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**Advanced Leadership for  
Engineers - I**

By:

**Dominic P. Perrotta, P.E.**

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## Introduction

Most engineers go throughout their careers with their heads down, seldom looking at the horizon or even peering over the fence. Their immediate objectives are to perform the tasks at hand, regardless of the situations that they face or the environments in which they labor. While this is noble and most managers could never find fault with this attitude for the short term, the great majority of engineers have well above average intelligence and are capable of much more than what they are currently doing.

In this course you will learn about the qualities of leadership and the techniques and aptitude required to develop these qualities for both the short term and the long term. In addition we will familiarize the engineer with the management skills to rise up through the ranks of the management ladder, utilizing these skills not only within your internal organization, but also applying them in a marketing and customer environment that will enhance your opportunities for growth and promotion.

The course is divided into two separate parts, each of which is intended to improve the capabilities of an engineer in the overall business community. The first part describes the steps necessary to become a top quality leader, and discusses the principles, strategies, and education necessary to be considered for a higher leadership role. The second part of this course deals with the actual fundamentals of managing, whether it's a small team or a department, or even a large organization. The course describes in detail the ways that an individual might be considered for a more important position, and how an engineer should take advantage of training and experience opportunities that become available, while maintaining a conscientious effort toward self-improvement.

You will be made aware of how to develop skills that will enable every member of your organization, large or small, to perform at an optimum level. Examples are given of solutions to problems that are encountered as your new assignment unfolds. You will also learn how to develop and utilize core principles to recognize problems or difficult situations as well as the skill set to resolve them through training and experience, As you will discover by reading and studying this course, having personal discipline is very important to an engineer who aspires to management level. Keep in mind that this course is only a recommendation for what **you** will need to do to be successful.

## Course Outline

### **A. Maximizing Leadership Skills**

1. **Converting Your Capabilities into Abilities**
  - a. Strive for Perfection, Achieve Excellence
  - b. Education (Requirements & Preferences)
  - b. Training and Experience
2. **Leadership**
  - a. Significant Inherent Qualities
  - b. Acquired Techniques
3. **Communications Techniques**
  - a. With Subordinates and Peers
  - b. With Other Leaders & Supervisors
  - c. With Executive Management

### **B. Maximizing Management Skills**

1. **Understanding Company Responsibilities and Goals**
2. **Team Building**
  - a. Knowing Your Organization

- b. Making Quality Assignments**
  - c. Communicating Your Objectives and Goals**
- 3. Motivational Skills**
  - a. Creating Teamwork**
  - b. Resolving Organizational & Personal Issues**
- 4. Going Beyond Company Requirements**

## **A. Maximizing Leadership Skills**

### **1. Converting Your Capabilities into Abilities**

#### **a. Strive for Perfection, Achieve Excellence**

There has probably never been a perfect engineer, and in spite of all your training and experience, your chances of becoming the first engineer to be perfect or to manage any organization perfectly is very remote. There was a great football coach more than fifty years ago who told his professional team to “...strive for perfection every day. You will never become perfect, but you will achieve a standard of excellence.” He instilled this thought in his players so often that they came to believe his words. And they did achieve excellence, five times over an eight-year period.

In case you hadn't heard this story before, the coach was Vince Lombardi and the players that he was talking to were the Green Bay Packers of the National Football League. In 1958, the year before Mr. Lombardi arrived in Green Bay, the Packers had won one game and had lost eleven, and were about to lose their franchise. Mr. Lombardi had come up through the ranks, having coached at the high school level, then spending several years as a college coach at Army and Fordham when they were prominent collegiate football powers. Mr. Lombardi landed in New York in 1954 as the offensive coordinator for the New York Football Giants. During the next several years the Giants achieved a measure of success that was unprecedented in their previous nearly four decades of team history. After their thrilling overtime loss to the Baltimore Colts in the 1958 NFL Championship game, a football game which was universally televised for the first time, Mr. Lombardi felt that he was ready for a new challenge. He had worked hard to become one of the brightest and most ingenious football coaches in the sport. His immediate attention was to become head coach of the Giants, but that position was well represented and the Mara family (the Owners) were not about to make that kind of offer to Mr. Lombardi. He was also interested in a head coaching position at one of the major universities such as Notre Dame, but believed that he was being discriminated against because of his Italian-American heritage.

Nevertheless, the Green Bay Packer franchise offered Mr. Lombardi the head coaching position, possibly out of desperation, in February of 1959. Although Mr. Lombardi was reluctant at first to go to Green Bay, he accepted the offer as kind of a stepping stone to better things in the future. In that first year under Head Coach and General Manager Vince Lombardi, the Packers won seven games while losing only five. During that first year Mr. Lombardi, recognizing that a winning team must have on-the-field leadership as well as sideline coaching and tutoring, named quarterback Lamar McHan as his offensive leader. He also was wise enough to make a trade with the New York Giants for Emlen Tunnell, a defensive back who was later inducted into the NFL Hall of Fame, as the leader of the defense. However, when Mr. McHan was injured in mid-season, Mr. Lombardi turned to a little known quarterback named Bart Starr, who had impressed Mr. Lombardi with his leadership skills, and inserted him into the starting lineup. Mr. Starr, who had been a 17th round draft choice and had been with the Packers for three previous years without ever starting or winning one game, led the Packers to four straight wins at the end of the season. Mr. Starr became the natural leader of the offense for the next decade., and Mr. Lombardi was named NFL Coach of the Year by the football writers.

The following year the Packers were the Western Conference champions and barely lost to the Philadelphia Eagles in the NFL championship game. In 1961 the Packers won the National Football League Championship, and then went on to win four more NFL Championships, including the first two Super Bowls, in the next five years. Mr. Starr was named the Most Valuable Player in Super Bowls I and II. Mr. Starr along with several of his teammates from that one-win team from 1958 are now in the NFL Hall of Fame. And all that Mr. Lombardi, who is also in the NFL Hall of Fame, received for accepting a job that he didn't particularly want, was to have the Super Bowl trophy named in his honor.

If you analyze the above situation, you might make the case that Vince Lombardi was arguably the greatest professional football coach of all time. As a coach he had a love of the game as well as a knowledge of the way that the game should be played that was unparalleled. Although he had become a great coach due to his study and knowledge of the game, some of his leadership qualities may not have been conventional. He led through his dedication, his knowledge of the game, and possibly through intimidation, a leadership characteristic that might not be considered appropriate to some. However, he undoubtedly had the wisdom to hire some of the best assistant coaches of his day, who had the same dedication and characteristics as Mr. Lombardi. These individuals likely studied the game of professional football and were able to explain to the players the techniques necessary to be the best that they could be. And he chose players who, in his expert opinion, had the potential to become the leaders as well as the mentors of their teammates. By the time that he retired in 1967, Vince Lombardi had done something that no football coach before or since has done.

The correlation between coaching a football game and leading or managing an organization is similar in many respects. The Owner/General Manager/Head Coach represents the Company/Executive Management/Supervisor that provides you with the stadium and the uniforms to play in, the pads and helmets to protect you, and the finances to see you through to completion of the game and the season. You can become the leader, the equivalent of the quarterback, whether you were the 1st or 17<sup>th</sup> round draft choice. You may not have even been the first choice of the Head Coach to lead the team. You may have experienced some success or failure at another level, but now you are being asked to call the plays and lead your team to victory in the big leagues. Even though you have been given a "game plan" by your Supervisor, you will have to overcome setbacks and use your options (ingenuity) to achieve victory (success). You may not win

the Super Bowl, or even every game that you play, but every engineer should have the confidence that your efforts and the performance of your team will end in a victory.

There are multiple lessons that an engineer can derive from the above ways in which Coach Lombardi was able to achieve excellence:

1. The Green Bay Packers were the champions; and the trophies belonged to the team, although Mr. Lombardi received numerous honors along the way. The ultimate excellence, however, rested with the overall team performances.

2. Mr. Lombardi seized at the opportunity to become the coach of the Green Bay Packers when the offer was made, even though it was not necessarily his first choice. Engineers don't always have the opportunity to go where they would prefer or to do the exact thing that they believe would benefit them the most. However, they always have the opportunity to excel in whatever choice they make or in whatever position they are placed.

3. There are rarely any discrimination barriers if you achieve excellence in your job or for your team. If you sense that there are, your first objective is to strive to overcome them with the strongest effort that you can manifest. When the success of this effort does not produce the expected results, you should then consider looking elsewhere.

## **b. Education (Requirements and Preferences)**

As we stated in the Introduction, the great majority of personnel in the engineering field have well above average intelligence and are likely capable of much more than what they are currently producing. Having a college degree is certainly beneficial to enhancing your abilities or to seeking and acquiring a promotion. Depending on the type of activity in which you become involved and the overall responsibility that you are given, a specific college degree may or may not be a requirement. Not having a degree in this era, even a two-year associate's degree, may hinder your prospects for future multiple advancements within some companies. Whether the degree is in engineering,

engineering technology, one of the sciences, or even a non-science degree such as business management is not so important. This is particularly true if you are considering any advancement as a primary stepping stone within your company or simply as a potential highlight on your resume.

Regardless of your formal education, bachelor of science or a master's degree or an engineering technology certificate or just a high school education with some apprenticeship education, you should be serious about being the best that you can be. While you may not be under any serious obligation to master your profession, converting your capabilities, which are your potential achievements, into certain abilities that will bring you notice is extremely important to your future. This concept is applicable irrespective of which field of endeavor you have chosen: Civil, Chemical, Mechanical, Electrical, Computer Science, or something else. Possibly you have come to the conclusion that an engineer must have one of those major engineering degrees in order to be considered for a higher position in your company, or even to function successfully in your chosen field. As you gain in wisdom and maturity and your experience broadens, you may come to realize that you would prefer to specialize in one of the many satellite areas within the primary domain of your field of study:

For instance, piping design under the umbrella of mechanical engineering has become a very specialized and distinctive entity which may include such auxiliary fields as pneumatics (compressed air, instrument air, etc.), hydraulics (lubricants and synthetic fluids, pumps, cylinders, drives and the like), and many variations of these two categories. While becoming familiar and very knowledgeable in these areas will aid in establishing your ability to support and guide others in the future, you obviously run the risk of being too much of an expert in any one of these areas. The more diversified that you are while not becoming indispensable in any given area, the greater will be your opportunity to extend your growth as a supervisor or manager and the higher the likelihood that this expertise will propel you to the next level in your organization.

Another in-demand field is electrical engineering; electrical engineering can be subdivided into several categories, including power generation, visible and solid-state motor controls, telecommunications, electronics - where microchips operate everything from televisions and satellites to automobiles and airplanes - and especially computer sciences. Items that are "state-of-the-art" this year are practically obsolete one year later. Today's technology lists wireless and remote control devices of every variety, automobiles that potentially, if not actually, drive themselves, and a treasure-trove of automatic devices that weren't even on the radar twenty years ago. The more versatile that you become, whether in your preferred discipline or even in another field of science

altogether, the more valuable you are to the company at present. Furthermore, this flexibility will prove to yourself that you are progressing toward a higher position, whether in your current organization or even outside your current company.

In addition to a formal education in engineering or computer science or some other technical field, many engineers today acknowledge that a secondary education in business and/or finance is equally as important as engineering and technology in becoming a valuable asset to the company. Whether or not you have a degree in industrial management or business administration, your value to the company will become abundantly clear as you process the many cost factors involved with your specific work. Your ability to weigh the costs and expenses versus the timelines and calendar challenges for the work in which you are involved is a significant aspect of your responsibilities. This financial understanding will give you the wherewithal to make decisions in a timely manner that will enhance your status in the organization, and will likely give you an edge over some other organization members in your field or discipline. This additional knowledge will also place you in a more favorable light with your supervisors as well as others such as Project Managers, suppliers, and contractors who would appreciate your technical abilities and have become familiar with the activities in which you are involved.

### **c. Training and Experience**

Many companies today will give their engineers and designers, and even their draftspersons the opportunity, especially early in their careers, to advance their education. You might also be offered the opportunity to attend specific training sessions such as seminars, expositions, or occasionally even a full-scale program which the company expects will benefit the employee, and ultimately the employer. The diversity of the people attending these programs as well as the many types of companies, institutions and organizations that they represent can prove to be very beneficial, especially if you consider yourself to be a "manager-in-training". Furthermore, some valuable engineering concepts will usually be presented, and every attendee may be asked to participate in the program discussions. While there seldom seems to be a major effort to explain how you should manage an organization, there is often a concerted effort to prepare you to manage yourselves in your current positions. Keep in mind that the company has probably hired you because it believed that you were an investment, and that your growth within the company would provide them with an appreciable dividend over time.

However, unless you exchange this potential capability for worthwhile abilities, both your talents as well as the company's investment in you will have been wasted. The company's

attitude is generally that leadership can be taught and learned by intelligent, capable people. As you and your company will acknowledge, however, these principles and skills must be practiced in order for them to become intrinsic traits in a leader. There can be no doubt in a potential leader's mind that you will achieve success, whether you have risen to the leadership position through the acclaim of others by your performance, or if you had simply been appointed to that position by a supervisor. In the latter case, however, you would do well to remember that just being put in charge certainly does not make you a leader.

In developing your learning process and as a prelude to your gaining valuable experience, four of the most valuable concepts that a leader and future manager should consider, and that will stay with you throughout your career as an engineer and/or a manager are:

- a. Keep accurate daily records of your activities and meetings.
- b. Maximize use of your time by establishing your daily priorities.
- c. Seek formal training - take advantage of what is offered
- d. Maintain a professional attitude

One of the main principles that you will learn, if you haven't discovered this fact already, is that your supervisors are not particularly interested in your capabilities, but rather in your performance and abilities. As we noted above, you are a human commodity whose realized abilities should result in a greater payoff to the company; otherwise the company could just buy back some of their common or preferred stock and likely realize a return on their investment.

### **Keep Daily Records**

The function of keeping accurate daily records is basic to any engineer. There are numerous ways in which you can accomplish this. For the more detailed engineer, you might consider the use of a Franklin-Covey Daytimer or equivalent to record meetings and attendees, phone numbers and conversations, and other items of particular interest to you that will serve as your reminder as to what was said and done on a specific date. These notes will save you much time as references and will jog your memory as you recall those activities. Also those notes are usually valid in a Court of Law, should the need ever arise.

With modern technology and the advent of tablets, smart phones, and software and apps for every occasion, such things as speaking your notes and making an album of progress photos is easier than ever. Many organizations today utilize software programs such as Asana and Tracker that not only list the tasks for each assignment in which you

may be involved, but also recognize which tasks have been determined to have greater priorities. Incidentally, utilizing a tape recorder or turning your cell phone into a listening device in meetings is not usually a good practice for many reasons, including the obvious fact that recording devices may inhibit conversations and limit ideas to potential problem solving. Nevertheless, keeping concise notes of meetings or other events, whether by you or by an associate, is a good business practice.

### **Establish Priorities**

There is really an art to establishing priorities in order to maximize use of your time with your daily activities. Let's suppose that hypothetically one of your assignments involves a backup diesel generator, and that you have five phone calls to make after a morning progress meeting with one of the project managers. One of these calls is to the State Environmental Organization that is concerned about some of your design calculations, one of these calls is to an equipment supplier, one is to the Head of the Mechanical Engineering Department, another is to one of the construction contractors who is looking for a delivery date for the equipment, and a fifth call is to a local utility. Logic and experience will tell you that the order of importance of the phone calls has to be: (1) Head of Mechanical Engineering Department (2) Environmental Agency (3) equipment supplier (4) contractor, and (5) the local utility. While this sequence of calls may become fairly obvious, things don't always go as planned. Some of the responses may not be immediate, while others may have a negative connotation that will require follow up phone calls, or even visitations or meetings. Nevertheless, planning your daily activities is nearly as important as planning your workload.

In this hypothetical case the Environmental Department is concerned with the amount of carbon emissions that are escaping from the diesel generator that is being specified and purchased for this particular application. Your first call will be to the Mechanical Engineer who was responsible for the generator specification, and the Department Head assures you that the proper filtration system has been specified to meet environmental standards. Your next call is to the Environmental Agency with your assurance that the emissions control system will meet their standards. The third call is to the generator manufacturer to ensure that the emissions system is an integral part of their generator equipment package, and that all equipment will be delivered as per the specification, schedule and purchase order. You can then call the contractor – or better yet, notify your Construction Manager, who should make the call – to assure the contractor that the equipment will be delivered as required and there will be no extra work involved. Finally, the local utility can be notified that the diesel generator will become part of the generator system, and that no additional utility requirements will be needed by them.

## **Seek Formal Training**

Hopefully, part of your early training would have been participating in seminars and conferences, or even being sent to a college or university with a curriculum for specific training. The formal schooling may have been a two-week program, but pressing commitments in your company might have limited you to be there for only the first week, so cram as much as you can into that first week. Whether you are attending a school or a seminar, you will quickly realize how much you have to learn about managing people as well as how much effort is required to become a top manager. These courses usually focus on what basic tools can be utilized by you as a practitioner rather than you as an individual leader. They are varied because, as you will quickly learn, there are engineers in nearly every business or industry – manufacturing, road building, banking, healthcare, and even horse racing.

And yet there's no substitute for hands-on experience. Some of the best experiences an engineer can receive will be the ability to visit a facility similar to the one for which you are helping to develop, either in your own company or in that of a competitor's company. While visiting that of a competitor may be a little more intricate and involve a certain amount of diplomacy, the rewards can be great in the long run. You will see firsthand the arrangement of the overall facility, the interaction of the adjoining facilities that are required, potential space limitations, and other features that possibly neither you nor any other members of your organization or company had considered. In addition you may be able to discuss with those personnel that are in charge of the operation some of the problems and other subtleties associated with their facility. Be willing to make these visits with others in your organization so that you gain their perspective which should benefit you greatly. Sometimes you may determine that visiting more than one similar facility is necessary to gather sufficient information and understanding. Often the supplier of equipment similar to that which your company is planning to purchase will make the necessary contacts to arrange for a visit of this type to occur.

As your experience level increases, your ability to prioritize the various work functions as well as your own daily objectives will improve. In order to fully understand your priorities, you will have to know the ultimate financial goal of any assignment with which you are involved, especially if one of those might result in a lengthy delay. You must put yourself in a position as a leader to learn how a one month, or a one week, or even a one day delay will affect your company's bottom line, especially when you may be responsible. Knowledge of this aspect of your work efforts will allow you to determine the effects of slight, or even major, schedule changes in design and/or procurement. In

addition you will have the ability, if you are in a responsible position, to request either additional manpower or the utilization of prudent overtime hours.

### **Maintain a Professional Attitude**

Although the life of a engineer can become very strenuous at times, you are expected by those around you – peers, supervisors, contractors, etc. – to maintain a certain mental posture at all times because you are a **Professional**. Kudos when they come are great, but don't count on being verbally rewarded; remind yourself that you are expected to perform at a high level and to produce results. After all, you may have been selected for this position as a promotion, since your reputation was that you are a quick thinker and a strong decision maker who was probably one of the better engineers in your current field.

You may have even been considered for a higher position or a promotion due to your growing abilities to grasp financial conditions that might affect the company's bottom line. In most cases these characteristics were probably true, although your credentials in your specific field may have been only slightly above average. Nevertheless, your background and education have enabled you to comprehend complex situations and make determinations that allowed the workloads to move forward with a minimum of schedule interruptions.

While you and everyone around you might consider that you are a consummate professional, you must always draw the line between your own self-confidence and your unwillingness to compromise. Often you and your supervisor, or even one of your peers, will have a difference of opinions. Keep in mind that you are usually dealing with an organization whereby only a few personnel are under your direct authority unless you are at least a Department Head.

A leader should be willing to listen to any team member's opinion or argument and be prepared to give each of them your point of view on the subject. If your viewpoint is contradictory but convincing, it will be accepted. If not, keep discreet notes of what has transpired and back off. Remember that no one is born with humility and that it must be developed. Even though you may not be lacking in self confidence, there is almost always at least one occasion during each work assignment when you will be required to humble yourself. Embrace the challenge that is presented to you, and consider it as a test of your leadership skills.

## **2. Leadership**

**What does being a LEADER mean?** Very simply, being a leader means being principally someone who can guide other individuals toward a common goal. The two fundamental principles of leadership are:

1. Influencing an individual to help you fulfill a mission
2. Unlocking the potential of that individual

There must be a fine balance between these two principles. By placing too great an emphasis on the first principle, you may put your role as a leader at risk by being overly self-promoting. Conversely, you cannot have any self-doubt about the importance or significance of the mission that you want your organization to achieve. Thus there are three parts to items 1 and 2 above that are necessary in order to establish yourself as a leader:

- a. **Vision**-have a clear understanding of what you want to accomplish.
- b. **Mission**-provide a definition to your organization of how to achieve it.
- c. **Values**-illustrate the personal qualities that will allow

### **What Is Your Vision?**

As you can see from the above three statements, just providing guidance will not set you apart from other leaders who might influence individuals to carry out a mission unless you go much further. True leadership means having a clear vision of what you or your company expects to achieve. You must then define that vision with a clear understanding of what is expected from you and any of your subordinates in order to be successful.

That vision may have come from one of your supervisors, or even company management, in which case it also becomes your vision in an indirect manner. The vision might involve an innovative way of measuring performance, or possibly creating a new department. It could also relate to a highly visible customer project, or even to the development of a new product by your company. Regardless of whether you initiated the vision, and irrespective of whether you are the appointed or accepted leader, the responsibility is yours.

### **How Will the Mission Be Accomplished?**

Regardless of whether the vision is yours and yours alone, or if it has come down from somewhere higher up in your company, you as the leader are expected to adopt the scenario, and you and your organization will be expected to develop the specific methods for achieving a successful conclusion. At this point your true role as a leader will have to go into high gear as you influence those around you. You may have one apprentice, or you may have a squad of personnel who are eager to rely on a leader who will define the best ways to achieve their goal.

Your team is looking to you for unity of purpose and someone who is moving them in the right direction, but they do not expect you to tell them every key to punch or every line to draw or every telephone call to make. Your team will do well when you show them that you are a caring leader and maintain a positive impact on the work that is assigned to them.

### **What Are Your Values?**

Thus the values that you portray and that you instill in your team members will determine the decisions that will be made and the process that your team will follow. Always remember that you as the team leader are shaping and nurturing the lives of your team members as well as yourself. You need to show a genuine concern for their individual success, helping to develop their strengths and talents. so that your entire team will be rewarded for achieving its goal. If you focus on the work that needs to be

done rather than having strong relationships with those who are doing the work, then you are simply not investing your time and leadership skills wisely. Some leaders look at this philosophy of lifting and encouraging others on their team with some degree of skepticism, thinking that they may never receive the credit for which they are deserving.

You may be offered a higher position in your squad or organization or department, but that doesn't necessarily make you a leader. You may have earned the higher position due to your conversion from your potential or capabilities to actual abilities that are recognized by your peers as well as your supervisors. Nevertheless, this new assignment now requires a commitment on your part to develop relationships with those personnel who would consider you as a leader. You must take any new assignment and determine that your mission will be to have a positive influence on all with whom you come in contact. A leader who operates with a clearly defined mission will have an obvious advantage over others who cannot embrace a leadership role and do not envision a clearly defined mission.

### **Notable 20th Century Leaders**

When discussing leaders of the twentieth century, several names might come to mind. Winston Churchill led the United Kingdom through a difficult period, influencing and strengthening the resolve of the people of his nations against the German invasion during World War II. Churchill was born of an aristocratic and political family, yet served in the British army. Following World War I he held numerous political and cabinet positions, but was nearly completely out of politics in the 1930's. Nevertheless, he continued to sound the alarm about Nazi Germany and campaigned hard for British rearmament. When Neville Chamberlain abruptly resigned in May of 1940, Churchill became Prime Minister. His steadfast refusal to consider surrender to the Nazis helped to inspire British resistance, especially during the early days of the war before the United States became involved. Churchill spoke eloquently in his speeches and radio broadcasts, further inspiring the British with his oratorical skills. He left office in 1945 after the victory over the Germans was secured.

Ronald Reagan led the United States out of a deep recession and into peacetime prosperity through his policies of strength and resolve. Born of a poor family in Northern Illinois, he managed to graduate from Eureka College and worked initially as a sports announcer. He later moved to Hollywood, and appeared in several major and minor movie productions. He transferred into television and was a motivational speaker at several General Electric factories across the United States. He began his political career when he was elected president of the Screen Actors Guild, and was twice elected governor of the state of California. In 1980, following four years of high inflation and the Iranian hostage crisis, he defeated Jimmy Carter to become President of the United States. His economic policies, dubbed "Reaganomics" by the news media, brought inflation under control. His increases in military strength resulted in an "arms race" that the Russians could not win, thus ending the "Cold War" and bringing down the Iron Curtain. President Reagan was a gifted speaker and made several inspirational speeches during his eight years as President.

Adolph Hitler was also a gifted speaker who, following Germany's denigrating defeat in World War I, had a vision that Germany could be restored to its rightful place in the world. Hitler was on a mission, but more precisely, his mission was actually a "cause". Hitler had a hatred for the Jews and felt that they were the principal reason for the decline of Germany in the 1920's. Although he had a relatively small national following, his acclaim was widespread due to his enthusiasm and oratorical skills. Nevertheless, he did not exhibit the leadership qualities as defined by the two principles above. While he did lead the German people into a murderous battle against mankind, especially the Jews, he failed the German population completely and miserably. The cost to Germany was many years of hardship before the country could economically and morally rebound to achieve status and trust with the rest of the world.

### **a. Significant Inherent Qualities**

As a leader you must take the time to assure that all team members are aligned with the same mission-critical details. In addition being a quality leader also means that you must be able to unlock the capabilities and potential of those in your group to realize the mission. Remember, you have been thrust into the leadership position due to your having convinced those around you that you now have the technical abilities to lead others. That still does not qualify you as a leader unless you can also display a level of

maturity that will convince your supervisors that you are prepared for a greater role in the organization.

Leaders are not born, but they are developed. Hopefully, you grew up in an environment that allowed you and the others around you to be instilled with Godly principles. As you grew and matured, you may have had a father or grandmother or even a seventh grade teacher who made you realize that you were special, but that other people around you may be special too, but maybe in different. Regardless of the environment that helped to mold your values, you must now embrace the qualities and characteristics of leadership and maturity that are described in the following sections.

### **Integrity**

Your performance as a person of character, accepting the responsibility of your position and avoiding any backstabbing will gain you respect and reward you with loyalty throughout your organization. Regardless of your situation as a squad leader or a department head, there will likely be occasions when situations will occur which you had not planned, potentially costing your personal efforts both time and effort. There is even the likelihood that your customer, whether it is an immediate supervisor or another department, has become aware of the situation and is critical of your performance. The common approach by a consternated engineer might be to offer excuses and to voice criticism and to blame others. While some of this may be justified, you risk losing your organization's confidence in you if the situation is not properly recognized by those above you. Rather than offering excuses and playing the "blame game", step into your role as a professional and deliver what was required of you; the truth will eventually come out and your reputation will be considerably enhanced.

No one is recommending that you should just "suck it up" or "grin and bear it" when you are confronted by a negative occurrence through no fault of your own. Your course of action in a situation of this type is to determine the **root cause** of the problem, accept responsibility, apologize to your respective management, and assure all parties that the situation will not occur again. That will be a good beginning to restoring the confidence that was placed in you, but the conclusion will be your follow up actions in quickly resolving the problem. Should other individuals prove to have been the cause of the occurrence, or if a miscommunication has occurred, then you must initiate private, but firm, conversations with those involved. While actions of this type may not be pleasant and understandably require a great deal of discipline, the amount of respect that an engineer will receive following an incident of this type is immeasurable

However, as your capabilities and expertise move you toward a leadership role, you have certain responsibilities as well as specific character traits that you must routinely exhibit. Some leadership role qualities which you should expect yourself to develop are :

- a. Enthusiasm
- b. Sincerity
- c. Initiative
- d. Flexibility
- e. Empathy by showing concern for others
- f. Interest in other's opinions
- g. A teachable spirit
- h. Willingness to sacrifice your ego

### **Humility**

As was stated earlier one character trait that a true Leader must develop, because nobody is born with it, is humility. In the course of proving your engineering abilities and maturity, you will be called upon by Project Managers or Department Heads for many meetings and will plan to attend all of those meetings to which you are invited or requested. A good example of humility is being on time for every meeting in which you are participating, thus establishing a pattern that your time is no more valuable than those calling for the meeting or those others in attendance. This attitude will resonate throughout your organization and will establish a path for others in your organization to follow. As has been said many times and in many ways, "your attitude determines you altitude." An even better approach is to be early for these meetings, especially those in which you are expected to participate. Being even a little early to a meeting communicates to others, especially your supervisors and other leaders, that the meeting has a high degree of importance, and that you value the significance of participating. And most significantly, prepare for the meetings in which you are being asked to participate, thus illustrating your sincerity as well as your expertise.

The above is just one example of humility. Some others include offering assistance without being asked, not harboring resentment should someone in your organization come up with a better idea, and demonstrating sincerity when seeking a solution to any issue. There are probably many other examples that you can think of.

## **b. Acquired Techniques**

Not every quality or value that a true leader displays in everyday life is necessarily the result of background or environment. What is important is what you do with the rest of your life, beginning today. Don't fool yourself into thinking that you may be too young, or even too old, or too late, or any other excuse that you may cling to that might prevent you from achieving a leadership position. And always remember that your success as a leader will often result in a proliferation of leadership in others by the efforts that you make, meaning that as a strong leader you will be watched closely by your subordinates and peers and you will be emulated. Your actions as a leader may very likely generate a continuum of other strong leaders that you may not realize immediately, and you may not ever become aware of the ultimate leadership impact that you had on your organization.

The following values are important qualities that a great majority of leaders have acquired at some point in their lives before going on to successful careers:

### **Discipline**

One very important character trait that must be developed by a quality engineer who has higher aspirations for a leadership or management role is discipline. Engineers who may have been placed into positions of leadership quite often will find that they may be required to utilize their expertise outside their current organization and across a broader spectrum due to the fact that many companies organize their engineering groups into what is described as *Matrix arrangements*. Under these guidelines, certain individuals in each necessary work group who are employed by your company may be assigned to the same project or scope of work , although their direct supervision would come from an

Area Manager or Department Head of that particular company group. In addition those associated with you to implement a specific assignment might well be working on two or three other projects or work assignments. In this scenario the company management may not feel the need to employ additional personnel, but would rather place an individual with a particular skill-set on numerous common work assignments or projects. You may be faced with the situation whereby you will need most of the skills that you have acquired and developed as a leader in order to ensure that the requirements of the work being performed by all groups are consistent with the missions defined.

This particular scenario may present a communications dilemma unless you are willing to understand the mission of the managers involved as well as your viewpoint to your subordinates and peers who are doing the actual work. Furthermore, you must also reach an agreement with each individual's supervisor. This type of action may not always be necessary for every situation, but being considerate with other organizations with whom you are involved is worthy of a quality leader. This example of communicating across department lines, however, requires good judgment as well as diplomacy by the engineering leader.

## **Unity**

The manner in which you acknowledge others' ideas, whether you always agree with them or not, is also very important. The way that you interact with your subordinates and peers as well as your immediate supervisors and other management members goes a long way toward determining their attitude toward you. You may not be looking at the "big picture", feeling that your current scope of work is much more important than that of others or, alternatively, that your current activities are insignificant and without merit. However, you and your teammates can often determine the success or failure of the work activities by how well you and they perform your individual tasks. Thus, paying attention to the smallest detail is as important to you and the overall work assignment or project as it is to the others in your group, but you need to look beyond your day-to-day activities if you really wish to achieve a higher goal. As far as your present activities are concerned, there is no insignificant task, and this is both a concept and a general philosophy that you must adopt.

Your awareness of what is to come and your willingness, without being overbearing, to assist others in your organization to reach an overall team objective will shine a light on

you and your accomplishments. As was previously implied, leaders are often required to select team members that will accomplish interim objectives and achieve a final goal. As someone in that position of leadership, give careful thought to the types of personnel that you would select. Would you select someone that is argumentative and questions each and every one of your directives? Probably not!

So selecting capable, quality people with positive attitudes is a good beginning to any organization. There may be a sense of unity in the early stages, but any organization is subject to fragmentation over time, particularly if there are recurring problems. Your primary responsibility as the leader is to retain this unity in your organization even after the immediate work is completed. This may require you to be a coach, moving people into the right position to get the most out of their capabilities. This may require you to be a teacher, utilizing your abilities and expertise in a non-offensive way to assist your group to get the most out of their efforts. This may require you to be a mentor who can empathize with individual problems, whether work-related or personal, in order to help those individuals to reach the common goal. Being a true leader of a unified organization requires a constant effort.

### **Positive Attitude**

Those who find themselves in a position as the leader of the team, whether designated in writing by the Supervisor or just assumed from common practice, must remain strong and exhibit an air of confidence at all times. A negative, or defeatist, attitude is not only a danger to your position as a leader, but also becomes a burden to your everyday well being. Those defeatist attitudes that you must try to avoid as a leader include harboring jealousy or resentment, giving in to discouragement, engaging in self pity, or even engaging in self rejection. Remember that you have become the “go to” person for many people in your organization, and your attitude will reflect their feelings toward achieving your immediate and ultimate objectives. This implies that you are not to micro-manage your peers, but rather as an acknowledged leader you must understand the mission that is being undertaken and the objectives of your supervisors. With this understanding you can be alert to any variations or difficulties that your organization may encounter, and are thus prepared to offer a course correction should the intended scope of work lose its steam or begin to change direction.

Some things that will aide your situation in this regard include the following:

- a. Communicate on an individual basis
- b. Answer any questions as concisely as possible

- c. Promise to get the answer if you don't have it readily available
- d. Be willing to look at options and alternatives
- e. Be prepared to give a workload update as you know it
- f. Keep any meetings with your subordinates short and to the point
- g. Show an interest, no matter how large or how trivial the topic
- h. Avoid minor controversies and be prepared to make decisions
- i. Be upbeat about the work; never be critical of supervision or the company

Nearly all of these fall into the category of maintaining a good line of communications with all involved parties, from Upper Management down to the last draftsman, designer and clerical help. Never assume understanding something that has not been explicitly explained and verified; **and never take anything for granted!**

A story that illustrates this principle involved Arnold Palmer, one of my favorite people of all time and, I might add, one of the greatest golfers of all time. You might wonder what golf has to do with being an engineering leader and becoming a future manager. The simple truth is that golf is an individual sport; there is no teammate to bail you out or set you up for the winning play. The same is true for engineering. While you may not have a caddie to carry your bag (or computer), there may be someone who will point you in the right direction along the way and show you which hole is next and help you to choose the right club to use. However, just like a golfer, the execution is yours and yours alone, and the results will be there for all to see.

Anyway I digress. Mr. Palmer, who was widely considered at that time to be the greatest golfer on the planet, was playing in the 1966 United States Open Championship at Olympic Park Golf Course in San Francisco . The field that week included some of the all-time great golfers of that day such as Ben Hogan, Sam Snead, Jack Nicklaus, Tony Lema, Lee Trevino, Johnny Miller and several others. The first three days of the tournament saw Mr. Palmer play well enough that he was three strokes clear of Billy Casper, a well-known golfer of that day, but not really considered to be the caliber of Mr. Palmer.

Playing in the last twosome starting on the final day of the tournament, Mr. Palmer shot a 3-under par on the front nine, while Mr. Casper was one over par. Thus Mr. Palmer now had a seven stroke lead over Mr. Casper, his closest competitor. At this point Mr. Palmer was made aware that, if he could just make even par over the final nine holes of the tournament, he would break the all time record for the lowest score in the sixty-six years

that the U.S. Open had been held. Whether it was this thought that went through his mind, or whether Mr. Palmer was just over confident and was **taking his victory for granted** was never made clear. Starting on the tenth hole on the back nine, Mr. Casper had a birdie while Mr. Palmer had a bogey, thus reducing his stroke margin to five.

Mr. Palmer continued to maintain his five-stroke margin until the 15th hole, a par-3 which Mr. Casper birdied and Mr. Palmer bogeyed. A similar scenario occurred on the par-5 16th hole, which then reduced Mr. Palmer's lead to just one stroke. When Mr. Palmer bogeyed the 17th hole, the match was even, and the golfers closed out the 18th hole with pars. This tie resulted in an 18-hole playoff the next day, which would be Mr. Palmer's third U.S. Open playoff since 1962. Once again Mr. Casper prevailed, overcoming an early lead by Mr. Palmer and going on to win the tournament by four strokes.

The question remains: did Mr. Palmer take his presumed victory for granted, or did he simply lose his concentration to win the tournament when he decided to try for the all-time tournament record? In either case, Mr. Casper collected the prize money and took home the trophy. Nevertheless, Mr. Palmer, although totally dejected by the results, went on to win other tournaments, and is today recognized worldwide as the modern face of the sport of golf.

### **3. Communications**

#### **a. With Subordinates and Peers**

Most engineers as well as the vast majority of individuals who are destined for leadership roles can generally communicate with other personnel at their level. Usually your subordinates will look up to you and respect you, particularly if you have some innate as well as overt qualities and have been placed in your position because of your abilities. If you have been designated as someone who can lead an organization, then you should automatically command the respect of those in your group or organization.

Conversely, you must offer mutual respect to those same personnel in your organization by offering them truth and candor. In addition, you can never put yourself into a position where you are humiliating one of your co-workers, irrespective of the circumstances involving any type of controversy. Instead, utilize your leadership qualities and your understanding of people to determine a solution that will benefit the company first and you second.

Enter into self-training programs such as the following, some of which are obvious while others may seem a little more abstract:

### **Engage in Dialogue and Conversation**

You don't have to be the office jester, nor do you have to spend the day at the water cooler or coffee pot spinning tales. You can engage in meaningful conversation in your office, in their office, or even in the hallway, so long as you are polite and eager. If the subjects are of interest to you, all the better - you never know what you may learn. And look a person in the eyes, whether you are listening or talking. Practice this concept at every opportunity. You will command the other person's respect, and your words will have more meaning. In addition this is a character trait that will define you as a potential management candidate.

Be willing to answer the question being asked of you, and show an interest in the person who is engaging you. Use levity in your conversation without being critical of anyone or anything. Avoid political discussions; if you can't, try to spin the conversation to a different topic such as sports. Golf and football are nearly year-round sports of interest, and every engineer or designer or draftsman has a favorite player or team.

No one in your company was necessarily looking to hire a college debater when the company hired you; rather they were looking for an individual who would fit their current needs, with the anticipation that you would hopefully grow and develop into a management position. Teach yourself to be well-read on the topics that concern your company, to use clean language, and to speak clearly and concisely. Some of the great

leaders in our country in the past 150 years were ordinary people, regardless of race or ethnicity or gender, who were well-spoken. Some were great orators, while others just believed in their situations or missions and spoke from the heart. Being a well-versed speaker isn't necessarily a sure ticket to the ivory tower, but your odds of getting there will improve greatly.

### **Learn to Be a Good Listener**

Try to listen and absorb what a person is asking or telling you so that you can either provide a firm and responsible answer, ask a follow up question, or else respond at a later date when the timing may be more appropriate. If a certain issue is related that may involve more than one member of your organization, give every assurance that you will give the situation your undivided attention.

Usually the person who may confront you is just looking for your opinion, which you can and should give in a completely objective manner, while avoiding any criticism. Occasionally, someone will confront you with a question or an issue in which you are expected to have agreement with that individual. Be very careful not to fall into a trap where your response could intuitively lead to future complications that could result in other problems, and could even place your leadership role in jeopardy.

In that case take a deep breath, ask the person to repeat the question, and then ask that person to explain to you why the question is being asked. The great majority of the time the "why" part of your response will cause that individual to rethink a question which might have resulted in a preconceived or even negative answer by you. Asking "why" will buy you some time to grasp the situation, as well as to understand that individual's reasoning or motive, and will allow you to respond to the question in a positive and more precise manner.

### **Give Credit Where Credit is Due**

There is absolutely no excuse for ever borrowing someone else's idea or concept and then claiming it as yours. If you have been in the engineering arena long enough and you have developed your expertise and capabilities to the extent that you are highly regarded in your field, then this has probably happened to you. Your feeling toward someone who might have taken advantage of you in this regard, particularly if that person has done it more than once or in a setting that would puff up an ego at your expense, probably resulted in long-lasting resentment toward that individual. As you move up the ladder toward management, you might expect these instances to occur somewhat more frequently. However, they should never be even remotely considered by you because they would demonstrate a serious flaw in your character as well as your leadership abilities.

Similarly, your subordinates and peers may tell you or show you some things about their work or their thoughts that might make you wish that you had thought about that. They might have done this because they probably had great trust in you as a leader with character. No leader should ignore the source of a valuable statement or action that should be attributable to one of your subordinates or peers. By doing so, you are betraying their confidence in your leadership. Furthermore, you might create an atmosphere of resentment within your organization that may prove costly to your career in the future. You would certainly not enjoy sitting across the table from someone who repeats almost verbatim the very words that you had recently spoken to that person, while that individual, with your knowledge, takes full credit for what is being said. This isn't just a serious flaw in character and leadership, but also a serious breach of trust with that person's feelings toward you.

Tony Dungy, formerly a very successful coach of the Tampa Bay Buccaneers and the Indianapolis Colts of the National Football League, relates a story in his latest book about leader-mentors. Mr. Dungy began his professional career as a defensive back in the 1970's for the Pittsburgh Steelers, who were coached by the late Chuck Noll. During a six-year period from 1974 through 1979, the Steelers won four Super Bowls, and yet Mr. Noll was never honored as the Coach of the Year. The honors went to other coaches because, after all, the presiding opinion of the football writers who voted for that honor believed that Mr. Noll had all of those great players, ten of whom are now in the NFL Hall of Fame.

According to Mr. Dungy what many of the sporting news media failed to realize at that time was that Mr. Noll nurtured and encouraged those players and held them to very high standards, thus assuring that those Pittsburgh Steelers would become one of the most successful teams in the past eighty years. But don't feel badly for Mr. Noll because, although he might have failed at self-advancement or self-promotion; he is also in the NFL Hall of Fame and is considered one of the greatest football coaches of all time.

## **b. With Other Leaders and Supervisors**

### **Always Use Good Judgment.**

You probably don't like to be interrupted when you are in the middle of a work effort, particularly if that effort is challenging and requires your undivided attention. By the same token you should be deliberative when attempting to engage with other leaders and supervisors, and avoid being compulsive or even demanding. Your willingness to wait your turn is a significant sign of respect as well as humility that will be appreciated and honored by your peers and other leaders as well as your supervisors.

Just as with your subordinates and peers, learn to be a good listener. If you have a specific question for one of the other leaders, listen intently to the answer, even taking the opportunity to write down any pertinent information. Try to keep your encounters, especially if they are impromptu, as brief as possible. That is not to say that you can't take the time to ask a personal question at the outset, so long as it involves an issue that is either common knowledge around the office or else has been privately related to you by that individual.

### **Avoid Small Talk**

You will have sufficient time and ample opportunity during the course of any given day to discuss sports or politics or television shows. Try to keep your conversations with your fellow leaders and supervisors in context and on a professional plane. Begin your conversations by thanking the individual whom you are contacting for giving you the five

or six minutes of time to help you. Never critique any leader or supervisor for taking the time to answer you, since your questions should not be considered frivolous, and thus require the best answers available to allow you and your workforce to achieve your objectives and goals.

And make a mental note, then write down (after the conversation has ended, and you are back in your office) any pertinent or important information that may have been revealed and discussed. There is also not a thing wrong with carrying a note pad or cell phone or some similar recording device when you are out and about and wish to record some of your own specific thoughts. However, bringing out any type of monitoring device in a meeting, or even in a private conversation, is a sure-fire way to squelch candid conversations by others. And if the information is important enough for you to take it further up the line to management, you must get that person's approval.

### **c. With Executive Management**

On nearly every work assignment or project with which you become involved, you should have at least one person who will become your Lead Manager. These individuals may be in positions of upper management, may be persons who have gained valuable experience working with the company and/or its clients, and may have even been successful department or plant managers. You as the leader of your organization should regularly communicate with these individuals and welcome the supervision they provide. Your functioning as a leader, however, does not permit you to circumvent your immediate supervisor. Consider this to be a fundamental obligation of good leadership.

There are many ways to accomplish this obligation in today's age of media coverage. Telephone calls are a quick and easy method of communicating, although your list of call recipients should always be approved by your immediate supervisor. Even if you receive a direct phone call from someone high in the organization, take any message and clear your response with your supervisor. If your supervisor is not immediately available, return the call as soon as possible, preparing your response in a totally truthful manner. Remembering the truth is a lot easier than remembering a half-truth or an outright fabrication. Once you have reached your supervisor, explain your reasoning for temporarily bypassing him or her.

The use of emails is another standard method of communicating with the members of your team and your supervisor as well as with any company clients and executive

management that has your supervisor's approval. In this case the same rule applies; even if you receive a direct email from someone high in the organization, clear your response with your Supervisor. If the supervisor is not available, return your email response as quickly as possible, preparing your response in a totally truthful manner, copying your Supervisor or any other manager for that particular correspondence. Keep your email responses short and to the point, always remembering that words have consequences, and most emails will last forever, so take the time to delete any offensive or unjustified statements. Just as in verbal communication, think about what you want to say first, and use your intelligence and diplomacy in your response.

### **Communication Skills**

Conversely, many leaders and potentially future managers seldom understand what skills are necessary to communicate properly with those who have attained higher levels in their company or in another company that they might be considering. One of the reasons for maintaining a daily journal may become apparent when you are scheduled to meet with an upper management member. Look at your notes pertaining to the last time that you met, or even the last time that particular member of management addressed a situation that concerned you. Reviewing those daily notes will help you to recall what was said and prepare you for the meeting. Most managers, as you may have already discovered, like to know that their subordinates are paying attention to what they are saying. Furthermore, they appreciate and have a certain sense of satisfaction whenever their words and requests are acknowledged.

The following are some basic rules of engagement when communicating with a member of upper management:

1. Avoid discussing anything in a group setting that might be controversial. Wait until you are one-on-one with someone that is trustworthy and whose opinion you value.
2. Most quality leaders think through what they are about to say before they say anything.. That can be difficult, but the better leaders and managers usually can do it.

3. Practice your diction in all environments. Nobody is expecting you to take speech classes, but being a good speaker is usually one of the stepping stones to the top.

4. Avoid saying the term "...you know..." in every sentence. It is an obnoxious term that indicates a certain lack of confidence. You don't write it in your letters or emails, so why should you say it when you are verbally communicating with someone?

5. Persevere but don't pester .After all perseverance may have become one of your strongest qualities, which may be one of the primary reasons that you were able to assume a leadership position.

By now you have probably come to realize that your opportunity for advancement will be largely dependent upon your relationships with those around you and those above you. Furthermore, you have probably also determined that a significant portion of those relationships is dependent on your personal communication skills.

## **B. Maximizing Management Skills**

### **1. Understanding Company Responsibilities and Goals**

You have studied and learned the necessary significant qualities of leadership required to become a manager in a new or existing organization, and are deemed worthy and promotable throughout your company. You have gained the confidence of your subordinates and peers through both your abilities and the techniques that you have developed, and you truly believe that you were ready for advancement to the next level in your company. You have earned the respect of those with whom you come in contact on a nearly daily basis, and your Supervisor/Manager has chosen you over other engineers due to your track record, which includes past performances, your proven abilities and your leadership skills. Your overall character, including a strong discipline, has enabled you to gain the experience and other intangibles that have set you apart in

your department and seemed to make you most suitable for a higher position. You have proven yourself worthy of the company's confidence and large investment in you for the future, and you feel that you are management-ready.

Now that you are in your new assignment, one of your first orders of business is to thoroughly familiarize yourself with your company's goals: their ideals such as their code of ethics and their profit motivation. In addition you will now become exposed to the company policies regarding their methods for managing personnel and the workload of individuals within your new organization. Hopefully you will discover what qualities they saw in you that set you apart as a leader and future manager, so that you will be observing others with aspirations who might have similar qualities. James E. Casey, the founder of a very large and very profitable company (more about him later) once said that "... a person's worth to an organization can be pretty accurately measured by the amount of supervision that person requires."

After you have become familiar with the intricacies of managing an organization for which you have total responsibility, your first personal objective is to meet with your prospective new supervisor and/or manager and their closest aides to determine precisely what they hope to accomplish with your advancement. Perhaps they have a written job description or a preliminary outline of the work in which you will be involved. Possibly you have been selected to work with a specific project manager at a different location. Maybe you have been selected to manage a new project or even a new department, and have received a commitment from executive management that you will be in charge of the new project or department with minimum outside interference. Perhaps your company has been awarded a new contract which might fit very well into your area of expertise and abilities.

Gaining as much advance information as possible at an early stage of any situation, whether it is internal or the result of the company being contracted by an outside corporation, is extremely important to your understanding of the long-term goal. Your abilities and experience in interrogation, discussion of options, and precise note-taking will illustrate to the other leaders and managers that you are well prepared for your new assignment. Your effective actions will be highly regarded and valued, and your personal confidence will increase as a result.

At any initial discussions or formal meetings you should learn several peripheral things that will have an indirect consequence on the success of your new assignment:

1. A general description of the assignment as determined by executive management of your company or your Customer's company.

2. The company's expectations of your organization when the assignment is completed.
3. The person to whom you will report directly, and your personal lines of communication with other management members such as department heads.
4. The frequency and agenda of meetings to update executive management.
5. The context and frequency of progress reports from your organization.
6. Relationships that another company has had (especially if it is a long-time Customer or a Client) with your company in the past.

Pay very special attention to this latter item because you, as the leader or manager of a group or department, are in the very unique position of fortifying these relationships by the performance of your organization. Conversely, you risk creating unnecessary problems for your company and its management by ignoring the development of a strong relationship. Not only are you obligated to have a close and honest relationship with the designated Customer Representatives, whether internal or external, but you will be well served to develop similar relationships with any potential customers. They may have different experiences, and even some key personnel contacts, that will provide you with worthwhile guidance as you grow in your management position. This is not to say that you will not have any options to perform your duties in an objective manner, but only to prepare you further to justify any of the options where your management might have a particularly strong interest.

## **2. Team Building**

Many factors are involved in team building, which is a serious, but worthwhile process. Your experience and understanding of your personnel should give you the confidence that you will be largely successful with this part of your new responsibilities. Now that you are in a management position, your organization has presumably grown much larger than when you were in a former leadership role. The principles of leadership are seamless as well as timeless, but your obligations are obviously more significant. In that

regard you must now do many things differently, while maintaining the same values that set you apart from others in your company.

### **a. Knowing Your Organization**

Quite logically you will have many obligations in your new assignment once you have become aware of your new responsibilities and duties. As described in the above section, you should have come to realize that your first new order of business is to completely understand the requirements and nuances of the company that provides your paycheck. Following that basic introduction as a new manager, your next responsibility is to select those members of your team who will provide your organization with the best opportunities for success. This is called **BUILDING YOUR TEAM**, but it no way should be confused with **TEAM BUILDING**. Very simply in the former case you are in a selection process whereby you either choose each of your new team members, or else the individuals are assigned to your new organization. Regardless of how your team is built, you are certainly expected to form the nucleus of a successful organization. In either case you must apply your leadership skills to provide assurances to your new team as well as upper management that your organization will function with excellence and achieve success.

Hopefully you had much input into the personnel who are making up your team, even some of the members who may have been assigned to you by other managers. In addition some of your team members may have been recommended to you by other individuals in your new organization. This method of selection is usually one of the better ways to choose, so long as it will help to unify your team. Quite possibly some other team members may be serving a probationary period at the discretion of you or your Supervisor.

Regardless of how they got there or what their status is, your function is to become familiar with each individual in your organization, including their abilities and capabilities, as well as their work habits, personal habits, and even their idiosyncrasies. This requires that you develop meaningful relationships with each member of your new team and that you sustain these relationships in order to raise their individual

performances. In that sense you are investing your time in what should matter the most to you - achieving the result that your company expects. However, the situation is now somewhat different than before, because your organization now may have many different personnel and there are still only twenty-four hours in a day. Thus you will have to follow two very distinctive guidelines:

1. Focus on what is significant
2. Spend quality time v. quantity time

These two fundamental principles, along with a positive influence on your part, will help to assure that those members of your organization will be encouraged and placed in a position to flourish. So long as you lift up and help other members of your new team to be the best that they can be, your opportunities for personal advancement and promotion will also increase

Your company is usually required by law to maintain a personnel file on each and every employee. Although you would be well served to maintain a similar file on each team member, your files on them may be somewhat different in nature. Your interest is in whether those individuals understood the work involved, did or did not complete their work assignments, or maybe needed additional supervision to finish the work. Just like a manager in baseball, your reputation and the success of your organization is dependent on the entire team being in synch and doing their best to win. Your records on the individual team members will help you to determine which of your team members is reliable and which ones might need more supervision in order to reach their potential.

### **b. Making Quality Assignments**

You might have noticed that nowhere in the six items above under **Understanding Company Responsibilities and Goals** is there any mention of Scope of Work. That is because quality management should be explaining to you **what** they want you to accomplish but not **how** they expect you to accomplish it. The company's upper management has given you as the Manager most of the information necessary for you to

develop the scope and target date of the required workload, and thus your responsibility is to meet those requirements.

Depending on the size and complexity of the workload, and even though you may have enough familiarity with the scope of the work to form an outline of the requirements for you and your organization, this is usually a major task and will require support and input by others. Thus your next objective, and arguably your most important other than understanding what your Supervisors expect to accomplish, is the selection of specific personnel who can best assist you in achieving your organization's ultimate goal. Each person, irrespective of whether that individual was selected by you or offered to you, represents a candidate for an assistant's position who can help you to determine success or failure of your work assignments. While this phase of building the team is critical, it can also be quite subjective, and will be that way until either you have familiarity with each of your team members, or else one particular team member stands out.

In building your team, you should be looking for those personnel that have the same characteristics, but not necessarily the same personality, as you. While you may be seeking a team member that is determined and dedicated as well as competent, you really don't need any "...yes men or women". Conversely, your team members must be flexible and not set in their ways or argumentative. Team members should be given the opportunity by you as the Manager to express their alternative viewpoints, which you should be receptive to hearing.

Nevertheless, every team member must understand that there must be decision makers and you or some other manager above you might have the final word regarding any controversy. At a very early stage in your new assignment you can expect to be challenged frequently, and you will have to develop discernment for whose ideas and concepts you are willing to accept with a minimum of convincing. Nevertheless, you don't want to place yourself in a position of humiliating any of your team members by rejecting their ideas without a reasonable discussion.

You cannot expect to micromanage any aspect of your new assignment, even if you have inherited a rather small team, so you must quickly determine which team members you can implicitly trust and which of them will try to countermand you or go against your policies when they can. Always be prepared to reprimand a team member (in private) or to have a non-performer or a troublemaker replaced. Conversely, just as you were warned that you could not be a quality leader by assuming the role of a dictator, the same philosophy will hold true when you become a manager. There are a few basic rules that you as a manager need to follow:

1. Deal with each of your team members as an individual in an impartial manner, showing that person that mutual respect is one of the primary reasons that an organization will be successful. In addition, you as the manager must try to determine what each person on the team is capable of doing so that person's progress can be evaluated by you.
2. Do not be afraid to give your team members the opportunity to succeed and the responsibility to produce results. Team members will feel a sense of importance, which will become a driving force toward that individual's success as well as that of your organization.
3. Define in writing what result each team member has the responsibility to provide. This can be in the form of a job description, or simply a short memo. This becomes a guide for you as well as your team members toward the success that you expect to achieve..
4. Be on the lookout for your successor. Someone in your organization, possibly an assistant manager or an individual in a similar organization or department will usually stand above the rest and be in line to take over your management position. This is a good thing, because Upper Management will not have to look very far to find a replacement for you when you are being considered for a promotion.

The aforementioned James E. Casey first dropped out of school at the age of eleven because of family hardship. He was able to land a job, working on commission, for American District Telegraph as a messenger, where he earned more than \$14 per month. His father died soon after James left school due to a lingering illness, leaving his widowed mother with four young children, of which James was the oldest. When his younger brothers ages nine and ten were able to find part-time work, his frugal mother managed to pool all their resources, thus enabling James to go back to school. He had his sights set on graduating from high school and enrolling in Harvard. Unfortunately, he only finished the first half of his first year in high school before he was finally forced to leave school permanently.

James continued on as a messenger for several more years, including a brief period in Nevada, trying his hand as a messenger in the gold rich community of Goldfield, Nevada. When that opportunity did not work out as he had planned, he returned to his hometown of Seattle, and opened a messenger business at age nineteen. He had two partners, and his initial investment in the new company, named the American Messenger Company, was \$100 which he had borrowed.

Several fortunate occurrences had happened just prior to the opening of AMC, and James and his partners took advantages of them. The telephone had been invented just thirty years prior and was becoming a common commodity, especially for businesses. The automobile was gaining some traction as a source for moving products more expediently than running or riding a bicycle. And finally, the Wright Brothers had flown a heavier-than-air machine at a place called Kitty Hawk, North Carolina, just a few years before James and his partners had begun their new messenger service. While Jim Casey's new company could not immediately take advantage of all three of these new inventions, they began use of the telephone on their first day, thus placing them in the forefront of other messenger services in their area. Even though they utilized bicycles as their primary means of transportation in their first six years of operation, their motorized fleet actually began as early as 1913 when they purchased a brand new Model T Ford. Their plan was to utilize modern technology extensively as tools in their new business.

Six years after their founding and having incorporated, they changed their name to Merchants Parcel Delivery, which they believed more nearly described the type of business in which they were principally engaged. In 1919 and after they had expanded to several other cities in the United States, the company changed its name again to the United Parcel Service. Today UPS has nearly 400,000 employees in every state in the USA, and services more than 220 countries around the world. Their headquarters are now located in Sandy Springs, Georgia, a suburb of Atlanta.

You may wonder why this brief biography of J. E. Casey was injected into this course, which is, after all, primarily directed toward engineers and technical graduates. Mr. Casey was not an engineer, nor was he even a college graduate, having dropped out of high school in the ninth grade. The simple truth is that most of the four basic rules described above were a significant part of the management guidelines that UPS followed on its way to becoming one of the world's most successful companies in the twentieth century.

Many of these principles were implemented by Mr. Casey as the result of his early years in the messenger business when he worked on a commission basis. He realized that the responsibility for achieving success would be his alone under those circumstances, and that individuals needed to be given this responsibility along with the authority that goes with it. The fact that UPS used the most modern technology in their development was another factor in their rapid growth. UPS was one of the first companies to use telephones, cars, and airplanes - technology that we now take for granted. They still have the largest private fleet of airplanes in the world. Most of their leaders and management personnel were offered ownership in the company through stock options, and many of them retired as millionaires.

### c. Communicating Your Objectives and Goals

Now that you have been promoted to a management position, you will begin to develop basic outlines for your new organization. These should include the following objectives and goals that will fit your policies as well as those of your supervisors in particular, and the company in general:

1. Quality of work is essential
2. Problems should be brought to your attention first
3. Each team member should cooperative with the other team members
4. There is always room for constructive criticism
5. Team members must act professional around other managers and customers
6. Each team member will have a voice in the organization
7. Your management policies will prevail unless they are mutually changed

Whether or not a Manager has an official team within his/her direct supervision, the manager is responsible for the assignment of responsibilities. This implies that the manager will determine which groups within the organization, as well as which individual, will be responsible for each phase of the workload. For instance a Project Manager or another Supervisor might determine the method for carrying out the overall assignment; whether to use in-house engineering services, if available, or outside sources if not. In some cases, depending on the time constraints and or the budget available, a combination of the two resources may be justified.

In any case, as the manager of your group, you are responsible for the **quality** of work that is produced by any of your team members. All members of your organization must have the same sense of awareness as you, and must also be sensitive to the overall objectives of any Clients or Customers. Essentially every step of the workload or scope of work must be preplanned by the Manager to the extent that each responsible member of the organization has a clear understanding of the duties and timeline required.

Because you are treating each member of your organization as an individual, you will discover that each member will have a different level of **problems** for you to manage, whether they are work-related or personal. As a lower level manager, you will probably be able to deal with work-related issues more easily than personal matters. However,

your learning curve will necessarily rise regarding personal matters by becoming a good listener.

As the new manager of an organization, you have an obligation to be **cooperative** with all of your team members. This fact does not preclude you, however, from analyzing the situation and making an arbitrary decision. Always remember that you are the person with primary responsibility for the quality and deliverables that your organization produces - the buck (literally and figuratively) stops with you.

Almost no one is above **criticism** when such is due; however, such criticism should be constructive dialogue, whether it is directed at you or coming from you as the manager. As a new manager, or as the manager of a relatively new organization, you may find that you or your team members are being unfairly targeted. If the criticism is verbal, always take a deep breath before responding; if it is in writing, wait a full day before replying.

Looking **professional** is usually a lot easier than acting in a professional manner. Looking the part only requires a clean shirt or blouse, nice looking shoes with pressed slacks or a pants suit. Being a professional requires being patient and following all the guidelines of leadership. Being a decisive decision maker without being prideful will take a manager a long way toward being a professional.

Since each team member in your organization is being treated as an individual, one of your management principles is that each individual will have a voice in the overall operation of your organization or department. This can be accomplished on a one-on-one discussion with you, or this can be handled in semi-monthly or monthly formal meetings being chaired by you. Listen carefully and take notes, and don't forget to give others the credit if worthwhile changes are made.

Never forget that you are the manager of the organization and that your **policies** and those of your company should be paramount to your integrity. There is no need for you to compromise any of your principles for the sake of expediency or cost factors, unless one of your policies is proving to have negative connotations toward your company. Only then should you consider making a decision that will affect your organization and your company in a positive manner.

### **3. Motivational Skills**

Whether you are an experienced or new manager, and irrespective of your affiliation with the various department supervisors, project groups and other personnel who may be assisting with your work assignments, you must be able to motivate the individuals and/or the supervisors involved. In general, this means that the manager must stay positive throughout the respective assignments, maintaining a strong personal discipline, and avoiding any negativity. A negative attitude which would illustrate a lack of discipline might include such incidents as browbeating, entering into short-tempered arguments, or – worst case – telling on someone or calling that person out in front of peers and/or supervisors.

One of the quickest way to lose the respect and control of your organization and ultimately your Customer, is to perform in an immature manner. Should you have a disagreement with an individual over a performance failure that is egregious enough to get your attention, plan to meet with that individual quickly and personally. In the event that the situation involves an individual who may not be your direct responsibility, still plan a private meeting with that person, only inviting that individual's direct supervisor if the two of you cannot work out your differences. Keep these meetings confidential and cordial, and maintain an open mind.

You may determine that your concern was misplaced or, conversely, that there was a complete misunderstanding by the individual of your intentions. Try to resolve the issue at the meeting without creating any ill will or rancor. Should your concerns be serious enough in your opinion to jeopardize the work that has been assigned or the schedule that has been established, further steps and options may be required. If you decide that there is sufficient reason to warrant replacement of personnel, discuss that issue in a separate meeting with the group leader and your Supervisor. This is a serious situation, so you should have your justification for your decision in writing.

## **a. Creating Teamwork**

Creating a teamwork atmosphere is quite different from simply creating or organizing a team. In either case you may become the beneficiary of a successful organization, albeit for entirely different reasons. When building a team, the primary reason for success is in the selection process based on your knowledge of the previous performances of the team members that you have selected. After you have selected your team members, the burden is on you as a manager to cast your vision for your organization in terms of what you expect from them. You must create an environment of teamwork so that the organization, not just the individual member, can share in the success of the entire team's common objectives and goals.

One way to do this is to place the person in a position to succeed and to illustrate your confidence in that person's abilities. Another method is to encourage creativity, accompanied by responsibility, with each of your team members. You may have to remind the team members from time to time that your vision has to become their vision, and you will probably have to approach each individual team member in a different way. Once the team members are made aware that their accomplishments have achieved a level of success which has been acknowledged by you as well as by those managers in the company that are above you, you have created a teamwork atmosphere.

The following is another example of what can be accomplished by one person who had a desire to serve his family, his customers and his employees by using his leadership skills and his management philosophies, some of which he developed starting at an early age

Truett was born in the very small town of Eatonton, Georgia, a community of only a few thousand people located south of I-20 about 75 miles east of Atlanta. When Truett was four years old, the family moved from that sylvan setting near the Oconee National Forest into the city of Atlanta. When the Great Depression began, Truett tried his hand at different small ventures, including running a paper route for the Atlanta Journal Constitution in 1935 at the age of fourteen. One of the principles for successful management was developed during his paper route days: service was the key component for maintaining his customers and growing his business.

Even though his family was impoverished and could not even afford to live at Techmoor, which was the first public housing project in the entire country, Pruett was able to graduate from Boys High, now known as Grady High School. Following the end of World War II, in 1946 Truett and his brother had saved up some money and were able to open a small restaurant in Hapeville, Georgia, a tiny suburb of Atlanta. Relying on a keen business sense and a strong work ethic, Truett and his brother were successful with their first restaurant which prospered and grew, and was known throughout the Atlanta area as the Dwarf House.

in 1961 a second Dwarf House was built in the south Atlanta suburb of Forest Park. In that same year Truett invented (his term) the boneless chicken breast sandwich, which he called a Chick-fil-A. Over a four-year period Truett and his team perfected the boneless and highly flavored chicken sandwich and opened their first Chick-fil-A restaurant in the Greenbrier Mall in Atlanta. The mall did not really want Chick-fil-A initially as a tenant because Truett, a devout Southern Baptist, refused to open his restaurant on Sundays. The great majority of shopping malls rely on daily sales to cover rent and other fees and expenses, and they usually do their biggest business on the weekends. Truett's claim was that his restaurant would have as high a sales figure in six days as any of the other fast-food restaurants would have in seven days. Truett's claims were soon borne out, and today you will see a Chick-fil-A in nearly every shopping mall and airport food court, but on Sundays their restaurant lights are out and their restaurants are closed.

Since 1986 when the first free-standing Chick-fil-A restaurant was opened in the Druid Hills section of Atlanta, Truett Cathy and his Chick-fil-A team have opened more than 1800 restaurants and food court facilities in at least 40 states and the District of Columbia. Those restaurants today have the highest annual same-store sales, and sales have increased every year since Chick-fil-A was founded. Obviously Truett Cathy did many things right and followed several leadership and management principles that enabled his company to achieve success. Chick-fil-A prided itself and attributed its success for all of its restaurants to the same two principles that Truett Cathy had learned when he had his paper route for the Atlanta JC:

1. Always be courteous

## 2. Offer the best service available

But what about the several thousands of people who worked for Chick-fil-A in the past, many of whom are still employed by the company today. Most of the employees are offered scholarship money for continuing their education. Many have shown leadership qualities and have moved up in the organization to become store owners and franchise holders.

Consider some of the qualities that Mr. Cathy imparted on his management team members and many store owners. The following is one of the hallmarks of Mr. Cathy:

### **Create a Loyalty Effect**

In 2014 a Chick-fil-A store owner in Texas notified his fifty employees that he would be shutting down his restaurant in early 2015 for a five-month renovation. When the restaurant closed for remodeling in March of 2015, the owner notified the fifty employees that he would continue to pay them for the five months that the restaurant was idle. He had been so pleased with his personnel and their teamwork attitude that he did not want to lose one team member. He asked that they come back when the work was completed, because he believed that each member was part of a great team and, in fact, offered each of them a raise. When the restaurant reopened five months later, all fifty employees returned.

Truett Cathy was credited with creating a strong loyalty effect even before he began expanding his Chick-fil-A stores and franchises throughout the United States in 1986. As early as 1973 he established a Team Member Scholarship program to encourage restaurant employees to further their education. Today more than 20,000 students have taken advantage of the Chick-fil-A scholarship opportunities.

Obviously, as a manager at a lower level, you can't necessarily speak for your company and offer scholarships to your employees. However, you can be aware of what other

companies are offering their employees as incentives to become better employees. At some point in the future you may have the opportunity to recommend a feature that your company can offer to its team members, so your knowledge and awareness of what might be gratifying to your employees as a method for improving your company is important.

In the meantime you are obligated to create your own Loyalty Effect within your organization. Just as you are commanding loyalty from your subordinates, they are also expecting a strong sense of loyalty from you toward them. This may not mean scholarships for the team, but this does require you to provide understanding, gratitude for a job well done, and constant encouragement whether on a professional or personal level. Often a subordinate or team member will request an answer to a question that might involve the direction that your organization, or even the entire company, is heading. You owe that individual a truthful response if you know. If you don't know, don't make up something that you can't back up, especially if your response might cast a shadow on the company. Provide a truthful answer only after you have all the facts.

## **b. Resolving Organizational & Personal Issues**

As an engineer you should always remember that you are not working in a vacuum, and that those around you as well as those above you to whom you have certain responsibilities are scrutinizing your performance just as you are evaluating theirs. You may feel that you are not in a position to resolve your company's problems, but you can actually do your part in that regard by taking care of the issues or problems associated with your own organization.

Sometimes, however, a division will develop in your organization despite your best efforts to avoid one. Differences of opinion are not uncommon in any organization, but should be resolved among the team members. Even if the issue cannot be worked out by your team and may require a decision by you, your resolution of the dispute should be satisfactory to the team members. Your role as a leader, which gained you the opportunity to be the manager of an organization, is to protect the other members of the group as well as your company.

There is a great difference between a dissenter and dissension. If an air of disagreement exists which may affect an individual member's attitude and performance, then a separate and private meeting between you and that individual must ensue. During this meeting you will have the option to accept that team member's position, or to convince the individual that there is no place for division in your organization. As someone on your team who seemingly has an alternate approach to your team's ways of accomplishing the work that is assigned by you, this dissenter should be allowed to voice those alternatives. If that alternate approach is not acceptable to you, your explanation should suffice and both you and the individual should move forward.

There is always the possibility, especially if you are a relatively new manager, that your decisions may be unacceptable to some individuals. Those individuals may try to go around you by discussing the situation with another manager at a higher level. Those individuals may take another action by trying to convince some other team members that your approach may not be in the best interests of the organization. You now have a clear case of dissension. You will then have to decide whether that team member who has caused dissension is salvageable and can still be an integral part of your organization. One of the toughest decisions of any manager is determining whether an individual has breached the teamwork concept of the organization as well as your trust and must be reprimanded, transferred, or terminated.

## **Miracle on Ice**

One of the greatest examples of teambuilding occurred at the 1980 Winter Olympics in Lake Placid, New York. A team of collegiate ice hockey players from the United States, coached by Herb Brooks, began the Olympic tournament with no expectations and were given no chance for a medal. The team consisted of a large group of players from the University of Minnesota as well as several players from their biggest rival, Boston University. Only one of the players had any Olympic experience, and the U.S. team had not won a medal in this event in decades. Throughout training camp and the early exhibition season there was much friction and negativity, but Coach Brooks managed the team well with a combination of discipline and tolerance.

The Soviet Union hockey team, made up of experienced players who were well-paid "amateurs", had won six gold medals in the seven previous Olympics, and were heavily favored to win the gold medal in 1980. To make matters worse, President Jimmy Carter had threatened to boycott the Summer Olympics, which were to be held in Moscow later that year, because the Soviets had invaded Afghanistan. That threat, which did materialize, angered the Soviets immensely, and gave them added incentive if the two teams were to meet.

The U.S. team began to show some semblance of teamwork during the long, sixty-one games exhibition period leading up to the Olympics. When the preliminary round began, the American team opened play against Sweden, one of the teams favored to win a medal. The U.S. team was able to gain a 2-2 tie by managing to score a goal with only 27 seconds left in the game. They then went on to win four more games, including a 7-3 victory over a heavily favored Czechoslovakia team, to advance to the medal round. Going into the medal round the Americans under the direction of Coach Brooks had numerous long and arduous practices. Conversely the Soviets, who had been defeating their opponents by lopsided scores, were content to rest their players and not subject them to heavy workouts. When the medal round of the Olympic games began, the U.S. team drew the Soviet Union team in the semi-finals, while the other semi-final match was between Sweden and Finland.

In the first period the U.S. team fell behind the Soviets 2-1, but almost miraculously scored a tying goal with just one second left in the period. However, in the second period the Soviets, utilizing their superior strength and skills, kept the pressure on the American goalie, peppering him with more than twice as many shots as the Americans could manage. The Soviet Union led by a 3-2 margin at the end of the second period and were very confident of the outcome

In the third period the Soviet team continued to outshoot the American team, but could not score against the American goalie. Then the Americans struck quickly, scoring two goals in less than a minute and a half in the middle of the period, making the score 4-3. For the first time in the 1980 Olympics the Soviet team was behind, and they began to panic. Even though they continued to outshoot the Americans, their shots were erratic and were missing the goal by wide margins. In the meantime Coach Brooks ordered his players to stay aggressive and to stay on the offensive rather than to go into a defensive

posture. As the Americans were clearing the puck in the last ten seconds of the game, announcer Al Michaels was counting down the seconds with the crowd and shouted into the microphone, "Do you believe in miracles?"

The Americans still had one more game against Finland, who had defeated Sweden in the other semi-final game, before they could claim the gold medal. In that game against the Finns, the Americans fell behind at the end of the second period by a score of 2-1. Once again Coach Brooks injected his influence on the Americans, imploring them to be more aggressive in their battle with the Finns. The final result was that the Americans came from behind in the third period to score three goals, win the game 4-2, and claim the gold medal.

Many of the players signed contracts and later played for teams in the National Hockey League. Herb Brooks coached for several teams in the NHL and conclude his career as an executive with the Pittsburgh Penguins of the NHL. As far as the game was concerned, Sports Illustrated many years later named it as the No. 1 Team Sporting Event of the twentieth century.

#### **4. Going Beyond Company Requirements**

Now that you have reached the management level, your performance is no longer based solely on what you can contribute to the company, but rather on how well you and your team perform for the company. Your new organization may consist of a rather small group of individuals who rely on you for key contributions to their workload. Alternatively, your new organization may be so large that you might see or meet with any one of them no more than every few weeks. Virtually every manager must now realize that he or she is the servant of two distinctive entities. Your first priority is to the company, while the second priority of nearly equal importance is to your team members,

In the above situation where you might have a smaller organization, you must come to realize that you are the manager and not just a leader. Your rules of engagement are such that you are no longer focusing on your abilities to produce the work, but rather on your being able to assist your team members to produce that work to the best of their abilities in order to achieve a predetermined mission. In doing so you as the manager should not be reluctant to utilize your talents and abilities on occasion when the need to assist a

team member is necessary. Nevertheless, your list of responsibilities will increase dramatically when you become a member of management for a much larger organization, and you will have to quickly judge how much time and priority you can allot to any one individual.

### **Look for Your Replacement**

Should you be fortunate enough to be at the opposite end of the management spectrum, and your new assignment is quite large, this may involve an entire department or maybe even an entire office or a satellite plant. If that type of situation confronts you, one of your first orders of good management practices is to seek out one quality assistant who has the leadership skills that you most admire. Selecting more than one assistant upon your arrival at the top job might seem presumptuous to upper level management, unless you had come from an assistant's position yourself, or else there was a precedent for having more than one assistant.

### **Look for New Solutions**

Being in a management position can and should be a longer-term process in which you will presumably come to know the new assignment better than anyone who has held that position before you. However, some managers will turn their new assignments into endurance races just to see how much more time they can spend inside company walls than anyone else. While your new position may test your endurance initially, and there will probably be several instances when your additional time will be required in the plant or the office or the worksite, you and your team members need to work smarter. As a manager of any organization, you can't force progress to be made; rather you must control the way in which progress can be made.

Of course, one of the primary ways for you to control progress is by having the mindset that your self-advancement philosophy should take a backseat to your responsibility for caring about and supporting the other members of your organization. As we saw before, you may not get immediate credit for the success that your organization achieves. On the

other hand, Upper Management will undoubtedly come to the realization that your organization, functioning like the proverbial "well-oiled machine", is no accident.

### **Promote Your Company to Your Team**

Very few companies today have a vested pension plan for their employees, but many have other perquisites which have proven to be beneficial to both the employer and its employees. Many companies offer healthcare subsidies, contributory pension plans, 401-K plans that might include company stocks and options, graduate school programs, and discounts at local health clubs, to name a few. First of all, become thoroughly familiar with each of these extracurricular activities so that you can become a participant if that is your desire. Second, implement your leadership qualities by encouraging each member of your organization to participate in whatever will benefit them. This is certainly a positive way to improve relationships with your team members. Furthermore, your sincerity and humility will likely result in the development of relationships with those in similar or higher management positions.

### **Promote Your Company to the Outside World**

Many companies today are as proud of their being a good place to work as they are of their achievements. As a manager you are now a part of that reputation, and you have a great opportunity to carry your company's banner. Whether you are doing work in your community, participating in company programs and events, or just being a good neighbor, you are enhancing people's opinions of your company. And always be on the lookout for testimonials from others outside your company. If your organization or company is the recipient of a compliment following the work that has been done or the service that your organization or company has provided, ask if you can quote that statement as a testimonial. These testimonies will ultimately prove beneficial to both you and your company in the future.

1. Which of these backgrounds is a valuable tool for engineers who have higher aspirations?
  - a. Business
  - b. Finance
  - c. Both of the above
  - d. None of the above
  
2. A function that is basic to any engineer's daily activities includes:
  - a. Keeping up with the stock market
  - b. Keeping accurate daily records
  - c. Keeping up with the business news
  - d. None of the above
  
3. Which of the following is most important for engineers to know about their company?
  - a. The company's ultimate financial goals
  - b. The company's current stock price
  - c. The company's list of creditors
  - d. All the above
  
4. Some leadership qualities include:
  - a. Demonstrating sincerity
  - b. Showing an interest in other's opinions
  - c. Having a teachable spirit
  - d. All the above
  
5. A good character trait for an engineer who wishes to be management-promotable is:
  - a. A stubborn attitude
  - b. An unwillingness to compromise
  - c. Preparing for future situations and opportunities

- d. All the above
6. You as the squad leader are expected to:
- a. Micro-manage the work of others so that things get done.
  - b. Tell your Supervisor how well things are going, whether or not it's true.
  - c. Become argumentative with your team members when things aren't going well.
  - d. None of the above.
7. When a problem occurs in your group, you would do well to:
- a. Voice your criticism and blame others.
  - b. Accept responsibility and seek a solution.
  - c. Tell your Supervisor that you aren't being paid enough.
  - d. None of the above.
8. When building your project team, you need personnel that have the same:
- a. Background
  - b. Personality
  - c. Characteristics
  - d. None of the above
9. The leader should have an open line of communication with the Supervisor or Department Head:
- a. At the beginning and at the end of the assigned work.
  - b. From the beginning to the end of the assigned work.
  - c. Sometimes, but only when the situation is critical.
  - d. Never. The work assignment is the sole responsibility of the leader.
10. Issuing a weekly progress report to your Supervisor for the assigned work
- a. Keeps your Supervisor current with the progress of your assignment.
  - b. Apprises management of any short or long term problems.
  - c. Affords your Supervisor the opportunity to be involved in the work if necessary.

- d. All the above.
11. Three very important aspects of leadership are Vision, Mission and Values:
- a. True
  - b. False
12. which of the following character traits should an experienced leader not develop?
- a. Enthusiasm
  - b. Sincerity
  - c. Strong opinion
  - d. Initiative
13. A positive attitude is one of the acquired principles of a quality leader.
- a. True
  - b. False
14. Your chances of advancing more rapidly in your company increase if you are a good:
- a. Debater
  - b. Listener
  - c. Follower
  - d. Speaker
15. Some factors that a manager can implement when the work assignment begins to lose steam are:
- a. Blaming the Project Manager
  - b. Be willing to look at options and alternatives
  - c. Blaming the procurement department.
  - d. None of the above
16. Arnold Palmer never became a successful golfer because
- a. He always took things for granted..
  - b. There were too many golfers better than he was.
  - c. He always gave up big leads with nine holes to play.

- d. None of the above.
17. Self-training is an important part of your growth as a leader and a manager.
- a. True
  - b. False
18. Not giving credit to somebody else only applies when that individual:
- a. Tells you something that you wish to repeat.
  - b. Writes something that you really like.
  - c. Does something that is really beneficial.
  - d. None of the above.
19. A good philosophy for managers to follow is to have lengthy meetings and long impromptu discussions because you will learn more that way.
- a. True
  - b. False
20. In general, which of the following characteristics should not be considered when communicating with Executive Management?
- a. Being perseverant
  - b. Speaking concisely
  - c. Pestering
  - d. Getting to the point
21. One of the first things that you should do as a new manager is to :
- a. Schedule an organizational meeting so you can tell everyone how you want things done.
  - b. Meet with your immediate supervisor to determine what you are expected to accomplish.
  - c. Name at least one assistant within the first week.
  - d. None of the above

22. "Building Your Team" and "Team Building" mean the exact same thing when you are a manager.
- a. True
  - b. False
23. Now that you are in management, there are some basic rules that you should carry over from being in a leadership position.
- a. Deal with each of your team members as an individual.
  - b. Do not be afraid to give your team members the opportunity to succeed.
  - c. Be on the lookout for your successor.
  - d. All of the above.
24. The true value of a team member can be measured by how much supervision that individual requires.
- a. The more supervision needed, the more valuable is the individual.
  - b. The less supervision needed, the less valuable is the individual.
  - c. The less supervision needed, the more valuable is the individual.
  - d. None of the above.
25. Once you reach the management level in your company, you can stop worrying and coast because the company will look after you for the rest of your career.
- a. True
  - b. False