

23

TAC ATTACK

SEPTEMBER 1977



EMERGENCY SITUATION
TRAINING... Pg 21



FOR EFFICIENT TACTICAL AIR POWER



TACTICAL AIR COMMAND

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TACRP 127-1

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Angle of ATTACK

ONE OF THE BEST

The causes of accidents and incidents can be categorized into three broad areas: materiel failure, design deficiencies, and personnel error. Aircraft and their systems are conceived, designed, developed, and operated by individuals or groups of individuals. Because of this, mistakes made by people account for the majority of mishap damage and injury.

Aircraft accident prevention and equipment reliability can be enhanced by improving human reliability. There are many desirable qualities and characteristics an individual involved in aircraft maintenance should possess. Let's examine some of them and find out the "specs" for the ideal maintenance troop.

JOB KNOWLEDGE

The complexity of our aircraft demands the attention of knowledgeable and expert technicians. Job knowledge comes from education and training, but it doesn't end with graduation from Tech School. Through participation in one's on-the-job training program, the good maintenance technician is continually training and learning to do a better job. The qualities of the ideal maintenance technician are attainable if the individual has the desire to strive for development within himself. A strong personal desire to be the best through self-study and the application of the knowledge is essential to the process.

MATURITY

Aircraft maintenance is a job which requires an adult attitude and sufficient maturity to recognize and exercise total responsibility with or

without supervision. It is a job which can effectively be accomplished only by serious people. Total concentration on the job at hand with as little distraction as possible.

PURPOSE

The highly trained, experienced maintenance technician is a credit to himself, his unit, his associates, and to the public. He concentrates completely on the job at hand. He is always aware, alert, and is totally cognizant of the tasks to be performed, as well as his unit's contributions to the overall mission of the wing.

INITIATIVE

The top maintenance technician anticipates aircraft malfunctions and prevents their occurrence. He uses his imagination and initiative actively and enthusiastically to detect and remedy mishap causes before they occur. He goes beyond the first fault found when troubleshooting and looks for other faults that may be present.

INTEGRITY

Honesty is absolutely essential. Required jobs must be done. Records must accurately reflect the status of the aircraft. When a job is signed off, make sure it has been done. The individual must recognize that a neglected job both invites accidents and reflects unfavorably on his integrity as a professional.

These few characteristics and traits of the "ideal" maintenance technician are not all inclusive. However, if developed, they will go a long way toward improving human reliability and preventing personnel error. They build self-respect and command the respect of others. They differentiate between the professional and the amateur. These traits must be combined with a fierce professional pride in your work. Look them over again -- are you one of the best?

George M. Sauls
GEORGE M. SAULS, Colonel, USAF
Chief of Safety

MANAGEMENT

IN THE USAF TACTICAL

People need to understand and accept their unit's mission as their personal goal.

Former Secretary of the Air Force, John L. McLucas, told members of Embry-Riddle Aeronautical University:

"Management is the biggest challenge Air Force people face today. . . . I believe that the American public is confident of our ability to 'fly and fight' -- what the Air Force and the Department of Defense must do is convince the Nation that we can manage multi-billion dollar appropriations every bit as well."

Management of resources is the responsibility of each service member from the Joint Chiefs of Staff to the smallest, functional shop on the flightline. Continued budget pressures force each manager to do more with less -- in other words, to be more effective. To that end, says

General Robert J. Dixon, Commander of Tactical Air Command:

Air Force commanders and supervisors must know, understand, and communicate long-range purposes (goals), identify intermediate milestones (objectives), and establish measurements of expected performance (standards). . . . Without a clear conception of short and long-range goals, people doubt the value of their work and are unable to see, feel, and accomplish productive objectives. . . . We need to involve Air Force men and women in the process of establishing unit objectives and standards for the accomplishment of long-range goals -- involve them in the planning process. People need to understand and accept their unit's mission as THEIR personal goal. Then they need milestones

by OBJECTIVES

FIGHTER SQUADRON

By Maj Thomas P. Mahan, Jr., USAF
Armed Forces Staff College
Norfolk, VA

to maintain focus. They need feedback -- measurement of their progress compared to standards of performance. . . . The skillful use of well defined goals, interim objectives, and standards of performance allows the military commander or supervisor to define expectations and efficiently organize group efforts to the realization of those expectations, -- to lead.

Management by Objectives (MBO) is an accepted approach to improving and sustaining organizational productivity. Applicable in most units, it is a system of clearly stated responsibilities, negotiated goals, realistic timetables and specific performance criteria.

The process seems simple and attractive; however, it is often misunderstood and not always successful. MBO can become just another burden instead of a tool of direction and purpose. The key to success is a solid implementation program. Let's look at the implementation of MBO into a USAF tactical fighter squadron.

PROBLEM AREAS

What's wrong with the present system? "Nothing," is one reply, "We've been running fighter squadrons in this conventional way for years with good results!" Results, yes, but this reply sidesteps the issues of efficiency and long term effects.

The typical fighter squadron of today produces results in spite of its orientation toward crisis management. Since every detail is important to Operational Readiness Inspection

teams, wing commanders and their deputies tend to assign "Pearl Harbor" precedence to each project. Squadron commanders and, in turn, their troops expend maximum effort on every job. With so many projects of equal importance underway, individuals find themselves swamped; they start pacing themselves for the extended days they have grown to accept. As a result, each unit's reserve capacity diminishes and individual opportunity to develop good ideas approaches zero. If the effort now lost due to misdirection and wasted time could be avoided, a more efficient organization would result.

My experience suggests that two common organizational aspects encourage inefficiencies. They are the activity trap and an open system approach to management.

THE ACTIVITY TRAP

The activity trap is best expressed by the phrase, "He seemed busier than he was." A flurry of activity, if not directed toward useful jobs, may actually shrink an individual's output. It most certainly uses up valuable time. Leading MBO proponent George Odiorne developed three postulates to explain the shrinking effects of activity traps.

Postulate 1: People get so enmeshed in activity they lose sight of the purpose of their work.

Postulate 2: People who haven't any idea of where they are have difficulty in deciding what their goals are.

Postulate 3: Reality consists of having a clear perception of where you are and where you would like to go.

management by objectives

He cites the KORAN in relating the dilemma of an organization consumed in activity: "If you don't know where you are going, then any road will get you there." On the other hand, goal oriented organizations stand a better chance of succeeding. Misdirected activity can be attributed to an individual's or organization's planning system.

OPEN SYSTEM PLANNING

The open system approach to planning and managing breeds activity traps. Management is often reactive to and driven by the immediate situation; the situation is often a crisis. A typical firefighting scenario runs like this: a problem arises, the boss asks for alternative solutions (assuming one hasn't been directed by his supervisor!), a winner is selected and implemented, and the organization turns to put out the next hottest fire. This continues until people are hopelessly enmeshed in activity (Postulate 1) with little overall direction. They no longer have time to analyze where they are going, reflect on what is keeping them from their goals, and devise or revise plans to get there. The ants have trampled the elephants.

The open system of management also encourages the antiplanner. His creed is, "When you are up to your --- in alligators, it is hard to remember that your objective is to drain the swamp." The energetic manager loves the alligators because they keep him alert, cause his adrenalin to flow, and draw pity and admiration from others. However, three important questions are often overlooked: (1) Did the planners anticipate alligators might be in the swamp? (2) Isn't there a better way to drain the swamp without wrestling alligators? (3) What lessons can be learned and applied later to ease the next swamp-draining project?

I believe that a fighter squadron can produce better results as a directed, non-crisis driven organization which does not prostitute the individual through enthusiastic overactivity. MBO, the philosophy and process, can produce just such an organization.

THE MBO CONCEPT

MBO is a philosophy and process for guiding the efforts of an organization. It requires individuals to direct their efforts toward key result

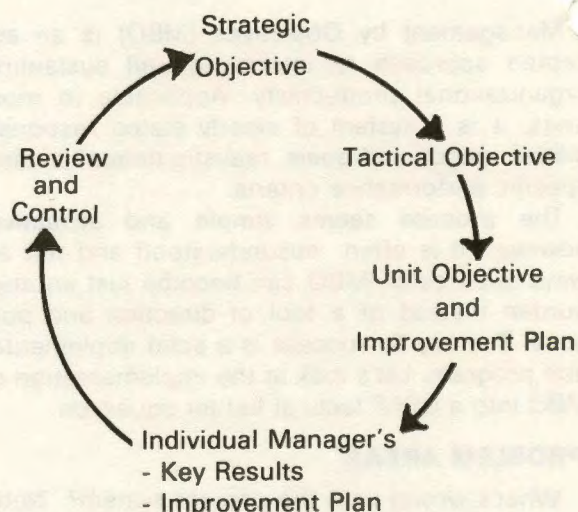
areas for the maximum impact. It enables those who want to move ahead to develop a plan, sell it to the boss, execute that plan, and be measured against those goals he, himself, set. The process promotes openness between the supervisor and subordinate by replacing the once-a-year "here's how you did" review with frequent coaching sessions.

In a closed cycle of planning, managers know exactly what is expected of them at the start of each review period. At any point during the cycle, they could tell how they are measuring up. Unforeseen changes and crises are kept in perspective through consultations with, and the active support of, their young leader.

In this day of a changing environment, MBO provides a framework for managing change. It is a cyclical, continuous management process based on the closed loop planning cycle depicted in Figure 1.

FIG 1

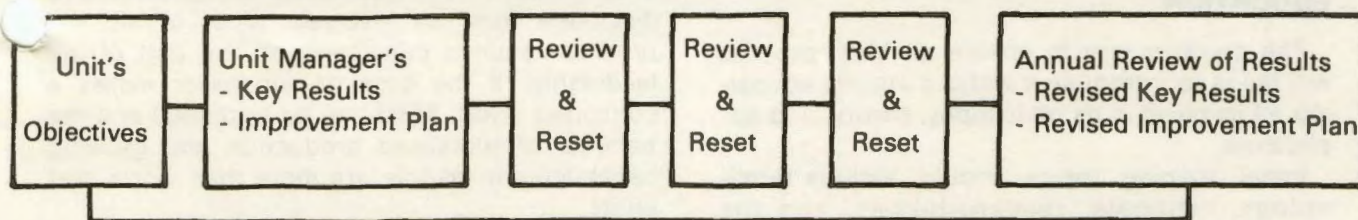
Closed Loop Planning Cycle



Results of this approach of concentrating on those plans with key impacts on the organization's objectives include better efficiency, more realistic planning, and improved production -- all possible in less than a 12-hour work day. Perhaps the most important aspect of MBO is

FIG II

Manager's MBO Cycle



the cultivation of people's capabilities -- a most vital asset.

HOW IT WORKS

In the closed loop approach Fig. 1, an organization's strategic and tactical plans provide guidelines for major objectives. The boss receives his strategic guidance, interprets his charter for tactical objectives, and defines his specific objectives and improvement areas for the organization. These objectives, in turn, guide lower echelon managers in their formulation of Key Results and Improvement Plans for each particular division or area of responsibility. Eventually, the philosophy involves individuals as far down into the organization as innovation is feasible. Reviews and revisions keep target statements in line with changing reality, and new projects are integrated by priority into the system. Figure II depicts the iterative nature of this process from the unit manager's standpoint.

In the cycle above, the manager and his supervisor mutually develop detailed unit objectives based on the organizational mission. The manager's objectives address key results, rather than activities, and include both job and personal improvement plans. Objectives must be challenging but attainable. Each plan includes a timetable with intermediate milestones for progress checks. Results are measured either from existing data or nominative scales established during negotiations. The manager is then rated primarily according to how well he formulates and achieves his goals. Reviews and memo exchanges affect feedback for both parties, reduce subordinate frustrations resulting from lack of guidance, and keep the supervisor advised of progress and problems. Significant problems are "kicked upstairs" before they seriously impact the project, but the supervisor is generally freed from the swamping effect of the minutia so prevalent under the conventional

system. Sounds great, but there are some prerequisites to successful implementation. A few of the more important requirements include leadership style, education, flexibility, patience, and conviction.

LEADERSHIP STYLE

The supervisor must be positive and supportive. He must establish an atmosphere in which the manager can commit himself to the success of a plan developed with the advice and assistance of the supervisor. The manager must be given his rein with a minimum of over-the-shoulder supervision.

A supervisor can afford to be autocratic only in his resolution of roles, strategies, or tactics. He is flirting with failure if he jams his ideas, wields objectives as a sword, or forces his own techniques during reviews and memo exchanges. Autocratic direction of MBO will result in its becoming another management by crisis.

It becomes necessary for a supervisor to take an almost heretical position of accepting the fact he may not have every detail of every project in his personal data bank. If leaders insist upon receiving every minute bit of information of immediate consequence, they interfere in lower decisions, perhaps leaving undecided some important strategic decisions. If he insists on memos, briefings, and reports to keep him "digit smart," the cost to him and his subordinates is valuable time away from productive efforts. The sharp commander knows what is important and is not shaken when he doesn't know immediately the number of "no-shows" at the last pistol firing session. It is a question of relevance.

MBO requires a leader to consider each ad hoc project in light of its impact on the organization's on-going, priority work. There is no escaping the need to manage crises, but by keeping projects in perspective, a leader can mitigate their disruptive effects.

management by objectives

EDUCATION

The quickest way to ensure an MBO process will fail is to introduce it without initially educating all involved in its philosophy, theory, and application.

Initial training topics should include terminology, rationale, responsibilities, and the mechanics, but stress should be on how to make it a way of operating -- not just another project.

The education program must work toward changing basic activity oriented attitudes. Supervisors and upper managers are traditionally results oriented, but the more removed a person is from the supervisor the more activity oriented he is.

Education does not stop after MBO is implemented. New people will need a thorough indoctrination and "old heads" will need continuation training. Refresher and "how goes it" sessions not only help avoid the MBO activity trap, but they allow people to voice doubts, air problems, and generally provide feedback to the supervisor or implementor. The most effective training will occur during the face-to-face, intermediate review sessions between a manager and the supervisor. These "coaching sessions" if conducted in a relaxed, adult manner, are prime opportunities to reinforce good work and iron out any problem areas.

FLEXIBILITY

Flexibility is essential in an MBO program. It is not only infeasible to stick exactly to action plans, but it is often not desirable. No degree of planning skill can perfectly predict change, and spontaneous projects often become the most productive. The considered inclusion of changes into the organization's MBO process is the key.

PATIENCE

The supervisor cannot expect immediate miracles. Civilian experience has shown it takes 3 to 5 years to realize the full effect of MBO. The IG suggests a year's time for implementation with the first reviews concentrating not so much on goal attainment as on troubles a manager may be having with the concept or mechanics.

CONVICTION

Finally, MBO is not a self-propelled process. It cannot be implemented and expected to carry

on by itself. It is an active, continuous process which requires understanding, acceptance, and discipline from all involved. Most of all, the process requires conviction on the part of the leadership. If the boss or supervisor makes a concerted effort, MBO can be sustained and the benefits of increased production and growing capabilities in people are more than worth that effort.

Now let's look at some specifics of how a fighter squadron should implement the MBO process.

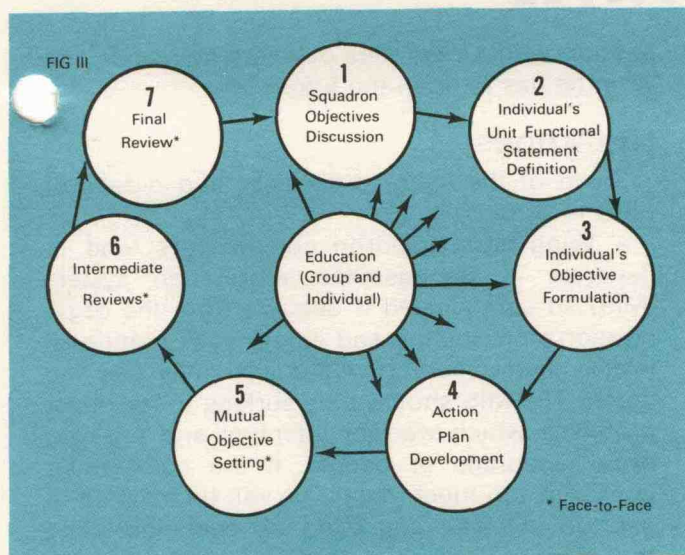
IMPLEMENTATION IN A FIGHTER SQUADRON

The most difficult portion of MBO is its implementation, but the desired end is a sustained way of doing business. Odiorne describes the evolution that should follow implementation: "MBO starts as a program; and as it develops and as managers become adept at managing by objectives, the program fades away and MBO becomes a management process or system."

To promote this evolution into a process, the squadron commander and operations officer must be deeply involved. Even though implementation starts at the top, it may be wise to select a squadron member with a management background or formal training and designate him the MBO Specialist. This person becomes the internal consultant in charge of training programs and MBO mechanics. He is the special tutor for flight commanders and staff (initially) and other members (later) in such areas as objective formulation and action plan development. The MBO Specialist must have direct, unfiltered access to the commander. In no way, however, should he replace the commander or operations officer as sponsor of MBO.

Implementation should move slowly and initially include only flight commanders and the staff. Other squadron members should receive training and assist the flight commanders in ground work, but their direct involvement (formulating and negotiating objectives) ought to be delayed until flight commanders are well into the process and better able to coach their subordinates.

For the squadron commander contemplating an MBO system, Figure III is a useful representation of the cycle's phases. These seven phases, centered around an education phase, depict the MBO process in perspective.



Let's examine each phase starting with the central phase of Education.

EDUCATION PHASE

This fundamental phase requires more emphasis during implementation than during sustainment. Although training must be tailored to each squadron's personnel situation, group sessions are most appropriate at the start of phase one as the commander and operations officer are updating and reappraising their organization objectives. The MBO Specialist, although active in all phases, can be most effective on an individual basis during phases two through four. The majority of his one-on-one work will be during phase three. Objective Formulation. The commander and operations officer, through their coaching sessions, dominate the educational process in phases five, six, and seven.

PHASE ONE -- SQUADRON OBJECTIVES DISCUSSION

Based on the wing's mission and the wing commander's guidance, the squadron commander develops and discusses the squadron's mission statement and objectives with his staff and flight commanders. Each person should leave this session fully understanding their niche in the organization and how their functions interface with others.

PHASE TWO -- INDIVIDUAL'S UNIT FUNCTIONAL STATEMENT DEFINITION

Functional statements bridge the gap between the squadron's mission statements and the flight

commander's objectives. With the help of his flight members, the flight commander answers the question, "Why does my flight exist?" The answers in general, nonmeasurable terms such as "to schedule," "to evaluate," or "to train" become candidates for functional statements. Normally, a flight commander should be able to identify about 20 percent of these candidates as being responsible for 80 percent of the flight's production. These functional statements become the flight's basis for objectives.

PHASE THREE --

INDIVIDUAL'S OBJECTIVE FORMULATION

Objectives state the "what" and "when" of results to be achieved in a functional (goal) statement.

The USAF IG has one of the approaches to goal classification: their four categories include corporate, innovative, primary, and individual career objectives. Corporate objectives are the squadron commander's most important result areas. Examples might include improving gunnery results 10 percent by June or instituting an MBO system through flight commander level by September. Innovative objectives incorporate changes for improvement, e.g., to decrease time spent training people by 25 percent by June or to devise a better way to use computer printed flight currency data in the scheduling process and recommend a change in the regulation at a May conference. Both corporate and innovative objectives include a target completion date and measurement standards such as percentage of completion. Primary objectives are routine, ongoing goals with levels or a range of acceptable performance and no completion dates. This type would include, for instance, insuring all deployable crews have current shots, passports, and dog tags. Individual career objectives are those personal objectives of the goal setter. Examples might include completion of SOS by correspondence or an assignment as an academic instructor. These personal objectives allow the commander to assist the subordinate with professional development.

A word of caution is in order. In an effort to quantify objectives, individuals sometimes reverse the objective setting process and seek objectives easily measured. The flight commander must first determine where results are needed and then develop a way to measure success. He must avoid the tendency to develop objectives which lend themselves to quantification

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at the expense of other worthwhile, but less quantifiable results.

Once the individual has established his objectives, he sets priorities. A good system is based on the priorities of 1 -- "got to do," 2 -- "ought to do," and 3 -- "nice to do." Each objective is assigned a priority. Changing conditions may dictate an upgrade or downgrade, but priorities must be observed in order to answer the question, "Where can I best use my time right now?"

PHASE FOUR --

ACTION PLAN DEVELOPMENT

Each objective must have an action plan of specific events and resources required to complete the objective. This phase of planning defines "how" the project will get done in terms of time and resources. A plan may be as simple as a schedule of project milestones.

PHASE FIVE --

MUTUAL OBJECTIVE SETTING

Now that the flight commander has developed his objectives with a plan of action for each, he is ready to work out the specifics with the commander and make the crucial MBO commitment. This phase should not be rushed. Since it takes time to develop good, well-defined objectives and action plans, the minimum time span from the end of the educational phase until this commitment meeting should be about three weeks. Two significant requirements here are: (1) the face-to-face meetings and (2) commitments in writing to complete objectives by a specified time.

PHASE SIX --

INTERMEDIATE REVIEW

The primary reason for bimonthly or quarterly reviews is to check each project's progress, resolve any problems and, if required by events, revise objectives and milestones. Here is where both parties recognize changing events to update plans and objectives.

PHASE SEVEN --

FINAL REVIEW

The final review should analyze past results and individual growth while emphasizing future objectives and performance. Considerations should include external factors, lessons learned, and the degree and priorities of successes and shortfalls. The flight commander must leave this

session with a clear idea of where he stands and what he has to do in the future.

LIMITATIONS

Some of the major drawbacks and pitfalls of MBO include:

a. Wing and squadron commanders tend to generate a management information system (MIS) so complicated it detracts from the organization's production and encourages traditional leader involvement in minutia -- they see too much. The MIS should only surface those major problems which warrant attention and possible extra resources or people. If the commander goes into too much detail, he will be tempted to get too involved and wind up oversupervising the manager. In this case, he often requires such an elaborate slide show that subordinates spend valuable work time keeping his slides and charts updated. The squadron MIS must be simple, a handwritten objective statement with an action plan on the back should suffice.

b. Managers tend to formulate objectives and negotiate approvals but wait until the deadline to finally work the project. Disciplined adherence to the priority system is the solution to this problem.

c. The risk to a new squadron commander appears greater than it really is. Two factors, however, work in his favor: (1) the maturity level of people working for him should allow accelerated results; and (2) with a proper, gradual implementation the organization should start the program with little loss of effectiveness and improve as people gain faith in themselves and the process.

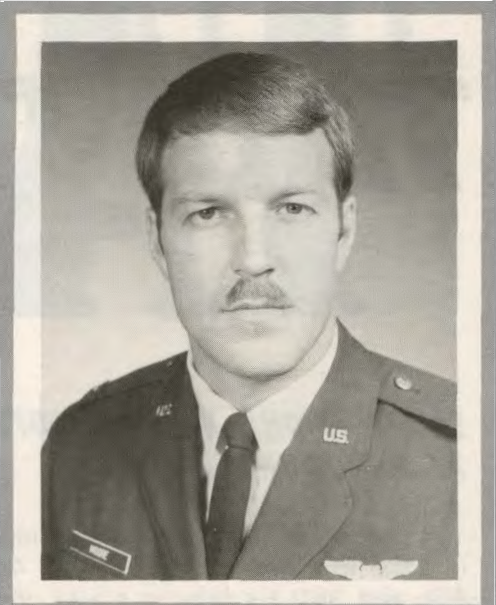
d. People hesitate to innovate due to the increased risk of failure. The commander must create an atmosphere which encourages thinking and innovation -- he must allow error and sometimes accept less than 100 percent attainment of nonroutine goals, especially during implementation. Growing people will err, but an effective control system will prevent a major error.

CONCLUSION

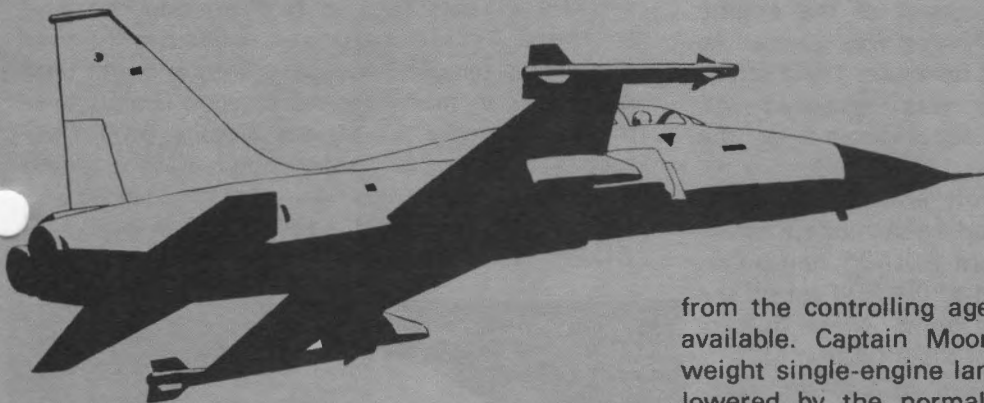
MBO will not cure all ills. If it is just a process, MBO will not be an improvement and will most likely further burden an already busy squadron. If the process becomes a philosophy, a way of doing business, the squadron will run smoother and people will expand their capabilities as the system matures, and the net result will be a better fighter squadron. ➤



AIRCREW of DISTINCTION



Capt James P. Moore
425 TFS/58TTW
Luke AFB, AZ



On 26 April 1977, Captain Moore was flying an F-5E FCF mission which had progressed normally until afterburners were selected at 11,000 feet MSL for the afterburner climb to FL450. Immediately after selecting afterburners, the pilot felt a hard thump and the left fire warning light illuminated. As the left engine was retarded to idle, the right fire warning light illuminated. Captain Moore shut down the left engine and retarded the right engine out of afterburner to a mid-throttle position. Although the right fire warning light went out, the left fire warning light remained on during the remainder of the flight. During this time, the aircraft was turned towards Williams AFB, an emergency was declared, and the Supervisor of Flying was notified of the in-flight emergency. A chase aircraft was requested

from the controlling agency, but no aircraft was available. Captain Moore planned for a heavy-weight single-engine landing. After the gear was lowered by the normal method, the utility hydraulic system pressure dropped to zero, causing the loss of nose wheel steering and normal braking. Captain Moore flew a perfect single-engine approach and heavy-weight landing. During the landing roll, the drag chute and manual braking were used to stop the aircraft.

Investigation revealed that the left engine diffuser liner failed and caused the left engine afterburner lining and casing to overheat and fail within seconds. This allowed hot exhaust gasses to burn through the boattail section of the aircraft and impinge against the right engine afterburner casing and nozzle actuators.

The superior airmanship, prompt reaction to a critical inflight emergency, and professional competence demonstrated by Captain Moore resulted in the successful recovery of a valuable tactical fighter. His actions qualify him as the Tactical Air Command Aircrew of Distinction. ➤

TAC TIPS

...interest items,
mishaps with
morals, for the
TAC aircrewman

THREE-POUND HAWK SHOOTS DOWN 37,000 POUND A-7

A pair of A-7Ds were letting down for entry into the low-level route structure. At 2,000 feet AGL and 360 kts ground speed, the flight lead felt a jolt and heard a thump. About that time, the wingman called and reported that orange flame and white smoke were coming from the leader's aircraft. A quick check of the engine instruments indicated everything was normal. As any prudent aviator would do under the circumstances, an emergency was declared. An uneventful landing was accomplished at the home drone.

Inspection of the aircraft after landing disclosed that a 2-to-3-pound hawk made a direct hit on the nose of the front BDU-33 being carried on a MER. The impact of the bird set off the smoke charge of the front bomb, which in turn, set off the smoke charge of the aft bomb.

Birdstrikes continue to be a problem confronting flight operations. As long as we continue to fly, the hazard will exist. Our only recourse is to minimize the hazard as best we can. An active and viable bird avoidance program is one way to achieve this objective. In the hawk and A-7 collision, we were lucky; but this is not always the case.

PAIN IN THE HEAD

The F-4E was descending from FL 300 during an intercept mission. At approximately FL 170, the WSO felt a pain above his left eye. The pain increased, and he notified the AC who terminated the descent at 15,500 ft and climbed back to FL 160. The pain subsided, and the aircraft was climbed to FL 300 for another intercept. During the subsequent descent thru FL 275, the WSO experienced more pain; the

descent was terminated and an emergency declared. A gradual descent was then attempted. During this slow descent, the WSO experienced sharp pains at FL 150 and again at 5,000 feet requiring further reduction in the descent rate.

Unknown to him, the WSO was flying with a low grade viral upper respiratory infection which resulted in a sinus block. Everyone knows not to fly with a cold. But did you know that if you experience a sinus block on descent, that subsequent ascents back to high altitude can lead to more severe pain and possible further damage to tissue? Because of this, it might be a good idea to terminate the mission if any crewmember experiences a sinus block -- even if the pain subsides. Pain is the bod's way of letting you know something's not right, so get back and see the Doc -- could save you from weeks of DNIF.



WIND SHEAR

Wind shear has caused aircraft accidents throughout aviation history. Yet, in spite of modern technology, there are no operational systems that will adequately measure wind shear.

The Federal Aviation Administration and the National Weather Service are developing methods of measuring and forecasting wind shear near airports. Since it will be some time before this service is instituted and perfected, pilot reports (PIREPs) will continue to be the primary method of warning other pilots of wind shear conditions. However, the efficacy of PIREPs fails to always communicate the existing danger.

One of the main reasons that PIREPs are not always effective is that there is no standard terminology for a wind shear report. Because the descriptive words used by one pilot don't always mean the same thing to another, nonstandard terminology can cause an accident.

Simulator studies conducted by the FAA have found that pilots prefer warnings that describe wind shear in terms of airspeed and altitude loss or gain. For example, "Abrupt loss of 20 knots encountered at 400 feet," or "Gradual gain of 25 knots between 600 and 400 feet followed by a loss of 40 knots at 400 feet and surface." Since you may have your hands full at the time a wind shear is encountered and may not be able to make a precise observation, the FAA suggests using terms such as "Abrupt wind shear at 800 feet, max thrust required." Additionally, if your aircraft is equipped with an Inertial Navigation System and you notice wind changes, report the wind at altitudes above and below the shear layer to the traffic controller.

All controllers, FAA and USAF, are now expecting wind shear PIREPs. If you encounter a wind shear on final approach or takeoff, help out the next guy and make a PIREP. It could prevent him from having a very bad day.

A PAIR OF CHUGS

An F-4E (LES) was flying a 1V1 dissimilar BFM mission and entered a slow speed fight with the

adversary. With the throttles stabilized in max AB, both aircrew members heard two chugs and the right engine compressor stalled at 150 KIAS, 50 degrees nose high, 25 units AOA and approximately 18,000 feet MSL. The jock retarded the right throttle out of AB and the stall cleared.

The cause of the compressor stall was listed as undetermined. Now, I'm not the world's best investigator or an engine mechanic, but I do know the reason for the compressor stall -- the engine was out of the operating envelope. I also know that at 150 KIAS and with the pointy end of the aircraft 50 degrees above the horizon, you're going to get even slower and you are near the IVANTHANKSYOUVERYMUCH regime of Phantom phlight -- especially single engine (150 kts, 50° nose up, single engine: PK negative value).

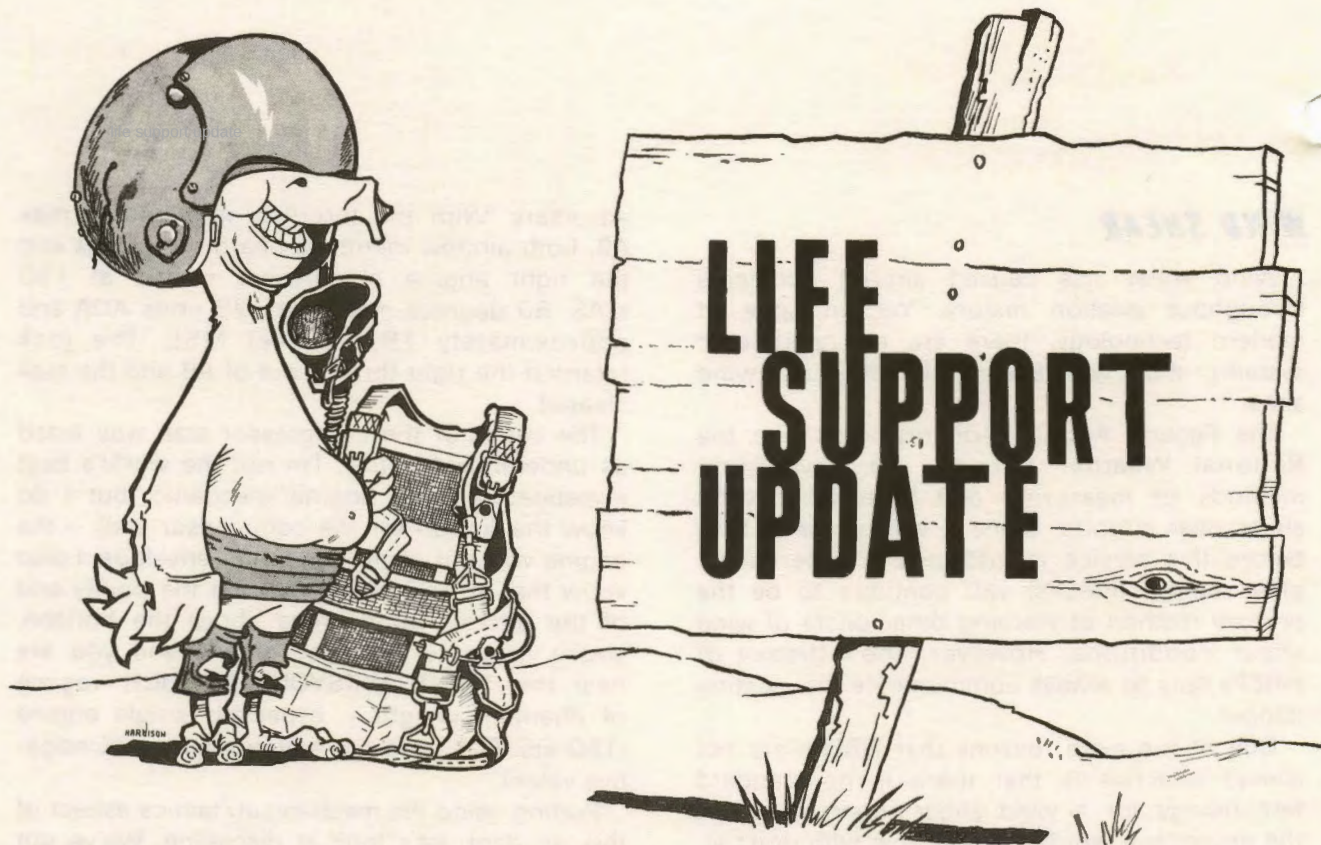
Putting aside the mechanical/tactics aspect of this incident, let's look at discipline. We've got to train the way we expect to fight; then when the balloon goes up, fight to win. This takes discipline. Let's follow the ROE during training. It'll save some engines and airplanes during peacetime and you'll be better prepared for the real thing. 'Nuff said.

EDITOR'S NOTE

Occasionally copies of TAC ATTACK are returned to us from Post Offices around the country marked, "Found Loose in the Mail." Unfortunately, there is no way for us to trace who missed out on that month's issue.

That's where you come in. If you don't receive your month's supply of TAC ATTACK approximately the same time each month, check with your base PDO to see if they have received them. If they haven't been received, give me a call at ATVN 432-2937. We usually have a small supply of the current issue on hand and we will mail them to you.

You're the reason we're in business, and we want to serve you better. So, if you haven't received your mags -- let us know.



A SHIPPING CRATE

by Capt "Gunner" Massen and
MSgt John M. Shields
347TFW/DO TL
Moody AFB, GA

Mobility, with its packing and crating, and deployed site operations poses some unique problems to the people in the Life Support business who possess a worldwide mobility commitment. Transporting a complete Life Support

Shop to properly support aircrews is easier said than done. This article is not about the "little" items that we forget and can get by without, but those "biggy" items. Transporting those large "white elephants" (MQ-1 oxygen/comm tester, screened enclosure, oxygen cylinder, etc.) can be a hassle to pack, crate and ship. And, hey, how about a sink or a latrine?

The Life Support folks of the 347th Tactical Fighter Wing have designed and built a shipping crate to help overcome some of the problems we face with mobility. However, it is no ordinary shipping crate. It is a self-contained unit which incorporates a comm/oxygen tester, screened

enclosure, oxygen cylinder -- even a sink. The crate also doubles as a work counter at the deployment site using precut legs of dexeon which are stored inside the crate until the unit is set up. Cover the top with a padded surface, and you're open for business. The screened enclosure permits adequate testing of survival avionics (radios, beacons, survival kits, etc.) without leaking electromagnetic signals to interfere with the airways. Two trap doors allow for ease of placement and accessibility to the equipment. The oxygen cylinder is connected to a Type A-14A Pressure Demand Oxygen Regulator and Type AN6029-1 Oxygen Flow Indicator ("Blinker"). The aircrew can easily connect his oxygen mask via a CRU-60/P omni-connector. A separate box (standard wooden file box) houses the communications tester and fits inside the shipping crate. Four lantern batteries provide the electrical power for the tester. This eliminates the requirement for a source of electricity which is usually not available at a "bare-base", deployed site location. A push-to-test button connects the electricity for testing the headset and microphone. However, to prevent continual drainage of the batteries, the button breaks the circuitry when an aircrewmember releases the button. Aircrews can easily perform preflight inspections of their oxygen masks and communications. The flip lid can also hold a mirror to permit them to visually inspect their masks and helmets for proper fit.

A sink is easily housed in the shipping crate. A standard food warmer is used. A drilled hole and welded piece of pipe serves as a drain and two standard 5-gallon alcohol bottles serve as the plumbing. Using one bottle with a faucet, hot water can be used to wash oxygen masks in the sink. The drain connects via standard oxygen hose tubing into the other bottle sitting underneath the sink. Gravity permits ease of flow and the tube prevents any drain blockage by foreign matter. Because two bottles of the same volume are used, when the top bottle is empty, the bottom one is full and spillage is prevented. A flip lid inhibits dirt and contamination from soiling the stainless steel sink. Thus, the entire "shipping crate" serves as a multi-function work and test facility.

As resources and funds are limited these days, a little resourcefulness (spelled: scrounging) is all that is required. Here is a list of the components and people who assisted in building the crate:

Comm tester (battery powered) -- Avionics experts can sure help.

Oxygen regulator, blinker and associated plumbing -- a big assist from the Environmental Shop.

Sink and drain assembly -- Mess Hall has the food warmers (stainless steel); Sheet Metal Shop provides the drain.

Water supply -- Medical Supply has those nice 5-gallon plastic alcohol jugs equipped with a faucet.

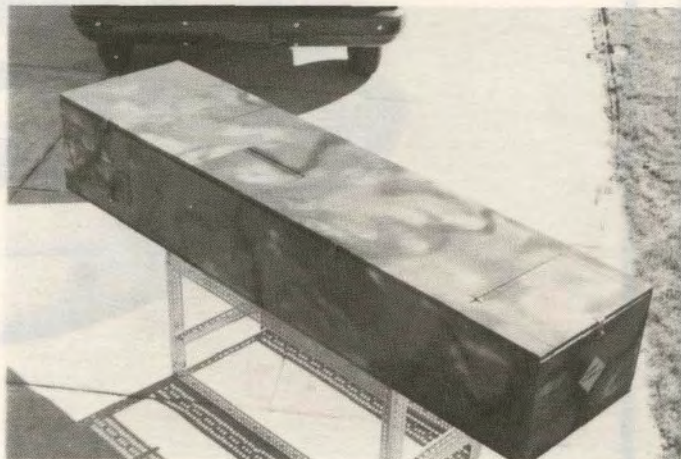
Screened enclosure -- Standard copper mesh.

Grounding wire -- 780 section can help.

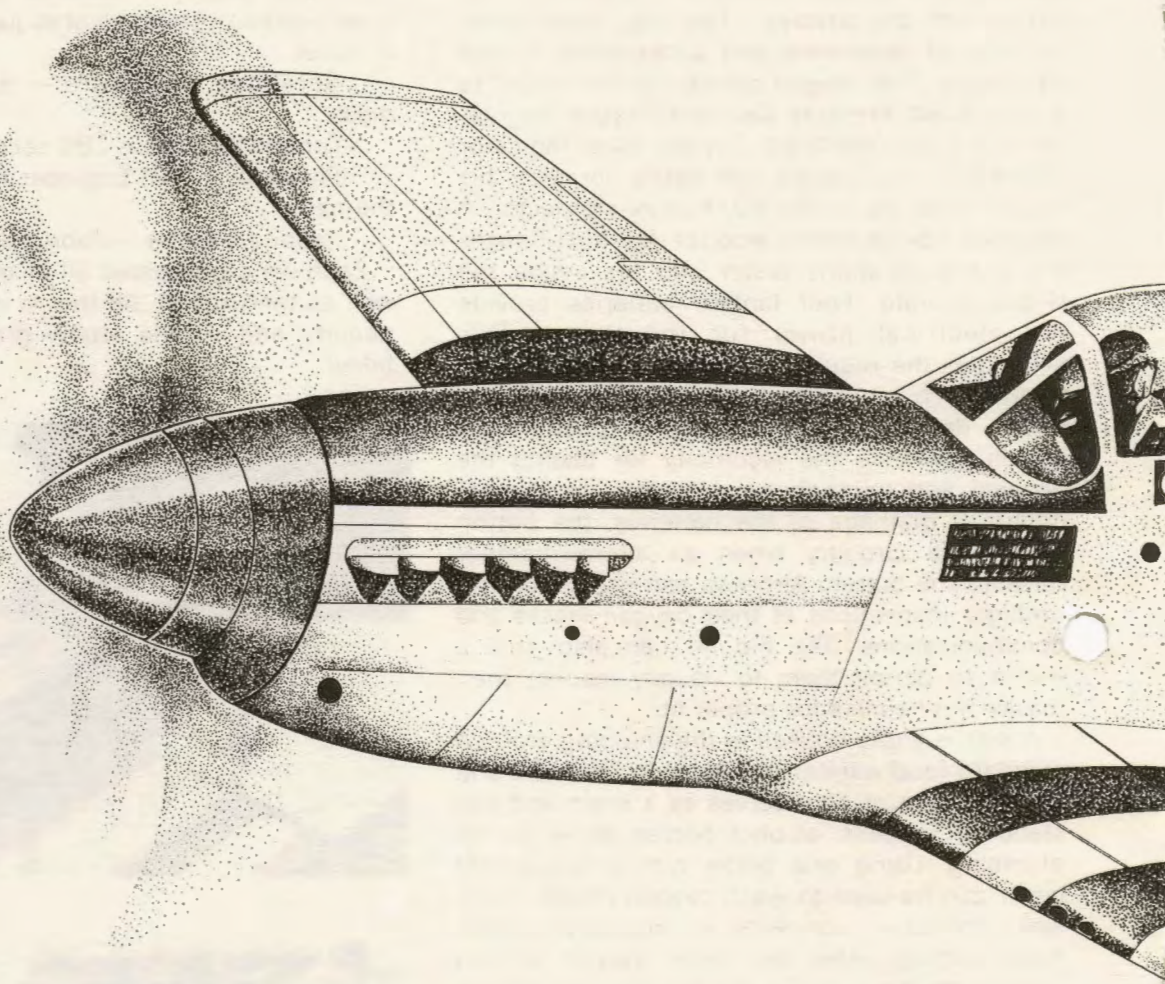
Plywood -- Civil Engineer has the wood and the nails.

Padded counter -- Fabric shop.

Each wing possesses all of the items listed, as well as the experts. All that is needed is your ingenuity and a little elbow grease. Happy mobility!



P-51D





James H. Brown

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PHYZ-BIZ



THE DEADLY DECIBEL (db)

Part 1

By Lt Col Harold Andersen
HQ TAC Physiological Training Coordinator



You've just completed the x-ray and lab work part of your annual physical and all that remains is a short session with your "friendly flight surgeon." A piece of cake -- listen to the ol' ticker, get the finger, a few minutes of chit-chat with the Doc, and you're through for another year. And why not? After all, you've been playing it cool for nearly a year, jogging 16 miles a week, getting 8 solid hours of sack, watching the diet to reduce saturated fats and salt. Hell, you even

dumped the coke and coffee habit; and since you started jogging, the cigarettes don't taste the same. You've even gotten to the point where you can take 'em or leave 'em. You sneak a peek at your heart rate and blood pressure; and it's looking good at 64 resting rate and 110/70! Yeah, it's going to be no sweat! So, you're not surprised to hear him say, "You're in great shape" The surprise hits you when he continues with, "... except for your audiogram." He tells

you you've got something called a "threshold shift" and will have to undergo further examination. "Man," you think, "that's a heck of a note. I bust my butt to get the ol' bod in fantastic shape, and then get shot down because of my ears." Sad, but true. However, you're not alone. The EPA (Environmental Protection Agency) says that noise pollution is a serious hazard for some 40 million Americans. In fact, perhaps as many as 20 million already suffer some sort of hearing loss. At one TAC base, during the period Jan 75 - Apr 76, 824 flyers were checked with an audiometer as part of their annual flying physical, and 215 exhibited a threshold shift (hearing loss) -- that's 26%! Rates at other TAC bases were running 18-19% for the same period, so the problem is not an isolated one.

You think, "Why do I have this thing? Sure the shop where I work is a bit noisy and so is my aircraft, but aren't they all? Besides, it's never been noisy enough to make my ears hurt. If it ever gets that bad, I'll get some plugs or something."

A check of your job environment, and home as well, reveals that a typical day for you went something like this. You spent 8 hours on the job where the noise level tested around 90dBA (no plugs or muffs because it wasn't that loud -- no discomfort, no pain). You then rode home on your new "Sukyaki 750" motorcycle. After this 25-minute trip, you spent 45 minutes cutting the grass before supper. After supper, an hour or so was spent in your garage workshop -- those new power tools sure make woodworking a pleasure. A quick shower, and then an hour or so of your favorite music -- hard rock. Since your wife hates hard rock, you keep it to yourself with your new "Tympanic 100" ear phones -- plenty of volume for you and no annoyance for her! And so to sleep, the end of a perfect day. Of course, all days aren't exactly like that one. Some days, especially in the fall when there is no grass to mow, you cut up a few fireplace logs with your chain saw or grind some compost for the garden. When the winter comes, the ol' snowthrower makes short work of the driveway, sidewalks, etc, leaving plenty of time to cavort the countryside on the snowmobile. In fact, most of your leisure time is spent with equipment whose noise production is in the range that causes damage, but not the discomfort or pain which becomes evident at 120 and 140dBA, respectively. (Figure 1)

Figure 1

Sources of Noise

radial arm and table saws	108dBA
chain saws	117dBA
power mowers and snowthrowers	90dBA
snowmobiles and small outboards	100dBA
electric hand drills	100dBA
compost grinders	95dBA

There are two broad categories of hearing loss. Conductive -- in which there is a failure in the physical linkage of the tissue and bones connecting the eardrum to the inner ear. This has the effect of blocking and muffling sound uniformly, such as covering your ears with your hands. The second type is called sensorineural and indicates nerve damage, either to nerve centers in the inner ear, the nerve pathways to the brain, or to the brain area that receives and interprets audio nerve signals. With this type,



the deadly decibel



there is a loss of your ability to hear particular sound frequencies or tones. This may lead to difficulty in understanding certain sounds, e.g., "s" is confused with "f" sounds, and vice versa. It is not unusual for both types to be seen together.

By far, the most common cause of permanent hearing loss is long exposure to high sound levels. Other causes include: ear infections, reaction to antibiotics, head injuries, birth defects, and diseases like measles or meningitis. Your problem is, of course, the noise exposure. The "threshold shift" noted by the flight surgeon is an upward shift in your "threshold of hearing" for certain sound frequencies. It takes more energy, i.e., greater loudness, in order for you to hear the sound. In normal hearing, the threshold is near 0dB, and it tends to increase gradually with age. This may be a normal consequence of the wear and tear of aging, or it may demonstrate the cumulative effects of years of insult to the hearing mechanism, or both.

There are a couple of other "thresholds" worth mentioning: the "threshold of discomfort" is the loudest sound you can hear without distress. The "threshold of pain" is sound slightly louder

than the threshold of discomfort and is the point at which your ears will hurt.

Threshold shifts may be temporary or permanent. Slight damage to the neural mechanism, which is able to return to normal with a change to a quiet environment, characterizes temporary shifts. The recovery is complete. However, if the damage is severe, or no adequate recovery is experienced, the nerve cells die and the shift becomes permanent.

In your case, the insult to your hearing mechanism by on-the-job noise is of itself sufficient to bring about a threshold shift. Add to this base-line condition, the after-duty-hours insults by the motorcycle, lawn mower, stereo, etc., and the situation can be moved from the serious to the critical category. As the threshold rises in the speech frequency range, the degree of impairment becomes more severe. It is worth noting that the threshold of hearing may shift differently for different frequencies, e.g., bass tones heard normally, mid-range tones starting at 30dB, and high treble tones starting at 50dB.

Let's suspend our discussion at this point while our hero gets his follow-up exams done. However, we'll be back next month to determine what he should have done, and what you can do to avoid hearing loss.

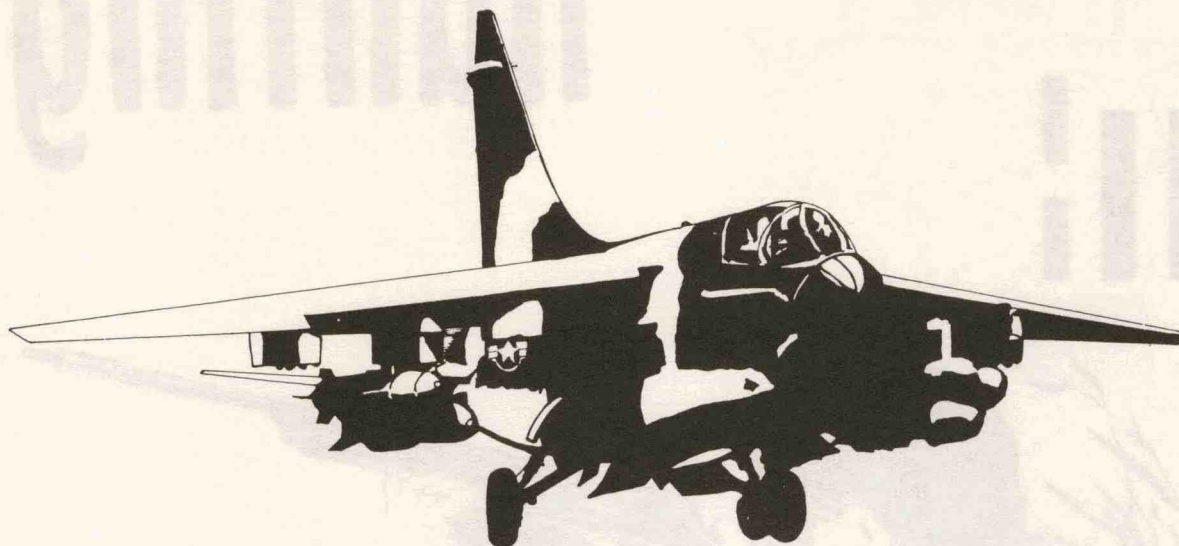
YOU'RE IN GREAT SHAPE...

EXCEPT FOR YOUR AUDIOGRAM....



EMERGENCY SITUATION TRAINING

A-7



By Maj Wiley E. Greene
162 TFTG (ANG)
Tucson, AZ

SITUATION: You've just taken off on the last day of the training period and you need an air refueling, a Hi-Lo, GAT, a manual high altitude dive bomb, plus an hour and a half of instruments with two nonprecision approaches. The gear comes up ... clunk ... clunk, and you raise the flaps. The "Wheels/Flaps" light keeps flashing. What are ya' gonna do?

OPTIONS:

A. Ignore the light because the colonel will have your posterior if you don't get your requirements.

B. Put the gear and flaps back down and land because your AFTP (Additional Flying Training Periods) are wired.

C. Eject.

D. Tell the rest of the flight so that someone can look at your nose gear.

DISCUSSION: Option "A" looks right because it has more words and the thought is familiar, but not this time.

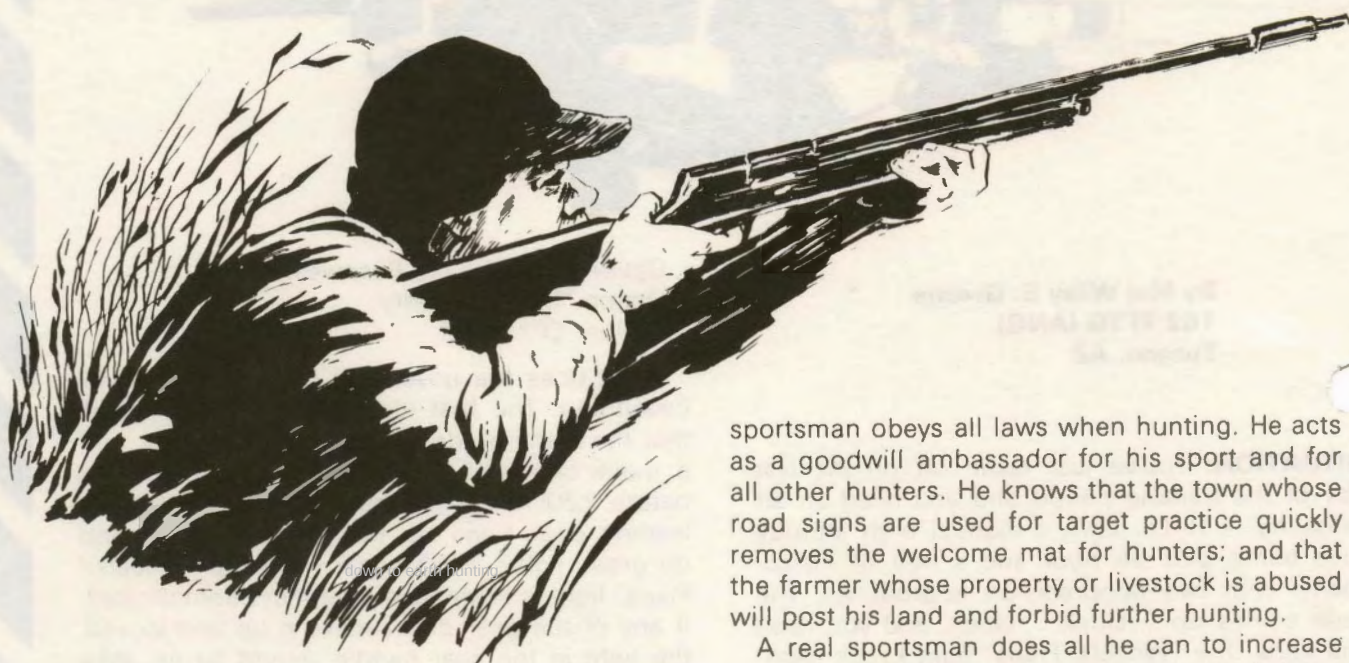
Option "B" is for the Reserves.
Option "C"? Not hardly.
Option "D"? Yeah!

What does the nose gear have to do with it? Everything. The first idea that pops to mind is that the leading edge flaps didn't come up, and a quick check of the indicator is a good idea before 220 KIAS. But that's too easy. With the leading edge flaps up, the gear handle up and no green lights for the gear while the "Wheels/Flaps" light is flashing is a bit more complicated. If any of the gear didn't make it up and locked, the light in the gear handle should be on. Why suspect the nose gear? Because on the walk-around, you can check the main gear door rigging very easily but the nose gear assembly is a So what you need is an "outside consultation" to check the gear doors flush with the fuselage. What do flush gear doors prove? That the hydraulics are OK and that your problem is either electrical or an uplock. Since you don't know which, the Dash One says to cycle the system and see if the thing works right. If it doesn't, don't use ISO because the nose gear may come tumbling down when you least expect it.

The really neat trick is to have the gear handle up, the flaps up, no lights for the gear, and NO LIGHT IN THE HANDLE. Impossible? Wanna' bet?

DOWN TO EARTH

hunting



Hunting has two kinds of law. One is the written law that is enforced by the game warden. The other is unwritten. It is an ethical code or code of honor that the true sportsman places on himself.

Most hunters obey the game laws, but that alone isn't enough. Without ethics, a man can be a licensed, law-abiding hunter and still be a poor sportsman. There is nothing illegal about shooting at a running deer over 600 yards away or trying to down a duck winging 100 yards high. But it is certainly unethical, and only a poor sportsman would try it. The ethical hunter knows both the limits of his gun and of his shooting ability and always tries for a clean kill.

In addition to the game laws, the ethical

sportsman obeys all laws when hunting. He acts as a goodwill ambassador for his sport and for all other hunters. He knows that the town whose road signs are used for target practice quickly removes the welcome mat for hunters; and that the farmer whose property or livestock is abused will post his land and forbid further hunting.

A real sportsman does all he can to increase his hunting skills. If he is not a crack shot, he works hard at his shooting and gets all the practice he can. He learns about the game he hunts and how it lives. He studies the game range in which he hunts. In other words, he has respect for his quarry and hunts it only in fair and sporting ways. As an ethical hunter, a real hunter, he believes in "fair chase," and he never takes unfair advantage of the game he hunts. This principle of fair chase is often part of the law. For instance, it is unlawful to shoot deer under jacklights or to hunt from an airplane. On the other hand, it may not be against the law to shoot a pheasant on the ground or a duck swimming in the water, but the ethical sportsman will never do it.

A man who takes pride in his hunting and in

ethics

himself as a hunter always hunts in such a way that neither he nor the game he hunts is ever shamed. He treats his quarry with respect, both before and after he shoots it. That is why the ethical birdhunter -- if he can possibly afford and keep one -- uses a trained bird dog. He has the dog not just to find birds but to recover them after they are downed. The big game hunter also makes every possible effort to avoid wounding game, and if he does, he stops further hunting and combs the countryside to find it. He will even abandon his own hunting to help another hunter find wounded game.

A real trophy hunter may make a long and costly hunting trip and never fire a shot. His opportunities for legally taking game may have been many, but the ethical trophy hunter exercises strong and selective restraint. His code demands that he shoot only a fully mature specimen, and he knows that the removal from the herd of such an animal, almost always a bull or buck beyond breeding age, benefits others of that species in the area. The ethical hunter never takes more than his limit. But more important still, he never takes more game than he can use. His game is cleaned quickly and skillfully, and he brings it to the kitchen in prime condition. It is never wasted, and he takes real pride in this because it is a sure sign of his skill and knowledge. It also shows that respect for game is part of his self-respect as a seasoned hunter.

There are two main kinds of people in the world, the givers and the takers. The ethical hunter is a giver. The unethical hunter -- the poacher, the man who breaks game laws and sets no standard for his conduct as a hunter -- is a taker. It is the ethical hunter who gives a friend the advantage for getting a good shot and who likes the odds in his hunting slanted in favor of the game he pursues. He takes pleasure in sharing game he has taken with the man on whose land he has hunted. And it is the ethical

hunter who is most apt to give generously of his time and outdoor knowledge to introduce a youngster to the enjoyment of the hunting experience.

The unethical hunter, the taker, never gives his companions an even break. He is the claimer who brags about his success when he fills his limit and makes excuses if he does not. He will hunt private property without permission and show no respect for the land on which he trespasses. His concern is never for how he hunts, only for how much game he can shoot.

Abusing the hospitality of landowners and rousing the anger of the public, the unethical hunter risks not only his own chances for hunting but those of all other hunters and of future generations as well. He is one of the greatest enemies of hunting today, posing a threat to the sport equal to that of any anti-hunting movement.

While even the ethical hunter may never enjoy the full approval of the non-hunting public, the public may at least tolerate him. And as public awareness of the hunter's significant role in conservation increases, anti-hunting sentiment may recede. But the public will no longer tolerate the unethical hunter, and as long as he is allowed to remain on the scene, ethical sportsmen will suffer by association.

Conservation laws and hunting ethics are two sides of the same coin. Do away with either, and we will do away with hunting. ➤

THE TRUE SPORTSMAN

1. Treats his gun with respect and is always careful where he points the muzzle.
2. Keeps the safety on until ready to fire and is positive of his target. To keep bullets from ricocheting, he never shoots at water or a hard, flat surface.
3. Loads his gun only when in the field or ready on the range. He never climbs or jumps over obstacles with a loaded gun.
4. Unloads his gun when not in use and leaves the action open. He stores guns and ammunition separately.
5. Keeps his equipment in excellent condition and is always sure he has the proper load for his gun.

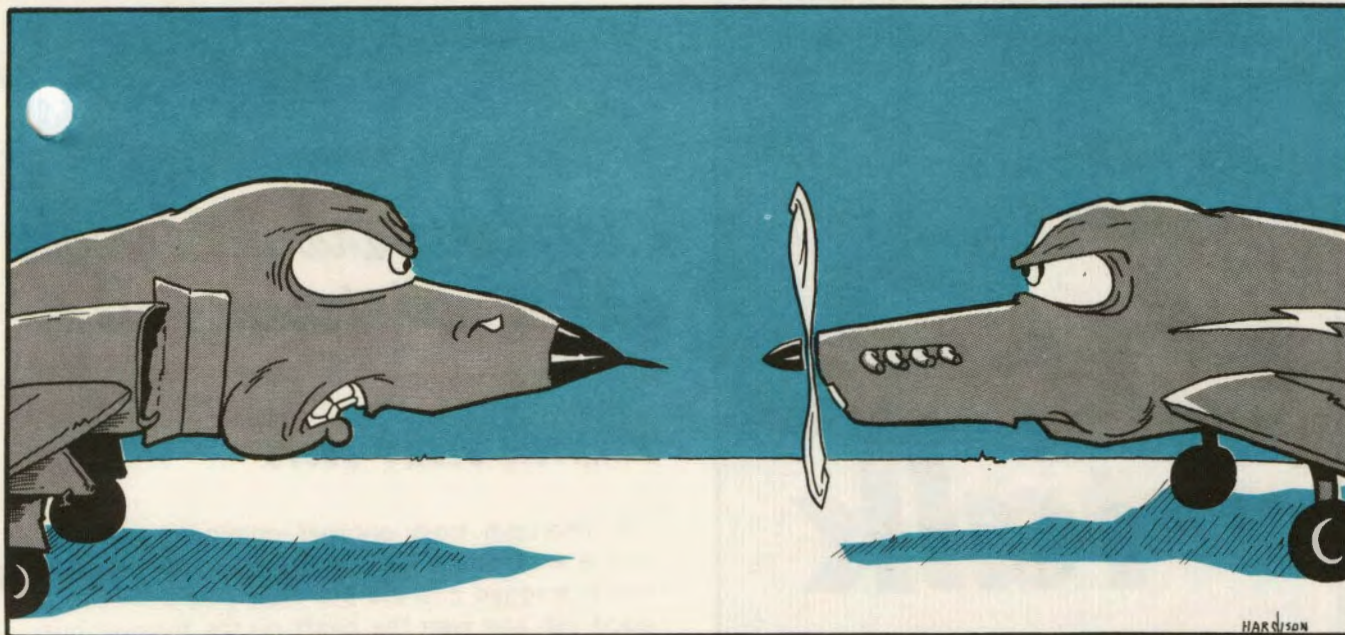
THE BUGSMASHER SYNDROME



HARRISON

Prior to giving a briefing to civilian pilots on low altitude training routes, I decided to size up my audience and attend an FAA sponsored general aviation safety clinic. By coincidence, another military briefer was giving a lecture on a diverse subject. During the course of his briefing, military abbreviations were abundant, the civilian pilots were referred to as little airplane drivers, and, to a question about the N.T.S.B., the briefer had to ask the FAA what the initials stood for. Before the night was over, the feelings of the group were pretty well summarized by one civilian pilot who said, "I resent being called a 'little airplane driver'. I am a professional pilot and fly for a living. My flight training was paid

SEPTEMBER 1977



by Capt. Richard H. Gibbs
474 TFW
Nellis AFB, NV

for out of my own pocket -- not by some government entity. Furthermore, your lack of knowledge about the National Transportation and Safety Board indicates that the military is unfamiliar with the Federal Aviation Regulations and, therefore, can't comply with them." The result was a standing ovation for the questioner and a black eye for the military.

While this example is extreme, I'm sure that it reflects the military aviators commonly held conception of the civilian pilot as a little airplane driver or bugsmasher pilot. Admittedly true several years ago, the Sunday pilot out for a weekend jaunt is no longer the majority, but a diminishing minority (perhaps, in large part due to the establishment of franchised flight training centers with standardized curricula and FAA required biannual flight reviews). No longer does IFR mean "I Follow Roads" to the civilian pilot. Dual radios, VOR, ADF, DME, ILS and transponders are now, more often than not, standard equipment for an ever increasing list of single engine aircraft; and, twin engine aircraft are likely to be equipped with RNAV, Course Line Computers (CLC), doppler and weather radar.

As an oversimplification, the bad reputation that civilian pilots have among the military pilots

was earned by the one in ten thousand who flies VFR in IFR conditions and then scatters his family over a mountain peak. That's one side of the coin -- but how many of us ever wonder what the civilian pilot thinks of us? From a survey conducted at 22 civilian airfields, the answer I found was that the civilian pilot thinks the military aviators can still "kick the tires and light the fires".

Among the majority, this misconception was held with admiration. However, among the growing and vocal minority, this view was collaterally held with the one that the military has too much airspace and needs tighter controls. They pointed to examples of recent midairs, buzzing, general disregard of the Federal Aviation Regulations, and the tragic accident rate among military pilots when flying civilian aircraft. The first three may be imaginary, but an article in TAC ATTACK highlighted the validity of the last. (TAC ATTACK, July 76)

Whatever the reason, one thing remains clear -- today's airspace is overcrowded and shrinking. From this it logically follows that we cannot afford to have a civilian pilot interest group, which also forms a voting bloc, complaining to their Congressmen. If the bugsmasher syndrome is alive and well in the military, so is its civilian counterpart -- the uncontrolled fighter pilot who performs feats of daring that are more related to brawn than to brains. Neither idea can be permitted to incubate. It's up to you to make sure it doesn't.

chock talk

*...incidents and incidentals
with a maintenance slant.*

PHANTOM BLOWS BOOTS

A Phantom from another command recently had a wild ride down the runway after the left brake dragged and the tire blew. The crew did a good job and kept the beast on the runway, but the incident cost Uncle Sam \$3,461.

Just prior to the incident flight, the left tire had been changed, but the brake stack was not inspected. You guessed it -- the brake assembly was badly worn and caused the brake to remain locked after the pilot checked the brakes during landing roll.

Use the "good" book -- Tech data. It'll save the taxpayer (that's us, gang) a lot of shekels.

DRAGONFLY SNAP-UP

An A-37B had begun its dive on a tactical strafing pass. When the trigger switch was depressed, the elevator trim immediately cycled, resulting in a nose-up attitude. The surprised pilot had to use maximum physical force to control the aircraft. The trim ceased operating when the trigger was released and the primary trim button continued to work properly. A controllability check was performed, and the aircraft landed without further problems.

The cause? The trim switch had been recently replaced. Unfortunately, the plastic sleeves which protect the trim wires from the "hot" center wire were not installed. When the trigger was depressed, it caused pressure against the wire bundle inside the grip. Loose wire strands of the up-trim switch made contact with the unprotected center wire and the trim tab actuated to the up-position.

Minor oversight? Not to the pilot. When you're performing even minor maintenance, give him a thought. He'll really appreciate it.

THE TWO-THOUSAND DOLLAR QUARTER

The F-5E was on an FCF after an engine change. The mission had proceeded normally until the throttles were advanced from MIL to MAX power while the aircraft was at 35,000 feet and .65 Mach. As the throttles were moved, the right engine compressor stalled and then flamed out. A restart was accomplished at 28,000 feet and the aircraft was recovered without further incident. During the postflight inspection, FOD was discovered in the compressor section of the right engine. Upon further inspection, the remains of a quarter (25 cents) was found in the compressor section.

The engine had been installed three days prior to the incident. The next day, an alignment check was performed. This check involves crawling down the intake of the F-5E and checking the alignment with a gage. Unfortunately, the maintenance technician who performed this task did not wear coveralls (bunny suit) and a quarter fell from his pocket and was ultimately ingested into the engine.

AFR 66-31 requires "bunny" suits to be worn any time you must crawl down an intake. And it makes good sense, too. It's not very cost effective to pay out \$2,000 for every 25 cents received.

THE TEN FOD COMMANDMENTS

I Thou shalt account for all thy tools and parts used or replaced on the completion of thy job.

II Thou shalt not use intake ducts for the resting place of thy tools for verily the beast is a ravenous digester without discrimination.

III Thou shalt honour the confidence and responsibility placed upon thee as thou undertaketh thy duties to the end of thy days.

IV Thou shalt not be so proud as to not bow down in the presence of debris upon thy ramp and taxiways and remove same for such is the way of cleanliness.

V Thou shalt use only the minimum power necessary for "run-up," for great is the suction of thy engine.

VI Thou shalt always be neat in thy appearance and not wear loose clothing or carry tools in thy pockets which may fall into dark and

inaccessible places without thy knowing, for such items may return unwanted to haunt thee to thy grave.

VII Thou shalt never run up thy engine until it is insured that all cowls are fastened, inspection doors secured, and loose parts removed, for great is the wrath of the Maintenance Officer upon damage to his beloved.

VIII Thou shalt acquaint thyself with the various sizes and types of foreign objects which may incur damages to thy engine.

IX Thou shalt assist thy subordinate in accomplishing his job and inspect to see if it is correctly completed.

X Thou shalt heed these commandments to the utmost for then surely thou mayest walk through the valley of the hot and dusty and fear not, for thy FOD procedures will protect thee. For it is said that the sound of weeping by the CO and the gnashing of teeth of thy civilian brethren as they reach for the pocketbook will render thy heart asunder.

PLACE THE FACE



This F-51 Mustang pilot was assigned to the "Foxy Few" fighter squadron of the 18th Fighter-Bomber Wing in Korea during 1952.

The July "Place the Face" contest seemed to be another success by the number of entries received. We did throw a curve to everyone by printing the P-51, "No Guts - No Glory," along with the picture of our Ace fighter pilot and this caused quite a few incorrect answers.

Our first correct answer came from Airman Carol A. Garlick, 31st Organizational Maintenance Squadron, 31st Tactical Fighter Wing, Homestead Air Force Base, Florida. She correctly identified the P-51 Mustang pilot as Lieutenant General Sanford K. Moats, former

Vice Commander, Tactical Air Command. Airman Garlick will receive the Fleage Fanny Feather of Fate Award emblazoned with one of Fleag's own tail feathers.

This is the last month of our "Place the Face" contest so get your entries in as fast as you can. Can you "Place the Face"? Send your entry to:

**TAC/SEPP
Langley AFB VA 23665**

The winner of our last contest will be announced in the November issue. Good luck!



TAC SAFETY AWARDS

Ground Safety Award of the Quarter

Staff Sergeant Calvin E. Brethold, Jr., 388th Organizational Maintenance Squadron, 388th Tactical Fighter Wing, Hill Air Force Base, Utah, has been selected to receive the Tactical Air Command Ground Safety Award for the second quarter 1977. Sergeant Brethold will receive a desk set and letter of appreciation from the Vice Commander, Tactical Air Command.



SSgt Calvin E. Brethold, Jr.

Crew Chief Safety Award

Staff Sergeant Robert W. Yunker, 27th Organizational Maintenance Squadron, 27th Tactical Fighter Wing, Cannon Air Force Base, New Mexico, has been selected to receive the Tactical Air Command Crew Chief Safety Award for this month. Sergeant Yunker will receive a desk set and letter of appreciation from the Vice Commander, Tactical Air Command.



SSgt Robert W. Yunker

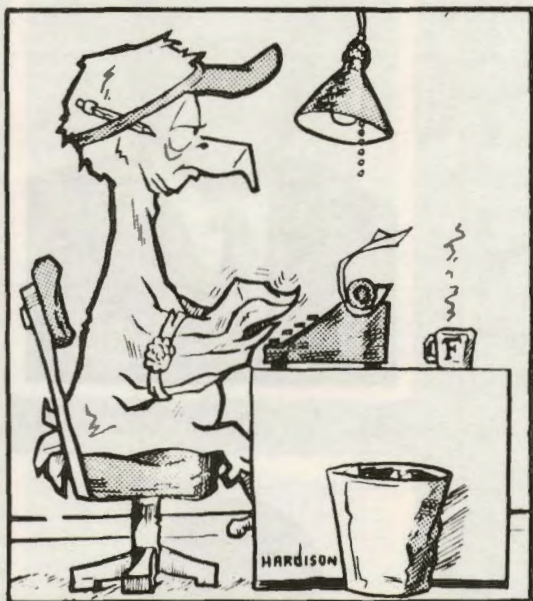
Individual Safety Award

Technical Sergeant Erich W. Chapman, 354th Field Maintenance Squadron, 354th Tactical Fighter Wing, Myrtle Beach Air Force Base, South Carolina, has been selected to receive the Tactical Air Command Individual Safety Award for this month. Sergeant Chapman will receive a desk set and letter of appreciation from the Vice Commander, Tactical Air Command.



TSgt Erich W. Chapman

LETTERS



© Stan Hardison, 1977

Editor

Gotcha! In the June issue of TAC ATTACK, you printed a picture of an Enduro bike being ridden off road with the story of a road bike, "A False Sense of Security." AIC R. J. Gittinger rides a Harley-Davidson Electra-Glide, by the way.

My main gripe is that the rider pictured is not using any type of eye protection. When biking, especially off road, eye protection is a must! Eye protection is required by AFR 127-5 and TACR 127 -2.

SSgt Kenneth R. Blain
35 FMS/35TFW
Motorcycle Safety NCO
George AFB CA

Sarge

Sorry 'bout that. Unfortunately, AIC Gittinger didn't tell us what type of bike he owns. I guess it helps if you know the author.

The photo accompanied the story to illustrate the point of the article. If you don't think you'll have an accident, why wear eye protection? Another example of a false sense of security.

ED

Fleagle

If you Transient Alert personnel should be required to service a C-130 with another wart on its nose and strange looking little aircraft under its wings, you have the rare (?) privilege of supporting a TAC DC-130. These drone "Herks" may be carrying the AQM-34M (photo recce) bugs. If so, some caution is required due to an ammonia hazard.

The anhydrous ammonia is used for cooling the camera located in the nose of the drone and is extremely toxic. Contact with skin or eyes will cause severe burns and prolonged breathing of fumes will cause illness. Should ammonia contact skin or eyes, wash affected area immediately with fresh water and seek medical attention.

The distinctive ammonia odor and/or a white "fogging" could be a clue to a leak. Notify the fire department immediately and stay well clear.

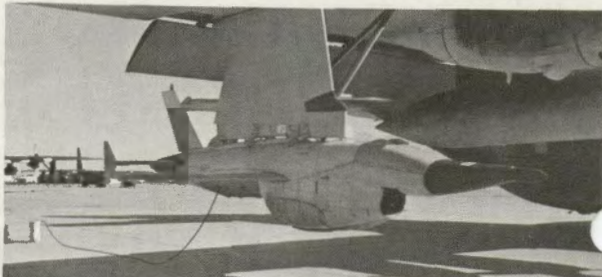
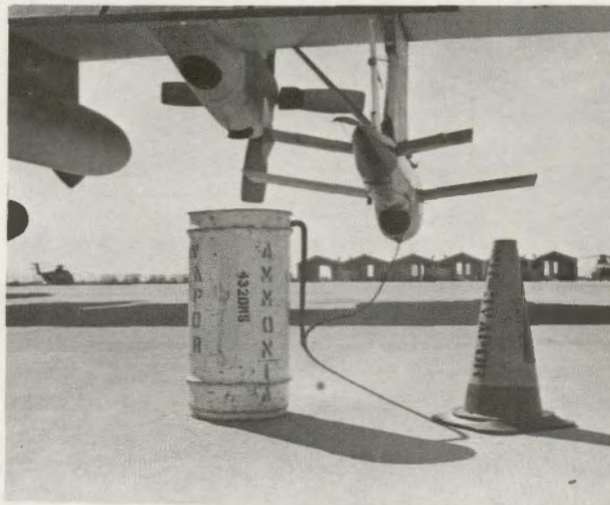
1 Lt Rudy Schubert
22 TDS
Davis Monthan AFB AZ

Rudy

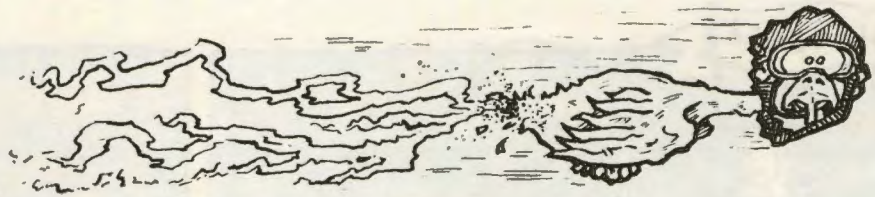
I thank you and the Transient Alert folks thank you.

Fleag

P.S. OK -- I printed it. Now don't drop an ammonia-loaded drone in my bedroom on a foggy night.



TAC TALLY



	TAC			ANG			AFR		
	JUL	thru JUL		JUL	thru JUL		JUL	thru JUL	
		1977	1976		1977	1976		1977	1976
MAJOR ACFT. ACCIDENTS ▶	4	17	18	1	7	5	0	1	1
AIRCREW FATALITIES ▶	3	8	9	1	3	2	0	0	1
TOTAL EJECTIONS ▶	5	15	15	1	7	2	0	1	1
SUCCESSFUL EJECTIONS ▶	2	12	11	0	4	2	0	1	0

TAC'S TOP "5" thru JULY

TAC FTR/RECCE			TAC GAINED FTR/RECCE			TAC/GAINED Other Units		
accident free months			accident free months			accident free months		
17	4 TFW		64	127 TFW	ANG	120	182 TASG	ANG
15	474 TFW		30	156 TFG	ANG	100	135 TASG	ANG
13	56 TFW		25	117 TRW	ANG	92	507 TAIRCW	TAC
11	33 TFW		19	434 TFW	AFRES	89	193 SOG	ANG
10	67 TRW		19	162 TFTG	ANG	81	110 TASG	ANG

MAJOR ACCIDENT COMPARISON RATE 76/77

(BASED ON ACCIDENTS PER 100,000 HOURS FLYING TIME)

TAC	76	2.9	8.6	9.0	7.3	8.0	8.1	6.9	6.8	7.5	8.1	7.4	7.0
	77	0.0	5.3	5.8	5.4	5.1	5.0	5.5					
ANG	76	10.5	5.0	6.5	4.8	3.8	3.9	3.4	3.5	3.7	3.9	4.0	4.1
	77	0.0	3.1	1.9	5.7	4.4	5.4	5.4					
AFRES	76	0.0	0.0	11.3	8.1	6.1	5.0	4.2	7.2	6.4	5.7	5.3	7.3
	77	0.0	0.0	10.1	7.4	5.8	4.7	4.0					

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

FLEAGLE



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