

Flight Crew Leadership

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Abstract

The efficiency and safety of aircraft operations can be traced back to the use of *influence* by leaders to affect the behavior and attitude of subordinates. Leadership skills are not genetic; they are learned through education and honed by a professional commitment to self-improvement. Although many flight deck *management* actions are dictated by standard operating procedures and technical training, the *leadership* functions of captains are considered to be different from management acts and should be used to foster a working climate that encourages respectful participation in the captain's authority. By referencing ten "best practices" of leadership, captains can set and control the appropriate *authority gradients* with subordinates in order to achieve synergy out of a crew. Ultimately, each captain must pursue an authentic leadership style through *self-awareness* and by reflecting on how he or she values concern for task accomplishment versus concern for crewmembers, as illustrated by the Blake and Mouton Leadership Grid.

*We need leaders! Not just political leaders.
We need leaders in every field, in every institution, in all kinds of situations.
We need to be educating our young people to be leaders.
And unfortunately, that's fallen out of fashion.¹*

David McCullough
U.S. Presidential Medal of Freedom winner.
Two-time Pulitzer Prize winner.

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Learning Checklist • After Reading this paper you should be able to:

- Provide a personalized definition of leadership and of followership.
- Explain how a captain should encourage participation in his or her authority.
- Discuss the relevance of transcockpit authority gradients to crew resource management.
- Describe how followers can practice assertiveness with respect.
- List actions of capable leaders and of effective followers.

INTRODUCTION

There is an old tale about captains' leadership in the aviation industry. As the story goes, a group of friends decided to go on a hunting trip in the western United States. When they checked-in at the hunting lodge they asked the manager if they could rent a good hunting dog to increase the odds of a successful hunt the next day. The manager replied that he had a relatively new and inexperienced hunting dog named "Copilot."

The hunters seemed a little perplexed by such an odd name and voiced their concern about whether the inexperienced dog would be able to perform up to their expectations. The manager assuaged their concerns by explaining that the dog was extremely eager to please...and furthermore, the dog was relatively inexpensive because it was so new to the job. The next day the hunters went out into the field with Copilot and were greatly impressed by the dog's enthusiasm and performance.

The next year, the hunters returned to the same hunting lodge and once again requested Copilot's services. The manager of the hunting lodge informed the group that Copilot was still available, but because he was much more experienced and capable as a hunting dog than in the previous year, Copilot was also more expensive. The hunters agreed that the increased cost was a worthwhile investment and went out into the field with Copilot for what proved to be, yet again, a highly successful hunt.

On the third year, the hunters returned once more to the lodge determined to use the same dog and asked how much the price for Copilot had increased from the previous year. The manager of the hunting lodge said, *"Well, we still have the dog, but it goes by the name of 'Captain' now and is twice as expensive as he was the last time you were here."*

The hunters quickly made up their minds to pay the increased fee and were excited at the thought of how much better the dog would be this year. However, after only a few hours into the hunt, the men returned to the lodge to confront the manager, saying, *"We don't understand what happened. This doesn't seem like the dog we once knew. All that Captain does is sit on his ass and bark!"*

The moral of the story is that every copilot is a potential captain in training and **being a good pilot does not guarantee that one will make a good captain**. How the copilot is treated by his or her captains and what the copilot learns from observing his or her captains will help determine the copilot's behavior after upgrading to the left seat.

In the same way that being a good musician does not guarantee that one will be an effective conductor, or that being a winning athlete does not assure that one can be a winning coach, or that being a good pilot is no guarantee that one will be a capable instructor pilot; being a good copilot is no guarantee that one will make a good captain. Although the technical skills are highly transferable between either position, the soft skills of leadership must be trained and honed in order to excel as a captain.



This copilot is learning not just technical skills but also leadership skills from the captain. Or is he? Exactly what is he learning?

LEADERSHIP PHILOSOPHY

For those who are involved in the study of leadership, it proves difficult to believe that some people claim that leaders are born and not made. Although military academies, business schools, and executive training programs across the world all exist for the purpose of teaching leadership skills, some people still believe that strong leaders are merely the product of fortunate genetic inheritance and not the result of hard work by individuals who seek self-improvement.

In part, the misunderstanding may stem from the once popular belief that monarchies passed on the "royal blood" of leadership. For example, in 1869 Sir Francis Galton stated quite clearly that the traits of the most effective leaders were passed down through inheritance.² In many cultures such a belief unfortunately persists.

In the 21st century, most educated members of society acknowledge that **leadership skills can indeed be taught and honed through formal education and through one's personal commitment to self-improvement.** A cursory glance at the business section of any bookstore shows seemingly countless self-help guides for improving one's leadership or management skills. Although leadership is inherently situational, generalizations can be made of desirable leadership actions, as will be shown later on in this reading. Such generalizations can be used to develop one's personal leadership style. Many capable leaders have produced personal mantras that embody their philosophy for leadership and recognize that leadership is both a science and an art.

Do Captains “Manage” or do they “Lead”?

Some claim that leadership is all about setting the example for others to follow. Some state that leadership consists of designing a system of incentives and disincentives for encouraging the behavior of followers. Others disagree vehemently, stating that such a view represents “management” and not “leadership.” The debate between leadership and management is well documented. Society in general often treats both terms synonymously although scholars would disagree.

For our purposes, we can consider management to be the process of “planning, organizing, directing, and controlling” behavior so as to accomplish a given workload by dividing up tasks.³ Most managerial tasks to be completed by flight crews are carefully described in standard operating procedures (SOPs). Such a situation seems to diminish the necessary managerial actions of a captain but does not address the pressing need for leadership, which we shall see revolves primarily around the concept of creating a positive work atmosphere so the crew effectively manages resources and complies with procedures.⁴

Such a distinction between management and leadership is quite interesting. The study of leadership was already well established around the time of Aristotle, yet *management* as the focus of study did not become common until the turn of the 20th century as a byproduct of the ongoing industrial revolution. At that time the purpose of managers was to create order, stability, and consistency in operations.⁵ Though, as previously mentioned, such a purpose can be served quite effectively through SOPs.



Managerial actions are often predetermined and standardized in aviation. Most pilots can think of several specific tasks the captain in this scene is accomplishing just by looking at the picture.

The distinction between management and leadership is brought to light when one considers why technology in the cockpit that deals with the control of flight trajectories, time, and fuel is called a Flight *Management* System (FMS) and not a Flight *Leadership* System! The purpose of aviation regulations, SOPs, FMS technology, and other flight guidance systems is to bring predictability and consistency to operations (“management”), whereas the actions coming from the captain set the tone for the efficient and safe use of the management tools (“leadership”). In such a context, some pilots have described leadership as being an external manifestation of a desired mental state or disposition...similar to what *attitude* is on the inside. So, **leadership is to the outside, what attitude is to the inside.**



A captain’s effect on people’s mental states and dispositions is neither predetermined, nor standardized. It is highly circumstantial and dynamic. For example, although one can probably guess the management actions being coordinated in this picture, it is difficult to predict exactly what leadership actions are taking place.

Perhaps the best way to harmonize the differing opinions between “managing” and “leading” is to recognize that captains must perform both managerial and leadership functions

as part of their job. Such a dual-charge can be described as necessitating an ability to “*direct and coordinate the activities of other team members, assess team performance, assign tasks, develop team knowledge, skills, and abilities, motivate team members, plan and organize, and establish a positive atmosphere.*”⁶

Although some of the managerial items in such a description are already prescribed by SOPs, others need to be clarified through briefings and other guidance from the captain. The leadership elements of motivating and tone-setting are rarely, if ever, directly addressed in SOPs or regulations. On the rare occasion when a mention is made of such elements, **there is rarely an in-depth explanation of what specific actions can serve to motivate a crew and set an appropriate working atmosphere. Filling such a knowledge void is the purpose of this paper.**

Of course, there are dozens of models for leadership that have been developed. Some are best applied at the upper levels of organizations, such as leadership used by CEOs and chief pilots. Other models apply more to leaders of time-critical and fluid high-reliability settings, such as commanders of police sniper teams and firefighting chiefs. Other models deal with mostly mundane administrative settings, such as those faced by middle-managers at grocery stores and car dealerships. What guidance can we use to learn leadership for the highly structured and technically complex world of flight operations? Some available leadership models are extraordinarily complex, invoking terminology such as “uni- versus bi-dimensional dichotomies,” “typologies,” and “continuums” that can cause the average line pilot to laugh in bemusement or cry in frustration. Can we simplify the models and make them “actionable” by the average line captain?

Is Leadership a Science or an Art?

A very clear and fundamental depiction of leadership that most can agree with is the “Triangle Model.” **The three sides of the triangle are responsibility, authority, and accountability.** The organization gives a captain responsibility for the safe and efficient conduct of a flight, the authority with which to make decisions, and the accountability for the outcome of the decisions. Sometimes such a model is described as a three-legged stool...take away any of the three legs and the stool will collapse. For example, as we shall discuss, a captain can delegate authority to other crewmembers, but since it is the captain who is primarily held responsible for the safety and efficiency of a flight, the captain is ultimately accountable for any delegated tasks. **Leadership is about how the captain sets the stage for the safe and efficient outcome of delegated tasks. Leadership is about sparking each crewmember’s internal desire for excellence in the tasks they perform.**

There is a vast range of perceptions of what actually comprises effective leadership. Napoleon supposedly linked all successes or failures to leadership. He is thought to have said, “*There are no bad regiments, only bad colonels.*” In some extreme cases, effective leadership has been defined as instilling an instinctive and highly disciplined sense of obedience. The Roman Legion used “decimation” as a means to discourage cowardly and mutinous conduct in a unit. The term derives from Latin meaning “removal of a tenth.” When a unit was decimated, one out of every ten soldiers would be killed by his peers in order to set an example that failure was *owned* by the unit and would not be tolerated. Decimation made such a psychological impact on military units and on society that the popular use of the word today means the destruction of a *significant* proportion of something, instead of a minor portion of something.

For a contemporary example of an effective leadership style that would prove highly ineffective in a cockpit, take the training motto of the French foreign Legion, which is simply, “*Don’t think!*” Presumably, such a model is an attempt to instill an automatic sense of obedience among legionnaires who are taught to never question orders and to never

contemplate consequences too deeply; simply to execute instructions they are given immediately and without hesitation. From a CRM perspective it does not take a genius to recognize that using the Legion's leadership philosophy in an aircraft cockpit would produce extremely hierarchical, disciplined, and structured crew behavior...just prior to each accident! Similarly, most aircraft SOPs do not provide captains with the authority to decimate crews due to lackluster performance.



Would Legionnaire leadership work in the cockpit? Maybe some principles, but not all!

Leadership is highly situational. In stark contrast to the model proffered by the French Foreign Legion stands the leadership musings of the Chinese philosopher Lao Tsu in the 6th century BC, who said, *"A leader is best when we hardly know he exists. When his work is done, his aim fulfilled, his followers will say, 'we did this ourselves!'"*⁷ How can such a philosophy of "invisible" leadership be used when flying an aircraft?

Nelson Mandela is lauded as a formidable leader of the human rights movement in South Africa. Perhaps due to the influence of Lao Tsu's philosophy, Mandela refers to leadership in his book, *"A Long Walk to Freedom,"* by stating, *"A leader is like a shepherd. He stays behind the flock, letting the most nimble go out ahead, whereupon the others follow, not realizing that all along they are being directed from behind."* Such a philosophy of leadership apparently proved extremely effective for social change, but can it teach us lessons for leading a flight crew? Do Mandela's words contradict the style of strong and direct leadership traditionally associated with aircraft captains?

Professional experienced flight crews are technically competent adults who, for the most part, take some measure of pride in the successful outcome of a flight. A captain can use a series of subtle comments to nudge the behavior of flight crews towards a desired outcome. The process is not unlike a professor who carefully structures the learning in a course through exercises, experiments, and simulations, causing students to believe that they have learned a great deal without the professor giving a single lecture. A student may look back at the end of a semester and say, *"I learned so much in this course, but the professor didn't teach me anything!"*

Similarly, a copilot may take great pride in dealing with a situation and even catching a captain's mistake, falling into the temptation of thinking that the captain has played no role in the situation and even thinking that the flight would have been better if the captain had stayed behind. All along, however, it was the captain's tone-setting in the cockpit that enabled the

copilot to catch and report mistakes. It is important not to confuse silence for inactivity. A captain can use influence to affect the inner passion for excellence in subordinates and can do so in ways that would make Mandela and Lao Tsu quite proud.

Unfortunately, some captains do not recognize this concept and believe that leadership must be *heard* to be effective and therefore speak loudly and often. In so doing, they may actually be setting the exact opposite tone that they are trying to establish. After all, few crewmembers will be able to listen to their inner drive for excellence when all they hear are constant nit-picking comments from the captain.



This first officer is spring-loaded to excellence. Too bad the captain keeps getting in the way by directing him to excel.

A very different situation is presented if a captain tries to foster excellence in a reluctant cabin crewmember or a disgruntled flight engineer. Sometimes the captain has to lead a crewmember who lacks an inner fire to excel. The captain may have to quickly switch tactics when dealing with different individuals. As we are starting to detect, the challenging nature of being an effective captain is that **leadership is both a science and an art**. There are volumes upon volumes of research detailing desirable leadership traits, decision-making styles, behaviors, and models to follow for guidance on how to effectively lead others. However, since leadership is inherently a human enterprise and each individual's personality is an extremely complex amalgam of motivations, strengths, weaknesses, experiences, and skills; implementing effective leadership actions requires not just knowledge, but flexibility and intuition.

In the past, famous war-time leaders have proven to be highly *ineffective* during times of peace, and vice versa. Similarly, different leadership is required in high-stress and high-consequence undertakings than what is required for running day-to-day operations at the corner grocery store. It is precisely the need for flexibility, intuition, and even an emotional intelligence that has caused some to erroneously believe that leaders are born and not made.

What exactly is Leadership?

As one might expect when examining such a complex topic, there are numerous definitions proffered to explain leadership. Some definitions are philosophical, others are inspirational, and others are more pragmatic. The Random House Unabridged Dictionary and The American Heritage Dictionary define leadership as providing *guidance* and *direction*.⁸ The

American Psychological Association's dictionary states that leadership involves *organizing, directing, coordinating, and motivating* followers in order to fulfill given objectives. The dictionary goes on to say that leaders *influence* followers and followers influence leaders.⁹

Others have elaborated on the element of influence to explain **leadership as, "...the process by which an individual influences the *behavior and attitudes* of others."** The difference between ineffective and effective leadership can therefore be seen in the way that influence is operationalized.¹⁰ Such a concept of influence has been investigated even further. For example, some define leadership not just as the use of influence, but as the use of "*non-coercive* influence to direct and coordinate the activities of the members of an organized group towards the accomplishment of group objectives."¹¹



Movies often portray excellent leaders as charismatic beings who are followed because subordinates choose to follow them; because the leader is the natural means of getting to where the subordinates want to go.

Influence is defined as the ability of someone or something to produce a compelling force that alters the behavior or opinions of others.¹² With regards to individuals exerting influence from *designated* leadership positions, influence stems directly from a person's position of authority, as supported by institutional hierarchy, and can be used to prompt behavior in others that would normally not be desired by such individuals. Such would be the case with the influence that a drill sergeant has over a new recruit, or that a police officer has when writing a citation for a speeding motorist, or that someone wearing four stripes on epaulets has over fellow crewmembers.

In other occasions, people who are not officially in leadership positions but who exert influence, a situation known as *functional* leadership, can influence others through charisma or intellectual arguments. Such would be the case when a politician attempts to convince peers to pursue a certain initiative, or when a cabin crewmember attempts to convince a caterer to pay more attention to detail when restocking an aircraft. In ideal situations, designated leaders are also functional leaders, using influence to affect both the behavior and the attitude of others.



Unless the nuances of influence are fully considered, leaders may only affect a subordinate's behavior but not their attitude.

The International Civil Aviation Organization (ICAO) also defines leadership in the context of influence, but goes further and explains how the leader should **recognize the desires of the crew, set an example, and use persuasion to create an understanding of goals that need to be met**. ICAO stresses that leadership and followership skills can be learned and states that leadership training is essential for all crewmembers, since even junior employees may be called to perform leadership duties at different times.¹³

In the aviation industry, captains must use a combination of their authority, awareness of a situation, and soft skills (such as communication) in order to guide the behavior of crewmembers. Authority is inherent in the captain's position, often indicated by four prominent stripes on epaulets or jacket sleeves. Such a designated position of authority certainly sets the stage for the proper use of influence, but does not guarantee it.

This is similar to the badge on the police officer's chest. The mere presence of the badge commands respect among many but does not guarantee that everyone will follow the police officer's instructions. In other words, **authority is assigned and may or may not result in effective leadership**. However, as was previously stated, leadership can exist with or without authority in much the same way that authority can exist with or without leadership. When someone on a crew provides leadership that is not in harmony with their level of authority, a potentially dangerous role reversal may occur resulting in crew behavior being influenced by someone who is not the assigned leader.

Tragedies of Leadership

A great number of individuals placed in leadership positions do not realize that they are in a position from which they influence others. How can such confusion exist? How can we be placed in new positions in such a way that we do not realize that we are leaders? Whenever we occupy a position where we can exert influence, regardless of whether we are given an official leadership title or not, others may view us as being leaders. We may be oblivious to our leadership status and may therefore take no active steps to develop and use leadership skills.

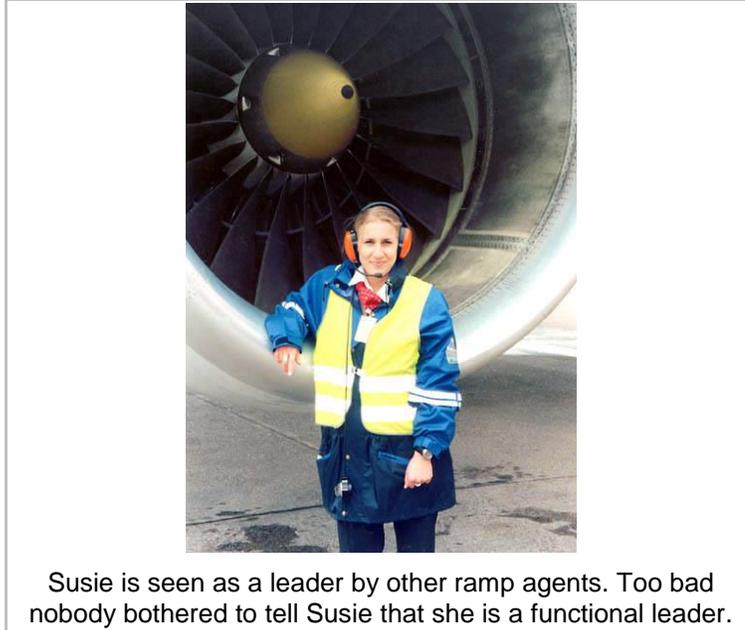


Functional leaders are people who are not officially appointed as leaders, but who are perceived as being leaders by their peers. Ramp agents or customer service representatives are often perceived by other agents as being leaders, although such a perception may only be based on relative differences in seniority or an awareness of different pay grades. Often times an employee will become a functional leader because she is the most technically proficient at a given task. A ramp agent may notice that a colleague is performing a loading operation incorrectly and may offer corrective advice without realizing that such a use of influence may make her the functional leader in the eyes of her colleague.

Think of the times in our own personal lives when we have coordinated projects, served on committees, or trained other employees, but yet were never officially told that we were in a leadership position. Parents are the leaders of their families. Professors are the learning-leaders of their students. Senior employees are often, by default, leaders of their peers. Groups of college students, ramp agents, cabin crewmembers...all have either designated or functional leaders that guide projects or tasks to fruition. **It is a tragedy when someone exerts positive influence on others but does not grasp they are perceived as leaders.** Often no one has actually told such people directly that they are now in a leadership position.

Life provides numerous examples of individuals who are perceived as being leaders by others, yet who do not know that they are in a leadership position...and never have received any formal leadership training throughout their entire professional life. An example of this tragedy is the average university professor. Such faculty members are placed in a position that requires leading a group of individuals, many of whom are reluctant participants, towards a common objective.

Take a moment to think about the people who you exert influence over. You are a leader to them. Do you act accordingly? The vast majority of people in life who are in such positions of influence have never taken a single leadership class nor made any attempt to develop their leadership skills. The result is often dysfunction, or at least, tremendous and tragic squandering of potential.



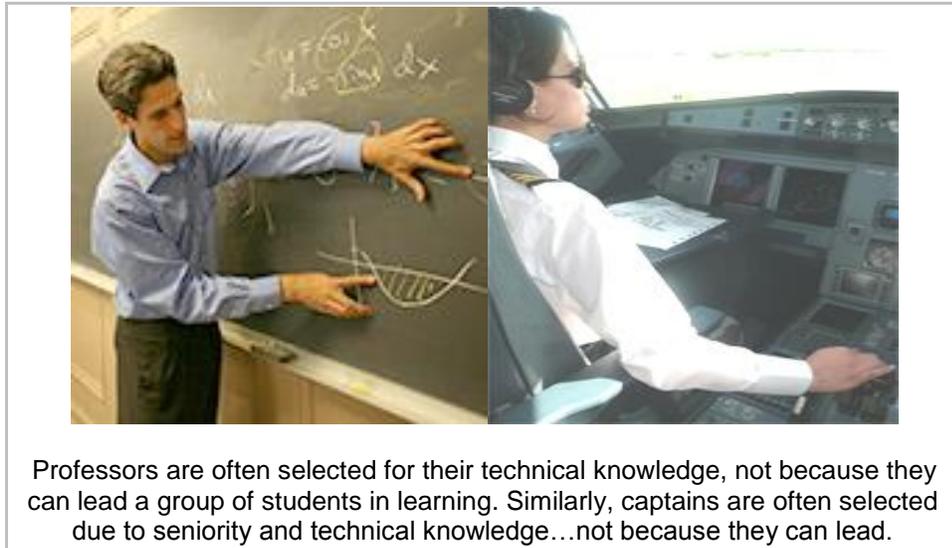
Another tragedy of leadership occurs when people are appointed to formal leadership positions but are not given leadership training. Such individuals are *designated* leaders but may not be *functional* leaders. They may continue working as a follower and never rise to the challenges of leadership because they are not aware that such a requirement exists! All along, members of the group will turn to the "leader," either implicitly or explicitly, for guidance. When no such guidance is forthcoming from the leader, others may step up and assume a *functional* leadership role by exerting influence; or perhaps no one will attempt to do so. In either circumstance, the result is often confusion and frustration.

For example, a cabin crewmember acting as the "number one," "lead," "chief," or "purser" in the cabin is placed in a leadership role yet often does not grasp the responsibilities and possibilities of exerting influence in such a position. As one can imagine, the underlying cause of such dysfunction may be that even the leader's leader does not know that the subordinate is in a leadership position. Sometimes the process continues unchecked for far too long.

Perhaps the assumption is that someone proficient in a technical task is qualified and capable of leading others in the accomplishment of the same task. Not so! The soft skills required for effective leadership are extremely different from the skill sets required in most technical undertakings. Therefore, individuals promoted into leadership positions may not be provided leadership training and end up being embarrassed, humiliated, and even ridiculed by their followers because of the perceived incompetence of being in charge.

Sometimes, an individual's selection for a position of influence is not based on leadership potential or desire, but on seniority. In the airline industry and some corporate flight departments, first officers are offered the opportunity to upgrade to captain based solely on their seniority and not on the potential for being effective crew leaders.

Leadership skills have a direct bearing on the successful accomplishment of the learning outcomes in an academic course, yet many professors do not realize the link between teaching and leadership, and even if they did, most have not received even the most basic training in leadership. In similar fashion, this author has frequently witnessed captains of aircraft who, although technically proficient in cockpit operations, were completely ineffective as leaders.

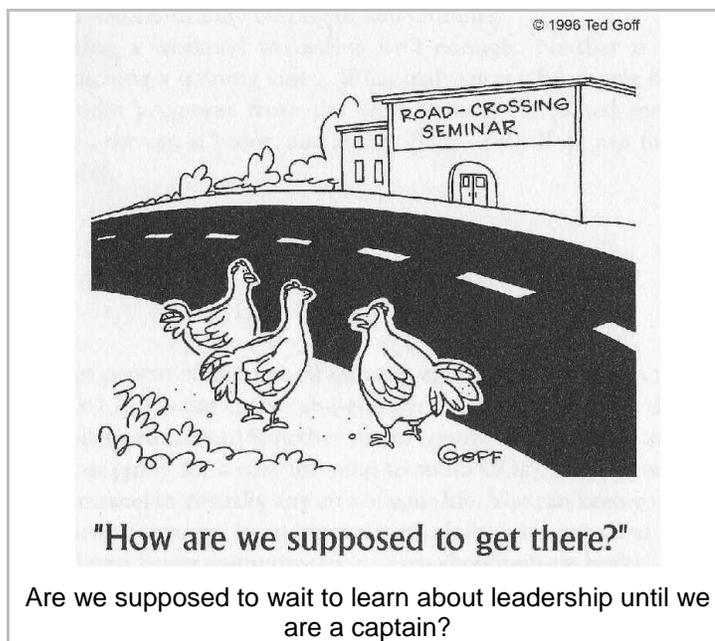


Technically savvy captains who lack leadership skills are truly tragic figures in aviation. They sit in the left seat and they wear four stripes; they know their aircraft inside and out, they know how to fly efficiently in the air traffic system, they are masters of company operating procedures; but they don't have any idea how to efficiently and positively influence the behavior *and* attitudes of their crew. Such captains can be wonderful people who mean well but who have been placed in a very delicate leadership role without having been provided the tools required to fulfill their responsibilities.



Fortunately, the industry also has very capable leaders in the left seats. Such captains look after the welfare of their crew and strive to make a synergistic team that shares common objectives. It would be tempting to perform a study which correlates the leadership effectiveness of captains, as perceived by their crew, with the amount of formal leadership training that those captains have received during their career. Such a research project could prove to be a watershed event for flight training providers by highlighting the need for formal captain leadership training.

Since the birth of the CRM movement decades ago, some aviation companies have gone to great lengths to teach basic leadership skills and customized applications for captains. Other flight departments are still in great need of such programs. The sad reality is that many operators expect their captains to magically pick up the skills required of leadership through trial-and-error. Such an approach is akin to asking a captain to learn leadership skills by practicing such skills. One is left to ask, "What?" The following cartoon comes to mind.



CAPTAIN'S AUTHORITY

Captains are vested by their company and by aviation regulations with the authority to influence others as the designated leaders of their crews. Discussions on the concept of captain's authority are prevalent in professional cockpits across the world. It is quite common these days to hear flight crews bemoaning the perceived erosion of captain's authority.

Captains over 50 years of age often reminisce about the esteem that they were afforded and about how the few disagreements that occurred in the bygone era were handled...back in the days when "the captain was king." Any disagreements with ground personnel or cabin crewmembers were dealt with quickly and efficiently...often quite harshly. In many cultures, such respect (or fear) for captain's authority persists to some degree while in others, it is perceived as quickly receding into the annals of history.

What exactly is captain's authority? We can trace the etymological roots of the term "authority" back to early Latin, when it referred to someone's advice, opinion, influence, or command. Subsequently it was introduced into French in the 12th century and English in the 13th century and explained as being a source that is used to settle an argument.

In 14th century English the word *authority* was refined to mean "the power to enforce obedience." Since the 17th century, "authoritative" in English has been used synonymously as "dictatorial," which is of course not the leadership style we want to see coming from an aircraft captain.¹⁴ In its popular use today, the word "authority" continues to have different uses and connotations.



How will you react when someone challenges your authority?

One 20th Century definition explained authority as, “*The power or right to give commands, enforce obedience, take action, or make final decisions.*”¹⁵ A modern dictionary defines authority as, “*The power to enforce laws, exact obedience, command, determine, or judge.*”¹⁶ From a psychological perspective, “authority” is defined as, “*The capacity to influence others.*”¹⁷

Much of the early culture and processes in aviation were modeled from maritime history. As such, the concept of deference to a captain’s authority originated in the maritime world, where it was discovered long ago that ships could not be governed democratically without catastrophic consequences. Not too long ago, maritime law actually expressed the matter succinctly by stating, “The captain’s word is law.”

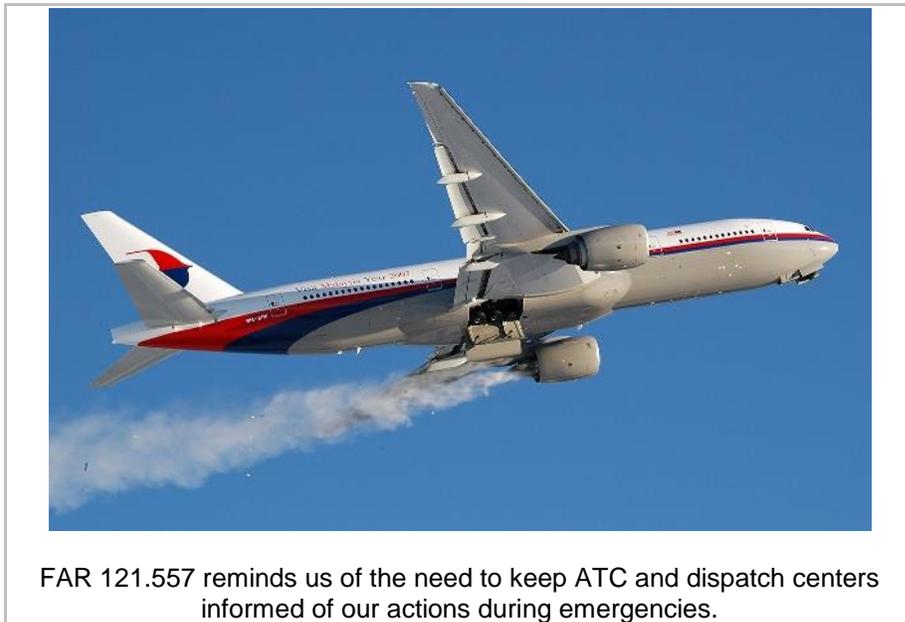


As the pilot-in-command, you have *authority* to take emergency action and deviate from procedures and regulations in the interest of safety.

Further increasing the sense of captain's authority was the tremendous respect, if not awe, that most people had towards the early pioneers of aviation. It is hard to believe today that in the early days of U.S. airline aviation, one of every six pilots died in crashes every year. For Air Mail Service pilots in the U.S. in the early 1920s, the typical cause of death was fire following a crash.¹⁸

As air travel became increasingly safe in the 20th century, the public started losing its awe for pilots. As the number of aviators swelled and the accident rate dropped dramatically in the 1960s and 1970s, the public sentiment towards pilots shifted. Aviators were no longer seen as minor gods by the general public and, more to the point, by fellow aviation professionals such as ground support personnel and cabin crewmembers. The increasing accessibility of air travel following the 1978 Airline Deregulation Act in the United States caused a further reduction in the perceived prestige of the airline pilot profession.

Simultaneously, pilot acceptance of CRM during the 1980s was hampered, partly, by captains who viewed the movement as an attack on their authority. Most recently, in the years since the September 2001 terrorist attacks, pilot unions have voiced concern that security measures have further diminished captain's authority. Security decisions are often made for a flight by government officials without consulting the captain, thus effectively usurping the captain's authority in such matters. What *exactly* do we mean when we speak of "captain's authority?" How about a concrete example?



FAR 121.557 reminds us of the need to keep ATC and dispatch centers informed of our actions during emergencies.

This author remembers one early morning departure in the Learjet in St. Petersburg, Russia when his captain's authority was challenged. As a member of the U.S. Congress was boarding the aircraft, the military coordinator for the congressman came to the cockpit and said, "*Just so we understand each other, I am in charge of this aircraft and I am the one who says where we go and what we do.*"

A polite yet assertive statement to the contrary didn't convince the very antagonistic aide, who honestly believed that he was right. It wasn't until the aide was shown the exact verbiage in the regulations explaining the authority of the captain that the aide was convinced and ceased his insistence. Challenges to captain's authority must be met head on, but politely. One must remember to never assume malice as someone's motivation when simple ignorance may be involved.

As seen in the previous example, regulations are in place to protect captain's authority. In the United States, Federal Aviation Regulation (FAR) 91.3 (a) states that, *"The pilot-in-command (PIC) of an aircraft is directly responsible for, and is the final authority to, the operation of that aircraft."* 14 CFR 121.535 (d) states that each PIC is, during flight operations, *"in command of the aircraft and crew and is responsible for the safety of the passengers, crewmembers, cargo, and airplane."* FAR 121.557 allows the PIC to take any action considered necessary during emergency situations that require immediate decisions. 14 CFR 91, 125, and 135 all have similar language empowering captains with command authority.



Soliciting participation uncovers hidden options and reaffirms authority: *"Our destination and alternate just went below minimums, what are your thoughts on other diversionary fields?"*



Assertiveness with respect should reaffirm the captain's authority: *"Excuse me captain, I would like to voice a concern over a deferred equipment item"*

NASA ASRS LEADERSHIP CASE STUDY 1: EROSION OF AUTHORITY?

The following incident is extracted from the NASA Aviation Safety Reporting System (ASRS) archives and shows a ground crew responding disrespectfully and unsafely to a captain's attempt to exert authority. Is such a report indicative of a wider trend of erosion in the ability of a captain's authority to influence behavior?

Report number: 668284	Altitude:	0 feet
Date: August 2005	Reporter:	Captain
Location: U.S. airport	Past 90-day flight time:	240
Conditions: Unknown	Experience in type:	5,000
Aircraft: B-737-300	Total Flight Time:	15,000
Phase of Flight: Pushback		

Pilot Narrative:

ON GATE ON FRI/AUG/2005, AND TIME FOR PUSH BACK, THE PUSH CREW SAID THAT THEY WOULD TAKE THE BRAKES AND HOLD THE PUSH AWAITING FOR CLRNC FROM RAMP. THERE WAS AN ACFT BEHIND US SO THE WAIT WAS EXTENDED. WITHOUT PRIOR COORDINATION, THE FORWARD CARGO DOOR OPENED AND BAGS WERE LOADED. I ASKED THE TUG DRIVER WHO HAD GIVEN CLRNC FOR THE PIT TO BE OPENED. HE SAID THAT WE WERE JUST SITTING THERE AND HE HAD TOLD THE RAMPERS TO THROW THE BAGS INTO THE PIT.

I REMINDED HIM THAT THE CAPT WAS THE ONE WHO GAVE PERMISSION TO OPEN THE DOORS AFTER THE BRAKES HAVE BEEN RELEASED. THIS OPENING THE DOORS WITHOUT COORDINATION HAS BECOME COMMON WITH THE RAMPERS. THE TUG DRIVER THEN STATED THAT THEY COULD DO THIS IF WE WERE WAITING FOR CLRNC.

I THEN SAID, 'NOT WITHOUT TALKING TO THE CREW.' HE THEN SAID, 'SO WRITE IT UP.' I THEN STATED THAT HE SHOULD READ UP ON THE PROCS. AT THIS POINT WE HAD BEEN GIVEN PERMISSION TO PUSH AND I INFORMED THE TUG DRIVER. HE STARTED THE PUSH BY PUMPING THE ACCELERATOR ON THE TUG AND BUNCHING THE TOW BAR AGAINST THE NOSE GEAR SEVERAL TIMES. AT LEAST FOUR TIMES.

I THEN DIRECTED HIM TO STOP THE PUSH, WITHOUT A RESPONSE AT FIRST. I HAD CONCERN FOR THE ACFT NOSE GEAR AND FOR THE FLT ATTENDANTS STANDING IN THE AISLE DOING THEIR DEMOS. ONLY AFTER THE SECOND COMMAND TO STOP THE PUSH DID THE TUG DRIVER STOP. NOT WANTING HIM TO CONTINUE THE BUMPING OF THE ACFT AND REALIZING THAT HE WAS MAD AT ME, I DIRECTED A RETURN TO THE GATE AND THEN DIRECTED FOR ANOTHER PUSH CREW. WE INFORMED RAMP OF THE PROBLEM AND INFORMED COORDINATION CTL.

THE COORDINATION CTLR WAS OF NO HELP IN THE SIT AND BECAME VERY UNPROFESSIONAL AND ABUSIVE TO THE CREW INSISTING THAT THE PUSH CREW WAS QUALIFIED TO DO THE PUSH AND THUS SHOULD BE ALLOWED TO DO IT. SHE STATED THAT WE WERE BEING VERY UNPROFESSIONAL FOR KEEPING THE PAX WAITING AND THAT WE SHOULD ACCEPT THE PUSH CREW AND GO.

THE COORDINATION CTLR MADE THESE STATEMENTS WITHOUT KNOWING WHAT WAS GOING ON. THE RAMP LEAD GOT ON THE HEADSET AND INFORMED ME THAT I HAD 'NO RIGHT' TO REQUEST ANOTHER CREW. I INFORMED HIM THAT I HAD EVERY RIGHT TO PROTECT THE ACFT AND THE CREW AND THAT I WOULD NOT ACCEPT AN INDIVIDUAL WHO TAKES HIS IRRITATION OUT ON THE ACFT. HE INFORMED ME THAT IT WOULD BE FIVE TO TEN MINUTES BEFORE THEY COULD GET ANOTHER CREW, AND I SAID FINE.

SOON AFTER, THE RAMP SUPERVISOR ARRIVED AND HAD THE JET BRIDGE PULLED BACK, AND WE DISCUSSED THE SIT. HE SAID THAT HE WOULD LOOK INTO THE PROB

AND REQUESTED A RPT BE FILED. I TOLD HIM I WOULD FILE THE RPT AND FORWARD IT TO HIM. WE PUSHED BACK WITH THE NEW CREW AND DEPARTED.

RAMP PERSONNEL OPENING THE CARGO DOORS WITHOUT CLRNC FROM THE FLT CREW, TUG DRIVERS NOT USING THE PROPER TERMINOLOGY, OR IMPROPER PUSHES HAVE BECOME A PROBLEM. INTENTIONALLY TAKING FRUSTRATION OUT ON AN ACFT CAN NOT BE ACCEPTED.

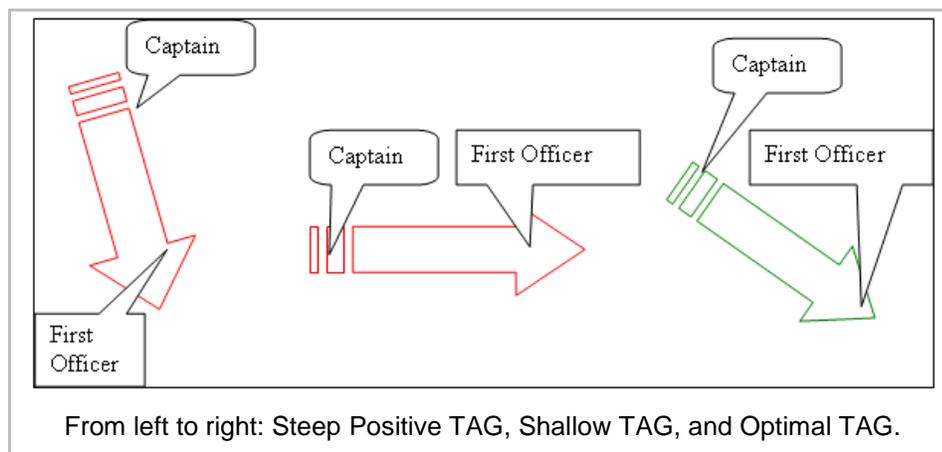
TRANSCOCKPIT AUTHORITY GRADIENTS (TAGs)

The captain's ability to promote assertive behavior in other crewmembers is directly impacted by the *perceived* authority gradient that lies between the captain and subordinates. Personal factors such as one's designated crew position, age, experience, proficiency, confidence, gender, depth of voice, reputation, physical size, assertiveness, and similar qualities may help create a perception of which pilot exudes more *informal* authority in the cockpit.

Ideally, a captain will be perceived as having more authority than anyone else in the cockpit. A captain who creates the perception of exuding too much or too little authority is a set-up for CRM problems. **It is the captain's job to know how his or her authority may be perceived by others, to be mindful of the perceived transcockpit authority gradient (TAG), and to take measures to adjust the TAG for optimal communication flow.**

In the following figure, three different TAGs are depicted. The left side of the depiction portrays a gradient too steep for proper authority to be delegated while still being able to keep communication channels open. An overly steep positive TAG may develop when a captain is perceived as being a domineering type or when a subordinate lacks confidence or assertiveness.

An extreme example of such a TAG is when an instructor or examiner pilot is paired with a relatively new pilot. In overly steep positive TAGs, subordinates may be fearful of how a captain will react to comments, often fearing the wrath of a captain or even trying to avoid condescending comments or negative opinions being formed. Such a TAG is seen as an impediment to the free flow of communication from subordinates. Overly steep positive TAGs are especially dangerous during critical decision-making events, such as during an emergency situation, when a captain is very dependent on input from a first officer.

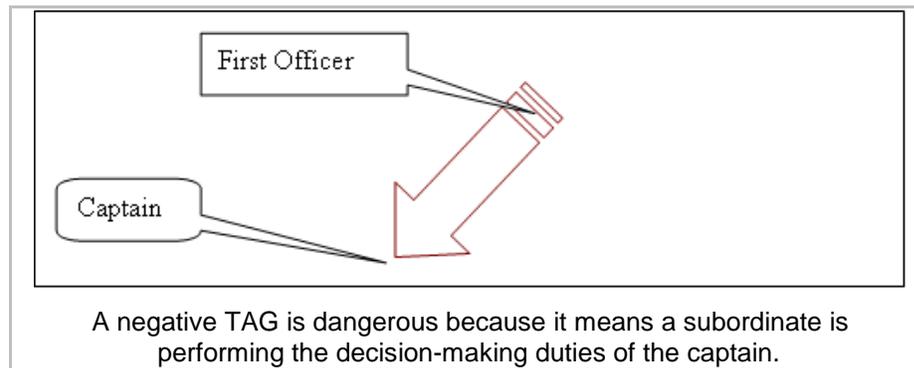


The middle depiction in the previous figure shows a flat authority gradient where there is equal or nearly equal perceived authority among both pilots or between two crewmembers. Such an egalitarian situation sounds quite pleasant but can actually be very dangerous because it leads to role confusion. Such a situation may exist when two very experienced

pilots are paired for a flight, or when two inexperienced pilots are paired with each other. An example of this may be two senior captains or instructor pilots who fly together. A dead giveaway of a shallow TAG is when one of the pilots says, “*I thought you did that.*” As in, “*I thought you did the walkaround,*” or “*Didn’t you get the weather briefing?*” Those two sample conversational exchanges are particularly worrisome when they occur *after* the aircraft has become airborne.

The right-most depiction in the previous figure shows the best authority gradient, where the captain is recognized by all as the decision-maker on the crew, but where subordinates feel invited to participate in the decision-making process. While making effective decisions, the captain is also making the first officer feel comfortable to voice opinions and input about the flight or situations of the flight.

A completely different situation is depicted in the following figure. A negative TAG occurs when the captain is still the designated leader but is no longer the functional leader of a crew. **When negative TAGs are present, another crewmember exerts more influence on the decisions that are being made.** Negative TAGs create very dangerous situations since the individual who is vested with official authority, as recognized by regulations and the operating organization, ceases to be the individual who is exerting authority.



Negative TAGs have led to several notorious accidents, such as the runway collision between a DC-9 and B-727 at Detroit in 1990. Negative TAGs are also known as “reverse” or “inverted” TAGs. Such gradients can occur when a highly confident and experienced first officer is paired with a less confident captain.

For example, a captain may recently have trained to fly a different model aircraft and may be paired with a first officer who has thousands of hours of flight time in the model. Such a pairing may create the correct perception of increased competence in the first officer during the technical operation of the aircraft, such as when dealing with cockpit automation, which then may foster greater perceived authority in the first officer, but only if the captain and first officer allow such a perception to develop and continue unchecked.

It is a professional responsibility of all crewmembers to be aware of the TAG and to attempt to manage the TAG. If a captain notices an overly assertive first officer who starts making decisions about the flight unilaterally, action should be taken to re-establish the TAG. Sometimes all that is required to flip a negative TAG back to a positive slope is a gentle reminder by the captain to the crewmember that input is invited but the decision rests with the captain. Likewise, subordinates must be mindful that their level of confidence and assertiveness does not take away from the captain’s ability to make decisions.

As an example, imagine a charter flight where a captain new to a model aircraft is flying to a wintry location where deicing and anti-icing of the aircraft is required prior to departure. If the captain is paired with a first officer who has been flying the model aircraft for numerous

years in northern climates, it would be wise for the captain to make use of the first officer's experience dealing with cold weather operations. The captain in such a situation should invite first officer comments, however, the captain should be cognizant of the possibility that the TAG may flip from a positive to a negative slope. A tendency to relinquish the decision-making to the first officer would result in a negative TAG.

It may be tempting for the captain in the scenario to say, *"Take care of everything with the deicing...you know what you are doing much more than I do."* Instead, the captain could solicit input and then say, *"That sounds like a good plan, thanks for your input, let's proceed as you suggested."* If the captain does not assert the proper TAG, then the first officer should attempt to correct the TAG by stating something to the effect of, *"Captain, do you approve of my suggested plan and should I coordinate accordingly with the deicing agent?"* In so doing, the first officer has reminded both the captain and him or herself of the dangers of a negative TAG developing and continuing into the future.

At first glance it may seem that a negative TAG for a given circumstance is relatively harmless. The problem comes when the precedent of a negative TAG is set and left uncorrected. The possibility of future negative TAGs during the flight increases. With each occurrence, negative TAGs may lead the captain deeper into a psychological state where he or she stops actively processing information required for decision-making. Essentially, a **negative TAG sets up a state of cockpit complacency** and should be remedied as soon as possible.



This picture shows a full-bird colonel acting as a navigator on an Air Force C-130. Imagine a situation where a junior-rank C-130 aircraft commander is flying with the pictured colonel acting as the designated navigator. Such a situation would present a high potential for the creation of a negative TAG, especially when making decisions about navigating the aircraft.

ACTIONS OF CAPABLE LEADERS

In many ways, the pilot-in-command (PIC) of an aircraft, whether called a "captain" in civilian aviation or an "aircraft commander" in military aviation, is the chief executive officer (CEO) of the aircraft. Just as a CEO is responsible for the well-being of employees, satisfaction of customers, financial health of a company, and ethical decision-making, so too is the PIC responsible for all that regards a given flight when he or she is in command. Passengers, cargo customers, cabin crewmembers, and other pilots on the crew all view the PIC as essentially performing the same duties as a CEO.

For example, if a cabin crewmember spills a drink on a passenger and the passenger complains to the captain after the flight, it would be inexcusable for the captain to stare back at the complaining passenger and say, "*Why are you talking to me? I just work here.*" **In the eyes of the irate passenger, the captain is the senior representative of the company at that moment and should take responsibility for what has happened.** Some companies go so far as to dictate just what a captain has authority to do to compensate passengers for inconveniences in such circumstances.

Although it used to be a somewhat common occurrence, the grueling financial pressures of airline operations today often curtail the captain from responding to passenger inconveniences and minor problems by offering free drinks, frequent flyer miles, or complementary upgrades. It is amazing how much goodwill such treatment by the captain can generate in an otherwise volatile circumstance where passengers perceive the company has let them down.

The following section contains a list of what this author believes are **the top 10 actions exhibited by capable leaders** in any industry, and has a direct bearing on aircraft captains. Although adjustments may have to be made to any list of actions by capable leaders in order to deal with particular circumstances, the list is a useful guide for actions that have a history of proving useful for leading flight crews.

Leader Action # 1 – Set the Stage for Excellence

When the captain first meets the crew, he or she is meeting a group of individuals who may not be performing as a team. There is a difference between a group and a team. As the crew is meeting each other and preparing to perform their assigned duties, they are relying on the individual contributions of each member for performance and may lack a sense of mutual accountability.

Transitioning to a team mindset of shared accountability may require a leap of faith on behalf of some crewmembers. An effective captain can commence the process of team-building by explaining the challenges that will likely be faced during the flight and by depicting how open communication and shared input into the decision-making process can overcome those obstacles.

Captains must recognize the importance of first impressions. The **first few minutes when a captain meets his or her crew are paramount for setting the proper tone for the flight.** It may come as a surprise to the reader that the teamwork exhibited during a flight is directly related to the captain's actions during those first few moments. However, research has shown that the actions performed by a captain during those first few minutes of his or her leadership when meeting a crew is an accurate predictor of overall crew performance later during the flight.¹⁹



The captain must create a sense of mutual accountability when first meeting a subordinate.

One should not imply that the captain's actions during the initial meeting magically transform the crew into a team, but that the behavior exhibited by a captain at that time will undoubtedly continue to be performed throughout the crew's trip; thus continuously reinforcing the shared accountability mindset of the crew during the different legs of the trip.

Forging a team out of a crew is directly related to the type of work climate the captain creates. It is the responsibility of any leader to be aware of what the work climate is for her or his employees and to actively work towards creating a pleasant work climate. In such climates, people are more willing to volunteer information and contribute to the overall work processes. Specifically, comfortable work climates are conducive to crewmembers being able to predict the needs of each other and to them taking the initiative to coordinate actions when they perceive that there may be a need for such coordination.²⁰



Captains use influence to form a team out of a crew.

One critical method for encouraging mutual accountability is for the captain to exhibit humility. Some captains actually see their role, and the role of any leader, as that of serving the subordinates. Such a concept of “servant leadership” is actually several thousand years old with its roots in Chinese and Indian philosophies and center on the principle of taking care of a task by looking after the welfare of those who work on the task. The concept is sometimes heard expressed as, “*Take care of your people and your people will take care of the customer.*” From a teambuilding perspective, captains who adopt a servant leadership mindset also must display humility by quickly taking responsibility for failures of the crew.

Part of being a humble captain is recognizing the very human tendency to err and openly acknowledging our own personal vulnerability to error so as to encourage the free-flow of crew communication to catch and correct such errors. Unfortunately, it is a common tendency among weaker captains to view any display of vulnerability as a threat to his or her authority. Such captains can fall into the trap of developing a “blame redirection” reflex, which of course is completely contrary to team-building.

One captain this author has met makes it a point to continuously remind himself of the need for humility by placing a quote from Captain Edward Smith prominently in a binder that he frequently references during flight. Edward Smith was the Captain of Titanic when it sunk in 1912. The quote came from five years before the Titanic sunk, which makes the quote a true testament to the power of complacency:

When anyone asks how I can best describe my experience in nearly 40 years at sea, I merely say, uneventful. Of course there have been winter gales, and storms and fog the like, but in all my experience, I have never been in any accident of any sort worth speaking about. I never saw a wreck and never have been wrecked, nor was I ever in any predicament that threatened to end in disaster of any sort. I cannot imagine any condition which would cause a ship to founder. I cannot conceive of any vital disaster happening to this vessel. Modern ship building has gone beyond that.



Set the tone early and it will pay dividends throughout the rest of the flight.

A key way to create a pleasant working environment that fosters free communication and coordination initiative is to **create a climate of mutual respect among the crew**. Such a climate can be established when the captain introduces her or himself to the crew. In many Western cultures, a firm handshake and positive eye contact show a sincere desire to meet a person. By asking how each crewmember is doing and inquiring about their background, respect and interest can be shown.

However, respect can only be shown in credible fashion if the captain actually listens to what the crewmembers are saying during the introduction. A concerted effort must be made to remember each crewmember's name. Each crewmember should be made to feel valued and a statement should be made by the captain which solicits and respects input from crewmembers during the initial meeting.



Remembering someone's name is the initial basis for showing respect and appreciation. Write the name down if you have to, but remember it.

The German poet and renaissance man, Johann Wolfgang von Goethe (1749-1832) once wrote, *"If you treat an individual as he is, he will stay as he is, but if you treat him as if he were what he ought to be and could be, then he will become what he ought to be and what he could be."* Such a philosophy can be used to establish a climate of respect among the crew in order to foster team-building. Captains should consider treating new subordinates as though they are dealing with efficient and highly professional coworkers. However, such an approach must be backed-up through supervision and may have to be altered if a deficiency is noted in the subordinate's performance.

During the first meeting with the crew, captains often elect to perform **the first and possibly most important of all briefings: the CRM Briefing. This briefing sets the tone for the flight, asserts the captain's authority, and opens the lines of communication for all other briefings and crew coordination activities.** An old aviation saying about captains who skip this briefing states that, *"By not setting the tone, you have set the tone."* That is why this key event can aptly be termed the "CRM Briefing."

The CRM Briefing should take place at the start of every day or whenever new crewmembers join the flight and can be accomplished at any time prior to commencing crew duties. It should be briefed by the captain and should strive to cover the briefing items that are general to the flight or series of flights that the crew is scheduled to fly. The briefing should cover performance expectations, preview expected challenges, and set realistic goals for individual crewmembers, for the captain, and for the crew as a whole.

It should be noted that some training providers never mention the need for a specific CRM Briefing, focusing exclusively on technical briefings that occur prior to takeoff, approach, or during emergencies. Many captains prefer different means of “setting the tone” prior to a flight and may not perform a formal CRM Briefing. Since the CRM Briefing is primarily focused on promoting crewmember assertiveness by encouraging communication, at the very least, such a briefing should consist of a sincere and explicit expression of the captain’s desire for crewmembers to communicate anything unusual or uncomfortable situations.

One useful statement that can be made by captains during the CRM Briefing is, *“I fly by the book. If I deviate from SOPs it isn’t intentional...let me know.”* Others may state, *“We have a social contract to communicate with each other immediately if anything makes us uncomfortable. Do you agree to this contract?”* CRM Briefings can be extensive, serving as a reminder of key SOP coordination items during possible emergencies and reminding crewmembers that adherence to the Sterile Cockpit Rule should not impede safety-related communication.

The captain may use the CRM Briefing to remind cockpit crewmembers of the need to always have a pilot dedicated to fly the aircraft, especially during emergencies. If a special problem-solving model will be used during the flight, the model can be briefed at this time. Other possible items for the briefing include **a quick run-through of recent system problems** being encountered in the fleet, recent safety-alert messages concerning operational practices (such as messages from flight operations quality assurance programs and aviation safety action programs), and coordination items regarding engine problems, birdstrikes, windshear encounters, or EGPWS alerts.

The CRM Briefing may also include specific “protected vocabulary,” which are special action terms that command an immediate course of action. Examples of **protected vocabulary** may be terms such as, *“Go Around,” “Abort,” “Time-out,”* (cease and reassess), *“I am concerned,”* and in military flying terms such as *“Bailout”* (eject), *“Green Light”* (commence air-drop), *“Cleared hot”* (permission to employ weapons), *“Repeat”* (fire again on target), and *“Knock-it-Off”* (cease and reassess). Such terms should be protected at all times, meaning that they should not be used during normal situations, since using the term implies immediate action. For example, a captain may brief rejected takeoff procedures by using the term “reject” while leaving the term “abort” protected for use exclusively to initiate the rejected takeoff procedure.

A short CRM Briefing only requires about 10 seconds of time and a more elaborate CRM Briefing may take a few minutes. When is a busy captain going to find a few minutes to perform the briefing? For those operations where time is allotted for formal pre-briefings, such as is found in military flying, airline functional check flights, light aircraft instructional flights, and checkrides, an opportunity for a CRM Briefing is readily found.

During other operations that often lack a structured time for pre-briefing, such as when a captain meets a new crew in the middle of an airline trip, the briefing can occur as the crew rides the hotel bus to the airport, or as the crew walks across the ramp to the aircraft, or while waiting for a gate agent to unlock an access door, or as soon as the crew is aboard the aircraft but prior to passenger boarding or cargo loading. Regardless of where and when the CRM Briefing is conducted, captains should **ensure that the other crewmembers can pay attention to what is being said and should not rush the briefing, since an unhurried briefing sets the tone as much as what is actually being said during the briefing.**



If you do *not* set the tone, you *have* set the tone.

A formal and lengthy CRM Briefing may not be practical when dealing with some support personnel. For example, a captain's attempt to deliver a formal CRM Briefing to a ramp agent who is servicing the aircraft will not be pleasantly received and may in fact set a tone of arrogance when just the opposite tone is desired. At the very least, however, the captain can convey to key support personnel an willingness to receive opinions and to answer questions.

For example, the proper tone can be set prior to deicing and anti-icing an aircraft by having the captain approach a deicing agent with a smile and quickly stating, *"Thanks for helping us out...please don't hesitate to ask me if you have any questions or comments."* Such a quick invitation to communicate may make the difference between the deicing agent voicing a concern or a question about something he or she notices on your aircraft or keeping silent about the item. Remember **that by not actively setting a tone prior to an operation, a tone of indifference may be set by default.**

The critical nature of tone-setting comes through loud-and-clear in the words of 2nd Lieutenant Steve Maro of the U.S. Marine Corps, regarding a key leadership moment he had in 2008:

I think specifically the one factor I recall the most regarding leadership at the Marine Corps' Basic School is setting that tone of an open and welcome atmosphere and appearing calm in all situations. I remember during a combat drill we had, I was in a squad with a sergeant in charge. We had to complete a variety of tasks and upon a failure, or if the instructor deemed we weren't up to a specific standard, we'd have to start over.

The sergeant's tone was very excited with a raised pitch that allowed for frustrations among the group. I remember finally stopping the group after the 4th failure and told the sergeant to relax and everybody to relax in a calm voice and figure out a plan before making the 5th attempt, and stressed that it was important for everybody to be relaxed. Soon after that I saw our success rate increase, team work increase, and I got called "sir" a lot more (ha ha).

People criticize John Stevens, head coach of the Philadelphia Flyers, for being an extremely calm person behind the bench. After the quarterfinals loss in the playoffs, some said Coach Stevens should be more active back there. He too responded with "A nervous coach makes for a nervous captain which makes for a nervous team". Most people I imagine cannot appreciate this unless they've been in similar situations.



“After the fourth failure, I stopped and set the tone. Success followed!”

Captains can also set the tone for crew work by projecting enthusiasm for the flight that lies ahead and by explaining that the flight will be run in strict accordance with SOPs. Many captains invite participation in the decision-making process of the flight at this point by stating that they encourage input from the crew. Lines of communication can further be opened when a captain states that he or she also makes mistakes.



Active listening by supervisors is a key way to build a respectful and communicative work environment.

Now that the importance of the captain's first meeting with the crew has been stressed, it must be re-emphasized that actually having such a meeting and pursuing related team-building activities can sometimes prove challenging. Military flights have formal briefing times that mandate such meetings. Corporate crews sometimes operate as a single entity for days at a time. However, the airline industry often experiences operations where crewmembers join and leave a crew several times during a trip and even in a single day's worth of flying. Such a scheduling practice can make the team-building task of a captain seem impossible. For example, often cabin crewmembers report directly to the aircraft from home when called on reserve duty and may be replaced or augmented on very short notice.

In fact, in some rare cases captains may meet some of the cabin crewmembers for the first time *after* a flight, particularly on large aircraft that have half a dozen or more cabin crewmembers. Such a situation is frowned upon, particularly given the emphasis of the

Transportation Security Administration in the U.S. on captain accountability for crewmember identification, but such situations still happen. Because of such difficulties, some captains resort to performing a CRM briefing over the public address system on the aircraft after all the crew is onboard but before the passengers start to arrive. Such a workaround is far from optimal since the cabin crew will most likely be listening to the briefing while distracted with other duties, but it is better than nothing and can be a last-ditch technique employed in the frenetic and fluid pace of some airline operations.

Leader Action # 2 – Encourage Participation in Authority

From a CRM perspective, the captain's most important leadership task is to use the authority that has been given to him or her so as to influence mission accomplishment while simultaneously encouraging participation. Although such a process is typically discussed in the context of the captain's leadership, it applies equally to anyone on the crew who is in a position of leadership.

When the captain is away from the aircraft, the first officer will use the captain's delegated authority to resolve issues that are brought up by cabin crewmembers, ramp agents, customer service personnel, or other company representatives. **In the absence of the captain, the first officer is viewed as the senior company representative on the aircraft and will be treated as such.**

In similar fashion, the chief cabin crewmember becomes the lead company representative when all cockpit crewmembers are absent. Regardless of whether a cockpit crewmember or chief cabin crewmember is exerting authority, each must be aware that participation of other crewmembers must be encouraged when making decisions. For example, if an airline captain is performing the exterior inspection of the aircraft and the customer service agent calls the first officer from the gate and requests to commence boarding passengers, the first officer may have the authority to approve the boarding.

However, such authority would be used irresponsibly if the chief cabin crewmember is not allowed to participate in the decision. Even if it is obvious to the first officer that the cabin crewmembers are ready to receive passengers, it shows respect to request input from the cabin crewmember prior to making the decision. By showing such respect, the first officer would help set a tone that encourages future open communication.

The captain should start exhibiting the concept of *authority with participation* during the first few moments spent with the crew. **As part of the initial CRM briefing, the captain should request input on specific decisions that must be made for the flight and should open up for questions.** For example, if weather is approaching the field and the captain plans to leave a few minutes early to beat the weather, the captain may brief such a proposed plan to the crew and then ask, "*What problems do you see with us leaving early?*" Notice that the question is phrased so as to encourage input. Do not phrase the question as, "*Does anyone have a problem with leaving early?*" The latter phrasing actually can discourage comments from crewmembers who take pride in mission accomplishment. Avoid questions that imply a preference, such as, "*Any problems with that?*" since they tell everyone the answer that the captain wants to hear and can stymie dissenting opinion.

The leader who wants an honest opinion from subordinates never supplies an opinion or a preferred answer as part of a question. A range of options can also be presented by the captain in order to stimulate responses by reluctant crewmembers. As a last resort, the captain can ask each crewmember to voice an opinion, perhaps starting by asking the most junior crewmember first. Once the input is received, the captain should make a decision and then explain the reasons why the option was chosen.

Even if little input is received from subordinates, requesting comments on a specific issue helps set the tone for participation and open communication. Imagine how much potential input is lost by captains who never brief the crew prior to a flight in order to encourage contributions. Imagine the tremendous statement that is implicitly being made by such a silent captain. It should be noted that, at all times, the captain retains the final authority and accountability for the decisions that are made. By actively soliciting and assessing the different considerations regarding a situation, the captain can become aware of nuances that were previously obscured and the result will be higher quality decision-making.

During the preflight planning process, the captain sets the tone for authority with participation by asking the first officer, flight engineer, or jumpseat pilot for input with regards to the planned route of flight, cruising altitude, weather, NOTAMS, and maintenance issues. **If the captain disagrees with any input that is received, the reasons for the final decision should be explained while simultaneously thanking the crewmembers for their input and encouraging them to voice their opinions in the future.** By encouraging participation, the captain works to maintain open lines of communication. The process is continuous and must remain at the forefront of all actions performed by the captain.



She may have critical information for you. Have you encouraged her input?

Authority with participation can be summed up by saying that when we forget to include or shut out a crewmember from the decision-making process, either by not caring about their input or by ignoring their potential for contribution, we cripple the team-building process. Such a situation has been described as analogous to placing the player of a hockey team in the penalty box. That player is no longer able to score goals on offense or prevent goals on defense. The situation is worse, however, because often a captain does not realize that he or she has lost the input from a valuable crewmember. In accidents it has been shown that **it is often the quiet person on the crew who could have saved the day but that individual did not speak up because he or she was never encouraged by the captain to provide input.**

Leader Action # 3 – Strive to Create New Leaders

The Wall Street Journal recently ranked Gary Hamel as the world's most influential business thinker. Hamel is on record as stating that the most essential work of a leader is to create more leaders. Hamel reasons that, *“Leadership is not defined by the exercise of power but by the capacity to increase the sense of power among those who are led.”*²¹ Hamel's thoughts

hold profound implications and point to the role of **aircraft captains as leadership instructors**.

What is the relationship between leadership and instruction? Are such sentiments compatible? Are there leadership positions in life where instruction is not a responsibility of the position? Previously this paper referred to the famous saying in aviation that each copilot is a potential captain in training. What role must the captain take in producing such training?

Many flight departments are aware that each first officer may be a captain in training, but such sentiments do not always translate into initiatives to develop *leadership skills* in first officers. Training sometimes only extends to technical matters with comments such as, “*You need to learn the typical malfunctions of the pressurization system so that you know what to do when you are captain.*” Although such a statement is commonly uttered in professional cockpits, it is certainly short-sighted in that the first officer should know how to handle emergencies *before* becoming a captain. Yet an even larger issue emerges here. The training that a first officer receives in preparation for upgrade should not just consist of technical aspects of troubleshooting and decision making, but of the leadership aspects as well.



This captain may be quizzing the first officer on checklist items for a pressurization problem, but how about also discussing leadership concerns associated with the problem?

Some captains take an active role in the development of leadership skills in first officers. Captains may allow first officers who are taking a turn at being the Pilot Flying to also make the decisions concerning the flight, under the close oversight of the captain. Such an exercise helps develop the leadership skills of the first officer, although it cannot achieve full learning potential for several reasons. The first officer in such “leadership simulations” always knows that a safety net exists in the form of the captain. Furthermore, one of the primary tenets of CRM leadership is encouraging participation in the captain’s authority; and such a tenet becomes a strained construct in leadership simulations since it would naturally require the first officer to encourage participation from the captain who is intentionally trying not to participate. Regardless, such “leadership simulations” during a flight are better than no attempt at developing the leadership skills of a first officer.

Other captains take a more structured and active approach for developing first officer leadership skills. They may verbally voice their thoughts regarding leadership in situations

being faced so that the first officer can hear different considerations. They may go so far as to create situational scenarios and ask the first officer about leadership considerations in such circumstances. A typical moment for such an initiative may be the cruise phase of flight when a captain asks the first officer if he or she wishes to discuss leadership and then poses a scenario to the first officer.

For example, the captain may present the following situation: *“You are the captain on this very same flight and notice at our destination that a gate agent says something insulting to a cabin crewmember. What would you do?”* After the scenario is posed the first officer can be invited to produce different leadership options which are then compared to the captain’s ideas on the same topic.

In similar fashion, captains may take advantage of real-life situations and query the first officers not just for technical input, but also for leadership input. For example, a captain facing a delayed departure due to maintenance action may turn to the first officer and ask, *“What are some technical and leadership considerations in this scenario?”* After a brief discussion, the captain can provide further insight before taking the agreed upon action. The captain may expose the finer aspects of coordinating and communicating the maintenance delay with the gate agent, cabin crew, ramp agents, dispatcher, ATC, and passengers.



Decisions present captains with opportunities to develop first officer leadership.

A very interesting discussion could entail not just *what* should be communicated and to *whom*, but the tone and method with which the information should be communicated to each stakeholder. Of course, a captain should only perform such instruction if it is permitted by SOP and should retain the humility to know that he or she is also always learning. An astute captain will use such exercises to also hone her or his own leadership skills, perhaps going as far as to share precisely what they themselves learned during the exercise in order to further enhance the first officer’s leadership skills.

At this point we must acknowledge that not all first officers are destined to become captains. Some first officers in seniority-based management systems are happy with having accrued sufficient seniority to bid excellent schedules while not being weighed down with the burden of command. Such pilots may spend most of their careers with little ambition to upgrade into the left seat. A captain may choose not to actively mentor such first officers in the finer points of leadership and should certainly not force such mentoring on the first officer.

That having been said, the first officer should be cognizant that he or she is also in a leadership position by virtue of carrying the captain's authority when it is delegated, such as when the first officer interfaces with cabin crewmembers and ramp agents on behalf of the captain.

Perhaps the lesson that can be taken from all this is that **many subordinates will end up as designated leaders and will learn how to be leaders from their captains, whether the captain makes an active attempt to mentor them or not.** In that sense, we are once again faced with the fact that the captain sets a tone for others, whether such a tone is deliberately set or not.

Incidentally, this author is sometimes surprised to hear novice pilots voice their wish to be captains while at the same time stating their disinterest in being light aircraft flight instructors. Often such pilots weigh the benefits of becoming a flight instructor as a step on the road to being an airline or corporate pilot and decide instructing has nothing to contribute to their professional development.



Novice pilots sometimes think, *"I don't want to be an instructor, I just want to be a captain."* But what is a captain, if not an instructor of future captains?

Those pilots who are tempted to bypass becoming an instructor usually allude to their distaste for teaching as a reason for not becoming instructors. They desire to skip being a flight instructor and feel that being a first officer is sufficient training to become a captain. They see no value in flight instructing and certainly make no correlation between instructional skills and captain leadership skills. Curiously, even some active flight instructors have never considered themselves to be leaders of learning, although that is precisely what their position entails.

Flight instructors, whether designated as such or exerting instruction as a mentor, help develop their leadership skills whenever they teach. Effective instructors must create an intellectually safe cockpit in order to promote student thinking and voicing of opinion. Capable instructors may capitalize on student mistakes by requesting the erring student to divulge the logic behind how she or he arrived at their assertion. Doing so creates a safe environment for students to take risks and make mistakes, incorporating the process integrally into the learning that occurs in the course.²² Such processes are akin to those used by captains to create a proper working climate which explains why instructing is a form of leadership.

Further proof of the relationship between instructing and leadership involves motivation. Each student possesses two primary sources of motivation that prompts the learning of concepts exposed by an instructor. The first source consists of the personal expectations of performance outcomes, such as the expected score for a certain amount of effort. The second motivation stems from self-efficacy, or a student's desire to improve his or her capability and competence in mastering the course material.²³

Every individual has an innate yearning to become competent in dealing with his or her environment; a motivation which stems from grasping the perceived benefits of becoming competent. In fact, students measure their attainment of competence by matching their efficacy beliefs to the demands of a particular course and from what will be expected of their performance.²⁴

By providing students with a clear depiction of an instructor's expectations for performance during a flight, instructors allow students to gauge how their competence will have to develop in order to be successful as a pilot. The issue parallels the need for a captain to accurately depict performance and professionalism expectations prior to a flight.



Flight instructors develop leadership skills by directing student learning.

Flight instructors are thus leaders of learning. Every moment spent instructing a student is a moment spent developing leadership skills and preparing to be a captain of an air transport category aircraft. Creating an intellectually safe cockpit is the same skill that enables creating a pleasant working climate conducive to effective communication, setting performance expectations works the same for operational flights as for instructional settings, and promoting self-efficacy and internal motivation for excellence is a great way to extract peak personal performance from a crewmember as well as from a student.

Leader Action # 4 – Lead by Example

A captain should always strive to set the example for the crew and for other company employees who may not be on the immediate crew. Depth of commitment to the company and

to the particular flight can be exemplified by going beyond the work that is expected of the captain. Some would even advocate that captains lend a hand to ramp agents when they are falling behind on bag-loading or with cabin crewmembers or cleaning crews who need help preparing the cabin. However, such practices are fraught with controversy from the perspective of pilot unions, can distract pilots from higher priority cockpit workload, and may incur the risk of injury for performing tasks that one has not been trained to do.

Leading by example means that the captain should be an enthusiastic champion of the mission and should try to motivate his or her crew to excel in meeting the mission objectives. It also means that captains should readily acknowledge mistakes instead of constantly working to protect personal image or ego. The captain should always follow-through on what he or she previously agreed to accomplish and should be quick to accept responsibility for any shortcomings of the crew while striving to make corrections.

At times the cockpit environment can create a sense of psychological isolation from the events that happen in the cabin. Make no mistake, though, the passengers clearly see the captain as the representative of the company on the aircraft. As such, captains must always be aware of the symbolic status that they play. They are their company's ambassador and lead customer service representative aboard the aircraft.



Everything a captain does influences crew behavior.

Captains who are true students of leadership will **view unpleasant situations faced by their crewmembers as excellent opportunities to lead by example**. As distasteful as such a concept may be for senior captains, the tone set by stepping up to accomplish those tasks that other crewmembers dread is loud and clear. It shows that the captain will not just *talk the talk*, but will *walk the walk*, as the expression says.



In some airline operations the first officer is tasked with performing the external inspection of the aircraft prior to departure. This author used to be based in the northern U.S. where winter exterior inspections often expose the first officer to bitter wind chills. It was humorously common during the winter months to have the captain volunteer to perform the exterior inspection during quick-turns in warm and sunny south Florida, while letting the first officer perform the wintry inspections up north. On one occasion, this author witnessed a captain volunteer to perform the inspection during a blizzard in New York. It caused a tremendous impression and demonstrated an amazing desire by the captain to lead by example.



Another means for captains to lead by example is when it comes to self-improvement. The U.S. Army Leadership Field Manual cautions readers to *“Never get so caught up in*

cutting wood that you forget to sharpen your ax."²⁵ Since it is impossible to learn every aspect of leadership, it stands to reason that captains should constantly seek further knowledge on the topic. Furthermore, a crewmember who notices a captain pursuing self-improvement will take note of what the captain values. Ways for captains to “sharpen their ax” include **keeping a notebook with leadership lessons learned while flying**, reading books about leadership, and talking about leadership challenges openly with other crewmembers, fellow captains, the chief pilot, and personal mentors.



Set the example for others. Take self-improvement notes.

At the completion of a flight, a captain truly wanting to enhance his or her leadership skills may take a few moments to solicit comments from crewmembers. A vague request for feedback may not elicit many comments, but specific questions may provide interesting insights. Consider using the ten actions of effective leaders discussed in this paper as a way to garner input. Ask your crew the following questions and probe for *detailed examples* of when you achieved your desired outcome, when you did not, and how you could improve in each action:

1. How did I set the stage for excellence?
2. How did I encourage participation in authority?
3. How did I encourage you to grow as a leader?
4. How did I lead by example?
5. How did I actively listen to what you were telling me?
6. How did I efficiently manage our resources and crewmember performance?
7. How did I take care of the crew?
8. How did I create a team out of our crew?
9. How did I delegate authority while retaining responsibility?
10. How did I make ethical decisions?

If the type of flying performed is not conducive to such debriefing sessions after trips, such as those associated with scheduled airline operations, then perhaps time can be taken during a low workload period in the cruise portion of the last leg of a trip to garner such input. Naturally, by reviewing the captain’s performance on the ten leadership actions, subordinates are also learning about leadership. That is particularly true if the captain manages to solicit input on how each of the actions could have been performed better.

Leader Action # 5 – Listen!

One of the most important and difficult elements of leadership is promoting accurate and free communication. A key means for promoting such communication is developing listening skills. Knowing when and what to communicate means knowing when to listen versus when to speak. It also means actively listening to what others are saying while consciously attempting not to filter or block the message that is being broadcast. When asked to define listening, two-time Pulitzer Prize winner David McCullough said, **“Listening means asking good questions and taking in what people have to say. Listening also means hearing what people are not saying. What’s bugging them?”**²⁶

A leader has the obligation to communicate performance expectations clearly and with full candor. For example, before a captain assigns a task, he or she must make sure that the person the task is assigned to has the ability to perform the task. Then, the captain must ensure that he or she **provides a clear explanation of why the task needs to be accomplished, how to accomplish the task, and what the performance expectations are.** For routine tasks in operating an aircraft, subordinate preparation and performance expectations are already taken care of by training and are described in SOPs. However, any task out of the routine must be carefully treated by the captain.

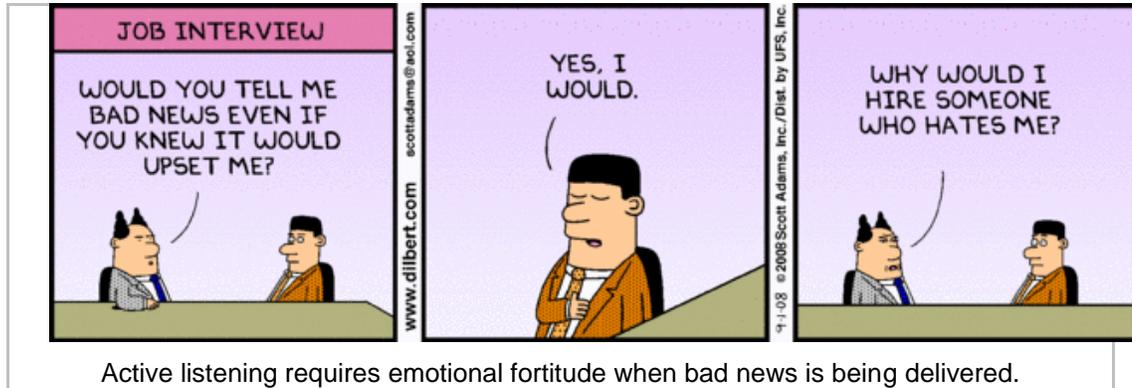
For example, if an airline crew is flying a charter flight and the captain asks the first officer to perform a weight-and-balance calculation for the aircraft’s loading, special leadership must be provided by the captain. Since the calculation usually falls under the purview of the dispatcher, the captain must make sure to explain to the first officer why the calculation must be performed and express the expectations for the process.



A leader must communicate *why* tasks need to be performed, *how* they will be accomplished, and performance expectations.

Communication also requires that the captain be open to criticism about his or her performance and even solicit feedback in hopes of continuously improving performance.

Hopefully other crewmembers will be respectful in how they convey criticism and will do so in private. Regardless of how respectful the criticism is, the captain must actively listen to what is being said instead of focusing on who is saying it and on how the contents are being delivered.



One of the key reasons for the inception of CRM during the late 1970s and early 1980s was the realization by accident investigators that crewmembers in aircraft mishaps had critical information that could have prevented the disaster, but did not speak up, or spoke up but the captain did not listen. The history of flight mishaps is full of examples when a leader could have actively encouraged the flow of critical information or could have listened to information, but did not, and paid a steep price.

For example, in 1977 the first officer and flight engineer aboard a KLM B-747 departing Tenerife knew that takeoff clearance had not been given yet were unable to communicate their concern to the captain, resulting in 583 fatalities. In 1978 a United Airlines DC-8 crashed due to fuel exhaustion near Portland partly because the first officer and flight engineer knew of the rapidly diminishing fuel state but did not convey the notion to the captain. In 1982 the first officer on an Air Florida B-737 was unable to communicate a concern over inadequate acceleration to the captain, resulting in the aircraft crashing into the 14th Street Bridge spanning the Potomac River in Washington, D.C.

There are many more examples. In 1986 a junior engineer was unable to effectively communicate a concern over launching in low temperatures to the decision-makers at NASA and the Space Shuttle Challenger was lost. In 1989 British Midlands cabin crewmembers did not question a captain's statement about which engine was shut down on a B-737 experiencing an engine fire, resulting in complete loss of power and a crash short of the runway. In 1995 a Northwest DC-10 landed at Brussels instead of Frankfurt, by mistake, even though the cabin crewmembers knew that the aircraft was heading to the wrong destination.

The list of mishaps that could have been prevented by subordinate assertiveness is shockingly long. There is a direct relationship between lack of assertiveness and the tone that is set by a captain to promote such communication. One critical lesson learned during the past three decades of CRM development is that sometimes the quiet member of your crew holds the answer to a vexing problem. One of the resulting CRM mantras is, **"Invigorate the quiet voices!"**²⁷ There is a CRM stereotype that the quiet voices usually belong to junior crewmembers, but that is not always the case. For example, a senior cabin crewmember may object to something but choose not to voice the concern in order to uphold the appearance of being a team player in front of the more junior cabin crewmembers.

The encouragement of subordinate assertiveness by Captain Jean-Luc Picard, a fictional character of the television series, *Star Trek: The Next Generation*, is often used in CRM courses to illustrate how encouraging participation in authority should not result in the

diminution of captain's authority. **The lack of a crewmember's assertiveness does not relieve the captain of the responsibility to solicit input. Similarly, a captain's lack of encouragement to provide input does not relieve a subordinate of the need to be assertive.**



Captain Picard (center) encouraged participation in his authority.

This author remembers a C-141 mission when a quiet voice was invigorated and the result completely changed the planned flight. During a mission to transport cargo from Thailand to Japan, unforecast weather developed over the Pacific Ocean and required an extensive rerouting and change to the fuel plan with a significant increase to an already very long crew-duty period.

A new plan was developed between the aircraft commander and mission supervisors that seemed workable, although there had not been time to analyze all the possible nuances of the new plan. The three pilots of the mission all agreed that the new plan was the proper course of action. An impromptu crew meeting was held, at which time the aircraft commander presented the plan to the crew.

After the presentation, the crew was asked what problems they saw in the plan. A short discussion ensued during which some of the elements of the plan were elucidated, but no crewmembers voiced outright objection to the proposed plan. The aircraft commander noticed that one crewmember, a very senior flight engineer who was also a Vietnam War Veteran, had kept surprisingly quiet during the discussion. In an attempt to invigorate the quiet voice of the flight engineer, the aircraft commander singled out the engineer and asked him directly what he thought of the plan.

After a short pause, the flight engineer's response was direct and gruff. He said, "*You know, sir, this new plan is fine and all, but there is a difference between leaning forward and bending over.*" Wow! The flight engineer had succinctly conveyed, in ways few could, how we were cutting too many corners and pushing the limits of safety to make a somewhat unimportant mission happen on time. As a result, the flight was postponed until the next day when the mission proceeded smoothly and without incident on the original plan.

Leader Action # 6 – Manage Resources and Performance

Continuing with the discussion of the captain as the leader of a crew, it should be mentioned that a key aspect of leadership is knowing how to distribute and manage workload effectively. Some would consider delegation a topic more germane to a discussion on management versus leadership, but as has been stated, captains must be both leaders and managers of a crew.

Much of the organizing scheme for workload in aviation is already stipulated as part of SOPs. However, the SOPs often provide leniency or ambiguity regarding *how* the workload is performed and *who* should perform the work. When such latitude is provided, the captain must step in to establish what tasks should be done, when the work should be accomplished, who will perform the tasks, and the expectations for completion.

For example, it is common for SOPs to provide a list of tasks that should occur in the cockpit prior to departure, such as properly setting up the automation and performing different system checks, but the SOPs sometimes do not state *who* should perform these tasks. In such situations, an effective captain will **explain *who will accomplish what tasks prior to the pilots showing up at the aircraft, so there is no confusion regarding how the tasks will be accomplished.***

If a crewmember's performance is significantly below expectations, the leader should address the shortfall immediately, tactfully, honestly, and privately. **It may prove tempting to avoid commenting on inadequate performance in hopes of avoiding interpersonal conflict or damaging someone's feelings, but there is a professional obligation to correct** significant one-time substandard behavior or continuous poor performance in a given area. We are not referring to minor mistakes or one-time deviations, or even to mistakes where an individual catches the mistake and is actively working to correct the situation. A leader may deem such circumstances to be unworthy of mention, lest the other crewmember feel they are being picked on or overly scrutinized. We are referring to important breaches of SOPs or to significant departures from accepted behavior. Of course, knowing what circumstances require feedback is part of that intangible quality of leadership...the art of leadership. Similarly, not just when, but how a leader intervenes is critical to sustaining a positive working atmosphere. A leader's tone of voice can make a great impact in terms of how the feedback is received by the erring crewmember. Remember that the objective of CRM is not crew harmony, it is safety and efficiency of a flight. Hopefully, however, such objectives are achieved harmoniously.

Good performance should be complimented, but not excessively. The art of leadership lies in knowing what to compliment and how often to do so in order to prevent the devaluation of the compliments. When positive feedback is provided, it should address the specific behavior that was noticed and should explain why the behavior was important. General feedback through expressions such as, "*good job*" or "*try to do better,*" are far less effective than specific comments such as, "*You transitioned from the crab to wing-low very smoothly and at the perfect moment during that crosswind landing*" or "*Next time try transitioning to wing-low in a slower and more controlled fashion.*"

Leader Action # 7 – Take Care of Followers

Since the captain is the CEO of the aircraft, it is incumbent on him or her to take care of those employees under his or her care. In today's aviation industry, some cabin crewmembers will not view themselves as working directly for the captain, but such a perspective does not change the fact that the captain is the ultimate supervisory authority onboard the aircraft. As such, the captain should always think about how to achieve the objectives of the flight while

being sensitive to the costs that reaching such objectives may impose on the crew. Similarly, the captain should make an effort to consider the special needs and circumstances of each crewmember.

A captain can show a desire to take care of followers by sincerely inquiring as to the well-being of crewmembers. By occasionally asking each crewmember how they are doing and requesting specific answers, versus a simple “O.K.,” a captain will show concern and may also detect impending problems with crew performance.

The first time the crew is exposed to such a line of questioning it may seem a bit awkward, but if the captain’s inquiries become habitual the crew will soon see the good intentions behind the questions. Opportune moments for such questions include the preflight briefing and during breaks between legs on a trip. For longer flights, checking on the status of crewmembers can occur during cruise flight. On long flights the inquiries may be performed in person whenever the captain makes a trip to the restroom.

If the crewmember answers the questions with a comment that shows his or her performance is degraded the captain can proffer advice or request assistance from other personnel or resources. If a concern is voiced, the captain should make it a point to follow up afterwards. For example, if a cabin crewmember mentions a headache, the captain may ask about hydration and nutrition or inquire if an aspirin has been taken. Then, ten to fifteen minutes later, the captain can call the cabin crewmember and inquire as to the status of the headache. Sincerely caring about crewmember well-being sends a strong message about mutual accountability and furthers the captain’s attempt to build and maintain a team out of a crew.

Many of the leadership tasks outlined in this paper can occur at the same time and in a fluid manner. Readers **are encouraged to view leadership actions as a guide to behavior that should be woven into how one lives the life of a captain.** For example, during the very long cruise portions of flights in the C-141, aircraft commanders would sometimes walk back to the cargo bay to inquire as to the status of the loadmasters in person. If the loadmasters had worked hard during the previous cargo upload, the inquiry as to how the loadmaster was feeling could be followed by a specific compliment about how the cargo was loaded. Such a comment could then be followed by asking the loadmaster for her or his opinion on how the mission was progressing, and then by asking the loadmaster to preview possible challenges when offloading the cargo at the destination.



Occasional inquiries as to how crewmembers are doing can provide immediate and unexpected insights as to the capability of a crew.

A perfect illustration of how caring for others can form an effective element of one's leadership style is expressed by a CRJ captain as follows:

You have to make an effort to get to know your people and let them get to know you in order for them to feel free to speak up to you. You have to act proactively to cut across those cultural boundaries and open up channels of communication. I routinely show up at the gate early so I can banter with the gate agents. I make it a point to speak with the rampers as I walk to the aircraft or while I am in the process of doing the walk-around (yes I still occasionally do the walk around as a captain). When we are waiting for traffic to clear behind us on the ramp so we can push back I exchange jokes with the tug driver. Sometimes I arrive at the gate with muffins from Starbucks for the gate personnel. I make it a point to know the names of the line mechanics and if I know a mechanic will still be at the aircraft on a call I made when I come back from the gate they sometimes get a muffin also.

The building of any relationship takes effort and this is true for building relationships with your flight team, be it the cabin cleaner or your first officer. While I felt pretty good about my team building skills with my flight crew, I was much less comfortable trying to bridge the education and professional gaps with other support personnel. Over time not only did I become comfortable with it, I became fascinated with it. Every one's life is a story – some more interesting than others and you never know what you might uncover. A conversation with the veteran gate agent who turned out was wounded in Desert Storm resulted in a mutual interest in long-range precision shooting. The female ramper working a summer job chucking bags between semesters turned out to be the daughter of a flight safety instructor working at a flight safety center run by a friend of mine. Another gate agent's sister worked right around the corner from the hospital department my wife runs and knew my wife. Making the effort to get to know these people and giving them an opportunity to know you as a person instead of a number has paid off time and time again - not so much in terms of safety "saves" but in the gaining of local knowledge, the willingness to make an extra effort on my part which results in gained efficiencies, and the simple willingness to extend common courtesies and considerations which reduces the operational "friction" and makes the operation general run smoother and with less surprises which in turn makes one's work day a much more pleasant experience.

So in order to ensure that your support personnel are more than willing to contribute their pieces to the situational awareness puzzle; you have to be willing to invest time and effort into your people and do it in a sincere manner. Quite simply it is more than the surface exercise of the CRM skills you learn in school – it's about exercising leadership and leadership is mostly about the business of treating others the way you want to be treated yourself. You want to be given the training, education, the information, the tools, the effective procedures necessary to do your job correctly. You want to be treated as a valued member of the team not a number or an appendage of the captain's reach. You want to contribute to the solution of the problem and you want your physical needs taken care of during the trip. You feel you have valuable insights, skills, and knowledge to contribute to the mission and you want a leader who establishes an atmosphere where you feel comfortable offering those knowledge-skills-and abilities. This is the challenge of the leader – to establish an atmosphere of teamwork where your team members self-actualize these inherent human needs on a professional level. This is not always an easy task.

A captain can also care for crewmembers by **creating professional and personal growth opportunities**. Here are some examples. If SOPs permit, a bored cabin crewmember on the empty-leg of a charter can experience tremendous professional learning if allowed to sit in the cockpit jumpseat for the flight. A mechanic can be invited to read the pilot guidance for dealing with a system malfunction after a repair has been completed. Once an article on flight meteorology has been read by a pilot, it can be handed to a dispatcher who may find it interesting. Check airmen who observe a new pilot fumbling a bit with a piece of cockpit automation may offer to spend some time with the pilot, off the record, in a cockpit procedures trainer or with a virtual flight deck that simulates the piece of automation. A captain may hear about an opening to teach an aviation course at a community college and may encourage a first officer to pursue the position as a way to augment income and to grow as an aviator. As long as the attempt to create professional opportunities is sincere and is presented respectfully, the action should be well received.

As we are starting to discover, just because the captain works in an aircraft does not mean that traditional workplace supervisory duties do not apply. The captain should know that she or he is perceived as the lead representative of the company. As such, the captain should be honest and prompt when there is a need to reprimand a crewmember and should do so only in private.

When a crewmember has excelled by performing beyond the call of duty, the captain should consider informing supervisors higher in the chain-of-command of the crewmember's actions. For example, if a cabin crewmember performs an outstanding service, the captain should consider writing a short report about the service to cabin crewmember management back at the home base for the airline. By the way, if the cabin crewmember being lauded is not the chief cabin crewmember onboard, it would show respect to invite the chief cabin crewmember of the flight to comment on the action being cited.

The following examples showcase two reports completed by captains to laud the performance of different crewmembers. The first example is of a military aircraft commander commending the performance of a flight engineer who faced a seemingly endless cascade of mechanical problems with professional aplomb. The second example is of an airline captain complimenting the continued high performance of a first officer.

AIRCRAFT COMMANDER'S REPORT ON CREW MEMBER			1. INCLUSIVE DATES
2. CREW MEMBER (Last Name, First, Middle Initial and Grade)		3. ORGANIZATION	
██████████ SSGT		6TH AIRLIFT SQUADRON, MCGUIRE AFB, NJ	
4. CREW POSITION	5. TYPE AIRCRAFT	6. GRADE	
FLIGHT ENGINEER	C-141B	<input checked="" type="checkbox"/> OUTSTANDING <input type="checkbox"/> SATISFACTORY <input type="checkbox"/> BELOW AVERAGE <input type="checkbox"/> UNSATISFACTORY	
REMARKS			
<p>This is not the first "outstanding" Form 196 that I have submitted on SSgt ██████████. His performance on missions continues to impress me. He stands out amongst the squadron's corps of flight engineers as an insightful, motivated and resourceful crewmember on every mission he flies.</p> <p>This particular report is written in response to SSgt ██████████'s performance on a U.S. Navy Carribbean Airlift Mission supporting the Atlantic Fleet. Although fraggged as a quick, routine overnight run to Puerto Rico via Norfolk, the mission quickly transformed itself into a week-long logistical juggernaut replete with aircraft malfunctions, MRTs and enroute divers due to failing systems.</p> <p>In the end, over twenty pages of 781A forms were filled out for a simple 4-leg mission. Malfunctions included oil leaks on the #2 and #4 engines, a hydraulic leak on the #4 pylon, a potentially dangerous flight control malfunction over the open sea that required a divert into Charleston, S.C.; failures of a boost pump, radar, HF radio, UHF radio and autopilot. Additionally, the crew faced a #2 engine that refused to start, plus overheats and failures of the #2 and #3 CSDs. At one point, the aircraft malfunctions came so fast and furiously that the crew ran straight from one corrective action into the next, in a very simulator-like moment.</p> <p>Throughout the long week of frustrations, SSgt ██████████ never lost his cool. He faced each problem with great aplomb, patiently analyzing each situation and calmly conversing with the pilots and other engineer to arrive at the safest course of action. One moment deserves special highlighting. Rather than launching an MRT to fix us while broken at Roosevelt Roads NAS, SSgt ██████████ used his excellent maintenance knowledge from his previous career field to extract a thrust reverser pump and pin the #2 and #3 thrust reversers with absolutely no maintenance support, in the tropical heat and humidity of Puerto Rico. This action, closely coordinated with AMC/LGRC and 6AS/DOV, saved the Air Force from funding an MRT and prevented a huge mission delay.</p> <p>I was extremely impressed by ██████████'s depth of knowledge in general mechanics and how seamlessly he applied it to Starlifter operations. He literally "saved" the mission and pleased dozens of stateside-bound passengers who had been stranded in Puerto-Rico for a week. I salute him for his efforts, but especially for his outstanding Bully Beef Express "CAN-DO" attitude!</p>			
AIRCRAFT COMMANDER (Name, Grade, & Organization)		SIGNATURE	DATE
██████████, CAPT, 6 AS		██████████	██████████

Captains should inform superiors when crewmembers go beyond the call of duty.²⁸

Subject : [REDACTED]
Date : Thu, 4 Oct 2001 09:56:51 EDT

Reply Reply All Forward Delete Put in Folder... [Printer Friendly Version](#)

[REDACTED],

I had the pleasure of flying with [REDACTED] a couple of days ago and felt his outstanding performance was worth mentioning. I was impressed.

Not only was [REDACTED] a pleasure to work with but he does a super job from preflight to postflight. He knows the airplane, his duties very well and does them and more. He remains very involved in preflight planning and the Flight Attendant brief, always advocates his thoughts nicely, and makes an effort to stay in the loop. Excellent situational awareness. Great cockpit dynamic.

When I arrived at the airplane for the first segment, he had done an outstanding job of setting up the cockpit including setting speed bugs and altimeter on my side. The FMS was ready to go, all I had to do was verify and "execute" my side. [REDACTED] always had his 10-9 chart out backing me up on taxi.

No doubt, above average performance. Sure makes a nice trip when you have that kind of support!!!

Sincerely,
 Captain [REDACTED]
 MD80 Milwaukee

A complimentary email to the chief pilot can encourage further crewmember excellence.²⁹

Leader Action # 8 – Constantly Work on Building the Team

Throughout a trip with the crew, the captain must make it a point to make each crewmember feel valued. When major decisions are to be made, the captain should solicit and respect input from crewmembers. If a certain crewmember's recommendation is not followed, the captain should explain the logic behind the decision that was made and encourage the crewmember to voice future opinions; stressing that it is very important to do so. Only by voicing such respect can the captain ensure that communication continues to flow freely. As the flight progresses, teambuilding can continue by thanking crewmembers for their efforts. The captain must never forget that, in the eyes of the crew, he or she is the senior company representative onboard the aircraft. Act accordingly.

One key method for building a team out of the crew is to redirect any praise that comes to the captain so that it falls on those crewmembers who helped achieve success. In similar fashion, the captain should avoid using "I" when discussing the flight and should opt instead to use "we" when addressing the crew. If a group of individuals contributed to the success and are being complimented, either refer to each one by name or to the group as a whole, but avoid naming only a few of those who contributed since the ones not named will feel left out.

Difficult situations are bound to arise during a flight. Sometimes the situations are a result of friction between crewmembers. Other times, irate passengers or company officials can create tense situations. A capable captain may consider the use of humor to diffuse difficult situations, but tact must be used so that no one is offended. Remember also that misery loves company and that notion can be used to help assuage crewmember anxiety if done correctly. For example, a hard-working first officer may have a hard landing one day and be very bothered by it. In such a scenario the captain might volunteer a comment such as, *"That was nothing, you should have seen the landing I did last week in Dallas. It was ugly!"*

After such a comment it may be appropriate for the captain to share any initiatives he or she is taking to prevent future hard landings.



As previously mentioned, the task of continued team-building can often be easier for corporate or military crews that work together for long lengths of time. Some military crews have been known to work together for months at a time. It is not unusual for corporate crews to work closely for an entire week. Small corporate flight departments may have a single aircraft and two pilots who are paired for years at a time. Even in airline aviation, some flights may operate with a fixed crew over several days and the bonding in such situations can be extraordinary. A great sense of shared purpose and community can emerge.

When true team status is accomplished, it is not unusual to see captains at an airport terminal purchasing dinner for all the crew during a quick-turn. Similarly, on such “bonded teams,” cabin crewmembers may bring coffee and bottled water to the cockpit without even being requested to do so. Unfortunately, all too often in airline operations, the high-paced tempo and interchangeability of crews does not allow achieving such a team feeling. In extreme cases, pilots may change tail numbers and cabin crewmembers on every leg of a trip. The challenge of team-building under such situations is extreme and may lead captains to not even try.

Leader Action # 9 – Delegate Authority but Never Responsibility

Many years ago when this author started studying leadership, he had the chance to work with a senior noncommissioned officer from the U. S. Marine Corps. During a discussion with the sergeant about the most important aspects of leadership, the sergeant offered a piece of advice that is still remembered to this day. The sergeant said, *“The essence of leadership is actually quite simple. If something goes wrong, you did it! If something goes right, your people did it!”* Although leadership is certainly more involved than what can be encapsulated in such a short quote, the sergeant’s personal leadership mantra struck a chord and depicts a very effective philosophy for motivating people into action.

When one becomes a leader, he or she is given a certain amount of authority that comes with an equal level of responsibility. One cannot have authority without responsibility. One of the most critical tasks that a leader must learn to perform is to delegate actions that need to be accomplished to the subordinates who form part of a crew. It is impossible for a

single individual to accomplish all the tasks required in the operation of commercial or military aircraft. For example, during an airline 30 minute quick-turn at an out station, it is impossible for the captain to monitor passenger loading and briefings; review the new flight plan, weather report and NOTAMs; load the new route into the Flight Management Computer, perform the exterior inspection of the aircraft, study the departure, set the airspeed bugs, open the charts and airport diagrams to the proper pages, ensure the proper fuel is loaded, take care of any maintenance required on the aircraft, and the numerous other duties that need attention. Because of the inability to perform all such tasks, the captain must delegate tasks to cabin crewmembers, the first officer, the flight engineer, and even to the jumpseat pilot if one is present, capable, and willing.

Regardless of which duties have been delegated by the captain, and regardless of how the delegated tasks are accomplished, the captain is ultimately responsible for the proper accomplishment of the delegated tasks. Such a responsibility may seem unfair but it forms the entire basis of the authority provided to the captain. It is incumbent on the captain to ensure that the individuals who have had tasks delegated to them are capable of fulfilling the tasks correctly. Essentially, **the captain delegates his or her own authority to members of the crew to perform different tasks while always retaining responsibility for the proper accomplishment of such tasks.**

Such a concept ties back to the leadership philosophy of that Marine sergeant who said, *"If something goes wrong, you did it! If something goes right, they did it!"* The author cannot help but recall a specific incident where his captain seemed to follow the exact *opposite* philosophy. Shortly after graduating from Air Force pilot training, the author was a new copilot in the C-21 Learjet and was flying a senior official from the Department of Defense into a small general aviation airport in Georgia. In an effort to stop the Learjet on the short runway available, a firm landing was produced and aggressive braking ensued. Although a firm landing had been briefed, the touchdown turned out to be much firmer than expected.

After the aircraft was parked at the ramp and the engines were shut down, the aircraft commander hurriedly jumped out of his seat and went to the back of the aircraft to start apologizing to the distinguished passenger. As the author finished the shutdown checklist alone in the cockpit he could hear the aircraft commander placing the blame for the hard landing squarely on, *"...the new copilot who is still learning how to land and doesn't know any better."* The aircraft commander may have thought that he had protected his reputation by deflecting blame for the landing, but in reality he had suffered a fatal blow to his credibility as a leader in the eyes of the copilot. Additionally, one can only wonder how the distinguished passenger assessed the leadership capability of the aircraft commander in light of his panicky attempt to deflect responsibility.

In stark contrast to the previous story, this author was once administering a checkride in a Learjet and noticed that a new copilot had neglected to remove the nosewheel chocks from the aircraft during the preflight walkaround inspection, as previously requested by the aircraft commander. Since the flight was a checkride, the flight examiner was not supposed to interfere with crew duties and thus made no mention of the chocked nosewheel. The aircraft door was closed and both pilots strapped into the cockpit and prepared for departure. After both engines were started and checklists were completed, the copilot obtained clearance to taxi and the aircraft commander applied power to the engines. Much to the dismay of both pilots, the jet refused to move and, in a flash of insight, both pilots simultaneously realized that the chocks had not been removed.

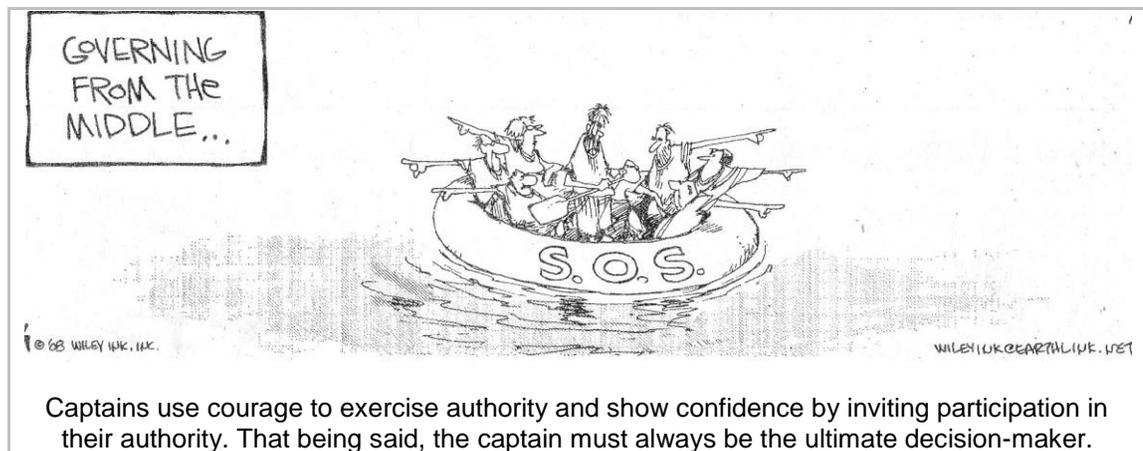
As the copilot started to confess that he had forgotten to remove the wheel chocks, the copilot was cut off by the aircraft commander in midsentence. The aircraft commander turned around in his seat to face the examiner pilot and stated, without hesitation, *"It seems that I forgot to remove the chocks. My mistake. Let's set the parking brake and I will go out to remove the chocks."* While the copilot monitored the aircraft, the aircraft commander slid by

the examiner pilot, opened the cabin door, and proceeded outside to remove the chocks. At that point the copilot turned to the examiner pilot and said, *"What an awesome skipper."* Indeed he was a fantastic leader. Although the aircraft commander was a relatively junior pilot, he quickly gained an excellent reputation in the squadron and before long all the copilots wanted to fly with him.

Leader Action # 10 – Be Ethically Courageous

A leader is only effective if opportunities to lead are acted upon. Numerous situations are presented on every flight for a captain's ethical courage to be tested. All too often it is more comfortable to simply allow an unsafe or inefficient condition to fade into the recesses of memory instead of taking action to prevent a recurrence of the condition in the future. Often, such ethical leadership efforts will place the captain in an unpopular position or will result in the captain being labeled as being too persnickety.

It may be tempting for new and untested captains to simply take the easy way out and not actively practice the leadership actions proffered in this paper. As was discovered millennia ago by captains of ships, and as is known by captains of aircraft today, flight crews cannot be governed via democracy. Such settings require at least some measure of authoritative leadership



Captains use courage to exercise authority and show confidence by inviting participation in their authority. That being said, the captain must always be the ultimate decision-maker.

For the most part, crews appreciate and seek solid leadership and will respect a captain's attempts to manage the authority gradient present in a crew. New captains should not be shy and should not hesitate to exert authority for fear that it may offend or antagonize crewmembers. Just the contrary...as long as participation is encouraged in authority, even those decisions that are made against the opinions of crewmembers will not be seen as antagonistic.

A captain's leadership will be continuously tested. Some of the most challenging moments may involve professional ethics. For example, how should an airline captain deal with a gate agent's request to lie about the actual push-back time in order to avoid a late push-back report on the gate agent? What should a captain do when, moments before takeoff, the first officer confesses that he lied about having accomplished the preflight inspection on the aircraft during the rain shower as they were preparing for departure? How does a captain deal with a cabin crewmember in the hotel lobby who brags about having taken alcohol from the aircraft galley for personal consumption during a layover? Exactly what are the jurisdictional limits of captain's authority and what captain actions will a flight department back up? What are the CRM implications of captains making highly unpopular decisions in favor of professional ethics?

As a general rule, many of the ethical decisions faced by captains during a flight can be preempted by setting the proper tone during the CRM Briefing prior to the flight. As the saying goes, *“An ounce of prevention is worth a pound of cure.”* When a captain briefs the crew on his or her expectations for crew behavior, it lets everyone know what will and will not be tolerated so there are no surprises. Every leader is a follower of someone else. A captain is a subordinate of the chief pilot and as the company representative on the aircraft is charged with ensuring that company regulations are followed. Perhaps a statement to that effect, if delivered with sincerity and tact during the CRM Briefing, can help set the proper tone for crewmember ethical deportment.

NASA ASRS LEADERSHIP CASE STUDY 2: ENCOURAGE PARTICIPATION!

The following incident from NASA’s ASRS archives shows how a corrosive work climate in the cockpit can impede the assertiveness of a crewmember and results in the crew incorrectly entering a holding pattern.

Report number:	682728	Altitude:	30,000 feet MSL
Date:	December 2005	Reporter:	First Officer
Location:	Virginia	Past 90-day flight time:	Unknown
Conditions:	Unknown	Experience in type:	Unknown
Aircraft:	MD-80	Total Flight Time:	Unknown
Phase of Flight:	Holding		

Pilot Narrative:

HAVE FLOWN WITH THIS CAPT ON 1 PREVIOUS TRIP. HE TENDS TO BE CRITICAL, THUS ON A SUBCONSCIOUS LEVEL, I MAY NOT BE OFFERING HIM THE BACKUP THAT HE NEEDS.

WE WERE CLRED TO HOLD AS PUBLISHED AT THE GARED INTXN, L-HAND TURNS. THE CAPT HAS A BAD HABIT OF MAKING PA'S WITHOUT WARNING ME, WHICH WOULD GIVE ME A CHANCE TO PUT ON MY HEADSET. JUST AS HE BEGINS A PA (RATHER THAN PAYING ATTN TO FLYING OR GIVING ME THE AIRPLANE) THE ACFT ENTERS A R-HAND TURN AT THE FIX.

I WAS LOOKING AT THE FLT PLAN TO SEE HOW MUCH HOLDING FUEL WE HAD, I DID NOT CATCH THE ERROR AND AS THE ACFT FLEW AWAY FROM THE FIX ON THE WRONG SIDE OF THE HOLDING PATTERN, THE CTRLR GAVE US A VECTOR.

I QUERIED THE CTRLR AND SHE SAID IT WAS BECAUSE WE ENTERED THE PATTERN INCORRECTLY, AT WHICH TIME I IMMEDIATELY MADE THE CORRECTION. A FEW SECONDS LATER THE CTRLR CLRED US DIRECT TO GARED INTXN TO PICK UP THE REMAINDER OF THE KORRY 3 ARR.

EVEN THOUGH I EMPHASIZED TO THIS CAPT THAT THE PATTERN HAD L-HAND TURNS, I DID NOT CATCH THE FACT THAT HE HAD IT ENTERED INCORRECTLY IN THE FIRST PLACE. THERE IS NO EXCUSE FOR ME MISSING HIS TURN, EVEN THOUGH, HIS CRITICAL NATURE TENDS TO MAKE ME STAND

OFF AND NOT OFFER HIM AS MUCH. THIS I HAVE REALIZED AFTER REFLECTING ON THIS EVENT.

THE SAME CAPT ON THE NEXT LEG CRITICIZED ME IN THE PRESENCE OF A CHIEF PLT ON THE JUMPSEAT FOR BRIEFING AN OBSTACLE, A LARGE RADIO TWR, ON A VISUAL APCH. THE LIST GOES ON. WHEN TREATED LIKE A SECOND CLASS CITIZEN, PERHAPS MY OWN PERFORMANCE BECAME SECOND CLASS. FATIGUE MAY HAVE BEEN A FACTOR AS WELL.

AUTHENTIC LEADERSHIP

This reading has thus far provided a philosophical discussion of leadership, insight into the nuances of captain's authority, and a description of actions of capable leaders. Every aviation leader, whether the cabin crewmember placed in charge of a cabin crew, the chief pilot, or a line captain, must develop their own leadership style for dealing with different situations. After more than 1,000 research studies trying to establish specific styles and behavioral traits of effective leaders most scholars agree that **there is no such thing as a clear leadership profile that can be applied by everyone in all situations.**³⁰

The traits and actions of effective leaders can certainly be discussed, as has been in this paper, but must always be molded to the context of a situation. What is a captain to do, then, in order to become a capable leader? The answer lies in the pursuit of excellence by developing one's personal leadership style. After all, how can one be an authentic leader by trying to emulate someone else? We can certainly learn lessons from other leaders and apply behaviors that we believe are successful, but ultimately we must create our own authentic leadership style. The ten leadership actions portrayed in this paper thus form the core knowledge base for developing one's own style through experience, reflection, and continued study.

Self-Awareness vs. Denial

A group of researchers from the Harvard Business School and Stanford Graduate School of Business recently investigated what is entailed in developing one's authentic leadership style. Their conclusions apply perfectly to captains attempting to be effective leaders. After analyzing 3,000 pages of interview transcripts, researchers found that effective leaders are those who use formative life experiences to shape their leadership persona, viewing themselves as being able to profit from challenges and setbacks; never seeing themselves as victims of circumstances.³¹

Such a quest for self-betterment requires thoughtful contemplation of one's interaction with the challenges, setbacks, and successes in life. Thus, the central theme for developing an authentic leadership style is *self-awareness*. The greatest challenge to achieving self-awareness is denial, particularly when the person in question has a powerful ego. **In order to achieve self-awareness, it helps to rely on a support team** comprised of trusted individuals who can help one assess all the nuances of situations and how different challenges relate to the values a leader holds close.



Effective leaders never see themselves as victims of circumstances, choosing instead to use positive and negative experiences to grow and sharpen leadership skills.

Some leaders benefit significantly from selecting one or several mentors in their specific line of work. A new captain may choose a senior captain or check airman as a mentor. A first officer may select a captain as a mentor. Regardless of who is selected, the protégé should make an effort to meet with the mentor from time to time to discuss leadership issues. Regardless of who provides input for our improvement, it is a matter of personal responsibility to accept the comments with an open mind in order to overcome ego-driven denial when we hear something that may not be particularly pleasant about our leadership actions.



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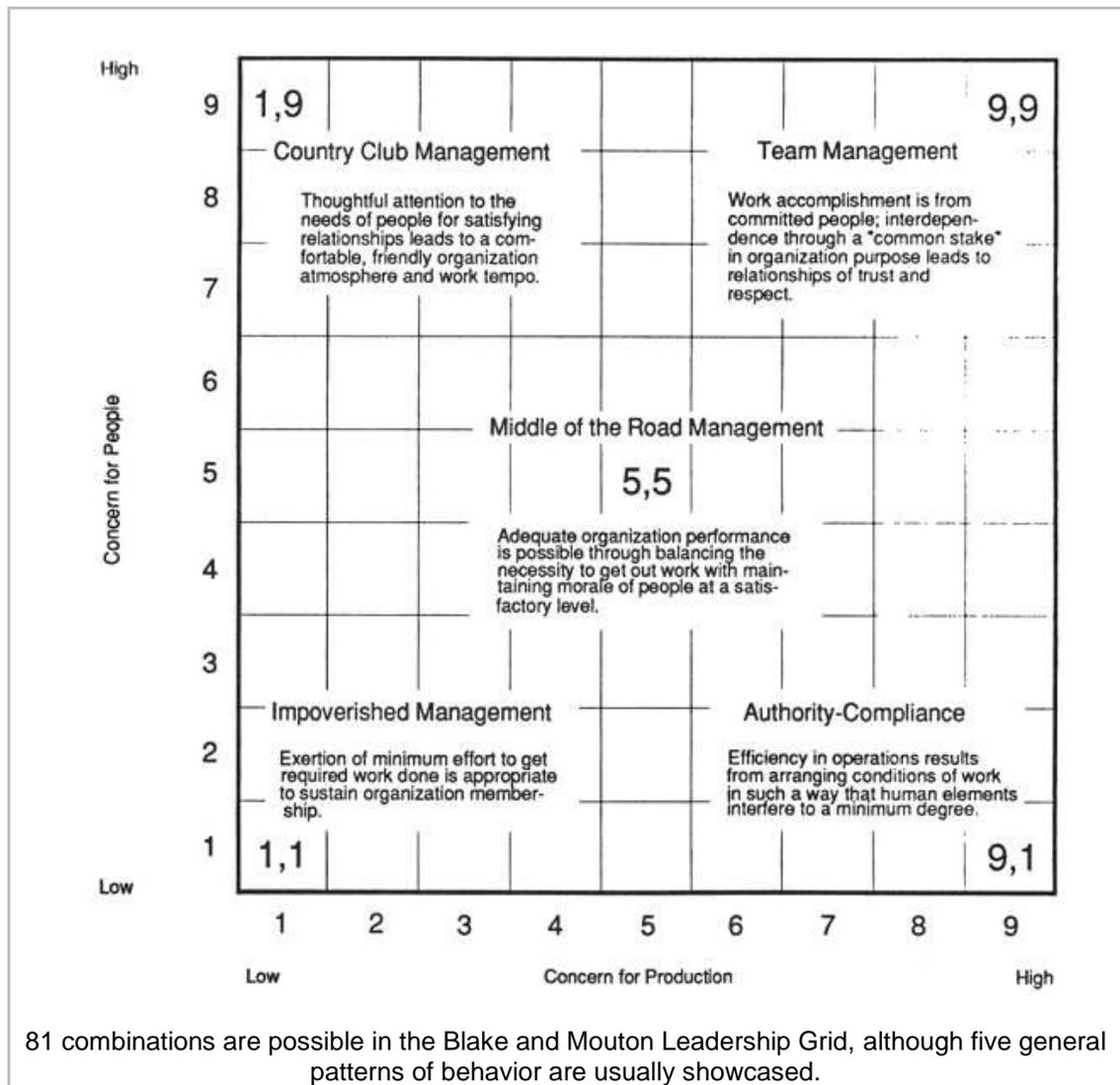
Select a mentor carefully. The most effective and long-lasting mentor-protégée relationships are those where both mentor and protégée stand to gain from the arrangement.³²

Where does your style fall on the Leadership Grid?

In the late 1970s, psychologists Robert Blake and Jane Sryglet Mouton developed a graphical way to depict leadership effectiveness as a function of the balance between concern for task accomplishment and concern for people. Although the depiction was not developed with cockpit leadership in mind, the concept can be applied to captains in order to assess how leadership actions are affected by personal values.

The Blake and Mouton graphical depiction is essentially a matrix and is often called the “Grid.” The Grid is a two-axis depiction. The horizontal axis shows concern for performance, or results. The vertical axis shows concern for people, or how a leader treats subordinates in order to obtain results. Each axis has a scale of one through nine and can produce up to 81 possible depictions of how concern varies for performance versus people. The Grid contains the intersection of the two axes and is a representation of leadership motivation. The Grid seeks to depict why leaders act the way they do and **allows us to visualize general patterns of behavior based on the concerns a leader values.**³³

The figure below shows one representation of the Grid:



Since the development of the Grid, numerous leadership models, theories, and graphical adjustments to the Grid have surfaced, and new conclusions have been drawn. However, the basic Grid developed in the late 1970s and early 1980s continues being a popular model referenced in CRM and leadership courses because it offers a very simple visual depiction that many find intuitive to understand.

In 1985 the Grid was used to illustrate five primary leadership styles.³⁴ Since each axis has a one-to-nine scale, each of the five leadership styles can be coded numerically, as a form of shorthand, expressing the value of the horizontal axis (concern for performance) first and then the value of the vertical axis (concern for people) second. With that coding scheme in mind, the “impoverished” leadership style is commonly expressed as “1,1;” the “authority-obedience” style as a “9,1,” the “country club” style as “1,9,” the “team” style as “9,9;” and the “middle-of-the-road” style as “5,5.”

Over the years, numerous stereotypes have been developed to illustrate the different types of aircraft captains that are represented by the leadership styles shown on the Grid. Some of the stereotypes are intentionally humorous and serve to illustrate the makeup of each leadership style. No one should be offended by any of the stereotypes displayed, since they are depicted only for instructional purposes.

Impoverished-Style Captains

Leadership in the lower-left hand portion of the Grid is described as “impoverished” because it represents someone who only puts forth the bare minimum effort to accomplish a task and to care for their subordinates. Captains exhibiting a “1,1” impoverished style are stereotyped as **disgruntled or uncaring** individuals. Why are they so uncaring?

Perhaps they have seen pension benefits taken away and make it a point to tell other crewmembers, over and over, how the industry has gone to hell. Maybe they are beaten down by events in their personal life and lack motivation to excel. Captains who exhibit the “1,1” style have been described at various times as those who “delegate and disappear,” are lazy, and focus on self-protection.

Such captains can sometimes be heard in airline cockpits addressing their first officers with statements like, *“I’m going to go up to the terminal to grab a sandwich. Don’t rush to make the pushback time...we are running late anyways. Finish getting everything ready and I’ll be back in about 15 minutes...”* Such captains cause disorganization, disharmony, and dissatisfaction in other crewmembers.



A “1,1” leader cares very little about tasks and just as little about others.

Authority-Obedience Style Captains

Leadership in the lower-right hand portion of the Grid was labeled as “authority-obedience” because of the relegation of crewmember concerns in favor of task accomplishment. Captains exhibiting a “9,1” authority-obedience style are highly focused on mission accomplishment but pay very little respect to subordinate concerns. They may bend crew duty rules to ensure on-time departures and **will disregard flight crew input because such concerns are perceived as being of no importance.** Such captains are often described as “tyrants,” “dictators,” or “slave drivers.” In terms of stereotypes, “9,1” captains may be egotistical former fighter pilots who now try to prove their worth in corporate and airline cockpits by placing mission accomplishment above all else.

Such captains may view crewmember assertiveness as an affront to authority. These are the dreaded captains who can be heard saying, *“We are shooting the approach and that is final. When I want your opinion, I’ll give one to you.”* Such captains are autocratic and often are seen as harsh task-masters by their crew. They may be the designated pilot-flying for a flight but will not hesitate to transmit on the radio with ATC even though such a task is typically performed by the pilot-monitoring. They will call for the first officer to start a checklist while oblivious of the fact that the first officer is in the middle of reprogramming the FMC. They will interrupt the cabin crewmember’s safety briefing to request a soda. Such captains produce severe disincentives towards collaboration and can engender great animosity in a crew.



A “9,1” leader runs a mission at the expense of a crew, not *with* a crew.

Country-Club Captains

Leadership in the upper-left hand portion of the Grid is humorously called “country club” style since it places far more importance on social relationships and on creating a congenial working environment than on task accomplishment. Captains exhibiting a “1,9” country-club style may be stereotyped as pilot-union politicians who look out for crewmember political and personal concerns at the expense of mission accomplishment and safety.

Such captains pay excessive attention to the comfort, safety, and security of their crewmembers and may actually do so in the misguided belief that such behavior helps task accomplishment. They are incapable of using the full power vested in their authority because

they feel it would not be the nice thing to do. They may be incapable of reprimanding a crewmember who incorrectly performs a task out of concern of how awkward such a situation would feel. Such captains produce what may at first glance appear to be a pleasant working climate, but eventually, **professionally-minded subordinates may become frustrated** at the lack of productivity and mission impairment that results.



A “1,9” leader may make a great friend, but can create a frustrating working climate.

Team-Style Captains

Leadership in the upper-right hand portion of the Grid is labeled “team” oriented since it represents excellent concern for both people and mission. Many captains would like to think that they are in the upper right hand of the Grid, as a “9,9” “team” leader who pays **equal attention to mission demands and to crewmember wellbeing**. When a crewmember brings a concern to such captains, an effort is made to achieve a win-win solution that benefits the crewmember while moving the mission forwards.

Such captains engender feelings of belonging and team-work amongst subordinates who remain motivated to achieve excellence. Crewmembers are made to realize that their contributions make a difference and trust each other. They interact in a highly respectful and productive way towards a common vision.

At first glance it may appear that the history of aviation is filled with lionized “9,9” heroes such as Captain Al Hanes of United Airlines Flight 232’s crash landing in Souix City, Iowa; or Captain Sully Sullenberger of US Airways Flight 1549’s ditching in the Hudson River. The world needs heroes and certainly the piloting profession is no exception. Such heroic figures would presumably deal with inflight emergencies in a way that guaranteed optimal aircraft flight technique while simultaneously assuaging the concern of crewmembers.

One is reminded of British Airways Flight 9 in 1982 when Captain Eric Moody made the following public announcement to his passengers while trying to relight the engines on his B-747 after flying through volcanic ash: *“Ladies and gentleman, this is your captain speaking. We have a small problem. All four engines have stopped. We are doing our damndest to get them going again. I trust you are not in too much distress.”*



A “9,9” leader sees his people as a key resource that, if properly taken care of, will foster the success of a flight.

However, scholars familiar with the Grid often point out that **“9,9” leaders are not optimally suited for emergencies.** For example, the chief cabin crewmember would be ill-advised to exhibit “9,9” behavior during an emergency passenger evacuation. That chief cabin crewmember may have to be very direct and exert aggressive authority with other cabin crewmembers in order to ensure the expeditious egress of all passengers, at the expense of the comfort of the other cabin crewmembers.

In fact, the argument could be made that Captain Sullenberger did not exhibit “9,9” behavior during the ditching of his Airbus since he rightfully prioritized controlling the aircraft over communicating with the cabin crewmembers in the cabin.

Middle-of-the-Road Style Captains

Lastly, leadership in the middle of the Grid in the vicinity of a “5,5” coding, is called “middle-of-the-road” style because it represents adequacy in both axes, but not full commitment to either axis. Such a place on the Grid indicates an attempt to balance the competing goals of performance and crew-care, but the balancing act is made by shortchanging both concerns.

Attempts to compromise between both concerns may achieve a moderate amount of success, since crew morale stays reasonably intact and many of the tasks will get completed on time. Captains who fall into such a leadership style may end up burning out quickly, however, since neither the company nor the crew will be fully pleased with the results that are achieved.



A “5,5” leader uses compromise to manage competing concerns, at the obvious expense of both task accomplishment and crewmember care.

Of course, sweeping stereotypes, be they complimentary or derogatory, are instantly misleading and are portrayed here with a comedic undertone in order to make a point. The Grid serves primarily as a training tool and should not be relied upon to categorize individuals. **No captain is neatly fixed in a certain category and a Grid rating cannot be relied upon to accurately predict how a captain will lead in a given situation.** In reality, each captain moves around the Grid during a trip as a function of emotion, perception, subordinate followership, and changing circumstances.

However, captains often do fall into general, but not fixed, patterns of behavior that lean towards one part of the Grid. In fact, sometimes pilots will even make mention of captain leadership styles by making use of the Grid as a way to quickly convey what the captain is like. If you listen carefully in a crew lounge, you may hear someone commenting, “*Hey, have you flown with captain ‘9,1’ lately?*” Please try not to laugh too loudly if you hear such a comment.

It should also be mentioned that the leadership styles showcased inside the Grid are subject to rather powerful external cultural forces, internal crew dynamic forces, and experience. **Captains may exert leadership that is representative of different styles at different times.** Think back to different moments when you have been in a position of leadership. Where do you believe others would place *your* leadership style on the grid and why? Your answers will be circumstantial, so the more scenarios you remember, the more insights you will glean.

For example, a captain with tendencies towards “1,9” country-club leadership may live through a near-mishap that alters his or her behavior on future flights in the direction of the “9,1” authority-compliance corner of the Grid. Similarly, an otherwise “9,9” team captain towards the end of a week-long trip may choose to sacrifice an hour from the flight schedule to allow the crew time to eat, as a one-time exception. Such an event would slide the captain’s

leadership towards the upper-left side of the Grid, resulting in something close to a “6,8” coding.

ACTIONS OF EFFECTIVE FOLLOWERS

Why dedicate a portion of this paper to exploring the actions of effective followers? Some argue that listing followership actions separate from leadership actions is unnecessary, since both lists contain the same items. Although such an assertion is certainly true to an extent, there is value in describing the specific actions that seem more germane to followership than to leadership. Such actions are presented here since all captains are subordinates of the chief pilot, and in hopes that captains can encourage the actions listed in their subordinates as well.



What words would a captain use to describe an ideal first officer?

Since captains represent people from all walks of life who have different value systems and perspectives, opinions tend to vary as to the specifics of what makes a good follower. Some captains may describe an ideal first officer as someone who is eager to learn, really makes an effort to fly well, and respects the captain. At the other end of the expectation spectrum, captains may describe their ideal first officer as one who shows up to the aircraft early and not only accomplishes the typical first officer tasks, but also completes much of the captain workload. A captain with such expectations may come to expect the first officer to set up airspeed bugs for the captain, make sure that the seatbelts are fully extended so that the captain does not have to inconvenience him or herself with such a menial task, write down the ATIS and clearance and clip it to the yoke of the captain, and have a cup of coffee waiting next to the captain's seat (prepared exactly as the captain likes it, of course).

There is bound to be much humor and variance in how captains describe ideal first officers and other subordinates, but most leaders would agree that the items provided below are desirable general actions of followers.

Follower Action # 1 – Exhibit Assertiveness with Respect

As was previously stated, accident investigations reveal that crewmembers frequently have the knowledge or ability to prevent mishaps yet fail to speak up in time to stop the accident from happening. Why would people allow such a chain of events to take place without speaking up? Such a lack of assertiveness certainly stems at least partly from the lack of encouragement to provide input, which is a key responsibility of captains in the era of CRM enlightenment. However, just because the captain has not done a good job encouraging authority with participation does not mean that crewmembers are excused from providing input.

Regardless of what tone has been set by the captain, crewmembers have an obligation to be assertive and to voice concerns and opinions on matters of importance to the safety of the flight. The concept of assertive input by followers is so important and CRM that it deserves some elaboration.

A recent edition of Aviation Human Factors Industry News explained assertiveness as, *“Standing up for one’s rights no matter what the circumstance. Correcting the situation when one’s rights are being violated,”* and also as, *“Direct, upfront—not defensive or manipulative—behavior”* to protect one’s rights while protecting and respecting the rights of fellow crewmembers.³⁵ In the newsletter, 10 specific Assertive Rights of individuals were listed in first-person voice as follows:

1. The right to judge my own behavior and take responsibility for the initiation and consequences that may ensue.
2. The right to not have to explain the reasons for my behavior.
3. The right to judge whether I am responsible for finding solutions to others’ problems.
4. The right to change my mind without having to justify such a change.
5. The right to say, *“I don’t know.”*
6. The right to make mistakes (while being responsible for such mistakes).
7. The right to make decisions without being influenced by what others will think.
8. The right to make decisions without being logical (relying instead on intuition).
9. The right to say, *“I don’t understand.”*
10. The right to say, *“I don’t care.”*

At first glance, the ten Assertive Rights may sound cold, harsh...even callous. Upon closer inspection, though, it starts becoming obvious that the list truly does represent individual rights of crewmembers who work together to achieve safety and efficiency, not necessarily harmony. Hopefully, safety and efficiency are achieved through the harmonious interaction of crewmembers, but harmony in and of itself is not the objective of CRM.

Long gone is the notion that a good follower says, “Yes sir/ma’am” and follows orders without question. The other end of the response spectrum, where answers and opinions are provided in a disrespectful tone, is equally unacceptable. Assertive crewmembers are in the middle ground between being passive and aggressive. They base their beliefs on the notion that each crewmember has a right to be heard and to uphold SOPs and safety. **To act assertively is to be honest, direct, and self-confident while respecting others.**

Assertiveness is not just limited to first officers, flight engineers, and jumpseat pilots in the cockpit. The concept applies with equal force to cabin crewmembers, ramp agents, mechanics, customer service agents, and dispatchers. For example, cabin crewmembers must be taught to be assertive and voice safety concerns to the chief cabin crewmember. Input must be provided honestly and frequently by all, even when not requested by the leader.

Of course, it is a matter of experience and judgment to know just how much input to provide and when. For example, a first officer who always “cries wolf” will quickly be tuned out by a captain and may be subconsciously labeled as lacking credibility. Similarly, **crewmembers who are assertive in a disrespectful manner may be tuned-out by the captain and labeled as “sour grapes” who have nothing to contribute.**



Subordinates have an ethical obligation to be respectfully assertive so as to never compromise standards.

At the heart of the matter is the notion that crewmembers must have the willingness to contribute. Such an attitude can be tested and developed as a student in college or during professional ground schools during discussions and exercises. Remaining silent is unacceptable. Each of us must make a concerted effort to be part of the solution; whatever the solution may be. That is not to say that we should speak for the sake of speaking, but we should **be mentally aggressive in pursuing perspectives that can help solve problems and then should voice our opinions once we have them.**

There are a couple of terms used by accident investigators to describe the phenomenon of crewmembers who have important information and the ability to stop a mishap sequence but take no action. Such a phenomenon is often called “**passenger**” or “**copilot**” syndrome. Such terms stem from the fact that passengers feel as though they have nothing they can do to affect the outcome of a flight and copilots sometimes “lock up” and psychologically act like they are just along for the ride. Assertiveness starts by realizing that each crewmember can directly affect the outcome of the flight and is empowered to do so.

What happens when a crewmember needs to convey important information and the captain is not listening, or does not grasp the importance or critical nature of what the crewmember is attempting to convey? To deal with such situations, **the industry has adopted a 5-step assertiveness process.** The process is usually used by a crewmember when input that is provided is not listened to or not acted upon by the captain. In such circumstances, the crewmember should make sure she or he has the captain’s attention, then should state the concern by explaining the problem and possible consequences, then should offer possible solutions, and finally, seek agreement.

It is important to practice using the assertiveness process. When used, crewmembers should only deal with one issue at a time and should not embellish or exaggerate the problem. Stick to the facts and stay in control. The underlying idea is that each crewmember has an ethical obligation to ensure that the aircraft is operated in a manner that does not compromise accepted standards.

The five-step assertiveness process is outlined in the following box along with italicized examples of phrases that may be used:

- 1. Get the captain's attention (use name or crew position/opposite typical):**
"Jim, I have a concern I want to discuss with you."
 (Some operations use a "Time Out" phrase to get attention)
 - 2. State the concern:**
"I am not comfortable with this heading that we are on."
 - 3. State the problem and consequences:**
"If we continue on this heading, we will be too close to the buildup."
 - 4. Give solutions:**
"I think we should turn 20 degrees further west."
 - 5. Solicit feedback and seek agreement:**
"What do you think?" or "Don't you think so?"
- Do not compromise your standards!**

Follower Action # 2 – Adopt a Sense of Ownership

One important quality exhibited through teamwork is a sense of ownership over the profession, the company, and each flight on which we are a crewmember. Such a responsibility is a matter of pride and comes from the realization that each of our actions impacts the bottom-line of an operation.

It can be very challenging to instill a sense of ownership in employees who perceive themselves as being underpaid or who believe they are not sufficiently appreciated. Nevertheless, **it is a professional obligation for us to act as if we are part owners of the aircraft we fly** and of the company we work for.

Ownership is exhibited by a cabin crewmember who notices trash on the jetway when getting ready to board the aircraft and takes the time to remove the trash so that passengers do not see it. What about the ramp agent who washes the windshield of an aircraft while not being required to do so? How about the first officer who stays behind for an extra minute after a long day's worth of flying to ensure that the cockpit is left clean and organized.

Another component of ownership is always expecting that there is a task that needs to be accomplished that you do not know about. **Always assume that there is more to do!** If you cannot think of what the unaccomplished task is, ask your captain. Otherwise, the captain may construe your ignorance of something that needs to be performed as apathy. Strive to ensure that your captain does not view you as lazy by continuously asking what needs to be done during any lull in your workload.



This picture illustrates the “*It’s not my job*” mindset. We must adopt a sense of ownership.

Follower Action # 3 – Strive for Self-Improvement

Part of the obligation of being a professional aviator is striving for self-improvement. We should all continue fanning the flames of excellence throughout our career. Only by aspiring to be more than we currently are can we work towards being at the peak of our game. As soon as we settle for “good enough,” we psychologically start sliding backwards and our performance as aviators soon follows. A hunger to always exceed expectations and better ourselves is at the very core of what it means to be a professional. Always remember that *good* is the enemy of *great*.

For first officers, such a concept ties in directly with their status as “captains in training.” First officers should first focus on mastering the technical elements of their position. After they are comfortable in their flying duties, first officers should start studying the leadership exhibited by their captains in hopes of identifying behaviors that can serve as models for their own leadership development.

A key part of the self-improvement effort of every first officer or flight engineer is to seek performance feedback from his or her captain after every flight. Not doing so constitutes missing a golden opportunity for improving performance. No one has better insight into how we can improve than someone we just spent several days flying with. **Hopefully, the feedback received will include comments on one’s strengths as well as one’s weaknesses.** Focusing just on weaknesses during performance feedback can backfire by severely demoralizing those on the receiving end of the comments.

Follower Action # 4 – Show Respect for Fellow Crewmembers

Showing respect to the other members of the crew, naturally including the captain, is not just a matter of courtesy, it is fundamental to fostering a sense of shared purpose that is the building block for teamwork. **One of the most important ways of showing respect is by listening to others.** This means actively listening for content in what another crewmember is saying, not just “hearing” what is being said.

Another way of showing respect is by offering to help in tasks without waiting to be asked for help. This is particularly important if the task is considered undesirable. Granted, a crewmember should always make sure his or her obligations are covered before taking time to help others. Sometimes such a professional obligation to one’s own duties will not be noticed by other crewmembers and may be perceived as avoiding helping out. That can present a delicate situation.

Another important way to show respect for those in leadership positions is to always disagree with them in private. **Nothing is more corrosive than to have a crewmember disagree with the captain in front of the entire crew.** Interestingly, the resulting impact of such a situation often proves more damaging to the dissenting crewmember than to the captain. During a public meeting, such as a crew briefing, a crewmember should feel empowered to respectfully disagree with something the captain states. If the captain continues in what the subordinate believes is in error, the subordinate should seek to resolve the disagreement after the briefing with the captain in private. The concern should most definitely be pursued if it is deemed important. If the concern is valid, the captain can then bring the matter up again with the crew. In so doing, the lines of communication will remain open for future input since the captain will not have been embarrassed in public. If the concern is not valid, the crewmember who brought up the issue will not be embarrassed in public when he or she is corrected by the captain. That too will ensure that the lines of communication remain open.

One of the **worst possible examples of disrespectful assertiveness is when a first officer voices strong disagreement with the captain in front of a cabin crewmember, customer service representative, ramp agent, mechanic, or passenger.** Word will quickly spread throughout the crew that, “There is disagreement” or “bad blood” in the cockpit. Such a situation is like throwing a wrench into the gears of CRM. Such a crisis can be easily averted by having the first officer ask to speak with the captain in private when a significant disagreement needs to be voiced.

Follower Action # 5 – Be Dependable

A follower has an obligation to the captain and to the employer to be dependable. The captain needs to be able to count on people to fulfill their professional responsibilities and also to complete any tasks that they agree to perform. Part of this “social contract” is showing up early for any scheduled activity. Notice that we are not talking about showing up on-time. **Showing up on-time is the same as showing up late!** Not only does showing up early demonstrate a depth of commitment to the profession, but it shows that we are willing to help pick up the slack for other crewmembers who may be running late.

Such a late crewmember may be the captain. If an assigned task cannot be completed on time or as requested, the crewmember should advise the captain as soon as possible so that workload can be reassigned. Incidentally, will *you* be ready to step in and assume the leadership role when the captain is running half an hour late at show time? Will you be ready to coordinate cabin crewmember activities and provide a preliminary briefing for the crew in such a situation?

NASA ASRS FOLLOWERSHIP CASE STUDY 1: DO NOT COMPROMISE!

The following incident from NASA's ASRS archives shows an a lack of crewmember assertiveness. In this case, the first officer compromised safety standards by not challenging the captain's altitude mismanagement on approach.

Report number: 682670	Altitude: 6,200 feet MSL
Date: December 2005	Reporter: First Officer
Location: ABQ Airport	Past 90-day flight time: 200
Conditions: Night VMC	Experience in type: 1,200
Aircraft: MD-80	Total Flight Time: 4,000
Phase of Flight: Approach	

Pilot Narrative:

I WAS AN MD88 FO, NOT FLYING WHEN THIS EVENT OCCURRED. APCH WAS ENTERED CORRECTLY AND DISPLAYED ON EFIS/NAV SYS. WE RECEIVED VECTORS TO R BASE AND CLRNC TO FLY THE RWY 3 VISUAL APCH FOLLOWING A B737 4 NM AHEAD.

CAPT/PF DISCONNECTED AUTOPLT AT APPROX 9000 FT MSL ENTERING R BASE, ACFT SPD AND CONFIGN UNDER CTL. RATE OF DSCNT ENTERING BASE APPROX 1500 FPM, UNDER CTL.

ENTERING BASE, I CONTINUED TO LOOK OUTSIDE THE ACFT KEEPING AN EYE ON OUR INTERVAL AND THE RWY (UNFAMILIAR FIELD). AS I LOOKED BACK IN, I NOTICED THAT THE RATE OF DSCNT HAD SHALLOWED, BUT WE WERE STILL DSNDING AT APPROX 800 FPM.

I SCANNED ACFT ALT OF APPROX 6200 FT MSL, JUST AS WE WERE TURNING R TO FINAL IN THE VICINITY OF THE FAF. (ALT ON GS AT 7400 FT MSL.) PF LEVELED OFF AT ABOUT 6000 FT MSL AS THE ACFT STABILIZED ON FINAL APCH HEADING. ATC ISSUED A 'LOW ALT ALERT' MESSAGE AS WE ROLLED OUT ON FINAL.

PF DECIDED TO MAINTAIN LEVEL ALT AND 'DRIVE TO'/INTERCEPT THE NORMAL GS. RADAR ALTIMETER INDICATED BTWN 700-800 FT AGL UNTIL GS INTERCEPT AT WHICH POINT WE DSNDDED AND LANDED NORMALLY.

THE ACFT WAS BELOW THE PUBLISHED FAF ALT AS WE TURNED FINAL. GRANTED, IT WAS A VISUAL APCH, BUT WE WERE LOW. I WAS SLOW TO REACT WITH A VERBAL COMMAND ('YOU'RE LOW,' 'CLB,' 'GO AROUND') FOR A COUPLE OF REASONS.

THE FIRST IS THAT I WAS LATE XCHKING THE ALT AS WE TURNED FINAL. THE SECOND REASON I HESITATED IS THAT I TRIED TO RATIONALIZE WHY THE PF (WITH CONSIDERABLE EXPERIENCE AND FAMILIARITY WITH THE FIELD) MIGHT CONSIDER THIS A NORMAL SIGHT-PICTURE/APCH.

IN ORDER TO HELP PREVENT THIS FROM HAPPENING, PLTS NEED TO FLY VISUAL APCHS WITHIN PARAMETERS THAT WILL ESTABLISH THEM ON NORMAL GS AT THE FAF. IN ADDITION TO USING/XCHKING AVAILABLE NAV AND APCH EQUIP, PLTS SHOULD NOT DSND BELOW FAF ALT (OR A COMMENSURATE ALT IF A SHORT APCH) UNTIL ESTABLISHED ON FINAL. AT A

MINIMUM, IF PLTS ARE THE LEAST BIT UNFAMILIAR, AT NIGHT AND/OR MARGINAL WX THEY SHOULD ASK FOR VECTORS TO FINAL.

WHAT I WILL DO IN THE FUTURE IS BE MORE PROACTIVE WHEN MY 20 YRS OF MIL AND COMMERCIAL FLYING EXPERIENCE TELL ME SOMETHING 'DON'T LOOK RIGHT.'

NASA ASRS FOLLOWERSHIP CASE STUDY 2: COMMUNICATE!

The following incident from NASA's ASRS archives shows how a flight engineer's indirect and non-confrontational unassertive communication results in an unstable approach and unsafe landing.

Report number:	672826	Altitude:	Various
Date:	September 2005	Reporter:	Flight Engineer
Location:	U.S. airport	Past 90-day flight time:	68
Conditions:	Night, rain, windshear	Experience in type:	500
Aircraft:	B-747	Total Flight Time:	15,000
Phase of Flight:	Approach		

Pilot Narrative:

ENRTE TO ZZZ, THE CAPT TRACKED A LINE OF TSTMS THAT WAS DUE TO ARRIVE AT ZZZ AT ABOUT OUR ETA OF XA15. THE ATIS AT XA00 HAD A WIND OF APPROX 290 DEGS AT 15 KTS, WITH LNDGS ON RWY 17L/R. AS WE STARTED OUR FINAL APCH TO RWY 17R, WE HEARD THE ACFT AHEAD OF US ANNOUNCE A GO AROUND DUE TO EXCESSIVE TAILWINDS AND THE WINDS ON OUR INS SHOWED THE STRONG WESTERLY WINDS AT APPROX 2500 FT AGL FROM 290 DEGS AND 35 KTS NOW SHIFTING RAPIDLY TO APPROX 320 DEGS AND 35 KTS.

I HAD THE #3 INS DISPLAY THE TAILWIND COMPONENT AND STARTED CALLING THESE OUT TO THE PLTS. BTWN 2000-1000 FT AGL, THE TAILWIND COMPONENT VARIED FROM 25-35 KTS. THE APCH WAS CONTINUED WITH NO COMMENT FROM EITHER PLT. AS WE CONTINUED THROUGH 1000 FT AGL, THE TAILWIND VARIED FROM 15-25 KTS AND THE ZZZ TWR ADVISED THAT A 'GUST FRONT' WAS NOW DIRECTLY OVER THE FIELD. WE WERE IN MODERATE RAIN AND THE RWY WAS WET. THE APCH WAS CONTINUED WITH NO COMMENT FROM EITHER PLT AND I CONTINUED TO CALL OUT THE TAILWIND COMPONENTS NOW BTWN 15-20 KTS.

I ANTICIPATED THAT THE CAPT WOULD INITIATE A MISSED APCH AT ANY MOMENT NOW, THAT HE WAS WELL AWARE THAT AN EXCESSIVE TAILWIND WOULD EXIST RIGHT TO TOUCHDOWN. THE CAPT WAS CARRYING SOME EXTRA AIRSPD DUE TO THE WINDSHEAR RPTD BY THE PRECEDING ACFT AND CONTINUED THE APCH -- MUCH TO MY AMAZEMENT -- TO TOUCHDOWN.

THE TOUCHDOWN WITH THE TAILWIND AND EXTRA SPD WAS AT LEAST 4000 FT DOWN RWY 17R IN MY ESTIMATION, MAYBE CLOSER TO 5000 FT. MY COMMENT AT TOUCHDOWN WAS 'YOU'LL NEVER GET THIS THING STOPPED.' FORTUNATELY HE DID.

WE LANDED AT APPROX 544000 LBS WITH APPROX 56000 LBS OF FUEL, SO A MISSED APCH FOLLOWED BY AN APCH TO RWY 35L WAS NEVER A PROB. AFTER PARKING, HE RESPONDED TO MY INQUIRY ABOUT THE EXCESSIVE TAILWINDS BY STATING THAT THE INS WAS NOT THAT RELIABLE DURING APCH. I GUESS HE DECIDED THAT HE DIDN'T HAVE TO CONSIDER THE HIGH TAILWIND READOUTS.

AS WE EXITED THE ACFT, WE OBSERVED THAT RWY 35L WAS NOW THE LNDG RWY! ABOUT 30 MINS LATER I WAS AT A COMPUTER IN THE CREW FLT PLANNING ROOM WHEN I HEARD A PLT NEXT TO ME TELLING A GROUP OF FELLOW PLTS ABOUT THE B747 LNDG THAT HE HAD JUST WITNESSED ON RWY 17R. THE PLT SAID THAT HE OBSERVED OUR ACFT LAND ABOUT 1/2 WAY DOWN THE RWY AND GO BY HIS PARKING POS SO FAST THAT HE WAS CONCERNED THAT WE WOULD RUN OFF THE RWY.

THE DECISION TO CONTINUE THIS APCH TO A LNDG ON RWY 17R, BY THESE 2 EXPERIENCED PLTS, WITH ALL THE EXTERNAL AND ONBOARD CLUES INDICATING THAT THIS WAS NOT THE BEST COURSE OF ACTION IS ABOUT THE WORST DISPLAY OF JUDGEMENT AND AIRMANSHIP THAT I HAVE WITNESSED IN 18 YRS.

CONCLUSION

Extensive research has been performed by business and human factors scholars into the science of leadership and followership. However, because leadership and followership are human endeavors, both can be considered an “art” as well as a science. The artful nature of leadership has led to the creation of false beliefs that leadership skills are inherited and not learned. To fully extract the maximum potential from CRM, we should make it our personal quest to improve our soft skills, in particular those of leadership, followership, and communication.

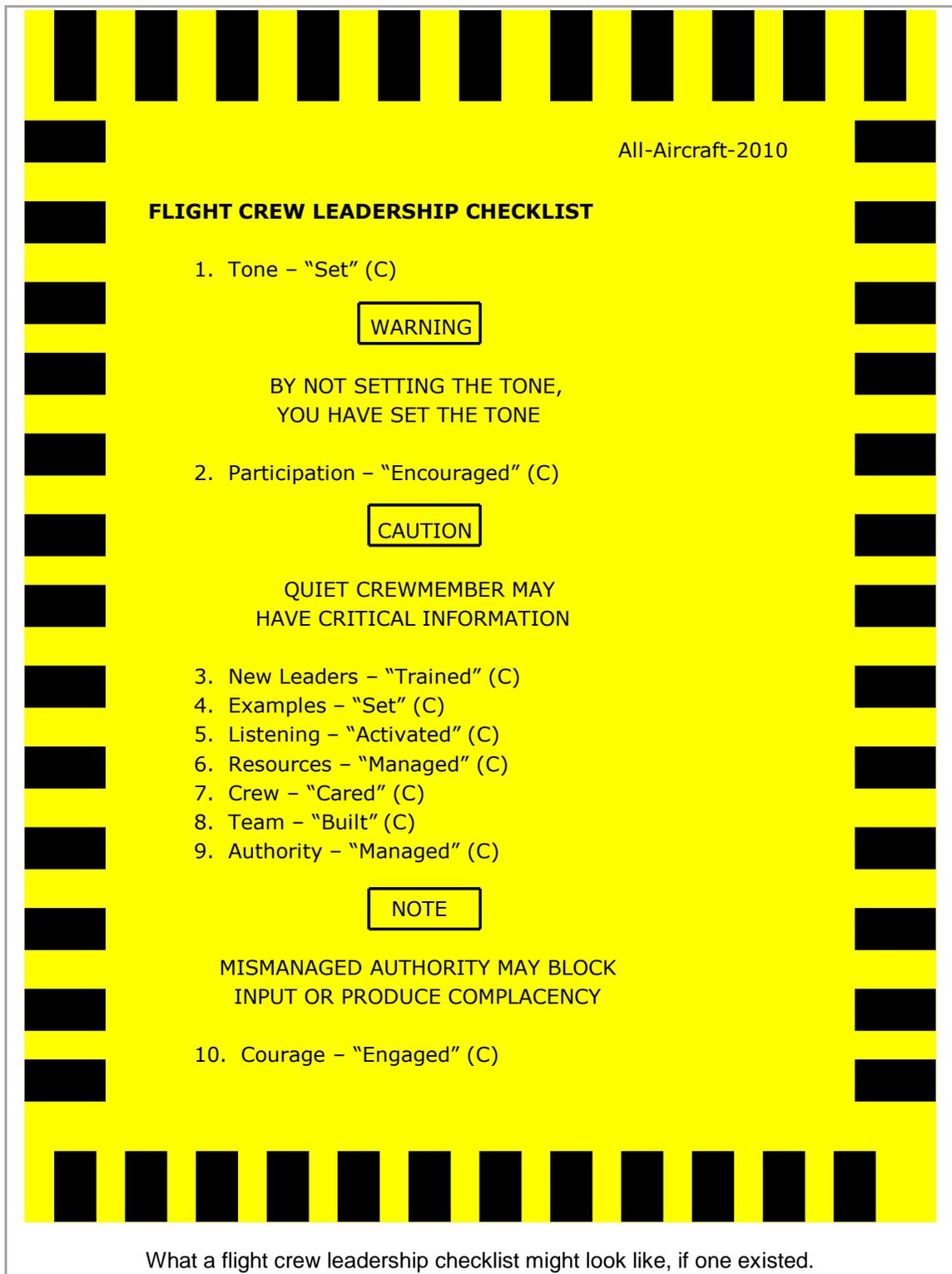
Leadership can be defined as the use of influence to affect individual behaviors and attitudes. Unfortunately, it is common for people in *functional* leadership positions to not know they are being perceived as leaders, resulting in operational dysfunction and much frustration. Those placed in *designated* leadership positions sometimes relish the authority that comes with the job but do not realize that an equal measure of responsibility is also part of the deal. **Leaders can delegate authority but can never delegate responsibility.**

Most tasks to be completed by flight crews are already pre-established through SOPs. Such a situation seems to diminish the necessary managerial actions of a captain but does not address the pressing need for leadership, which revolves primarily around the concept of creating a positive work atmosphere for the crew.

Several readily identifiable leadership and followership actions can be studied and emulated as part of self-improvement efforts. **The most important job of leader is to set a tone that encourages participation in the decision-making process by other crew members. The most important job of a follower is to assertively provide input to leaders while remaining respectful of the leader’s authority.** Both leaders and followers must be cognizant of the authority gradient that exists between them. A transcockpit authority gradient should have a moderate positive slope from the captain to the first officer...being neither too steep nor too shallow, and never negative; in order to promote optimal assertive communication and decision-making.

Both leaders and followers in the cockpit must remain acutely aware that every first officer may be a captain in training. By learning leadership while still a first officer one can avoid falling into the trap illustrated by the joke about *Copilot the hunting dog*. If we don't take advantage of the opportunity to learn about leadership before being placed in a position of leadership it is entirely possible that we will end up sitting in the left seat and just barking. We do not want to become on of “those” captains that every first officer and cabin crewmember ends up telling stories about!

If we are asked to summarize the entire content of this paper into one sentence, it would be **“Authority with participation and assertiveness with respect.”** Such a sentiment is the cornerstone of effective flight crew leadership and followership.



REVIEW QUESTIONS (R)

- R1.** Provide a personal definition of leadership and showcase a specific aviation example of when your leadership was successful.
- R2.** Explain specific actions that a captain can take to reduce the effects of a steep positive authority gradient in order to promote assertive communication from the first officer.
- R3.** Explain specific actions that a first officer can take if an excessively shallow or negative authority gradient is detected in the cockpit.
- R4.** Explain a specific moment from your past when someone probably expected a leadership action from you but you failed to deliver on the expectation.
- R5.** In ASRS Leadership Case Study 2, how could the captain have encouraged participation in his or her authority to produce a better outcome to the situation?
- R6.** In ASRS Followership Case Study 2, how could the flight engineer have used the five-step Assertiveness Model to obtain a better outcome to the situation?

DISCUSSION QUESTIONS (D)

BASIC

- D1.** Who is the best flight instructor you have had? What were the top three leadership qualities that the instructor exhibited? Be very specific when you describe the qualities and explain how the qualities impacted the safety and efficiency of the flight, as well as the quality of your learning.
- D2.** Imagine that you are chosen to ferry an aircraft across the United States and are told to pick out a copilot for the flight. You are given the names of five competent and current student pilots to interview for the position. They each have about thirty hours of total flight time and have all soloed. Come up with five questions to ask each candidate during an interview to assess his or her leadership and followership skills in order to determine who you will choose as your copilot.

INTERMEDIATE

- D3.** Choose a role model for the type of leadership that a captain should exhibit. The person can be a real individual or a fictional character from a book or movie. Write a paragraph that depicts the leadership traits that your role model exhibits and how you can use similar traits to excel as a captain. Use the traits to produce a personal definition of captain's leadership.
- D4.** Choose a role model for the type of followership that a first officer, flight engineer, jumpseat pilot, or cabin crewmember should exhibit. The person can be a real individual or a fictional character from a book or movie. Write a paragraph that depicts the followership traits that your role model exhibits. Use the traits to produce your personal definition of crew followership.

ADVANCED (CHECK AIRMEN)

D5. Pick an aviation event that illustrates good captain leadership. Select the top three leadership qualities that are evident in the event that you selected and find a way to work those qualities into a future lesson plan as behaviors that *you* will exhibit while teaching the lesson.

D6. Instructors are leaders of learning. Write a paragraph which explains how your teaching exemplifies “authority with participation.” Write another paragraph that depicts how your teaching promotes “assertiveness with respect.” Be very specific with your explanations.

Endnotes

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