

CHARACTERISTICS OF SUCCESSFUL AVIATION
LEADERS OF OKLAHOMA

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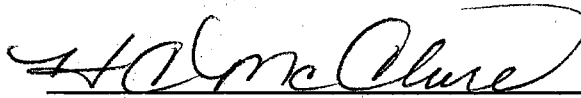
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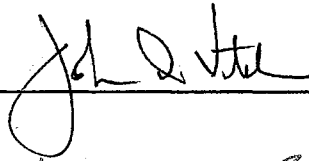
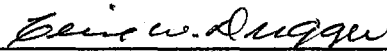
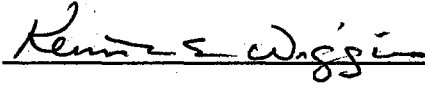
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CHAPTER I

INTRODUCTION

This qualitative study of successful aviation leaders of Oklahoma is designed to identify specific characteristics that contributed to leadership success. Extensive technical training is required to succeed in the field of aviation. As aviation personnel reach a certain point in their careers, they frequently find themselves in leadership roles for which they may not be well prepared for success. Others find themselves thrust into positions of influence or leadership in the community because of their technical achievements in aviation. The soft skills, which can assist in a smooth transition from a technical career to the intangible and sometimes complex tasks of leadership, may have been neglected or omitted completely throughout their careers.

Although some research has been done on the impact of situational factors on successful leadership, very little career-specific research has been done. Some limited research of police, fire, military, space, and even aviation incident commander roles during life-threatening events has provided insight into the crisis or emergency aspect of leadership. Little has been done, however, to look at the unique characteristics or skills required for the successful accomplishment of daily leadership responsibilities in the unique aviation environment.

Statement of the Problem

No clear understanding exists of specific skills, practices, behaviors, or other factors which contribute to successful leadership in the aviation community. If a unique set of success factors could be identified for the aviation leaders of Oklahoma, a knowledge base of leadership skills necessary for effective leadership could be used in establishing curricula within the aviation alliance. The academic community would be better equipped to address the needs of the aviation community and fill the gap between the technical and soft skills training required for effective leadership.

Purpose of the Study

The purpose of this study was to examine the personal traits, skills, practices, behaviors, background, academic and career success patterns of selected aviation leaders in Oklahoma. It was based on the assumption that findings in the personal interviews of selected aviation leaders, when compared to a review of the literature regarding qualities of leaders in other fields, could provide insights regarding leadership success and a better understanding of leadership in general, as well as leadership in specialized technical fields. Findings could be especially helpful to the aviation community, the Aviation and Space Education program at Oklahoma State University, and the Oklahoma Aviation Alliance in looking at future curricula needed to develop aviation leadership skills.

Research Questions

The following broad research questions were answered by the study.

1. What career choices as well as family, education, and other background factors contribute to success in aviation leadership?
2. What guiding values contribute to success in aviation leadership?
3. What management styles and practices contribute to successful leadership in the aviation community?
4. What specific qualities, characteristics, skills, or personal traits affect leadership success in the aviation community?
5. What specific recommendations could be made for developmental activities for future aviation leadership?

Assumptions

For the purposes of this study, the following assumptions were made:

1. Leaders of the aviation community being interviewed provided accurate and candid responses to interview questions.
2. An individual who has achieved a position of influence, no matter how small or large in scope, is considered a leader.
3. Subjects selected for interview, who have achieved a position of influence in the aviation community or who have reached the top-ranked position in their specific aviation organizations, were successful in their leadership role based on that achievement.
4. Whether or not leaders are born or made, a need exists for further knowledge and an improved understanding of basic leadership characteristics and skills in order to enhance natural leadership abilities, or to establish a knowledge base for those thrust into a leadership role not of their choosing.

5. Successful leadership occurs in all organizations, whether volunteer or corporate; therefore, a study unlimited by size, scope, or discipline would provide a rich source of data.

Limitations

Limitations of the study were primarily geographic in that findings were restricted to the types of aviation industry located in Oklahoma and could not be generalized to a larger population or another state. Those leaders whose organizational headquarters are actually located in another state were selected for interview based on having achieved the top ranked position of that portion of the organization which is located in Oklahoma.

Definitions

The following definition is furnished to provide, as nearly as possible, the clear and concise meaning of the term as used in this study:

Successful Aviation Leaders - Individuals who have achieved a position of influence in the aviation community or who have achieved a top-ranked position of aviation leadership in an aviation organization.

Scope of the Study

The scope of this study was limited to selected aviation leaders of Oklahoma who have achieved a top-ranked position of aviation leadership in an organization or a position of influence in the community. Leaders selected for study came from a variety of aviation organizations including government, academia, military, corporate aviation, and

air carrier leadership as well as community leadership (specifically those aviation personnel who are engaged in a political or civic leadership role or who serve in a leadership organization such as Leadership Oklahoma). For those organizations whose organizational headquarters are located in another state, the individual selected for interview was the top ranked official located in the state of Oklahoma.

Although participants in the study were Oklahoma leaders, their leadership influence was frequently national and international in scope. Leaders chosen to participate in the interviews represented very small organizations as well as very large organizations because the Oklahoma aviation community has leadership roles in organizations of all sizes. Participants chosen for interview also represented aviation organizations of all types and disciplines ranging from organizations whose workers are volunteers to corporations and government agencies with a large staff of paid employees. It was assumed that the leadership skills necessary to serve volunteer organizations as well as business entities would provide a rich source of data for any study on successful leadership.

CHAPTER II

REVIEW OF LITERATURE

Introduction

A review of the literature on leadership revealed an almost insatiable desire to learn about leaders, who they are, and what they do. The massive amount of literature and research on the topic provided interesting reading and valuable insight, but few, if any, conclusions. It seemed that everyone had a different way of saying the same thing. One of the still controversial issues found in the literature was the question of whether or not a leader is made or born. No conclusive evidence supported either argument, and certainly very little information differentiated any of the qualities of leadership by type of organization led.

Most of the literature was generic in approach and did not distinguish differences in leadership styles which contributed to success in specific occupational specialties such as aviation. The situational approach to leadership, as outlined by Hersey, Blanchard and Johnson (1996), provided one of the earlier analyses of leadership effectiveness under varied circumstances, but review of the literature provided only limited information regarding success factors in specific career fields such as aviation. Some limited research had been done on leadership of organizations similar to aviation that were frequently involved in crisis situations that necessitated a different type of leadership.

Aviation Industry of Oklahoma

Although Oklahoma is not a major hub and does not have a major air carrier headquartered in the state, the aviation industry has been well represented in a variety of ways. The Mike Monroney Aeronautical Center of the Federal Aviation Administration is located in Oklahoma City, along with a large number of tenant organizations responsible for training and development of aviation personnel throughout the world; Tinker Air Force Base, the largest employer in the state, is an aviation organization providing maintenance and other flight services. Their presence in the state feeds the community with an abundant amount of aviation expertise. General aviation has also been well represented with a significant number of corporate pilots servicing industry in a variety of capacities including current representation on the National Business Aircraft Association Board. Air carrier operations in Oklahoma have consisted primarily of reservation centers and maintenance centers. American Airlines has a maintenance center in Tulsa, and Southwest Airlines has a reservation center in Oklahoma City.

The Oklahoma Aeronautics Commission (Oklahoma Aeronautics Report, 1997) was established in 1963 by the Legislature to “encourage, foster and assist in the development of aeronautics in this State and to encourage the establishment of airports and air navigation facilities” (p. 1). According to the report, approximately 413 aviation facilities exist in Oklahoma, 147 public use airports, and 173 private use airports. Approximately 9,956 active pilots, 3,135 based aircraft, and 3,717 registered aircraft are found in Oklahoma. Oklahoma ranked 5th in the nation for the number of airports eligible for federal funds. One of the primary goals of the Commission was to inform and educate

the public about aviation through grants and other activities designed to promote public awareness of aerospace/aviation education and training. In 1997 aerospace education grants were provided to the University of Oklahoma for a weather system project and to the Aircraft Owners and Pilots Association (AOPA) for a pilot training safety project.

The emphasis on aviation was also apparent in the educational arena in Oklahoma. A number of colleges and universities throughout the state are attempting to meet the needs of students in aviation. The Oklahoma Aviation Alliance was formed to streamline that process and work with public schools to coordinate aviation programs and curricula. Vocational technical institutions in Oklahoma continue to provide specialized training such as that provided by the Metro Tech Aviation Career Center of Oklahoma City and the new Tulsa Technologies Center located in Tulsa, Oklahoma.

With this kind of interest and emphasis for aviation in Oklahoma, many leadership opportunities emerge that could possibly benefit from a qualitative study designed to improve the understanding of aviation leadership and ultimately improve the quality of education and training available within the state. As patterns of leadership emerge, further advances in program and curriculum development could expand and refine ongoing efforts to provide quality leadership training for the Oklahoma aviation community.

Patterns of Leadership Success

History of Leadership Theory

A search of the literature revealed accounts of leadership successes dating back to the beginning of history. Biblical accounts of Moses leading the children of Israel into the promised land provided one of the earliest examples of successful leadership. The literature abounds with other examples of great leaders and their leadership styles. Equally abundant are the number of studies and analyses of what comprises successful leadership. These analyses of the forward thinking of past generations, invaluable as we move into the 21st century, provide insights toward a more productive future in aviation.

A focal point of agreement in much of the literature regarding leadership was a common understanding of the term itself, which almost always included the concept of leadership as a process of influencing people to meet specific goals. The process of leadership involved task and human relationships. How one successfully accomplishes the integration of these two aspects of leadership has been the object of study since the early 1900s when Frederick Taylor in *The Principles of Scientific Management* (1911) described ways to improve the methods workers used to accomplish the task. Not until an emphasis on human relations became important did the main focus of study shift to leadership and the needs of people rather than the needs of the organization.

One of the earliest and best-known studies on leadership was the Lippitt and White "Leadership and Group Life" study in the 1930s (as cited in Etzioni, 1964) of the effect on the behaviors of groups of children under three types of leadership: authoritarian, democratic, and laissez-faire. They found that the group under democratic

leadership manifested warmth and friendship with each other, frequently participated in group activities, were independent in the absence of leadership, and produced higher quality products even though their volume of production was lower. The laissez-faire group did not do well on achievement or interpersonal relations. Authoritarian leadership produced two types of reaction: aggressive or rebellious reactions and apathetic reactions with emotional release in the absence of the leader. Numerous studies have applied these findings to adults and to organizations. Most of the studies have shown that democratic-type leadership greatly affects worker attitudes toward their jobs and their ability to adjust to change. As a result of the findings of these studies, a renewed emphasis was placed on the importance of people, communication, participatory decision-making, and democratic leadership which came to be known as the Human Relations movement.

Paul Hersey, Kenneth Blanchard, and Dewey Johnson in *Management of Organizational Behavior* (1996) described three basic approaches to the study of leadership which have been predominant since 1945: the trait, behavioral, and situational approaches.

Trait Approach

The trait approach suggested that certain characteristics are essential to effective leadership. Although this approach was one of the first approaches to leadership theory that was studied, it became somewhat less dominant as research began to focus on the concept that leadership could be taught. The trait approach is once again emerging in much of the literature as described by David Cawthon in an article entitled "Leadership: The Great Man Theory Revisited" (1996). Some of the best known research regarding

the trait approach to leadership was done by Gary Yukl as described in his book, *Leadership in Organizations* (1998), in which he identified a list of traits and skills found most frequently to be characteristic of successful leaders. They included high “energy level and stress tolerance, self-confidence, internal control orientation, emotional maturity, and integrity” (p. 260).

An earlier study by Morgan McCall and Michael Lombardo in *What Makes a Top Executive?* (1983) described the differences between executives who reached the top and those who were expected to go to the top but did not make it. They identified ten “fatal flaws” with the most frequent being insensitivity to others. Betrayal of trust was the most serious.

Other specific traits of leaders which have been studied extensively included vision and courage. In the book *Vision, How Leaders Develop It, Share It, and Sustain It*, Joseph Quigley (1994) offered the following comment: “The Leader who offers a clear vision that is both coherent and credible and who lives by a set of values that inspire imitation, has a fundamental source of power” (p. 10) to get things done.

In their book *Credibility, How Leaders Gain and Lose It, Why People Demand It*, James Kouzes and Barry Posner (1993) identified key characteristics of admired leaders which they had gleaned over a decade of studying leadership. In every survey, honesty was selected more often than any other leadership characteristic. Honesty and integrity form the foundation for believability and credibility which are essential to leadership. When people are asked to follow someone, they must know that person is worthy of their trust.

In still another book by James M. Strock entitled *Reagan on Leadership, Executive Lessons From the Great Communicator* (1998) President Reagan's personal traits in leadership were described as a way of life. The courage or heedlessness of self associated with high level leadership was identified as the first trait he exhibited throughout his life. Also emphasized was the importance of high standards which were best stated in President Reagan's own words, "The greatest leader is not necessarily the one who does the greatest things; he is the one who gets the people to do the greatest things" (p. 17).

All of the research to date, while identifying some positive and negative qualities that affect success, has not identified any single quality or personality trait that is universal in determining success or failure in leadership. Yukl (1998) contends that further research is needed on the trait approach because few of the existing studies have included measures of leader behavior. Also, most of the trait studies have not examined the relationship and interactions of multiple traits in influencing behavior, nor have they considered the idea of balancing one trait with another by observing trait patterns. The trait approach to understanding leadership could imply that leadership training would be needed only if an individual already had inherent leadership traits which could be enhanced through life experience and additional training. This could have all kinds of implications for the educational community in that some kind of assessment for those traits would be imperative before beginning the educational process. It could also imply that the only kind of leadership act is that of great men doing great things.

Michael McGill and John Slocum in *A Little Leadership, Please?* (1998) caution that not every act of leadership is national or international in scope, and not every leader

is on the grand scale of a Herb Kelleher of Southwest Airlines. When businesses flounder or the legislature is in gridlock, the media frequently attributes the problem to a lack of leadership. With this kind of publicity about the dynamic role of a leader, there is little wonder that most people choose to avoid leadership roles since most people do not think of themselves as being great and may even shy away from greatness. Today's popular notions of leadership may even defeat little acts of leadership among the rest of us, according to McGill and Slocum. They point out that only recently amid the turmoil of relentless change have organizations begun to recognize the importance of encouraging small achievable acts of leadership. They go on to say that small wins are important and encourage people to rise to the leadership challenge rather than retreat from it because it is overwhelming.

Based on McGill and Slocum's observations, perhaps leadership should be explored from the concept of the development of "little leadership" skills which recognizes that not all leadership needs to be on a grand scale. Instead, we should direct our efforts to maximizing leadership potential in those who find themselves thrust into a leadership role where a "little leadership" is all that is needed.

Regardless of whether or not one subscribes to the "great man" theory or the notion that leadership can be learned, there has been a great deal of research done in both areas with no conclusive evidence to support either approach.

Behavioral Approach

The behavioral approach to leadership theory involves specific leader attitudes and predispositions to certain behaviors. One of the earliest studies of leader attitudes

and behaviors was done by the Bureau of Business Research at Ohio State University in 1945 under the direction of Ralph Stodgill, who developed a Leader Behavior Description Questionnaire. Respondents judged the frequency of observed behaviors by their leaders in one of the two dimensions: *Initiating Structure* or *Consideration*. *Initiating Structure* described the formal leaders who clearly structure and define relationships within the organization by establishing procedures, channels of communication, and other rules and regulations. *Consideration* was described as behaviors of friendship and trust between the leader and members of the organization (as cited in Hersey & Blanchard, 1996).

In *New Patterns of Management* Rensis Likert (1961) studied patterns of behavior of high-producing managers and contrasted them to patterns used by other managers. He found that supervisors who were employee-centered had the best performance records, whereas those who were job-centered and kept constant pressure on production had the lowest production. Some key behaviors Likert used to describe high-production supervisors included clearly defined objectives for employees and freedom to do the job. He depicted management styles on a continuum from System 1, where management was seen as highly task-oriented with no confidence and trust in employees, to System 4 where management was relationship-oriented and has complete confidence and trust with open communication and widely dispersed decision-making. He concluded that the closer the management style to System 4, the more likely a continuous record of high productivity would be observed. Even though his study seemed to support the notion that the best leadership style for industry is a democratic one, some low-producing sections occurred in his study where the ideal type of leader produced undesirable results and others where the undesirable style produced high results. Even if these were only a small

percentage of the sections in the study, it did raise the issue regarding whether or not one style of leadership is appropriate for all situations.

Other early studies of leadership attitudes, including Douglas McGregor's *Theory X and Y*, as discussed in *The Human Side of Enterprise* (1960), focused on task and relationship concepts. Theory X was primarily autocratic with a focus on task while Theory Y focused on interpersonal relationships.

A similar study by Robert R. Blake and Jane S. Mouton as described in *The Managerial Grid* (1994) focused on leader attitudes and concern for task versus concern for relationship. They used the Managerial Grid to identify five different types of leadership: (1-9) Country Club, (1-1) Impoverished, (5-5) Middle Road, (9-1) Task, and (9-9) Team Leader. Their conclusions also were centered around "one best" relationship-centered leadership style that maximizes productivity and satisfaction, but they did recognize that certain situations such as a crisis require primary concern for the task.

Situational Approach

According to Hersey and Blanchard, the mainstream of contemporary leadership thought shifted from an attitudinal "one-best" style of leadership to a situational or contingency approach with the primary focus on observed behavior. As far back as the writings of Stogdill in the 1940s, flexibility and adaptability to changing demands was recognized as important to leadership. The Robert Tannebaum-Warren Schmidt *Continuum of Leader Behavior* of 1957, Fred Fiedler's *Contingency Model* of 1967, the R. J. House-T.R. Mitchell *Path-Goal Theory* in 1974, Victor Vroom and Phillip Yetten's *Expectancy Theory* of 1976, and many others (Hersey & Blanchard, 1993) contributed

valuable insight to the situational approach to leadership. These contributions have identified many of the situational variables such as time, job demands, economic conditions, legislation, environment, and others which interact with the personal attributes of the leader to effect leadership effectiveness.

Hersey and Blanchard (1993) developed the Tri-Dimensional Leader Effectiveness Model which was distinctive in that it did not depict a single ideal leader behavior style as appropriate in all situations. They commented that

in basically crisis-oriented organizations such as the military or fire department, there is considerable evidence that the most appropriate style would be high task and low relationship, since under combat, fire, or emergency conditions success often depends on immediate response to orders. (p. 243)

They further explained that the leader may engage in a more participative style once the crisis is over. In summary, the effectiveness of leadership as outlined in the situational approach depends on the leader, the follower, and the situation.

Contemporary Leadership Thought

In addition to the writings already described, a number of contemporary authors and theorists have continued to pursue some of the same approaches of past leadership theorists as they explore traits, attitudes, behaviors, and situational variables which impact leadership success. Such well-known contemporary authors as Warren Bennis in *Managing People Is Like Herding Cats* (1997) looked at leadership traits in a five-year study of 90 outstanding leaders in which he identified four common traits or areas of competence of leaders as management of attention, management of meaning, management of trust, and management of self.

Noel M. Tichy and Mary Ann Devanna in their work entitled *The Transformational Leader* (1990) describe the difference between the old transactional leadership and the new “transformational leadership” as being about change, innovation, and entrepreneurship. They describe transformation as revitalization by recognizing the need for change, creating a new vision and institutionalizing that change. Shirley Ross of Anheuser-Busch Companies and Lynn Offermann of George Washington University in a study entitled *Transformational Leaders: Measurement of Personality Attributes and Work Group Performance* found that “an enabling personality profile characterized by pragmatism, encouragement and acceptance were strongly predictive of transformational leadership ratings” (Personality and Social Psychology Bulletin, 1997, p. 1085).

Emmett Murphy, in *What Is Your Leadership IQ?* (1996), described a study of 18,000 managers at 562 large and small organizations in all types of industries around the world in which he identified approximately 1,000 exceptional leaders and isolated qualities that made them great. He stated that his “first and most basic discovery is that leadership can be defined and measured as a form of intelligence” (p. 2). Other findings included: (a) “every leader works and every worker leads” (p. 3) in a successful organization; (b) leaders know how to communicate; (c) leaders are twice as focused on their key role responsibilities as average leaders; and (d) leaders are made, not born. According to Murphy, anyone can *learn* to be a workleader and utilize specific tools to fulfill eight important roles as a selector, connector, problem solver, evaluator, negotiator, healer, protector, and synergizer. He also described “Seven Guiding Principles” of successful leaders as: (1) be an achiever; (2) be pragmatic, (3) practice strategic humility,

(4) be customer-focused, (5) be committed, (6) be a learned optimist, and (7) be responsible. In summary, he described his findings as follows:

More than anything, our investigation affirms that faith still flourishes among workleaders, a generation of high achievers who have thrown off cynicism and selfishness to make masterpieces of their personal and work lives. Their unending quest for meaning and achievement can inspire us all to improve our Leadership IQ. (p. 7)

Barbara Lawrence in an article entitled "At the Crossroads: A Multiple-Level Explanation of Individual Attainment" (1987) described ambition and career planning as a defining characteristic of high achievers. This was further supported in the work of David Carmichael, in his doctoral dissertation *High Achievers in Federal Service in Oklahoma* (1994), in which he found that one of the most frequently mentioned traits of high achievers was self-direction or self-motivation, although education and familial background of high achievers played a critical role in their desire and ability to achieve. High achievers were also described in his study as good individual producers but also leaders who facilitate and empower others. Values such as integrity provided the rudder that steered their behavior and were a critical element in their success. Many of his findings regarding high achievers generally paralleled the literature related to successful leaders.

James Kouzes and Barry Posner, in their more recent book entitled *The Leadership Challenge* (1995), described their research of 60,000 leaders and constituents at all levels in a variety of organizations throughout the world. Their research discovered recurring patterns of success as they asked people what they did when they were at their "personal best" in leading others. Because the viewpoint of the leader was only half the

story, they further studied the characteristics that people most admired in their leaders. They found that constituents and leaders were in agreement about the essentials of leadership. They identified four characteristics people admire in their leaders which included being honest, forward-looking, inspiring, and competent. They also identified five fundamental practices of exemplary leadership which included being challenging, inspiring, enabling modeling, and encouraging. They described the encouraging role of leaders as “encouraging the heart” and offered the following comments on the role of leaders to encourage others and provide encouragement to themselves. “Love--of their products, their services, their constituents, their clients and customers and their work-- may be the best-kept leadership secret of all” (p. 14).

In the analysis of their findings, Kouzes and Posner (1995) observed that although traditional management taught leaders to be aloof and separate emotion from work, “Yet, when real-life leaders discuss what they’re the proudest of in their own careers, they describe feelings of inspiration, passion, elation, intensity, challenge, caring, and kindness--and yes, even love” (p. 15).

This concept of love is further confirmed by Kevin and Jackie Freiberg in their book *Nuts: Southwest Airlines' Crazy Recipe for Business and Personal Success* (1996). In their book they describe the lessons learned about love at Southwest Airlines and how it is expressed there. They explain that Southwest understands that the deepest need in our human existence is the need to be loved, and that it does not disappear when employees walk through the door at their work. They describe love at Southwest as being action oriented or something people do recognizing that love has power only when it is shared; love is patient with others; it is kind and generous and sometimes requires

inconveniencing oneself; it is courteous and affirming and helps us believe in people and look for the good in others; it is compassionate and causes us to get in touch with the conditions in other lives; it is grace and forgiveness; it doesn't guarantee approval and is tough and gutsy but embraces humility. All of these aspects of love are incorporated into the culture at Southwest.

Leadership in Aviation

The Aviation Environment

The findings pertaining to situational leadership were especially meaningful in considering the uniqueness of the aviation environment. The very nature of the aviation environment includes potential crisis-oriented, situational factors. Job demands, regulatory issues, and especially safety issues would seem to imply that versatility in leadership qualities would be critical in this environment. Although the literature revealed limited previous research which specifically addressed the unique aspects of successful leadership in the aviation environment, there has been some research in the areas of crisis management which did provide some helpful clues to characteristics of success of leaders involved in incident-related occupations such as the military, police, fire, and other incident-related situations.

Rhona Flin, in *Sitting In the Hot Seat* (1996), studied the role of the individual who acts as incident or on-scene commander in a life-threatening event or an event involving emergency services. The project involved studying selection and training procedures and methods used by a number of agencies which employ on-scene

commanders involved in crisis management. Included in that study were police, fire, hazardous industries; military, space, and aviation incidents. The researcher gathered most of the findings for the book from interviews with incident commanders and observation of incident command selections. The Flin study found similarity across organizations in the selection criteria used to appoint senior positions with incident command responsibilities, most of which included “technical/professional qualifications, managerial or leadership experience, and demonstrated ability to command and control emergencies “real or simulated” (p. 40). Field Marshal Montgomery’s comments on leadership (as cited in Flin, 1996), still in use by the armed forces, described the two attributes of a leader as: “(a) Decision in action; (b) Calmness in crisis” (p. 40). These attributes are essential to retaining a clear mind when afraid.

According to Flin (1996), national air forces and commercial airlines have devoted considerable resources to discovering the personal qualities desired in the cockpit. Some of the characteristics identified by Stead (as cited in Flin, 1996) during his research for Qantas included “Influence/Leadership; Communication Skills; Organizing/Planning; Motivation/Energy; Analytical; Empathy; Emotional Maturity; Decision Making” (p. 310). Attributes of successful incident commanders were identified in Flin’s study as “leadership, emotional stability, stress resistance, decisiveness, controlled risk taking, self-confidence and self-awareness” (p. 42). The literature indicated that, with the exception of these basic qualities, no specific profile of qualities exists for success. Some of the qualities that are contraindications of success are untrustworthiness, arrogance, or shyness. According to Flin (1996), “the research to date

indicates that, excluding deviant or difficult personality types, a range of personality profiles will be found within a group of successful incident commanders” (p. 223).

The current emphasis on participative management and team leadership in all types of organizations may also apply to incident commanders, depending on the situation which necessitates leadership skills. Generally, the incident manager may employ autocratic skills in the beginning of an incident, but must also be able to delegate responsibilities along the way. The incident manager must also insure that all levels of the command are adequately informed as well as free to make independent emergency decisions within their own area of responsibility. Aviation leadership requires the ability to use team leadership skills and autocratic crisis-management skills depending on the circumstances of the environment. Development of leadership skill is important at every stage of the aviation career in that leadership is a key ingredient in the cockpit as well as in the many other facets of the aviation arena.

New Competencies for New Roles

In *The Myth of the Generic Manager: New Personal Competencies For New Management Roles*, Christopher Bartlett and Sumantra Ghoshal (1997) describe the theory of the “generic manager” which is prevalent today. That individual is expected to possess some generic capabilities and add value to an organization in a generic way. That theory seems to be prevalent also in the literature on leadership in the sense that leaders are expected to hold some specific competencies across the board regardless of the type of organization they lead. The implication is that they all play similar roles with similar responsibilities. In his book, *On Leadership* (1990), John W. Gardner points out that

leaders cannot be thought of apart from the historic context in which they arise, the setting in which they function (e.g., elective political office), and the system over which they preside (e.g., a particular city or state). They are integral parts of the system, subject to the forces that affect that system. (p. 1)

Aviation is far from being a part of some nebulous generic leadership environment, and leaders in the aviation industry cannot be expected to possess generic capabilities even within the industry itself. This industry consists of so many unique specialties that the context and setting can literally vary from one leadership role to another within the same organization. Knowledge of patterns and similarities in leadership characteristics can be enlightening, but it is imperative that knowledge be combined with a look at the distinctions or differences in the profiles of leaders who add value in different ways across a variety of leadership roles. Changing competencies, needed for a rapidly changing environment, must be included to develop a deeper understanding of leadership. This is especially true in an industry such as aviation.

A number of changes in the aviation industry over the years brought into sharper focus the need for development of strong leadership skills. Two very significant events have changed the aviation leadership environment in recent years: deregulation and widespread use of computers. Leaders in the open market environment needed a new set of skills for survival; organizations such as Pan Am and Eastern did not survive deregulation; others such as Southwest have not only survived but continued to grow. The leadership style at Southwest is flexible and adaptive to a rapidly changing world. The rapidly changing, capital intensive aviation industry has even further increased the demand for strong leadership skills.

Alexander Wells, in *Air Transportation; A Management Perspective* (1994), stressed the need for managers and leaders in the air transportation industry to take a good look at their ability and courage to manage. He emphasized that too often managers have abdicated their responsibility to exercise firm, fair, and objective control over their organization and handed leadership over to the local union representative. He concluded that managers refused to take control either because they lacked the quality of leadership or the training and understanding of the importance of their position in these changing times.

Supervisors and managers can no longer order a person to do something devoid of human understanding or respect. The old boss-type leader is out. Supervisors and managers cannot perform by instilling fear in the employee. To be effective they must be trained by top management in earning the respect of their employees. (468-469)

John Kotter in *Leading Change* (1996) said that 21st century managers will need to know a great deal about leadership and employees will need to know about both leadership and management. He did not subscribe to the national model pertaining to the origins of leadership skills as a divine right or gift granted to a few people. He believes that this model ignores the power and potential of lifelong learning and that willingness and ability to keep developing are essential to success as the rate of change increases.

Randall White, Phillip Hodgson, and Stuart Crainer in *The Future of Leadership; Riding the Corporate Rapids into the 21st Century* (1996) described the importance of learning to be able to “ride the corporate rapids” (p. 8) of change and uncertainty in the next century. They developed five skills of what they called “white water leadership” (p. 144) that are not being taught by educational institutions but are the backbone of what future leaders must do. The skills that they identified were: difficult learning,

maximizing energy, mastering the inner self, communicating through resonant simplicity, and managing multiple focus. They described difficult learning as the key skill and elaborated that “if learning is to work with individuals and organizations, we have to forsake the temptation of easy learning for the perpetual challenge of difficult learning” (p. 146) where people are praised for identifying what they do not know. They identify school as the place where we learn to avoid difficult learning by being praised for knowing the correct answer and discouraged from exploring the unknown. Better preparation for the aviation learning organization of the next century would be an environment where people are rewarded for identifying what they do not know and aggressively pursue the answers.

Successful Aviation Leaders in Oklahoma

An in-depth qualitative study of some of the success factors of current aviation leaders in the Oklahoma aviation environment could contribute to the insights needed to develop those qualities in future leadership. Regardless of whether or not one accepts the premise that leadership is a learned skill or an inherited trait, the literature does support that leadership skills can be enhanced through the learning process. For example, globalization is increasing the need for leadership skills in working with other cultures, and aviation is global by its very nature. This competency requires understanding of the values, beliefs, and attitudes of people from different cultures. Natural leadership ability cannot provide all of the knowledge competencies needed for that aspect of leadership. This is particularly significant to those organizations who are attempting to meet the educational and

developmental needs of the ever-growing Oklahoma aviation industry in the dynamic and radically-changing world of the 21st century.

Peter Drucker, in *The Effective Executive* (1966), stressed the importance of managing oneself for effectiveness before attempting to manage other people. Managers must be able to be effective themselves to manage by example. Drucker also pointed out that he had never met an executive who was born effective. All of them had to learn to be effective and practice it until it became a habit. He identified five practices or “habits of the mind” (p. 23) that have to be acquired to be effective as an executive: time management, focusing on results, building on strengths rather than weaknesses, setting priorities, and making effective decisions. Drucker believed that intelligence, imagination, and knowledge were important to success but would be wasted without “habits of mind” (p. 23) that combine to achieve the desired results.

Some of the literature indicated that little difference occurred between the characteristics of successful leaders in varying organizations or professions. Kouzes and Posner (1995) found that “leaders do exhibit certain distinct practices when they’re doing their best. And this behavior varies little from industry to industry, profession to profession” (p. xxiii).

Whether or not the aviation environment in Oklahoma is significantly different from that of other states, organizations, or professions has not as yet been determined by any kind of empirical study. What does appear to be important is the development of a broad range of leadership skills which increase the flexibility and adaptability of leadership in a variety of challenging environments.

Summary

The more we learn, the more we realize we do not know. A search of the literature on leadership reveals how very far we have come and how very far we have yet to go in understanding what makes successful leadership. We have spent decades looking for some specific trait or some magic formula related to the task, the followers, the situation, or some other variable to explain the phenomena of successful leadership.

Margaret Wheatley, in *Leadership and the New Science* (1994), commented that most MBA graduates in management positions reported that they wish they had focused more on people management skills while in school. She states that:

Leaders are being encouraged to include stakeholders, to evoke followership, to empower others. Earlier, when we focused on tasks, and people were the annoying inconvenience, we thought about “situational” leadership--how the situation could affect our choice of styles. A different understanding of leadership has emerged recently. Leadership is *always* dependent on the context, but the context is established by the relationships we value. We cannot hope to influence any situation without respect for the complex network of people who contribute to our organizations. (pp. 144-145)

In a Field Report entitled *Does Cream Always Rise to the Top? An Investigation of Career Attainment Determinants* by Amy Hurley, Ellen Fagenson-Eland, and Jeffrey Sonnenfeld (1997) they described a study of the factors that influence promotion into the top executive ranks and identified a number of predictors of top management attainment which included: experience working in corporate headquarters, experience in a variety of positions with both lateral and vertical job changes, experience in a variety of departments and lengthy tenure within the organization. Sadly, the results were mixed on whether or not education was helpful. The summary and implications of the study offered the suggestion that firms need to ensure that their human resource practices reward educational pursuits as well as

tenure and use the pool of all talented men, women, and minority groups within the organization so that the “cream of the crop” will rise to the top of the organization. For the academic community, this article should serve as a wake-up call to examine the responsiveness of academia to the learning needs of industry.

If anything, the review of literature revealed the importance of learning to effective leadership regardless of the level of natural ability, and reestablished the importance of the responsibility of the academic community to continued research and development of curricula to meet the needs of business and industry in the area of leadership. Kouzes and Posner (1995) asked people in their study the question, “How do you become the best leader possible?” From their analysis of thousands of responses they “identified three major opportunities for learning to lead... trial and error, observation of others, and education” (p. 325). According to Kouzes and Posner (1995),

...unexamined experiences don't produce the rich insights that come with reflection and analysis. Proceeding from observations based on experience to principles and applications—that is, inductive learning—is a far better process for learning leadership than beginning with an a priori “truth.” Learning from experience is much like watching the game films after an athletic event: we see how we executed our plan, what we did well, and where we need to improve. Athletic teams make extensive use of postgame review. Why not leaders?
(p. 329)

The academic community plays a vital role in this process through leadership research, apprenticeships, and other hands-on experiences and observation techniques. Qualitative studies such as this one involving observations and interviews of successful leaders can provide opportunity for rich insights based on reflection and analysis. Learners then can proceed to apply those learned principles in a real-world leadership environment.

Kouzes and Posner (1995) also found that leadership development is a process of self-development, which is where education plays its most vital role. Good leaders must clarify the principles that govern their lives before they can lead others to higher achievement. J. Sterling Livingston, in *Myth of the Well-Educated Manager* (1971), cited numerous studies that found no direct relationship between performance in school or training programs and records of success in management. He concluded that managers are taught a “prescribed set of practices” that worked for someone else. They are not, however, provided with opportunities for first-hand experience in what works for them within their own personalities, nor are they given opportunities to reassess their own self-understanding. As a result, they come off as insincere.

New understandings of history, the environment, and the world increase understanding of competing value systems as well as our own. We must first be able to lead ourselves through a struggle with opposing values before we can lead others. Values and principles are like the compass that keeps us aimed in the right direction, giving us the ability to navigate the rough waters of organizational life. Stephen Covey, in *Principle-Centered Leadership* (1990), says “to the degree people and civilizations have operated in harmony with correct principles, they have prospered” (p. 19). Wheatley (1994) observed that “We need to be able to trust that something as simple as a clear core of values and vision kept in motion through continuing dialogue, can lead to order” (p. 147).

Perhaps the role of education is to provide exposure to new information to aid in the exploration and process of self-understanding as well as the process of understanding others to establish a clear core of values and vision. More importantly, education needs to provide opportunities to learn from firsthand experience what is needed to gain the willing

cooperation of other people. We must learn how to observe the environment firsthand and assess feedback from our own actions.

Wheatley (1994) suggested that leaders "...encourage organizational ambiguity with plans that are open, visions that inspire but do not describe and by the encouragement of questions that ask 'Why?' many times over" (p. 116). Wheatley references Jantsch in suggesting that managers be "equilibrium busters" and facilitators of disorder rather than order. Out of the chaos of disorder we are often able to reorganize work at a higher level of development. Perhaps as we probe the new sciences for parallels and new meanings applicable to the social sciences, in-depth qualitative studies of successful leaders in their chaotic natural environment of the information age will provide new insights not only for leaders but for the academic community as well. Perhaps in the process of "equilibrium busting" we can arrive at new understandings of what is needed in leadership.

CHAPTER III

DESIGN OF THE STUDY

Research Design

The purpose of this study was to examine the personal traits, skills, practices, behaviors, background, academic and career success patterns of selected aviation leaders in Oklahoma. It was based on the assumption that findings in the personal interviews of selected aviation leaders, when compared to a review of the literature regarding qualities of leaders in other fields, could provide insights regarding leadership success and a better understanding of leadership in general, as well as leadership in specialized technical fields. The study involved a series of steps beginning with the development of specific interview questions that were designed to investigate a variety of variables affecting the success of aviation leadership in Oklahoma. The specific interview questions were aimed at obtaining a response to the five broad research questions outlined in the objectives. The questions targeted such factors as the educational and career choices, communication styles, behaviors, management styles and practices, values, motivations, and family background of successful aviation leaders. The study was not restricted to the variables listed above. As the open-ended interviews disclosed other variables, the investigation of those variables was included in the study as related to the problem.

Selection of the Sample

Selection of the sample required a clear understanding of the term “successful aviation leadership” as defined in the study. Although a large population of aviation leaders exists in Oklahoma who could have been described as successful, the importance of the depth and quality of the interviews necessitated that they be restricted to a small, purposive sample. Subjects for interview were chosen from those who had achieved a top-ranked position in an aviation organization or a position of leadership in the aviation community.

The selection of these subjects was based on the assumption that they had demonstrated a level of leadership success by virtue of their achievement of such a position. Because educators in Oklahoma are responsible for developing leadership skills in all fields of aviation, attempts were also made to ensure that the subjects chosen for interview represented different fields of aviation.

Subjects selected came from government, corporate aviation, air carrier, academia, and the aerospace industry as well as political and community aviation leadership, specifically those aviation personnel who may have been members of such organizations as Leadership Oklahoma or demonstrated similar leadership roles in the aviation community. The size of the organization led by participants ranged from very small organizations to very large, and the scope of aviation leadership responsibilities ranged from leadership of local volunteer efforts to positions of national and international influence of thousands of constituents or employees. This sample was purposely chosen because it was believed to be a rich source of data regarding leadership success in

aviation and would be typical of the kind of leadership skills desired of future aviation leaders in the Oklahoma aviation environment. Beyond these, the only other criteria for selection of subjects to be interviewed was their availability and willingness to be interviewed.

Methods

Individuals identified as subjects were first contacted by letter (see Appendix B) requesting an appointment for an interview, explaining the purpose of the research, the time involved, and the questions to be asked. Subsequently, subjects were contacted by phone to finalize the appointment. Permission for the use of audiotapes during the interviews was requested as a part of the preliminary oral and written discussions. Assurances were made orally and in writing prior to and during the interviews that the information would be treated in a confidential manner and the tapes and notes destroyed as soon as the data were synthesized and analyzed. Individually identifiable comments were not included in the final study. A copy of the study was furnished to all individuals who were interviewed prior to submission to the graduate school.

Instrumentation

An interview guide containing the open-ended questions developed from a review of the literature and adapted from previous research (Carmichael, 1994; Kouzos & Posner, 1995) has been provided in Appendix A. The questions contained in the interview guide and the subjects chosen for interview were validated by a panel of academic and aviation experts.

Data Analysis

The bases for the data in the study were the in-depth career and personal history gleaned from the interviews as well as the personal observations and opinions of the subjects. Vitas, periodicals, newspaper articles, and other documents collected from the participants were also used. Extensive notes were taken during the interviews; the notes included observations and personal reactions of the researcher which were annotated as such in the notes by coding such comments with a pre-determined alpha code (for example, PC=Personal Comment).

After each interview, the audiotapes of the interviews were transcribed verbatim and associated with the researcher's notes, then broken down and categorized through an open-coding process. Specific coding themes and categories were established to address the purpose of the study as outlined in the research questions. Categories included career choices; family, educational, and other background factors; guiding values and principles; management styles and practices; qualities, characteristics, and personal traits of leaders; and leader recommendations for developmental activities for future leaders. As the interviews progressed, data segments were continually compared within and across categories and analyzed for relationships or patterns. New themes or categories which surfaced were coded and included in the analysis.

Once the data had been coded for each interview, it was further compared and synthesized with all of the interviews, then put back together by making new connections between categories for specific skills or qualities of leadership that surfaced repeatedly in the data or supported new insights. After completing the analysis, additional speculations

about formal theoretical ramifications of the study were performed, and areas were identified where additional research could further refine and develop the findings.

CHAPTER IV

FINDINGS

Introduction

The 18 subjects interviewed for this study were chosen from a broad perspective of aviation leadership roles including federal, state, and city government; academia; military; corporate aviation; manufacturing; large, medium and small airports; vocational technical schools; the aerospace industry; non-profit professional organizations; and community and political leaders. Leaders interviewed were responsible for organizations ranging in size from less than 10 to over 20,000 employees; community and political leadership roles ranged from local and statewide to national and international in scope and size.

Demographics

The 18 leaders who were subjects of this research included 3 females and 15 males. Based on biographical data, only two were of minority descent; and all but two of the subjects were age 50 or older.

Three of the participants in the research project held no airman certificate, eight held only one certificate, and seven held multiple certificates. The types of certificates held by subjects included pilot, flight instructor, navigator, flight engineer, air traffic

controller, and airframe and power plant mechanic. The highest number of ratings held by any single participant was 10.

Almost one third of the participants who were in positions of aviation leadership came from unrelated technical or professional fields with little or no aviation background. Subjects identified prior career fields ranging from accounting, public relations, and marketing to the ministry. Thirteen of the 18 participants had a military background, but only 11 indicated that their military background contributed to their selection of aviation as a career field.

Educational levels of participants ranged from zero college hours to doctorate level. Sixteen of the participants held a bachelor's degree, 10 held one or more master's degrees, and three held a doctorate level degree. One was currently enrolled as a master's candidate and another enrolled as a doctoral candidate. One of the participants also held a law degree.

Participants in the study were asked to identify someone they knew personally in a position of aviation leadership who has done an excellent job providing effective leadership and state what that person had done which constituted "highly effective leadership." Three of the 18 participants in the study were identified by one or more of the other participants as someone they knew who had done an excellent job providing effective leadership. One of the three participants was identified by three of the interviewed leaders as a highly effective leader. A comparison was made between the descriptions of what they had done that constituted highly effective leadership with the perceptions of the individual regarding their own performance to identify similarities or

differences in perception. A description of those comparisons is provided later in the study.

Background Factors Affecting Leadership Success

Because of the importance of capturing the natural setting and the spontaneity of responses in a qualitative study, the following narrative is paraphrased as closely as possible from the transcripts of the interview tapes. Participants in the study have been randomly assigned a number to protect the confidentiality of the interview.

Career History

Leader 1. This aviation leader was spontaneously identified by three other participants in the study as someone they knew to be a highly effective leader. A comparison of their observations of his leadership skills to his own self assessment will be provided later in the study.

Leader 1 reports that he had his first leadership experience in Boy Scouts of America. During his youth he also served as captain of the football and track teams and in a variety of other leadership roles through his church and community.

As an adult the primary focus of his leadership roles has been centered around his aviation career; however, he is still heavily involved in the scouting program as well as numerous church, civic and community volunteer leadership roles.

Leader 1's current position in academia is his fourth major career change within the aviation field, all of which involved leadership responsibilities. Although most of his

career has been with the federal government, he has spent a number of years as an aviation business owner and a consultant.

As soon as he was old enough to hold a certificate, Leader 1 launched into his aviation career as a Flight Instructor. That experience in the tutorial role of a flight instructor provided the opportunity to learn much about human nature. He believes that his experience as a pilot was also invaluable in sharpening his decision-making skills; through that training he learned to make decisions in a timely manner without overreacting.

In 1965 Leader 1 started a business of his own with one airplane which grew into a large fixed-base operations facility operating 30 aircraft. By the time he sold the business in 1969 he owned 33 airplanes and 3 helicopters.

After spending a short period doing consulting work for Piper Aircraft, he was asked to testify on behalf of the National Transportation Safety Board as an expert witness on an aircraft accident, and was subsequently offered a job with the federal agency which was to become his career home throughout the remainder of his federal career.

The researcher noted that Leader 1 reflected on his federal career with a great deal of warmth and made a sincere effort to offer some insight into the events that contributed to his rapid rise through the leadership ranks. He attributed his selection as a classroom instructor shortly after beginning work with the federal government to his ability to fly. On still another occasion he was offered an opportunity for promotion, which he attributed to his writing skills. Later, after achieving the highest score on an assessment center which was part of a selection system in the federal agency where he was employed,

he was selected as a district office manager. That position provided an opportunity for visibility; and less than a year later, he was selected as a regional branch manager. Three months later he was accepted into the Executive Development Program and assigned to the organizational headquarters office where he had the opportunity to learn the whole organization. That assignment, as described by Leader 1, "further opened doors and provided opportunities for visibility." His next promotion to a regional deputy directorship was a direct result of his exposure while dealing with an unfortunate accident. That career boost led to a later appointment as a regional director of the same region. He reached the highest level of career development within his agency during his last assignment with the federal government and attributes his selection to that position to his doctoral degree.

Leader 1 advises that much of success in a career is having ability, knowing how to handle that ability, and having visibility or surrounding yourself with the best people that are in a decision-making role.

Leader 1 has received recognition for his leadership role both in his career and volunteer activities. His honors include multiple awards by various aviation organizations, both private and public, from around the United States and throughout the world. He has received some 12 scouting awards and such distinguished career awards as the Presidential Meritorious Rank Award, the President's Award for Distinguished Federal Service, a Distinguished Career Service Award, an Excellence in Achievement Award; a Lifetime Leadership Award, the Clarence E. Page Memorial Trophy for Outstanding Individual Contribution to Aviation, the Oklahoma City University Distinguished Alumni Award, and many others.

Leader 2. Because Leader 2 did not provide extensive information during the interview regarding his career; most of his career history was obtained from a vita provided by his office. His career began in January of 1968 when he became a student in Officer Training School. He was commissioned three months later and began his distinguished military career as a weapons controller. His first five years of duty as a weapons controller included a tour of duty in Vietnam.

He later served as a logistics staff officer, chief of numerous logistics divisions at Headquarters Tactical Air Command, chief logistician in the Joint U.S. Military Assistance Group in Madrid, Spain, a detachment commander in Europe, vice commander of an air logistics center, a base wing commander, a director and a base commander. He has risen through the ranks to the level of Major General with leadership responsibilities for several thousand civilian and military employees.

Leader 2 has been recognized for his leadership not only by achievement of the rank of Major General but has earned such awards and decorations as the Legion of Merit, Bronze Star Medal, Meritorious Service Medal with three oak leaf clusters, Joint Service Commendation Medal, Air Force Commendation Medal with oak leaf cluster, Vietnam Service Medal with four oak leaf clusters, Combat Readiness Medal, National Defense Service Medal with star, Republic of Vietnam Gallantry Cross with Palm, Republic of Vietnam Campaign Medal, and Defense Meritorious Service Medal.

Leader 3. Leader 3 has had a long and distinguished career in the military as well as in academic administration and city government. He started his aviation career as an aviation cadet in the Air Force. Three months later he began pilot training and became an

officer for the instructor pilots school responsible for giving all the check rides to pilots who were attending the school or who had graduated from the school. His first position of leadership was as a Senior Instructor in the Air Force over four other instructors.

Although his current position is with a civic organization, the bulk of his career was spent in the U. S. Air Force where he rose to the rank of Lieutenant General. He served in a variety of leadership positions including that of a commander responsible for managing half of the forces in Strategic Air Command and Director of Operations of the Joint Chiefs of Staff responsible for directing U.S. military forces worldwide. His leadership responsibilities included organizations with several thousand civilian and military employees.

This leader has also had numerous military decorations and awards such as the Distinguished Service Medal, Silver Star, Legion of Merit, Distinguished Flying Cross with oak leaf cluster, Bronze Star Medal, Meritorious Service Medal, Air Medal with 14 oak leaf clusters, and Air Force Commendation Medal.

A variety of community activities have contributed to the development of his leadership skill. He has served on a number of business and community boards as well as the Board of Directors of the Retired Officers Association in Washington, D.C. He developed his public speaking skills through participation in Toastmasters and has also distinguished himself as a public speaker.

Leader 4. This leader began his career in the Air Force in the officer training program, which led to his love for aviation. He has a varied background which includes positions ranging from the ministry to the retail clothing business to airport management.

His primary career emphasis since being in the aviation field has been in the area of financial management. His aviation leadership expertise was gained through a number of management and executive positions in accounting, business and properties, finance and administration, and airport director.

Leader 5. Leader 5 attributes much of her success to a very solid basic grounding in her career field. She began her career in graphic design and journalism and later moved into public relations and marketing. She started at the bottom and worked her way up in order to learn the printing business and that part of the journalism business. Even though she did not start her career in aviation, she now is able to combine her love for aviation and journalism in a career as an Executive Director of an aviation organization. That position taps into her experience base in both worlds.

Leader 6. Leader 6 has had several widely disparate careers ranging from the oil business and the lumber industry to public relations and aviation. He actually began his aviation career as an Air Force navigator. Early in his career he worked in the oil exploration business in the Rocky Mountains followed by a few years in the lumber business. He began a new career in Public Relations while serving as Executive Director of a local Chamber of Commerce. He continued that career for a number of years while serving as Executive Director of a multi-county tourist promotion. Eventually, he established his own public relations consulting company where much of his work has been in tourism, aviation, or energy.

He has a rich background in aviation and a strong interest in airport development. He has flown 4500 hours as a pilot and nearly 2000 hours as a navigator. His aviation

career includes a number of years as an adjunct instructor of aviation for an Oklahoma university. As publisher of an aviation newsletter and manager of an airpark, he is able to combine both his public relations and aviation career interests.

Leader 6 has received numerous awards and honors throughout his career. He is a member of Who's Who in the South and holds several National Aeronautical Association awards. He was featured in a recent magazine article for participation in a historic flight.

Leader 7. Like many of the successful aviation leaders of Oklahoma, Leader 7 has been involved in more than one aviation related career. Although his current field is in management and administration of an educational environment, most of his aviation career was in the military. He is a retired Air Force officer who received his first pilot training at Vance Air Force Base in Enid. His early Air Force career involved flying C130s in Southeast Asia and later C141s out of Southern California. Later he worked on a Satellite Communications terminal for the Minute Man Missile System, Subsequently, he worked as a test manager for a new T46 trainer followed by a position as Director of Test Operations. After attending school in Washington, D.C. to study acquisition, he became the Director of Test and Evaluation for a missile program. His final tour was in a position as Director of Flight Safety responsible for reviewing Air Force mishaps from an engineering perspective in an effort to minimize accidents caused by design flaw. After retiring from the Air Force, he continued as a consultant for the Air Force in areas of flight test and evaluation. He also flew as a test pilot for a private company and has served on the adjunct faculty for two universities.

Leader 8. This aviation leader began his aviation career as an instructor for a well known school of aeronautics where he taught core classes leading to the Airframe and Powerplant Mechanic Certificate. He was later appointed as director of the school where he trained people in the U.S. Army as well as from such foreign countries as South America, Israel, and Iceland. Later as Director of the Technical School, he worked with the University of Oklahoma in offering an associate degree in aeronautical engineering. That led to his appointment as Director of Training where he served until he was contacted by Clarence Page to join him in forming an aircraft maintenance company. In 1957 they started the company and acquired their first contract to perform aircraft and logistical services for the United States Army at Fort Sill. The company grew from a very small company to a company that was doing in excess of \$50 million a year in gross sales. When Mr. Page decided to retire and build the Air and Space Museum in Oklahoma City, they sold the company. The new buyer would agree to purchase the company only if Leader 8 stayed with it. For the remainder of his career with that company, he was responsible for aircraft maintenance around the world in some 28 countries where the company product was being operated and maintained.

Leader 8 has received numerous honors for his leadership role including being inducted into the Aviation Hall of Fame. During the interview, he shared with the researcher a letter of appreciation he had just received from one of his former employees which was a tremendous tribute to his leadership skills.

Leader 9. Leader 9 led into a description of his career with a brief reflection on his high school years that he felt prepared him well for a career. Even though he was well

prepared for some things after graduation, he does not perceive himself as having very much direction at that time. He started out at Georgia Tech with the notion of being an aerospace engineer and underperformed for his abilities during the first quarter. He got an appointment as an aviation cadet and was on his way to having a commission and wings as a navigator but “got his eye off the ball and wound up washing out.” By then he had six months of active duty, decided to get out and serve the rest of his time in the reserves. He later went into the office supply business where he met and married his wife of 37 years. Although Leader 9 is currently in a non-aviation career in academia, the predominant focus of his career life was in aviation, and he is still active in the aviation community.

Just as he was getting married and beginning to get some direction to his life, the FAA started opening Air Traffic Control to people who did not have a strong aviation background, and he began his federal career in that field. He later took advantage of a career development opportunity in the federal government where he was one of 6 out of 300 applicants selected to move from a technical position to a personnel position. His career progressed rapidly into management, and he had reached division level by the age of 32. After serving at the division level in two different regions, he was selected as an executive officer responsible for several hundred employees. While in that position he was one of six out of several hundred applicants selected for a Senior Executive Service Candidate Program which led to a position as director of a logistics center and later to the number two position in the federal organization where he was employed.

This leader has achieved a top-ranked position in both his academic career and his aviation career and has received numerous honors for his leadership ability. One of the most significant honors was his selection and participation in Leadership Oklahoma.

Leader 10. Leader 10 prefaced his discussion about his career with his strong beliefs about the importance of doing as well as possible in every aspect of one's education and career. Because he had been named a distinguished graduate in every program he went through, starting with ROTC 30 years ago, he felt that those kinds of indicators had helped give him an opportunity for some high profile positions. This leader attributes outstanding performance in such military courses as Air War College to his being singled out as someone who should be given a little higher challenge.

His first assignment out of college happened to be directly overseas to a fighter wing during Vietnam. Although the assignment was in Europe, Leader 10 saw it as a "wake-up call for a green 2nd Lieutenant to get tossed into that environment." He has always looked at that assignment as a highlight that gave him a head start on many of his colleagues who went to technical school or to a stateside base which was a little slower orientation.

His military career also involved a tour at the Pentagon which was another highlight he recognized as a tremendous opportunity. The rest of his military career was in the public affairs arena, which was ultimately beneficial to still another career in politics.

Leader 11. Leader 11 chose not to go to college right out of high school because he had observed so many people getting degrees then not working in their chosen field.

He decided to pick a technical career and find someone to train him in it. He decided on Air Traffic Control and immediately went into the Air Force with the intent of concentrating on a field he would enjoy. He was in that business for a number of years, took a break in service, went to the FAA for a while, then back to the Air Force. When he got back to the Air Force he decided to get a degree in Airport Management. That degree opened the door for a position in an operations division of a major airport which ultimately led to his current position.

Leader 12. Leader 12's military career included a combat tour in Korea, two years as an aerobatic pilot with the Thunderbirds, a tour as an assistant professor of mathematics at the Air Force Academy, and an exchange assignment as a test pilot with the Royal Air Force. His career as an astronaut included an 84-day space flight, two space walks, and numerous experiments related to studies of the Earth, the sun, and the long-term effects of zero-gravity on crewmembers. Since leaving NASA he has worked as an independent contractor for several aerospace and energy firms and has published three books. He has served as technical director for a video on space adaptation and has independently produced a general viewer video on the effects of zero-g. He is currently serving as the Director of Advanced Technologies for a start-up company not related to the aviation field.

Leader 13. Leader 13 was one of the aviation leaders identified by a participant in the study as an example of a very effective leader. A comparison of his own perceptions of his leadership characteristics will be made to those identified by the other leader in the study.

This leader attributes his success in his political career to his ability to fly. He was in the United States Army as a product of the draft during the early part of his career. When he got out of the military, he indulged his fascination for flying and “went out to a little grass strip and rented a plane for \$4 an hour which included gasoline and the instructor.” He reports that he got his license for \$35 and started buying and selling airplanes. He challenges the notion that one has to be rich to fly. He has traveled frequently and has been able to use flying in his work over the years. He has owned well over 100 airplanes and has lost money on only one.

Leader 13 has used aviation in a variety of ways throughout his life including humanitarian as well as political missions. As a city Mayor, he once took 16 airplanes of professional people to a city in another country to set up contractual business relationships which still exist today. During that same tenure as Mayor, he led a mercy mission to an island that had been wiped out by a hurricane. Ten airplanes started on the mission and only seven made it. There were at least two other occasions when he was able to participate in humanitarian missions involving hurricanes because of his ability to fly. The leadership necessary to coordinate those missions in addition to the ability to fly have provided many opportunities otherwise not available.

Flying has also provided the flexibility necessary to be everywhere he needs to be in winning an election. He is able to do town meetings at least two days a week all over the state. As a Flight Instructor, he always advises his students that if they are not going to fly at least every other week, they should not be in the air. He recognizes that it is often difficult for people who cannot relate aviation to their job.

Leader 14. Leader 14's total career has been with the airline company for which she has been employed for seven years. She started as a sales agent and had been there only a few months when she realized she had some career goals; it was no longer just a job. She set her goals for achievement one at a time, looking at only the next position, the next level. She focused daily on keeping her record clean so that when the opportunity arose for promotion she would be prepared. She seemed to be in the right place at the right time. She reported that as things progressed for her, it helped her self-confidence because she knew she had gained the opportunity; it was not just given to her. She said her strategy was just to look at the opportunities, focus on where she wanted to go, and strive to achieve those until she did. In approximately seven years, she achieved a General Manager position with over 1000 employees reporting to her.

Leader 15. Leader 15 was identified by another participant in the study as someone who had done an excellent job in leading an aviation organization. A comparison of her self-assessment will be made to those characteristics identified by the other leader in the study.

This leader is the director of a large organization in the federal government. She has spent most of her career with the federal government beginning in a Temporary GS-3 clerical position with the Forest Service. She later moved to another city where she was employed as a voucher examiner, only to discover that was not her kind of work. The turning point in her career came when she competed and was selected for a Career Intern Program with the U.S. Navy in Personnel. With this position her confidence kicked in and she loved the work because she felt as if she was making a contribution. She

received several promotions and was selected as a supervisor where she served less than a year before moving to Oklahoma to the organization which she now leads. Her career here began in Personnel where she held a variety of positions including branch and division manager. She later competed with 400 people and was selected for the Executive Development program. The training in that program was excellent and got her started down a path of not necessarily staying in one specialty for the rest of her career. She was selected as a deputy in a large technical organization and would move to two other technically diverse organizations before assuming her current position.

Leader 16. Leader 16 had an interest in aviation in high school but not a driving interest. He had been involved in sports and many other things. One of the things that helped his decision was the Vietnam war was going on when he graduated from college and he decided he preferred to learn a skill rather than be drafted. He had several family members who had been in the Air Force and knew it was an interesting field. He had the physical attributes of good vision and reasonable agility to become a pilot in the Air Force, so he completed Officer Candidate School and pilot training.

He has risen to the rank of Major General while serving in a number of leadership roles including that of operations officer, commander of a fighter squadron, commander of a fighter group, and headquarters commander. His military awards include the Distinguished Flying Cross with one bronze oak leaf cluster, Air Medal with two silver and three bronze leaf clusters, Air Force Commendation Medal, Air Force Outstanding Unit Award, National Defense Service Medal, Vietnam Service Medal with two bronze stars, Air Force Longevity Service Award Ribbons with one silver and one bronze oak

leaf cluster, Armed Forces Reserve Medal with one hourglass device, Small Arms Expert Marksmanship Ribbon with bronze star, Air Force Training Ribbon, Republic of Vietnam Gallantry Cross with Palm, Republic of Vietnam Campaign Medal, Oklahoma Commander's Trophy Award, and the Oklahoma National Guard Longevity Ribbon.

He believes that his rise to a position of leadership has been largely due to his ability to look at aviation as an evolving field that is always changing. Some people believe there is no future in an aviation career field, but his perspective has always been that there will always be human involvement in flying whether from "behind the stick" or sitting in a room controlling a computer. The key is to look at those changes positively.

Leader 17. Although this leader served in the military, he said it really had nothing to do with his flying background, which was just a natural interest from a very young age. He had the opportunity to become associated with the NASA educational programs through some contract work he was able to do for them through the university where he was employed. Later, a reorganization on campus resulted in establishment of a new department, and he was asked to assume the leadership role. Through previous work at the university he had become acquainted with a number of the educational leaders in the aviation industry from whom he received a tremendous amount of encouragement and support.

He attributes his career success to being fortunate enough to be associated with people within his discipline who allowed him the opportunity to have a broad range of experiences, who led him, pushed him, and allowed him to find out what his strengths and weaknesses were so that he could focus on improvement. Higher education was

rapidly expanding during that time frame, and he also felt he was in the right place at the right time to take a role in developing, strengthening, and expanding needed programs. During his later career when he was in a management position, he attributes his success to being able to surround himself with competent and capable people who did a great deal to make him look good. He also believes that his work with graduate students gives him an entree to new ideas, talent, and energy, which keeps him motivated.

Leader 18. This leader has had more than one career in the aviation arena beginning with the U.S. Air Force where he served in Europe and the Pacific as a Flight Engineer. He later enlisted for full time duty with the National Guard and attained the rank of Master Sergeant before entering Officer Candidate School and being commissioned as a Second Lieutenant in the Infantry Corps. He served in various aviation assignments throughout his military career and rose to the rank of Brigadier General. Upon retiring from the military, he began a new leadership career in state government.

Family Background

Leader 1. This leader grew up in humble surroundings. His father and mother were tenant farmers who had a sixth and eighth grade education, respectively. There was no running water, no electricity, and water was obtained from a spring. This leader states that the greatest thing his family did for him was to give him responsibility at a very early age. As he grew older they gave him more and more responsibility for the intellectual side of the family including helping with the money, bills, and solving problems. They

also provided a good role model with a great deal of love. His father was a traditionalist who taught him respect for women and daily demonstrated love for his mother.

Leader 1 stressed the importance of trust which he learned from his family. He commented that we do not give young people enough responsibility and trust and believes that “you can’t trust someone unless you are willing to give them the opportunity to be trusted.” He illustrated that by sharing his parents’ willingness to let him try things such as taking an airplane somewhere with no expressions of concern other than to ask when he would be back and request that he call.

Leader 1 has been supported in his career efforts by a wife and two sons. His wife teaches English and his sons work in the aviation industry.

Leader 2. Leader 2 was born in Cuba and moved to this country at the age of 11. His paternal grandfather owned a sugar plantation in Cuba. As the oldest grandson, he spent a great deal of time learning from his grandfather. Although his grandfather’s formal education was limited to high school, which is the equivalent of junior college in this country, he was an incredible businessman and a humanitarian. It was from his grandfather that this leader learned how to treat people and challenge them to reach their maximum potential.

Leader 2 shared that he had been blessed with a normal, traditional family. His wife had elected to quit her job when their daughter was born so that she could take care of the family and support him in his career. He emphasized how important that support had been to him in meeting a very demanding schedule with hardly any private life and expressed his belief that one cannot be 100% efficient at work without a happy home life.

Both he and his wife came from the same educational system and share similar values. She has helped him in his career by her devotion to the troops and her strong people skills.

Leader 3. Leader 3 has a wife and two sons who have supported his career efforts. He came from a family of eight children, six sisters and one brother, and describes his family as a very poor family. When his mother contracted tuberculosis, Leader 3 was sent to an orphanage where he was the frequent recipient of extra punishment for being somewhat of a rebel. After his mother was released from the hospital, he returned home for a few years and went to work for a family on a farm.

He attributes his strong work ethic to an uncle, who was his mentor while he was growing up. The uncle was a hard-working farmer who was greatly respected in the community for his hard work. Leader 3 grew up enjoying the challenge of competition and hard work, which he demonstrated by his many achievements in the military. He would frequently fly 120-125 hours a month in a single-engine airplane while most of his contemporaries did well to fly 50 hours.

Leader 4. Leader 4 is married and has no children. He grew up in a disciplined family which he describes as very helpful to him. It was a nurturing environment in spite of the fact that it was structured and disciplined. He believes that his leadership success today comes from that discipline and from his expectations that employees will do the right things. He believes in an organizational environment that is structured in seeing that employees have the ability to go about doing their jobs.

Leader 5. Leader 5 is of Dutch-German heritage. She grew up on a farm in Texas as a part of a very close family of brothers, sisters, and cousins. She was close to her grandparents, and there was plenty of family time on the farm which she perceives as a real advantage compared to what so many children have in today's environment of secondary families. She believes that it is very hard to get that intimacy re-established when a divorce necessitates creating a new family.

Although Leader 5's grandparents were farmers who were not very well educated, her grandfather was a town councilman who also served on the board of the cotton gin company. She admired her grandfather for his boldness and willingness to risk getting involved in those kinds of activities in spite of his educational background. Her dad was similar to her grandfather in many ways and was always a "participant player." Even though the family moved often during her growing up years, she does not remember having any difficulty making friends in the little towns where they lived.

Leader 6. Leader 6 was married to a professional airport manager. Together they operated a fixed base operation until she was killed in an aircraft accident. He describes that marriage as "almost 100% aviation" in that they were heavily involved in so many facets of aviation including national conventions, local and state meetings and conventions, and the daily operation of an airport and flight school. His wife had been a school teacher, which influenced their operation of the flight school. Leader 6 described his marriage as having a tremendous influence on any leadership qualities he has developed.

Leader 7. Leader 7 is married and the father of two daughters, one of whom is now married, and the other is in college. He attributes the development of his early leadership skills to his father. According to Leader 7, he simply learned by watching his father. One of the things he learned about leadership was the importance of honesty and integrity. A part of that honesty involves respecting people and never putting them down to other people. He stressed that point by reflecting briefly on the old saying, "If you can't say something positive, don't say anything at all."

Still another lesson in leadership learned from his father was that of not "burning bridges behind you," because it may be necessary to work with an individual again at a later date. Leader 7 believes that personal criticism of others crosses over into both of the leadership traits he learned from his father in that it is dishonest and certainly burns bridges.

Leader 8. Leader 8 did not share his father's interest in the family cattle business. However, his father was involved in many things in addition to owning two packing houses. Leader 8 shared his father's entrepreneurial spirit but acquired his mechanical interests from his uncles who were in the automotive business. He spent a great deal of time working in their garages.

He also had a strong interest in being involved in aviation and had always wanted to fly or be involved with manufacturing or maintaining airplanes. Because he was able to do all of those things, he describes himself as simply following his dream.

Teaching was another interest pursued by Leader 8. He described the satisfaction he receives by watching people grow and develop an enthusiasm for what they are doing.

As an instructor, he developed the art of keeping the attention of students with analogies and physical examples. He subscribes to the importance of learning followed by application of learning, and believes that approach also helped him in the management arena as much as in the technical arena.

Leader 9. Leader 9 describes his father as a man with enormous ability who was strongly authoritarian. Although he had unlimited potential, he was a bit of a vagabond who was always in search of a “pot of gold” but never stayed anywhere long enough to find it. He died at the age of 42 but not without having a tremendous influence on the success of his son. That influence manifest itself in the family belief that they were special, not average, and should settle for nothing less than excellence. Leader 9 described his mother as a kind and sweet person who died at age 54 of lung cancer. He attributes his sensitive side to her influence. Neither of his parents finished college, but both had college experience and had high expectations of what he would do. Both parents had a mixed impact on their son, but certainly, as he describes it, they set up patterns that had him seeking a higher order of things in life even though they didn’t provide the kind of role modeling necessary to build his life. In fact, he states that he had to unlearn some bad behaviors before he could turn to more positive ones. Leader 9 also shared that there may have been an element of competition with his father. Because of his father’s authoritarian and critical behaviors, Leader 9 was determined to be successful beyond anything his father had attained. There was a mixture of respect and anger that was certainly a motivator.

Leader 9 also spoke with a great deal of respect and admiration for his wife who has been a very positive force on his life and career. He expressed gratitude for her courage in “drawing a line in the sand when his life got out of balance with too much emphasis on career.” Her actions forced him to make a decision and refocus on family and other values in addition to his career. As the father of two sons, that decision was very important to him.

Leader 10. Leader 10 describes his family as the “usual old nondescript Oklahoma family.” His father encouraged him to become involved in a military career. His mother was a solid hardworking woman who worked into her 70s. His parents were always there, “but it wasn’t like you had to fill out a checklist when you came home. They weren’t those kind of parents.” He describes himself as a self-starter and an achiever, who always wanted to be at the head of the class. Although he knew his parents expected high achievement, they never demanded it. However, Leader 10 knew he had an innate ability and could generally be successful if he used that ability. He commented that his father was never one to congratulate him on his performance but simply assumed that he would excel. His mother filled the role of the softer, kinder, supportive parent that every child needs; so between the two of them, all of the siblings turned out fairly well.

Leader 10 has a son, a senior at Oklahoma University, who is not remotely interested in the military but is going into international business. He is fluent in French and can speak some Chinese although he is not fluent in that.

Leader 11. Leader 11 developed his interest in Air Traffic Control after going to see his step-father work as an Air Traffic Controller. He knew he did not want a desk job

and wanted to do something operationally oriented and interesting. He did not want to do anything routine, and certainly air traffic was not routine.

He describes his upbringing as a normal upbringing with a family available for counsel and support and advice in making decisions about his career.

Leader 12. Leader 12 commented that having a strong family makes a big difference in giving one confidence and a sense of self-worth in life. He believes that his family supported his educational endeavors.

Leader 13. Leader 13 came from “an old German family,” and he shares that his father “just totally dominated the family.” His father was fascinated with flying and agreed to buy his son flying lessons for his birthday for \$35. That is how Leader 13 developed an interest in aviation.

Leader 13 is the father of two older sons and two younger daughters who have never gotten their licenses but are good pilots; he says they have just not been able to fit it into their lives at this point. Flying has been a cohesive thing for their family, according to Leader 13. Even though his wife does not share his interest in flying, they frequently have family picnics at the hangar he built years ago. He describes that hangar as “almost like a home where they all converge on Sunday afternoon for a cook-out and let the kids fly the antiques.” He always keeps “tail-draggers around so the kids won’t forget how to fly a real airplane.”

Leader 14. The family of Leader 14 consists of a “wonderful husband” and four children. Her husband was a widower when they married and his three children were ages

7, 9, and 11. They are currently grown and she reports that they are “very much mine.” She and her husband now have an 11-year-old together and the whole family has influenced her with their support. She attributes her decision to apply for a job with the airline to her husband. He encouraged her to go to work because the airline had a reservation center located just two blocks from their house. She said he really pushed her, because she just did not think it would work. She knew she would have to start at the bottom and work nights. With four kids at home and her husband traveling three nights a week, she cannot explain how they made it but they managed.

Leader 15. Growing up in a family that had the ability to make her feel good about herself was something this leader did not take lightly because she has seen so many people who struggled with lack of support. Her upbringing was fairly structured; however, her parents gave her the idea that she could do what she wanted to do.

Leader 15 had one sister and her parents focused on the sister as the smart one who would be in the business world. They looked at Leader 15 as the one who would be the wonderful wife with a number of children. Even though they focused on her sister as the one who would be in the business world, Leader 15 never felt as if they didn't think she could do it. Rather, she felt that they just thought of marriage and family as her natural calling. However, as she has progressed in her career, they have been extremely supportive and very proud of her.

This leader was married during the last year of college and moved directly to New Orleans where she went through the trauma of trying to find her first job and realizing she didn't want to stick with her degree field. She describes her husband as supportive of her

career efforts. There was a crossroads for them when they moved to Corpus Christi and she was selected in the Candidate Development Program of a federal agency, because until then, she had really been doing what she would call “jobs” and would just show up for work and go home. She was no longer just totally involved in what her husband did but was becoming very involved in her own career. It was something that they had to work out regarding how he would deal with this and how it would impact him. Each time she would apply for a promotion they would have a discussion regarding whether or not it was something he could support. If not, she would not have done it, because she “didn’t want to be at cross-purposes.” She believes that her husband has been an integral part of her moving through the ranks, and realizes that he has made sacrifices at times in terms of her time and attention. She confides that if she had felt as if he was not supporting her, she could not have done it.

Leader 16. This leader enjoys the support of his family and expresses the belief that no one can be a success without the support of the entire family. It is also important to be humble in that success with the family. He shared a story of his children who visited the base one day and discovered his name on the gate. They asked why it was there. They didn’t realize he was the boss. They only knew him as Dad who had something to do with airplanes. He cites that story as a good lesson in humility.

Leader 17. Leader 17 comes from a large family, the last of eight children. They grew up in a community with a college, and it was just assumed by the family from the first grade on that they had the opportunity to get a degree. They were given plenty of encouragement, not pressure, but encouragement to do so. Although neither of his

parents had the opportunity to pursue college, they realized how vital education was and certainly supported and encouraged all of their children to pursue a degree.

Leader 17 met his wife while in college, and they both went into the public school system. She stayed there and supported him while he got his doctorate, He, in turn, supported her when she got hers; and they both supported their one son who just completed his doctorate. According to this leader, the value of education has been very prominent in his life since first grade.

Leader 18. Leader 18 comes from a family of 10 which necessitated learning at a very early age how to communicate and get along with people. He also comes from a farm background where he learned that hard work and perseverance pay off. He says he did not realize they were poor until he got into the military and got to see the world. However, he did categorize them as a conservative family.

Educational Background

Leader 1. This leader holds multiple degrees in a variety of fields including a Bachelor of Science degree in Business and Management from the University of Kentucky, a Master of Arts in Teaching and a Master of Business Administration from Oklahoma City University, a Master of Public Administration and a Doctor of Public Administration from the University of Southern California. He believes that his selection for a couple of positions had a great deal to do with his education, since the majority of people in his technical discipline had extensive experience but no academic experience. He believes that when all things are equal, a degree often does make a difference.

Leader 2. Leader 2 holds a Master of Science degree in systems and logistics from the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, and a Bachelor of Science degree in chemistry from Florida Atlantic University. This leader expressed the firm conviction that his guiding principles were set before he went to college by going through the Catholic Jesuit system. He believes that managerial leadership principles are fine tuned in college, where the tools for implementation are learned; however, the foundation for those principles is laid in the first seven years of life. He described the Jesuit school as “very hard, very kind, very moral, and demanding of steady behavior.”

Leader 3. This leader holds a Bachelor’s in Education and a Master’s in Public Administration from George Washington University. The Air Force essentially had a policy that one could not get ahead or move forward in promotions without a basic degree as a minimum requirement. Failure to obtain a master’s degree might also be the discriminator in determining who would get a promotion.

Leader 4. Leader 4 holds a Bachelor’s degree in Accounting and a Master of Divinity. As a former Methodist minister, he sees that background and type of education as very beneficial in many ways because it involved considerable research and writing.

Leader 5. Leader 5 holds a Master’s in Journalism Education which she obtained because of an interest in teaching at the university level. Her undergraduate work was in journalism and graphic design. She stressed that she is a firm believer that education is ongoing.

Leader 6. Leader 6 holds a Bachelor's degree in Geophysical Engineering from the University of Tulsa. He points out that this degree didn't necessarily line itself up with his careers in the public relations business or in aviation. He made the transformation into those businesses the hard way through work experience.

Leader 7. Leader 7 holds a Master's Degree and a Bachelor's in Aerospace, but he describes his educational background as a "mixed bag," and does not believe that he was a good student to begin with. One of the things he learned and tries to impress upon his own children is the danger of marginalizing their education by targeting the minimum passing grade. It is more sensible to aim for 100%; in the event they miss the mark, they will do so with a passing grade.

Leader 7 also described some of the difficulties he experienced in his graduate program with an interesting analogy comparing the material available to learn to a 50-gallon drum of water and his brain to a sponge that could absorb only so much at one time. He learned to approach studying in such a manner that would allow time to distill and absorb what was being presented.

Leader 8. This leader described his formal education as "not too much." He graduated from high school and went to the University of Oklahoma. Because of the Depression, he had to leave school after the first year. The remainder of his education was primarily a vocational-technical education, and he is still very much an advocate of "hands-on" education. Getting into vo-tech was very educational for him because he believes that a teacher learns more than his students in that process.

Leader 9. Leader 9 described his education as “chasing his career.” By the time he completed his Bachelor’s degree he was already running a large division of an aviation organization. His Master’s degree led to an adjunct faculty position at a university, and later completion of his Ph.D. certainly contributed to his selection as a dean of a university. He shared the firm conviction that human beings should never stop learning because “God placed us on this earth to develop to our fullest potential and we only tap a small portion of that potential.” Leader 9 believes that learning involves not only the intellectual side, but it is important to the attainment of a certain amount of wisdom, for which education provides the philosophical framework.

Leader 10. Leader 10 realized the importance of completing his degree in order to attain a commission as an Air Force officer. His father was determined that his son was going to be an Air Force officer and was also encouraging completion of the degree.

Leader 11. Leader 11’s Bachelor of Science degree with an emphasis in Aviation Management opened the doors to his current position. Although he has always believed experience was more important than education, he believes that education is important in that it shows stamina and commitment.

Leader 12. This leader holds a Bachelor of Science Education degree from Oklahoma Baptist University, a master’s degree in math from Oklahoma State University, and an Honorary Doctor of Science from Oklahoma Baptist University. Upon completion of his undergraduate work at OBU, Leader 12 enlisted in the Air Force. Later he got the opportunity to go to graduate school and completed a masters degree. The masters degree

degree was very important in that astronaut selections were based on a rating developed from a score sheet. That score sheet included points for certain types of career activities, combat tours, more than 2000 hours flying time, and graduate degrees. There were also points on the score sheet for flying with the Thunderbirds. But, according to this leader, the educational part played a pivotal role in his being selected as an astronaut.

Leader 13. This leader holds a bachelor's degree in economics which he obtained after being drafted and attending nine different colleges and universities all over the country. He comments that he was not a disciplined student and did not have the type of educational background that he was proud of, but his children all do. One daughter has a Ph.D. and teaches statistics and computers; the other has a master's degree in math and teaches math. One son runs a business, and another is an orthopedic surgeon.

Leader 14. Leader 14 shared that she has nothing more than a high school education and a great deal of training internal to her company. The company provides employees of all levels many in-house educational opportunities in leadership courses, computer courses, speaking courses, teambuilding courses, and other courses of that type, but nothing in the way of formal education

Leader 15. Leader 15 holds a Bachelor of Science degree in Marketing and Merchandising and will soon be completing a Master of Science in Natural and Applied Science, Aviation and Space Education. She now realizes the benefit of having a Marketing degree and has been surprised to find that it is a natural for what she has been doing in the federal government. She comments that as one moves up through the ranks

it is necessary to constantly market ideas or market a direction for people to take, so these skills have helped more than she realized.

Leader 16. This leader holds an undergraduate degree in Marketing and Business Administration and a JD (Jurisprudence) degree in law. He is currently a doctoral candidate in the Aviation and Space Education field at Oklahoma State University. He commented that when you go through law school, they warn the wives that “jurisprudence is a very jealous mistress and she takes a lot of time.” Similarly, aviation requires a great deal of time, and Leader 16 believes he has chosen two mistresses that require much time but have been very enlightening. He believes that the two fields complement each other well in that the work he did in law has helped in his leadership position in aviation. In the leadership field of aviation, there are a number of administrative responsibilities associated with flying which cross over to the legal field.

Leader 17. Although science education is his background, this leader has had opportunity for study and work in leadership management within the context of education. This, plus his public school teaching experience, have helped in understanding and leading young people at the freshman level. As part of his graduate work, he was associated with an industry-sponsored educational foundation that spent a great deal of effort as well as money in promoting educational improvement in communities where they had facilities and plants. That allowed him to learn from the people in the corporate world, what their concerns were, and what they perceived should be going on in the schools. This provided an understanding of the corporate culture and the kinds of skills and talents they wanted their people to have.

Leader 18. Leader 18 graduated from high school with a scholarship to play ball at Oklahoma State University. However, the coach did not want married athletes on the team and since football was a second priority, he chose to get married and go directly into the Air Force. It was there that he began his career. Although he has studied Aerospace Management at Southeastern Oklahoma State University and the University of Southern California, he believes that the knowledge he has gained in 47½ years of technical experience and professional education, as well as a certain level of common sense, has been a most valuable contribution to his success.

Other Developmental Activities.

Leader 1. Leader 1 holds multiple airman certificates including an Airline Transport Pilot Certificate with ratings airplane single and multi-engine land, commercial privileges, rotorcraft-helicopter, and glider; Flight Instructor Certificate with ratings airplane single and multi-engine, rotorcraft-helicopter, glider, and instrument; and Ground Instructor Certificate with ratings advanced and instrument.

In addition to maintaining currency in his profession as an airman, Leader 1 has participated in extensive managerial and executive development training throughout his career with the federal government. He has served in a variety of leadership positions in his church and has been heavily involved in civic activities where he has served on a number of committees and boards ranging from scouting, YMCA, and other civic and humanitarian organizations to aviation, academic, and executive boards.

In addition to developmental activities related to aviation, Leader 1 has been active in scouting and worked with young people in leadership training all of his life. He

still uses the leadership experiences from the scouting “Woodbadge” in communicating with people. His philosophy is that “adults are kids in big skins” and scouting offers opportunities to practice leadership with both the boys and their parents. He believes that the best leadership experience one can have is experience as a volunteer responsible for getting volunteers to do things because motivation is the only approach possible. The same kind of motivation used in the volunteer world is highly effective in the employment world.

Leader 1 also stressed the importance of such inward-outward developmental activities as doing those things necessary to maintain good health in order to do the heavy work loads sometimes demanded of leaders. He emphasized the importance of reading and staying current with technological developments such as computers in addition to staying reasonably proficient in your own professional field. In keeping with his philosophy that one cannot work all the time, Leader 1 has a number of hobbies including Corvettes and computers and enjoys doing his own household maintenance. He believes that fun activities are an important part of the development side that makes a whole person. He emphasizes that it is healthy to have enough variety in your life to be able to walk away from a job and not miss it. He counseled that “if you look at a job as power, you will never let it go. If you look at it as opportunity in time and yours for a fleeting moment in the grand scheme of things, you’ll find other things that are equally important to you and can replace it. Good leaders have that.”

Leader 2. Other developmental activities identified by this leader were primarily military training which begins very early in the military career and continues throughout.

He described Squadron Officers School at the Captain level, which emphasizes team work and utilizes case studies to teach leadership traits, world events, societal challenges, and political economics. Subsequent military training included Air Command and Staff College, Education-with-Industry program with General Dynamics Corporation, Industrial College of the Armed Forces, Armed Forces Staff College, Air War College, Department of Defense Program Management Course at Defense Systems Management College, and an Executive Program for Senior Officials in National Security at Harvard University. Throughout the entire process of military training officers learn leadership principles, human behavior, communication skills, societal pressures, value systems, international challenges, world events, world development, potential enemies, and what the military is all about.

Leader 3. Leader 3 describes his other developmental activities as being primarily military training. The researcher observed that both Leader 2 and Leader 3 described their military education with a great deal of detail and enthusiasm for what they learned.

Selection to attend Squadron Officer's School, the Air Command Staff College, and the National War College, was made by a Board of Officers and was based on the applicant's record. Leader 3 described the Squadron Officer's School as the first school that gave him a broader picture of the organization and composition of the Air Force. It also provided for the development of basic writing and speaking skills. The Air Command Staff College embellished further on those goals and went into more depth on the organization of the Air Force as well as provided a flavor for diplomacy and the role of the military in the world. Finally, the National War College, which was designed by

General Dwight Eisenhower and considered to be the premier college of the military, was very selective and included students from all branches of the service plus members of the executive branch of the government. He described it as a magnificent school that focused on world diplomacy and how the United States fit as a world leader. Guest speakers included people such as Henry Kissinger, several Vice-Presidents, Senators, and Ambassadors from other countries. Each student had to give a presentation and lead class discussion on the topic of the day.

Leader 3 also highly recommended Toastmaster's Club as one of the most important developmental activities one can do for a career boost. Through that organization he learned to prepare briefings, speak with confidence, and "know when to shut up." As a result of that activity, he participated in the Public Speaking Bureau team that gave speeches for the community and has utilized those skills extensively throughout his leadership career.

As an elder in his church, Leader 3 finds that his experiences are also beneficial to his leadership and communication skills.

Leader 4. As is typical of most leaders, Leader 4 has been involved in a variety of developmental activities including obtaining the training and skills necessary for a private pilot certificate. Even though he is no longer actively involved in flying, he believes his pilot training provides a better understanding of a pilot's needs. That kind of involvement at the grass roots level in an airport environment, combined with his business skills, has contributed to his success as an aviation leader.

He develops his people skills through a variety of activities in the church and civic organizations. Like most aviation leaders he is very active in the community and serves on a number of boards, including the YMCA and an airport executives board. He also serves on an academic advisory board in the community. He believes that involvement in activities that necessitate working with people in the community is essential to leadership development because leaders are continually working with employees, the public, and other business leaders.

Leader 5. Leader 5 has been involved in a number of developmental activities, not the least of which is her involvement in aviation. She believes that learning to fly allowed her to use her career journalism skills in the aviation industry, and she did this on a freelance basis until obtaining her current position as an Executive Director.

One of the side benefits of learning to fly was the confidence that comes from being able to take an airplane off and bring it back and land it successfully. That process served to enhance her self-confidence tremendously.

Still other developmental activities which have helped in her leadership role include a number of educational seminars, some of which pertained to journalism. Others were primarily growth seminars which helped to develop negotiating and people skills. An important part of a person's development, according to this leader, is not being afraid to take on a challenge. She believes that it is important to take the challenge when there is something difficult that needs to be done and figure out how to go about getting the task accomplished. This involves not being afraid of risk and not being afraid to fail.

Leader 6. Leader 6 has a rich background in aviation and has continued the development of his skills in that arena. He has flown 4500 hours as a pilot and nearly 2000 hours as a navigator. He has remained active in many aviation organizations such as the National Biplane Association, Oklahoma Operators Association, a local pilots association, and the National Aeronautics Association. He has served them in a variety of positions from member to director. He belongs to a press club and has been a member of the Aviation and Space Writers Association as well as the Public Relations Society of America.

Leader 7. Leader 7 attributes much of his leadership development to training received in the Air Force where they literally “allow you to groom your way through.” It affords the educational opportunities and provides work opportunities to put those skills into practice. He continues his development by taking continuing education courses relative to leadership and management in an effort to refresh his memory regarding those skills he may have forgotten.

Leader 8. Leader 8 pursued other developmental activities by taking some American Management Association courses where he learned, among other things, organizational structure, which was very helpful in founding his company. He also took some courses from Oklahoma State University in supervision and other people skills.

Leader 9. Leader 9 describes education as “the skeleton over which you put the skin of training.” The training received during his federal career was well worth the

investment, according to Leader 9. All of the schools, including the management and executive schools, helped to shape his leadership style because they made him think.

He also attributes his leadership growth to being exposed to other leaders with whom he identified and respected, the most significant of which was his former superior. He identified other leaders whom he admired for their exceptional performance and their character. He spoke of their influence both personally and professionally.

Leader 9 has been involved in a number of civic organizations, his church, and a number of other activities which have contributed to his leadership development. He spoke during the interview of his enjoyment of golf as a fun side of his development.

Leader 10. Leader 10's other leadership developmental activities included numerous military schools and courses. Leader 10 is convinced that the fact that he graduated at the top of these courses gave him the chance to keep moving up in rank.

He mentioned a number of other new challenges or developmental activities that he is pursuing today. One of those was the computer and Internet which he believes is critical in today's environment. Another area he mentioned is the technical world. He predicts that the technical world of the 21st century will be "beyond anything we have seen before and will include pilotless aircraft that can fly anywhere without being seen--like a sheet of paper in the sky."

He also mentioned that his political role has helped with his leadership development skills in that he is faced everyday with new issues in health care, education, crime and many others. All of these issues can change instantly which necessitates becoming attuned to the importance of staying flexible and adaptable to change. What

was smart yesterday may be dumb this year. According to Leader 10, one thing that holds people back is a preference for repetition, rigidity, and predictability which does not work very well in a career anymore. The messy world of politics helps to keep Leader 10 flexible because people ask many questions about numerous topics and he realizes the folly of being locked into a very specific world. He prefers to know a “little bit about a lot of things.”

Another developmental activity for this leader has been reading. He describes himself as a voracious reader who reads five or six newspapers a day and numerous magazines.

Also on the political side there is a great deal of exposure to national and sometimes international conferences as a participant as well as a presenter. He sees those conferences as beneficial to development of leadership skills.

Leader 11. This leader has not strayed from aviation in his career, and most of his career developmental activities have been related to aviation. Much of that training has been at the FAA Academy, where he took Air Traffic Control training, and in the military.

For leadership development, he enthusiastically stressed the importance of getting involved outside your specific job responsibilities, and believes that involvement in professional and community organizations has provided him with recognition from key people in his field. He has served as Vice-President and President-elect of the Oklahoma Airport Operators Association (OAOA) and a member of the American Association of Airport Executives. He plans to pursue accreditation with them in the future. As

Chairman of the Legislative Committee with OAOA, he has been involved in dealing with legislative issues in an attempt to increase state airport funding. He believes the experience he received in pulling many people together with different agendas and getting them involved in a unified program has truly broadened his experience.

Leader 12. This leader believes one of the most important developmental activities one can pursue is learning on one's own. He shared a story of a physics and electronics teacher at Oklahoma Baptist University who insisted that all students take one course without instruction. Students were provided with a textbook and told to work the problems; if they needed help, it was available, but the independent study was invaluable. The inability to rely on formal classroom instruction was a valuable learning experience and especially helpful in preparing for the military.

Leader 12 took the Squadron Officers Course and the Air Command Staff College by correspondence. Such courses are an important developmental activity of the military, and even though it took a little longer to complete by correspondence, the previous independent study experience at Oklahoma Baptist University was helpful through this process.

Leader 13. Leader 13 is involved in many other developmental activities, most of which are enhanced by his aviation background. He has used aviation for humanitarian missions as well as for sharing his Christian faith in churches and other groups around the world.

Leader 14. Leader 14 participates in a number of development opportunities by being on the board and serving as campaign chairman for charitable organizations in the community. She is also a member of the Oklahoma City Chamber of Commerce and active in her church.

Leader 15. The Candidate Development Program in which she participated offered over two years of constant training, development, and self-enlightenment for Leader 15. She also attended the University of Michigan Graduate School at Kellogg which was like a mini-MBA. Even in the supervisory and managerial courses with her federal agency she has gained so much in the area of leadership development. Moving into the master's program provided a whole new perspective for Leader 15 in attempting to integrate years of experience with the academic viewpoint.

Leader 16. The military emphasizes personal development courses for its personnel which is consistent with Leader 16's philosophy regarding the importance of "sharpening the saw." Leader 16 also believes that anyone involved in aviation needs to be of strong personal character, which involves reinforcing personal development skills annually just as he reinforces his law studies through continuing education annually.

Leader 17. Involvement in civic groups, youth groups, and such governmental agencies as NASA along with service on air and space museum boards have provided many developmental opportunities for Leader 17. Working with industry on economic development, with international students on campus, and with the educational and business communities in several countries have also provided unique opportunities for

personal development. Those activities have reinforced for Leader 17 the importance of appreciating the aviation industry as a global entity and emphasized that educational professionals cannot be trained to function only in the United States.

An intensive internship program with the aviation industry brings Leader 17 in daily contact with the real world as students return to suggest the kinds of things they needed which have not been provided. From their suggestions, curriculum can be adjusted to meet their needs.

Leader 18. Leader 18 has been involved in many developmental activities throughout his career in the military including Command and General Staff College, Fixed Wing Aviation Course, the Rotary Wing Qualification Course, and the Fixed and Rotary Instructor Pilot Course.

Part of his development has been the attainment of ten airman certificates ranging from his pilot certificate to a Flight Engineer certificate and an Airframe and Power Plant certificate.

He also describes his opportunity for worldwide travel in the Air Force as a developmental opportunity that provided a good base for understanding what is going on in the world.

His most recent developmental activities have been tied to working with national organizations, speaking, and assisting with development of legislation.

Guiding Values or Principles

Leader 1. Leader 1's scouting background drives the way he deals with people. He describes the values of "duty to God and country, duty to others, duty to self," in that order, as his guiding values and believes that those practices really will allow one to relate well to most people.

Leader 1 also believes strongly in people. He has a tendency to let people go a long way, more than most people will, because he assumes that people want to do a good job. In his words, he does not know anyone who comes to work with the idea of making as many mistakes as possible or making everyone's life miserable. He believes everyone wants to do a good job and be recognized for it; consequently, they like having a boss or mentor who can say, "Hey, you did a good job."

Leader 1 also emphasizes the importance of treating people in the manner in which he likes to be treated. The more he treats people the way he likes to be treated, the more he finds that they do a much better job overall, but for themselves, not necessarily for him. He believes that people really do not work for anyone but themselves, and they enjoy being motivated. They enjoy knowing that someone in a position of power cares about them.

Leader 1 stresses the importance of being an inward/outward person in leadership and explains that he subscribed to that philosophy long before Stephen Covey made it a popular thing. He believes it is imperative to know oneself before achieving success in leading others.

Leader 1 does not see himself as a good manager because he does not like details. He prefers to view things in terms of vision, determining where the organization is going, and letting people take care of the details. He believes that knowing one's personal strengths is prerequisite to being a good leader of others. Unfortunately, many people are still struggling with what they want to be "when they grow up," who they are, and what they are.

Leader 2. When asked by the researcher how his guiding principles influenced his career and his daily decisions, Leader 2 responded with "A lot! A lot!" He commented that he had been lucky in that the people who have been able to influence his career shared his values. He reiterated how fortunate he had been to work with good people but emphasized that he does not waiver from his standards regardless of the consequences.

He expressed his concerns that he is seeing too much of situational ethics. Fewer and fewer people seem to be holding steady to the values of ethical behavior and honorable treatment of people through equal opportunity regardless of sex, color, national origin, and those kinds of things, as well as politics. He shared his concerns that politics are becoming more pervasive today than ever and beginning to be more detrimental than the traditional discrimination and bias of sexual harassment, racial discrimination, and other discriminatory behaviors. He paused to emphasize that we are not perfect and certainly not there yet, but at least we have a system of regulations, policies, and checks and balances. At least when people violate those principles, they are caught if they act on their prejudices. The few that do get by, have to be very subtle and sneaky. Leader 2

believes the political issue is more subtle, because it is “never wrong or right, is done in a very subtle way, and sometimes it’s hard to handle.”

Leader 3. Leader 3 described the bottom line in being a successful aviation leader as, first of all, knowing the job. It is important to be a specialist in the job and work at being very good. Being good is not just something that happens. It requires self-discipline and a strong desire to do those things that make one extra special such as study, take courses, and read. As an instructional pilot, Leader 3 tried to learn as much about being an effective instructor as he did on flying the airplane.

He also expressed his viewpoint that a Type A personality is essential to having discipline and aggressiveness. He illustrated the importance of that with an example of flying more missions than anyone else in the military. That aggressiveness paid off for his students who studied hard, worked hard, and were always ahead of their classmates. They were the first to get their instrument check and to complete their pilot training courses.

He also stressed the importance of volunteering as often as possible because this results in opportunities for wonderful assignments. In the military when they asked for volunteers, the volunteers were never told what their assignment would be, but often it might be flying a congressman or the Chairman of the House Armed Services Committee.

Leader 4. Leader 4 states that one of the principles he believes strongly about is ethics. He has used ethics as a guiding principle throughout his career. He also stressed the importance of organization and sound financial principles.

Leader 5. Leader 5 defines values or principles as “figuring out what is the right thing to do and doing it.” Over time, she has developed some strong skills in being a conciliator or facilitator with diverse groups and bringing consensus from divergent opinions. She believes it is important to take a global perspective and look at the overall rather than take sides on an issue. To her, the agenda needs to be for the universal good as opposed to being a personal one. She comments that at her age, principles are no longer a conscious thought process, but an automatic reaction.

Leader 6. Leader 6 describes his guiding values as “just the way you live.” He was raised with what he described as a “decent work ethic” and believes that has not hurt him at all. He also stresses the importance of fair play in one’s career and daily decisions.

Leader 7. Leader 7 says his foremost guiding value or principle is one of integrity or honesty which does not mean mistakes cannot be made. He describes the aviation industry as one that has inherent trust built into it. It requires trusting that the air traffic controller will not direct a pilot into the path of an oncoming aircraft, and trusting that the maintenance people who sign off on the aircraft certifying they have done some critical work, have truly done what they logged into the book. So trust and integrity are just imperative to the aviation industry. He warns that trust and integrity must spill over into the education side. Students must understand the criticality of that single word, integrity, when they come to school because it is going to carry through their entire career in the aviation world, whether they fly or work on the aircraft. Honesty also spills over into Leader 7’s daily decisions in that he has to make sure his actions are above board and

hidden agendas are minimized. To him, hidden agendas are not a mark of integrity, and he describes himself as an “open book” to the people who work for him.

Leader 8. Leader 8 believes that quality is the most important value in the aviation industry because it is a very dangerous occupation. He has always told his students that there are only two professionals who are licensed to kill people and those are doctors and aircraft mechanics. If either one of those professionals fail to do quality work, they could kill someone. He described quality as the guiding principle in the growth of his company and attributes the reputation of that company to its emphasis on quality.

Also of importance is the human relations aspect of leadership with respect to concern for their welfare, maintaining their morale, and encouraging their dedication to the same principles. At this point in the interview, Leader 8 shared a dynamic poem he had received from one of his employees the day before the interview. Even though he had been retired from that leadership role for 11 years, his former employees are still writing letters of admiration and appreciation for his leadership and its impact on their lives.

Leader 9. Leader 9 admitted that he has some very strong feelings about many things, one of which is just basic honesty. He believes in operating an organization with openness and a sense of integrity and credited Stephen Covey, Peter Senge and others for organizing his thinking in that direction to an “inside-out” approach.

Leader 9 shared that he is currently reading a book entitled *Leading With Soul*; and he commented that one of the subjects of this study exemplifies this principle. He

commented that this leader does not “wear this stuff on his sleeve,” but simply leads by example. Those kinds of principles have had a huge impact on Leader 9 personally.

Leader 9 also described a greater sense of satisfaction with his own life than ever before because of values and principles and a certain sense of balance. In the past he was often so career centered that other things fell by the wayside.

He also shared that he is both blessed and cursed with a strong “feeling” side which allows him to tune into things. However, the down side of that sensitivity is the tendency to lash out when feelings get hurt. He shared that staying focused on principle, what is right or the correct way to be, assists in managing those feelings.

Another important principle shared by this leader was the notion of fairness. He pointed out that the environment in which one may be leading is not always fair. It is the responsibility of the leader to put in the fairness to the extent possible, regardless of the “slings and arrows.” Every leader experiences tough times, no matter how good they are, and those times require staying with principles to avoid “win-lose.” They require having a vision for what is right, staying with that vision and helping people realize that vision.

Leader 10. Many of the values held by Leader 10 came from his father who was a fighter pilot in World War II and always a little disappointed that his son did not have the 20/20 vision required to be a pilot. His father did, however, emphasize many things important to him as a pilot, such as loyalty and trust. The military operates a great deal on that. When Leader 10 got overseas himself, many of the senior colonels helped to put him on the right path by saying the same things his father had said. Even though there

may be difficult times, Leader 10 believes that adhering to one's values, is important to development of the trust necessary for people to be willing to follow.

He illustrated the importance of loyalty and trust with an example from his own work environment. He said he often tells people that "the only two things of value in this building are knowledge (the more you have, the more effective you'll be) and the other thing is your word. You have to give it 50 to 100 times a day and if you ever give it and fudge or fib, your credibility is shot instantly because it is a small world out there."

Leader 11. According to this leader, one of the most important principles a leader can possess is integrity and consistency in treatment of people. That is what develops the respect and sense of fair play necessary to lead people. There is nothing that can erode a person's effectiveness more than failure to follow through. Leader 11 expressed his opinion that he was hired for his present job, not because he knew the work better, but because of his personality and ability to deal with people. They needed someone who could win back the heart and minds of some of the people who had been disillusioned by previous leadership. When asked by the researcher if that was a difficult thing to do, he replied, "No, it was easy." He then explained that it involves being responsive to the needs of people, not making promises that can not be fulfilled, and being open and honest in your actions. It involves being comfortable in decision-making that is a fair and equitable application of policies and procedures.

Leader 12. An important value to Leader 12 is taking advantage of every opportunity. He shared that when he was invited to try out for the Thunderbirds, they asked eight people; and only three accepted, which was somewhat surprising to Leader

12. He believed that some of their wives may have objected, but others were afraid to try and fail.

He also commented that a person does not usually have a list of 15 guiding principles but maybe one or two values other than honesty. In his case an important value is taking advantage of every opportunity that presents itself.

Leader 13. Leader 13 shared that all of the years he has been in business, buying and selling airplanes, he has found that his greatest obstacle was the federal government. So he decided when his children were grown, he would run for Congress and try to help taxpayers who were trying to build businesses that were over-regulated and overtaxed. His objective was to help open up the free enterprise system in this country. That was an important principle to him.

He also shared that he had always thought of himself as a born-again, fundamentalist, Ephesians 2:8-9 Christian (“For by grace are ye saved through faith; and that not of yourselves, it is the gift of God; not of works, lest any man should boast.”) After he arrived in Congress, he had an experience in which he discovered that he was not that kind of Christian. As a result of that experience he got involved in a number of groups that address the “proper immorality” in this country. He has since been giving quite a few talks in churches and in groups all around the country and in foreign countries on the fact that we are in the midst of a huge moral revolution in America right now. He has flown all over the world and sat with the Presidents and parliaments of other countries, just as an individual, to share his faith. Leader 13 shares that he believes the

one thing this country needs more than anything else is redemption, and that is the cornerstone of his principles and what keeps him going.

Leader 14. Leader 14 believes that her values and principles have been the best asset in her success and profession. She does her best to keep God first, family second, and career third. Although she is not always successful at that, she believes in the Biblical truths and tries to base her daily decision making and interaction with people on those truths. She believes that one of her stronger attributes is the way she treats people which is why she has gained their respect and love. They recognize that “it really is truly in her heart.”

Leader 15. Leader 15 believes that fairness and equity are very important and knows the importance of leading by example. She recognizes that she has to be proud of what she does so she can look herself in the mirror every day. As she moved up the ladder, she has valued people a great deal and appreciates what they bring. In business dealings, it is important to her that people who work for her are not swayed into something underhanded or shifty, not only from a legal standpoint but an ethical one as well.

Leader 16. Leader 16 defines his guiding values and principles as always looking for the positive in change. Even when leadership is going in the wrong direction, it is important to provide the input necessary to help move in the right decision. Leader 16 believes that leaders usually move in the wrong direction because they have access to incorrect information.

Leader 17. Leader 17 describes his guiding principles in working with people as ensuring that they have responsibility and the corresponding authority, then opening doors and facilitating their ability to do the job they have been asked to do. This philosophy influences all his daily decisions where he sees his role as simply one of being a facilitator. Even though there are occasional disappointments, Leader 17 believes that people usually respond to being treated in this manner.

Leader 18. Leader 18 says he believes that it is important to minimize waste, fraud, and abuse as a leader. He says his personal values are to refrain from lying, cheating, or stealing and believes that being persistent about those principles will pay off..

Self Reported Management Styles and Practices

Management/Leadership Styles

Leader 1. Leader 1 does not see himself as a manager, but believes that he “leads or doesn’t do anything.” He provides a little bit of direction and vision and emphasizes that sometimes direction IS direction in an emergency. He cited an example when direction became necessary in his leadership role right after the bombing of the Murrah Building. His managers later described a meeting with him as a “come to Jesus meeting” because he had to remind them that they were selected to lead the people and they would lead. Sometimes Leader 1 believes it is necessary to take leadership away from subordinate leaders and give direction depending on the organization, but usually leadership is “creating a very succinct vision of what can be.” It is not necessary to have a multi-page plan and vision statement but something succinct that people can hold on to.

Leader 1 believes that one effective way to put a vision together is by walking around and talking to people. They will tell you that safety is important, teamwork is important, and community is important. It doesn't take a great deal of time to provide vision and direction, maybe 5% of a leader's time.

The other piece of leadership is alignment. It is getting everyone to know how to compromise when necessary and hold the line when it is absolutely crucial so that everyone comes out as winning as they possibly can. An executive usually spends 30-35% of his or her time getting people to align, both in government and in industry.

The balance of a leader's time is spent motivating, walking around talking to people, attending important life events of people such as retirements and birthdays, and reminding them of what quality is. Sometimes it is necessary to schedule "walking around" time in order to ensure there will be time with the people.

Leader 2. Leader 2 prefaced his remarks about his management style by commenting that we all have a preferred method, and depending on the circumstances, sometimes we have to deviate from it. He then described himself as very demanding as far as standards are concerned, and believes in the importance of doing something right or not at all. He believes in striving for excellence and not settling for second best. In achieving that, he likes to obtain buy-in from those who report directly to him, so that it is not his idea but theirs. He described his style as a democratic form of leadership, then paused for a moment to reflect, and added "or dictatorial" with this explanation. "Sometimes you decide this is the way you want to go; you try to obtain buy-in; and if that is not achieved in adequate time, you have to start dealing in the dictatorial sector of

the spectrum.” Because he is uncomfortable doing that, he emphasizes the importance of hiring people that minimize the opportunity of that happening; however, he cautions about hiring people that are in 100% agreement with the leader all of the time, because that isn’t healthy either. A leader needs people who are honest and challenge sometimes by asking if another alternative has been considered, and Leader 2 likes people who speak up for what they believe.

Leader 3. According to Leader 3, his leadership style was “hands-on.” He didn’t believe in asking someone to do something he could not do. His other primary style was to take a personal interest in the people who worked for him. He tried to get the best and most out of them, and in some cases, he was a little hard on them by expecting them to produce as he did. At the same time, being a hands-on type person, he was looking after each individual, making sure they had the right opportunities, and all the advantages in their behalf. He mentioned that people were always responsive to that style of leadership, and will work hard for a leader who takes a personal interest in them.

Leader 4. Leader 4 does not believe that a person can have one particular style. He is a nurturer, at times a problem solver, and other times a pusher although nurturing is his dominant style. Leader 4 expects people to do their jobs and tries to create an atmosphere where he hires good people and then lets them do what they were hired to do. He says many times he has spent extra time letting people struggle through because they may come up with an idea better than his anyway.

Leader 5. Leader 5 sees herself as a nurturer and problem solver as well as a conciliator but not a pusher. She does not push comfortably. She prefers to put the game plan together, have all the right reasons for doing it, and present it in such a way that it becomes an automatic yes decision. She does not want to hover over someone but prefers to treat them as equals and simply give guidance and direction regarding her expectations. Although she may offer any help she can along the way, she prefers not to keep her thumb on someone all the time. She does not see that as healthy and does not have time to be that detailed. She believes that freedom to do the job promoted mutual respect.

Leader 6. Leader 6 describes his management or leadership style as that of a problem solver rather than a pusher. He prefers to lead by example rather than push people. He describes most of his leadership experience as working with volunteers and the principal leadership style that works with them is encouraging, showing them how to produce the results they were all wanting to produce.

Leader 7. Leader 7 says there are several facets involved in describing his management or leadership style. One is that he is not very creative but is always looking for new ideas, better ways to do things. A phrase he does not like to use that describes his philosophy is "constant improvement." He does not believe in remaining static on anything.

Another facet of his leadership style is that he engages in a participative type of decision-making by trying to gain consensus from the individuals at his work place. He says that the educational environment is highly archival and people expect him to be that type of leader since he came from the military. However, he believes he is surrounded by

capable adults who do not need to be treated as if they were children. They have tremendous ideas and need to be able to utilize them. He describes his role as a coaching role in that he must ensure people have the resources they need to do their jobs, get them the training they need, advise them on training they may not be aware of, then get out of the way and let them do their jobs.

He does not see himself as a “person with a clipboard who does time and motion studies” or a person who has firm goals that people need to achieve; but he does demand of everybody that they do the best they can do and always ask if there is a better way. He believes in working smarter, not harder, and does not believe people should put in 12-hour days. His philosophy is that other people are putting in 8-hour days and getting the job done, so they must be doing something smarter than the people who need 12-hour days. On those rare occasions when long days are necessary, they will be done; however, on the whole he wants his people to go home and be with their families. Family life is important.

Leader 8. Leader 8 believes that leaders are people who can inspire and good teachers can inspire students to learn. He believes in inspiring people to do their best by being a role model, and keeping them focused on the job. He has always believed it to be important that people are kept informed of the primary objectives so they do not have to wonder where they are going. It is also important to keep them informed regarding the limiting or controlling factors that make the objective possible and how they fit into the picture. He believes in inspiring people, communicating with them, and treating them as

equals. People who sweep the floors have always been just as important as his top assistants, and are made a part of the organization.

To summarize with key words this leader's style is one of inspiring, communication, training, and leading by example.

Leader 9. Leader 9 discussed the feedback he received on his leadership style from three Blake and Mouton Managerial Grid Seminars, all of which was consistent. His primary style is 9,9 or maximum concern for production and for people, but it is a thin-layered 9,9, because he has a very strong backup style of 9,1 which means very directive or production-oriented. The short version of that is that he has a tendency to run out of patience and begin directing. Although he believes there are times when it is important to get extraordinarily decisive, it is also important to Leader 9 that he be careful with that, because he does not have any trouble making decisions. He cited an example of an organizational leader he knew that had been directive and autocratic at a time when his organization was falling apart. That style was very successful in taking hold and getting the organization back on its feet. However, Leader 9 cautions that after things become routine again, an autocratic style can damage an organization. He expressed his concern that his actions never damage an organization but add value for any place he has been. He knows that his most effective style is to be a person with vision who is able to take the best of those people that work with him and point them toward that vision, catch them doing what is right rather than what is wrong, and reinforce those positive things. So it is very important that he does not become too autocratic, decisive, or judgmental when he is pressed.

Leader 10. Leader 10 believes he has great failings in the area of leadership style because he is very project oriented. When something is out there to be done, he tends to run past people who are helping with the project. If he does not see it going as quickly as the way he wants it, he tends to do too much detail. He describes himself as one of those who tends to send a thank you letter to somebody who sent him a thank you letter for getting something done for them.

He also described himself as low key, not a berater. He has never warmed up much to any of his commanders through the years that needed to get up in front of the squadron or wing and chew everyone out. Although they get results, the more effective ones were softer voiced, providing plenty of "pats on the back" and then being very precise about where things can be done better. He says he and his secretary have not had a cross word for 15 years; it is just not his nature. He says he will do anything he can to solve a problem to the point of taking the blame himself when it is not his fault just to avoid a fight. He does not believe compromise is a dirty word and keeps going back to a problem until it is worked out. He thinks that is where he is most effective in his leadership role.

Leader 11. Leader 11 offered the "textbook term" for his style of management as participative. He is a consensus builder. If he does not know how to get something done, he goes to the people with the expertise, explains the problem, and asks what can be done to solve the problem. He says he is fortunate to have a good group of very talented people who do not just do their job descriptions but can and are willing to do other things. He shared his pride in the facility he manages and the pride that he feels when others

notice the improvements. He attributes those improvements to the work that his staff has done and how they have handled the projects and taken on other responsibilities.

Leader 11 shared his decision making philosophy in that he does not say “this is the way we are going to do something.” If there are four ways to do it right, he may pick the way it will be done based on money, resources, time and other factors involved in the bigger picture, but he certainly seeks counsel on any problems that they have. That does not mean he avoids responsibility or decision-making; he is comfortable with his own scope of authority and responsibility. He also commented on the importance of elevating issues when necessary or at least communicating with a superior in case there is input from that level that might change a decision.

Leader 12. Leader 12 does not believe in pushing people. He says that perhaps the role of nurturer or protector would be his style. He describes his leadership style as telling everyone what the situation is and letting them do the job without looking over their shoulder. He believes that his people are intelligent and it is his responsibility to see that the work is fairly distributed so that they can do their best work. He believes that most people respond to a leader that respects them but is also fair-minded, can even be hard at times. As long as they do not believe there is an imbalance in the way the work is distributed, they will go along.

Leader 14. Leader 14 considers herself a teacher. She believes she is in her position for a reason and that the reason is her employees, so she has an obligation and a responsibility to help them be the best they can be. And if the best they can be is to be a reservation sales agent or if they have higher goals they want to achieve, that is what she

needs to try to help them do. Leader 14 describes herself as very open and honest. Her goal is never to make anyone feel inadequate or crushed when they leave her office. But at the same time she believes we do people an injustice if we are not honest with them. Even though she is very direct, she believes she does it with sensitivity and sincerity and warmth. At least, people go away with an understanding of why, perhaps, the answer was no. But they also leave feeling that she listened and tried to solve the problem the best she could.

Leader 15. Leader 15 refers to the Myers Briggs to illustrate her leadership style which is Extrovert, Intuitive, Thinker, Judging (ENTJ). But she has found that she is also a feeling and people person. The person who administered the Myers-Briggs pointed out that she cares about people and thinks about people but does not do it based on the feeling decision-making model; she does it through analysis. Feelers often make gut-level decisions, and she listens to that but is methodical in her analytical process. She says that helps her understand the way she makes decisions.

Leader 15 describes herself as very much a people person who desires to be in tune with the people around her and empower the people who work for her so that they feel good about themselves and are able to excel.

Leader 16. Leader 16 sees his leadership style as a combination of a number of things, but it also depends on who is asked what that leadership is. Some may believe he is too hard; others, too soft; and some, in between. As long as it doesn't approach a split personality type situation, Leader 16 believes that shows a variety of management techniques that are necessary when working with a variety of different people. With

some people he needs to be firm; with others, not so firm. He describes his leadership style as pushing the decision-making responsibilities down to the lowest level possible. He is a decentralized or flat organizational type person.

Leader 17. Leader 17 defines his management style as one of surrounding himself with the best qualified people he can find and giving them the responsibility and authority to go with it. Then his role becomes that of a nurturer or facilitator. He simply “opens doors and keeps the wolves off their backs so they can do their jobs.” Operating in this manner requires sincerity and honesty; and Leader 17 cautions that people sense when one is not sincere. He also describes himself as more of a puller than a pusher.

Leader 18. Leader 18 sees himself as visionary in his management style in that he likes to look a situation over, analyze it, and visualize how it will come together in its completed form. He thinks nurturing and persistence are needed to encourage the staff who is doing the project; he also believes it is important to be somewhat protective, “not cuddling,” but standing behind the staff by protecting them while they get the job done.

Self Assessment of Qualities Exhibited When At “Personal Best”

Leader 1. Leader 1 describes himself as a good listener when at his personal best in leading others. He also warns that taking charge is necessary in times of emergency. In an airplane accident with bodies all around and people upset, someone has to take charge. That becomes a different type of leadership which he believes he is good at doing because of many years of experience. However, when things become routine, people settle into a state of normalcy, and “administrivia” and bureaucracy take over, it is

important to listen and give everyone an opportunity to participate and even fail. Many leaders are afraid to fail, but Leader 1 believes it is okay to fail. One has to experience failure to really appreciate the difference; he describes failure as a natural part of being successful.

He summarized his leadership style as situational with an illustration of a comment by one of his employees that “there is no doubt who the leader is when things go to pot, but we like having participatory opportunity when things are in such a state that that is what needs to be done.”

Leader 2. When asked what qualities or traits he exhibits when at his “personal best” in leading others, Leader 2 said “clear objectives, total support of my people and a clear understanding of the task at hand with the resources available.” He thinks it is criminal to ask someone to achieve the impossible, because it creates more problems. It is important to set realistic goals, demanding and stretching goals, but achievable.

Another quality or trait Leader 2 mentioned when at his personal best was that of consistency of behavior. He commented that when he was coming up through the ranks, there was nothing more frustrating than “today this is the #1 priority, tomorrow is a different priority, the day after a different priority.” One could never get organized enough to move down a specific path, which is what he believes is happening today.

Leader 3. Leader 3 describes his qualities when at his “personal best” as “self-confident, aggressive, and unafraid (not worried about some task being too hard, just getting on with it.)” Competition has always been a motivator for him.

Leader 4. Leader 4 believes that he is at his best when he is willing to let people do their jobs, make their own decisions, and lead in their own way. He also says that when he is at his personal best, he is a very relaxed and open leader who pushes, directs and tries to get people to respond in a timely manner without doing the job for them. He frequently stops by an office and visits for a while, maybe just to inquire about the vacation and develop a casual relationship. This allows him to obtain information and express an interest in an area without telling them what he thinks they ought to do.

Leader 5. When at her personal best, Leader 5 exhibits calmness and presents an image of being in control of the situation without heavy-handedness. She exhibits good listening skills, allowing opinions to be heard without cutting someone off or putting them down. She treats their opinions with value.

Leader 6. Leader 6 is at his personal best when he exhibits enthusiasm as well as logic. He believes it is important to demonstrate that the organizational goals and tasks are worthwhile.

Leader 7. Leader 7 believes people too often take leadership to be sober and intensive, and he stresses the importance of seeing the humor and light-heartedness in approaching things. He says there may be times when the “crease goes into the forehead because we have to do serious things occasionally; however, nothing in the instructional world is life threatening. It may be critical and life threatening if it doesn’t get done, but it is important that we not take ourselves too seriously in the process.” So, at his best, Leader 7 is seeing that laughter occurs freely but spontaneously, not forced; he believes

employees need to be enjoying themselves. If people do not want to be a part of the process, Leader 7 attempts to facilitate the feeling that he enjoys being there. He believes that if he is doing something to be a “wet blank” to that whole thought process, then he is not at his best. He says he is not a comedian or a stand-up comic but he enjoys the levity of situations.

Another way that this leader describes himself when he is at his personal best is that he is not intimidated by anything. He is very secure and not threatened by people that do not like him, because he recognizes that he has no control over what others think of him, only his own thoughts. If he allows everything external to bother him, it destroys his effectiveness. He jokingly says that he “would like to be liked by everyone; but if not, it’s too bad, because they just don’t know what a neat guy he is.”

Leader 8. Leader 8 believes that he is at his personal best when he is inspiring, communicating, encouraging, and nurturing the assets that he has to utilize in accomplishing the mission. He is also at his best when he is evaluating and learning more about how to do it better next time, which he describes as the best “feel good” thing he could have.

Leader 9. Leader 9 commented that the people who work with him would be better able to evaluate the qualities he exhibits at his personal best because they see things he cannot. He went on to say that he thinks he is at his personal best when he is exhibiting 9,9 behaviors, when he is doing those things he does best such as: empowering others to work, making them feel good about themselves and the work they do, giving them some vision, facilitating them toward that vision, and catching them

doing things right. He went on to emphasize the importance of catching people doing things right rather than only catching them doing wrong and giving corrective behavior. He believes that reinforcing what employees do right is more motivating, because most of us are our own worst critics and need more reinforcement than criticism. So the best of this leader is when he is empowering others, inspiring them to think well of themselves, and helping to facilitate them to use the best of their talents.

Leader 10. Leader 10 believes that he is most effective when he is able to find a middle ground in solving a problem, when he doesn't give up and go home, but just keeps believing that there is a solution.

He also offers that his humor has always helped in his leadership role. Being able to laugh at himself puts people at ease, and everyone becomes fair game. He believes that people need plenty of space for their mistakes, because it is an ego-filled world, and people are going to make mistakes. Learning to laugh at those mistakes helps.

Leader 10 also believes he is at his personal best when he is willing to participate in the task nobody wants to do. He avoids delegating all of the really difficult tasks. By being a role model for what he asks others to do, he conveys that all of the work is important; and much of the hesitancy of others disappears. He illustrates with the task of knocking on doors in a political campaign as one of the things nobody wants to do because it involves invading the privacy of someone's home, maybe even interrupting their dinner. Because Leader 10 does more of that than anything else, others are willing to help. If he tries to avoid that responsibility and stay in the office, he believes that he is not setting the kind of example that's appropriate.

Leader 11. When asked what qualities or traits he exhibits when at his personal best in leading others, Leader 11 said “consensus building, listening to others.” One of the things he does at his personal best is to separate emotion from a really tough situation, look at it objectively, and come up with the right solution that is best for the organization. He emphasized the importance of taking personalities and personal desires out of a decision, focusing on the big picture, and determining what is best for the organization. This often requires being willing to “take the heat without getting your feelings hurt, but in the long run, people respect that kind of decision making.” Leader 11 describes himself as a Type A personality, a perfectionist, driving, pro-active kind of leader who is good at making objective decisions.

Leader 12. Leader 12 is at his personal best when he has an understanding of the people and the job, when he is being fair, equitable, and avoiding any pretense of zeroing in on particular individuals. He is also at his best when keeping his word and being consistent and fair. People are observing whether or not a leader keeps an agreement. He illustrated the importance of keeping one’s word with a story about a group of cadets that had been promised they could leave early if they solved a certain problem. In spite of the fact that the professor of mathematics paid an unexpected visit to the class, Leader 12 surprised the cadets by simply explaining the situation to the professor. He then kept his word and let them go early. Leader 12 also emphasized the importance of being fair across the board, “because how people feel is extremely important over the long term.” A leader should never let two or three people do all the work.

Leader 14. When Leader 14 is at her best, she exhibits warmth, honesty, and is very dedicated and loyal to the cause. She believes in doing a day's work and takes her job very, very seriously, but believes in having fun doing it. She believes that people, wherever they are employed or no matter what position they have, should look at that company as if it were their own. She believes that is what her company is founded on, and that is why they are as successful as they are.

Leader 15. Leader 15 is at her personal best when she is thinking clearly. She is fairly visionary and believes that when she is "really running on all cycles, things are clean" and she can anticipate potentials. When at her personal best she is totally in tune, an outstanding listener, and tuned in with the people around her. She believes that flexibility is very important in being able to take on new ideas or different directions and create an environment for people that is not rigid. She believes that involves stimulating the creativity of people so that they are at their personal best also, are enjoying what they are doing, and having fun. She says that when she is at her personal best, she has the people around her at their personal best.

Leader 16. Leader 16 thinks that he is at his personal best when he is listening. He says when he has listened and truly listened very carefully and heard what people say, they know he was listening and are more willing to accept the outcome of what was being discussed because their ideas were given a fair opportunity.

Leader 17. Quiet determination was the term that Leader 17 used to describe himself when he is at his personal best. He also believes that when he is at his best, he

rallies others to help solve the problem rather than trying to do it all himself. That was a lesson he had to learn and confesses that he thinks he had some difficulty in the leadership role until he understood that. He believes that it is a process of convincing people that they have the skills and talents to help solve problems so that role is one of encouragement as much as anything else.

Leader 18. Leader 18 believes that he is at his personal best when he speaks softly and swings a heavy stick from the standpoint of persistence. He believes that perseverance makes all things happen when the right ingredients are there.

Leader Definition of Successful Aviation Leadership

Leader 1. According to Leader 1, "A leader is a leader is a leader." He does not think leadership is significantly different anywhere. The primary difference that aviation has is that leadership has to have a strong safety program development, either experience or philosophy. Safety doesn't just happen. According to Leader 1, "We are so safety oriented in the aviation business that the leader has to be as knowledgeable of safety processes and procedures as anyone around." He defined safety as a knowledge skill of aviation leadership, but the method of leadership in this arena is by example. He illustrated that concept with some examples from his own experience where, as the leader of an organization, he grounded planes that were in bad shape or ordered drug testing after learning employees had participated in a drug party. He explained that when a leader takes action like that, people then know there is a standard. Aviation is a business where safety takes precedence over everything else and requires tougher decisions. No

leader will be successful who compromises a standard of any sort. Otherwise someone will be killed, which in turn, kills the company and kills the business.

Leader 2. Leader 2 described successful aviation leadership as follows: "I think it is the same as successful blank, put in whatever you want to put in there." He went on to recap his perception of successful leadership as: 1) proper stewardship of the resources at your disposal; and 2) creating an environment where people can grow, where people are happy to come to work, and where they are proud to associate themselves with that organization. He says success in accomplishment of the mission, if done by consuming an inordinate amount of resources, is not truly success; and if people do not enjoy coming to work, then something is wrong.

Leader 3. Leader 3 believes that successful aviation leadership means the ability to motivate others to gain their maximum performance and do it willingly. He believes that is the height of leadership skill, because that is all leadership is--getting people to do something that needs to be done and like it.

Leader 4. Leader 4 defines successful aviation leadership as being a successful business person who happens to be in an aviation career. He does not see a difference in aviation and other environments; the problems are the same. He believes a successful leader in aviation will run the business in a financially responsible manner and provide the services to the public that they are seeking. If a leader is able to do that and do it in a safe manner, he or she is successful.

Leader 5. Leader 5 sees no difference between successful aviation leadership and successful leadership in any arena other than the fact that aviation is just dealing with a different subject. One still has to have all the other leadership skills to make it a success. The knowledge alone is not going to do it.

Leader 6. Leader 6 identified successful aviation leadership as influencing other people. He noted the importance of a leader's excitement about the mission or the organization so that it is contagious to other people. There can be no apologies about any part of it. He referenced his extensive role in leading volunteers and offered the following advice. A function of success is often picking the right people. "You can't expect someone interested only in coal mining to help you promote an air show." He referenced the Oklahoma City Aerospace America show as an example of the importance of enthusiastic leadership in contributing to its success.

Leader 7. Leader 7 defines a successful aviation leader as a risk taker, one who understands risks and takes them when necessary. He says successful leaders are also innovative and seek different ways to make the business better. He describes aviation today as "just different variations of 1950s technology in that we haven't really seen a brand new approach to either the commercial transport world or just aviation in general for a long period of time. There are a number of creative people out there who are forever looking for what is the next thing to be accomplished in aviation?" He mentioned Burt Ratan who continually builds unique types of aircraft. For example, he built an airplane powered by a bicycle and another plane that was solar powered that flew across the English Channel. He also built the Voyager that flew unrefueled around the world,

nonstop. Leader 7 illustrated unsuccessful aviation leadership as those whose mismanagement brought on the demise of once flagship carriers such as Continental, Eastern and Pan Am.

Leader 8. Leader 8 believes that successful aviation leadership is defined by personal satisfaction with your own accomplishments. He says even though he does not know of any of us who have ever felt fully satisfied with the job we did, there is a kind of contentment with one's personal accomplishments while in a position.

Leader 9. In his definition of successful aviation leadership, Leader 9 makes no distinction between aviation leaders and other kinds of leadership. He has always loved airplanes, and even though his career has been related to aviation and he has always loved it, he refers to his son who flies 727s as the real aviation leader in the family. Leader 9 does distinguish between aviation leadership and management in that leadership is doing the right things and management is doing things right. He has been in both roles in organizational positions that required leadership be shown and hopes he has done the right things most of his career.

Leader 10. Leader 10 defines successful aviation leadership as "making the people who serve under you link with you personally, not just through the paycheck they get or the aircraft they repair, but really link in a personal way." He referenced polling data that described him as being someone who understands how other people live. He clarifies that that does not mean sympathy.

Leader 11. Leader 11 defines successful aviation leadership as “being pro-active and being able to facilitate the activity in whatever facet of aviation you’re in.” In airport management it is generating activity, making the airport a safe and friendly place for people to visit and use. There are so many areas of aviation from maintenance to education, to airlines, to commuter services; successful leadership involves successful facilitation of the organizational activity regardless of the area of aviation.

Leader 12. Successful aviation leadership to Leader 12 means getting the job done and staying alive. He does not see a difference in successful aviation leadership and any other kind of leadership except the venue has more risks and inherent hazards associated with it. However, there are many areas of leadership with similar risks.

Leader 14. This Leader believes that successful aviation leadership means having a true understanding and a solid base for the role aviation plays in the industry now and in the future. She does not believe one can be very successful by focusing solely on today because tomorrow may never come business-wise with such a narrow focus. She believes success means having a good grasp on the importance of the organization and its potential for the future.

Leader 15. This leader defines successful aviation leadership by her own position as meaning the ability to have a safe, secure, and efficient system. It means looking at all the components that go into supporting aviation safety and how effectively they are operating, and understanding how her piece fits into the greater whole, not only of her organization but the aviation community. She further defines success as being able to

lead and convey that picture to the people who work for her so that they see their role as a part of a very important pod and understand how it all comes together.

Leader 16. Leader 16 defined successful aviation leadership by looking at each word separately and defining success as being successful personally, being a leader as being a good listener and leader, and having developed the technical part of being personally competent.

Leader 17. Leader 17 believes that successful leadership is successful leadership regardless of the discipline even though some knowledge, background and experience is imperative to any field. He defines leadership as a good mix of awareness of people, ability to work and motivate people, and having an understanding of the industry and its needs. He believes that one cannot learn about aviation without getting involved in it; it has to be grounded in real life experience. But in general, whether its aviation or any other discipline, the basic elements of leadership are the same.

Leader 18. Leader 18 defined successful aviation leadership as the ability to lead to end results, to take a project or program and take the lead in it until it is finished.

Self Perception of Leadership Success

Leader 1. This leader's response to the question concerning whether or not he agreed that he would be considered a successful leader in aviation was "I guess so. People tell me that. Most people have been recognized for something. I guess my recognition is that it is in the eyes of the beholder."

Leader 2. Leader 2's response to the question regarding his perception of his own leadership success was that it was a tough question. He elaborated that, in the honesty of the interview, his perception was that he had been successful because he had been able to accomplish the mission with proper stewardship of resources and that he had created an environment where people could grow, be happy, and be proud to associate themselves with the organization.

Leader 3. Leader 3 agrees that he has been successful. Even though he is humble about it, he is realistic in recognizing that the rank of a 3-star general cannot be achieved without some measure of success. He reflected on his perception of success from earlier in his career and commented that he looked at people of his rank as a success at that time because they had the badge (stars and wings) to show.

Leader 4. Leader 4 sees himself as successful because he has been able to accomplish his career goals. He sees his organization as being a financially responsible organization able to accomplish its goals. He cautions that success cannot always be measured by the desires of people. He believes that, as a people, we are looking for glitz, new and shiny, at the risk of running something into the ground because we have not provided for the ability to maintain it later. Often we just want something new and spend all our money on obtaining it without consideration for the future. His goal is to be responsible for what he produces.

Leader 5. Leader 5 considers herself successful because 20 years of volunteer work has paid off and brought her career work and her love for aviation together into one.

Although she has supported aviation through a variety of volunteer efforts, she has been involved in another career prior to the current position. This is her first opportunity to say aviation is her career field.

Leader 6. Leader 6 does not consider himself as successful, just persistent, and perhaps moderately successful. He illustrated the importance of persistence in some of his projects as a volunteer, particularly one that could completely change the image of general aviation in the eyes of the legislative process. He mentioned that there are a number of people working on that project, which requires a considerable amount of organization and persistence. He believes that whoever winds up getting all that done will be considered pretty successful.

Leader 7. Leader 7 is not sure he knows how to quantify his own success as a leader. He has achieved his goals in the Air Force and sees his success in his current position as success by association with a successful staff. He describes his staff as highly capable and highly qualified and believes that all he needs to do is stay out of their way and ride the wave with them to success.

Leader 8. Leader 8 believes that the true measure of leadership success is based on the success of the people in the organization being led, how well the customer is served, whether or not people are able to move on to better jobs and become better people (that is good citizens and good workers who maintain a good standard of living). Based on those criteria, Leader 8 is satisfied with his success.

Leader 9. Leader 9 doesn't really know if he agrees with the assessment of his leadership success. He analyzed it by looking at several aspects of his career. If success is measured by reaching the "number one" position in a major organization, Leader 9 believes he might not be considered a success. To reach that position would have required him to move to the headquarters offices, and he chose not to do that since he preferred a "get things done" environment to a political one. He also shared that if being "number one" would have caused him to not have 6½ years of experience working at the right hand of his former superior, whom he described as "the finest human being with whom he had ever worked," he would not have chosen to be "number one." He believes that he learned more from his former superior than anyone, not that his superior was perfect, but he influenced and exemplified values by his personal and professional behavior that hugely impacted the life of Leader 9.

Leader 9 says that he will leave the determination regarding his leadership success to other people. In his own view, he has done economically well by comparison to population norms; he is a reasonably good person, and thinks he has influenced a few lives in a positive way. He measures his success to some degree by the fact that a few people have told him that he has said or done something that has been a positive influence on their lives. He describes that as very satisfying and demonstrates some measure of success in leadership; but in his own mind, he is still not sure.

When asked about his selection for Leadership Oklahoma, Leader 9 described that role as more of a civic leadership role. He has served in a leadership capacity on a number of hospital boards and other boards including the Chamber of Commerce and Leadership Oklahoma, which were as much about civic leadership as personal leadership.

Leader 10. Leader 10 does not see himself as a successful leader in the aviation sense. He believes that part of the success that he enjoys is more related to the political side which gives him the more visibility. However, he is proud of what he has achieved in the military.

Leader 11. Leader 11 views himself as successful because of his success in rebuilding trust and because of the extracurricular activities with aviation organizations in their legislative efforts. One of the gauges of leadership success is the respect people have for the leader, and this is noted when they seek advice or counsel on issues or problems. Leader 11 believes that he has that respect.

Leader 12. Leader 12 describes himself as successful but is not sure if he would be considered a leader except in terms of influence or leadership by example. He frequently speaks to teachers and classes, and believes he has an important role in influencing the teachers by making aviation exciting to them so their enthusiasm will carry over to their classroom. He described that process as “what Dr. Ken Wiggins at Oklahoma State University refers to as the multiplier effect.” Leader 12 looks for that multiplier effect in agreeing to do appearances.

Leader 14. Leader 14 believes that she would be considered successful in that she has a broad perspective on what makes the industry tick, but her success has truly come from her leadership. She acknowledges that without a technical background, she might not have been as successful with another industry or another company which is not founded, as her company is, as a people-oriented company. But she believes that people

will accomplish more than they were hired to do, if treated fairly; and she has been successful at that.

Leader 15. This leader was identified by one of the other leaders in the study as an example of a successful leader of aviation. Her response to this question will be compared to the characteristics described by the other leader later in the study.

When asked by the researcher if she would agree that she would be considered a successful aviation leader, Leader 15 prefaced her comments as follows: "I may be atypical from some other leaders in aviation from the standpoint that I happen not to be a pilot, but I have learned to be comfortable with that over the years in that aviation is made up of so many aspects, and I realize my contributions go along the lines of strong leadership and the ability to look at the myriad of services." With a focus on customer service and the cost of doing business, she feels comfortable in saying she is very proud of her accomplishments as a leader.

Leader 16. Leader 16 referred back to his original analogy in defining "successful aviation leadership" by letting all three words stand alone and analyzing his success in terms of their individual meaning. Beginning with the term successful, he evaluated his personal and family life as successful. As to his leadership ability, he described himself as a good leader and a good listener to the people he works with. He evaluated his aviation skills as successful based on 35 years of fighter aircraft flying, 500 hours in mostly single-engine fighter jets, combat in Vietnam, two distinguished flying crosses, and 13 air medals. Based on all of this, he concluded that he had been relatively successful.

Leader 17. Leader 17 considers himself successful to some extent in being able to get a variety of people together and pulling in the same direction. He cites examples of some of the alliances established in the state to get the various levels of education working together to articulate their programs. Other examples of cooperation cited were internship programs that benefit both students and industry. He cautions about the importance of sincerity and honorable motives in leading people to work together in this manner.

Leader 18. Leader 18 shared that he was not as confident at the beginning of his career as he became later in his career. Toward the end of his career he felt confident professionally and felt that he was definitely a contributor because he could see the finished results of his contributions to the program.

Characteristics of Successful Leaders

Perceptions of Success of Other Leaders

The question proposed to participants of this study which led to the following responses was: "Think of someone you know personally in a position of aviation leadership who has done an excellent job providing effective leadership to the people and activities around him or her and tell me, in detail, what that person has done which constitutes 'highly effective leadership.'" The purpose of the question was to determine how successful leaders perceived success in other leaders. Some of the leaders chose not to identify the individual they were discussing by name. Others chose to identify the

leaders by name. Five of the participants named other leaders who were also participants in this study. This allowed for some triangulation and comparison of self-perceptions of success to the perceptions of success by other leaders. That comparison and those findings will be discussed in the Conclusions section of the study.

Leader 1. Leader 1 did not limit his response to one individual, but instead offered names of leaders from both the public and private sectors of aviation leadership. Three of the leaders identified were former executives to whom he had reported in his leadership role. The fourth leader identified by Leader 1 was a well known leader of a major airline. Some of the terms used to describe the characteristics of his superiors were: smart, beyond bright, had vision, able to motivate, able to get people to align, strong communicator, a team builder, knew how to treat people, knew how to give recognition, and knew how to have fun. Terms used to describe the leader for whom he had not worked were: had vision, knew how to align, a strong motivator, natural ability, and knew how to have fun.

Some of the examples he used to illustrate these characteristics were as follows: One of the leaders was the first to establish team building in the organization. As a result members of the management team were all very close and still meet on an annual basis even though they are no longer together in the same organization. That same leader would “fly anyplace, anytime in any weather to pat somebody on the back.” His philosophy of management in terms of accountability was: “you have it; it’s yours to manage. If you don’t manage it and screw it up, then I’m going to be here to tromp on you and hold you accountable.”

Another leader's philosophy of accountability was "It's your ship. My only caution to you is, don't run your ship aground."

Still another leader named by this leader as successful was described as knowing how to deal with people. There was no such thing as an important person or peon. He thought just as highly of the janitor as he did the boss, and treated them the same.

The fourth leader he described as having natural ability and knowing how to have fun. He mentioned that this leader know everyone in his organization by their first name.

Leader 3. This leader identified his first flight commander as an effective leader that motivated him. He described him as smart, aggressive, a real people person, and a mentor. He illustrated that by saying that his commander "could tell if you had a problem at home or were worried about something by your expressions. He would bring you in and talk to you about it and always seemed to have the right words at the right time to make you feel comfortable and want to get out there and really get going. If you were discouraged and went in to talk with him, he could have you turned around and show you the bright side of what you were doing in a matter of a few minutes." The commander was Leader 3's mentor when he first joined the Air Force and he had great respect for him. Leader 3 says he "would have marched to the ends of the earth for that commander."

Leader 4. Leader 4 identified Leader 15 of this study as someone he knows in a position of aviation leadership who has done an excellent job providing effective leadership. He described her as having run a large organization in a responsible manner with very effective leadership in spite of an extremely difficult period of organizational

downsizing. He noted that in addition to running a very large organization, she has a real involvement in the community. He believes that using leadership ability in the community is also a desirable trait of effective leadership.

Leader 5. Leader 5 identified two leaders that she knows personally who have done an excellent job providing effective leadership. One of the leaders she named was Leader 1 of this study. She talked about working with him on one of her civic volunteer assignments. She spoke of his insight, the depth of person that he is and the fact that she has a great deal of respect for him. The other Leader she identified is a local businessman who is a strong supporter of aviation in this area, with whom she has also worked in a volunteer capacity. She describes him as very professional and well respected in the field of aviation.

Leader 6. Leader 6 identified one of the leaders of a national aviation association as an effective leader who runs his organization like a benevolent dictatorship with a great deal of success. He is organized to the point that there is no wasted time, and people feel they are accomplishing something. He is appreciative of their efforts which is especially important in volunteer work. There is a need to let people know they are appreciated and reward them in some way, especially in volunteer work, where the pay isn't very good.

Leader 7. When asked to describe someone he knows who has done an excellent job of providing effective leadership, Leader 7 talked about a retired officer in the military for whom he had worked in the early 80s. He said this officer was very

unpopular with NASA because of his concern that NASA was placing all of their space launch capability in the shuttle. If something tragic should happen to the shuttle, which eventually did with the *Challenger*, our ability to put things into space would be severely diminished. He was strongly criticized for that notion, but maintained his position. After the *Challenger* failed, he was looked upon as a man with foresight and courage.

Sometimes an effective leader simply has to have the courage to express his/her convictions when the data does not support a decision. Leader 7 believes that is one thing his organization has; when people say “this is the way we do things around here,” they are challenged to defend their position by showing a written policy or law that supports their opinion.

Leader 8. Leader 8 identified his mentor, Clarence Page, as being an example of a successful leader of aviation. He refers to Mr. Page as a “pioneer” because he witnessed the first flight of an airplane in Oklahoma and participated in the selection of the site for Will Rogers Airport. He was a trained fighter pilot in World War I, operated several companies, built the Air and Space Museum, and was a partner and friend to Leader 8.

Leader 9. Leader 9 identified Leader 1 in this study as an example of someone he knows personally who has done an excellent job providing effective leadership. He referenced his response to numerous other questions during the interview when he referred to that same leader who had a significant impact on his life. Although he had already shared some of that leader’s characteristics in earlier responses, he continued to share additional thoughts on this leader. He said people who worked for Leader 1 loved coming to work. He was the most empowering, forgiving visionary with whom he had

ever worked. He described how this leader was “incredible with his ability to withstand the slings and arrows and still have something good to say the next day about the person who delivered the slings and arrows. He was a tremendous human being and a tremendous example for people who were even mildly introspective to take him as a model and look inside.”

Leader 10. This leader identified one of his commanders in the military as an effective leader and described the commander as one who has “high personal standards, almost to the point of being thought of by other senior officers as being too military or too by-the-book. But that is the way he was and the way he wanted his wing to be, and it led to a superb safety record, a personal rapport, and a decorum. He was also a very proficient pilot.”

Leader 11. Leader 11 identified his supervisor as someone who has done an excellent job providing effective leadership. He described his supervisor as one who took a genuine interest in him and took the time to develop him professionally and personally and counsel him along the way. This leader mentioned the importance of “clicking with someone,” and views his supervisor as a very valuable ally to whom he attributes much of his career success.

Leader 12. Leader 12 identified Leader 13 of this study as someone who has done an excellent job providing effective leadership because he gives his time and is very interested in supporting aviation the best he can in his position.

Leader 13. This leader identified an Oklahoma astronaut as someone he knows who has done an excellent job providing effective leadership in that he has been able to use his success in furthering the cause of space technology and legislation. He also named the two aviators who flew around the world with him for their success in the aviation business and another aviator who has carried on the tradition of his father. His leadership has resulted in great contributions to advanced technology. Many of the things that come out of NASA originate as home-builts that general aviation people have discovered. This aviation leader has been successful in carrying on the tradition of his father with his enthusiasm for aviation.

Leader 14. Leader 14 easily identified one of the vice-presidents of her company as a woman she admires and respects for her wisdom. She describes her vice-president as one who speaks eloquently; but most of all, leads by example. In a fun-loving organization, sometimes people put themselves in difficult positions. This leader believes in being above reproach and knowing your limitations. For example, she recommends not being the last to leave when going out for drinks with a group of business friends. She focuses on the importance of perceptions, which are truths to the people that are seeing them. Leader 14 admires this leader because she has never jeopardized what she believes in, but is not judging of others who find themselves in bad situations. She is truly a leader by example according to Leader 14.

Leader 15. Leader 15 identified Leader 1 in this study as someone she knows personally who has done an excellent job providing effective leadership. She believes that one of the things that makes him so unique is his blend of technical and executive

leadership experience. He is technically knowledgeable about many aspects of aviation, not just the federal side, but the whole industry. He is also a very effective leader in that he has outstanding human skills with the unique ability to lead people to excel to higher levels and really dare to be good. She believes that he is a master at getting the best from everyone. She commented that it was interesting to watch him as he transitioned from one aviation leadership role to another, how those same things stayed with him, and what made him big in one place is obviously making him bigger.

Leader 16. Leader 16 chose not to name names in identifying someone he knows personally who has done an excellent job in providing effective leadership, because he felt the names were not as important as the influence they have on someone who is attempting to develop their own leadership style. He remarked that frequently leaders are successful in some areas and not so successful in others; and someone attempting to model their behavior has to look at their attitudes before deciding their own leadership style. Many leadership behaviors that were appropriate 10 years ago may not be applicable today. This is especially true in the aviation career field because aviation has changed somewhat from leadership that was a daring, wide open field of the barnstormer and fighter pilot into more of a professional approach. Often in the past they didn't care about leadership, they were there to fly. That is why it is important to consider the leadership attitudes of the past and update them to today's environment before deciding what is important in a leader.

Leader 17. Leader 17 did not identify a person by name that he believed had done an excellent job in providing effective leadership; however, he described some of the

characteristics exhibited by someone he knew as successful. He prefaced his remarks by commenting that within any organization, whether it is private industry, government, or academia, there is a bureaucracy that one has to work within. He referred to that bureaucracy not in a negative sense, but just in recognizing that there are policies and guidelines established by that entity. Leader 17 describes this leader as having given a great deal of responsibility and authority to people. He maintains an open door policy and spends half of his time out in the organization rather than in the office. He exhibits a great deal of civic effort which is not just show but something he genuinely enjoys doing. He is a very articulate leader; but chooses his words and times to speak carefully so that when he does speak, people listen. He is a consensus builder, and his genuine concern for each individual within his organization, whether it is a death in the family or sickness, is apparent. He could not have accomplished all that he has without being well trained and intelligent; but, according to Leader 17, he would be quick to say that much of his experience has been learning from others while on the job.

Leader 18. Leader 18 identified an aviation officer in California who “began the aviation program in that state at zero and brought it up to 10.” He was a visionary who could see what needed to be done, perceived the funding of it, and then worked to see it in place and operating functionally. Leader 18 described this aviation officer’s accomplishments as a “complete package” and was most impressed with his ability to “start a program from nothing and develop over the years a beautiful program.”

Leader Perspectives On the Uniqueness of Aviation Leadership

Leader 1 Leader 1 does not see much difference in achieving success as a leader in an aviation environment from another environment, other than the safety factor. He does recognize, however, that there appears to be a greater love for this business than other businesses. He believes that most people are in business because they like it; aviation people are in the business because they love it and would pay to fly.

As far as leadership skills necessary in the business, Leader 1 sees very little difference and cites examples of successful aviation leaders who are not necessarily aviation types: people like Herb Kelleher of Southwest Airlines who is not an aviation technical type, and Bob Crandall with American, who is also not an aviator. They both came from other disciplines. Leader 1 believes that the primary ingredient for success is the knowledge and ability to lead complex organizations. It is also important to demonstrate skills of vision, alignment, and motivation. Because aviation draws on every environment (for every Airline Transport Pilot, there are 600 people doing something different), experience in managing a diversity of functions is especially helpful.

When asked to identify a single characteristic or skill that was most important in aviation leadership, this Leader mentioned that he was not sure that the technical side is as important as the managerial side of aviation leadership. Most of the successful aviation companies have a CEO with strong financial management skills. Because aviation is a cyclical business, it is necessary to plan for the downturn by managing well in the good times. Good management principles such as planning, organizing, leading, and controlling are equally as important today, with emphasis on the skill to lead. On the

technical side, Leader 1 referenced the fact that he had a number of ratings, none of which have helped a great deal other than maybe with decision-making authority. In fact, technical skills may hurt if they result in the leader becoming a judging person.

When asked what personal and professional background and values foster leadership in the aviation community, this Leader mentioned that he does not think a person can be taught to lead. Good management skills can be taught, but leaders may still have difficulty seeing the big picture and getting people aligned with them to do things. It seems there are certain things people are born with that can be nurtured and built. Others who are just average will be mediocre regardless of how much training they receive. Leader 1 illustrated this point with the example of his own children; one son was a natural leader who was always in a leadership role and the other son was not a natural leader but everyone loved him. He recruited half the kids in his scout troop. If given leadership training, the son that was the natural leader would get much better; the other son would get better but never to the level of someone who had natural ability. Leader 1 cited another example of natural leadership in demonstrating empathy with an employee who is dying. A natural leader would probably respond spontaneously with a big hug when meeting the employee and spouse in the hallway. It is something that just feels right; it isn't taught. It is an inward/outward response which comes from many things, maybe an early relationship with parents. Certain personality traits are very difficult if not impossible to change, and good leaders recognize that it is okay for people to have different personalities. A person who can't do it, isn't bad; they just can't do it. All the training in the world won't provide someone with that natural ability.

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as vice-president of a university as he did in the Air Force. The people worked in harmony and did their jobs well through a \$54 million construction program and all of the associated disruption on campus.

Regardless of the organization being led, Leader 3 stresses the importance of having the “right stuff.” He describes self-confidence and aggressiveness as essential to making things happen. It was especially critical in military leadership roles such as those in Vietnam where timidity, weakness, or fear could cost in terms of human life. Leader 3 describes himself as a Type A and doesn’t believe a Type B can be a leader.

He believes the single most important characteristic in aviation leadership is that of aggressiveness and self-control. The most important value that fosters leadership in the aviation community is integrity or honesty according to Leader 3. As a child he was taught that even though he was poor, he was going to be honest. Leader 3 expressed his concern that we have gotten away from those basic values in our country today, those simple values of “don’t lie, cheat, or steal.”

Leader 4. Leader 4 does not see any difference in achieving success as a leader in an aviation versus another environment. The skills and characteristics are the same; they just require a knowledge of aviation.

Qualities important to leadership in the aviation community include a nurturing management style and the ability to manage both people and resources to get the job done. The aviation community is a business and the principles are the same.

According to Leader 4, the most important skill needed is management to run any organization. The most important characteristic is ethical and fair treatment of people.

The personal and professional backgrounds that this leader looks for when hiring other aviation leaders are: knowledge of the field, not necessarily pilots but a little aviation background does not hurt; a background in overall management; and education in financial management. He emphasized the importance of general management skills over aviation skills. Accounting and financial management are equally important.

Leader 5. Leader 5 describes the strength of the glass ceiling as one of the differences in aviation leadership versus other environments. The percentage of women in aviation is so small in relation to the male population, a woman stands out from that perspective alone. It is one of those traditionally male roles that has to be overcome in aviation more than in some other fields. She believes that is lessening all the time but will probably continue until the numbers get a little bit more proportional.

Leader 5 emphasizes the importance of communication skills in aviation leadership. She believes that professional aviation skills are not required, but a love for the field is essential. A leader needs an abiding interest and a willingness to accept criticism without internalizing comments. Leader 5 also believes that public relations or business skills are valuable in that they can be used to translate aviation into a profit making business.

Leader 6. Leader 6 does not notice any difference in achieving success in aviation versus another environment. He describes personal and professional backgrounds important to success in aviation leadership as: “knowing what you are talking about and not faking it, being organized, being persistent, having experience in dealing with people, showing interest, and demonstrating enthusiasm” As far as values go, Leader 6 believes

the basic ingredient is honesty, and he cautions that it becomes obvious very quickly if a person in a leadership role is not basically honest.

Leader 7. Leader 7 believes that leadership success goes back to understanding people regardless of the environment. Irrespective of the technology available, the product must meet the needs of people. Being able to identify with the needs of people and address those needs are also important in the education world. It is not necessary to treat everyone the same but treat them fairly. What may work for one person may not work for another.

The most important characteristic or skill in leadership is being a people person and genuinely caring for people, according to Leader 7. He referenced Herb Kelleher and Fred Smith as examples of the power of strong people skills. Leaders who are concerned only about the bottom line, are destined to have a difficult time.

Leader 7 also stressed the importance of risk-taking as a quality of leadership. Risk taking involves being able to identify the risks, understand the consequences, and not go too far. Examples of successful risk takers would be Orville and Wilbur Wright, Chuck Yeager, Federal Express and Southwest Airlines. Examples of people who risked and failed but ultimately succeeded include Thomas Edison and the Wright Brothers. If parents shield their children from trying new things and just maintain safe action, those children will fear risk. People have to be willing to try and recognize there will be times when nothing is achieved. Whenever possible, a realistic assessment of the risks can minimize the chance of failure. An example of misidentified risks and subsequent failure is People's Express who had a great idea, a new approach, but expanded too far too fast.

Leaders have to recognize there is a responsibility that goes with risk, and that increases when other people are involved.

Leader 8. Leader 8 says leadership is leadership wherever it goes. However, there is always more stress on quality in aviation because of the inherent risks of the environment “Like the sea, aviation is not very forgiving.” In other environments accountability is not quite so critical because human life is not at stake.

Leader 8 summarized some of the qualities important to leadership in the aviation community as integrity, accountability, quality, communications, human resources, but quality is the most important. He also stressed the importance of community involvement to leadership.

Leader 9. Leader 9 described the “romanticized notion of aviation as a kind of macho environment with the goggles and scarf.” He commented that there is a little bit of flamboyance in it for some aviation professionals, but he offered Herb Kelleher as an example of someone who is not an aviator and not flamboyant but very much an aviation leader. Even though aviation is facing such significant problems in the future as an aging aircraft fleet and serious labor problems, Leader 9 does not see those problems as significantly different from other areas of leadership. He believes that Herb Kelleher could be successful in the shoe business or a variety of businesses because he is innovative, creative, exciting, empowering, and has vision. That same thing is true with his former superior, who would be successful in any leadership role. Even though his superior would approach things differently, there is some fundamental sameness between

them. They both have vision; they know how to excite people and cause them to come together for a greater purpose.

Leader 9 identifies the qualities important to leadership as vision for the mission of the organization and the ability to align or rally the necessary resources in the direction of that vision. That means getting the employees, customers, members of the board, regulatory agencies all aligned with your vision. He also describes a leader as someone with character and values that are displayed in everything they do. The most important quality of a leader identified by Leader 9 was that of vision.

Leader 9 believes that the personal and professional backgrounds and values that foster leadership in aviation include preparing oneself through education, having some underlying values that honor human beings, trusting them to point in the right direction, and having an inside-out quality.

Leader 10. Leader 10 believes the aviation side of leadership is a bit more structured than other career paths, at least more than politics which he describes as somewhat nebulous and messy.

Leader 10 believes that one quality important to aviation success is staying current. Leaders need to stay ahead of those they lead on the information curve. It is important that they maintain credibility by not setting standards for others they do not meet themselves and that they be willing to do whatever they ask others to do.

Leader 11. Although Leader 11 has been in aviation his whole life and has no experience in other fields for comparison, he does believe that success as a leader is generic. In his current leadership environment he has to be a generalist who performs

numerous functions but does not necessarily have to be an expert in any of them. He notes that in some fields of aviation such as Air Traffic Control, it is only necessary to concentrate on air traffic control which leads him to the conclusion that perhaps in the technical fields, leadership skills are not as critical.

Leader 11 identified integrity and consistency in decision making as important qualities of leadership whether in his occupational leadership role or in his civic leadership roles. He believes that there is no single characteristic or skill that is most important to aviation leadership, but describes it as an attitude. It is an attitude of involving employees in the decision-making process, the problem-solving process, and the solution process because they have ideas the leader needs to know about. His own willingness to listen to others, take their ideas, and build on them has contributed to his success as a leader. He believes that an attitude and a desire to understand the problems and concerns of employees is imperative in decision making and in anticipating the consequences of decisions on employees.

Leader 11 also believes that credentials are important to a professional background that fosters leadership in the aviation community.

Leader 12. Leader 12 does not see a difference in aviation leadership from other environments except that the venue has more risks. He identified the ability to work with people as the most important skill to aviation leadership and honesty as the most important characteristic.

Leader 13. Leader 13 sees aviation leadership as more of a single focus than other leadership environments. He notes that the competition in the military and in the airlines

necessitates a genuine love for aviation in order to succeed in an aviation career. He stresses the importance of understanding that the people attracted to aviation careers are frequently single-issue people.

A specific quality identified by Leader 13 that is important to leadership in the aviation community is development of an understanding of the aviation community. He remarked that there is no community more misunderstood in that many people believe that "Aviation is all 'fat cats' who are not paying their fair share, so they will decide to charge user fees. They do not understand that medium income and low-income people are very much involved in aviation."

The single most important characteristic for aviation leadership success identified by this leader was imagination about what is out there technically. With every new technological invention, it is easy to think "This is it; there will never be anything further advanced than this." However, Leader 13 also stressed the importance of not forgetting the past as the future unfolds.

Leader 14. Leader 14 sees being visionary as one of the qualities important to aviation leadership. It is important to be futuristic and look ahead; otherwise today's efforts seem somewhat senseless.

She says that her company has focused on developing their people for leadership roles over the last two or three years. She believes that, regardless of the industry, people can be taught the tasks and details of the operation, but she does not know that people are always taught leadership. She stresses the importance of knowing the difference between a leader and a manager. She believes that a leader has to know when to follow, and that

leadership does not go along with title or position. Leaders are needed on the sales floor as reservation agents. Her company emphasizes the development of team-building skills, public speaking, letter writing, and grammar in their leadership training.

Leader 15. Leader 15 compared her present federal government position to positions in other agencies and noted that one of the differences for her has been the significant impact of the overall mission in her present organization. It is a mission the public understands, a mission of safety. So in some ways, there is an urgency in aviation when compared to other federal agencies that seem somewhat stagnant at times. She also said she did not feel quite as vital to the mission of other agencies. When an employee feels responsibility and takes notice of everything that goes on about the agency, they are proud of the contributions they can make.

Qualities important to leadership that were identified by Leader 15 included knowledge of the surrounding environment, what the different components of the aviation industry mean, and how one's own function fits into the big picture. "It is too easy to get focused on supporting a supervisor and forget the flying public, so it is important to understand the affect actions have on others in order to collaboratively work together. Another important quality is vision from the standpoint that this industry is changing so dramatically. The impact of those changes needs to be understood and tied back to one's own particular area within the aviation community. An aviation leader cannot be rigid or stagnant." She illustrated that with an example of an interview with the press when they asked her about her organization's role in the space program. These kinds of issues and all of the "What if's?" require that leaders visualize how they would move the

organization to fill that niche and be constantly on the lookout for what events mean to their organization.

Leader 15 believes that a background in personal interaction and people skills is important to leadership in the aviation community. The leadership of an organization is responsible for generating and encouraging opportunities for employees to share and complement each other's work together. There is also a real need for business acumen or business skills in all areas of aviation right now. Frequently, that gets overlooked in the federal government and has been one of Leader 15's major goals this year--to run the organization like a business and instill entrepreneurship. It is important to understand the cost of doing business and ask serious questions about whether or not the organization is in the right business.

Leader 16. Leader 16 sees the difference in achieving success as a leader in an aviation versus another environment as one of technical or mathematical skill. In order to understand the field of aviation, some technical success is necessary according to Leader 16. He believes that some of the qualities important to success in aviation leadership today include being a good business person. He again stressed the importance of listening as a leadership skill but does not see it as the single most important skill. He believes a leader needs to be successful and personally competent as well as a good listener, but stresses that the aviation part has a technical, math, right-brain piece that some other occupations or vocations might not require.

Leader 17. Leader 17 has had the opportunity to function in a couple of environments outside the aviation community, and he notices the difference as being one

of camaraderie or esprit de corps; people in aviation just seem to have a great deal in common which he believes is related to their love for flying. In a couple of other areas, there wasn't that single unifying thread.

Leader 17 believes that two of the qualities important to aviation leadership success is the ability to listen and get people to work together. Also, an awareness of the industry is important. In addition, Leader 17 stressed the importance of an ability to communicate with people as well as a knowledge of world affairs, other cultures, and business. He was unable to single out any one of these characteristics as most important.

He did stress the importance of liking people because aviation leadership is dealing with people. Still another quality he identified that has caused people to fail has been inattentiveness to detail. The big problems may never occur if there is enough attention to detail. As an example, regulations are usually implemented in an effort to remedy or prevent some type of problem. Attention to those kind of details may be critical to survival.

Leader 18. Leader 18 doesn't segregate aviation from any other environment but stresses the importance of an awareness of the program in achieving success as a leader. He believes that vision, reputation, and persistence are qualities important to success as a leader. The total package of leadership includes someone who can take a program from scratch, visualize it, staff it, and implement it. He believes the single most important characteristic for success is persistence.

Critical values for success as an aviation leader are: integrity, possession of professional skills, and strict adherence to high standards since aviation involves human life.

Motivators and De-Motivators of Aviation Leadership

Leader 1. Leader 1 describes a love for the business as a motivating factor for aviation leaders. There is an obsession for safety that is not just national but international. Aviation leaders work long, hard hours because they like the business, they believe in it, they want to do it, and they do it.

One of the de-motivating factors in this business is that it is a highly regulated business and quite often the regulations are not based on practical, real world examples of doing things successfully but require looking at more and more paper. Another downside is that aviation is a very cyclical business. The technological change is a double-edged sword. It is of tremendous benefit to the manager who can afford to find the dollars to upgrade equipment that will save fuel, money, and human and other resources. The other side is that it is going to change tomorrow and may be obsolete before it is installed. It is impossible to stay within the state of the art in this business. We are right on the verge of space, and flight as we know it today will probably be virtually nonexistent in 15 years; so managing change is more crucial than ever.

Leader 2. Leader 2 very quickly responded with “survival” when asked what motivates aviation leaders to perform exceptionally. He went on to explain that aviation is so challenging that “those who do not perform are history.” What is de-motivating is

when there are leaders who are raping the company for near-term success, then getting their investment and running out. Many of the newly emerging airlines do not have a very good safety record and are there for a short term before they sell off the company. When they sell off the company, the company has been plundered. So one of the demotivating factors is whether someone is trying to build a long-term entity or just make a quick buck.

Leader 3. Leader 3 identified motivators for aviation leaders as the desire to be good and be able to fly your plane better than anyone else. Also, there is a camaraderie that comes with the risk that is special to the aviation industry. Those that can handle that risk with great comfort and confidence really are the best, which is probably where they get the term “right stuff.”

Leader 4. Leader 4 describes motivators for aviation leaders as the desire to provide an exceptional community for citizens to use that is a safe, convenient means for people to travel. Leaders are successful when the atmosphere is safe, whether for business or for fun, when people are provided an atmosphere where they are able to conduct their business with success. It motivates this leader professionally when other aviation businesses are successful, when the airlines are having tremendous growth rates, when businesses have good leases that “don’t give away the farm” but aren’t overburdensome enough to put them under.

Just the possibility of success is a motivator to this Leader to go out and grab whatever opportunity is available. He illustrates the importance of an airport manager wanting “something nice, useful and convenient for the community--not overbuilt or

underbuilt but someplace for people to fly in where the runways are nice, the lights are nice and so on.”

A de-motivating factor is having an aviation community that does not have the rest of the aviation community at heart. For example, an aviator may fly to another community to save 5 cents when that money would go to the upkeep of the airport he or she is using. Leader 4 believes that if people are always taking, they can destroy the community they are in. There is always a group goal as well as an individual goal. It is de-motivating when one cannot get that cooperation.

Leader 5. This leader believes that an aviation leader is already a step above leaders in other roles because they have accepted the challenge of aviation and have developed those kinds of skills. That gives them a confidence level that might not come from some other arena because it takes extra initiative to fly an airplane.

She identifies de-motivators as the gender issue in aviation and the macho male attitude. Also she believes that some people develop an arrogance related to their flying that gets in their way of being motivational persons.

Leader 6. According to Leader 6, there is something motivating about flying; even thinking about it motivates. He cited examples of air and space workshops that get teachers turned on and leaves them that way. It is something about the adventure, the thrill that is not found in a business like the oil business or most other industries. The color and excitement of aviation, whether as a mechanic or a pilot, has a definite motivating effect. People in it love it; children love to read about it and hear stores about it.

De-motivating factors in aviation leadership include blunt criticism and impatience. Leaders do not need to “show a bunch of ego,” according to Leader 6.

Leader 7. Leader 7 sees the desire to succeed as one of the motivators of aviation leadership. It is probably the focus on the bottom line which seems to be a driving force for everyone. Sometimes egos get in the way as they probably did with People’s Express and possibly U.S. Air.

Another motivator in aviation is a love for the idea of aviation and space. However, Leader 7 believes that some young people today may not have that love affair with aviation that gets the heart rate going from watching a plane take off. Much of their motivation is mercenary, to get the highest paying job and put in the least amount of hours. For example, the rewards of aviation maintenance careers are good from a financial perspective, but there are some who do it just because they love it. They may love the pay, but they also love the industry. According to Leader 7, there is an element of aviation becoming an ordinary event. Less than 10-20% of the national population flew in the early days of Leader 7’s career; now it is an ordinary event, just another form of transportation. So the grandeur of aviation is not like it used to be and has become a common experience.

De-motivating factors include viewing people merely as a resource, not a person. If one is told that he or she can be replaced, it is not a motivating factor and they sometimes say “Okay, see how easily you can replace me,” and walk away. That is how quality people are lost. Leader 7 goes back to the importance of honesty and identifies telling someone one thing and doing another as very de-motivating.

Leader 8. Leader 8 believes that recognition is an important motivator for aviation leadership, and that most of us are motivated when being recognized for doing a good job. His response to a question about possible de-motivators in aviation leadership was “It is hard to say that to an enthusiast, because it is very difficult to not get motivated.” He described such things as regulations and insufficient recognition for achievement as irritants only, rather than de-motivators.

Leader 9. Leader 9 is motivated by vision, the notion of deciding where an organization is going and being able to accomplish that.

What is de-motivating is to have a failure or not to be recognized by your constituencies as having success. However, he believes that true leaders usually do not require recognition; they can withstand those down times, and “stay the course” until they succeed.

Leader 10. Leader 10 has learned through the years that there is a group of aviators that are motivated by their love for flying; it is their obsession. He has also noted there is a strong sense of patriotism among a large number of military personnel and their families. He believes that is imperative because of the family separation for active duty and training as well as some of the more unpleasant requirements such as random drug testing.

De-motivating factors in aviation leadership include inappropriate rules, the old line of “we’ve always done it that way and we’re going to keep on doing it that way” or going by the book even though there is a smarter way. Also, the bottom line has loomed

much larger, which is probably good since no element of government should have a blank check, including the military.

Leader 11. Leader 11 describes motivating factors in aviation leadership as feedback from customers and feedback from the boss. It is motivating when people like what is going on and share that with him. This leader says his organization leads the entire department with regard to awards and recognition for employees. He takes pride in that because it is important to reward good behavior and good performance as well as to critique substandard performance in a positive way. The paycheck does not motivate this Leader but what does motivate him is the desire to do good.

He also describes as de-motivating the necessity to routinely deal with problems and negative issues with very little feedback when things are going great.

Leader 12. Leader 12 believes that aviation leaders are motivated by being self-starting. They are de-motivated by unfairness and not being even-handed.

Leader 14. Leader 14 is motivated by a desire to continue to strive to have the edge over competitors. There are competitors that can offer exactly what her company offers, so they try to put the difference in customer service and in their people which is why the focus is so great on leadership. She describes herself as feeling as if she was meant to be in her company. Everything the company believes in is what is in her heart, and she believes that is why it works so well. She can just be herself at work and does not have to be "some stiff-collared person." She also shared that she used to have such lack of confidence in herself and her abilities, which was apparent in her demeanor. She

went on to say that when people are afforded the opportunity to be themselves and experience success, it is very encouraging. She believes that is not ego but gratefulness for the opportunity to succeed. She enthusiastically described looking forward to coming to work every day and shared that she had missed work for the first time in nine years when she had surgery earlier this year. She closed her remarks about her career and her organization with "I love it!"

Leader 15. Leader 15 sees the motivators of aviation leadership as the pride of an overall mission that the American public can identify with. The safety mission is a huge responsibility and there is pride in that her organization does some very vital things.

On the down side are the restrictions and influence of the government structure in Congress and the way we do our budgets. On the one hand, there is a potential to make many good decisions and run the organization like a business; but on the other hand, there are arbitrary restrictions or decisions that come from Congress, the OIG or GAO. She describes the real de-motivator as "those times when you think you have achieved significant savings only to find those savings are being pulled because you have them."

Leader 16. Leader 16 views motivators for aviation leadership as contingent upon whether the "glass is viewed as half-full or half-empty." Aviation is an ever-changing field, and it is easy to lose interest if change is viewed as negative. If the glass is seen as half full, a leader will be motivated to make the necessary changes. A propensity for change is relevant to an individual's starting position or perspective of change as a motivator of de-motivator.

Leader 17. Leader 17 identified the most motivating things about aviation leadership as being allowed to get involved in the day to day process of aviation, whether as an airport manager, a pilot or a mechanic. He describes some of the most successful and happy people he knows as the people who work in the maintenance and overhaul facility who go to work everyday chatting “Boy, I’m going to get this one back in ready to fly as soon as possible.” It is obvious they love their work. Another example is the corporate pilot who flies his boss two hours and sits nine hours waiting for him to finish his meeting.

De-motivating aspects of aviation leadership are being given a job but not the freedom to carry it out in the best way. Although there are limitations because of safety guidelines, it is important that one be trusted to do the job for which they have been hired and that is the most motivating thing.

Leader 18. The primary motivators of aviation leadership as defined by this leader included ego and the ability to compete. He sees aviation leadership as a sport in aviation. The leadership wants to challenge; they like to compete and see things through to completion.

The de-motivator or negative factor in aviation leadership is failure. An aircraft or aviation business folds or a crash kills someone and the aviation leader feels a definite sense of failure because that is his/her work environment.

Developmental and Curricula Recommendations by Leaders

Leader 1. Regardless of the field, whether aviation or some other, Leader 1 believes that we need to spend more time with students sorting out who they are, what they are, and where they want to go. He cited examples of people who went through a bachelor's and even a master's program only to wind up in a business they hate. He believes that we need to help people who are born to become leaders sort out who they are first and become inward/outward people. We also need to give them opportunities to focus more on the whole rather than the parts with a good dose of field theory, philosophy, and experience. It is the whole/part/whole theory of teaching someone the whole, breaking the parts, and giving them back the whole. It is called strategic thinking or being able to see the big picture or vision.

Another important thing is sorting out those with leadership ability versus those who will never have leadership ability. He voiced his concerns that we have gotten to the point in our society that we make everyone believe they can be a leader. He believes that is why we still look at the wrong leaders; we are not focusing on those with the ability and giving them the right experiences early in their career. He illustrated that point with his own career in that people took chances with him and risked putting him in positions of leadership at a very early age. He mentioned that assessment centers are available to identify characteristics and traits of leadership, thus making it possible to identify leaders and provide academic opportunities and leadership experiences early in their career. It is also important to provide opportunities for leaders throughout their career for enrichment and personal development, which Leader 1 perceives has not been done well in the

industry. He believes that leaders become so entrenched in their jobs that they cannot find time to do anything else and they can never become a whole person. He illustrates that point with an opinion that too many leaders never even read anything.

To summarize, Leader 1 believes success in aviation leadership requires providing opportunities for early identification of leadership potential, making available the right experiences and right training or education, and instilling a continuous lifelong learning philosophy.

Leader 2. Leader 2 believes that development of curricula for future aviation leaders should involve learning how to make sound decisions, how to obtain and translate data into information, how to differentiate between near-term versus long-term success, and how to analyze unintended consequences. He cited an example from his Jesuit education which applies to decision-making. If an action is taken, the immediate consequence of that action is the first order of consequence. That consequence may lead into another consequence that, in the long term, could be more significant. And quite often the most significant consequence of an action is something one is not aware of which may surface later. He cited the following example, "if you were poor as a child, you want to give your own children things that you never had so that he/she does not have to struggle like you did when you were young. The first order of consequence is that you have a happy child. The second order of consequence is that that child may not develop an appreciation for sacrifice and working for things instead of having them given to him or her. The third order of consequence is that the child may develop skills that render

him/her dysfunctional as an adult.” Leader 2 stressed the need for aviation leadership training in thinking beyond the first order of consequence.

Leader 2 also emphasized the importance of case studies in developing those decision-making skills. He mentioned that almost the entire curriculum at Harvard was based on case studies, especially on the leadership issue. Real-world case studies that were not made up were especially beneficial. He described them as old cases illustrating situations of the past, how the leadership at that time handled the situation, and the outcome of their decisions.

Leader 3. Leader 3 does not know how leadership can be taught other than simply to provide the very basic skills. He believes leadership is the “art of motivating someone to perform a task and do it willingly which goes back to the question, ‘Is a leader born or made?’”

Leader 4. Leader 4 believes that the curricula for aviation leaders should include everything that is in a Business Management degree. Development of leadership skills involves developing someone to be successful in many types of businesses. Aviation is just one type. Some of the courses needed are management, accounting, financial management, budgeting, product pricing, marketing, selling, and community relations. Marketing is especially important because knowing what people want can make a big difference in business success. He cited an example of a marketing effort related to off-airport parking that changed the picture from several million dollars in lost revenues due to competition to several million dollars in increased revenues without a change in rates.

Leader 5. Curricula for aviation leaders should first include written and verbal communication skills, according to Leader 5. She does not believe that technical knowledge is enough and provides examples of students in her classes when she was doing adjunct teaching who could not put together a complete sentence at the college level, but were going into journalism.

She also believes basic business skills are important to development of effective leaders. For example, people going into aircraft sales need a business or marketing background. She sees some combination of curricula from other arenas that should be woven into the aviation curricula.

Leader 6. According to Leader 6, curricula for aviation leaders should include accounting and bookkeeping, as well as interpersonal relations. He also believes that student chapters of professional organizations are important at the university level. For example, there is a student chapter of the American Association of Airport Executives at Oklahoma State University, and some of the students attend the Oklahoma Airport Operators Association conferences. He believes it is especially good for students to work closely with people in the aviation industry in that they gain exposure to the real-world as well as get exposure to industry professionals who may be able to provide job opportunities. At minimum, they are able to get a glimpse of what the people in the business are talking and thinking about. Leader 6 also suggests that students might be given academic credit for those activities in some way.

Leader 7. Leader 7 believes that leaders need to think creatively in dealing with people as well as in dealing with their situations. He provided an example from a

magazine article about a firm that helps people develop goals and come up with new ideas for business. One of the techniques used by that firm is an off-site retreat where they keep people up all night long, literally, until they become fatigued enough to break down their inhibitions and strips away the formal veneer. By 5 a.m. people begin to come up with some very creative ideas. Leader 7 believes that leaders should try to do things in an unconventional manner and encourage people to use the other side of their brain to think creatively. Although he describes himself as having limited creative capabilities, he continually searches for creative people around him so that his organization will not become stagnant.

Leader 7 stressed the importance of Myers-Briggs and other types of assessments for understanding one's limitations and strengths. This is especially important in the leadership role.

Leader 8. Leader 8 believes the most important thing the educational system could do is to develop some method for identifying the characteristics of a student body relevant to their specific interests. It is important to determine if a student is destined for arts or sciences. Leader 8 senses that we have been trying to train people who have great inclination to be in the arts to do scientific things and vice versa. The result is we are boring students to death with things they do not really want to know about. A better approach would be to spend more time promoting individual interests by finding and igniting that fuse relevant to their interest and enthusiasm.

According to Leader 8 another need of the school system is teachers who are more inspiring in their teaching, teachers who love to teach the subjects they are teaching and

who like to get feedback from their students. Leader 8 also stressed the importance of establishing criterion objectives in the teaching format wherein everything the teacher is uttering in that classroom is toward accomplishing an objective for teaching that subject. He stressed the importance of holding the teacher accountable for not teaching the subject. He suggested taking the curriculum out of the hands of the instructor, requiring that the instructor adhere to the curricula that has been set for them, and holding the student accountable for having learned it. Leader 8 illustrated with the following analogy, "If there is no accountability function in business, nobody knows where the business is going; the same thing is true in the classroom. If there is no accountability, no one knows where the subject matter is going." He cited an example of a testing system he developed which consisted of a bank of test questions designed to meet the objectives of the curriculum. The teachers got the test only ten minutes before the class started which prevented the teacher from just teaching the test. The student took the test; the instructor then picked it up and took it to the central office for grading. Once the students completed the exam, the instructor was taken completely out of the evaluation base. The grades were put on the test and given to the supervisory instructor for review to determine if the instructor was teaching the subject, or if the student just was not learning. As a result, remedial action could be taken before the student failed the course, and the instructor was held accountable for teaching the subject matter.

Leader 9. Leader 9 recommends that the curriculum for aviation leaders consist of (1) organizational behavior; (2) fiscal management, particularly on the planning and budgeting side; (3) leadership courses for an understanding of the difference between

leadership and management; (4) analysis of critical issues in aviation today such as the regulatory environment, aging fleet and capital expense requirements; and (5) communication skills necessary to speak and write well. Leader 9 emphasized that if he could fault the aviation industry, it would be because of the difficulty people in the industry have in putting subject and predicate together which really takes away from their enormous technical abilities.

Leader 10. Leader 10 provided the following advice regarding curriculum development for aviation leaders. It is important that leaders learn those skills necessary to stay ahead of the information curve. He shared some information he learned when attending an international conference of 300 seniors at Oklahoma University where a panel of really extraordinary business leaders were asked, "What do you look for in young people coming to your company?" Robert Crandall, Chairman of the Board of American Airlines, said "We look for generalists, people that take a broad view of the world, who have a curious mind and are not comfortable getting put in a niche." The other CEO agreed with him. Even though well-educated, technically proficient people are needed, it is not enough to teach only what will serve them in their particular field. The curricula, according to Leader 10, needs to be broader than that.

Leader 10 also expressed the opinion that there is a general lack of geo-political currency going on among military officers in this country. He mentioned that when Kennedy was president, 70% of the military leadership were registered Democrats. Today, those who identify with the Democratic party are less than 20%. According to this Leader, those statistics reveal something about the geo-political views of the current

officer corps, and he is not sure if that is good or bad, just that it exists. But he does find a reluctance to talk openly and frankly about how government works or does not work in this country. Leader 10 does not believe we are as current as we need to be on the dynamics of the world after the "Cold War." He believes we are having a hard time coming to grips with the fact that a person with a briefcase can be as much a threat to a major American city as a Soviet missile was eight or nine years ago. Too many in the military want to hold on to the huge land based facilities and large number of troops, and this Leader believes we have moved past that but are not willing to teach it in our curriculum for future leaders. He also sees a reluctance to accept roles for the military such as community building, mentorship with underprivileged young people, and others that have not traditionally been military roles. The military officer corps cannot hope to draw and attract the quality of people necessary as long as it is just a middle-aged white men's world, because that is not demographically how this country will look into the 21st century. It is going to look Hispanic and African American, and Asiatic, as well as 51% female.

Leader 11. Leader 11 believes that it is important to match a student's interest with what he or she is going to do. If a student is interested in airport management, assignment to some projects at an airport would be valuable experience.

Leader 12. Curriculum recommended for aviation leaders by Leader 12 included geometry and core math courses as well as grammar and spelling. There is a definite disadvantage for a leader who cannot communicate either verbally or in writing. Also, Leader 12 believes that personal integrity is extremely important to communication. He

cited an example of someone who was very competent technically but used profanity to the extent that his ideas were losing their chance because of the language he used. He also illustrated by sharing the fact that he gets correspondence from children wanting to know why they need to learn grammar. He explains that “if you have a good idea and need to make a presentation about it but have no precision of expression or do not know how to develop a concept logically, then all you have is a great idea that you will never be able to do anything with, and you will not be able to advance.”

Leader 12 also expressed concern that history is not being taught correctly in our schools. He believes it has a social bias built into it, and young people are being told that no matter what they do, it’s someone else’s fault. Leader 12 cautions that accountability and responsibility are extremely important to leadership success and challenges the notion that whatever one wants to do is okay. He believes the philosophy of making one’s own mistakes the responsibility of someone else has taken a toll on this country.

Leader 13. Leader 13 believes that aviation curriculum should begin with the basics of flight and illustrates with the point that even a mechanic needs a good knowledge of how to fly an airplane because it can be mechanically perfect and still not fly. He further illustrates that Air Traffic Controllers have a need to know how to fly when a pilot gets in trouble. Regardless of the field, anyone who ends up in any kind of career in any form of aviation, needs to understand the basics of flight.

Leader 14. Leader 14 stressed the importance of being able to put thoughts on paper and to do so with the proper punctuation and grammar. She illustrated that point by

describing the embarrassment which results from discovering a serious error in a memo that was circulated company-wide.

She also stressed that she would like to see some kind of training to help people read into a new policy or procedure more than just how it affects them. She used the example of implementation of a new flight pattern and the subsequent need to know who implemented it, why it was needed, what was the end result, who did it affect positively or negatively, what do the managers and assistants have to do and so on. This ability to see beyond the immediate job description to the bigger picture is what she looks for in people prior to promoting them. She does not believe in waiting until someone is in a position to develop that ability. Her company publishes a weekly newsletter with Department of Transportation statistics which is important for employees to read and educate themselves on the company as a whole. According to Leader 14, they recognize that it is easy to get wrapped up in the daily routine and lose sight of all the “facets or spokes of the wheel that make the world turn.” She illustrates that concept with the fact that reservations are extremely important, but without customer service agents, there would be no need for reservations.

Leader 15. Leader 15 believes that curriculum for future aviation leaders should provide the opportunity to be grounded in the whole system as far as understanding the different components that go into this aviation industry. It is not important to be an expert in every area, but it is important to understand that there is a relationship between some of the other areas. She recommend students be taught financial management, customer relationships, how to capture costs, and know how to run an effective business

by passing that cost on. She believes that technical skills may be relevant depending on what area a student is pursuing; but standing alone, they are not enough. Even from a pilot standpoint, it is not enough to just fly the aircraft, there is a need to be familiar with cockpit resource management and other related skills.

Leader 16. Leader 16 believes that the educational arena is already doing a good job with the curricula pertaining to the basics of flight including the math and professional skills. To be successful in the leadership end it though, he believes that efforts need to be made to go beyond the technical skills to develop leadership characteristics necessary for being a good listener, manager, director or whatever in the business field.

Because of the way the aviation field is changing, Leader 16 believes it is impossible to stay abreast of it technically; however, those leadership characteristics that keep a leader open to that change in the aviation field allow that leader to handle the technical changes beyond his control.

Leader 16 also cautions that there is nothing more dangerous than handing a student a diploma and leaving the impression that he or she has learned everything there is to know about a field. Something has to be in the curriculum that motivates the student to continue education and recognize that graduation is only the beginning of the journey, not the end. He agrees that internships are a great way to keep students motivated because it provides an opportunity to expand beyond the classroom and recognize there is much more to learn.

Leader 17. Leader 17 suggests that instructors are rapidly getting away from the lecture method of teaching in order to provide experiences in the classroom to help students develop their communication skills. Working with colleagues in the public schools to improve communication skills at an earlier age is also important.

Leader 17 identified a need for future aviation leaders to have a very good grounding in computer science. He also emphasized the importance of knowing something about the world in which they live, the different cultures. Frequently, people in industry go to a foreign country with no knowledge of the culture and get in trouble immediately. Leader 17 cited several examples of inappropriate gifts or gestures that created serious problems with other cultures, which further emphasized the importance of developing social sensitivity in future leaders.

Leader 18. Leader 18 identified high standards as an important part of the curricula for aviation leaders. He, too, emphasized the importance of communication skills and remarked that those skills or the lack thereof will show up during an interview. Someone may have a good record, but can they express it?

When at all possible, it is rewarding to have a curriculum and bring students in to the organization to develop on the job. The state has an intern program called Engineer in Training Program or EIT where students spend a year of indoctrination in all departments of transportation. Each department gets to first educate them in their department, then they evaluate them to see if they would be a candidate for their department. Students are paid with full benefits, sometimes by the school. According to Leader 18 that program has

worked very well. He illustrated with an example of a student who had done an outstanding job of preparing a history of aviation in the state.

Discussion of Findings

A discussion of the findings in this study involves a summary of the findings as related to each of the broad research questions outlined in the first chapter and includes a comparison of those findings to the literature as appropriate.

Because the aviation community of Oklahoma consists of a broad spectrum of specialties from air carrier to government and political activities, the 18 leaders interviewed for the study represented a variety of different specialties within the field of aviation and provided a rich source of data with similarities and some differences noted across the specialties. Table I provides a breakout by aviation specialty of the demographic and career characteristics of participants in the study. These similarities and differences along with a summary of other findings pertaining to each of the research questions will be addressed in this section of the report.

Three of the leaders in the study were named by other leaders in the study as someone they had observed as being effective in a leadership role. A comparison will also be made where applicable between the qualities described by their colleagues and their own self-reported assessment of their leadership qualities in an effort to identify consistencies or inconsistencies in those observations.

TABLE I
OKLAHOMA AVIATION LEADER DEMOGRAPHIC AND CAREER
CHARACTERISTICS BY SPECIALTY

Specialty	Number	Gender		Education			Airman Certification		Career		Military Experience	
		F	M	B or <	M	D	None	1 or more	NovAv	Av	NonMil	Mil
Government	4	1	3	2	0	2	1	3	1	3	2	2
Military	3	0	3	0	2	1	0	3	0	3	0	3
Airports	3	0	3	2	1	0	0	3	2	1	0	3
Professional	1	1	0	0	1	0	0	1	1	0	1	0
Academia	2	0	2	0	1	1	0	2	0	2	0	2
Industry	2	1	1	2	0	0	1	1	1	1	2	0
Political	2	0	2	2	0	0	1	1	1	1	0	2
Aerospace	1	0	1	0	1	0	0	1	0	1	0	1
									0			
Total	18	3	15	8	6	4	3	15	6	12	5	13

Findings Related to Background Factors

Career History Findings. The career histories of leaders in the study varied a great deal with no single pattern consistent among all of the leaders. The organizations

that they led ranged in size from small groups of less than 25 to organizations of over 20,000, and ranged in type from charitable institutions to massive military or political establishments. The scope of their leadership influence ranged from local to international in impact.

Although only two of the leaders in the study are known to be under the age of 50, only two had been in a leadership role less than ten years. Some mentioned that they had begun their leadership role in their youth in Boy Scouts, sports, church, volunteer and humanitarian activities. Approximately 50% of the leaders began their leadership roles early in their careers with increased responsibility and influence as they moved up through the ranks.

One consistent characteristic throughout all of the interviews with successful Oklahoma aviation leaders was that all have been involved in volunteer, humanitarian, or community leadership responsibilities of some nature. Another consistency among all of the leaders was that all of them have received numerous recognitions or honors throughout their career. Although most of the leaders did not actually discuss their honors during the interview, the information was obtained by reviewing their vita, periodicals, newspaper articles, and other information available to the researcher. Some shared feedback they had received from employees which they considered to be the highest form of recognition a leader could receive. A particularly poignant moment in the interview process came when Leader 8 shared a letter he had received only the day before the interview from a former employee of 11 years ago. The letter was a beautifully written tribute to Leader 8 and the impact of his leadership on the life of the employee.

Of the 18 leaders interviewed, only 12 have been involved with aviation their entire careers; all have been promoted or changed positions during their careers. Six entered positions of aviation leadership from a non-aviation related career; one of the leaders had been in only one aviation-related career field for a short while with no previous career experience in any field.

Based on the findings of this study, success in aviation leadership has not been contingent upon prior technical experience in aviation. This appears to be particularly true in industry and government and even in organizations that are highly technical in nature which require extensive technical expertise down in the ranks. Three of the aviation leaders interviewed held no airman certificate, and some were leading highly technical organizations.

The findings were somewhat consistent, however, with the Flin (1996) study of incident or on-scene commanders in that most of those Oklahoma aviation leaders whose responsibilities would definitely include aviation related life-threatening incidents, did have aviation technical/professional qualification. The Flin study found similarity across organizations in the selection criteria used to appoint senior positions with incident command responsibilities, most of which included "technical/professional qualifications, managerial or leadership experience and demonstrated ability to command and control emergencies "real or simulated" (p. 40).

Although only three of the leaders interviewed in the study are still involved in a military career, 13 of the 18 leaders had military experience, and 11 expressed some impact of that experience on their career choices. As expected, given the large military presence in Oklahoma, these findings seem to indicate that the military has a positive

impact on career potential in aviation leadership in the state. Four of the 12 military leaders in the study had reached the rank of General and had been responsible for several hundred, and in some cases, several thousand military and civilian personnel; however, not all of the successful aviation leaders now engaged in other aviation leadership roles had risen to a high rank in their previous military careers.

All of the leaders indicated some level of life and career planning. When asked about their plans for the future, even those who were retired or retiring from their primary careers indicated they had definite personal and/or career plans. These findings are consistent with the literature (Lawrence, 1987, and Carmichael, 1994) which described self-direction, self-motivation, ambition, and career planning as defining characteristics of high achievers.

Family Background Findings. The Oklahoma leaders interviewed in the study described their family backgrounds in a variety of different ways. Consistent throughout all of the interviews was the impact of the family on framing the values and supporting the career efforts of all of the leaders.

The most frequently described influential family members were the parents with 14 of the 18 participants identifying the following specific influential factors: trust, love, responsibility, strong work ethic, discipline, structure, boldness, willingness, leadership, honesty, integrity, communication skills, people skills, entrepreneurship, kindness, sensitivity, strong self worth, love of aviation, supportiveness, pride, perseverance, and consistency.

Of the eight people who identified their parental occupations, six were described as being farmers or in the food production chain. No consistency was noted in economic factors in the family environment; some of the leaders came from what they described as poor families; others did not. Although six of the leaders described negative factors affecting the family such as illness of a parent, lack of formal education of one or both parents, or somewhat dysfunctional behaviors, all of the leaders were able to describe positive outcomes from those negative factors.

Two of the participants attributed much of the development of their leadership background to grandparents who taught them people skills, motivation, willingness, and boldness. Two of the leaders described the influence of an uncle in developing a strong work ethic or willingness to accept a challenge as well as teaching them technical skills.

Second only to parents, the most frequently described family member who influenced the careers and lives of Oklahoma aviation leaders was the spouse. Twelve of the 18 leaders described the importance of a supportive spouse to their leadership success. Supportive was the most frequently used term to describe the influence of the spouse, and that term crossed gender lines. Both the male and female leaders described the importance of the support of their spouse in terms of their strong people skills, their devotion to the leader's employees, their maintenance of traditional values, and their encouragement of professional development. They described their spouse as being an integral part of their career and spoke of their respect and admiration for them with such descriptors as positive force, cohesive force, encouraging, influential in maintaining balance, supportive, and sacrificial.

Formal Education and Other Developmental Findings. Fifteen of the 18 (83%) leaders participating in the study hold a bachelor's degree, 10 (56%) hold a master's degree, and 4 (22%) have completed a doctoral degree. One is currently enrolled in a master's program and another is enrolled in a doctoral program. Although all of the leaders believed that education is important to success, most believed that work experience was more important. Two of the leaders cited specific job opportunities which they had been told were a direct result of having attained a specific educational level. Two leaders mentioned a perception that they would not have been able to be promoted through the ranks without having achieved a specific educational level. One of the leaders has moved rapidly through the ranks with no college hours and attributes much of her success to the intensive leadership training received on the job.

Family influence on educational achievement was significant for several of the leaders. Although none of the participants specifically identified a parent who had completed a college degree, several mentioned the influence of parents in attaining their own degrees. Others mentioned the influence and support of a spouse in the achievement of their education.

The most frequently mentioned formal developmental activity for leaders other than that of a college education was military training for officers. The Officer Candidate School, Squadron Officers School, Armed Forces Staff College, Air War College, and National War College were frequently mentioned as outstanding sources of leadership development. Courses covered a wide range of topics including writing, speaking, leadership, world events, societal challenges, political economics, teamwork, analysis of military, societal pressure, value systems, international challenges, and world diplomacy.

Other sources of leadership development mentioned were Jesuit School, Scouting, Toastmasters, church, civic organizations, professional organizations, volunteer activities, pilot and other airmen certification training, management and executive development programs, leadership and management seminars, legislative activities, self-directed learning activities involving reading and the use of computers, exposure to other leaders and role models, influence of family, wellness activities, and hobbies and other fun activities.

Although the ratio of college educated aviation leaders to total number of leaders participating in the study was very high, only six of the leaders specifically expressed the opinion that they would not have achieved their current level of success without having reached a specific level of formal education.

Findings Related to Leader Values

The most frequently referenced words used by these aviation leaders to describe their guiding values were: honesty and fairness. This is consistent with the findings of Kouzes and Posner (1995) in which they identified four characteristics that people admired most in their leadership as being honest, forward-looking, inspiring, and competent. Honesty was identified as the single most important ingredient in the leader-constituent relationship, according to Kouzes and Posner. Similarly, honesty was described by the majority of aviation leaders as the most important characteristic of leadership; several of the participants described honesty as absolutely imperative in an aviation leadership role because the aviation industry is one that requires that inherent trust be built into the whole system. As one of the participants described it, "You have to

trust the air traffic controller is not steering you in a direction that will hurt you; you have to trust that the maintenance people have truly done the critical work which they logged into the book.” It is important not only to the leader in the air carrier field who is responsible for exemplifying integrity for her employees, it is also important to the leader in academia who must make sure students understand the criticality of that word throughout their entire career, and it is equally important to the lawmaker responsible for aviation safety legislation, as well as the government employee responsible for ensuring compliance with regulatory and safety standards.

Other values most frequently mentioned by leaders who participated in this study were principles and ethics followed by faith in God, trust, and self-awareness. Other values mentioned included: love of country, character, dedication, high standards, honor, knowledge, aggressiveness, sound financial management, quality, family, loyalty, creativity, persistence, and opportunity.

Findings Related to Management Styles and Practices

Management Style Findings. The most frequently used term that successful aviation leaders of Oklahoma used during this interview to describe their management style was that of a facilitator. Other most frequently used terms were encourager, inspirer, nurturer, supporter, and visionary. Equally as many of the leaders described honesty as their style of management and mentioned high standards to describe a characteristic of their style. These findings, once again, are remarkably close to the findings of the Kouzes and Posner (1995) study in their emphasis on the importance of honesty.

All of the aviation leaders interviewed in this study mentioned multiple styles and used multiple terms to describe their management styles. Most of the terms used were terms which described soft skills or people skills. Such terms as leader by example, motivator, energizer, trainer, 9,9 manager, coach, mover, communicator, rewarder, protector, teacher, and such descriptors as open, direct (communication), sensitive, sincere, warm, listener, caring, trusting, and feeling were used throughout the study as primary leadership characteristics associated with their style. Less frequently used were terms such as director, dictator, project oriented, 9,1 manager, and detail oriented; most of these terms were described as backup styles to another, more dominant style.

Findings Related to Qualities Exhibited at "Personal Best". Several of the aviation leaders described their actions when at their personal best as situational. In times of routine activity, they described their actions as participatory; and in times of crisis, frequently they took charge and became more directing. The most frequently used descriptor used by leaders to portray their actions when at their personal best was the ability to listen; the second most frequently used descriptor was using humor or having fun doing the job. Other descriptions of leaders at their personal best included phrases such as clear understanding of the task at hand with the resources available, consistency of behavior, self-confidence, letting people do their jobs, being relaxed and open, exhibiting calmness, creating the image of being in control without heavy handedness, valuing opinions, exhibiting enthusiasm as well as logic, being honest, being inspiring, communicating, empowering, facilitating people to do their best, being fair and equitable,

keeping commitments, working for the full day and having fun doing it, not being rigid or stuck, exhibiting persistence, and having employees at their best.

Findings Related to Leader Definition of Success. Fourteen of the 18 leaders interviewed believed that they had been successful in their aviation leadership roles for a variety of reasons ranging from recognition by others to a sense of having accomplished their organizational or personal goals. Three of the leaders were unsure of their success. One described his leadership role as more persistence than success; another believed that he was successful only by association with a successful staff; and still another wanted to leave the determination regarding his success to other people and believed that he may have demonstrated success by having been a positive influence on a few people. One of the leaders describes himself as a successful leader but not in the aviation sense. He is proud of his achievements in the aviation arena but believes that part of the success he enjoys is more related to the political side.

Findings Related to Leader Characteristics

Findings Related to Perceptions of Other Leaders. When asked to describe someone they knew personally in a position of aviation leadership who has done an excellent job providing effective leadership, some chose not to identify the individual they were discussing by name. Most of the leaders described someone for whom they had worked. Five of the leaders identified aviation leaders included in this study which permitted some triangulation of the data by comparing the perceptions of each of the leaders.

Leader 1 was identified by Leader 5 for the “depth of person” that he is and for his insight; she further spoke of the respect she has for him as a leader. Leader 9 also identified Leader 1 as someone who has done an excellent job providing leadership. The reasons mentioned by Leader 9 were that people who worked for him loved coming to work. He described Leader 1 as empowering, forgiving, visionary, a tremendous human being and a tremendous example or role model. Leader 15 also identified Leader 1 for his blend of technical and executive leadership, his technical knowledge of many aspects of aviation, not just the federal side but the whole industry, his outstanding human skills, his unique ability to cause people to excel to higher levels and really go out on a limb and dare to be good.

Leader 1’s response when asked about his own success as a leader was that people tell him he has been successful. He described recognition as in the eye of the beholder and offered no observation regarding his leadership qualities. Looking at the long list of formal awards and recognitions from scouting awards to Presidential awards, one has to conclude that Leader 1 has achieved a significant level of success. Leader 1’s career history and multiple airmen ratings verify the accuracy of the assessment that he has a strong blend of technical and outstanding human skills. Leader 1 has been practicing his human skills throughout his life since his childhood. His assessment of himself during the early part of the interview was that he believed strongly in people, so much so that he has a tendency to let people go a long way, more than most people, because he takes it for granted that most people want to do a good job. This is consistent with the assessment of his forgiving spirit and his empowering nature. Leader 1 stressed the importance of being an inward/outward person and knowing oneself first in order to be successful in leading

others. "If you know yourself, you can always reach out to others." This is consistent with the assessment by one of his colleagues regarding his being a tremendous example or role model. He was described as being visionary and he describes himself as "not a good manager." He doesn't like to cross T's and dot I's. He would rather think in terms of vision, where we are going and let people work the details out. It appears from the assessment of his colleagues as visionary that he truly does have vision and the ability to align employees behind a vision. Leader 1 was also recognized for his insights which is consistent with his own assessments of how to handle specific situations, when participation is needed and when direction is needed.

Leader 15 was named by Leader 4 as an example of a leader who has done an excellent job in aviation leadership. He described Leader 4 as having run a large organization in a responsible manner with very effective leadership in spite of an extremely difficult period of organizational downsizing. He also mentioned that Leader 4 has a real involvement in the community which is a desirable trait of effective leadership.

This assessment by a colleague appears to be consistent with Leader 15's self assessment of her leadership performance. She described herself as being comfortable with the fact that she is not a pilot but recognizes that her contributions go along the lines of strong leadership and the ability to focus on the customer and the myriad of services as well as the cost of doing business. In speaking of her values, she emphasized the importance to her that the people who work for her maintain high ethical standards. Although she did not mention her community activities in the interview, her staff provided numerous magazine articles written about her career which highlighted her contributions to the community.

Leader 13 was identified by one of the participants in this study as someone he knows personally who has done an excellent job providing effective leadership. He was described as very much interested in supporting aviation the best he can in his position. Leader 13 has had multiple careers and attributes his success in his current career to his ability to fly. He also attributes many of his humanitarian missions to that ability. After spending years in the business of buying and selling aircraft where he found the federal government his biggest obstacle, he entered his current profession solely for the reason of trying to open up the free enterprise system.

No glaring inconsistencies occurred between the self-assessments of each of the leaders above with the characteristics described by the leaders in the study who named them as highly effective.

Findings Related to Uniqueness of Aviation Leaders. A surprising result of this study was that 50% of the Leaders interviewed saw little or no difference in aviation leadership and leadership of other organizations. Some of the ones who saw no difference qualified their statements by mentioning the importance of the safety factor, the risk, the flamboyance, or the perceived greater love for the business. Those who saw little or no difference in aviation leadership and other types of leadership cited such examples as Herb Kelleher of Southwest Airlines and Bob Crandall of American who are not aviation technical types.

Those leaders in this study who did perceive the aviation leadership role as unique cited such reasons as the hectic, capital intensive, competitive nature of the environment; the non-female role which contributes to the glass ceiling based on the percentage of

women to men in the industry; a greater emphasis on quality because of the unforgiving environment and nature of the profession; the more structured environment; the critical importance of being futuristic and visionary in this volatile industry; the impact of the overall aviation mission on the public; the technical skills necessary; the camaraderie or esprit de corps; and the single issue or focus on aviation based on the love for the field.

When asked to focus on the most important characteristics or qualities necessary for successful aviation leadership, honesty and credibility were the most frequently mentioned descriptors followed by vision, people skills including communicating and listening, management skills, and persistence. Once again this is consistent with the findings of Kouzes and Posner (1995).

Findings Related to Leadership Motivators and De-Motivators. The most frequently mentioned motivator of successful aviation leaders was a love for the aviation business, a love for flying, and a love for their job and what they do. Kouzes and Posner (1995) describe love of products, services, constituents, clients, customers, and their work as the best kept leadership secret of all. That analysis supports the enthusiastic comments about a love for aviation that surfaced somewhere in almost every interview conducted during this study. The passion or love for aviation was the most frequently mentioned phenomenon throughout the research project, followed closely by the importance of honesty which was described as innate to the business.

Other motivators mentioned were: the camaraderie that comes with risk, safety, survival, the desire to be good, confidence that comes with flying, adventure, recognition,

vision, patriotism, feedback, getting an edge over competitors, pride in aviation safety mission, change, ability to compete, and success itself.

The most frequently mentioned de-motivator was the regulatory side of aviation. Other de-motivators included the cyclical nature of the business, the quick buck philosophy of some companies, lack of cooperation within others in the aviation community, the gender issues, dishonesty, failure, lack of feedback, unfairness, budget restrictions and government red tape, and responsibility without freedom to do the job

Findings Regarding Developmental Recommendations

One of the most meaningful insights gained during the study came when one of the leaders shared something he had learned by hearing a panel of extraordinary business leaders talking to 300 seniors at Oklahoma University last year during an international conference. The students were asking people such as Bob Crandall of American Airlines what he looks for in young people coming to his company. He responded, and the other CEOs agreed, that they look for generalists or people who take a broad view of the world, that have a curious mind, and are not comfortable in a “niche.” Even though they want well educated, technical people, the curriculum needs to be broader.

One of the leaders interviewed offered the following plan for development of leaders. “Begin with the early identification of natural leaders, provide them with the right training and the right experience to ‘sharpen the saw’ and instill a continuous lifelong learning philosophy.” The issue then becomes what kind of curriculum is needed to accomplish all three phases of this plan.

The most frequently identified curriculum needed by aviation leaders was that of communication skills. Eight (almost 50%) of the leaders interviewed were very emphatic about the deficiencies they are finding in the aviation community in the ability to communicate. They recommended that basic writing and verbal skills including grammar, spelling, punctuation, and speaking be incorporated into the curriculum and that cooperative programs be established with high schools to improve the curriculum there for students coming into the aviation program. One of the leaders described this problem in a particularly poignant way. He explained that "If you have a good idea and have no precision of expression or don't know how to develop a concept logically, then you've got a great idea that you'll never be able to do anything with."

The findings of this study indicate that, at least for these leaders, communication skills are foundational to the future of student development as well as the progress and growth of the aviation industry. Any effort to educate future aviation leaders would of necessity begin with effective communication skills.

Six of the leaders identified basic management skills as important to development of successful aviation leaders. Specific courses identified were: marketing, management, pricing, budgeting, selling, communication, community relations, accounting, bookkeeping, fiscal planning and budgeting, critical management issues such as aging fleet and regulatory environment, financial management, customer relations, and computer skills. One of the leaders spoke of the necessity for teaching these skills in the broad sense of the word, not restricting them to aviation.

Another frequently mentioned need involved some sort of assessment system to match student interests to developmental programs and career choices. Several of the

leaders mentioned the problems which occur when students are bored with school because they have no interest in their field. An assessment system, in the words of one of the leaders, would be one way to “find and light that fuse” relevant to a student’s interests and enthusiasm. Assessment centers are often used by organizations to identify leadership or managerial potential as well as to identify traits related to advancement within an organization. Candidates are observed in a variety of roles such as role-play and leaderless groups and are rated on qualities such as initiative, assertiveness, persuasiveness, communication skills, organization, cooperation, and others. According to Yukl (1998), studies on the validity of assessment centers have found that they are reasonably accurate in prediction of managerial success. At least three of the successful leaders interviewed in this study mentioned that they had been selected for one or more of their leadership positions based on an assessment process. Others described the futility of working with students who were in a field unrelated to their interests.

Another important aspect of maintaining that spark of interest in students once it is found is developing more inspiring teachers, especially at the lower levels. Several of the leaders expressed concern that our school system is defusing the excitement that children have for aviation by perpetuating a system of teaching to the lowest level of understanding in the classroom, so that students lose their enthusiasm and love for aviation by the time they reach high school. These leaders emphasized the importance of developing teachers at all levels who are more inspiring in their teaching.

Cooperative efforts such as aviation alliances can be especially helpful, along with classroom and faculty visits with aviation leaders capable of communicating and motivating by their own enthusiasm. One of the Oklahoma leaders in the aerospace

industry spends a significant amount of time with classroom teachers in an attempt to get what he referred to as the multiplier effect in building enthusiasm for aviation.

Some of the other suggestions by aviation leaders for curriculum development included decision-making skills, how to obtain and translate data into information, how to differentiate between near and long-term success, and how to analyze unintended consequences of those decisions. One leader stressed the importance of the extensive use of case studies of real-world leadership experiences in the classroom to give students opportunities to solve real-world problems. Others stressed the importance of real-world experiences in the form of internships and other programs in cooperation with industry.

An emphasis on leadership courses in the soft skills arena such as people skills, listening, motivation, interpersonal relations, and creativity were all stressed as an important part of a holistic approach to leadership development.

Another interesting suggestion involved teaching courses pertaining to values, particularly those which are an integral part of the aviation environment, such as integrity and high standards.

Still another course identified by some of the leaders as important to leadership success is history. One of the leaders expressed strong concerns about the way history is being taught in the public schools and the accuracy of the information. The implication was that there may be a strong need for remedial education of college level students in developing their understanding of history as well as renewing their appreciation for learning from past experience. The history of aviation is woven deeply into the history of our country, and those in aviation leadership roles need an awareness of the impact of the past on the events of the present and the implications for the future.

Suggestions on how to achieve a strong aviation education program ranged from the importance of curriculum objectives and accountability of teachers to suggestions for shared programs with industry. One of the leaders suggested an “aviation leaders in training program” where students actually go into industry and work as a project team leader or move through various organizations within that industry and work while learning. Other suggestions included cultural exchange programs with foreign countries or aviation leaders in order to learn other cultures because aviation is global by its very nature.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to examine the personal traits, skills, practices, behaviors, background, and academic and career success patterns of selected aviation leaders in Oklahoma. It was based on the assumption that findings in the personal interviews of selected aviation leaders, when compared to a review of the literature regarding qualities of leaders in other fields, could provide insights regarding leadership success patterns of Oklahoma aviation leaders. Those findings could address the problem identified in this study as a lack of clear understanding of specific factors contributing to leadership success in the aviation community. Findings could be especially helpful to the aviation community in looking at future curricula needed to develop leadership skills in future aviation leaders.

Conclusions

The findings of this qualitative study of successful aviation leaders of Oklahoma resulted in the following conclusions as related to each of the broad research questions outlined in the first chapter.

Conclusions Regarding Background Factors

The first research question was designed to identify career choices as well as family, education, and other background factors contributing to success in aviation leadership.

This study identified no common career choices, family, educational, or other background factors which were exclusively responsible for leadership success of all of the participants, and very few consistencies across backgrounds. Technical experience in aviation was clearly not a prerequisite to success for the participants in this study. Several had multiple careers, not all of which were aviation related; several went directly into a position of aviation leadership from a non-aviation environment; and several held no airman certificates or ratings.

A college education was obviously important to the majority of these leaders based on the unusually high number of leaders with degrees, although only a few attributed a promotion or career move directly to their education. The data indicates that a degree was not essential to success as demonstrated by the leaders who had little or no college education and the participant responses to one of the questions in the interview. When asked which was more important, education or experience, the results were unanimous that experience was more important to success.

Consistencies in background factors noted among these leaders were few. The one background factor that crossed all aviation specialties included the ability of leaders to learn from family experiences. Even when their family experiences were negative, leaders tended to learn from their experiences. Another commonality among successful

aviation leaders was their tendency to maintain a certain level of balance and commitment to something outside their own careers by participating in volunteer and humanitarian leadership roles within the community. It was also noted that all of the leaders had received frequent feedback and recognition of their achievement by others through rapid career development and numerous honors and awards. This was not unexpected because these leaders were chosen for the study based on a certain level of recognition of success. Still another consistency noted among the leaders who were asked about their plans for the future was their clear involvement in life and career planning even after retirement from their primary careers.

Although no questions were asked regarding leadership assessment, the notion of assessment for leadership potential was spontaneously offered by approximately one-third of the leaders interviewed in the study. It was described as important not only for identifying interests and leadership potential, but for identifying training needs and preparing for career development.

Conclusions Regarding Values Contributing to Success

The second research question was designed to determine what guiding values and principles contribute to success in aviation leadership. The answer among these successful Oklahoma aviation leaders was overwhelmingly "honesty." Honesty surfaced in responses across all categories and all specialties. The emphasis on honesty as the most frequently mentioned guiding value was associated by some of the participants with the inherent requirement for trust that is built into the aviation industry. The literature,

however, describes honesty as the most frequently identified value of leaders on numerous studies of generic leadership roles.

In addition to honesty, some of the most frequently used terms by leaders throughout the study to describe components of success in leadership included: integrity, credibility, vision, love, courage, and high standards. These findings were consistent with the literature in that many of these terms are used repeatedly to describe characteristics of both generic and career-specific leadership roles that are crisis or incident-related.

Conclusions Concerning Management Styles

The third research question answered by the study was: What management styles or practices contribute to successful leadership in the aviation community? All of the leaders interviewed in the study mentioned multiple styles and used multiple terms to describe their management styles. Regardless of the aviation discipline, the predominant management style described by the leaders was participatory, while most expressed a strong backup style for directing when necessary. Flexibility is imperative in adapting leadership styles to a variety of situations ranging from routine daily matters to the rapidly changing aviation environment and the potential for life-threatening crisis.

Conclusions Regarding Characteristics of Successful Leaders

A fourth research question answered by the study was designed to obtain leader responses regarding specific qualities, characteristics, skills, or personal traits which affect leadership success in the aviation community. Honesty, credibility, and vision, followed by high standards, strong fiscal responsibility, and a love for aviation resurfaced

again and again throughout the interviews as leaders described not only their own traits but the traits of leaders they personally admired. The most important skills identified were the interpersonal skills of communicating and listening. The foremost motivator of successful aviation leaders was love for aviation followed only by the safety factor associated with the risks inherent in aviation. Although a broad range of aviation disciplines was represented in the study, the above listed descriptors crossed all disciplines.

Conclusions Regarding Leader Development.

The final research question addressed by this study was a request for leader recommendations regarding developmental activities for future aviation leaders.

The most frequently identified curriculum need across all aviation disciplines was that of communication skills. The importance of communication skills to aviation leadership was emphasized by every participant at some point in the study.

From that point on in the study significant differences were noted in the response patterns across aviation disciplines. As would be expected, it became more apparent that the background of the leader and the type of discipline seemed to affect the response. For example, leaders involved in airport management and government disciplines stressed the importance of fiscal and managerial responsibilities; leaders involved with organizations engaged in promoting aviation within the community stressed the importance of public relations; and those engaged in academic organizations emphasized the importance of learning across a broad range of topics.

Recommendations

On the basis of the information gleaned in this study, the following recommendations are offered as related to the findings on each of the five broad research questions.

Recommendations Pertaining to Background Factors

Early Assessment of Student Interests. A system of early assessment of student interests and leadership potential (high school and undergraduate level) is recommended as a prerequisite to beginning an academic program in aviation. Such a program has implications for ensuring that educational institutions tap and effectively develop a pool of talent for industry that is commensurate with the interest level and enthusiasm for aviation that is imperative to success in the 21st century.

Additional Research on Background Factors Relative to Success. Further research is recommended on those background factors which were consistent throughout the interviews including the concept of balance and commitment to something outside one's career as related to leadership success in the aviation community. The measurement of commitment to volunteer civic and humanitarian leadership roles and the impact of that activity on leadership success could have broad implications for leadership development. An important question remaining is what kinds of educational opportunities foster that balance and commitment to external leadership roles.

Educational backgrounds in this study were disproportionately high to the expressed expectations regarding the impact of education on leadership success. Further

study is needed to understand the rationale and implications of those findings to development of future leaders. What factors contribute to the low expectations regarding education? What motivations were at play in pursuing an educational level that exceeded expected benefits? Is the desire for high achievement, as evidenced by educational levels, an innate personality factor of successful leaders?

Recommendations Pertaining to Leader Values

Further Research Pertaining to Development of Leadership Values. An issue which surfaced during the study which has far-reaching implications regarding the development of future leaders involves the ability to teach values pertinent to aviation leadership. Participants in the study expressed differing opinions regarding the age and its impact on development of guiding values and principles. Based on the importance of such values as honesty, high standards, and quality to the aviation industry, further research in the form of an experimental study of the impact of classroom instruction on values could provide valuable insights for development of future leaders.

Recommendations Regarding Management Styles

Additional Research Regarding the Relationship of Leadership Styles to Effectiveness. Further study is recommended regarding the impact of rigidity versus flexibility in management styles of aviation leaders. What kinds of curriculum and classroom teaching techniques can have a significant impact on development of organizational diagnostic skills as well as a broader range of leadership styles?

Follow-up Studies Which Broaden the Scope of this Study. One of the leaders interviewed during this study recommended a follow-up study in his organization to determine if his perceptions were accurate in regard to his leadership style and the impact of his actions on the staff. Some type of follow-up effectiveness study could provide some validating data in understanding the impact of the actions of successful aviation leaders on their organizations and their staffs. Follow-up studies on a national level which examine similar factors contributing to aviation leadership success could provide additional valuable insight and further validate some of the findings of this study.

Recommendations Regarding Leader Characteristics

Further Longitudinal Research Regarding Traits of Leaders. The importance of looking at traits or characteristics of successful aviation leaders has far-reaching implications not only for selection of the right leaders, but for identifying training needs and for preparing aviation leaders for career development. Based on the findings of this study, it is recommended that further longitudinal research is needed to determine if there is a correlation between certain individual traits and leadership effectiveness and how the situation affects the relevance of certain traits and skills utilized in the various disciplines of aviation leadership.

Recommendations Regarding Leader Development

Increased Emphasis on Communications Curricula. The findings of this study indicate a powerful need to move the communication skills of writing, speaking, and listening to the top of the aviation leadership curriculum. In addition, student

participatory activities which require writing, speaking, and listening skills should replace the traditional lecture method of learning in the classroom. The deficiencies noted by current leaders and the urgency of their requests for assistance in that arena underscore the importance of ensuring that not only leaders but aviation technical personnel be provided opportunities to learn and enhance their ability to convey their ideas in an articulate manner.

Development of Decision-Making and Critical Thinking Skills. Increased emphasis on decision-making and critical thinking skills is needed in the development of future aviation leaders. One of the leaders in the study recommended “real world case studies, not just textbook cases,” that provide opportunities to think beyond the first impact of a decision. Perhaps a system of graduated learning beginning with classroom solutions to “real world case studies” provided by an organizational leader who later joins the class in comparing their rationale and solutions to the problem to those of the class. Subsequent shadowing assignments to an aviation organization for actual observation, and finally practicing application of skills learned through an internship program in the real world environment would be one effective way to progressively develop critical thinking skills.

Also complex learning for the rapidly evolving aviation leadership environment of the 21st century necessitates curricula which emphasizes creativity and develops creative thinking skills by encouraging students to risk tackling complex issues and think in a different way. These kinds of developmental activities were recommended in the study

and identified by today's aviation leaders as a quality they were seeking in screening new employees.

Expansion of Curricula Related to Global Communications and Strategies.

Global communications and strategies curricula was also recommended because aviation by its very nature is a global business. An improved understanding of other cultures is imperative for future aviation leaders.

Improved Student Focus and Instructional Methods. Some of the leaders in the study offered not only curricula recommendations but expressed concerns and offered suggestions for improved methods for meeting student needs. Lack of instructor enthusiasm for the subject matter, lack of instructor and student accountability, political influence on student learning requirements, and certain curriculum such as history, were some of the concerns that surfaced in the interviews.

Working across organizational lines with public and private learning institutions at all levels through such organizations as the Oklahoma Aviation Alliance was recommended as one approach for a comprehensive plan to address current concerns. Increased collaboration with industry is recommended for educational institutions in meeting rapidly changing needs and improving flexibility and creativity in programs offered such as exchange programs, internships, customized courses, on-site degrees, and distance learning as well as creatively designed programs such as "Executive MBAs" which are time limited and designed to assist executives in their efforts to remain current in technology and leadership.

Implications

The Role of Education in Developing Future Leaders

Although the results of the study indicated that leaders believe experience is more important to leadership success than education, it is readily apparent by the high rate of participants in the study, 83% with undergraduate degrees and 56% with a graduate degree, that education (though not essential for everyone) was a high priority for the leaders in this study in the Oklahoma aviation community. Obviously, the academic community has served and will continue to serve a vital role in meeting the needs of aviation in the development of leadership skills.

Although the jury is still out on the issue of natural leadership versus learned leadership, we know that the aviation environment of the next century will place demands on the educational system of the future and require that it not only keep pace with change across the aviation disciplines but also forge ahead to explore the unknown. The obvious concerns expressed by aviation leaders of Oklahoma regarding the role of education in dampening the enthusiasm and inquiring minds of young people provide a warning flag to educators of the importance of further study of future aviation education needs.

A number of comments by leaders of this study indicated that even though aviation had not changed much in the last 50 years, predictions were that aviation, as we know it today, will be virtually nonexistent in the next few years with the inroads in technology and space. Of necessity, aviation and space education must also be dynamic, setting new frontiers and moving ahead of change. Complex learning for the rapidly evolving aviation community of the 21st century will require innovation, risk taking, and

breaking free of old ways of doing things in the classroom and in the aviation organizations. If aviation changes as drastically as expected by many of the leaders interviewed during this study, a corresponding drastic change will be needed in the institutions that provide learning opportunities. Educational institutions not only have a responsibility but an obligation to be a role model, setting the example in their own organizations for industry by leading the way in customer service, technology, and human relations as well as flexibility and adaptability to a rapidly changing world. Hanging on to old, bureaucratic structures that requires students to become dependent personalities as they try to fight their way through a maze of red tape will not project a climate of progressive, state of the art learning. Perhaps educational institutions could learn from their customers in the aviation industry while modeling some of the latest mass conferencing collaborative techniques such as Future Search and Stakeholders Conferences. Regardless of the method used, a major emphasis by academia on learning first-hand what it will take to provide "white water leadership" (White, Hodgson and Crainer, 1996) in development of aviation leaders is imperative.

Concluding Remarks

The leaders interviewed during this study were selected because they were believed to be a rich source of data for understanding the characteristics of successful aviation leadership in Oklahoma, and they were exactly that. Their cooperation and enthusiasm for this study and the opportunity it provides for input to future aviation leadership went well beyond the call of duty. The kind of leadership they exemplified in their respective aviation disciplines was readily apparent in the quality of information

they provided for the study, the innovativeness of their contributions, their willingness to create time in their busy schedules for the interview, and the extra efforts many of them made by offering to travel to the interview or furnish helpful literature. If “white water leadership” is required for the 21st century, no better role models could be obtained than the “white water leadership” of Oklahoma’s successful aviation leaders of the late 20th century interviewed for this study.

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APPENDIXES

APPENDIX A
INTERVIEW GUIDE
RESEARCH QUESTIONS

INTERVIEW GUIDE
RESEARCH QUESTIONS

CAREER AND PERSONAL:

1. Describe your career history highlighting those things which significantly impacted your rise to a position of leadership.
2. How have your guiding values or principles influenced your career? How do they influence your daily decisions within the organization?
3. Describe your educational history and its impact in attaining success on your position of leadership.
4. What other developmental activities have you pursued that may have impacted your leadership success?
5. Describe your family. What, if any, experiences in your background may have influenced your success as a leader?
6. Describe your management or leadership style. (Optional question to be used to spur thought: Are you a nurturer, protector, problem solver, pusher, or another more appropriate term?)
7. When you are at your “personal best” in leading others, what qualities or traits do you exhibit?

AVIATION LEADERSHIP

8. What does the term “successful aviation leadership” mean to you?
9. You have been identified as a successful leader in aviation. Do you agree that you would be considered successful? Why? Why not?
10. Think of someone you know personally in a position of aviation leadership who has done an excellent job providing effective leadership to the people and activities around him or her and tell me, in detail, what that person has done which constitutes “highly effective leadership.”
11. What specific qualities do you think are important to leadership in the aviation community?

12. What single characteristic or skill would you say was most important in aviation leadership?
13. What, if any, differences have you noticed in achieving success as a leader in an aviation versus another environment?
14. In your opinion, what personal and professional backgrounds and values foster leadership in the aviation community?
15. What motivates aviation leaders to perform exceptionally? Describe some positive and negative factors of leadership in the aviation work environment that are motivating or de-motivating.
16. Which do you think is more important to leadership success: formal education or work experience? Why?
17. Which do you think is more important to success as a leader: individual competence or support from the boss or organization? Why?
18. In developing curricula for future aviation leaders, what specific skills or traits should be developed in students considering careers in aviation leadership?

OTHER

19. What are your future career expectations?

NOTE: Research questions adapted from the following sources:

- Carmichael, D.B. (1992). *High achievers in a large government organization*. Unpublished doctoral dissertation, University of Oklahoma, Norman, OK.
- Kouzes, J.M., & Posner, B.Z. (1995). *The leadership challenge*. San Francisco: CA: Jossey-Bass Inc.

APPENDIX B
PARTICIPATION LETTER

PARTICIPATION LETTER

Dear Mr./Ms. _____

I am currently working on my doctoral dissertation in the College of Adult Education, Applied Studies Aviation and Space Education, Oklahoma State University, where I am conducting research on the Characteristics of Successful Aviation Leaders of Oklahoma . You have been chosen to participate in that study because of your success as an aviation leader in our state. I will be interviewing a number of Oklahoma's top leaders in the field of aviation and would appreciate the opportunity to interview you in person at your convenience sometime during the month of _____.

The purpose of the study is to examine the personal background, academic and career success patterns of selected aviation leaders of Oklahoma in an effort to gain insights regarding leadership success. Findings of the study could be especially helpful to the aviation community, the Oklahoma State University and the Oklahoma Aviation Alliance in looking at future curricula needed to develop leadership skills.

Attached are samples of the questions which will be used during the interview lasting approximately one hour. With your permission, an audiotape will be made of the interview to aid in the analysis of the data. Transcriptions of the tapes and notes will be identified by number only. Once the tapes are transcribed and the data analyzed, all tapes will be destroyed to protect the confidentiality of the person being interviewed. A copy of the final report will be presented to you prior to submission to the graduate college.

I will contact your office by phone on (date) to answer any questions you may have and obtain permission to interview. In the meantime, if you have any questions about the project or about me, you may contact me at 405-720-9091.

Thank you in advance for your cooperation regarding my request for assistance with this research project.

Sincerely,

Mary N. Kutz

APPENDIX C
INSTITUTIONAL REVIEW BOARD FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 06-22-98

IRB #: ED-98-133

Proposal Title: CHARACTERISTICS OF SUCCESSFUL AVIATION LEADERS OF OKLAHOMA

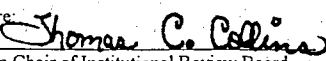
Principal Investigator(s): H.C. McClure, Mary N. Hill Kutz

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

=====
Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature: 
Interim Chair of Institutional Review Board
cc: Mary N. Hill Kutz

Date: June 24, 1998

VITA

Mary N. Hill Kutz

Candidate for the Degree of

Doctor of Education

Thesis: CHARACTERISTICS OF SUCCESSFUL AVIATION LEADERS
OF OKLAHOMA

Major Field: Applied Educational Studies

Biographical:

Personal Data: Born in Ada, Oklahoma, September 17, 1941, the daughter of Mr. and Mrs. Claude C. Hill

Education: Graduated from Ada Senior High School, Ada, Oklahoma, in May 1959; received Bachelor of Business Administration degree from the University of Central Oklahoma, May, 1977; received Master of Business Administration degree in Business Administration from the University of Central Oklahoma, May, 1979; completed requirements for the Doctor of Education degree at Oklahoma State University in December, 1998.

Professional Experience: Program Coordinator, Employee Development, Federal Aviation Administration Airmen and Aircraft Registry, 1981-1986; Instructor, Adjunct Faculty, Oklahoma City Community College, Business Division, 1979-1986; Staffing Specialist, Federal Aviation Administration Human Resource Management Division, 1985-1986; Manager, Federal Aviation Administration Airmen Certification Branch, 1986-1992; Performance Management Specialist, Federal Aviation Administration Human Resource Management Division, 1992-1994; Instructor, Adjunct Faculty, Oklahoma State University, Southern Nazarene University, and Metro Tech, Oklahoma City, 1996 to present; President and CEO, AMK & Associates Lifelong Learning Institute, Oklahoma City, 1994 to present.