

J A N U A R Y

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FLYING SAFETY

U N I T E D S T A T E S A I R F O R C E



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File Thirteen

No use mincing words — to have safe flying, you must have Command interest, and you must have Command action. In recognition of this all-important factor in the scheme of things, the theme, "The Commander" was chosen for the kickoff month in the 1958 Sequence For Safety. FLYING SAFETY follows the theme. Every rated officer in the Air Force is right now a commander or is a potential selectee for such a job in the future. A full understanding of the theme and its impact is pertinent to all. You can't get started too soon. The quote from Lewis Carroll about having "to run to stay in the same place" couldn't be more applicable to any field of endeavor than it is to Flying Safety. And along that line, there are a couple more recent quotes that fit the situation. One we borrowed from one of our favorite advertising firms: "Safety, like success, is a journey—not a destination." The other showed up in a letter paraphrasing Doctor von Braun, the missile expert, that: "Flying Safety Programs, like savings, like research, if postponed until needed comes much too late."

You'll find lots of quotes in this issue. And there's solid reason behind them. First of all, we wanted to show you some samples of realistic, down-to-earth thinking that has gone into this business of command responsibility for your safety. Next, we wanted to share with you some of the action items that have gone into commanders' programs in the past—for possible adaptation to your situation.

HIT AND RUN DEPARTMENT . . . C-119 gear folds on landing due to chafed-bare wiring adjacent to wheel. It's a required pre-flight walk-around inspection item for pilots and crews, and everybody missed it except the Accident Investigating Board. Drivers can find it in their Dash One, page 2-5, Figure 2-1. Picture 16. New 60-16 requires use of anti-collision lights at all times during flight—day and night. Use of these lights at night while taxiing can cause confusion compounded. They look the same as the lights on fire trucks and ambulances which may be operating in the same area—chasing a crash. To avoid having one chasing you when he should be chasing another emergency vehicle, turn 'em off for ground operation. A TWX just received says a new 60-16A dated 18 November 57, corrects definition of "Circling Approach." Deletes the word "not" in the original and clears up the fact that this approach is one that requires more than a 30-degree turn onto final.

'til February.

Vernon R. Stutts

CONTENTS

Bits of Brass	2
Who Watches the Weather?	5
Vive Le Roi	6
Military Discipline	8
Unnecessary Transmissions	11
"X" Marks the Blot	12



Inherent in Command



MAJOR GENERAL JOSEPH D. CALDARA

Flying Safety, if it is to be effective, cannot be a negative, flight inhibiting, operations limiting program. On the contrary, it must be a dynamic program — or plan or scheme — call it what you will. It must be that procedure which insures that Air Force operations are ahead of the requirements set up by the new supersonic aircraft. It is NOT something that you keep tidied up in a little box, like a first-aid kit, for instance, that is only gotten out as needed. Nor is it the end-product of the efforts of a single individual or a directorate. It is an integral part of every mission from the time the mission is thought of until it is completed.

None of us question the requirement for medical services; hence, doctors and flight surgeons. None of us question the requirement in everyday operation of housekeeping or sanitation people, the maintenance of installations; hence, we have veterinarians and air installations officers. These historical parts of the Air Force operations that we inherited from the United States Army are accepted, and as a rule are included. Those commanders who do not include them are not with us very long. Flying Safety is not a historical part of the Air Force operation; therefore, it needs the additional attention to insure that it is included. I know from experience as a Wing and Division Commander that the press of the daily routine makes it most difficult for the commander to be truly objective in his approach to his command.


The press of the international situation, or the press of the local situation may be such as to force a commander to commit his units to the maximum of their capability. Any time an operation is being conducted to the maximum capability of an organization, the inherent risk is increased tremendously.

Those of you who are in command or operational positions will recognize the fact that there is no control over the individual who deliberately goes out and tries to clobber himself. He may do this because of ignorance, bullheadedness, overconfidence or as is too often the case, lack of command supervision and interest — and this is where you come in.

There is no irreducible minimum number of accidents.

Flying Safety must be inherent in every operation — from its inception to its completion — if it is to be a sound and efficient operation. As far as I am concerned, Flying Safety Officers, utilized properly, are just the string around the finger to remind everyone how necessary it is to conserve our combat capability. The Flying Safety Officer is not someone in some remote office at a base, wing or numbered Air Force headquarters. The individual operator, whether it be you or someone who works for you, has to be his own Flying Safety Officer. You have to insure — as a commander — that you support this. If you do not, all the Flying Safety Officers in the world, all the programs and all the money we spend, cannot possibly prevent a man from deliberately killing himself — if that is what you want. I do not think it is.

Our mission is to conserve the combat capabilities of the Air Force. The only way we can do it is to have every pilot, every member of the Air Force do everything that is supposed to be done — as it is supposed to be done and when it is supposed to be done. If we do this, flying is inherently safe. If we don't do it, it is not. It's just that simple.



"Commanders at all levels are responsible for flying safety. But you and I are responsible to our respective commanders to do everything possible to assure each unit's readiness to perform its mission at full strength — with all its aircraft and with all its men, by eliminating and preventing the attrition suffered now through accidents."

"Flying safety or aircraft accident prevention is an exact science and as such is far removed from guesswork. We can and we do identify and predict areas in which there exist serious accident potentials. We know why we have most accidents and what can be done to prevent all but a very small percentage of those we experience."

With this and other words, Lt. Gen. Elmer J. Rogers, Jr., Inspector General, USAF, opened the Third World-Wide Flying Safety Officers Conference. Thus, he pointed up the January subject in the 1958 Sequence for safety — Commander's responsibility and the Flying Safety Officer in the Organization.

Since that conference, Flying Safety has had the privilege of reviewing many letters from Commanders at wing level and above, which describe accident prevention philosophy and action. The following comments have been extracted from these letters. It is by no means a complete listing of thought or action taken by any one of the Commanders named. In fact, many of the items enumerated here were echoed and re-echoed in other letters. Space limitations preclude the inclusion of many other excellent ideas and comments reviewed. Further comment from all levels, and especially commanders, is welcomed.

It is no secret that some commanders are more aware of their responsibility toward flying safety efforts than others. It is no secret that some commanders are more zealous and imaginative in their efforts toward accident prevention. Those commanders who are truly sold on the program are usually more voluble on the subject, too. They frequently write and talk on the subject with great effectiveness.

This article is presented to bring some of these comments, suggestions and methods to light and to give them greater distribution for possible use by other commanders.

Here then are some "bits o' brass."

Lt. Gen. S. E. Anderson . . . "I believe the approach to the problem of developing a flying safety program for 1958 was the best available. My only suggestion would be the inclusion of command representatives from fields related to accident prevention, such as maintenance, operations, Flight Surgeon and so on. This practice has been beneficial in our Command Safety Conferences."

Vice Admiral A. M. Pride . . . "Much of my own emphasis at present is directed toward the correction of "booby traps" on the drawing board, rather than after someone has been killed, and I am somewhat disappointed in the lack of emphasis on this aspect in recent "viewings with alarm" in my own service. We seem to be long on analysis as to why people were killed and short on the criticism of drafting board design that might cause them before the accidents happen. This may be due, in some measure, to our preoccupation with "performance" in the drafting board stage, as well as to overconfidence of the draftsman (I use "draftsman," rather than "engineer"

advisedly) in the sharp young pilot's ability to cope with "just one more operation" during takeoff or perhaps a flameout. Mock-up boards and trials are supposed to obviate such difficulties but the statistics are against them."

Major General Sory Smith . . . "I plan to continue closely coordinating the aircraft accident prevention efforts of my command with the USAF program . . . I am extracting pertinent operating procedures and suggestions for supervisors from the report for inclusion in the command operations safety survey checklist."

Rear Admiral Allen Smith, Jr. . . . "I . . . cannot emphasize too strongly, we are most receptive to any ideas which may aid our Safety Program, from any and all quarters."

Major General H. K. Mooney . . . "I would recommend maximum emphasis be placed on the commander's responsibility with regard to the safety program. I also believe that careful attention must be given to the selection of fully qualified personnel as safety officers. Safety, in the barest sense, is good management and the program is limited only by the commander's interest."

Major General Robert E. L. Eaton . . . "Our flying safety program is aimed at accident prevention, through educated and firm supervision at the operating levels."

Major General Dudley D. Hale . . . "I intend to redouble our efforts through the use of our customer service evaluation program to make up for the loss (of manpower). The basic idea behind this program is to recognize hazardous situations before they develop and initiate immediate corrective action."

Brig. Gen. William E. Eubank, Jr. . . . "I organized special teams to study the following areas . . ." (1) Aircraft and flight crew records; (2) Aircraft scheduling; (3) Knowledge of emergency procedures and flying directives; (4) Administrative procedures in the dissemination of pertinent directives and messages; (5) Compliance with existing directives, and, (6) Support of the flying safety program. Members of these teams were picked for their ability to detect malpractices and their integrity in reporting the facts and in most cases were disinterested persons to the activities being inspected. Needless to say, these teams have reported to me several discrepancies which are in the process of being corrected. I feel that periodic surveys of this type are beneficial to all concerned and invariably will disclose hidden, weak spots and malpractices that perhaps would otherwise go undetected until too late."

Brig. Gen. Frank E. Rouse . . . "Safety is the direct responsibility of command and a natural by-product of efficient management. My concepts on flying safety are embodied in this short statement. Throughout my command I emphasize effective management for I feel a job well done is inherently safe. If a commander properly utilizes his personnel, equipment and facilities; if he standardizes and supervises appropriate procedures, then he has taken out the best insurance available for a safe operation."

Col. Frank R. Amend . . . "I frequently fly with instructor pilots and the supervisor of flying . . . I am satisfied that the most highly qualified personnel available are being utilized in these duties."

Col. Lucion N. Powell . . . "I place primary emphasis on absolute compliance with regulations, standard operating procedures and directives, except under emergency conditions where good judgment dictates deviation. I insure complete understanding of my policies in this respect through constant repetition at Commander's Calls, daily standup briefings, mission briefings and standboard review meetings . . . I add remarks in squadron commanders' effectiveness reports regarding the effectiveness they obtain in the accident prevention campaign as a function of good management."

Col. Edward W. Scott, Jr. . . . "The two most productive lines of attack in accident prevention are continued emphasis on professionalism among crewmembers and assurance that quality maintenance is being performed . . ."

Col. Everett W. Best . . . "To combat complacency in the maintenance field a simulated crash of one aircraft per squadron was required to ascertain accuracy and adequacy of aircraft and combat crew records . . . An investigating officer was appointed who utilized a checklist to insure that all items and records which would be required in an actual investigation were complete and accurate. I have published a policy requiring an information copy of all inspections conducted within the wing, be routed to the Director of Safety, who is charged with analyzing the report for actual and/or potential safety hazards, informing me personally and then taking appropriate steps to assure that corrective action is taken."

Col. Ralph J. White . . . "Standardization, in the most complete application of the term, is considered the most important single aspect of aircraft accident prevention and is supervised and administered accordingly."

Col. N. W. McCoy . . . "Since I associate flying safety with the state of discipline in my organization, I renewed my efforts along this line in kicking off the campaign for 1957. I interview each crewmember prior to solo and this gives me an excellent opportunity to stress air discipline and safety at the same time. I pay particular attention to a new crew's understanding of emergency procedures. I question new crews as to whether they think they are being moved along too fast in the upgrading program. Finally, I ride with newly upgraded crews to discover any potential weakness that might lead to an aircraft accident."

Col. W. D. Dunham . . . "I have found that there are many pilots in the wing with 500 - 600 hours in the F-84F, who have developed some very good techniques and procedures which they apply personally in complying with broad instructions in the Dash One. Their ideas and techniques have been gathered and published in a bulletin so that the information, knowledge and experience can be shared by all pilots who fly the '84F and in particular by the new pilots who are just checking out."

Col. Seth J. McKee . . . "Prior to clearance for solo of any new aircrew member, I require the squadron commander or the operations officer to fully review with the individual concerned, all available data with reference to accidents that have occurred in the type aircraft in which solo is to be accomplished. A recent regulation published at my direction, requires aircraft commanders to pre-compute VOR bearings before each flight which involves entering and departing ADIZ boundaries. This procedure helps to eliminate violations and precludes the possibility of fighters being scrambled for identification purposes. It is believed that this procedure eliminates many useless fighter "scrambles" which, in turn, reduces flying safety hazards in connection with interception."

Col. William Burke . . . "I believe the success of any accident prevention program is dependent upon the degrees of safety consciousness individually and collectively developed by responsible commanders, operations staff, crews and maintenance supervisors at all levels. Supervision and control will assure that the stage is set, but the most important ingredient is a safety conscious attitude on the part of all responsible personnel. Maximum use is made of Operational Hazard Reports to keep needed information circulating."

Col. Robert V. DeShazo . . . "I have established a policy of special concentration upon specific potential problem areas. This is in addition to normal supervision and will entail special spot inspections by my staff to determine any deficiencies that exist. Currently, the safety office is conducting periodic spot checks on aircraft refueling operations."

Col. W. W. Jones . . . "At each Wing and Squadron safety meeting, a pilot or copilot is called upon at random to describe completely the action to be taken in a given aircraft emergency situation. Since no one knows when he may be called upon, there is an obvious motivating factor here which encourages all pilots and copilots to study and know the emergency procedures as covered in the red bordered pages of the Dash One Handbook."

Col. Roger M. Crow . . . "The need of providing the Directorate of Safety with staff assistance in the interests of accident prevention was obvious to me. Toward this end, I have established a Wing Safety Panel, consisting of myself as chairman, my deputy, the Director of Operations, Director of Materiel, Director of Safety, Chief of Standardization, and the Chief of Maintenance. The Safety Panel serves as the instrument for directing, coordinating, monitoring and enforcing the wing safety program."

Col. C. F. Macomber . . . "With full realization that even the most highly qualified and best standardized crewmembers and maintenance men sometimes succumb to human tendencies of apathy and complacency, which leads to corner-cutting and other careless practices, I have stressed self-discipline. Without writing a thesis on the subject, self-discipline is inextricably linked with morale, esprit, military discipline and many other intangibles which distinguish a well run military organization from any other grouping of humans. . . ."

Col. Jacob J. Brogger . . . "Close supervision of all flying activity of highly qualified responsible personnel is a requirement within this wing. The three (Tacti-

cal) squadrons are commanded by qualified instructor pilots and I require that my Director of Safety and key staff members remain current as aircraft commanders. Members of my staff are to monitor all phases of the Standardization Training and Upgrading Programs and to direct to my attention any signs of possible deviation from sound judgment or violations of SOPs or regulations."

Col. Raymond S. Sleeper . . . "Our approach to the prevention program has been through personal supervision and accident prevention by each individual. Studies have been made of individual jobs to determine potential accident areas with personnel being briefed on the critical points of their individual jobs. The role of the individual in preventing accidents is continually stressed."

Col. Julian M. Bleyer . . . "At all times we have insisted that the Unit Commanders lead the accident program within their respective squadrons and this fact has put the backbone into our program. The unit has a higher exposure rate to accidents and has a greater need for safety; therefore, the majority of the phases of safety can be accomplished at this level, Education, Engineering and Enforcement."

Col. Richard O. Hunziker . . . "Since it appeared to me that the greatest problem in accident prevention in the year 1957 was the low experience level of the young pilots recently assigned to the wing, formal Flying Safety Meetings were conducted weekly. To personally satisfy myself that the training program was effective, I terminated each meeting with a short question-and-answer session."

Col. K. S. Steele . . . "My door is always open to the Wing Director of Safety. This allows him to keep me up to date on the progress of incident and hazard investigations."

Col. Travis M. Hetherington . . . "Although directives do not currently require monthly wing flying safety meetings, I continue to have them in conjunction with officers call. Recently a downward trend in Standardization Board emergency procedures examination scores was remedied by holding a competition type verbal examination on emergency procedures with two crews representing each squadron. This had not been announced and resulted in considerable study by all crews, as they expect more in the future. I have tried to instill in my crew personnel the idea that safety is an integral part of any mission, starting with proper planning and ending with proper reporting."

Socrates: *"The commander must know how to get his men their rations and every other kind of stores needed for war. He must have imagination to originate plans, practical sense and energy to carry them through. He must be observant, untiring and shrewd; (and, in turn) kindly and cruel; simple and crafty; a watchman and a robber; lavish and miserly; generous and stingy; rash and conservative. All these and many other qualities, natural and acquired, he must have. He should also, as a matter of course, know his tactics; for a disorderly mob is no more an army than a heap of building materials is a house."* ▲

Weather can play havoc with any mission, any time. Weather can affect the emotions and the reactions of all persons in the flying game. Follow this, and the Air Weather Service series to follow on. . . .

Who Watches the Weather?

I do! I'm the commander of a tactical organization. It is my responsibility to be aware of any factor which could interfere with the successful accomplishment of our mission. Weather can be a highly irritating, interfering and often hazardous factor in flight operations.

The success of a tactical mission is usually judged by the performance en route and whether the aircraft land safely or not. However, the aircraft first have to get into the blue. I've seen many a mission predestined to failure because a commander (or subordinate) failed to give adequate attention to the weather factor in the pre-departure phase of flight operations.

The majority of pre-departure activities, including the weather briefing and the clearance, are centered around the base or flight operations complex. It is here where many of the warning flags of mission failure (or the underlying causes of an accident) can easily be spotted. Each of you is a commander, or a potential commander. So, I'd like to pass along several tips from my personal checklist to help you to detect these warning flags.

- Is the operations section co-located with the weather station? This permits clearance officers to stay abreast of local and en route weather conditions, and readily converse with the forecaster on weather aspects of a proposed flight.

- Are adequate weather briefing and display facilities available to expedite verbal and self-briefings, eliminate confusion or misunderstanding?

- Are enough forecasters available to cope with the workload during peak operational periods? Can they simultaneously analyze and evaluate weather developments, monitor en route and inbound flights and still competently process aircraft clearances? If not, is there a system to control flow of pilots through the weather station? Does the system give the weather station advance notice on pre-planned flight activities?

- Is it feasible to close the briefing room for short periods to permit the forecasters to study changing weather conditions, thus providing a more reliable forecast?

- Is weather information obtained from Flight Service during night periods? This helps maintain adequate forecasting and briefing strength during peak operational activities, especially when there is a shortage of forecasters.

Yes, I as commander, watch the weather. I do this to preserve my life, the lives of my aircrews and the combat capability of our Air Force — and so can you! ▲

THE COMMANDER





“Vive L

Air Force Regulations, like kings, may die. But there's always another to take its place. It behooves the common man, in this case, the pilot, to learn what the new king has to say about how things are going to be done. Otherwise, it may be “Off with his wings!” And once a man gets used to spending that flight pay it's not so easy to readjust the ol' budget. In this case, Old King 60-16 is dead, but “Long live the new!” as of 29 October 1957.

We don't recall when we've seen so many changes or additions made at one time to this venerable guide. And it certainly means that each one of us who operates an Air Force bird is going to have to take time to note these changes. Commanders seldom take it kindly when one of their flying lads violates Flight Regulations. They generally get pretty stuffy about it. So follow along a bit and we'll point out a few of the major changes.

The paragraph numbers of the new and the old do not coincide as to subject matter. The new reg has a total of 56, the old 55. Generally, you will find that the new paragraph number is one higher than the old one on the same subject area. When we mention a number, we'll be referring to the NEW. So, let's go!

First of all, you will find a number of changes in and additions to the Definitions of Terms. There is a real sneaker in this dictionary. Most Websters just tell you what's what. This one gives directions, which do not appear any place else in the book but which, nonetheless, must be complied with. The case in point is the discussion of minimum fuel for jet aircraft. If you're flying any except tactical or active air defense sorties, this paragraph says that you “will enter the VFR landing pattern with

enough fuel to insure normal landing sequence with other aircraft.” A little further, this paragraph tells you that you “should notify the control tower” when that amount of fuel is reduced by one-third. This of course equals “Minimum fuel.”

The significance of this should be fairly obvious. Since it says that “You will enter” the landing pattern with enough fuel to join the rest of the troops already there, you have to figure on this before leaping off. If you're landing at a training base where traffic is terrific, you may have to figure on extra fuel. This could happen any day at Luke, Webb or Willy—or a good dozen others. Anyway, it's nice to know, finally, just what “minimum fuel” really is.

The paragraph just following that one comes close to telling you what to do. It spells out when you may make practice landings and the conditions that you must comply with prior to doing it. This is another little gem that does not show up later.

The moral to all this is, don't pass up the definitions section merely because you are fairly well familiar with flight terminology. There is also the “who, where, when, why and how” to be considered and you will find a good many of these scattered about this section.

Two other brand new additions to the definitions department that you will be happy to see are “Circling Approach” and “Continental Control Area.” The one on Circling Approach has previously been in the “hard to find” category, but done up nicely here. The other—Continental Control Area—is new all the way around. Your Radio Facility Charts have recently carried descriptions of house rules on this one, and more is added in FLYING SAFETY, December '57.

Better than all the rest of it combined, is the fact that all the definitions fell into place—in alphabetical order. In less than one day, you find exactly what you're look-



e Roi!"



ing for. There are a few changes of wording and minor deletions from the list. The effect has generally been to clear up a lot of items that somehow got confused in previous editions.

In Section "B," General Flight Rules, we have noted changes and additions in a total of eleven paragraphs. Some of you will note a disagreement between paragraph 11a and the old Civil Air Regulation. The CAR has been revised as of 1 November 1957 to agree that all will fly along the center line of the airway on IFR—not to the right of it.

One that may surprise you is the requirement that you use anti-collision lights at all times during flight. An exception is made of course in those instances when you are flying through clouds and the light beams reflect into the cockpit, thus providing a hazard to safe operation. The kicker here is that it does not have to be dark, sunset or sunrise when you turn them on. It says, "will be used at all times during flight."

One other change on the lighting arrangement is the directive to turn the position lights to "steady" when used in conjunction with the anti-collision light.

The paragraph on the use of oxygen has been expanded considerably and should be carefully read by all aircraft commanders. Note also that, "All persons in aircraft flying at indicated altitudes of 50,000 feet or above, will be trained to use and will wear a pressure suit."

In Section "C," Visual Flight Rules, there are more changes and additions. Note particularly that "An aircraft will not be flown closer than 1000 feet vertically nor one mile horizontally to any cloud formation." The old reg required only 2000 feet of horizontal clearance. Another notable addition that ties in with the definition of the Continental Control Area is the designation of cruising altitudes above 29,000 feet. You'll do well to keep this info handy on your knee board.

While flying within a control zone under visual flight rules you must now obtain an air traffic control clearance when the flight visibility becomes less than five miles but not less than one mile. The old reg had it three miles. Don't get caught on this one! We've had to call in for a clearance many times in the Los Angeles area when the smog rolled in.

Under Instrument Flight Rules, you'll find the first reference in 60-16 to "VFR Conditions On Top." The reg points out that when you are cleared on top, instrument flight traffic separation is not provided by Air Traffic Control.

In Section "E," Clearance Rules, commanders should note that approval of the major air command concerned will be required in a case where delegation of clearance authority is made to an individual whose combined total of active and inactive duty as a rated pilot is less than five years or whose total recorded pilot time is less than 1000 hours.

Those of you who will be making en route stops to discharge or pick up passengers, crewmembers or cargo without refueling DD Form 175, had best take a close look at paragraph 46. There are too many changes to note here. Changes to flight plan en route from now on will require that the pilot first obtain reported and forecast weather before the change is requested. Further, you have to make sure that Air Traffic Control is notified when a flight plan is changed from IFR to VFR.

Well, there you have the most of it. Gonna take a little skull practice but you can find the time. Violations can be expensive, in more ways than one. ▲

"A unit's discipline is the sum of the state of discipline of each of its individuals. . . ."



M I L I T A R Y D I S C I P L I N E

Major General H. K. Mooney, Commander, 16th Air Force

First off, we have to agree on what we are talking about. Let's use this definition of Discipline:

"Military Discipline is that mental attitude and state of training which render obedience and proper conduct instinctive under all conditions."

Notice it says "mental attitude and state of training." Too many of us concentrate solely on "state of training" and ignore those things which develop the proper mental attitude.

Notice also that it says "obedience and proper conduct." Here again, we have concentrated on "obedience" and have overlooked "proper conduct."

Finally, it says "instinctive under all conditions." This implies just what it says—"all conditions"—whether it be pressing through a heavily defended area in time of war, handling an inflight emergency, personal conduct while on duty, at social gatherings, off base and so on. The discipline of a unit is the sum of the state of discipline of each of its individuals.

Two things have retarded our progress in getting better discipline:

One was a post-World War II study which recommended doing away with regimentation and adopting a form of equal rights democracy which is

not even found in industry or labor unions.

The second was over-emphasis on management procedures. We rightfully had to learn from industry more about successfully managing our modern, complicated, highly-expensive Air Force. It has taken a long time to prove the fallacy of those recommendations.

Too many of our commanders have been led to believe that they should mimic presidents and executives of successful civilian companies. We have learned a lot from the operation of our civilian counterpart, the

"... There is no officer in charge of discipline . . . few know which staff section can improve the state of discipline. . . ."

airlines, but we have failed to recognize the difference between a military establishment and a civilian organization.

Obviously, our pilots should be as technically proficient as airlines pilots, and our management procedures as efficient as those in industry, but let's never forget the military aspect.

An Air Force man must be required to do many things in peacetime which are distasteful to his personal convenience. He has no recourse but to obey, whereas an airlines pilot, a laborer or a business executive can tell you to go fly a kite, and seek other employment, if they are ordered to perform a distasteful task. More importantly, our men must be trained to give up their lives, if necessary, to perform their war mission. So, our job is harder. We've got to be as efficient as the best civilians, and, in addition, have got to spend more time on that which makes the Air Force different—Discipline.

This age of specialization has produced a disease—"crutch-itis"—which could seriously hurt the de-

velopment of future Air Force leaders. Most of you here remember certain responsibilities which a commander could not delegate. Most of those responsibilities are now discharged by special staff agencies to such a degree that our young commanders hardly recognize them as a

command responsibility. Special staff agencies established to assist—I repeat—assist the commander in discharging such responsibilities as morale and welfare, keeping the public and his troops informed, and even parts of training, are prone to think that they have relieved the commander of all responsibility in such matters and, in turn, the commanders have leaned on these crutches so hard that they have lost the sense of responsibility.

Whereas we have provided special staffs to assist in performing certain command responsibilities, we have done nothing about assisting a commander in his number one responsibility, namely, Discipline.

There is no officer in charge of discipline, and few people would offhand know which staff section a commander should turn to to improve the state of discipline. A little thought reveals that discipline must be obtained primarily through two sources: First, through command channels all the way down to an airplane commander; and second, through training programs established in the operations sections at all echelons. Neither of these sources is being properly utilized. The current fad is to speak of an airplane commander as a supervisor or manager, and not a commander, and we have observed a trend to apply the same misnomers to flight commanders and squadron commanders.

As for training programs, a check would show that starting at command



"... The current fad is to speak of an airplane commander as a supervisor . . . not a commander."





"... A machine couldn't care less about its discipline, whereas men—our crews—are not trained unless they are disciplined. . . . We must emphasize a command structure all the way down . . . a span of control that insures day-to-day command contacts so necessary. . . ."

level and going all the way down, the operations staffs can furnish you, on the subject of discipline, about one piece of paper which is a periodic letter from the General, stating that discipline must be improved. Yet they could furnish volumes on how to become technically proficient as an airplane commander.

Another reason for slow progress in improving discipline is that many of our junior commanders don't know what we mean or how to go about doing it. The group of men who got in after war was declared—17 years ago—are now the key staff officers and squadron commanders. In our hurry to make them combat ready, they missed the basic fundamentals of discipline. Therefore, we have the amazing paradox of our senior pre-World War II commanders demanding better discipline and knowing what they want, but when it gets to

the 17-year service veterans, they actually don't know what is being demanded. The two are not talking the same frequency. Some of our 17-year veterans have learned discipline by osmosis under a good commander.

All of us recognize that NCO Academy graduates are the best disciplined group today. Each graduate readily admits that he could have been doing a better job as a mechanic or clerk, had he had the academy training long ago. What makes them better men is that part of their training which improves their discipline. We should apply the same approach to discipline that we have done to other phases of our mission. We should seek out those methods which produce the best results and institute them throughout the command.

We therefore have recommended two specific actions:

- Require the "training" part of Operations to spell out a course in military training and discipline. This course can be easily fitted into the present ground training schedule during Squadron Commanders Hour, Commanders Call and also by the use of regularly scheduled ground inspections of various types, and parades.

- Establish procedures and an organization which permits improved discipline through closer command contact to the finished product.

We are writing about two products: Men and Machines.

A machine couldn't care less about its discipline, whereas men—our crews—are not trained unless they are disciplined. Therefore, we must emphasize a command structure all the way down which gives a commander a span of control that will insure the day-to-day personal command contacts so necessary. ▲

The youthful looking Captain leaned back in his swivel chair and unconsciously raised his pencil until it touched a point just under his lower lip. He looked at the man approaching, grinned and said, "What can I do for you, Sarge?"

"Sir, you can tell me who went along with Base on this requirement that our tower operators call each inbound aircraft and ask for its 'high rank.' If some poor jockey needed that frequency while 'high rank' was being firmed up, it would probably help that proverbial accident find its

place to happen. What does Base think tower operators are up there for? To give . . ."

"Just a minute, Sarge, have a seat. Seems to me your problem deserves some discussion. I know that the coordination between the base flying organizations and our air traffic control mission has been neglected, but why the sudden outburst?"

"Well sir, I've been here for a year now. Last year it was, 'How much freight on board?' Then it was, 'Are you going to RON?' Then came, 'Do you require transportation?' Next,

'Are you carrying mail?' In addition, pilots were asking my boys to call their wives to tell them what time they'd be home. Honestly, sir, there has to be an end someplace!

"At this rate, taxi and takeoff instructions will be obsolete by the end of the month. As you know, Captain, to a tower operator, each aircraft constitutes ten different trains of thought. To mention a few—landing instructions, aircraft number, type, location, position in traffic, type of pattern and so on, not to mention the emergencies which pop up so regularly.

"With these extra transmissions a tower operator becomes something like a tape recorder. Seriously, though, the safe flow of air traffic is jeopardized. With the speeds of the jet planes these days, frequency congestion is one of the toughest problems facing the control of air traffic. Something should be done, sir."

"You've got something there, Sarge. Any ideas?"

"Well sir, first of all, this thing has to be handled delicately, yet with just enough emphasis to get our point across. Of course, a dead pilot who was the victim of unnecessary transmissions should be the one to have the say here, then everyone would listen! But anyway, sir, here's what I think about it.

"Let's give the Base Commander a full rundown on all the stuff we have to transmit.

"Then talk about it at the Base Flying Safety Meetings and also with other base flying organizations.

"We could have some charts and posters made up and tacked on the walls in base ops. These would remind the pilots to limit their calls to necessary transmissions.

"Why don't we encourage pilots to visit AACS facilities here on the base. This'll sort of give 'em an idea of the situation as it exists on our end of the channels.

"That's about it, sir. Guess I got a little carried away, but there is room for improvement all around. The things I've just mentioned could be settled right here on the base."

The Captain smiled, pulled a Disposition Form from his desk drawer, and in the "subject" block printed the words "UNNECESSARY TRANSMISSIONS." He looked up.

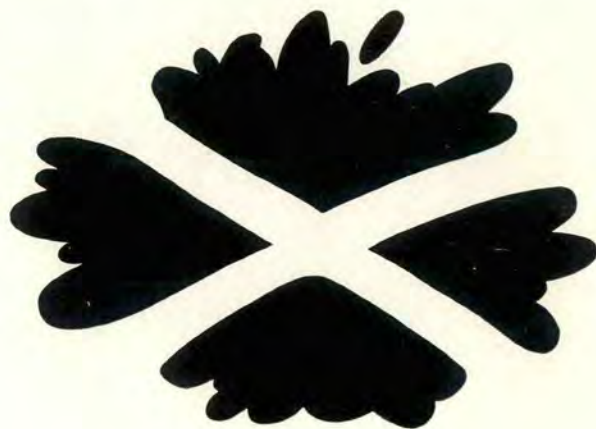
"I'll see what I can do, Sarge, I'll see what I can do!" ▲

Unnecessary Transmissions

T/Sgt. David F. Overman, 1809th AACS Group



There are some who say that there is no Air Force aircraft accident that cannot be proved to be the result of supervisory error. This is based on the premise that Commanders are the persons who most influence action and thinking throughout the chain of command. They are either right, or



Any one of us in a command or supervisory capacity in the flying business, gets the cold perspires when we check over a completed aircraft accident report. Focus goes immediately to that all-important section known as "Cause Factor Analysis." When we glance down the Primary and Contributory Cause columns, we pray a little. And with good reason. If the "X" mark is in the third space down, we're in for a rough time—deservedly.

What are the words opposite that "X" mark? "Supervisory Error—inadequate exercise of command; inadequate supervision of aircrews, operations, maintenance and other functions supporting flying operations; inadequate supervision of training, and so on, including instructor pilots and aircraft commanders." Very comprehensive and to the point. And pretty much aimed at errors of omission rather than at errors of commission. In other words, someone in the supervisory chain has, through negligence, ignorance or sheer laziness, allowed or caused an aircraft accident to happen.

It doesn't seem to help much if the supervisory error "X" mark has appeared in the "Contributory" rather than the "Primary" cause column. If deaths have occurred as a result of the accident, the effect is the same. Notifying the next-of-kin is a sad task at best, and staying awake nights trying to turn the clock back is a hopeless proposition. Trying to undo things that have happened or attempting to rationalize facts to fit what we would like to believe is something akin to madness.

Enough of this. You know the score.

But take a look at a recent jet bomber crash wherein two lives were lost. It pins down some specific ways in which a supervisor or commander can find himself smack

in the middle of the wrong section of the Form 14.

The day was fine. Clear and 15. "Field grade weather," as the wag will have it. A routine mission in all respects: a round-robin completed according to briefing and the primary job completed. The trouble starts with the bomber back over home base. The secondary phase which was to be done if time permitted, is now started: maximum pilot proficiency training. Nothing wrong here, apparently? Well, read on—from the history of flight—and see.

"Upon return to the base VOR, the aircraft commander instructed his copilot to orient himself and to complete a penetration—with GCA pickup at the low cone for a touch-and-go landing.

"Letdown to 20,000 feet was accomplished and a penetration started. The penetration was normal and GCA pickup was made over the low cone. A GCA pattern was flown and all corrections were of a minor nature. At approximately 500 feet altitude and two miles from the runway, the aircraft commander instructed the copilot to "take over visually" but to continue monitoring GCA instructions.

"The aircraft passed over the threshold of the runway approximately 60 feet in the air and at an approximate airspeed of 135 knots. The copilot started to level off ten to 20 feet too high and was so informed by the aircraft commander. To correct this the copilot lowered the nose. Shortly thereafter, a flare was begun but the aircraft struck the runway in a wing level attitude, front main gear first. The aircraft bounced into the air approximately eight feet. At this time the aircraft commander informed the copilot that he, the AC, was taking control of the plane.

M A R K S T H E B L O T !

"The AC advanced the power to 60 per cent rpm and leveled the aircraft off six to eight feet above the runway. The copilot meanwhile had rested his arms up at the sides of the canopy and leaned forward and to the right to watch the AC effect the recovery. A few seconds later, the aircraft commander felt the aileron control turn quickly and forcibly to the right. An attempt to regain control was met with resistance. The copilot, seeing the plight, attempted to assist the AC and noticed part of his harness caught in the right arm of the control yoke. During all this, the plane had assumed a right wing low attitude, and the No. 6 engine came in contact with the runway.

"The aircraft then inscribed an arc on the ground to the right, rotating clockwise around its vertical axis approximately 95 degrees. It burst into flames immediately prior to coming to rest in an upright position 650 feet to the right of centerline and 2050 feet from initial impact point. The entire fuselage, with the exception of the tail turret, and the empennage was consumed by fire. The aircraft commander and copilot escaped, but the fire and smoke prevented rescue of the two remaining crewmembers."

Pretty horrible. But—why this accident? Who did that which he ought not to have done? And who did not do that which he should have done?

First, consider the qualifications of the crew. The copilot, a substitute crewmember, according to existing orders, had completed his solo proficiency flight check but had not completed his Standardization flight check for upgrade to combat ready status.

The pilot had not been designated on orders as an instructor pilot because he lacked 30 hours of flying time in meeting the overall requirement. In spite of this he

allowed his copilot to perform a touch-and-go landing.

Now to go back to the narrative of the accident, you'll recall that the control yoke of the aircraft was caught in the parachute harness of the copilot. Whether or not this caused the plane to veer to the right is a moot question. There is another definite possibility, as we shall see.

A phenomenon peculiar to the B-47 occurs when the aircraft, in the landing configuration, nears stall warning speed. Air separation from the upper surfaces of the wings causes a tendency of the ailerons to reverse themselves due to aerodynamic forces. This condition is counteracted by the hydraulic power control unit. However, a loss of the power control system while in the landing configuration, and near stalling speed, will cause the yoke to "snap" violently to either right or left with a force of such magnitude that a pilot cannot physically overcome it.

The aircraft commander was not aware that this condition could occur, nor were the members of the board, until after the accident. Why weren't they informed? One of the recommendations of the Accident Investigation Board was that the Dash One be modified to give a complete and comprehensive word picture of the hazards involved during landing with failure of one or both aileron power controls. Another example of closing the barn door after the horse has gone.

It all comes back to the main point: Inadequate supervision. Two cases existed here. One was an immediate error of supervision of training in violation of existing regulations. The other was of a much larger and far reaching scope: the failure to inform pilots of dangers that could be encountered.

Two errors made—and two airmen died. One and one still equals two—and "X" marks the blot. ▲

MAL FUNCTION

"Command," dreams Mal, "must be a snap,
With plenty time to golf and nap."



"When I'm the Boss you'll never see,
Old Mal inspecting. Not for me!"



"I'll wander in and check the mail,
Then water ski, or maybe sail."

"I'll have the Mayor in to dine,
And toast fair beauty queens in wine."



Imagine Mal the Chief of Staff,
Our breakage rate outgrows the graph!