Managing Pilots: An Art and a Science

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Author Introduction

Former Flight Surgeon, Frank E. Dully, Jr. retired from the United States Navy after 23 years of active service. He served aboard the carriers U.S.S. Hornet and Enterprise. He was on station with the First Marine Aircraft Wing in Okinawa, and on staff with the Pacific Fleet Naval Air Force, where he wrote under the pen name of "Superquack."

Shore assignments included tours at the Naval Air Station at Glynco, Georgia, as Senior Medical Officer, and at the Naval Postgraduate School in Monterey, California, as Command Physician and Instructor in Aviation Safety.

Several postings were at Pensacola's Naval Aerospace Medical Institute, where he served as Director of Training, and, ultimately, as Commanding Officer. Frank's many distinctions include the Legion of Merit, the Meritorious Service Medal, two Navy Commendation Medals, two Air Medals for Action in Southeast Asia, and the Vietnamese Honor Medal (First Class). He has extensive flight experience in virtually every multi-seat U. S. military aircraft.

Today, Frank is a consultant to the aviation industry and a Field Associate Professor of Aviation Safety at the University of Southern California. He's the author of more than 30 professional articles. He will now speak on "Managing Pilots: An Art and A Science." Dr. Frank Dully, Jr.

Flight Safety Foundation, good morning!

(ABSTRACT: For the first four decades of most aviators lives, coping skills learned in and appropriate to that unforgiving workplace are discovered and perfected. Their utility in the home is mistakenly taken for granted, though not unchallenged by the spouse. This paper documents the constituent parts of the coping assets demanded in the cockpit, and identifies them as a source of frustrations when allegedly new and better ways of accomplishing tasks are inserted into the workplace by management).

Introduction

Pilots are very confident people (big surprise). They possess attributes that contribute to their success in what can be a notoriously hostile environment. They handle stress far more effectively than many who are not so gifted. Because their successes reinforce the conclusion they already know how to best make things happen, special handling may be required to redirect their energies and attentions to new ways of doing things. "Cockpit Resource Management" which we've heard so much about here, is but one example of the proverbial "better mouse-trap" that will, nevertheless, require a dedicated "selling" to reach many members of the aviation community. Ignoring the specifics of why and how pilots are so special, risks compromising the advances that can accrue from improved techniques.

This paper examines the attributes that constitute the aviator's most highly developed coping talents. Many professionals, including systems analysts, physicians, dentists, engineers, and lawyers use basically the same learned behavior as does the pilot with the singular difference that mistakes or failures in the former professions exact a price from society, whereas, in aviation, the price tag will be both personal and high. Doctors are said to bury their mistakes. Pilots who make mistakes are themselves buried. For this reason, the coping attributes examined here are very highly developed in aviators and less so in other professions. This means that it is easier to see in the aviator than it is in the other, though they essentially function in the same basic way.

Special problems await the pilot because he is not aware that his occupationally-based coping system is a poor candidate for transposition into the home or into other social systems. Efforts to force this issue are generally rewarded with failure and frustration. Efforts to alter the coping system to better fit into situations for which it was not designed, also end up with negative outcomes. Well, let me then examine the coper.

The Coper

You never heard of the word, so let's look at it. Your "coper" is much like your "resistance." The former constitutes all assets dedicated to stress management. The latter is the sum total of disease-fighting assets. Yet neither has an identifiable anatomic location. No self-respecting medical school teaches about them. But were you to ask, your own mother could give a powerful dissertation on resistance, and the fate of those who compromise it. The evidence for the existence of a coper is equally as compelling especially when it is used incorrectly, or when it is overwhelmed. Coping skills visible in the aviation community are not unique to that occupation, as I have said, but because of the nature of the aviator's workplace, and the remarkably high price tag for failure underwritten there, these skills are uncommonly visible to the trained eye. As a Flight Surgeon this is what I look for. Not surprisingly, they are found in every profession to some degree. Those who seek to interface with such professionals but are unaware of both the flaws and the assets resident in such coping techniques will not be able to appreciate the significant, adverse and unsuspected impact upon their private lives.

The ingredients of the aviator's coper are developed from personal experience. The painful process begins in the first years of life and is perfected or blunted by the owner's assessment of his own capabilities. Trial and error is the primary teacher. The shaping of the coper will be influenced primarily by strivings that are occupationally oriented, because breadwinning is the first task of the adult. Certain career paths, most notably professional aviation, demand that the development of the coper be along quite predictable lines. It follows that if a coper's development is stunted, the adult will be a misfit in certain occupations. The higher the price tag for occupational failure, the more clearly developed will be the coper. Thus, in aviation career, the price tag for failure includes death. Social skills, unfortunately are not part of the equation, and the coper reflects this fact.

The primary function of a coper is to allow it owner to be in CONTROL. I like to put that in capital letters. When it is working, he knows he is the master of the outcome of his efforts. The more proficient the coper, the more impressive is his dossier. The successes enjoyed by the owner, and the more likely that more successes will follow. More energy is directed at being in CONTROL (again in capital letters) than any other human endeavor. Given a choice, the successful professional would control people, events, and things. "Make things happen" is his motto. A coper allows a disciplined attack on the problems of living for the explicit purpose of preventing surprises. Note that copers bring only order. Order is not necessarily happiness, though we would like the two to coexist.

The coper will be busied with the task of achieving goals. To it falls the job of prioritizing the multiple forces that would abort the assigned mission. It attempts to alter the chains of events to effect the desired outcomes. It is the coper's responsibility to alert the owner that certain things in life cannot be changed, and instead, must be accepted as is.

For any coper to maximally mature, painful truths about one's own limitations and mistakes will be required. This growth process is supposed to be ongoing, though as most spouses will attest, there appears to be a significant growth hiatus that can last for several decades, frequently to age 45. The more that the coper is tested and grows as a result, the more likely is great wisdom to be the inheritance. The big problem, of course, is that copers are formed in the crucible of the workplace, where failure has devastating consequences, at any age. It is an obsession that frequently obscures the value of the support system that is the spouse. Her importance in his becoming all he seeks is taken for granted. He may find this out the hard way, when she withdraws the support. This is the unwanted spin-off of an occupationally-based coper that fails to pick up the signals that there must be more to life than the job. Let me just look at the ingredients of the coper.

The Ingredients of the Aviator's Coper

Ingredient Number One: Being in Control

One in control is one who makes things happen. (It is no wonder that they are either a manager's nightmare or a manager's delight.) Even among youngsters, an observer can identify certain of them who are the "take charge," the "bossy," the controlling types who in some future endeavor are likely to be the leaders, or those in competition for such positions. Oldest sons and oldest daughters comprise a remarkably large segment of this population, well in excess of their demographic one-out-of-three stature. These are the youngsters that initially set out to please that Very Important Parent, (usually Dad), in response to his requirements for excellence in many things. It becomes the mission of the first child to bring to the Very Important Parent a series of vicarious successes. Seizing the opportunity for recognition and a taste of success, the child usually applies himself diligently to the tasks thus assigned.

Normally, the first recognizable victories are in the classroom. Good grades result. But, and here is the key to the future, instead of getting the promised praise and recognition from the VIP, the child collides with an unanticipated enigma: criticism. Unswerving attention is devoted to the "B" on the report card (and I can attest to this). The "A"s might just as well be invisible. Similarly, the dandelions that were not picked are the ones meriting VIP attention, or the swath of grass that was missed by the mower, instead of the acre that was dutifully mowed.

A very significant crisis in the development of a coper must result because instead of recognition, there are blisters and resentment. Clearly, one who performs well, expecting praise, is in the wrong place. The choice is made whether to continue on "Mission Impossible," seeking praise that will never come. He must learn to shift his intellectual gears. Either cease the unrewarding effort, or find some personal satisfaction in it. One or the other. Aborts at this stage are common. Quitters say "To hell with it, it's too hard." They select a low profile, with low stakes, low risks, and low return. Their strivings are considered as valuable only for the recognition they would otherwise generate. They will not be found in the ranks of adult professionals except by mistake, and then only briefly. The winners, however, say "To hell with you, Dad! I'm doing this for me, and I'm good at it! Watch my smoke!"

And off they go, racking up a most impressive dossier of achievements only because they are challenging, exciting, and fun. He is to become his own man. The second son, the one who comes behind the elder dropout, becomes the recipient of the same dilemma as his older brother, and may well end up as a minority member in an overachievers club normally populated by oldest sons.

I am not surprised (listen to this) that 21 of the first 23 astronauts who flew on space missions were oldest sons; or that 78 percent of Supreme Court appointees, nominated by Republican presidents, anyway, have been firstborns; or that tactical military aviation is populated by oldest sons in a ratio that commonly exceeds 3 to 1. Oldest sons are drawn to such posts because they represent a uniquely difficult challenge in which they intend to excel.

These are the movers and the shakers of this world. As the coper gets reinforcement from success, the proficiency in controlling increasingly complex issues grows. Even the circle of friends is narrowed to include only those similarly inclined. The hallmarks of this impressive group become (and you know this) competitiveness, gregariousness, adventurousness, and a touch of irreverence (and maybe not just a touch). These children are their parent's secret delight because they are good at many things, as opposed to the dropouts who never seem to come up to speed in anything. It is no accident that the 5-year-old boy who appointed himself Colonel in the neighborhood Commando Brigade, ultimately becomes the Eagle Scout, the varsity letterman, the elected president of the class, the Dean's list performer, and ultimately the aviator.

Selected oldest daughters proceed to a similar fate. Many will become a comparable kind of overachiever, with appropriate modifications befitting their gender. Notice how many oldest daughters marry oldest sons, a partnership marked by a struggle for control. The contest of wills found there is a natural consequence of the high caliber of the players. They will have to work out a way to take turns at control, or the marriage will not survive.

Given the remarkable frequency with which firstborns inhabit the aviation community, what about the many who, though not oldest sons and daughters, nevertheless have made the same life choices and are equally as adept in that unforgiving environment? Looking at the family constellations from which they came reveals a fascinating anomaly. Either the oldest elected not to pursue the road to high achievement, leaving that option open to younger siblings, or there is more than a three year hiatus between offspring in the family, meaning that the parents had sufficient time to recover from the burden of raising the predecessor(s) to exert the same pressures on those who follow. Less commonly, all the children may become superstars without regard to their birth order.

The compulsion to be the one in charge is readily seen in a pilot. Control is to be achieved by careful planning or training. Surprises must be anticipated and evaluated in advance. That way, there will be no surprises. Think it through first. Be prepared. Surprise is the antithesis of control. To see this, one need only observe such a controller in the planning process for a mundane evolution such as a weekend trip in the family car. It is worthy of a 747 captain preparing a flight plan for a transpolar flight to the Far East. An incomplete list of the items to be covered includes:

- decide how best to pack the trunk
- obtain the predicted weather and road conditions
- assess the likelihood of radar traps
- identify the most efficient route of travel
- evaluate the availability of fuel en route
- select appropriate auto club maps
- designate expected time of departure (zero dark 30)
- designate expected time of arrival
- designate waypoints to assess actual progress
- establish alternate routes for detours
- stash an extra quart of oil in the trunk

The spouse will be quick to appreciate that the above list does not include rest stops (her size-2 bladder is not his problem).

In the event that the controller was precluded from completing the above self-assigned pre-departure tasks, his displeasure will be readily apparent. Any family outing that follows an abort of the controller's planning assignment will be memorable only for its irritable driver whose contribution to family harmony was notable only by its absence. The family has a name for it: "Dad's Bad Mood."

There is an unfortunate corollary rule to the one requiring such rigid control. It says:

If You Can't Be In Control, Make It Look Like You Are

This contradiction is the deadly trap that dupes a normally disciplined aviator into a sequence where he will exceed his ability to maintain control. Fatalities frequently result. Key cockpit interventions that would preclude a fatal outcome get postponed as the pilot refuses to accept that he is no longer in control. If you believe this axiom does not apply to you, consult your spouse.

As youthful controllers mature, they become aware of a flaw in their makeup that is beyond their control. Heroic measures will have to be undertaken to nullify the adverse effects of this flaw. The flaw is that he possesses feelings, which by their very nature, are spontaneous, and therefore subject to control only after the fact. Drastic action will be required. This action leads to the second ingredient in the coper, calculated emotional distance, as a way to handle this unspeakable flaw. Let us look at ingredient number two.

Ingredient Number Two: Calculated Emotional Distance

The impact of three major sequences in the budding aviator's life will ultimately force the issue of how to prevent feelings from controlling him. The first occurs in the toddler years, the second plays out in early grammar school, and the third takes place late in his high school years. They are bruising experiences that will have major consequences for his adult life, setting the stage for his future flawed performance as a spouse.

Lesson No. 1: The little boy who clings to his parents is clearly an embarrassment. Big boys don't cry, or so he is told. (This is to include big boys who still wear diapers and who sit in high chairs.) The pain of wounds and injuries is to be overcome by self control. If he is to be a man, he will stand tall, independently, "on his own two feet." The message sent is that male children, if they are to be considered masculine, either do not possess or do not expose their feelings. Dependency needs are anathema to maleness. Curiously, the ultimate acceptance into the male world is contingent upon conformity to a standard which just happens to be fraudulent. But he tries. Note that the female child has no such constraints visited upon her. The coper that she develops will not have this attribute.

Lesson No. 2: First grade brings puppy love, and with it, the second great lesson to be learned about feelings. The lesson is that if you make an emotional investment in someone else, you simultaneously endow them with the capability to manipulate you. Without regard for whether the relationship is real or imagined, and most puppy love is imaginary, the protagonist must be willing to underwrite risks with his own stability, giving up control of his destiny, and to make himself subservient to the will or the whim of another. The resulting pain, ridicule, rejection, embarrassment, or emotional bankruptcy that is implicitly courted is quite a lesson, even in the first grade.

Lesson No. 3: In the middle to late teenage years, certain priorities will have to be set in order that choices be made. Striking a happy medium between social interests and academic pursuits is not easy when specified minimum levels of achievement will be demanded in return for the opportunity to progress. Successful controllers will have set their goals, and identified the means for achieving them. Special projects will be undertaken indicative of the level of commitment to these goals. It will not take long for the realization that a relationship with a young lady can be so consuming that the resources normally available for other achievements can be immobilized or constrained in such a way that some goals may not be reached. Feelings can be seen as parasitic. They distract. Feelings have demands of their own. You can get either feelings, or control, but you will not get both. The choice is not difficult.

Control is preferable to the uncertainties of feelings. The solution will encompass a compromise: emotional distance. Never let anyone get so close that control is threatened. If someone is clever enough to position you so that your feelings will be exposed, there is a ready solution. Escape. Eject, as if it were a burning fighter plane. Punch out. This is the universal solution for a controller, just as it is a universal frustration for his spouse.

The following (unoriginal) scenario will illustrate this truth:

Mr. Controller normally arrives at the breakfast table twelve minutes prior to his departure for work. On one particular morning, within moments of taking his usual place, and with the newspaper spread out before him, he very astutely detects a curious frigidity in the kitchen this morning. Clearly, he is about to be accused of some heinous crime, that to him is of no consequence. In his mind's eye he sees a frontal assault, being mounted by a most formidable enemy, who would excise, dissect, and expound upon his feelings, were he to permit it. Will he? Certainly not. It is far safer to seek the sanctuary of the public highway than to engage a well-armed enemy in her own camp. He therefore exits to the garaged automobile, to arrive at work eleven minutes early, and he thinks the problem is solved. This misimpression will be fixed when he arrives home at the end of the day, after she has had eight-plus hours to plot retribution. Her goal is implicitly to provoke spontaneity so she may see what is really going on. He will resist. This is an excellent example of the inappropriate transfer into private life of an occupationally-based coping device designed to keep feelings from compromising the equilibrium of resources that might be needed in the workplace. It is well known that emotional conflict adversely affects performance. A controller is too smart to get caught in such a squeeze.

Ingredient Number Three: Compartmentalization

A controller's life is so well ordered that everything has it's place, and will be found in that place. Compartmentalization is a self-taught mind-trick that constructs these places in the cerebrum. It allows the owner to selectively deal with individual issues without the distraction of other issues, even when many issues might be in competition for attention. This is how a pilot with an overdrawn bank account, an angry wife, a sick baby, and a clunker of a used car with a flat, can launch in the company's aircraft on a dangerous mission into horrible weather, and not be distracted by the disarray of those other compartments. When the canopy or the cockpit door closes, there may just as well be no other compartments, if his compartmentalization is intact. Please note that the contents of selected compartments may be of such overwhelming significance that they cannot be dismissed, and the owner may be struggling to keep his mind on other things. Suppose that in the above example, the aviator's 4-year-old daughter was critically ill with spinal meningitis. It is likely that his ability to compartmentalize would be overwhelmed, and he should not be flying that day. This is a very important decision. It is one that should be made by the pilot preferably, and respected by the employer, and sometimes vice versa.

Compartmentalization does not bother to distinguish between the relative importance of the contents of different compartments. All compartments are assigned equal significance, even when this is patently not true. It is the feature that allows a level of concentration devoted to a difficult tactical problem to be the equal of the level of attention devoted to the evening news telecast. "Woe unto she who interrupts." It is compartmentalization that allows a coper to put away the things of the past and carry on, perhaps bloodied, but not defeated.

The one most overwhelming set of circumstances likely to exceed the ability of a coper is a failing marriage. It is complacency that normally masks the significance of this vastly under-rated support system. Thus, when the marriage finally founders, the impact frequently comes as a surprise. Both sexes use compartmentalization, but the male is not selective about its use. He does it whether he needs it or not.

The medevac helicopter can be a prime example of how compartmentalization may be inappropriately used with potentially disastrous consequences. Because of the humanitarian overtones that are part of medevac, the compartment bearing that name may be a trap wherein heroics are to be considered routine. Anything becomes permissible in the saving of a life, even things that would be considered irresponsible or foolhardy in any other setting. It is the classic arena where superior professional judgment can prevent a pilot from having to demonstrate superior skills—skills available thus not being exceeded by skills required.

"Get-home-itis," a problem well known to safety officers, is another such misuse of compartmentalization, also having potentially fatal consequences. It can occur in any vehicle, on duty or off, privately owned or not. It is a compartment unique for the waivers that are to be applied to all manner of rules. It kills because someone who should know better has substituted destination for journey. Flying is the process of getting there. Compartmentalization, then, can also be a problem and not a solution. In this business, process, not product, is everything. I have a special consideration for you here. Let's address what I like to call the Autopilot.

A Special Consideration: The Autopilot

The more proficient the coper, the more likely is the owner to reinforce his judgment that he has invented the perfect system. As life experiences multiply and the coper seems to have been adequate for all the needs, the owner will seek ways to come up with an automatic pilot so that the level of concentration required to effect control may be diminished. Heading the list of options is a marvelously simple technique: rituals. Repetitive tasks become easier the more often they are performed, and may be ritualized, thus needing less attention. (Then you can do several things at once.) A student pilot will have his hands full just coordinating his tasks, but an experienced one can conduct an ICS conversation, tune in the tacan, change frequencies, and decide where to stop for supper all at once. He can even "preflight" the airplane with his eyes closed! But rituals can be a trap for the unwary. For instance, how is it that a pilot can acknowledge that his wheels are down, and then land wheels-up? The answer: the notorious cerebral disconnect that is the price to be paid for performance of a ritual.

The list of tasks frequently assigned to the autopilot coper is extensive. You need to be aware that their results are not predictable. Being a good aviator is not the same thing as being a good spouse. The tools required for one are not the tools required for the other. It takes most of us 45 years to figure this out and then do something about it. As an aside, I want to demonstrate something I did in my last duty station in Monterey.

This business about rituals is to me, personally fascinating. As you look around in this business you can see that we do culture rituals to keep us out of trouble. For instance, in the ritual of your flight physical, what is the last thing the doctor does? What is the second to the last thing the doctor does? His icy finger checks you for inguinal hernia. The ritual requires that as the doctor goes down on one knee, with the gloved finger ready to be inserted in the inguinal canal,... what does the doctor say to the patient? The doctor says," turn your head and cough." So, in Monterey, in conducting my experiment, when I was down in position, gloved, I said, "give me your wallet." The patient always responded "Cough, Cough."

Also not addressed in the paper, and something I'd like to touch on because I've got about five extra minutes here, is an arena that we are notoriously inept at, and go to great pains to avoid. I've indicated this, but I need to spell it out. The arena is the arena of the spontaneous. That is one place you are not going to catch me, and I'm not going to catch you there either. We know if the spontaneous is some-thing I haven't figured out in advance, I'm going to lose. One of the reasons that the "get-home-itis" is so dangerous is that when that compartment robs you of your capabilities, you're left to go spontaneous, and you blow it.

I remember talking to a group of helicopter wives in San Diego some years ago. A young wife came up to me and said "Well, Doctor Dully, you're not describing my husband at all, why he's marvelously spontaneous, off the top of his head he comes up with these wonderful things." In my most tolerant, clinical tones, I said "dear, how long have you been married?" "Eight months." "I see, well my dear, what you are looking at is aviation spontaneity reel 1. You think when he runs out of reel 1, he'll put on reel 2? There is no reel 2. It's the same old stuff, over and over. It is so programmed, I can tell you what his next spontaneous act will be." The emotional confrontation at the breakfast table that I described, is an exercise in how we avoid the spontaneous, because it's a trap, and you can't control it. I keep coming back to where I started, in capital letters--IN CONTROL.

One final corollary: The past successes of the coper make its owner an unwilling party to try something new, unless it was his idea. You know "it was not invented here syndrome". It should come as no surprise, then, that those who are charged with supervisory responsibilities over one whose coper is as I have described, have their work cut out for them.

Thank you very much. The microphones are open for the gutsy.

Questions and Answers

Q Can we talk about the coper for a minute? In the Navy, as you know, we had a hierarchy of personality types, which I guess is, the hierarchy of the coper, between a single seat fighter pilot and other types of pilots.

Dr. Frank Dully: You really want me to do that here?

Yes. I wonder if you can maybe explain the parallel, or bring up the parallel to civilian aviation, commercial aviation, corporate aviation?

A I certainly can. It is really interesting if you go to a fighter pilot community. You know this is where the 3 to 1 plus ratio of oldest sons is. If you want to get the flavor for what goes on in that community, all you have to do is go to a party, because the fighter pilot will tell you. Measure how good is the party by the size of the bill for the damages to the bar.

You can tell who they are because they talk this way...it's two hands. Now if you go to the attack community, first of all the red hot clue as to where you are, is they're talking in one hand, okay. And they measure how good is the party by the size of the bar bill.

If you go to a patrol community "look Ma, no hands," I think you'll find the same hierarchy here. Let me take a hip shot, and I'm going to ask you would you please raise your hands and show me how many in this audience are oldest sons, and oldest daughters, would you raise your hands? Let me see. Hooh, hooh! Look around! Okay, the census bureau says it's 1 out of 3. It's 7 out of 10 in this room. Does that tell you something? This is a very self-selected group of people who are here for a reason, and anybody who for one second wishes to entertain that what's here is simply a cross section of what's out there--not so!

Okay? We are adventurers, we are hell-raisers, we are the Robert Redford's of the daring young man in his flying machine for those who wish to see us that way, but we're not. We are professionals, and we work hard at it.

Q It's me again, (Mr. Jerry Lederer). In your demonstration of using one finger, you're a little bit outdated. These days the patients want two opinions, so you should use two fingers.

A No way am I going to top Jerry Lederer. Thank you sir.

I made a comment to Allen Mears before we started my turn up here and he said "Do you want me to dummy some questions for you?" Well, you might consider that because it's been my experience that talking to a male audience, if in fact there are questions, they begin like, "Well, I have a friend." Whereas, when I talk to your wives, she'll get up there and say, "Now that s.o.b. this and that.

Q Doctor, thank you for you presentation on a very interesting macho world the action-reaction chain. I find it very interesting, but the labor supply being what it is today, career paths being what they are, we are finding more and more good women in the left seat of our jets, and they're doing a remarkable job of control. I'd like to hear some of your comments on the other side, as well.

A They are no different than the male, with the exception that they do not have a requirement for emotional distance. As a matter of fact it becomes quite an enigma for a male to watch a female sit down and cry, get up 10 minutes later, and her battery is perfectly charged, and he wonders, "How the hell did she do that?"

Basically, aside from that, she is not afraid of her feelings. There is essentially no difference, they are as professional and as capable as are we, and from a hand-eye coordination point of view, they possess more skill than do we.

Q Frank, when my wife, at a previous recitation of your presentation at another place when we were on the dias together… I told her about this, and I said "You know, I almost saw myself on a couple of these things," and she laughed and said "Oh yea, almost? If you ever share the dias with him again, in any way, ask him from the wife's point of view, how the hell do you cope with a guy who fits these definitions?" I said "I don't want to ask him that." She said "You ask him that because I'm gonna ask him if I ever meet him, whether you did," so there you are.

A There are several answers to the question. The first thing is that if the wife has an opportunity to hear some of what I have to say, then some of this thing begins to make sense. That does not necessarily underwrite that she's learning tolerance. It does, however… what appears to be utterly senseless, classic guy walking out from a confrontation at the breakfast table, she says "what the hell's going on here? What is he doing?" This helps at least to understand. It does not make it forgivable, but it does make it understandable.

The bottom line, unfortunately, is not so good. The bottom line is, that many of us blow away our first marriages. You know, while we're doing all this coper thing, before we get to understand that there is more to life than the job. Not every wife is able to put up with it, until the light at the end of the tunnel at age 45 appears to go on, unfortunately.

Q I've enjoyed your presentation. I would be interested in your comments on the fact we are trained to do it ourselves, to fly the airplanes ourselves. All of our training addresses that, and now today, we are moving into an area that we call team building and cockpit resource management, so how do we make that jump across?

A I'm not sure I would agree with your basic premise, that we come here in order to be the one guy who is in control. We come here in order to effect control over a task, and here are some neat things at my disposal that I can use to effect control. I don't think we came to aviation necessarily to be the guy in the left seat, or the guy in the U-2 or the A-7 in a night cat shot. We came here to do a difficult task, and if the system will give me what is required to do the task, I will honcho it. You know, that's okay.

Q But we're taught in our training that we can do it all. I mean we are taught to solo the airplanes ourselves, to fly them ourselves, and so for the time we had those coping skills so high, now we have to step aside and say, "I need someone else to help me to complete the task."

A It's one thing to solo a T-34, it's another thing to solo an F-14, when there should be somebody in the back seat, and there isn't. So, the wickets that the system has established for us are a calculated, increasingly, progressive amount of difficulty, so that the fact that "yea, we came to fly a bird all by ourselves"...a little tiny thing made by Beech, is not the same thing as something made by Grumman Iron Works.

What I'm saying I guess is that I don't find any contradiction at all with cockpit resource management in utilizing all of those tools to be in control, as being anathema to what I say the man is. I think it all fits.

Q You concluded your paper by saying that people who have to manage pilots, have the uniquely difficult task because of the control they seek to gain. I realize it's a difficult question, but can you give us any tips from your experience, about how an aviation manager can effectively gain commitment from pilots?

A Well, the first thing, and the reason I even gave the paper here, is you have to understand the meat he's made of. If you know where he's coming from, you'll be surprised and pleased to know he is the same as you are, and that if you can have some sort of identity with who is this person you are supposed to be effecting some kind of control over, and if he is in fact, like you are, there is a comradery for starters. You understand where he's coming from, why he does things, what pisses you off, and what therefore, would also do it to him.

It becomes easier only because if he's enough like you, which I say he is, you know what they should have done to make you more comfortable with it. You know, it's as simple as some of the stuff that John Nance told us yesterday. I remember one of my duty stations in Pensacola, there were two of us assigned to do a job, one was the number one man and one was the number two man. I remember when I was the number two man some years before, he continually referred to me as his assistant, and it was done in a way, that your line officers sometimes say "Oh, he's just the doctor." Okay? So the assistant carried with it some code talk that was picked up by everybody else as to who was the big man. When it became my turn to take the number one job, I called that guy my "associate."

One word can mean a helluva big difference, and that's part of what I'm talking about. If you understand what he's made of, what makes him tick, and if he is like you, as I say he is, you will be more comfortable in how to manage him, if you are "people attuned," and I think most of us are.

The iron pants captain that we heard about--the one-man band--that's not a people person.

Most of us are.

Thank you.