cycles, and other routine regulations followed in the normal procurement process were waived. Defense employees were not as

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[2] J. Ronald Fox with James L. Field, The Defense Management Challenge : Weapons Acquisition, (Harvard Business School Press, 1988) pp. 9.

[3] Merton J. Peck and Fredrick M. Sherer, The Weapons Acquisition Process: An Economic Analysis, (Harvard University Press, 1962), documenting the results of an exhaustive study of defense weapon system development addressing many of the same concerns and questions posed to the Packard Commission.

concerned about accountability. They were more worried about building the systems needed any way they could. It was no longer a time when concern was on dotting the “I’s” and crossing the “T’s”. The defense industry was focused on the quick and efficient production of systems to defend our nation. This success however, was short-lived. After the Second World War, there was an expansion in the development and production of weapons and weapon-related equipment. The trend towards increased research and development spending and production of the highest technology equipment began emerging. The United States wanted to ensure that it was the eminent military power in the world.

In support of this goal, the Department of Defense (DOD) was officially established (1947). At this point in time, the culture within the defense industry was filled with pride, patriotism, and enthusiasm. The DOD was regarded as a very prestigious organization at which to be employed. The acquisition process ran with little or no interference by anyone in the DOD. Each armed service bought whatever it wanted. Military budgets were high and there was high reliance on sole-source procurement. In 1947, the only procurement regulation was the Armed Services Procurement Regulation (ASPR) which was about 125 pages of rules associated with defense purchases. The National Security Act was also passed during this time. The purpose of this Act was to provide measures to coordinate the military acquisition process between the Office of the Secretary of Defense (OSD) and the services.

In the late 1950’s, the Department of Defense Reorganization Act was enacted which authorized the Defense Secretary to assign development and production and use of the weapon systems to any military service. This act, in combination with the National Security Act of 1947 solidified the power of the OSD and delineated the lines of authority between the services and the Secretary of Defense. It provided the groundwork for the expanding role of the Secretary of Defense. Even though these regulations were enacted, it wasn’t until 1961 that we saw any obvious activity from the OSD regarding the acquisition process.

In this time period, there were a number of factors shaping the characteristics of the procurement of future weapon systems. The nation started to look at the following trends: 1) increasing constraints on resources, 2) uncertainties, 3) escalating threats, 4) difficulties controlling production costs, and 5) longer life cycles of the weapon systems in operation (Figure 2.2) These factors were having a profound effect on the acquisition process and would impact future acquisition process policies.

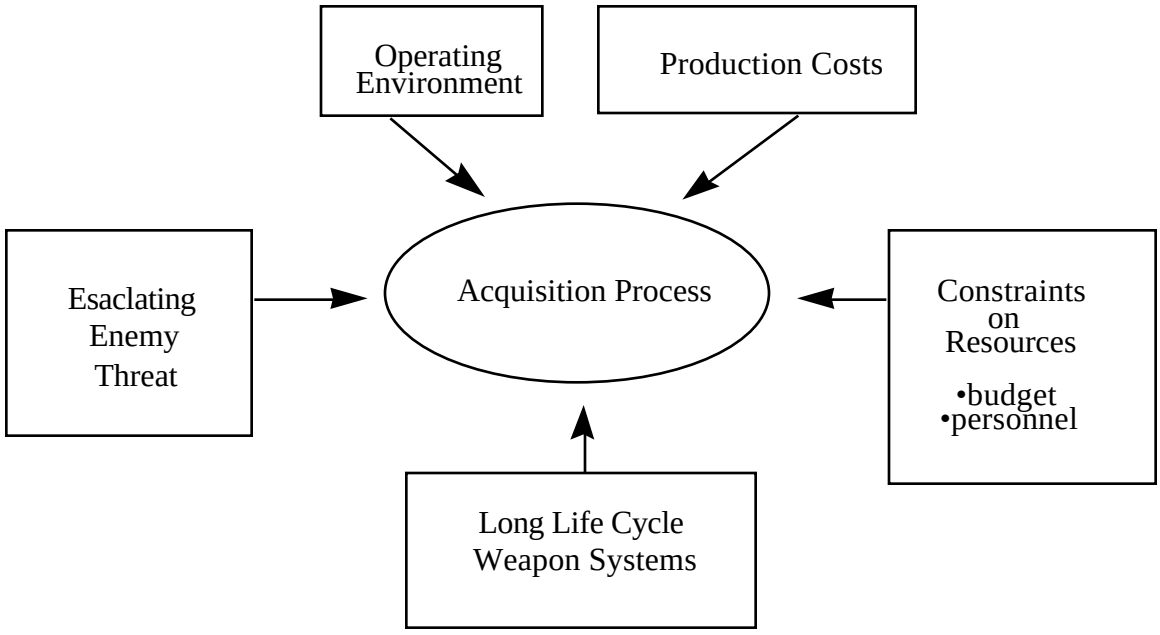

Figure 2.2. Factors affecting the Acquisition Process

2.4 Acquisition Reform - The McNamara Years

Perhaps, as a result of the events during World War II and the possible influence of a strong military on the structure and resources of society, President Eisenhower began to delve into improvements in the acquisition process. This seems to be the crucial period when the American public became aware of, and showed concern about, issues involving weapon systems procurement. This was the first seed of distrust and skepticism planted in the minds of the American public. It was at this time that Robert McNamara was appointed Secretary of Defense.

McNamara was different from past secretaries in that he brought a business school mentality to the office. He believed in active management and his core philosophy and goal was to centralize authority and planning of the DOD at the OSD level but decentralize operations. McNamara was facing a difficult situation. By the early 1960s, defense budgets were declining, technology was rapidly changing, and the American people were starting to look at the amount of money being allocated to defense and defense-related industries.

In “The Weapons Acquisition Process : An Economic Analysis” Peck provides a historical perspective and economic analysis of the acquisition process in the 1960’s. At that time, the DOD employed over 3.5 million while by comparison, the entire Bell Systems employed 0.75 million and General Motors listed 0.6 million employees. Peck notes the ponderous size of the defense establishment and the problems associated in managing organizations of this magnitude. Peck gives us perspective on the culture within the DOD at this time in history. He points us to the idea that

organizational patterns are shaped by the nature of the programs and problems peculiar to the organization. He describes the fragmentation of projects across numerous contractors and subcontractors as well as within the DOD. Since each fragment has its own organizations, cultures, and goals, we saw unusual relationships develop between the government and the contractor. At the DOD alone, although part of one large organization, each piece often behaved independently.

McNamara had the vision to recognize that the DOD needed to inject disciplines of the commercial sector into defense purchases. He saw the problems associated with such large organizations, large programs, and fragmentation of programs across DOD, contractors and subcontractors as Peck depicted in his work, spanning years of research and study of defense spending programs. The problem was that McNamara's ideas and policy changes became burdened in the governments system of paperwork, regulations, reviews, etc. as a means to change. His theory failed in practice because of the slowdown caused by excessive paperwork and rules…the antithesis of good private business practices. Plus, McNamara often utilized numbers. He would declare that certain programs would achieve specific numbers and when they failed, Congress and the American people lost confidence. The next set of numbers caused even more skepticism. So, Congress tried to move in and assist, causing further complications in the decision-making process. These situations caused tremendous upheavals in both the way the defense department had been doing business and in the culture of the defense organization. It was becoming a time of total distrust between the defense industry, the American public, and the defense industry employees. The American public was becoming involved and the defense department, as a place of employment, was losing its appeal.

"One of the most lethal effects of the McNamara revolution was that it debased the function of the program manager. The program manager, civilian or military, was once just that. He ran the project, made the decisions, sold them to a limited hierarchy, and rose or fell with the results. Now the program manager spends the bulk of his time marketing and defending his program in committee and review meetings; the management of the program is diffused into nooks and crannies in the Pentagon and into staff offices in Congress."[4]

2.5 Acquisition Reform - The Packard Commission Years

Since McNamara, numerous others have followed, trying to "fix" the problem in defense procurement. Micromanagement has removed the decision making from the manager of the project and put it into the hands of many others who do not have an overall program perspective… who cannot know the intricacies of the problems of the entire system. There is no longer one view. So, by trying to "fix" the problem, we have created new problems. In fact, after all this "fixing", a

[4] William H. Gregory, The Defense Procurement Mess, (Lexington Books, 1989)pp. 6.

procedure that once could get a weapon system into production in 3-5 years now takes 10-15 years or more.

McNaugher writes, "Reform thus far has not produced encouraging results. Indeed the House Armed Services Committee recently concluded that the bulk of the acquisition cures proposed as far back as 1948 were still being proposed in 1983 because they had never been implemented."[5] But, with each new political administration, we try again.

The McNamara era provided some formal guidelines for measuring program management performance by partitioning the program into phases. These phases became known as milestones in the next generation of reforms produced during the Reagan administration. Under this "new system", created by David Packard, then Secretary of Defense, more than just the names were changed. Packard attempted to provide a method of measurement, via these milestones, that would allow top Pentagon leaders to block programs from moving on to the next phase (milestone) if there were any major technical or financial problems. He tried to ensure that at the earliest stages of development, he or his delegate would have the means to issue formal approval or disapproval of the program. Packard was, in effect, approving the mission statement. He was asking; Why is the program being developed? What is the immediate or future threat? Are there any alternatives? It was Packard's vision that costly errors in program judgment could be erased early, thus preventing embarrassing failures and negative publicity later in development.

In theory, this scheme provides gatekeepers to the procurement process which could prevent expensive mistakes but in practice, since this process requires some time expense and little tangible evidence to prove or disprove a system's capability, blanket approval to proceed to development is often times requested and granted. This defeats the purpose and findings of the Packard Commission.

"The more time, care, and money invested at the front end of a project, the quicker and cheaper a better and more reliable end product will get into the hands of the field forces."[6] Engineers and technical employees at the DOD understand this process but often the public and the politicians don't understand why it is taking so long and costing so much to "plan" and not "produce". Reform policies have been made in earnest but many associated, yet distant groups, are looking for the "quick fix". We want immediate results. Many reform packages are the result of valiant efforts but because we do not allow the time required for successful implementation, we are unable to see the life cycle improvements the packages could produce.

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[5] Thomas L. McNaugher, New Weapons Old Politics : America's Military Procurement Muddle, (The Brookings Institute, 1989) pp. 16

[6] William H. Gregory, The Defense Procurement Mess, (Lexington Books, 1989)pp. 20

Once the Packard Commission report was made public, various government officials described what their approach for dealing with the recommendations for radical changes in acquisition processes would be. One such officer stated, "Everyone is expecting big mirrors. Packard wants to see this and wants to see that. We will show it to him with big mirrors."[7] Another tactic was employed by Deputy Secretary of Defense, William Taft, who stated that most of the Packard recommendations were already implemented; that the defense department is already practicing the initiatives denoted in the report.

These viewpoints reflect the culture within the DOD at the time. The people working in the DOD were tired of the numerous reform measures and would often say that the job was being done when in actuality, the job had not even started. The workforce saw no means of accurate measurement. The workforce was directed, from above, to follow the new rules, but how? So by 1987, the Federal Acquisition Regulation (FAR) and the Defense Acquisition Regulation (DAR) were enacted. These regulations were successors to the ASPR from the mid 1940's. From 1947 to 1987, the number of regulations concerning defense acquisition had risen from 125 pages to more than 1200 pages. Each defense program planning a weapon system must conform to these 1200+ directives. Even though the effort is evident, the sheer number of directives places a burden on government and its contractors alike.

2.6 Acquisition Reform - Defense Management Report and Beyond

For nearly four years after the Packard Commission's report was published (1986) little, if any, evidence existed that the procedures for procurement reform were being followed. The Bush administration, however, decided to push for change and announced "full implementation" of the reforms stated in the Packard Commission report. The plan was presented and called the Defense Management Report (DMR). It contained few surprises but for one. That is, major missions of acquisition and program management were turned over to a specialized group of experts. This group was to be held accountable to a relatively flat chain of command headed by a powerful Under Secretary of Defense for Acquisition, Mr. John Betti.

Under this new arrangement, managers of major programs reported directly to an executive officer who, in turn, reported to the acquisition executive (see Figure 2.3). Mr. Betti obtained full authority and was dubbed the "acquisition czar. With this influence, Mr. Betti was able to review and

[7] J. Ronald Fox with James L. Field, The Defense Management Challenge : Weapons Acquisition, (Harvard Business School Press, 1988) pp. 132.

audit any acquisition program. Mr. Cheney, Secretary of Defense at the time, announced "the goal of the Defense Management Report is not simply to cut the budget. The changes we're making should lead to a more efficient system that can run with fewer people and greater accountability, and that will result in a system that costs less to operate."[8]

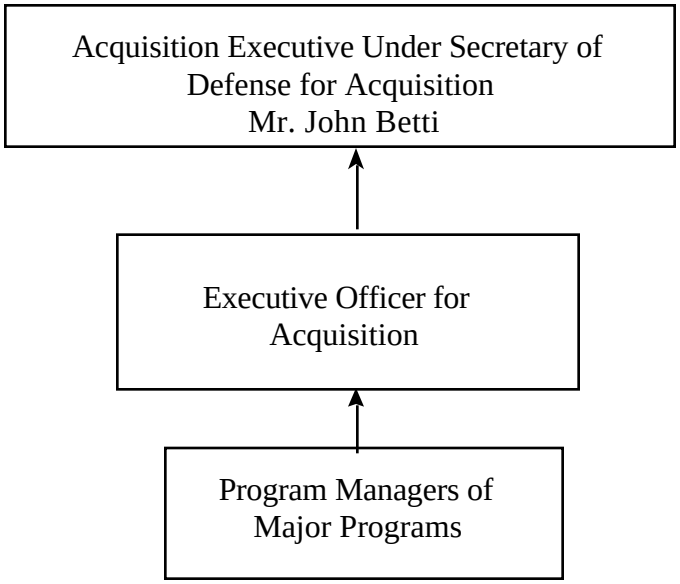

Figure 2.3. DMR Chain of Command

Today, we have much more complicated weapon systems that require more time, flexibility in design and integration capabilities but, time and flexibility are exactly what have been removed from the acquisition process. The process now forces shorter time-lines in order to decrease cost but because of this, the ability to be flexible and try new options is no longer something that will fit in the schedule. McNaugher suggests that repeated attempts at Acquisition Reform have not only failed but have made things worse[9]. While this may seem true to some, it does not mean that the recommendations made for acquisition improvement are incorrect. In fact, if the recommendations are fully implemented, there can be substantial cost and schedule savings. The problem becomes one of implementation.

Implementing the new reform policy is the key element to success. Plans and directives are important and valuable tools to bring everyone on board, to advertise the current situation, and to identify the problem and the plan of attack. But, until the plans are implemented, there can be no tangible evidence these plans are adequate. That brings us to the situation we face today. We are

[8] John T. Correll, Editor in Chief, Washington Watch : Streamlining with a Splash, Air Force Magazine, March 1990.

[9] Thomas L. McNaugher, New Weapons Old Politics : America's Military Procurement Muddle, (The Brookings Institute, 1989)

facing implementation of these reforms in actual programs in all the services. To understand the need for change, understanding that we face a new environment is imperative.

2.7 Acquisition Reform Today

Many of the reform packages address the money issues and some address organizational problems but none have targeted the culture within the DOD. "Reform is not simply, as many believe, a matter of spending less money…few members of Congress or the public understand the counterproductive incentives inherent in the present procurement and personnel systems."[10] Implementing reform in the DOD with its prevailing culture is next to impossible.

For decades, the defense industry had been able to attract and keep a high number of highly qualified technical employees. This was because the DOD was an attractive place of employment. Employees were allowed freedom to be innovative; there were few constraints on cost and little pressure over schedules, all of which formed a relaxed, yet creative atmosphere.

But, after many years of bureaucracy, excessive rules and regulations, hiring freezes, promotion freezes, lack of accountability, reduction or disappearance of rewards and incentive programs, government workers have become complacent. Because of the manner in which the defense department has conducted business over the years, a culture has developed that is wrapped around these old characteristics. The DOD workforce has been encouraged to *conform*, not *perform*. Follow the rules and avoid risk. Point the finger of blame to someone else and try not to cause any disturbance in the system. These characteristics are the opposite expected in quality commercial industries of today. The DOD, by enacting reform measures over the many years, is stating that they want to compete; to be efficient; to be a leader in production of lean weapon systems yet, the problem still is one of implementation.

Throughout the history of Acquisition Reform, numerous attempts have been made to refine and streamline the process. The enduring problems cannot be attributed to lack of ideas for reform but rather a lack of willingness to make lasting improvements.

There have been numerous reasons why reform has died in the defense department. Analysts of the history of Acquisition Reform say that DOD managers must be persuaded that their organizations will actually benefit from improved management. Other analysts say there can be no lasting improvements in the defense acquisition process until the people at the top , beginning with the chiefs of staff, mandate the changes. Analysts of the process say that the top-down approach is the only way that change will be implemented in the daily activities of the defense managers. An

[10] J. Ronald Fox with James L. Field, The Defense Management Challenge : Weapons Acquisition, (Harvard Business School Press, 1988) pp. 320.

item of agreement among the analysts is that the instrument of change must be a strong Secretary of Defense, chosen for industrial experience and knowledge of the acquisition process.
With William Perry, we have had a strong leader in the position of Secretary of Defense. We also have someone committed to achieve an efficient and effective acquisition process. Thus, the need for an intolerable federal deficit or other crisis to provide impetus to get reforms implemented should be unnecessary. In the past, without a great sense of urgency, imperatives for reform were highly unlikely

The Post-Cold War era poses a new set of political, economic, and military challenges for the United States. DOD is committed to maintaining a lean, high-tech, and agile ready-to-fight military force. Threats are changing and are unpredictable, budget cuts are severe, and the rapid pace of technology and its availability to the world presents a formidable challenge to the acquisition system. We are faced with the task of procuring state of the art technology quicker and cheaper than ever before. To meet this challenge, Secretary of Defense, William Perry, has designated Acquisition Reform as a top priority. He outlined the following requirements for reform:

- "Maintain its technological superiority and a strong, globally competitive National industrial base that can support the Nation's future defense needs, by being able to :
- Rapidly purchase commercial and other state-of-art products and technology from reliable suppliers who utilize the latest manufacturing and management techniques;
- Assist in the conversion of defense-unique companies to dual-use production;
- Aid in the transfer of military technology to the commercial sector;
- Preserve unique core capabilities.
- Reduce acquisition costs (including DOD's overhead costs) through:
    - The adoption by DOD of business processes characteristic of world-class customers and suppliers (including processes that encourage DOD's supplier to do the same); and,
    - Relief from the requirement to impose Government- unique terms and conditions on its contractors to the maximum extent practicable."[11]

Like other enterprises the DOD must adapt to meet these new requirements in the changing environment. Leaders must provide incentives to the workforce and provide an environment to foster innovative and creative ideas and behaviors. To do this, the DOD needs to focus on techniques necessary to change their mature organization.

[11] Slatkin, Nora, "The Problem – Why Change is Nececessary", (1994), pp. 2-3

Because of the complexity of the DOD acquisition system, a major overhaul can not happen overnight but it must be a swift, complete, and radical effort. With pressure from the Secretary of Defense and Congress, a Deputy Under Secretary of Defense for Acquisition Reform (DUSD(AR)) has been appointed. This appointment signifies the importance of reform to the entire acquisition community. DUSD(AR) is the focal point for development and implementation of initiatives to reform the acquisition system. DUSD(AR) chairs a DOD Acquisition Reform Senior Steering Group comprised of major stakeholders in the acquisition process. This group is responsible for identifying areas of change, establishing Process Action Teams (PAT) to recommend change, and ensure implementation of PAT results. As other DOD components continue to pursue changes in policies, practice, and regulations, DUSD(AR) is responsible for coordinating these efforts ensuring consistent reform policies are enacted.

Since 1994, the DUSD(AR) and the individual services have established several initiatives to change the acquisition system by addressing issues such as laws, regulations, and culture. The initiatives described below are DOD ‘s first steps in their attempt to transform the acquisition process.

2.8 DOD Initiatives

800 Panel Recommended Legislative Changes

This initiative reviewed the recommendations of the Section 800 Panel report (chartered by Congress in Section 800 of the National Defense Authorization Act of Fiscal year 1991). Given the complexity of the issues in the report, DOD focused primarily on two areas: 1) eliminating the impediments to acquire commercial parts by removing Government-unique legislative requirements and 2) raising the small purchase threshold amount to $100,000. Initial progress indicates a reduction in cost is occurring.

Designate pilot programs

With hopes of stimulating Acquisition Reform, DOD submitted seven pilot program candidates to Congress allowing programs to procure weapon systems using commercial practices. These pilot programs were approved by Congress. As stated by Dr. Kaminski, "Joint Direct Attack Munitions (JDAM), a pilot program, improved the cost of the modification kit originally estimated at $40,000/kit for the 40,000th unit conducting business the old way to $18,000/kit for 1st unit by implementing Acquisition Reform. The overall estimate savings of implementing reform was $2.9 billion or 50% of the original costs"[12].

Elimination of the use of government unique specifications and standards

In 1994, a PAT was established to develop an implementation plan to eliminate Government unique specifications and standards. This plan would allow private industry to propose solutions using commercial practices in hopes of cost reduction. As stated in the GAO report, "one of the biggest obstacles to implementing the reform would be the acquisition culture"[13]. The PAT identified leadership, training, resources, and incentives for desired behavior as the critical elements required to change the culture. Through massive amounts of training, the DOD is well on their way to implementing this policy on all new acquisitions as well as modifying contracts to eliminate these standards on systems still under procurement.

Revising of the Defense Acquisition policies

The DOD 5000 series is the set of directives and regulations used to govern the sprawling defense procurement empire. These regulations are the foundation of the acquisition process and have been revised based on lessons learned for over 20 years. These regulations drive the behavior of the hundreds of thousands employees that work in DOD acquisition organizations executing 100 million contracts a year. The new 5000 acquisition directives have been completely restructured to institutionalize Acquisition Reform. In general, the new regulations are more flexible and provide the program manager with less detailed guidance as represented by a reduction in page count from 900 to 160 pages. Also, the regulations focus only on the major weapon system empowering the program manager to decide how to manage the non-major acquisition program. Since the revised regulations have just been released, it is still too early to see if the culture will take advantage of the reduced requirements for major programs and flexibility given small programs.

Stand down day

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[12] Speech by Undersecretary of Defense for Acquisition and Technology, Dr. Paul G. Kaminski at the Acquisition Reform Day at Pentagon on May 31, 1996

[13] GAO report, "Acquisition Reform DOD begins Program to Reform Specifications and Standards, October 11, 1994

At operational military bases, stand down days are a time for the personnel to review flight of safety issues and provide essential training for all personnel. These days occur at least once a year at flying bases. Dr. Paul Kaminski, Under Secretary of Defense for Acquisition and Technology, felt it was time for the acquisition community to reflect on implementation of Acquisition Reform and provide specific reform training. On May 31, 1996, the entire acquisition personnel within the DOD ceased normal operations to focus on the Acquisition Reform – its past, its present, and its future. During his speech, he quoted Winston Churchill by stating " This is not the end, or even the beginning of the end, but it is , I believe, the end of the beginning"[14]. His statement reflected his opinion on where the DOD was positioned with respect to acquisition. The day was a signal to the workforce of the importance of Acquisition Reform to the success of meeting military objectives.

Deskbook

The DOD is using technology to allow all acquisition personnel to have access to a wide range of DOD service and agency acquisition information, mandatory policy, discretionary practices, and user-based wisdom. "The Deskbook is a critical part of the DOD's on-going Acquisition Reform initiative aimed at making DOD the world's smartest, most efficient, most responsive buyer of best value goods and services that meet warfighter needs. It is a visible icon of cultural change from a regulation based system to "one of minimal regulations", where the maximum amount of the information on alternative practices is provided to the acquisition official, and the acquisition official is clearly empowered to use judgment in tailoring acquisition as appropriate"[15] said DUSD (AR) Colleen Preston. Acquisition personnel can also access the system through the World Wide Web. The Deskbook has the potential for being a great asset for working level acquisition personnel. The only drawback that is evident today is the fact that the culture may not be ready to use this tool for advice in their day-day to job.

2.9 Service Initiatives

With the steering group focusing on laws and regulations, each service acquisition executive has established a plan to reform the business practices and cultures of their

[14]Speech by Undersecretary of Defense for Acquisition and Technology, Dr. Paul G. Kaminski at the Acquisition Reform Day at Pentagon on May 31, 1996

[15] Deskbook News Release—Memorandum for Public Release: No 172-96, (1996)

organization to meet the DOD initiatives outlined by Secretary of Defense. Examples of the specific initiatives within the Air Force and Navy are provided below:

Air Force Acquisition Reform

In the Air Force acquisition community, Acquisition Reform comes in the form of Lightning Bolts. Even though the pilot programs were demonstrating success, there was no catalyst to make Acquisition Reform a reality within the work place. Thus, the *Lightning Bolts* were born. Lightning Bolts is the name associated with specific reform measures in the Air Force community that are focused on that specific culture. The goal of the Lightning Bolts is to make Acquisition Reform part of the culture instead of a passing fad like so many other initiatives. Today, there are 11 Lighting Bolts, each designed to produce big changes within the process and the culture. These Lighting Bolts encompass such things as preparing solicitations and developing acquisition strategies, oversight and review of programs, manning program offices, reducing cycle time and many other activities. Air Force efforts are geared to institutionalize Acquisition Reform and make it the business practice of the future.

Navy Acquisition Reform

In January 1996, the Navy established an Acquisition Reform office chartered to be the catalyst to lead critical efforts to implement change. These efforts are focused on implementing world-class learning practices, partnering with customers, integrating the industrial base, updating acquisition policy, and improve communications, training and education. The Navy has also established a center of excellence to serve as the forum for distilling the lesson learned in past, present and future programs.

The initiatives described above are the DOD's attempt at changing the acquisition culture. Efforts appear to be moving in the right direction but obstacles still remain. Overcoming these obstacles are the issues for the future of Acquisition Reform.

2.10 Acquisition Reform - The Future

The reforms we have seen during the past few decades have often been counterproductive and provided the defense department little in the way of benefit. "Because the goals shift from year to year, and are not related to a comprehensive plan, fresh problems are likely to appear in the areas not receiving attention, prompting managers either to suppress them or impose short-term solutions."[16]

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[16] J. Ronald Fox with James L. Field, The Defense Management Challenge : Weapons Acquisition, (Harvard Business School Press, 1988) pp. 321

The acquisition process does not need a “quick fix”. The reform measures before us today are excellent models to follow but time becomes a factor. Remember, the DOD developed over a great many years. The culture developed over many years. Waving the “magic wand” and mandating change does not mean that change will occur overnight. The directives for reform today provide the groundwork for the defense department to be a more responsive buyer of the best goods and services that meet our needs in war and in peace, at the best value, for the entire life of the product. For any major change, implementation requires time. In the past, the defense department has been too quick to move to the next “solution”. If we have the best procedures and policies, reflecting the nation’s priorities, and the reforms have not met with much success, it becomes apparent that some critical piece is missing.

Change the culture……

Chapter 3

Culture of Organizations and Culture Framework

3.1 Culture Defined

Culture is defined as "A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptations and internal integration, that has worked well enough to be considered valid, therefore, to be taught to new members as a correct way to perceive, think, and feel in relation to those problems"[17]. Culture can be analyzed at several different levels as shown in Figure 3.1[18].

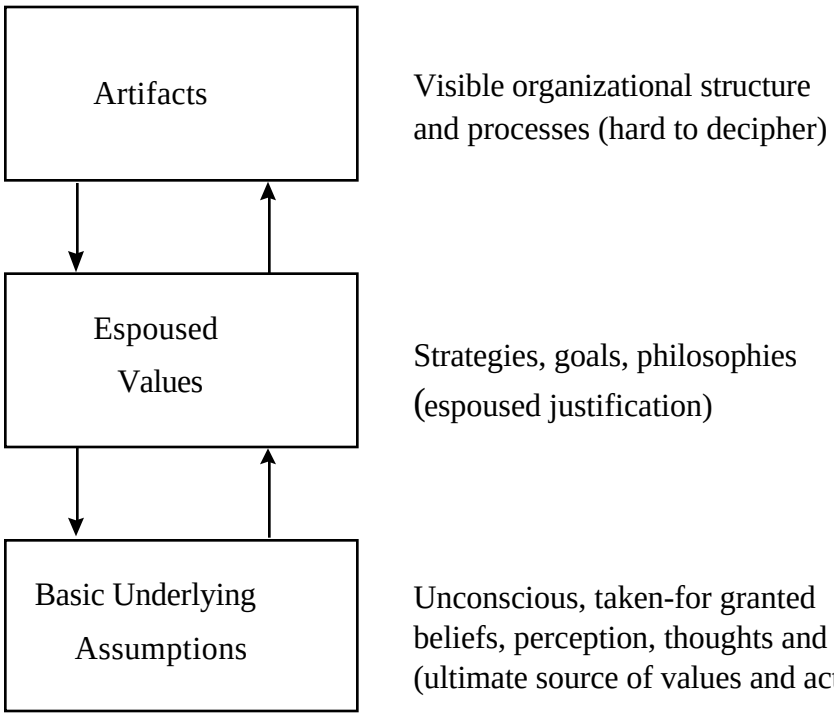

Figure 3.1. Levels of Culture

[17] Schein, Edgar, Organizational Culture and Leadership, Josey-Bass Publishers, (1992), pp. 12.
[18] Schein, Edgar, Organizational Culture and Leadership, Josey-Bass Publishers, (1992), pp. 17

Figure 3.1 provides some insight into the various levels of culture but what needs to be addressed is how culture is formed and why certain cultures in organizations persist. Schein states "the leader of an organization must first understand the fundamental distinction between a group's problems of (1) survival in and adaptation to its external environment and (2) integration of its internal processes to ensure capacity to continue, survive and adapt"[19].

To determine the issues and problems of external adaptation and survival, an analysis must be conducted that investigates the shared organizational understanding and assumptions, focusing on the following essential elements.

- Mission and Strategy- Core purpose, plan or primary task
- Goals - Objectives needed to perform the core mission
- Means - Organization structure, reward system, and authority system to obtain the goals
- Measurement - Criteria used for gauging fulfillment of goals
- Correction - Repair strategies used if goals are not realized

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3.2 External Strategies

Mission and Strategy:

Shared assumptions about the mission and strategy of the organization are critical to long-term growth and survival. Every organization, new or old, must develop a concept of what their function is in the global arena. Often, even with a clear vision statement, large organizations have numerous interpretations of this vision. These interpretations arise because the core missions often require different behaviors from each functional area. When this occurs, tensions can arise within the organization and the conflict can represent a less than united front to those outside the organization. Whether or not there is total consensus on the interpretation of the mission, the critical piece in the equation is the *shared* vision of why this mission is important to the organization overall. When this shared vision is present, the next step, understanding the goals to accomplish the core mission can be addressed.

Goals:

As noted, there may not be total consensus on the exact meaning of the organization's mission statement. It is also evident that the group may not even share the same goals. Even when there is agreement and shared vision of the mission, groups can still represent differing opinions on the best methods to achieve that mission. Most know their organization's mission but do not understand their role in the implementation of the mission… the common goals and objectives needed to make the mission a reality.

[19] A model provided to analyze the culture of orgnization.

To share common goals, the organization must speak a common language and understand and have knowledge of logical means of carrying out the mission. But, the mission is usually a broad concept or vision… an intangible element. How does the organization move from this abstract mission to concrete and precise goals?

Goals are better defined and can be reduced to smaller, achievable steps. For example, a goal could be to reduce cost by $X this quarter or reach milestone Y by the end of the month. These examples depict only two of what could be several goals. There also may be many differing goals that cross functional areas, but shared or at least aligned goals and objectives are needed to perform the core mission.

Means:

In this framework , “means” are defined as behaviors or ways the organization operates in its day-to-day business in the quest to meet its goals. Because this element deals in day-to-day behavior, there is more chance of multiple ideas as to which way goals should be attained. Even if there is some ambiguity about exact goals, there must be consensus within the organization on how any goal is attained in that organization. Is the organizational structure, division of labor, or reward system in place to facilitate reaching goals of any magnitude? A pattern of agreement must be reached if anything is to be accomplished and this pattern is reflected in many ways throughout organizations… from overall style to organizational structures to incentives and rewards systems. In developing the means by which the organization will accomplish its goals, several issues become settled. Issues that establish who will work in what area, who will be on what team, who will lead the team, and how the job will get done.

Schein states, "as cultural assumptions form around the means by which goals are to be accomplished, they will inevitably involve the internal issues of status and identity, thus highlighting the complexity of both the analysis of means and the issues surrounding efforts to change the way an organization accomplishes its goals. Consensus on the means to be used creates the behavioral regularities and many of the visible manifestations of the culture. Once these regularities and patterns are in place, they become a source of stability for members and are therefore strongly adhered to."[20]

Measurement:

Now that we are performing, how do we measure our results? If the organization does not have a shared concept of what to look for and how to evaluate outcomes, they cannot decide how to take action to repair what is broken. Some companies teach leaders to trust their own judgment as a basis for decisions, while others teach them to constantly check with a higher authority before making any decisions. Still others stress that no one should accept or trust any information unless it is backed up with hard data. Often we find that results are assessed differently by different work levels in the organization. Senior managers assess situations differently than lower level employees… defense employees assess situations differently from private industry… military employees assess situations differently from civilian employees. But, unless there is agreement across the hierarchy on how to best judge success, there will be major disagreements in overall performance and satisfaction levels that could be achieved.

How organizations measure success become a core element of its culture as consensus develops around the measurement factors. When there is no strong consensus, subcultures can form around their own, agreed to, elements. This causes conflict in the organization and can undermine the organization's ability to operate and compete successfully.

Correction:

What do organization's do when they need to make a correction in the path they have chosen. What is the process by which the organization diagnoses problems and then remedies them? If a program or procedure fails, what does the organization do?… Does it fire the leader?… Form an assessment team to analyze the result and develop a "lessons learned"?… Move away from the problem quickly and ignore it?… Move the "good" people away from the "mistake" to a new project and forget the rest of the problem? The answer to these questions form the basis of not only common corrective actions within the organization but a culture that develops around these corrections.

Schein states "The remedial or corrective strategies that an organization employs in response to the information it gathers about its performance represents an important area

[20] Schein, Edgar, Organizational Culture and Leadership, Josey-Bass Publishers, (1992), pp. 61

around which cultural assumptions form. These assumptions are likely to reveal other assumptions about mission and identity and are likely to be closely connected to the assumptions that the organization makes about its internal functioning."

For a culture, within a group or organization, to adapt to its external environment, it must be able to develop a set of internal relationships among its members. These relationships are built on a common language base, defined group boundaries, distributed power and status, friendship norms, rewards and punishments, and the ability to explain the unexplainable.

3.3 Internal Strategies

Common Language:

In order for any group or organization to succeed in its external strategies, the members of the group must be able to communicate with each other. A group cannot function without a common means of communication. Common language allows groups to interpret what is going on around them, allows definition of problems, and allows consensus to form on issues. This communication can be both verbal and non-verbal. Usually, members of an organization are from the same culture so a common language is initially available but what this group does with this language, through added non-verbal gestures or special meanings for certain words, becomes the common language of their organization. Ultimately, this common language becomes one of the strongest factors of that organizations' culture.

Group Boundaries:

How do decisions get made in the group? Who is a member of the group? What is the criteria for membership? It is essential that there is consensus around the answers to these questions for a group to function and develop. One of the most important is the perception of who is part of and who is not part of the group. This sense of belonging provides assurances to the members, gives them confidence in their roles and forms another critical portion of the groups' culture.

Power and Status:

Once group boundaries are established, the criteria for how members obtain and maintain positions of power need to be addressed. In new groups, behavior is often depicted by confusion and insecurity because everyone enters new groups wanting some ability to influence others. Some want more influential power than others and some will deserve more power than others. How and who makes the decision about who will have the power is important. Usually, leaders of the organization will have some rules established that they enforce allowing them to elect people of power. Even when this occurs, human nature often

takes over and pushes people to test this new authority or figure of power. So, a balance between power and function needs to be established and consensus in this area is critical for the group to function without hostilities and aggression towards the leaders.

Norms of Intimacy and Friendship:

Workable relationships must be established. Boundaries must be set for what is allowed behavior within the group and within the organization. Achieving consensus about how group members should interact with each other is critical for the groups performance and ability to get tasks accomplished. Some groups may agree that there should never be any intimacy or closeness by the members of the group while others would argue that closeness allows them to be more creative and comfortable with each other. Whatever norms are followed, they must be adhered to so that the group members can better manage these personal feelings within the group.

Rewards and Punishments:

What is good behavior? What constitutes excellent behavior? What could cause trouble? What could win the group praises from those outside the group? What behavior and level of performance will be tolerated? What will not be tolerated?

Every group and organization must know what behaviors and performance criteria are important and acceptable to the people in their group as well as the overall organization that encompasses the group. Consensus on what constitutes behavior that is rewarded versus behavior that is punished must be known and clearly articulated.

Explaining the Unexplained:

Unexplained things happen. When these events occur, some meaning must be given to them so the group can cope and understand. Inevitably, groups will face some situation that is not under their control and may not be under the control of their superiors. Situations may arise that are difficult to explain or justify. When this happens, the organization may rationalize the event and explain or justify how to react to the event based on past experience. It is often the case that groups will look to the past to see what they should do in the present and future. For example, if an unexplained event arises and one group member has always been able to handle and resolve the situation in the past, this member may become the one they look to for answers to all unexplained events. Through history and basic assumptions and assurances by the organization, the unexplained can be handled effectively by the group.

These internal strategies and the external strategies discussed in section 3.2, are not independent… they are interdependent. The external environment will establish some constraints on the organization but the ability to rise above these confines will only be limited by the internal characteristics of the group.

Before we can concentrate on the internal characteristics of the DOD and analyze how Acquisition Reform impacts their culture, it is necessary to discuss the overall culture of this group. What are the underlying assumptions in this organization and how did these assumptions develop?

3.4 DOD Management Philosophy

In 1994**,** the acquisition system could be "characterized as an industrial era bureaucracy in an information age"[21]. Many of the management techniques and philosophies, embedded deep in the culture, were developed by Adam Smith and Alfred Sloan. Their philosophies are based on the following:

- "Specialization, which led to economies of scale, as the most way to produce products;
- Rigid lines of authority and reporting
- Creation of rules or practices to address every contingency, if possible;
- Extensive paperwork to document that appropriate action occurred;
- Detailed design and "how-to" specification as the only ways to ensure an acceptable product, and to ensure a "level" playing field for competition;
- In-process inspections, audits and reviews as the most effective means to assure compliance with the system; and,
- Programming people to conform to established procedures ensured the systems would be predictable, workable, and safe."[22]

As a result, the process became very burdensome requiring vast amounts of time spent coordinating between each functional discipline before making decisions. No single person was held accountable for the entire process. With excessive amounts of data available, DOD hierarchy quickly became involved in second guessing and continuously revisiting management's decisions. Due to the number of people involved in the process, it was easy to point the finger up and down the chain of the organization. The underlying assumptions of the culture were to conform, document actions, and avoid risk at all costs.

Because of these assumptions, the culture within the DOD acquisition system was divided into many subcultures. These subcultures have created a behavior pattern that has persisted for many decades. A significant marshaling event would have to occur for the culture to recognize the need to change.

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[21] Slatkin, Nora, "The Problem – Why Change is Nececessary", (1994), pp. 6
[22] Slatkin, Nora, "The Problem – Why Change is Nececessary", (1994), pp. 6

3.5 Characteristics of the subcultures within the DOD

The ability to change will ultimately be accomplished by the people who make up the organization. The people have to have the critical internal characteristics as well as the external environment aligned to facilitate the change. To determine the internal characteristics of the group focused on in this study, the DOD, it is imperative that we look to events of the past. These events formed the culture and provided the initial definition of the culture in the DOD. The events of the past created the basic underlying culture in the DOD that still permeates the organization today.

The DOD has two critical ingredients that come together to play a major role in the formation of its culture. The first is the complexity of the organization, employing hundreds of thousands of acquisition personnel and managing contracts of more than $175 billion. The second critical ingredient is the management philosophies that exist in this organization and have been in existence for several decades.

The DOD acquisition organization is large and comprised of many stakeholders… Congress, Pentagon, Service Acquisition Executives, Program Executive Officer/Designated Acquisition Commander, Program Manager. Each stakeholder has direct impact on the overall culture of the organization. The organization itself, is a typical Government hierarchy with an established chain of command. One key position in the chain of command is politically appointed seats or positions that change approximately every 3-4 years due to promotion or retirement. Another key position in this chain of command is that of DOD Inspector General (IG). The IG, with IGs from each service area, is responsible for auditing the performance of the various weapon systems to ensure all current laws and regulations are being upheld. This auditing function leads to lack of responsibility and accountability among the workforce. Because the workforce knows the IGs will be doing the actual checking, they perform based on a checklist mentality; a fear of going beyond the requirements… a fear of pushing the envelope. These key positions, politically appointed positions and Inspector Generals, have helped to create an organization which espouses certain values and underlying assumptions.

Other aspects that make up the DOD culture are based on conflicts between military and civilian employees. The workforce is divided between these two camps. Each has very different personnel systems and values. Military personnel rotate assignments every 3-4 years, are promoted or dismissed over time, and are rewarded with decorations and promotions. In contrast, civilian employees tend to remain at the same location for most of their career, can remain at the same career level (both in salary and responsibility) for their entire career, and are rewarded with a possibility of a small cash bonus at end of each year

(cost of living increase). These are some of the elements that provide for a diverse set of values within the workplace.

Another dimension of culture formation is the division of the workforce into functional areas. Each function has its own set of values and underlying assumptions evolving from separate reporting channels and different promotional opportunities. One role of these functional disciplines is to provide checks and balances in the overall acquisition system. For example, the program manager, leader of the multi-functional team, is held accountable for delivering the weapon system to the field. However, the contracting officer is the only person who has authority to direct the defense contractor and allocate government funds to the contractor. This situation creates another element of diversity in the organizational culture.

The DOD organization is comprised of many diverse cultures. Because of this diversity, the assumptions made by each are not mutually compatible or consistent with each other. Leaders must recognize that cultures are a set of interlocking assumptions that must be aligned to work towards a common goal.

Chapter 4

Case Study - Navy and Air Force Programs… The Culture, The Framework Applied, and Service and Leadership Level Comparisons

4.1 Program Selection

When selecting the programs for this case study analysis, our objective was to choose programs which had implemented some of the Acquisition Reform initiatives. Several programs were identified by the Department of Defense to be pilot programs for Acquisition Reform. These programs were granted specific waivers from existing laws and regulations. But, in order to better analyze the culture within these programs and organizations, we specifically chose large, high cost programs which had not received any special waivers. By selecting these programs, we are able to gain better insight into the culture existing in most of the defense procurement organizations of today without worrying whether or not the culture change was due to the relaxation of specific laws and regulations.

Also, in the selection of these programs, the authors have the advantages associated with being members of the organizations responsible for the program. This fact provides added insights into the culture that exists in these organizations. Schein states these insights can only be gained by being part of and participating in the groups within the organizations.

4.1.1 Large Navy Program (LNP) Description

In the early 1990's, Naval defense committees were reviewing the status of existing U.S. Navy platforms. It was determined that there is a need to exploit the potential benefits of newer technology to reduce the cost of navy systems with adequate capabilities to perform… missions against all threats. By making these systems more affordable, adequate force levels can be achieved.

Once this need was established, determining the requirements of this next generation system had to be accomplished. The driving event was the cost of the previous Navy platform, the continued defense budget cutbacks, and the new Acquisition Reform policy. LNP was initiated and intended to be this affordable platform which would continue to meet fleet requirements and maintain maritime superiority. LNP would also have to maintain levels of stealth equivalent to the current platform yet do so at production costs of one-half the previous system and achieving a 30% reduction in associated development costs.

The LNP contract has been awarded and is at the forefront of the DOD Acquisition Reform initiatives and is, in fact, the first Navy system developed under these new Acquisition Reform guidelines. This program targets production of 30 systems developed in the span of 33 years at an estimated cost of $3 Billion**.** LNP has a broad range of missions which will be accomplished using advanced technology and commercial off-the-shelf (COTS) equipment to reduce acquisition and life cycle costs while retaining mission effectiveness.

4.1.2 LNP Organizational Structure, Roles, and Responsibilities

The LNP management, organizational structure and organizational roles and responsibilities assigned to complete this task begin with the Assistant Secretary of the Navy, Research, Development and Acquisition (ASN(RD&A)). This office is responsible for the acquisition authority over the LNP efforts while the Chief of Naval Operations is responsible for providing the mission, operational and training requirements as well as the program sponsor. The management of LNP is divided into four tiers; project, system, subsystem and component.

The project level's organizational structure is provided in figure 4.2.1. The organization's responsibilities include a) all LNP acquisition matters, b) design, development, and acquisition of LNP, support facilities and integrated logistics support, c) platform level design and engineering, d) evaluation of advanced Research and Development concepts for potential application to LNP, e) ship design and platform integration, and f) shipbuilding.

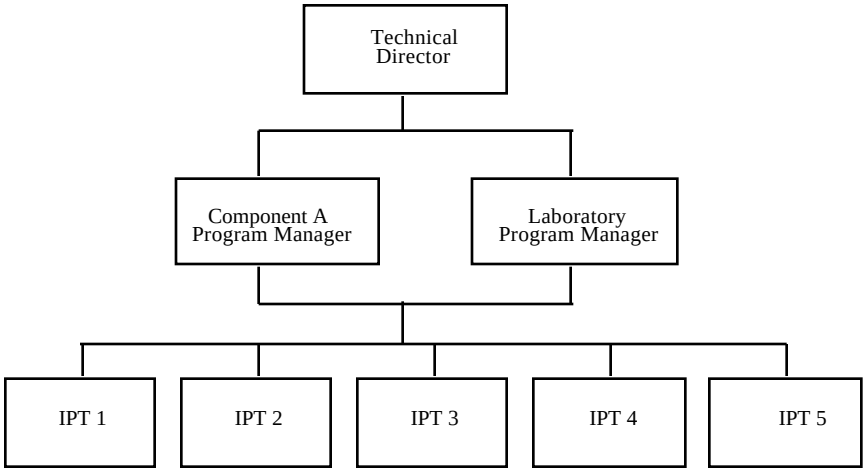

Figure 4.1.1 - LNP Project Level Management Organization

The system level organization, represented in figure 4.1.1, is responsible for overall management of LNP design, development, acquisition, and platform integration. This management level reports directly to project level leaders and the overall technical director for the LNP program. The system level management is also designated the primary field engineering center for LNP engineering, subsystem expertise, concept design, and tradeoffs,

demonstrations and test and evaluation. They are also responsible as the system platform integrator which includes providing platform engineering, integration, and test and evaluation services to the subsystem levels.

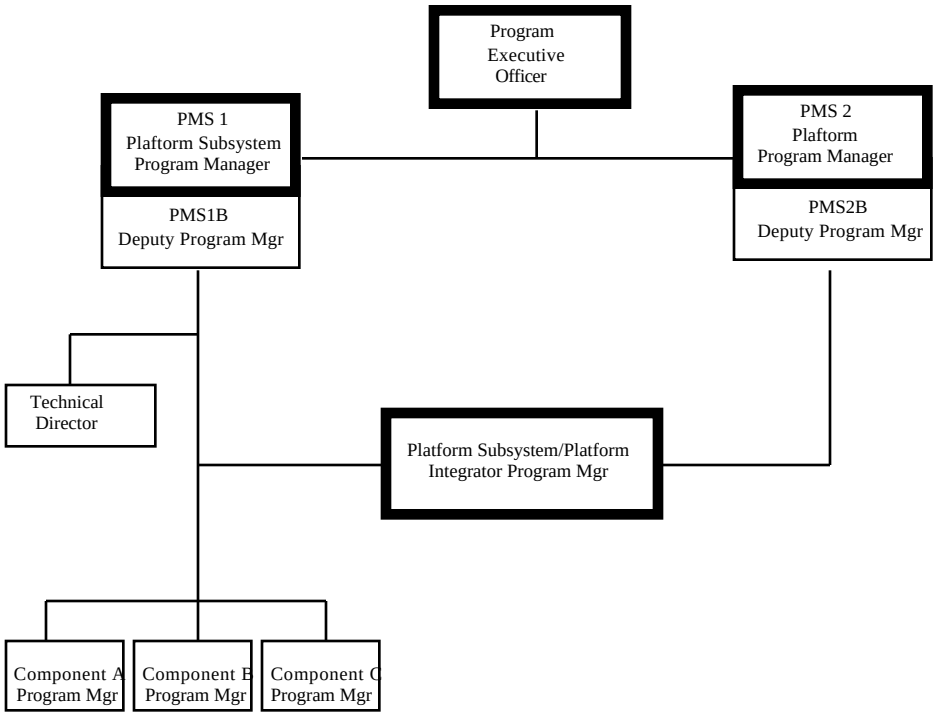

Figure 4.1.2 - LNP System Level Management Organization

The subsystem and component management tiers are responsible for the design, development, acquisition, and life cycle management of functional subsystems within LNP. These managers report to the system level managers and work together closely with system level advisors to mitigate risks associated with procurement, acquisition, and financial matters to ensure the system and subsystem activities are clearly understood.

The major roles denoted in Figures 4.1.1 and 4.1.2 and emphasized throughout the case study are defined as follows:

Program Manager: The program manager is the integrated product team leader responsible for managing overall technical, cost, and schedule performance of the program to ensure the end users needs are met. The integrated product team leader reports to a Program Director. LNP has program managers representing the sponsor, government laboratory, and contractor.

Engineers: The engineering expertise is provided by an internal Navy Research and Development facility. The engineers are responsible to ensure the system will meet the operational needs. These engineers are integrated product team leaders in their subsystem/system areas of expertise. They report to the program manager.

Logistics: The logistics organization is responsible for ensuring that all necessary data and people are in place to repair the equipment once fielded.
Contracting: The Contracting Officer is the only person who can legally obligate the Government. The contracting officer is responsible for writing and administrating the contract. Also, the contracting officer is legally held responsible if the law is broken.

4.1.3 Large Air Force Program (LAP) Description

The LAP is DOD and Other Government Agency (OGA) joint program to provide a digital system with improved performance, reliability and safety over existing aging systems. The Air Force has been designated with the lead acquisition role. The requirement is for the procurement, installation, and support of 213 systems with an estimated value of one billion dollars. In 1994, the Air Force IPT and OGA conducted a market survey to assess industry capabilities of providing an Non-Developmental solution with a majority of the components to be COTS. Over the next year, the Air Force program office and OGA had many interactions with industry to obtain comments to the draft solicitation, Request for Proposal (RFP). Two months before release of the RFP, the program office was directed to revise the complete document to implement the Acquisition Reform initiatives, referred to as Lighting Bolts. LAP was the first to adopt the lighting bolts for a new acquisitions at the center. The RFP was released in Oct 95 with contract award in Aug 96. The offerors protested the award in Aug and GAO ruled in favor of Air Force on Dec 96.

4.1.4 LAP Organizational Structure, Roles, and Responsibilities

The LAP management, organizational structure and organizational roles and responsibilities assigned to procure this system begin with the Secretary of Air Force for Acquisition (SAF/AQ) located at the Pentagon. This office is responsible for acquisition authority over LAP efforts. The Air Force's and the other Government agencies' operational community are responsible for defining the mission for the equipment and the operational requirements required to field and support the equipment.

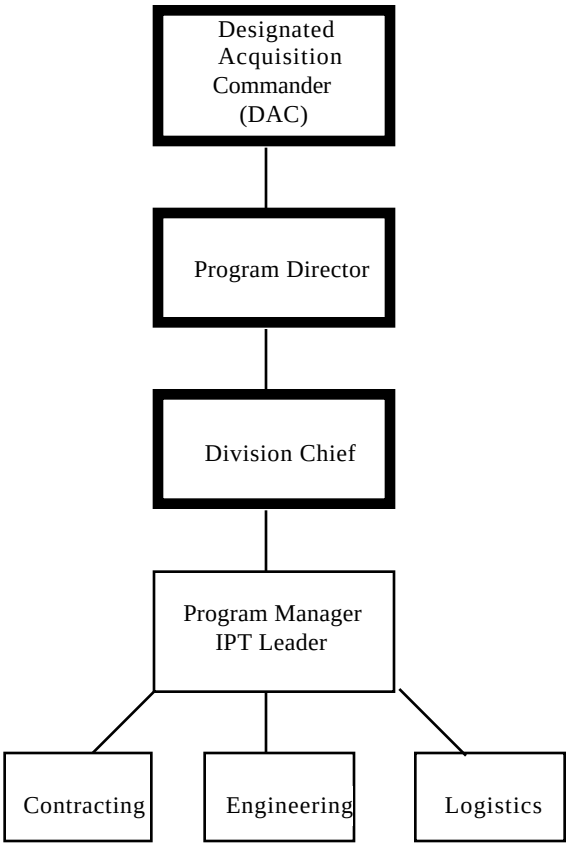

Figure 4.1.3 - LAP Project Level Organization

The program level's organization is provided in Figure 4.1.3. The Designated Acquisition Commander (DAC) which is located at the designated acquisition center is responsible for procuring the equipment. The acquisition center assigns the program to a product directorate lead by a Program Director. The LAP is one of three elements with a division that the DOD/OGA is procuring to modernize existing equipment to improve the overall mission performance. The integrated product team consists of the leader the program manager and representatives from Contracting, Engineering, and Logistics functional directorates. Each functional member on the integrated product team has a dual reporting and evaluation chain.

Each of the IPT roles are defined as follows:

Program Manager: The program manager is the integrated product team leader responsible for managing the overall technical, cost, and schedule performance of the program to ensure the end users needs are met. The integrated product team leader reports to a Division Chief.

Engineers: The engineering expertise is provided by an outside Federally Funded Research Development Center located near the acquisition center and the OGA engineers. The engineers are responsible to ensure the system will meet the operational needs.
Logistics: The logistics organization members from the Air Force and OGA are responsible for ensuring that all necessary data and people are in place to repair the equipment once fielded.
Contracting: The Contracting Officer from the Air Force is the only person who can legally obligate the Government. The contracting officer is responsible for writing and administrating the contract. Also, the contracting officer is legally held responsible if the law is broken.

4.1.5 LNP and LAP Organizations and Subcultures

The organization of LNP is distributed between military and civilian leaders and program managers. The military positions are denoted in the organizational charts as bold boxes. It is evident in the LNP that although the program has military in strong leadership roles, a vast amount of the program is led by the civilian population. This is in contrast to LAP, comprised of mixture of civilian and military personnel.

The military and civilian mix represents two distinct cultures but cultures that must work together as one. The LNP and LAP programs are also contractually awarded to a prime contractor which brings another element to this culture mix; industry. Incentives and motivations differ between these groups and lead to the formation of the various cultures.

Others that may have differing opinions, goals, and motivations are groups within the programs, such as program managers, contracts, and engineering. Ordinarily these groups reside in the same organization but have very different perspectives on the program, their role in the program, and others' role in the program. It is this differentiation in the workforce that helps to form the culture of the entire organization but it is also this differentiation that can introduce the many opinions and views about what the mission really is, what the goals are to achieve that mission, how to act on a day-to-day basis to achieve the goals, how to measure progress, and how to correct for any errors made in the process.

4.2 Culture Framework

Chapter 3 provided the framework, based on the work of Edgar H. Schein, upon which we base our analysis of the culture existing in the Navy and Air Force organizations studied. This framework allows us to determine the issues and problems of external adaptation

and survival for any organization. By investigating the shared organizational understanding and assumptions and focusing on the essential elements, a better understanding of the culture of the organizations is possible.

There are certain shared assumptions that exist as "*the correct way to define the situation*"[23]… any situation in a particular organization. The issues of adaptation and survivability of these shared assumptions specify "*the coping cycle that any system must be able to maintain in relation to its changing environment*."[24]

In our interviews, we found these essential elements of the cycle present in each program. There were shared assumptions about; Mission and Strategy, Goals, Means, Measurement, and Correction… the essential elements of the coping cycle.

Mission and Strategy:

> "… obtaining a shared understanding of core mission, primary task, manifest and latent functions…"[25]

Goals:

> "… developing a consensus on goals, as derived from the core mission…"[26]

Means:

> "…developing consensus on the means to be used to attain the goals, such as the organization structure, division of labor, reward system, and authority system…"

Measurement:

> "… developing a consensus on the criteria to be used in measuring how well the group is doing in fulfilling its goals, such as the information and control system…"[27]

Correction:

> "… developing consensus on the appropriate remedial or repair strategies to be used if goals are not being met…"[28]

4.2.1 Large Navy Program (LNP)

4.2.1.1 LNP Mission and Strategy

LNP started as a low cost alternative to the present Navy platform system. The present system was designed and developed during the Reagan years (1980s) where mission and strategy focused on building it big and being the best. LNP came along after the Reagan

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[23] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992) pp. 52.
[24] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992) pp. 52.

[25] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992)
[26] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992)
[27] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992)

years but before Acquisition Reform became a big issue. At that time, cost was becoming a driving force but the mission of the past was still evident…be big, be the best. But once the program began, Acquisition Reform became a driving factor in its development and design. Government became involved and mandated that this program would be developed and designed under Acquisition Reform policies. For the first time, this new idea, placing emphasis on low cost, became a primary part of the mindset of the Navy's world.

Defining this new mission and strategy became the first task of the program. Translating the mandate to design and build a system under Acquisition Reform guidelines became a daunting task. But before a design and build approach could be developed, consensus had to form around the meaning of Acquisition Reform… the new mission.

> *"The mission is to build a new Navy system with a fixed, low amount of money that matches current technology with Fleet needs. Using Commercial Off-The-Shelf (COTS) equipment, network systems, Integrated Product Teams (IPT) and open system architecture, LNP's strategy was to take advantage of these elements and produce an affordable system." - Program Manager*

> *"Acquisition Reform has forced us to specify WHAT we want the system to be, not HOW we want the contractor to design and build it. The mission is to remove the burden off the contractor and allow them the flexibility to design and build using commercial equipment and non-militarized equipment and specifications in order to take advantage of technology and the pace of technology." - Program Manager*

There seems to be little confusion about the mission of this program. Using Acquisition Reform policies and procedures, LNP is designing and developing a low-cost, state-of-the-art, open system that maintains Fleet standards and satisfies Fleet needs. There appears to be consensus among all groups, program management, engineering, and contracts, about the mission but differing opinions about whether or not the mission is being carried out as planned.

> *"Acquisition Reform is blurring the distinction between government and industry. There is no long term credibility. Contracts are written so open. What may cause success at the onset, can cause lots of problems later." - Program Manager*

> *"Everything is open to interpretation now. The last thing we did was take the burden off the contractor. We actually did quite the opposite. We are more involved now that ever before." - Engineering*

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[28] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992)

These comments reflect the fact that members of the organization, although in agreement that the mission is to build a better system under Acquisition Reform procedures, are skeptical of these procedures and unsure if the eventual outcome will be a success.

"Awarding the contract, under Acquisition Reform policies, is not a success…building the system will be the true measurement." - Engineering

4.2.1.2 LNP Goals

How has business changed under the new Acquisition Reform initiatives? What were the specific goals that LNP should strive towards to carry out the mission? LNP had several levels of goals at different times in the program. Initially, high level goals were set such as research and development costs will be 20% less than the past system and overall costs will be one half that of the past system. Other goals were to utilize COTS, utilize whatever is available from past systems, conduct performance and cost trade-off studies, and define top level requirements.

Overall, these goals reflect a new way of business for the DOD. These goals are requiring LNP personnel to redefine their roles in the process. In the past, LNP engineers would design and build the equipment or purchase militarized equipment but always, the government engineers would retain the rights to the drawings and the equipment and have a hands-on approach to all development. Today, COTS, one of the major system goals, is a huge challenge. LNP slated both hardware and software for COTS purchases. The old argument was that submarine systems could not use commercial equipment because it was not rugged enough. Today, we still have the problem of ensuring that the equipment will withstand the rigors of the mission but we do not have the ability to go out and purchase or build specific militarized equipment because of the high costs associated. To obtain assurance that COTS would work in a Naval environment, government went to industry early in the program. With early industry involvement, government was able to look ahead and gain some confidence that their goal of using COTS was an attainable one.

"The challenge is to be visionary and outward thinking. The program direction is top-driven and this is new but we are trying. When trying to implement things like COTS, we are apt to try to explain any and all constraints. We are skeptical and doubtful because we are used to doing business the old way. But, we are trying." - Program Manager

"With the advent of COTS and NDI we are building confidence." - Program Manager

Although these statements appear contradictory, it remains apparent they both express the same goal… use COTS. The difference is their interpretation of the difficulty in implementing this goal.

"You can't go to Radio Shack and buy this Navy system." - Engineering

So, although there is consensus around the mission, there may still be problems of how to exactly accomplish the goal, how to allocate resources, how to reach milestones, or how to save a percentage of development costs. The mission is relatively timeless while the goals must be formulated for what to do tomorrow, next week, or next month.

Using COTS is a valid goal but using COTS in a military world brings on its own set of issues. How do we handle the fact the commercial equipment is constantly being updated? What happens when the initial purchase becomes an obsolete piece of equipment and we need to update an existing Navy platform? How do we ensure that commercial equipment will be able to withstand pressure and shock requirements peculiar to Naval exercises?

"When you don't have a lot of money to throw around, it forces you to be innovative and creative." - Program Manager

LNP constructed a modular piece of equipment that would provide housing for commercial equipment. The cabinet would provide an adequate means of protection so that commercial equipment would be able to withstand shock, vibration, and pressure requirements.

This cabinet is one way that LNP was creative in its approach to attaining a goal. Although there were differing opinions on whether or not COTS would "work" in this environment, there was agreement that something would have to be done to satisfy the requirement and people came together to reach a solution.

Requirements, when designing and building a submarine and submarine combat system, are numerous. Goals can be defined in many ways and in different time horizons. LNP chose to break down the platform into smaller, manageable, definable units/systems in order to have ascertainable goals.

"They set a mark… failure if could not achieve 50% less than the past system…then they set the same mark for development costs… then allow 30% more for a new system." - Program Manager

How does LNP transform these high-level, broad goals into something that is detailed enough to be understood and managed? The way they did this was to break down each high level goal into several levels of goals that ultimately would result in reaching the top level goal. When you cannot define what it is exactly that you are trying to achieve, little progress can be made.

To make progress, LNP recognized the need to foster early participation from private industry and with aid from congress, this task was made easier. Early participation educated industry on what LNP wanted but it also educated government by opening their minds to new ideas.

Historically, the DOD organization specified, designed, and developed these systems to the lowest level of detail. Now, Acquisition Reform asked them to be more hands off and work with industry to establish new goals and methods to achieve those goals.

One way government sought to aid in the accomplishment of their goals was to conduct performance and cost trade-off studies.

> *"In the past, it used to be that you must work with the fact that the platform will travel at a certain speed. You were not allowed to question that. It was the way it was. Now, LNP was allowed to test out the consequences… cost/benefit of going a little slower or a little faster. Maybe the results would show that if you went a little slower, it would cost $Z but if you were forced to go that one little bit faster, it would cost $4xZ. This approach allowed LNP to go to the Fleet and have data to present so we could ask, what is more important to you? Let them see the data and decide what they can live with and what they cannot."- Program Manager*

Overall, the goals are providing a pathway to reach the high-level mission. The goals must be adapted to time and other constraints so that they are goals employees can identify and work towards even if it requires a new type of work or a different approach from their past work habits. Acquisition Reform has changed the way things are done on these large systems… changed the goals… changed people's tasks. But, the change was necessary.

> *"In the early years of this program, given the budget and environment today, we have to do Acquisition Reform… the problem is, they have not worked out the end goal." - Contracting*

4.2.1.3 LNP Means

How does LNP attain the goals it has set? More importantly, did LNP develop a consensus on the way these goals should be attained? The means to achieve the goals can be seen in the structure of the organization, the division of labor, the motivation and incentive system, and the reward system. Does LNP provide the environment and support systems that allow achievement? Could all levels of the workforce agree on how best to approach the fulfillment of goals? One of the major questions that needs to be answered in achieving any goal is; Is there an organization and program structure set up to facilitate this? Does the

organization and program structure facilitate problem solving? Does it foster teamwork? Who is responsible for what task?

One major change in LNP was that the system specifications normally sent out to commercial industry for source selection, were re-written to be performance specifications. Because Acquisition Reform forced LNP to state "what" they wanted, not "how" the contractor should do it, the specifications were at a much lower level of detail. The result was that there were limited responses from the contractors. Basically, all the contractors said was, "*we can do that*." It forced those on the source selection committee to "*…read their minds. Source selection became a harder task… a guessing game*."

This change in specifying requirements to a lower detail level, was also done with little regard for what was already specified for the platform itself. Requirements were specified for the system but these requirements did not integrate into the contract for the platform. The platform contract was awarded one year prior to the award of the system contract. The source selection contractors agreed they could meet the requirements in the performance specifications but there was no connection made to the platform contract.

"Many of the requirements were not compatible to the builder's plans… many items would not fit into the platform." - Industry

Because of this disconnect, even though there was a good effort to lower the requirement details on the contractor, it back-fired. What was meant to be a cost savings method could end up costing more money to fix later.

How LNP implements these reform initiatives becomes extremely important. There must be consistency across, not only all people within the DOD organization and the contractors, but also with the other contract… the platform. There are numerous activities and organizations that need to work together to complete the mission… build the platform and system under Acquisition Reform. It is understandable that the platform contract was awarded early but because of it, attitudes of ownership emerged… "*we got here first so comply with our methods and our plans*." When there needed to be cooperation there was rivalry. Another element of potential conflict is that the contractor who was awarded the system contract, was not only the lowest bidder but also invested a huge amount of their own money in this deal. This sets the stage for other potential conflicts. Not only does LNP have to worry about the system contract levying requirements that may be in direct conflict with the platform requirements, but they also should be concerned that the investment of contractor money may influence the contractor's ability to be flexible to new and innovative ideas or to new means of accomplishing the LNP goals… if these methods or ideas will affect the contractor's bottom line.

The LNP goals require teamwork. To accomplish goals for a system this complex and implement Acquisition Reform initiatives, it becomes more important than ever to be able to work together… program management, contracts, engineering, and contractor. The primary means to do this on the LNP program is through Integrated Product Teams (IPT). Teams are not new to DOD organizations but the roles within these teams have changed. In past systems, the DOD organization was the technical direction agent (TDA). Now, the role has changed to be more of a support agent.

"The organizational structure is matched to the work. This has caused anxiety at the Navy laboratory. Acquisition Reform tells us to specify only top level requirements yet the IPTs hold us responsible for cost, schedule, and performance factors. Now, the laboratory and contractor both have to sign up to do the job and both are held responsible. How can I be held responsible for the contractor's cost, schedule, and performance progress?" - Engineering

There is a lack of consensus on roles and responsibilities in these IPTs and on the impact of these teams to the overall process.

"Doing it this new way, is raising the awareness levels, the consciousness of the government people, by seeing what the contractor has to face on a daily basis." - Program Manager

"Through IPTs, we are doing the same work but now we are not the TDA. We are losing safety and surety factors associated with the work we once did as TDAs. When we were the TDA, people reviewed everything. Now, we do not have the time, money, or resources. This is presenting a higher risk." - Program Manager

"When speaking of a teaming environment, the lines of responsibility got very confused. Theoretically, the team is comprised of government and contractor people who are given the resources and the empowerment to do the job. But, in reality, there are no resources or at most inadequate resources and empowerment is not there. Politics are involved." - Engineering

"Engineer to engineer, it works great but when you go up, nothing has changed… the roadblocks are still there. The government is much more willing to listen to solutions and the contractor is open to building the system but there is no one person that is clear on how we are supposed to be doing this. Are we doing teams or are we not doing teams? If we are doing teams, there must be clean lines of teamwork. We need the resources and the training to be effectual." - Engineering

"IPTs are the worst things that came about. You call it a team but they are not teams. Where is the manager? Where is the coach? At least before, we had a coach (the manager) now we have nothing…. It's group grope." - Engineering

"People had been brought up in a certain environment and now we ask lower-level people to go in and be IPT leaders with no training. These are technically competent people but not people who have team-building or management skills." - Engineering

It is apparent there is agreement that IPTs are a means to accomplish some goals but differing opinions exist on their effectiveness and quality. Government and industry are used to doing things one way but Acquisition Reform is now changing things. Government has been the technical agent but are now being forced into more of a support role. Industry was used to government's involvement and concern over technical design and detailed requirements but now industry is left to do the design details themselves. A change in the people's attitude and function needs to take place in the organization and especially on the teams. LNP is forcing this change not only because Acquisition Reform has been mandated on the program but because overwhelmingly, people understand that teamwork is the way to accomplish the goals. LNP is also quick to understand that adapting to the changes will require some time.

Time may also be needed before LNP, and government as a whole, are willing to adopt team incentives. The government has no team incentives , only individual incentives and rewards but, even these individual incentives are few and far between. Teams are not awarded or often even recognized when accomplishments are made. Government team members see the contractor being rewarded for their team contributions so how does the government worker justify this? Often, it cannot be justified. After some time, government workers often ask, why am I trying so hard?

Yet, even without team incentives, IPTs are still the means to work together to accomplish goals set in cost, schedule, and performance. But, is everyone that has a role in cost, schedule, and performance factors an active member of the team? In this large program there are program managers, contract officers, engineers, and contractors. If the means to achieve end goals are to work together, everyone should be part of the IPT. When anyone with a role in the eventual outcome of the process is perceived to be not part of the team designated to do the job, conflicts arise.

"The contracting officer of LNP does not participate in any of the IPTs so is not involved in LNP on a daily basis enough to be totally familiar with the system. There is no noticeable change occurring in the contracting office. We are told to leave the

details alone, get out of telling the contractor how to do it, do not be so specific yet contracts still wants all of the same data… man hours, rates, cost of money, etc.. it is business as usual. Contracts must follow the same old rules. To me it seems that the contracting office has not even heard of Acquisition Reform. They apparently have no incentive to change. They still feel unable to stick their necks out because they are held liable. Nothing has changed for them. Basically it comes down to personalities. If you find someone you can work with, they may cut you a break, if not… it's still done by the book.

For example, there came a point in time where we knew we had $20M to use to detect and fix problems early on in the program in order to reduce uncertainties and future risks. The mod was awarded in July as an undefinitized proposal. We have been having problems ever since. Contracts keeps going round and around. They want more details. Program management cannot understand and get mad because we are saying…"Hey.. all we have is $20M… let's get on with it!" We cannot understand why contracts won't just cut us the money. Contracts, on the other hand, needs or wants the details because they feel their necks are on the line if they cannot account for every single nickel and dime." - Program Manager

When the contracting officer speaks, we hear a somewhat different tone but the story is very similar. Contracts realizes that program managers and engineers from both government and industry are frustrated with their apparent reluctance to give up control… to be team players. At the same time, contracting officers have not been given any relaxation in the laws and regulations that they must contractually follow even though they are also operating under the Acquisition Reform measures. Their job is to ensure that the program and ultimately, the taxpayer, receives what they pay for… what is required in the contract. They have rules to follow and they are still held accountable by law to ensure these rules are obeyed to the letter.

"I could go to their IPT meetings but what would it accomplish? I understand that there are times when they need to get a "fix" in the system quickly and I am sympathetic to this but until someone tells me that I can forgo normal procedure and not be held accountable for any follow-on trouble going around the rules causes, I must do the job I was hired to do. I have to sign on the dotted line. I have to be able to account for where the money is going." - Contracting

Although apparent disconnects exist between contracting, program management, and engineering, there appears to be understanding why each has their own opinion. The means that each uses to reach a cost goal or performance goal may differ but it appears both are still working towards accomplishment of the goals and overall mission.

Arriving at consensus on how to accomplish the mission by attaining the goals set, is a daunting task in a system this large and complex. The means established by LNP were to facilitate their day-to-day work. Because goals are often a day-to-day task, the level of consensus must be at a higher level than it is for the mission which often transcends time. Agreement needs to be reached on how best to proceed, how to specify the requirements, how to design the system, how to build the system, how to save dollars, or how to reach the next milestone.

Once agreement is reached, the group can unite to make progress towards the goals. Without agreement, there can be no strong culture development.

4.2.1.4 LNP Measurement

How do you define and measure success? LNP is cited as a success story in many Acquisition Reform publications. The program has reduced the number of requirements levied on the contractor, reduced the number of specifications, capitalized on existing platforms, re-used a large amount of existing software, utilized COTS and NDI extensively, and embraced IPTs. By all measures, LNP is a success if these goals are used as measurement criteria. But what is the measurement criteria for success in LNP? If one goes back to the overall mission of LNP, to design and develop a low-cost alternative to the present platform and system that reduces cost yet maintains Fleet readiness, we cannot measure success yet. The system is not built. Their is no product; no service provided. If we measure on cost savings up front, relaxation of requirements in past militarized systems, or code reuse, we can definitely say that LNP is a success story. Through implementation of Acquisition Reform initiatives, tremendous savings have occurred in many areas of the system. There has been early industry and Fleet involvement which should reduce design and development changes in the future, and in turn incur cost savings because what was specified was what was wanted by the Fleet.

On a general scale, it is easy to see why LNP is a success story. Measurement factors in the acquisition realm are proving that LNP has embraced the reform initiatives. But, what lies underneath? How does the organization measure success? How do the workers know when success has been achieved? Are there rewards for success or only punishments for failures?

At this point in time, LNP is part of a cost-conscious community. But how do you measure cost savings when the overall budget is so low there is little room for additional savings? One program manager stated, “There are serious cost constraints on this program therefore people are more willing to listen to solutions that work versus solutions that are “my way””. This sentiment shows the belief that people have the incentive to save dollars because they are forced to. There is only so much money and the mission is to build the

system within those constraints. But, listening to solutions and actually being able to save any money can be two different stories.

"IPTs are responsible for cost. People can't help to try to reduce cost when there are so few dollars to begin with. There is nothing to play with. It is so hard to strive for cost savings. We are just trying to do our job. We have seen innovation from top leaders on the program to get things done with little amounts of money but here, there are no motivations or incentives to try to be innovative. What would be my incentive? Job security?…Fear factor?" - Engineering

This is so because in LNP, in order to receive "outstanding" ratings on your performance review, cost savings is a requirement.

"Things are changing but I think government people are feeling more threatened than incentivized. In order to get an "outstanding" rating on your performance ratings, they have written in that you must make a 10% reduction in cost in your work package. No one will be able to make this requirement. This only serves to be a disincentive. It makes people bitter. So, this formal incentive has been developed but it is one that no one could possibly achieve on his own merits. There are no opportunities for money or job advances, so what is there? I like to think it is the intangibles… a pat on the back, "good job" every once in a while, but then again, we don't do this often enough either." -Program Manager

People will measure success as they see it. LNP is a success story to the Acquisition Reform community but some engineers feel differently.

"How can we be rewarded and recognized as a success when nothing has even been designed or built yet?" - Engineering

This is a good question. How each person looks at success may differ but the measurement should be stable and equally defined across the program and the organization.

"Acquisition Reform will not help us if the contractor underbids as they have done here. You can be very successful in your process but it is when the product is delivered that will determine the program's true success." - Program Manager

The organization should also include the contractor and its view of success. When government employees were asked if they had noticed a change in the contractor's behavior and performance due to implementation of Acquisition Reform, almost all answered in the same tone. A change was noticed but government did not appear to deem the new behavior and performance as a positive change.

"Contractors have pushed Acquisition Reform but now they act as if they do not want it. They still turn around and blame the government. Why? Maybe the government is easy to blame but, we gave them the performance specifications as is now required,

not the detailed specifications of the past, but now they are saying what we gave them is too broad… too general. Interpretation is always different for government and contractor." - Engineering

It is hard to know if changes are occurring, at least positive changes. On the surface it appears there is some movement towards change by both government and contractor. Measuring the degree of change is difficult.

"People are trying to push this Acquisition Reform as the new way to do business. The concern I have is we had such a disciplined way before that it is hard to change to something that is both unknown and undisciplined. We have to change because of economic and political reasons but I do not feel that the contractor has bought in to be responsible. I do not think Acquisition Reform puts the burden on the contractor. I still think that the government, even though meaning to rid ourselves of the burden, has only taken on more." - Program Manager

In total contrast,

"Acquisition Reform shifted the burden on to the contractor. Previously, the government sent us the statement of work (SOW), wrote the specifications, etc.… Now, the contractor does this. It may save the government money but it is costing industry. If three contractor's bid the same project, that means there will be three SOWs, there will be three different versions of specifications,… Plus, how is the government going to evaluate our specifications? They are now supposed to provide us with their objectives but we are unsure what they really want." - Industry

It is apparent that their exist disconnects between the government and the contractor on terms of measurement of progress and success at implementing Acquisition Reform. Each organization measures change and accomplishments. Each measures progress to milestones, schedules, and performance characteristics but in the broader sense of measurement, there is some disagreement. This is one element that not only created the two separate cultures, but continues to keep them separate. When consensus forms around the assumptions and criteria used to measure the organization's success, these become core traits of the organization's culture. When the government and the contractor have their own assumptions and criteria, two cultures form… one around the government's beliefs and the other around the contractor's. Aligning so that both contractor and government can measure to the same criteria and develop one stronger culture will be a true test of Acquisition Reform in the future.

4.2.1.5 LNP Correction

The final element in our culture framework requiring consensus among group members concerns what to do when problems arise and how to change course if the way headed turns out to be incorrect. LNP needs to have the ability to see if they are off course as well as the ability to determine what they should do to correct the problem. In Navy platforms, the navigation system will direct and suggest correct headings when and if the platform veers off course, but before the platform is built, how does the program know if it is off course or even if it has a problem, let alone correct for it.

Implementing Acquisition Reform for the first time has shed light on a few irregularities. Because this is the first major Navy program to implement it fully without waiver or special attention, it is also the first to identify potential problems in the Acquisition Reform framework and try to make corrections. It has and will continue to provide lessons learned and, as the development process continues will provide additional lessons on implementation issues.

Because there are several players in this acquisition, we find several processes by which problems are diagnosed and remedied. The easiest and one of the more prevalent diagnoses and remedies of the past was to blame the other guy. Government would blame the contractor for not interpreting the requirements correctly. Contractors would blame the government for their inability to specify exactly what they wanted in a clear, concise way leaving no room for interpretation. Engineers would blame program managers. Program Managers would blame top leadership. Top leadership would blame the economy or politics. There is always someone to blame when things go wrong. But, placing blame is not constructive. Pointing the finger at the next guy will not solve the problem, only shift the problem from one place to the next. This method of "problem solving" is still evident in the LNP program today.

If the initiatives of Acquisition Reform stress teamwork and cooperation, there should be common corrective strategies that the program employs in response to information it gathers about its performance. There should be no blame placed on the "other guy". There is, in theory, no "other guy". The team is supposed to be unified in its approach to fulfillment of the common mission to develop and design an affordable system satisfying the customer's needs. A unified team needs a unified culture, speaking the same language and striving towards one end-goal.

In its drive towards successful accomplishment of the LNP mission, a few problems were repeatedly mentioned by a majority of the workforce. Lack of clear direction, no clear chain of command, and budget constraint issues were the top three issues noted by all levels of the workforce. Since the government organization is very mature, it has established assumptions and corrective actions in response to past crises. This can be an advantage.

Organizations that have responded to and survived past crises, have often discovered what some of their assumptions are about the entire organization and its abilities to cope when problems arise. No one really knows what response it will make when faced with a severe crisis, but that response will, in effect, reflect important and deep rooted elements of the culture of that organization.

LNP is not the first program to discover problems with lack of clear direction or chain of command but they are the first to have to respond and provide corrective action under the guise of Acquisition Reform. Because of the very nature of contract award, LNP found itself having to deal with two separate reporting chains. There is one organization that is dual-hatted. There are two contracts, one for the platform and one for the system. Each has its own chain of command yet the platform and the system have to work together to build one complete Navy platform. The lack of a clear chain of command builds a barrier between the two organizations at the top level and also causes confusion below.

> *"The conflict between PMS1 and PMS2… Who is in charge? There needs to be a direct and clear line to who is actually the boss. This is not related to Acquisition Reform, per se, but because of implementing Acquisition Reform teams, the problem has only been expanded. Who do you go to to get a problem fixed quickly?"* - *Program Manager*

Within the engineering groups, the LNP program managers states the same sort of problems arise.

> *"We see the engineering groups defining and solving their own problems. The technical problems are being solved within the groups but when a problem arises that requires a contract change or modifications, the technical group does not know where to turn. I end up having to go and fight with contracts. We have all these great teams in place but when a problem is identified, we have to deal with contracts. Contracts is so inflexible that any changes makes for huge stumbling blocks."* - *Program Manager*

Who reports to whom is a large issue but who is actually responsible for making changes happen is the larger issue. There must be a clear path and one that is "guaranteed". The workforce needs to know that their problems will be, not only addressed, but solved. If, in the past, when a problem is reported, the reporter gets punished for "making waves", assumptions form around this behavior. Others see this and become reluctant to report any problems and often hide or mask the real problems fearing they will be the cause of trouble. If the organization, on the other hand, welcomes problems and rewards people for bringing problems to the forefront early enough so that something can be done to resolve them,

assumptions also form around this behavior. Does the LNP organization reward people who identify problems or do they punish the bearer of "bad news"?

It became evident that when there existed a leader who would stand behind the workers, the workers felt free to report and identify potential problems. If this element of trust was nonexistent, the workforce was reluctant to report any problems.

> *"If our IPT discovered a problem that we knew would require some involvement of our team leader and the program manager, we felt confident that our issues would be addressed and that our team leader would support us completely. It was only when we saw that time and time again, the team leaders and managers were not supported by their higher-ups that we became disillusioned. Maybe if we said nothing they would not get in these awkward positions. It is hard, time and time again, to see people who always go to bat for you, get shot down." - Engineering*

The workforce rallied around the new procedures and the new reform measures as long as they were supported consistently by the organization and their direct leaders. The inconsistency in behaviors causes subcultures to form. One group may have strong ties to one program manager but be leery of any leadership beyond that level. Still others may form allegiances only within the team and not have the trust and confidence to bring any problems forward. These behaviors do not always pertain to negative issues but can also be represented in positive events such as rewards or incentives. For example, when asked how the organization rewards positive events in the program, the same sentiments often were expressed. Many felt that only upper management levels were provided with rewards while the lower levels did the brunt of the work. If this situation is always true, lower level workers will be apt to contribute less and less. Why should they work so hard and never receive any reward? It was also found, that these rewards do not have to be monetary awards … a little recognition of a job well done… someone to say thank you… was often all the workforce was looking for.

> *"If we do everything right, we should get some type of mention. None of us expect money but a reward can be intangible… tell me I did a great job." - Engineering*

Organizations that recognize problems or mistakes as events to learn from, are often more likely to have a workforce that is trusting and innovative. If a worker cannot report a problem to his superior for fear of reprisal, he will not trust that superior to stand behind him in other situations. Developing corrective actions and processes are not limited to these problem areas but also apply to successful practices and positive issues. How the organizations responds to both positive and negative events represents an important area around which cultural assumptions form. "These assumptions are likely to reveal other assumptions about

mission and identity and are likely to be closely connected to the assumptions that the organization makes about its internal functioning."[29]

4.2.2 Large Air Force Program (LAP)

4.2.2.1 LAP Mission and Strategy

The mission for LAP was to acquire a piece of digital equipment to improve the operational performance, reliability, and safety over existing aging equipment. This program was a joint program between DOD and OGA with the Air Force designated as the acquisition agent. This equipment would improve the performance of day to day operations of DOD and OGA.

An IPT was formed whose specific mission was to develop a strategy to buy the piece of equipment in accordance with Acquisition Reform guidelines. At that time, Acquisition Reform initiatives were very broad in nature with limited specific implementation requirements. This forced the IPT to begin to formulate their own, new strategies to develop requirements which would be translated into the formal solicitation. The IPT developed this new strategy around a common Acquisition Reform philosophy.

"Trying to eliminate the "non-value added" portion of the source selection and overall management and execution of the program." - Program Manager

"Challenge the process" - Engineering

"We are not doing R&D… we are buying what it is…" - Program Manager

"Find a way for DOD to capitalize on new capability and modernize equipment with a lot less dollars" - Contracting

"Buy like industry" - Engineering

Two months prior to the release of the Request For Proposal (FRP), a set of documents, the Secretary of the Air Force for Acquisition mandated all new acquisitions must implement specific Acquisition Reform directives known as "Lighting Bolts". The mission, mentioned above, was now forced to change. No longer was the mission only to acquire

[29] Edgar H. Schein, Organizational Culture and Leadership, 2nd edition (Jossey-Bass Publishers, 1992) pp. 67.

equipment under the broad Acquisition Reform guidelines but now the mission became more specific. LAP's mission was to develop a strategy to comply with Lighting Bolt #1 and 2. Lighting Bolt # 1 established a centralized team to review all RFP documents to ensure the implementation of military specification and standard reform and other reform initiatives**.** Prior to the Lighting Bolts, the team had to present their acquisition strategy to the local Acquisition Strategy Panel. Now, Lighting Bolt #2 required the LAP team to present the acquisition strategy to a standing Acquisition Strategy Panel consisting of local and off site members.

LAP would be the first program at the acquisition center to implement the Lighting Bolts. As the IPT began to formulate a new strategy and rewrite the RFP documents, workers spent a lot of time trying to understand how the Lightning Bolts would be specifically applied to the program. Some members felt:

> **"***The Lightning Bolts meant a big pain in the neck. We weren't entirely appraised of what it was or what they wanted…. We were ready to release an RFP under the old way and we were directed to trash everything and go to Acquisition Reform. This cost us a lot of time… one thing Acquisition Reform is supposed to minimize…".* - Engineering
>
> *"On LAP, there is too much of a broad stroke being taken. It didn't take into account all the political ramifications. If it was solely a DOD program it would have been different but this program is being developed jointly with another government agency". - Engineering*

LAP also spent a lot of time trying to get the OGA to be a team member fully in support of the implementation of Lightning Bolts. Because of the different agencies and the way these Lightening Bolt directives came down the ranks, the OGA did not feel that they needed to be concerned. OGA thought the Lightning Bolts did not affect their organization and business practices only those of LAP. To OGA, their need for involvement or concern about the Lightning Bolts was minimal. LAP, on the other hand, had to convince OGA that teamwork would be the only way to accomplish the joint mission. Consensus had to be reached concerning implementation of the Lightning Bolts. Consensus was apparent about the mission, but once again and as noted in the LNP case study, there was noticeable discord about just how this mission would be accomplished.

4.2.2.2 LAP Goals

Several goals were established at the onset of LAP in order to better accomplish the overall mission. These goals, if implemented, would demonstrate a new way of doing business for both government agencies; business under Acquisition Reform. The most important goal of the acquisition plan was to use a Non-Developmental Item (NDI) solution. At first, OGA was very skeptical that commercial off-the-shelf (COTS) components could be integrated to satisfy all of the requirements of the program. Safety was the number one issue and concern. The agency was worried the commercial equipment's performance could jeopardize the safety of many civilians and that if the equipment was not developed specifically for their mission, they would have less confidence and control over its performance in the field. This feeling was normal since Acquisition Reform was relatively new to these government agencies. This was the first time they had to be concerned with cost constraints forcing them to find a NDI solution.

Realizing that this Air Force equipment is not a normal piece of electronics equipment, it was hard for the government to realize there could be purchasable parts.

> *"Because of the size and cost of this equipment, it was not like we could go down to our local electronics store and buy it off the shelf. This equipment was only built and deployed based on orders from specific customers around the world." - Engineering*

It was not a trivial purchase only to be used for specific military purposes but there were global aspects to the equipment allowing it to reach and serve many people outside the government and military walls. In the case of the LAP, COTS equipment would have to be slightly modified to be successfully integrated into each planned site.

Before Acquisition Reform appeared, government teams would have conducted a quick survey to determine availability of COTS equipment that could possibly satisfy their requirements. Based on limited data, the engineers would have found some requirement COTS failed to address or discovered a newer technology that they could develop which, they felt, would enhance the performance considerably. But, to meet the new goals of Acquisition Reform, this had to change. In order to change this old culture, the new team conducted a thorough market survey of companies around the world. The objective of the survey was to determine if there existed COTS equipment currently deployed or COTS equipment that could be slightly modified that would meet both agency's mandatory requirements.

OGA was reluctant to accept that the survey work would prove beneficial but begrudgingly joined in the effort. The joint LAP and OGA government teams conducted thorough technical reviews concentrating on performance of these COTS systems to determine the capacity of the industry's manufacturing facility. At the completion of the month long study, the LAP team presented the results to leadership at the two agencies. The

LAP team determined there was at least three systems in production, , that would meet all mandatory requirements and three other systems that would be available by contract award.

But, because of the initial mixed feelings that OGA had going into this effort, even with these joint recommendations, the two engineering cultures began to argue about interpretation of requirements and test results which supported proceeding with a NDI solution. OGA's engineering culture was accustomed to developing new systems and had an optimal development implementation in mind. But, since this was a joint effort, a joint agreement had to be reached. After several meetings, leadership made the decision to pursue NDI solution. For LAP to be successful in deploying this NDI solution, leadership would have to continue to battle the old culture, both internally and externally, in order to establish a new way of buying, deploying, and maintaining COTS equipment.

> *"If you are going to go COTs, you need to "shut off" these R&D -type people and "turn on" people open to new technologies." - Engineering*

> *"NDI…COTS… We are finding that there are still organizations out there that don't totally sign up to this. Organizations within our own walls. For example, the test community is a problem… They still want to test as before when we were developing and building the equipment. Even when the equipment is off the shelf and purchased as an entire unit, the test community still feels the need to test but there is no need to test… we should just be testing the interfaces." - Program Manager*

For contractors to submit NDI solution made up of COTS components to government contracts, the DOD must change its outlook on COTS and its ability to satisfy DOD requirements. Another change needed by the DOD in order to fulfill the goals set forth by Acquisition Reform initiatives concerns the definition and specification of system requirements. The DOD has developed very detailed requirement specifications for many years and in all past systems. The goals now, under the new mission, no longer require development of detailed system level specifications. This type of specification would direct the contractor "how to" design the system by requiring compliance with specific military standards versus stating "what" the government would like the contractor to develop.

In his definition of Acquisition Reform initiatives, Dr. Perry, the former Secretary of Defense, allowed for the elimination of mandatory military standards. In past systems, if problems arose with the military standard or a better method was found to complete the task, waivers had to be submitted, requesting deletion of the standard for each specific situation. The new, Acquisition Reform directive now requires the DOD office to submit a waiver if it is going to mandate a standard be used. Quite the opposite of past system development. Implementing this new way of business required a substantial change of the engineering

culture in their specification of the operational performance of the system. The directive emphasized the use of COTS and no longer stressed or required military standards. Implementing this goal would require that emphasis and reassurance be made to help swing the mindset of the engineer and the military to the fact that COTS could satisfy several military system requirements as well as, if not better than, military equipment.

For the LAP team to achieve the NDI goal, the team would have to develop a high level system requirements document to define mandatory requirements only and not design detail. This would prove a difficult task because the engineering community, used to developing detailed performance specifications, had preconceived design implementation in mind even when writing the higher level requirement specification. Since the equipment would have to be installed at many different sites, LAP team members were very skeptical that a performance specification could be written to address the installation requirements at each site. Once again, it became hard to convince the engineer that the design details would be worked out by the contractor… they no longer had to worry about the exact implementation of design but, as one engineer stated it is still hard to be convinced.

"Acquisition Reform idea is great…gives you common sense authority and although this new realm is harder, it is better. But what I worry about is how do I say this and get what I want." - Engineering

The Lightning Bolts also provided another new goal for cost reduction through yet another change in RFP document requirements. The contractor was now directed to create his own Statement of Work (SOW) and Contract Data Requirements List (CDRL) which defined the tasks and set of deliverables to meet LAP program objectives in the Request for Proposal. This goal created some confusion for government team members.

"Do we really want the contractor to define the product/system??" - Contracting

"Industry has really relied on the process and procedures that the government has laid down for years… they are used to doing business with us that way and were comfortable with this… The Lightning Bolts now said don't do the Statement of Work, do the Statement of Objectives which defines high level objectives for the program. There are no more details. Specifically, the equipment is a turn-key program. The contractor is required to build everything at the government facility. We cannot assume the contractor knows as much as we do about the technology or process." - Engineering

"The contractor now creates his own Contract Data Requirements List and Statement Of Work. The law supports the drafter of the documents so the law will be on the side

of the contractor now. For example, the legal interpretation… Acquisition Reform should have focused on changing levels of approval and user involvement not those things that hit the street, like the Statement of Work. This leaves too much open for interpretation… leads to problems." - Contracting

Even with team skepticism concerning actual benefits and this new methodology, the LAP team embraced the new concept and set out to prepare a the program objectives, referred to as the Statement of Objective, and develop evaluation criteria to be used in selecting the source.

"On the positive side, if you don't take a gamble and start something, you won't get anywhere. Acquisition Reform needs to be done…it should not take 10 years to do the job and cost should be a driving factor." - Engineering

The final goal became sticking to a tight schedule. Initially, LAP presented the required milestones and timeline for awarding the contract. The Air Force leader reviewed this original schedule and stated that he could not understand why it should take so long to award a contract. In light of this, the leader established a new goal that would award the contract without discussions in 7 months after RFP release. Team members understood what the leader was trying to do by establishing tough schedule goals as indicated by this statement:

"Absolutely time was the driving factor. If you don't push it will be so far to the right you couldn't live with it." - Engineering

However, the goal did not account for additional time for changes in culture and process that would be required for a successful implementation of the Lightning Bolts.

"leadership did not understand what was needed to be done by the workers. There was a disconnect. You were just suppose to salute to the schedule." - Engineering

One team member felt that having the contractor prepare all the documents had not been considered when leadership established this goal. The goal did not take into account the many problems that could be encountered by this new way of business and therefore was not a realistic goal. The contractor had never provided the performance specification, SOW, and CDRL as part of proposal to be captured as part of contract before and the government had never written requirement specifications to this new level of detail before either. Team members felt that trying to meet the schedule goal could cost the Government in the future.

"People do not understand why programs that cost more than $1Billion and will not even be completed until the year 2006 (i.e. 10 year plans) need to be so concerned about saving 8 days or $100K. It is absurd! Who cares? This Acquisition Reform is forcing a "haste makes waste" scenario. Flipping the contract and much of the work government used to do on the side of the contractor and then telling him to hurry up, just doesn't make sense." - Engineering

The goal, although noble, may not have taken into account all factors that would play important roles in impacting the schedule. Overall, the LAP leadership has outlined specific goals to accomplish the mission. The only question that remains is does the workforce have the means within the culture and the process to successfully implement the goals?

4.2.2.3 LAP Means

Most organizations can develop a mission and a set of goals but implementation of these elements is what is most difficult. Since LAP was the first to implement Lightning Bolts within the organization, the LAP team was looking for guidance and direction. When the Lightning Bolts were mandated, SAF/AQ staffed an office at each acquisition center to assist each program in their attempts to meet the intent of the Lightning Bolts and to facilitate the culture change that would be a necessary part if success was to be accomplished. Unfortunately since the directives were new, there were no written, and little oral procedures that this new office could provide to assist the center in the implementation of the directives. Was there any specific training given? Were there specific experts identified to assist in the implementation? LAP team members responded to these questions…

> *" No implementation plan was provided… just do it. Training??? NONE … What little they have is worth nothing. How can they train the workers when they give you no implementation plan and have no training themselves?" - Contracting*

> *"There were a number of briefings but being the 1st to do this was difficult. The Acquisition Reform office was only helpful as a "checker"." - Engineering*

> *"You can tell people to go to all the training courses in the world but implementing this is another thing. Until you buy in to the system, you don't do it." - Engineering*

Government is used to having formal directives or specific procedures to follow when implementing process and procedure changes. Over the years, teams that entered the source selection process knew exactly what was expected from each functional area. The dawning of the Lightning Bolt initiatives fostered uncertainty for LAP in areas like the new RFP development and new source selection methods that would meet the intent of Acquisition Reform. The LAP team faced the challenge to implement the Lighting Bolts. LAP contacted other programs who had recently completed source selection implementing the

Lighting Bolts to obtain their thoughts and lessons learned in the process. But, the information being discovered was being transferred person to person not by through development of an implementation plan. Because of this, when the team encountered a problem or interpretation of the guidance differed, no one really knew who should be the leader. Who were the experts?

"LAP are the first guys out of the block so when they encountered a problem, they would seek help and guidance from the "experts" but the "experts" had never done it either." - Engineering

"We had no trouble adapting to the directives but to get direction when there were questions was sorely lacking." - Engineering

Some of the team members used the lack of procedures as a license to challenge the old process and eliminate the non-value tasks while others used it as a forum for argument and to drag their heels. This conflict showed that having the same goal but little help in the means to accomplish the goal can bring about uncertainty and disagreement and cause separation of teams. Who do we follow? Who knows the right path?

Another new path that government and industry was forced to follow, or should we say lead, since no one else had done this before, was in the area of writing the requirement and performance specifications. The specification became a critical element in the implementation of the goal of a NDI solution. The engineering community had to completely rethink how to write a performance level specification without inadvertently biasing the document to reflect any pre-formed solutions the writer may have in his mind. This proved a difficult task since it totally changed the way engineers were developing documents in all their prior programs and there appeared little, if any, training on how they should best accomplish this task. Do it… but how? What means are available?

"Procedures are slowly coming now but before, we were told "go and do" How?? - that's your problem." - Engineering

" The Federally Funded Research & Development Center (FFRDC) has worked hand-in-glove with Air Force to get the information out to the people. FFRDC has their own courses to train their engineers who are the engineering expertise for the Air Force programs…" - Program Manager

With few procedures available and few people trained to write these specifications, how was the LAP team able to change from writing a detailed design and performance specification to a high level performance specification? In this program and the LNP program, we found leadership to be a key element to facilitate and motivate the workforce to

embrace the new way of thinking that would be required to successfully implement any changes. The Designated Acquisition Commander was heavily involved in building these specifications. With the OGA insisting on detailed requirements, the leader had to remain heavily involved in the process to ensure an NDI solution would still prevail. Defining the mandatory requirements in terms of performance only versus injecting military standards and other detailed requirements into the specifications was not a simple task. It required the LAP team to remain focused on the "must have" requirements of the system instead of the "wish we had" requirements. Some of the engineers indicated their difficulty with the situation.

> *" How do you say what you want in 1 page? One of the biggest difficulties is to not think of implementation when defining high level specification. But… it is good because it forces you to KNOW what you want…we want the function to satisfy requirements… functionality becomes the importance! This becomes the new paradigm. Now we care about what it does and don't worry as much how it does it." - Engineering*

> *"We have to think in a new way when preparing government documents. Now when there are no MIL STDS, it forces people to think about what they really want." - Engineering*

> *"It's hard to not think of implementation when defining high level specs" - Engineering*

The Lightning Bolts forced LAP engineers to rethink the process of specifying requirements. They discovered they were able to obtain the operational performance desired without dictating specific design details but it was a hard process. At first, even though leadership directed the LAP team only to specify the critical requirements, the first draft was over 100 pages. So, LAP leadership directed the engineers to scrap the System Requirements Document (SRD) and start over with a goal of less than 100 critical requirements in the specification.

> *" the engineering community had bought in to the new process but they are screaming and hollering all the way (especially the OGA)." - Engineering*

Due to the leadership's continued involvement, the SRD was reduced to 24 pages with 40 critical requirements. These are the requirements that must be met by the system. Now and since the contract has been awarded, everyday is a continuous challenge to keep the engineers from reverting back to their old way of managing the technical portion of the contract. Especially now that the technical portion is NDI based with integration of COTS

components at each site. All of the leaders must continually reinforce the new behavior to their employees, as indicated by this statement.

"Other Government agency get lots of frustrated designers. They are used to doing the detailed design. We have the "I would have done it like this mentality". (i.e. Government Labs syndrome… if it's not invented here, it's not worth it)" - Program Manager

The engineers must always remember to shift their thinking from design to functionality when writing or reviewing these specifications. It is imperative that leaders' involvement in the process remain strong, whether they be direct supervisors and program managers, or the top level leaders. When members of the LAP team were asked if leadership played a major role in accomplishing the goals, several responded.

"The Designated Acquisition Commander's direction was clear. I had no problems with his leadership. But when you hit the next level of leadership (program director level) we found that these guys were running scared… not risk takers… even though they espoused to be. So, you found people "interpreting" things their own way. There was a lack of leadership that would back you up. I found there were the same demands even though there was supposed to be this new reform. Leaders would still ask for the "old" stuff too." - Engineering

"To do this consistently, we need strong, consistent leadership direction… this is very important…When you find a strong leader, people will go to bat for him/her but the leader must be willing to go to bat for their team." - Engineering

"The frustrations still exist today as it did in the 1980's. In the early 80s,in part of the another Air Force Program, Acquisition Reform was alive. It's been done before it was just not called Acquisition Reform. It can be done but you need to have a strong leader behind you , in front of you, charging a path for you." - Engineering

Evident by these comments, the members believe as long as there is a strong leader they can and will change the culture or process. In the case of LAP, at each level of leadership, we found a different level of commitment. At the working level, the team had great respect and was very committed to the program manager. The program manager worked side by side with the team to implement the new way of thinking.

"The Program Manager and IPT leader was essential in being able to pull our team together. The entire RFP (request for proposal) was restructured and ready for release in 3 months. The program manager is someone who knows their job, does not micromanage, and gives people the trust/faith to do their own jobs. The problem is,

they were given orders, but the leaders did not stand up for the program manager when the going got rough." - Engineering

Above the IPT level, there were definite issues with leadership direction and leadership consistency. At the beginning, when restructuring the RFP, the Program Director directed the team to implement the necessary changes but provided no leadership support. The Program Manager was faced with the task of trying to get the whole organization to think a new way. This sometimes required fighting a battle every step of the way with little support from above.

"I found that the Program Manager was having to fight all the battles on their own. No one would support them from above. Their people supported the manager because of their hard work and participation in the work. But everyone, especially the program manager, was left to catch arrows." - Engineering

Evidently, in this case, the Program Manager's leadership abilities were instrumental in the success of the program. The strong leadership fostered a creative and innovative atmosphere within the group and allowed them to establish a new way of conducting business.

"If your Program Manager does not want to play the IPT game or any of the other Acquisition Reform initiatives, then you can't play well. Good IPT leaders directed their teams on acquisition strategy and plans. They were able to communicate. At times they almost had to be a dictator to get the team on-board but it worked. The "older" members had a hard time "giving up" their "old" methods. This was a tough job…convincing them to join up. But the strong Program Manager allowed this to happen." - Engineering

The next level of leadership played a minor role in actually assisting the team to implement the reform. As sited by one team member recalling a discussion about meeting the scheduled milestones,

"The Program Director said "just do it"…don't take leave until it's done… I don't know how but just get out there and do it." - Engineering

Even though the Program Director was the boss, the LAP team had little respect for the person in this position. During the restructuring of the RFP, this Program Director was transferred to another position within the acquisition center but outside of the LAP program. The LAP team had mixed emotions about the change. On the negative side, the Program Director had been involved in the program from the beginning and the LAP team would now have to spend a lot of time getting the new leader "up to speed" on the program so that he could make informed decisions. On the positive side, the LAP team might finally get a leader who would listen to them and be more supportive of the workforce as they implement these

changes throughout the organization. This, in fact, was the case and LAP now has the support, strength, and philosophy of a leader committed to Acquisition Reform.

Continued leadership is important in any organization but it must also be strong and effective leadership. A change in leadership in any organization can be a deterrent when trying to implement and sustain a change in the culture. Within the military organization, the problem is only exasperated by the requirement their organizations face of rotating officers to new locations every three years. This rotation adds a new dimension to the organization's culture and their assumptions about each other's role in the program and the organization.

Another leader in LAP was the Designated Acquisition Commander who, as discussed previously, played a major role in implementing Acquisition Reform changes. Without the Designated Acquisition Commander's involvement, LAP would have not been able to accomplish its goal of an NDI solution and this leader was also very adamant about assisting the team in achieving the schedule goal. But, this assistance did not come in the form of appropriate staff or authority. The LAP team only had the authority over a small part of the process yet they were held accountable for meeting the schedule.

> *"Direction was provided to do it, meaning make schedule but we were so understaffed for this gigantic task. No one would listen to us. It was hear no.... see no.... No one want to hear your problems. Just get it done but we were provided no compensation at all." - Contracting*

> *"There was no change in the number of steps I needed to perform to get my work done the change was only that I had to do in a shorter period of time and with less people." - Contracting*

The LAP team felt the Designated Acquisition Commander continuously sent mixed messages. His actions did not match his words and words only go so far. This resulted in major impacts to the schedule because the workforce was uncertain what their job was supposed to be. One team member demonstrated the point with two examples:

> *"He would decree that we should not to go into the details but then he would micromanage. He would say…let's do Acquisition Reform and only do requirements at the high level but then he would ask for everything under the sun. There was a huge inconsistency. There was also inconsistency in schedules.. the General would say "stick to this schedule" but then he would not stick to his." - Engineering*

Leadership was only one factor in the LAP team's ability to implement change. The other factor was how the IPT functioned as a team. The involvement of the team on a day to day level items was great. If this excellent teamwork did not exist, the results on LAP

would have been much different. The personalities among the team members just seemed to fit. Every team member respected each other and they developed a strong perspective that working together was the best way to get the job done. The people weren't the hindrance in trying to implement Acquisition Reform, it was the process. The process had not evolved enough to allow or facilitate many of the smaller changes and definitely not the major culture change that would be necessary. Some of the functions within the team are still in place to ensure a check and balance in the decision process. For example, the program manager is still held accountable to the DAC for the performance of the system but does not possess all the authority to complete the task. Who has the authority? The contracting officer is the only person with the authority to execute the contract and the contracting office has accountability to the taxpayer but they have no direct accountability for the performance of the overall program. This situation can cause some conflict between the program manager and the contracting officer. When asked about the relationship between program managers and contracting in general we heard conflicting stories.

> *"The people that lead, the program managers, are very impacting on this process. There was a total shift where the Program Manager is now the lead and has sole authority. This is wrong. Program Managers should lead the IPTs. Plus, why isn't contracts made part of that team too? I understand that they want to get the job done but so does contracts… we must work together. Program Management should see what contracts has to do and what they are responsible and accountable for. There is a built-in antagonism here and if we do not start to see each other's perspective, we will fail." - Contracting*
>
> In contrast,
>
> *"I understand the need for contracts to be involved and they are not excluded from our IPT meetings but it would be a constant battle over dollars. We would never get anything technical done. They fight us every step of the way." - Program manager*

The above statement was a reflection by the program manager on how business is usually done between program management and contracts but LAP did not have this conflict. In LAP the conflict never did arise because the contracting officer had great respect for and trusted the program manager immensely. The contracting officer stated "*that the LAP program manager was the best she had ever seen*". But, there was still conflict. One of the reasons for this conflict was the contracting process for billion dollar programs had not changed substantially. Therefore, the contracting community was always looked upon as "doing their own thing" when all they were actually doing was following the rules they have to abide by. If the regulations had changed or been eliminated, the contracting officer might be willing to get a little more creative in executing the process.

Being creative and innovative usually requires some sort of motivation or encouragement from the organization. Based on the difficulties faced when implementing a change in such a massive organization as the DOD, some people might ask what is their incentive or motivation to implement changes in their organization.

"You just want your program to be the best and have approval of your peers." - Contracting

"Personal motivation to do a good job" - Engineering

"The motivation is getting your paycheck and, of course, getting enjoyment out of your work" - Engineering

"Those that do make the effort, do it because it is the right thing to do. It is important to take pride in your work and feel responsible for the work you produce. These are the only motivations/incentives." - Program Manager

"Everyone had to have their own personal motivation because there is definitely no award or reward for doing a good job other than personal satisfaction and the esteem of your peers." - Engineering

As indicated by these comments, the Government has very few incentives for doing a good job other than pride of individual work and believing in the results of the overall mission. As the LAP team attempted to pioneer the implementation of Lighting Bolts within their organization, lots of people who "stood up" to do things differently got "stabbed in the back". It became a personal thing to stand by people you felt were good leaders and would stand by you. Some of the LAP team members felt leadership had a total disregard for people who do the job and did not provide any incentives.

"We never hear any good words. We always hear negative comments. Even if you make it to a milestone on time, you would hear…"well, it was still not good enough… it could have been faster…" - Contracting

During the source selection, there was an announcement of a possible civilian Reduction In Force would take place in early December. The Government rules rely mainly on years of service not necessarily performance when these events occur and since the LAP Program Manager had less than 15 years of service with the Government and the continued abuse she received over the past year trying to implement the reform changes, she was a prime candidate to accept an offer. Also, she had no promotion potential in the next year and no guarantee of being retained. There was little incentive for her to remain in the

Government. As a result, the program manager left the program 2 months before the contract was awarded. The LAP team lost their incentive because of the treatment dealt their Program Manager. It is events such as this, that predict the vast amount of work the government needs to do to ensure that they focus not only on the reform but the people who implement the reform.

> *"We all lost one very important person on this program. The program manager was told to go and do the job and you will get your GS14. They did just that and more but the next Colonel came along and wiped the slate clean. There will be no promotion. This will not happen. There were unclear, inconsistent, and false promises made… promises…promises…" - Engineering*

LAP encountered a strong culture within the Air Force, OGA, and contractor when they attempted to implement the acquisition reform philosophy. However, strong leadership and a common philosophy provided the team the capability to be successful in achieving the goals of the acquisition.

4.2.2.4 LAP Measurement

When you are the first to pioneer the implementation of Lighting Bolts, how do you measure success? Success can be measured in many ways and can be defined in many ways. The Acquisition Reform community is claiming success because they are reducing cost through the elimination of detailed specifications and Government prepared SOWs and CDRLs, the use of COTS, and the minimization of time to award a contract. The program director measures success by performance, unit cost, and schedule. The LAP team members measure success by

> *"Elimination of non-value added work and focusing on schedule and cost drivers" - Engineering*

The LAP team was very successful using those measures… elimination of non-value added work and schedule. However, some team members felt that this measurement of success was just a snapshot in time.

> *"Outsiders see it as a success because it is the first one out under Lightening Bolts. It's on schedule but underneath this is superficial criterion. We need to peel back the onion" - Contracting*

Since the life cycle of the program is so long there is still skepticism within the community on whether the ultimate goal of reducing cost will actually be achieved. As stated by one member,

"Measure it after it is built to get a true measure… did we really save anything by doing Acquisition Reform methods or did it cost more using Acquisition Reform methods?" - Engineering

In the case of the LAP, the jury is still out. After contract award, the LAP team is now struggling with concerns about what to do with the additional cost issues that are arising and the many interpretation issues.

From the viewpoint of the contractor, the Air Force's approach of providing high level objectives have left the contractors in an unusual position. The LAP contractor stated that during the selection process,

"I do not know how the government is going to evaluate these specifications…. They are now supposed to provide us with their objectives but what do they really want?" - Industry

If cost is your measurement of success, it appears the Government has done a great job transferring the cost burden of preparing the Statement of Work and CDRL from the Government to contractor. However, in the long run, it is not clear whether this is a true cost savings or if it will become more of an interpretation problem that will need to be negotiated, both for added work and added cost, during the effort.

One way to measure success is to look at whether the LAP team and the contractor have started to change their behavior in the execution of the effort. This would be a better indicator if success is something that is desired on programs in the future. The new attitudes and behaviors that are required for this effort will be required for the next program and the one after that. On LAP, when the Lightning Bolts were mandated, the contractors and government alike were unsure and unclear how serious leadership was in their pursuit of Acquisition Reform. Contractors and government were uncertain but they seemed ready and willing for change.

"The contractor is not as sure of what their job is now. They also question how serious we are about these changes… plus, they had to respond quicker with "yes we can do it". They had to respond in 30 days and they did. Maybe now they are getting uncertain about just what it is they said they could do." - Program Manager

" I think the contractor is groping, just like the rest of us... the implementers. The contractors were doing their own thing. They seem to be more in sink with Acquisition Reform than some of us. They are willing to work with us. Acquisition Reform is not really new for contractors it is just new to us so it changed our perceptions but it also changed their perceptions about how the DOD is going to do business" - Engineering

"The contractor is confused. He is getting the flexibility but struggling with it. He doesn't know what to do. Maybe we have given him to much." - Engineering

After interacting with the contractor during source selection, the government's perception is that the contractor is still unsure about what the government really wants. What, exactly is the government trying to do? The contractor is used to the government and LAP, for that matter, being heavily involved in the details of the program. Today, involvement levels are much different. Government is still involved in specifying requirements but their involvement is now at a different level, focusing on the risk areas of the program.

"I feel the high level performance specification is a positive. It allows the contractor to make a trade-off up front. I don't like frustrated designers trying to design ahead of time. Just stating what I want to do is much better than worrying about the "nits". For example, when I buy a car, I don't go check out if all the pistons are the right size, color, etc.… why should we do this for our systems?" - Engineering

The LAP team also believes in source selection contractors are sending mixed messages to the acquisition community.

"I have not noticed changes in the contractors behavior. These guys have relied on the way the government has been doing business in the past so, this is new to them too. Contractors like it the old way. Industry has not bought in to this new way. They are taking what they want form Acquisition Reform but they protest the rest." - Engineering

The contractors lobbied for change with claims that the program costs could be reduced significantly if the Government would stop micromanaging the program but now the

"Contractor seems less comfortable with this than we do. They will use the parts that are convenient for them but not the rest. They are waffling." *- Engineering*

Some of this behavior exists because there is a lack of trust, a part of government's culture for many years. Some is because of the newness of implementing the change in this large program. The program director has visited the contractor to reinforce government's position on Acquisition Reform philosophy from the top and to assure the contractor of government's intentions. Based on those interactions, the LAP team has seen some evidence that the contractor has bought in to the philosophy.

The contractor's internal measure of success is the bottom line but more importantly it is its reputation. Past performance has become a significant factor in the selection of the contractor. LAP will evaluate the contractor's performance by preparing a Contractor Performance Assessment Report (CPAR). The LAP team will look at areas such as technical

compliance, management, cost, and schedule performance. The report is put in an Air Force file for future government procurement teams to use when assessing past performance.

> *"You can work great within your group but the contractor still has to worry about getting rated in the CPAR. Even if you are doing a great job in your group, it can look like you are not making progress according to the "rules" of the CPAR… you can't go off and write the CPAR without a group being part of it." - Industry*

The CPAR is a risk item for the contractor. The contractor must be concerned with their performance and the creation of the CPAR elements against which they will be rated. They must ensure the CPAR is fair and they must be concerned with their outcome since the outcome for one contract can determine their future contracts.

The Acquisition Reform community has stated management of risk is a key criteria when implementing reform. The government no longer has the luxury to manage everything in great detail. When the contractor is allowed to prepare the contractual documents and provide a COTS solution , LAP has increased its risk. LAP has less control over the outcome. One team member believes

> *"All the risk is on the government so government leaders are taking these risks but ultimately it is the taxpayers that will pay at the end with all the misinterpretation." - Contracting*

Misinterpretation is a major issue when trying to measure success or failure. What the government may believe is clear may be very unclear to the contractor. The contractor may also think that his intentions are the best route but the government cannot see it. Years of doing business a certain way leads to the development of assumptions. These assumptions arise and persist about each others performance capabilities. Acquisition Reform has started to change the mindset of both government and contractor and for it to last the process must be continually measured to develop corrections and lessons which can be passed on to future programs.

4.2.2.5 LAP Correction

What will LAP do when faced with a major problem or a situation that requires a change in current procedure? Will the team now in place to develop the system, be able to form a consensus around the best ways to make any corrections? Will the organization facilitate any direction changes and be able to duplicate successes in the future and learn from past mistakes?

To learn from the past successes and failures, there has to be clear agreement of what is a success and what is a failure. There also needs to be consensus around how the

organization should proceed when faced with success or faced with failure. As the LAP team reflected on their implementation of the Lightning Bolts, they have identified some key areas that should be addressed when faced with future programs. A major issue for LAP was authority and accountability. The workforce felt they were not given complete authority yet they were often held accountable. There was inconsistency across these elements. For example, the Lightning Bolts required a standing Acquisition Strategy Panel be formed to develop and oversee the acquisition strategy. This panel caused tension and mistrust to arise in the program. The workers felt it was back to the old system of checks and balances.

> *"The LAP team spent months developing a strategy and then a panel of so-called experts can obliterate the entire strategy in one meeting. Who does the work and who has the authority? Either leave us alone or sit down with us and plan the acquisition strategy with the people who do the work. No mandates. It will only cost more later. We need to work together to arrive at the best strategy." - Engineering*

Arriving at the best strategy for this program was a difficult task. Some in the program refer to acquisition strategy as an art while others attempt to develop concrete strategies, a "one-size-fits-all" mentality. If treated as an art, every acquisition strategy will be different and costly. There could be no "standard" developed for all programs if acquisition strategy is thought of as art. All agree though that a common strategy or plan must be in place for Acquisition Reform measures to have a lasting impact on government business.

> *"The program director believes with the push to buy COTS solutions, the acquisition community should be able to develop a standard set of strategies and procedures to procure and manage COTS efforts. This alone, would be extremely beneficial for each program. At least there would be some sort of guidance provided." - Engineering*

This guidance could also provide some consistency between programs and a basis for commonality in procedural activities by the workforce. One LAP team member stated,

> *"There is no consistency between acquisitions. It seems the changes are only based on what you are buying. Therefore, I find this is not a consistent way of doing business. Can we do it consistently? I think so but leaders must insist on it. That is not to say we would not have the same affect as we are seeing on this program… We will not see the affect for a few years when they actually start to build the system. But, if we do not fully define or explicitly state what we want, we will get what we ask for!" - Engineering*

To define exactly what the government wants is a tough task. As in LNP, this is the first major Air Force program to implement Acquisition Reform throughout the program without special waivers or being part of the pilot program. Because it is first, it has the higher

probability of making lots of mistakes but these mistakes are going to be the platform that other programs and agencies will use to learn.

Learning is part of the process and the program has developed a "lessons learned" document that expresses the problems they encountered and how they would solve them or avoid them in future projects. These "lessons learned" are a valuable tool if they are a true reflection of the problems.

> *"There was one set of "lessons learned" that had been modified so much that the problems did not look at all like the problems I know we encountered. So they would not look too bad to the outside community, they were "massaged". This is not a true reflection of the situation and we cannot let this happen if real learning is to continue." - Program Manager*

Most felt that at least we are documenting the problems because they are also valuable as a shared method of getting information passed throughout the government and contractor's centers. It is an expected and common form of handling problems and making corrections.

When asked what the workforce would change if they were allowed to make suggestions for ways to facilitate the acquisition process, there were many common areas. Within certain groups, such as engineering, there was strong consensus on exactly what should be done in future systems. The same was found in program management groups. This is expected since each group is speaking from their own experience and directly relating their day-to-day work situations when specifying problems they encountered.

> *"Give us time to do the job. Plan and manage these acquisitions well. Don't just jump on the bandwagon because it is the newest buzz word." - Contracting*

> *"We need to have a good, strong, and effective leader who will back us up and someone who, at the same time, enforces Acquisition Reform. Acquisition Reform must be important to them in order for it to be important to us." - Engineering*

> *"Be honest and up front at all times. This will prevent mistrust. The attitudes will change if people feel they are not being lied to. If we knew the leaders were more interested in the growth and stability of the organization than in their own careers, it would make a great deal of difference to us and our level of commitment." - Engineering*

> *"We may need to go back and look at what we are really trying to do." - Engineering*

"Give the authority to the people who need it and if you want to change an established system, don't just knock down the old system without having completely defined and established this new one." - Contracting

These sentiments capture the feeling of many on the program. These sentiments also show some of the common themes discovered when LNP and LAP were studied, … mistrust, uncertainty, cultural differences, and need for a common vision.

4.3 Common Themes across the Essential Elements and Programs

LAP and LNP provide insights into the positive and negative aspects of the implementation of Acquisition Reform in large programs and in mature organizations. Common themes were discovered across the programs that affect culture formation, success of the reform initiatives, and progress towards the organizations' transformation to a leaner, efficient, and competitive organization.

Although the LAP and LNP organizations are composed of a common mixture of people, there are quite different breakdowns of groups within the organizations and different organizational structures in place. But there were also many commonalties in behavior in the group interactions. The majority of the LAP organization is made up of a mixture of military employees while LNP is chiefly comprised of civilian employees yet they still shared a common thread of discord between these two cultures in their every-day activities.

Both programs' organization structure included a military leader in high command. Under this military leader, there were civilian or military employees in positions of program manager and technical team leader. It became evident, in both programs, that leadership direction and involvement was a key element in the progression of change in the organization. Even if the top leader was not the key component or key driver in the program, if there were leaders that could drive the workforce to rally around the Acquisition Reform methods, transformation had begun. The importance of a strong leader, one who was a consistent and continuous supporter of the workforce and a driver of change, was paramount to the start of transformation.

Strong leadership also was a primary factor in the success of the IPT. A common theme across both programs was that without a strong, knowledgeable leader or manager of the IPT, IPTs began working towards different goals. Because IPTs often had inadequate resources, they began not believing they were in fact responsible and accountable for their actions. There developed differing views on their commitment and role with the contracting office and with the program in general.

These differing views were easily noted when government employees were interviewed in comparison to contractor employees on the same IPT. An overriding sentiment from the government was they were questioning whether or not the contractor had actually "bought in" to this Acquisition Reform concept. Government felt they were still doing all the work and were unsure of the contractor's level of commitment. On the other side, we found contractors stating exactly the opposite. They stated they were fully "signed up" to the Acquisition Reform initiatives and had no feelings of uncertainty about their role in the IPT and in the program.

Overall, though there was still an overriding feeling of uncertainty about the entire process and concept of Acquisition Reform in their programs, common themes continues to develop across the two programs. It was noted that both government and contractor alike still are skeptical about the reform initiatives and the eventual impact on their respective organizations. Both organizations stated the concept was great but implementation of the concept will be difficult. They feel there are little if any guidelines in place for implementing Acquisition Reform. There are numerous guidelines on reducing up-front costs and requirements but little instructions available are for the next steps in development. It was also noted that each organization feels that Acquisition Reform is going to have a different meaning and different impact on different programs. Every program is different and the workforce stated that there cannot be a "one size fits all" mentality.

The above statement is a small reflection of some of the mistrust that exists. There is uncertainty about the entire Acquisition Reform goal which further pushes the mistrust between the workforce and the Acquisition Reform community. Mistrust was also evident between contractor, government, test community, contracts, program management, and engineering. It became obvious there still exists numerous checks and balances in the system. These checks and balances lead to mistrust. If these checks and balances are not reformed at the same time, frustrating situations occur. Many government employees expressed the sentiment that they are leery the contractor actually wants this new responsibility. Government workers stated,

> *"Now we have given the reins to the contractor and not specified exactly how we want them to proceed. We, the government worker, will end up doing all the work and taking all the blame when anything goes wrong."*

These statements depict a lack of willingness to trust the contractor. As noted by many employees, the government has been doing business one way for so long that asking for change by giving up the reins to organizations that are used to doing business the old way, breeds problems.

In effect, any change initiative breeds its own set of problems. Human nature fights change. Change requires effort and commitment. It requires a common vision. When disconnects are evident, the transformation process slows. In the organizations studied here, it is evident that change had started. Because both programs are in relatively early stages of development, it will be some time before a complete analysis of Acquisition Reform and its impact to the programs can be discussed but the information gathered to this point, allows for conclusions and discussions of potential successes or failures based on the culture that exists throughout the organizations and how that culture is already changing.

Chapter 5

Common Themes… Achieving Cultural Transformation

5.1 Cultural Transformation

To achieve the goals of Acquisition Reform, the organization must embrace and recognize the need for change. The role of organizational culture in optimizing the efficiency of the acquisition system is integral to its success. This culture is the organization's assumptions about what is important, what events mean, how to react to situations, and what actions need to occur in these situations. It is critical to align the culture of the organization with the philosophies of Acquisition Reform to achieve the true benefits of the reform initiatives.

In aligning the culture of the organization the three elements of cultural analysis must be understood. Schein states that *visible artifacts* include all the factors associated with what an individual sees, hears, and feels when encountering a new group in an unfamiliar culture. In the analysis of the culture, visible artifacts also include the visible behavior and organizational processes into which the behavior is made routine. This aspect of the culture is readily observed but difficult to decipher for an outsider. Once an individual lives in the group long enough, the meanings of visible artifacts become more clear.

The second factor is *espoused values*. Espoused values are goals, philosophies, and plans of the organization that give meaning and value to its artifacts. These values become embodied in the organization's philosophy and can become a guide showing the members how to better respond to the uncertainty of uncontrollable or difficult situations. These values, if not based on prior learning, may reflect what people will say in different situations but which may be apart from what they will actually do.

The final factor, *basic assumptions*, are actions that are taken for granted and beliefs. The organization performs these without thought because they are ingrained and routine. These assumptions tend to be neither confronted nor argued and are therefore very difficult to change. If people are treated consistently in terms of these basic assumptions, they tend to behave accordingly in order to make their world more stable and predictable. As Schein states, "When a solution to a problem works repeatedly, it comes to be taken for granted."[30] People tend not to question why and follow the chosen, routine path. Veering off course often causes anxiety… anxiety that accompanies any relearning required for large change proposals like Acquisition Reform.

To better understand the impacts of Acquisition Reform on the culture of organizations and programs like LAP and LNP, it helps to look at the major obstacles to change.

5.2 Obstacles to change

As indicated by the lack of complete success in the implementation of past reform initiatives, there appears little incentive for the workforce to change. Even though several government bases have been closed, most government employees still believe there is little competition or threat to their organization's existence. Since the DOD operates without a profit and loss sheet, the workforce does not feel the pressure to meet the bottom line, feel the fear that comes with realizing their organization may cease to exist, or feel the need to take risks.

The acquisition system , like the DOD, has been risk averse for numerous decades. The system has been quick to penalize those employees who make mistakes or take risks. This type of behavior conditioned the workforce to become very conservative, strict rule followers, and self-preservationists. Now, even with the elimination of many rules through Acquisition Reform initiatives, the workforce has yet to take full advantage of the flexibility because there still exists the fear of being chastised. For example, contracting officers, governed by the 1600 page Federal Acquisition Regulation (FAR), generally continue to avoid taking any risks because of fear of penalty, protest, and – worst of all—prison. By taking risks and being innovative, this front line of the workforce worries their actions will be questioned by the lawyers, Inspector General, or even Congress. Even though the current reform initiatives espouse innovation and risk-taking, the workforce remains cautious. This cautious feeling exists and prevails because what has always been routine and ordinary work is

[30] Schein, Edgar, Organizational Culture and Leadership, 2nd edition, (Jossey-Bass Publishers), 1992

now questioned, often deleted, and sometimes replaced by new Acquisition Reform methods. Acquisition Reform says change the process but the workforce is quick to ask why.

> *"We had a disciplined way before that worked so it is hard to understand why we need to change everything now to something unknown and undisciplined."* - *Engineering*

This statement captures the concern many LAP and LNP employees expressed. It is difficult to implement change. It is even harder to change an entire culture. What has been learned over the years must be relearned. The people must be open minded and willing to listen and respond to new situations. LAP and LNP are making strides towards positive change. Elements, common to both programs, became evident in the course of this study, that either inhibit or facilitate change.

5.3 Common Elements

5.3.4 Military and Civilian Cultures

Upon first glance, there are noticeable differences between *military and civilian cultures*. Because the LAP and LNP programs involve a mix of team members from both cultures, there exists different and often opposing views and assumptions about the programs and the work needed to accomplish the program's goals. This common element can be both a positive and negative component of the change process. Learning and change can emerge from the differences.

There appear to be two major difference between the military and civilian cultures; 1) viewpoint/outlook and 2) time/commitment. From the eyes of the civilian world, military personnel bring short-term views to the program but appear more open to change. Civilian personnel seem to bring a more long-term perspective to the program but are more cautious when it comes to change. Because the military workforce is primarily on a rotation through the program, and the service for that matter, and not part of the entire life-cycle of the program, the civilians tend to think the military only look at the present-day situation and make judgment calls with a short-term perspective of the situation. The civilian workforce usually has a much longer-term viewpoint. Most civilians have been employed on the program since its inception and therefore have the history of the program to base their decisions. The other aspect of military and civilian culture differences is the military are expected to work 24 hours per day while the civilian world works 8 hours per day. Military culture does not question why which is in total contrast to the civilian world where questions and challenges are found at every turn.

" It should be easier for the military to change. They are accustomed to the salute and do attitude. The military do not question why or how, they just question when. If they are directed to do something, there are few questions as to why it is being done, there is only the question, "when do you need it?"." - Engineering

These differences can work both positively and negatively for the organization. Positively, the military always brings a fresh perspective to the program and the issues because of their rotation cycle plus, civilians can learn and benefit from the Fleet's hands-on experiences. Negatively, civilians form the assumption that if they just wait long enough, the next military rotation will have another opinion. Often, the civilians start to dismiss much of what the military are stating because they feel that when the next rotation comes through, there will be different perspectives and different directions.

> *"The military directs the civilians but with the rotation of the military, the next guy comes in with a new vision. This breeds skepticism. Why should I jump when this guys tells me to do something, when I know the next guy will be here soon enough saying something totally different." - Program Manager*

5.3.2 Integrated Product Teams

There exist different cultures between military and civilian employees but there is an another culture that gets added to the mix when IPTs are formed. A common element across the two programs is the different perspectives on roles and responsibilities of the IPT. Both programs believe that the IPT is the new way to do business but they also agree there exist different goals within the IPT members. The military members may have one notion, the civilians may also have their own opinion, and now we add a contractor's view to this uncertainty. With this comes added problems of resources, responsibility, and accountability.

> *"Now, the government, both military and civilian, and the contractor are a team. Each has to sign up to do the job and both are held responsible. Government's anxiety comes from… "How can I be held responsible for the contractor's schedule, cost, and performance progress?" These IPTs are lead by civilian and military employees but we are forced to rely more heavily on the contractor. It is hands off business now because the government is spread so thin. In past systems, there were enough government employees that, in some cases, the government representative actually ended up writing the specification for the contractor or at least worked very closely with the contractor. Today, we do not have that luxury." - Program Manager*

Because of downsizing at government installations, not only do we not have the luxury of time to become more involved in the details, but we also do not have the ability to

train the people to work effectively in teams. The government wonders if they are more liable now. They do not have the time or the resources to devote to the IPT yet they are held as responsible and accountable as the contractor who may have double or triple the resources.

> *"People had been brought up in a certain environment and now we ask lower level people to go and be the IPT leader with little or no training. We are sending technically competent people for the IPT leader roles but these people are usually not competent in team -building or management skills. These people cannot fight the contractor. They do not have the skills to be an effective team leader." - Engineering*

The positive aspect of these IPTs is that it is forcing each program to face the issues early. IPTs are not really a new concept. LNP representatives stated IPTs were in place in past programs just called a different name.

> *"We have always worked in teams but maybe this time, it was a better tool to allow for earlier problem discovery." - Engineering*

5.3.3 Contractual Documents

One of the problems IPTs discovered early in the programs was the difficulty encountered with the new concept of writing requirement specifications for the system and delivering them to the contractors. Under Acquisition Reform procedures, the government only specifies top level requirements while the contractor writes the more detailed specifications. It was discovered that even though this seems to be a logical method for the government to specify its wants without specifying in detail how the contractor should design and build it, both the contractor and the government found it to cause many problems. Government is used to writing the specifications to a certain level of detail and are also accustomed to being involved in the detailed design of the system and the contractor is used to receiving this level of specification. It was thought that this new procedure would not only save the government time and money but would also allow the contractor the freedom to be innovative in the design. What happened was quite the opposite.

> *"Acquisition Reform shifted the burden on to the contractor. Previously, the government sent the contractor a statement of work (SOW) and wrote the specifications. Now, the contractor does this. It may save the government money but it is costing industry. If you have three contractor's bidding on the same program, that is three times the effort spent writing one SOW and the other documents. This effort used to be done once by government. So, who is saving money or time?" - Industry*

While a government engineer stated,

"The last thing we did was take the burden off the contractor. We actually did quite the opposite. We are more involved than ever now." - Engineering

What both industry and government thought would be a time and cost savings method has not proven to be so. There are issues surrounding this method concerning integration and implementation because this initiative only addresses the front end. What everyone thought would be a reform measure may end up requiring more work and more money later on. Because of the lack of detail in these specifications and the fact that this is new to both government and contractor alike, the contractor is having a difficult time trying to figure out what the government really wants and the government is having difficulty staying out of the design details.

"There are vague instructions out there on how we are supposed to write these specifications. We kept trying to write these but we didn't know what went into the "right" boxes. What goes in where? How do you write these? So, we ended up going around to other programs and contracts to see how they were doing them. We found them all to be different. So, we just kept plugging… getting lots of Deficiency Reports and basically, our lesson learned on these specifications is that the government should do their own." - Industry

5.3.4 Incentives and Motivation and Drivers to Reform

Even though the specification change was meant to be a catalyst for saving time and money, the results are showing that it may cost more and require more time in the long term. In both programs, cost reductions and lack of resources drove many of these reform initiatives as well as leadership direction. Leadership direction drove the specification requirement changes. The workforce was directed to reduce the number of "shalls" to the contractor. In the short term, this reduced the workload on government, already experiencing the effects of downsizing. In the short term, it also allowed the contractor the freedom to explore options in design and development. Are these incentives?… doing less work with less people… having the ability to design "free" from specific requirements? Or is this really what the change meant to government and industry? The government ended up writing the specification as directed but then ended up having to assist the contractor in writing the detailed specifications. So, it became added work with less people, not less work with less people. Also, the freedom to be creative in design and development has created problems at the contractor because they are unsure of what government really wants. They

do not want to waste time and expense creating something that the government will not accept.

> *"Government is used to things done one way. The contractor knows this and also assumes that the government will not understand our "normal" specifications… the ones we give other industry partners, so we tend to give the government what it expects under the old way… even if we call it something else. Why should I provide something totally new that will be questioned time and again and I will have to resubmit it time and again. This seems to be a waste of time and money." - Industry*

The drivers for reform, cost savings, reduced resources, and direction are valid but driving reform and achieving reform are different. In order to achieve the reform, it would appear that incentives and motivation to do things differently must be in place. But, what are the short and long term incentives for the government and the contractor to change?

Most incentives and motivations are not apparent for either government or industry. Industry incentives and motivation seem to be based on the same profit and loss theories that were present before Acquisition Reform. The individual employees are presented with monetary awards and job promotion opportunities, in contrast to government employees who, especially today, have little or no possibility for advancement or award. The only incentives for government employees are personal pride in their jobs and respect of their peers. It was found that if the workforce had a leader that they respected and one that supported them, they would work without question for no reward other than to "please" their boss.

This was the case on LAP where the program manager for the government was a trusted and worthy leader. This program manager was "promised" promotion for their efforts by a military leader in the organization. The program manager worked hard along with the team not just directing them and possessed the ability to rally the workers. This manager was involved and dedicated and the workers would do most anything that was asked of them.

> *"What was great about our program manager was that they worked so hard. The manager never directed us and then relaxed. They were right there with us. We all knew there was a promised promotion to a higher grade for doing the work but the level of effort they gave made us try that much harder. We knew we would not get anything but we all wanted to show the manager we could do the job." - Engineering*

What happened? A rotation to a new military leader occurred and this new leader said that the promotion, promised by the past leader, would not happen. Here, a worker who had the ability to get the job done by sacrificing time and energy and being able to rally the workers, became another victim of the many disincentives that exist in the government. The program manager did their part and more. How was the manager rewarded? They were not.

This not only cost the government a valuable and most capable employee and manager but also served as a disincentive for the workers.

> *"When I saw what they did to our program manager, that was it. I gave up. Why am I working so hard? Why did the program manager work so hard and have them able to renege on their promise? We aren't looking for much. I think all government employees know that there are not the typical awards as industry has in place, but a little respect and support is usually all we want. It would be nice to hear someone say that I have done a good job instead of only speaking to me when they think I have done something wrong." - Engineering*

Sometimes, disincentives become more powerful than the incentives. Even with strong leadership direction and quality goals, the people are still the ones who must get the job done. Accomplishing the goals of Acquisition Reform must include an emphasis on incentives and motivation of the workforce. When there are no incentives or when situation arise such as that in LAP, mistrust forms and can permeate the program and the organization.

5.3.5 Mistrust

Mistrust… uncertainty… skepticism… apprehension. These terms can apply to feelings most people experience when faced with a new experience or situation. When something is new, it is human nature to question whether or not this is the right path. When the entire way the government has conducted procurements has been changed, uncertainty develops about the concept as a whole and about the individual roles of its employees in this new process.

A general feeling of skepticism is normal when facing a large change initiative but these programs face additional layers of mistrust and skepticism. Contractors do not trust the government. Government does not trust the contractor. The contracting office does not trust program management. The test community does not trust the COTS concept. Civilians do not trust the military. The military does not trust the civilians. Why? These groups have developed certain assumptions about each other and each others behavior. These assumptions have formed from past experiences and when reinforced, became part of the subculture that exists in each group.

Schein, in "Three Cultures of Management: The Key to Organizational Learning", states in every organization there exists three cultures. "*Every organization develops an internal culture based on its operational success, what I call the* operator culture*. But every organization also has, in its various functions, the designers and technocrats who drive the*

core technologies. I call this the engineering culture*; their fundamental reference group is their worldwide occupational community. Every organization also has its executive management, the CEO and his or her immediate subordinates… what I call the* executive culture. … *These three cultures are often not aligned with each other, and it is this lack of alignment that causes* the failures of organizational learning…"[31]

The culture mix found in LAP and LNP programs is comparable to the three cultures described by Schein. The associated misalignment between these groups, also discussed by Schein, is also apparent in these programs. In both of these large procurements, there exists an *executive culture* made up of the top leaders of government who mandate the changes. There is the *engineering culture* comprised of government and industry workers who are the technical experts required for designing and developing the system. Finally, there is the *operator culture* which includes the entire workforce.

Shared assumptions that develop within each of these groups become the basis for their behaviors and create their separate cultural traits. Assumptions are developed within each group about their own group and are also developed within their group but about the other groups. These assumptions often become the basis for mistrust and misalignment between the different groups.

The operator culture is based on human interaction. High levels of trust, communication, and teamwork are essential for this group to complete its work. They learn that no matter how clear the goals and mission, sometimes unpredictable events occur and they must be ready to use their skills to be innovative and creative in remedying the situations. In most organizations the operators know what needs to be done to get the job done effectively but management and incentive systems may not support their actions. As a result, many operators learn to "work around" the system.

The engineering culture has the knowledge of the technology and knows how to best use that technology. Their preoccupation is designing humans out of the system. They prefer a people free solution. They are perfectionists, safety oriented, over-designers, and quantitative thinkers.

The third culture is the executive culture which is built around the necessity to keep the organization's finances under check. They focus on finance, self-image, hierarchy, and control. Executives often lose touch with the other cultures as they rise up in the hierarchy.

These three cultures, analogous to the cultures that exist on LAP and LNP, often have a dysfunctional relationship. As noted in our research, there are many opposing views and much distrust among the different groups; program management, contractor, civilian,

[31] Schein, Edgar, "Three Cultures of Management : The Key to Organizational Learning", Slaon Management Review, Fall 1996

military, contract officers, and engineer. To create an alignment among these groups, it is necessary that a mutual understanding is developed so that they can approach a shared solution without focusing on which group has the "right" viewpoint. Most everyone agreed that there is mutual understanding that Acquisition Reform must be implemented but how to erase the skepticism it brings will be difficult.

> *"We need to be able to open people's minds to take risks. What risks will people really be willing to take? It is hard for these people to see that the piece of equipment (hardware or software) they have worked on or built for X number of years, can now be done on a laptop. It is hard for them to see the vision. They are skeptical." - Program Manager*

5.3.6 Acquisition Reform Procedures

Everyone interviewed, from military to civilian to industry, agreed that Acquisition Reform is a great concept but there remain large issues on the implementation of the reform measures.

> *"Acquisition Reform is a good policy but we need to be able to convince the people to think of it differently… take advantage of the environment… the policies. It is questioned because it comes from the top. Usually we work changes from the bottom up. We need more training than a half day session. Those are a waste of time. There is no consistent training so little learning takes place. We have a session for one day and they try to cram the stuff down your throat but who remembers that when you leave?" - Program Manager*

Remembering the information is one aspect of training but if there are no guidelines in place to learn how to implement the reform initiatives, there are additional problems. This is a prime problem found throughout our study.

> *"We know what we are supposed to do but no one can tell us how. We often do not even know who to ask. There seems to be no guidelines." - Engineering*

Because every program is different, there cannot be a "one-size-fits-all mentality but there can be procedures and lessons that future programs can refer to when they are implementing the reform initiatives. Because these programs, LAP and LNP, are the first to implement Acquisition Reform throughout their program and without special assistance or waivers, they are the test beds for discovery to determine what the positive and negative aspects of the initiatives are.

Lessons learned are developed and written but the culture does not stress the importance of the use of these lessons because of time constraints and applicability questions

to their program. Also, a major reason lessons learned are not fully utilized is a lack of leadership focus and reinforcement of these lessons. Often, the workforce and leadership move on to the next program and "forget" the lessons of the last program until such time when a problem arises.

5.3.7 A Common Vision

Presently we find disconnects between leaders, program managers, contracting officers, and engineers. There are also disconnects in the organization. It is difficult to implement Acquisition Reform in one program yet continue to conduct business in other programs without the reform measures. Consistency and commonality in leadership, direction, and implementation are desired by those interviewed and needed for long term success when changing the procurement policies of government.

Engineer, contractor, program manager and leader must work together and speak the same language. If a common vision is shared by all groups and all groups speak the same language there can be effective communications. A common vision, without common language, will not be capable of success. Analogous to industry where management, research and development, and marketing segments all need to come together to present a united front and to capture the advantages of the group versus having individual segments out doing their own thing, the defense procurement agencies must do the same.

5.4 Results of Acquisition Reform

In a recent article in Business week, even cynical industry executives are impressed by the enormous changes being made in acquisition. Matt Brislawn, vice president of contracts at Boeing Co.'s Defense & Space Group says "I have seen more progress in the past two years than my previous 32"[32] A consultant, Soloway, says "When you look at the big picture on a scale of 1 to 10, the Pentagon is at 3 or 4, so they have a long way to go"[33]… but, progress is being made. The article also eludes to the fact that most difficult, if not more intangible real reform, requires a culture change from Government and Industry. The article also likens the success of implementing culture change in the DOD as trying to change the direction of an aircraft carrier with an oar. Even though the DOD already seems to be changing course, some people are skeptical that change cannot last without a change in culture.

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[32] Carey, John, "Attention Pentagon Shoppers"; Business Week, May 27 1996
[33] Carey, John, "Attention Pentagon Shoppers"; Business Week, May 27 1996

The need for reforming the defense acquisition system is well recognized. However, Acquisition Reform initiatives have been an elusive goal for many years. The environment at the DOD is ripe for change. The DOD has started to make great strides at streamlining the buying process by cutting regulations, red tape, and paper but the human factor needs much more attention.

When government and contractor was asked what percentage of the organization has made progress towards change the answers ranged from 10% to 30%.

> *"I feel that we are about 10-15% bought into this Acquisition Reform. By this I mean a buy-in at all levels. There is reason to change but we all need to realize that reducing the workforce has not meant reducing the work. It actually increased the work and therefore more work, new way, less people can lead to chaos. This is our new challenge." - Engineering*

Through our interview process, it is apparent that the culture really has started to shift. The workforce is noticing changes both in their own behavior and that of others they work with. The question becomes, can this culture shift continue and then be sustained for years to come?

5.5 Implementing Culture Change

According to Edgar Schein, there are various techniques that can be used to attempt to change culture in a mature organization over a given time frame. Some techniques could take as long as 5 to 10 years. Creation of a parallel learning system provides alternative thinking which can be tested without disturbing other parts of the organization through various pilot programs. This technique provides a set of proven ideas that can be used as examples and can transition easily into the work place. Other techniques provide more immediate results. To turnaround an entire organization, the leader must forcefully state that present performance is unacceptable. He must decree performance will improve within a certain amount of time or the organization will cease to exist. How can any leader state that the DOD will no longer exist? What is an effective technique for this specific organization? Because depending on the crisis, the leader must choose a technique or combination of techniques that will establish this new culture within the organization.

This leader plays a major role in breaking down the old culture and establishing a new one. One of the biggest challenges facing leaders today is identifying the specific elements within the diverse subcultures that need to be changed to successfully implement the new strategies. The leader must find ways to unfreeze the culture by articulating the crisis, inducing anxiety to motivate change, and establish safe environments for creating new set of

values. When the culture has been unfrozen, the organization needs to have some mechanism to create new behaviors. The leader must be the instrument of change by behaving in accordance with this new set of assumptions … “walk the talk”.

In large organizations, sweeping, radical change is necessary for results versus an incremental approach. The incremental approach has been used extensively by the DOD since the Acquisition Reform measures were enacted. Today, the workforce is ready for change. Although the necessity for change has been forced upon the organization, the organization has begun to respond.

Chapter 6

Analysis, Conclusion, and Recommendations

The purpose of this thesis was to investigate organizational and cultural change in large, mature organizations as they proceed through major programs implementing Acquisition Reform initiatives. As indicated in earlier chapters, a framework for studying the culture of these organizations was presented based on Edgar H. Schein's work documented in "Organizational Culture and Leadership". It is through this framework and our own years of experience as members of the organizations studied, that we draw our analogies and our conclusions about the culture shift in these organizations.

6.1 Analysis

Leadership and Human Resources

Leadership's role in creating and embedding culture in a group is vital and it is this created culture that will drive and reinforce the change process needed for implementation of Acquisition Reform. It is important to recognize that even in mature organizations such as the DOD, assumptions about the organization can be traced back to the ideology and conviction of its earliest leaders. It was this leadership that proposed the initial goals of the organization which, in turn, allowed the organization to begin to act on these goals. The action of the group towards these goals, reaction to their progress and chosen pathway, and success or failure of their endeavors are part of the cultural learning process.

Rarely do leaders set out to teach their organizations specific ways to perform, act, think, or feel but their beliefs have powerful influence over the workforce's behavior. If original or early leaders have strong philosophies about how to do things, these theories get tested early and if the philosophies produce correct assumptions, the organization becomes powerful around these assumptions and its culture reflects them. This is the case with the DOD. Strong and consistent leadership goals from the early years have resulted in a mature and powerful culture that has become resistant to change. When we speak of maturity here, we do not necessarily mean the age of the organization but rather the interaction between the organization's output and the environment. The mature organization's important cultural elements are embedded in the structure and processes and become routine. This routine behavior exists because certain assumptions about the organization and its environment are firmly in place. Because of this, the organization has not had much need to challenge these assumptions… a sure sign of a mature organization.

Faced with change, such as Acquisition Reform, these strong, shared assumptions that were once the strength of the culture, can become a liability precisely because of this strength. "*Even if the assumptions are brought to consciousness, the members of the organization are likely to want to hold onto them because they justify the past and are sources of pride and self-esteem. Such assumptions operate as filters that make it difficult for key managers to understand alternative strategies for survival and renewal*."[34]

It is the ability of these key managers and leaders to see beyond past assumptions to clear the path for change introduction. Just as it requires strong and effective leadership to define and build the initial organizational culture, it is also precisely this leadership ability necessary for starting the change processes to move the culture in new directions.

Leaders must find a way to provide the emotional surety and confidence to the organization so that its members will be willing to accept the need for change and be able to begin the learning process. These leaders must be able to provide a methodology and pathway to facilitate learning and to assure organizational members that constructive change is not only possible, but desirable.

In the DOD, leadership selection should be based on the ability of the leader to be committed to change and his ability to advocate change throughout the organization. Peter Senge, in "The 5th Discipline Fieldbook" writes, *"… there must be leadership from the top of the organization - ideally a highly visible, active, and persistent chief executive."*[35] He also states *"The American system, in which there is a change in permanent head every time there is a change in government, may be structurally hostile to learning*."[36]

The first step to move beyond the possible inherent barriers that affect the abilities of leaders to create learning environments that encourage new ideas and change processes, is for leaders to foster open lines of communication and cooperation among other leaders and the organization's members. Leaders must first be selected based on their abilities to support and advocate change, but once selected must continue to communicate the change vision to the organization effectively. They must be accountable for their actions and they must empower the members of the organization allowing them to fail and question authority without fear of reprisal. It should not be wrong for a member of the organization to take a position that is out of line with others. Differentiation allows for new perspectives… creates

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[34] Schein, Edgar, Organizational Culture and Leadership, 2nd edition, (Jossey-Bass Publishers), 1992

[35] Senge, P., Kleiner, A., Roberts, C., Ross, R., and Smith, B., The Fifth Discipline Field book, (Doubleday Publishers), 1994.

[36] Senge, P., Kleiner, A., Roberts, C., Ross, R., and Smith, B., The Fifth Discipline Field book, (Doubleday Publishers), 1994

new visions. A leader must possess these qualities and must espouse them to the workforce and allow the workforce to do the same.

Communication and Teaming Mechanisms

Creating new visions, searching for new perspectives, and opening up to different ideas are important characteristics for being receptive to changes in the external environment but, as discussed in chapter 3, it is also necessary to develop and maintain a set of internal relationships so that these external goals can be realized. One internal relationship that is most important is the ability the group has to communicate… to create a common language… so their words, spoken and unspoken, are understood by the group members.

"*To function as a group, the individuals who come together must establish a system of communication and a language that permits interpretation of what is going on*."[37] Quality communication is necessary to enable individuals and teams to be agile. Agility is required to be able to respond and react quickly to change. If team members are unsure what is being said to them by leaders, they could be relaying inadequate or poor information to their counterparts, and the cycle will continue. The IPT initiative shows the importance of communication is evident to the Acquisition Reform world. Through IPTs, the communication infrastructure is established and the information flow can begin.

Both LNP and LAP are committed to the IPT system and through the IPT process, industry and government learn each other's language and also learn to speak a common one. Creating a structured network of teams, each program offers the linkages critical for not only getting the mission accomplished but for important interaction between workers at all levels of the program and the organization. Each team has its own specific responsibilities but these teams then report to other teams that may be responsible for a larger portion of the system, and so on. This network fosters communication through informal interaction between team members and also interaction with members of other groups. It was found that the leader of an IPT in one functional area would often consult leaders in other functional areas. This cross-communication became important to provide assurances to the team members that they were proceeding down the right path and it built a more open communication link between the engineers.

This open communication was enhanced through the involvement of industry in the IPTs. It became important that the government employee understand and be able to respond to industry's language. It was only through team cooperation and understanding that the customer needs could be articulated well enough for all members to understand and respond effectively. This cooperation and understanding between all team members is a critical element and one that will require trust and sharing of all information. It is precisely this area that needs additional attention.

Even though the teams are developed to be small and focused to achieve progress in specific functional areas of the system, it is this segregation that causes some miscommunication and loss of cooperation. This segregated structure, evident in both programs, results in the continuation of a more typical, functional organizational behavior where the workforce identifies with a very small piece of the system. They focus on their own niche abilities and expertise and fail to see beyond those boundaries. Because of the failure to see others' perspectives, problems arise in communication, response times, complexity of issues, uncertainty, and cooperation. To alleviate problems in team

[37] Schein, Edgar, Organizational Culture and Leadership, 2nd edition, (Jossey-Bass Publishers), 1992

communication, it may be wise to develop team facilitators who can be aware of and look for potential communication issues. The facilitator need not be a new member of the IPT but could be an existing member who has the ability to recognize when people start talking *at* each other instead of *to* each other.

As each program and organization continues on the path of reform and their leaders recognize the importance of facilitating communication, not only through the establishment of individual IPTs, but throughout the organization, the mechanisms that create and foster growth, cooperation, and communication will continue to improve. When this occurs, the people will have the power to make knowledgeable decisions to better satisfy the customer's requirements and to better implement change. Change can only occur when people are responsive, flexible, open, and willing to listen. If mistrust permeates, communication cannot flow. There has to be collaboration between all parties that there is a need for change and that the change will result in a better situation. To get this collaboration, the organizations need to become active listeners.

Active listeners are concerned not so much with what is actually said but more concerned about what is not said or what was the true meaning behind what was said. This is a difficult task yet one that will make the difference in becoming an organization that is trusting, knowledgeable, aware, and ready to implement current changes and one that is prepared for future challenges.

Incentives for Change

"*When I first entered government service, after a managerial career in the private sector, I was staggered at how difficult it is for civil servants and politicians to give praise. It is difficult even to praise highly visible success - let alone honest experiments which did not work. Yet praise and encouragement are crucial intrinsic rewards, especially when more formal raises are limited*."[38]

Organizations must be sensitive to the needs of its employees and realize that it is the employee that provides the strength, knowledge, and competitive advantage for the company. But, how does an organization reward its employees when it has a limited amount of award money to give? How does an organization such as those studied here compete with awards given by industry to their members of IPTs? This last fact, industry-based awards versus government-based awards, has the potential to create conflict between the members of the IPTs leading to a deterioration in the IPTs ability to achieve continuous improvement. Jealousy and rivalry become topics of contention. Why should the government worker try as

[38] Senge, P., Kleiner, A., Roberts, C., Ross, R., and Smith, B., The Fifth Discipline Field book, (Doubleday Publishers), 1994

hard when they know the rewards will not be available to them while their IPT counterpart in industry will reap rewards for doing the same work?

Poor incentives, nonexistent incentives, and comparison of incentive systems between government and industry are critical factors that need to be addressed and were cited by many of those interviewed. One program manager mentioned the inadequate and impossible performance and award criteria based on achieving a certain percentage of cost reduction for the person's work group. This incentive was no incentive at all. The criteria was impossible to attain and only served as a disincentive to the employee. Others interviewed mentioned that there were no incentives, no rewards. Their incentive was purely personal… to do a good job for their own personal pride and for the respect of their peers. When others compared the fact that their industry counterparts were rewarded for their success in team activities, it became a disincentive for the government worker. They saw the disproportionate amount of reward going to one member of a supposed, equal team.

Still, when questioned, most government workers stated they really only wanted some recognition and assurance of a job well done. They were not looking for tangible rewards but intangible ones. This may seem surprising but most government employees stated that they knew there was little chance for promotion and little if any chance of receiving a monetary award. They only seem to be asking for some recognition by their peers, supervisors, and organization showing that they are making a difference. It seems a small price to pay to keep incentive levels high but it seems praise is harder to give than criticism.

6.2 Conclusion

How do mature organizations prepare and face current and future challenges that threaten to change the way they do business?… challenges like Acquisition Reform. How do these organizations become places where learning and change is embraced? How do they learn to become active listeners? How do leaders motivate themselves and motivate a workforce to change well established, routine business practices?

These are tough questions but questions that government organizations must face today. LNP and LAP are facing these questions as they implement Acquisition Reform as non-pilot programs. The cultural transformation is in process and although not 100%, there is a noticeable shift from the past, routine mindset to the present mindset that is more questioning and open to new ideas. The changes being implemented at LNP and LAP are extensive and not without issues, but from our observations it appears that leaders are paying close attention to the change process and are trying to develop plans to address the issues.

Being the first major programs to fully implement Acquisition Reform without waivers or relaxation of rules also means being the first to encounter the many barriers to change. Positively, these programs are leading the way and will be able, through the lessons they learn, to pass on the knowledge to better deal with these issues to the next program and throughout the organization.

The LNP and LAP organizations recognize that these programs are spreading the Acquisition Reform initiatives and because of their initial successes, the initiatives are gaining widespread acceptance. But, the organization needs to recognize that there are many issues to face when the actual design and build begins. Acquisition Reform has addressed the up-front work.. reducing the number of requirements, removing requirements for military standards, purchasing commercial equipment, and involving integrated teams… and great successes have been achieved based on these mandates. But now, the systems are being built. The Acquisition Reform initiatives are not addressing what the programs should do now… at implementation. So, LNP and LAP, are in fact pilot programs for the implementation of Acquisition Reform. The people, the cultures, are being tested at this stage and it is this culture that needs the most focus. People… human resources… are the life-blood of the organization and the organization has to be aware of the stresses that come when people are asked to change when they have not been asked to change or motivated to change for many years.

The LNP and LAP programs are to be commended. The magnitude of the problems that they are undertaking should not be underestimated. They are doing a phenomenal job with little resources, little training, and little incentive. These programs have demonstrated their courage and verve for attacking the problems and becoming leaders and proponents of change. Change is necessary for the way government conducts business every day but more importantly, a change in the culture is needed to make this happen.

For change to occur, there is a need for commitment by all members of the organization but especially from leadership. Designers and critics of government aspire to regard public servants as both perfect service providers and perfect rule followers. But, in a fast paced world, this is not a plausible option. If leaders empower the workforce to provide and perform their service solely to please the customer, they will also recognize that many of the rules will cease to be relevant. A balance between the rules, the customer, the organization, and the people are necessary. LNP and LAP are striving towards this balance… learning along the way. To learn, to become a team player, to become a learning organization requires practice. Great teams don't happen overnight. Great change processes don't occur overnight. How does an organization learn to be a team?… learn to accept change?… learn to adapt to change effectively?… As with any good, effective, quality work… practice, practice, practice. While Acquisition Reform has been around for many

years, it has not been practiced consistently and completely. Strong, effective, and sustainable leadership is a key element driving this long-term commitment to change and leadership must also allow the organization and programs to practice… practice makes perfect.

6.3 Recommendations for Future Study

Additional studies may add more to develop a complete understanding of the relationship that exists between change processes and culture of the organization in achieving success in its ability to change and adapt. Specifically, some options may be:

- Since LNP and LAP are on-going programs, continued study into the implementation of Acquisition Reform in the design, build, and test phases would be beneficial. Following the program, but looking at initial successes and that successes impact on the future of the program. For example, being able to see the results of lowering the number of requirements on the contractor. Did this actually save money or was the cost savings only an up-front savings to be spent later when difficulties are reached in implementation and build? Also, looking at how the people are changing their perspectives on this new way of business over time. Is there a continued shift in the culture to try to perform to these new mandates?
- A study of other programs once there are more underway that are implementing the reform initiatives. This study was limited to a smaller sampling size because there were not a lot of programs implementing Acquisition Reform without being part of pilot programs. The pilot programs allow waivers and special treatment so we felt that it would not be an acceptable standard to measure cultural changes.
- Time to allow for the study of the lessons learned would be beneficial. These lessons learned should be passed on to the next program. The people that experienced the problems should come and talk to the next program to explain what they found and how they decided on best resolution methods. This learning needs to take place and a study on the value of these lessons learned would be beneficial
- Finally, it is our recommendation that some of the techniques for creating a learning organization, as stated by Peter Senge in the “Fifth Discipline”, be developed, used, and tested at the LNP and LAP centers. Building effective teams, preparing and developing better leadership abilities, and becoming active listeners.

In a world of incremental change it is sensible to learn from those who have gone before… take over where they have left off. But today we face discontinuous change and no longer is it obvious that past ways should continue to be today’s way. A complete rethinking

about the method in which we learn is necessary. This new learning must be a process… an experiment…a challenge… a change from the past. It may seem disrespectful to assume discontinuous change because it challenges authority. We are taught to respect our elders and leaders but discontinuous change often requires us to head out on new and different paths. Will authority be threatened? For these leaders, continuity of change is predictable, comfortable, and ensures that they can remain in control because although change is occurring, it is happening in a continuous fashion. They can continue to believe that things will go on as they have before and therefore their past practices can continue. Today, faced with discontinuous change, leaders and all workforce members need to think discontinuously… look at situations in a new light. This new thinking changes nothing else but the way we think and look at the world, but that can make all the difference.

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