

TAC ATTACK

Tac attack

June 1974

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SEARCH & RESCUE Pg 4

Timothy

for efficient tactical air power

TAC ATTACK

JUNE 1974

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Tactical Air Command

COMMANDER
GENERAL ROBERT J. DIXON

VICE COMMANDER
LT GEN DALE S. SWEAT

Published by the Chief of Safety
COLONEL E. HILLING



editor
Maj Joe Tillman
assistant editor
Capt Jim Young
art editor
Stan Hardison
editorial assistant
Rebecca Clarke
layout production
TSgt John Tomkowski

COVER ART
by TSgt John Tomkowski



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TACRP 127-1

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Angle of ATTACK

experience counts

Disraeli once said that there are three kinds of lies — lies, damned lies, and statistics. While it is true that the interpretation of statistics leaves room for balancing the scales in your favor, statistics by themselves continue to be the best way to discover a developing trend. In the safety business, we have a plethora of numbers — accident rates, safe egress percentages, bar charts on aircraft component failures, etc. We have added yet another “numbers game” in the accident prevention racket — TAIDS.

The TAC Aircraft/Incident Data System is designed to fill in the gaps left by our current reporting system. Basically, TAIDS requires nothing more than a short bi-monthly report in letter form to let us know of any inflight emergencies and precautionary landings not reported under AFR 127-4. It should provide better analysis data for adverse trend detection. The program was implemented on a 90-day test basis, effective 1 May, with three A-7 wings participating. A determination to

discontinue or expand the program to other TAC aircraft will be made upon completion of the test.

It's important for me to emphasize that our incident/accident reporting system was developed to flag trends and prevent future accidents and incidents — nothing more. Too many people think that admitting to an incident is an admission of faulty supervision or indicates a weak flying program. Not so — the concern for lives and equipment is our primary motivation. It is not a contest to find the most incident-free unit.

Let's make every incident pay off. Let's make experience count.

E. Hillding
E. HILLDING, Colonel, USAF
Chief of Safety

THE "DO'S" AND "DON'TS" OF CONTOUR FLYING



CONTOUR SEARCHING FOR NON-RESCUE CREWS

contour searching for non-rescue crews

by Maj. Kenneth R. Lafon
ACSC, Air University
Maxwell AFB, Ala.

I am indebted to the informational assistance rendered by Major Carl A. Bibb, formerly 41 ARRSq; Capt Milton K. Heilmann, 71 ARRSq; and the Staff of the Hq CAP, Maxwell AFB, Ala.

The freezing drizzle continued to fall and the cold wind penetrated their winter flying clothes with surprising ease. The aircraft commander of the C-130E aircraft could not help but wonder how long anyone could survive in this bitter weather. He felt the sorrow and compassion that only a fellow crewmember can feel for the object of their mission today — a missing aircrew. His crew, and several other TAC crews, were temporarily assigned to a search effort for a missing C-123. The pre-mission brief at the Rescue Center indicated that their search area consisted of rugged mountains and that they could expect marginal weather all day. An hour after take-off, the C-130 started a slow descent into the search area.

The search went well for the first hour and they were just finishing the south wall of a large semi-enclosed canyon. The navigator reported that the wind velocity had increased to 30 knots near the valley floor. The A/C added power and eased the yoke back; the C-130 started its climb to 12,000 feet to begin the search of the north wall. The crew well remembered the importance of searching from top to bottom in the mountains. As they approached the north wall and passed through 11,000 feet, the aircraft nose and left wing dropped abruptly, the aircraft buffeted and shook violently. Full power was applied and the aircraft control was recovered at 7,000 feet. The crew checked their aircraft for structural damage and discovered moderate wrinkling and a jammed flap on the right wing. They immediately aborted the search and returned for a safe landing at their operating location.

What caused this highly qualified TAC crew to so narrowly escape disaster? Simply stated, they lacked contour search experience. The crew was competent and their pre-search briefing had been comprehensive, but there just wasn't time to "train" an augmenting search crew in the proper techniques of contour searching.

By now you might be thinking, it's a nice story but what does it have to do with me? Everything! Your crew could very well become involved in a contour search. In 1972, during the search for Representatives Nick Begich and Hale Boggs, 59 percent of the military search hours were flown by non-rescue (ARRS) crews. Had your crew been an available resource in the Elmendorf, Alaska area at that time, you might have magically been transformed into a search crew. Take time now to acquire at least a passing knowledge of the "do's" and "don'ts" of contour searching. This article will discuss briefly some of the techniques and guidelines used by ARRS and Civil Air Patrol crews while searching.

The first step in executing a safe and productive contour search is a good pre-mission brief. The Rescue Control Center (RCC) with overall responsibility for the search will brief your crew and assign you a search area. Stay in that area. There will be other aircraft in the adjoining areas. If for some reason, such as weather, you need another search area, call the RCC for clearance. Mid-air collisions at low altitude are a distinct possibility if area discipline is not maintained.

After the mission briefing, the navigator and pilot should thoroughly study the area to be searched. Establish a preliminary search plan. It will probably need to be modified when you arrive on the scene, but forming it prior to take-off gets the crew thinking in terms of translating the contours on the map to the terrain in the search area. Now that you have fully digested the information from the briefing and extrapolated your own plan, you're ready to "slip the surly bonds".

When you arrive at your search area, familiarize yourself with the topography before descending below the peaks for search. Check the terrain to see how closely your maps agree with reality, and plan escape routes out

CONTOUR SEARCHING



of potentially hazardous areas. An important rule to remember: have an escape route planned for your aircraft at all times when at low altitude. It is a good practice to periodically discuss best escape routes to insure that the entire crew knows what to expect should a pattern abort be required. Plan escape routes so they can be flown with one engine inoperative!

After you have surveyed the area thoroughly, descend low enough to fly a trial search pattern or two. Fly the general contours of the first mountain ridge you intend to search, but fly it above the highest peaks on the ridge. This procedure will allow you to insure that your aircraft can safely negotiate any turns required to execute the search. Remember, you are maneuvering in an environment where most of us have little experience for comparison — low terrain clearance at high altitudes, heavy gross weight, and low air speeds — and the aircraft may not respond as quickly as you expect. Abide by command-directed minimum altitudes.

After completing your practice patterns, you are ready to start your first contour search pattern. As you descend to just below the summit of the ridge line (always start at the top and search down), remind yourself that the guy flying the aircraft is the pilot and not a scanner. If the pilot splits his attention to scan, the results can be catastrophic. The pilot's part of contour searching is to fly the airplane and constantly plan ahead — not to scan.

There are many hazards with which you should be familiar and there are tested techniques for dealing with these hazards — techniques which will improve your effectiveness and increase your crew's margin of safety. Most hazards can be categorized under two major sub

areas — weather associated or terrain associated. The following lists are certainly not all inclusive, but should give you a good starting point for thought.

Weather Associated Hazards:

1. Turbulence — One of the primary causes of turbulence in mountain regions is "mountain waves". In essence, a mountain wave is little more than the terrain shaping and rippling winds as they impact on terrain features. Through wave action, this phenomenon can be evident several thousand feet above the ground. Associated with all mountain waves is an extremely turbulent area of rolling wind currents found on the lee side of mountain ridges. When there is enough moisture in the air to form clouds, mountain waves and roll currents can be distinguished by lenticular clouds and roll clouds, respectively, and the areas of turbulence are relatively easy to avoid. However, when there are no tell-tale clouds, the problem of avoiding this extreme turbulence is somewhat more difficult, but not impossible.

Two rules of thumb can be very helpful in determining whether to expect roll turbulence on the lee side of a mountain ridge. First, if you are searching in an area with snow on the mountains, a good indication of turbulence is the amount of blowing snow. If the wind direction and velocity are such that snow is easily discerned blowing off the mountain face, (similar to a light mist), you can expect at least moderate turbulence around that ridge. Lack of blowing snow does not guarantee no turbulence, for the snow surface may be crusted due to a recent warm spell. Never search under an overhang caused by blowing snow. Second, anytime the wind is 25 knots or more and perpendicular to the ridge line, turbulence can be

expected on the lee side of the ridge. The greater the wind velocity, the greater the intensity of the turbulence.

In some situations, even though the probability of turbulence is high, the search aircraft must enter the area. In such cases, you can minimize the intensity of the turbulence by searching the area in the early morning or late afternoon. Turbulence is usually less severe during these periods. Approach the ridge to be searched at approximately 45 degrees and, if light turbulence is encountered, begin an immediate turn away from the ridge. The radius of your turn will take you close enough to the turbulence-prone area to determine the severity of turbulence you can expect. If the turbulence level is acceptable throughout the turn, another pass should be made on the ridge. This procedure of just "sticking your nose in" can preclude long encounters with severe turbulence. How much turbulence constitutes "too much" is a decision only the aircraft commander can make based on the capability of his crew, his aircraft, and

the urgency of the requirement.

2. Poor Visibility — Another problem associated with weather that you are very likely to encounter in a contour search is extensive cloud cover and poor visibility. More often than not, the weather will be bad in the search area the first few days of the search as it is usually a contributing factor in the original crash. When operating under marginal visibility conditions, never allow your aircraft to get into a position which prevents turning out of the area without going IMC. Cumulorockus, a form of cloud with a mountain in the middle of it, can ruin your whole day.

Terrain Associated Hazards:

1. Optical Illusions — Optical illusions are dangerous when judging distance available for maneuvering; they can also be a real problem when following gradual rises in terrain. The rise may appear moderate when in reality it may exceed your aircraft's climb capability. You can get a more accurate estimate of the steepness of the slope of



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the terrain by noting the trees and lakes in the area. Trees normally grow straight up, and, of course, lakes are level. The attitude indicator and the VVI are good cross checks, but the pilot not flying the aircraft should be primarily responsible for watching the instruments so that the pilot at the control can maintain visual reference outside.

2. Canyons — One simple rule: never fly up the middle of a canyon! Flying up the middle of the canyon cuts the available turning air space in half. If at all possible, always fly down a canyon, but if you must fly up, confirm before you ever enter the canyon that it is not a box canyon and that you have room to turn around at all points inside the canyon. Be extremely cautious about committing your aircraft to search a canyon that has room to turn around only after passing through a long pass or narrows. These narrows may extend for several miles, and if you should encounter an obstruction to visibility while in the narrows, such as fog, you have violated one of our first rules by not leaving yourself an escape route.

3. Cables and/or Wires — Many mountain areas of the country are developing faster than maps can be printed. Be extremely careful in checking the area for cables and high tension lines. In skiing and mining areas, it is not unusual to find cable-driven lifts that are not printed on your map. Assume that the map does not show all cables and tension wires, and you won't get into trouble.

Debriefing:

By now you will have noted that some occurrences or conditions may preclude searching all parts of your search area. This is to be expected. Just one warning: do not allow crew pride to tempt you to overstate how well or how much of the area you covered. Remember, the people who will be debriefing you are professionals in search and rescue, and they fully realize that some parts of a search area may be inaccessible on any given day. On the other hand, you do not want to understate your coverage. Contour searches usually continue for several days, and effort is too often wasted because of improper or incomplete debriefing. Take the time to debrief thoroughly so that the crew following you will be exposed to fewer hazards and have a better chance of success. Simply stated, just tell it like it was.

Perhaps you will be lucky enough to be called upon to participate in a search effort. If so, what you just read should prove helpful. More importantly, you should realize that contour searching is more than just flying around a few mountain peaks. It is a dangerous, demanding mission that requires constant attention to detail. If you give that professional attention to detail and the proper dedication to the search, you will have participated in the highest ARRS tradition as exemplified by their motto "THAT OTHERS MAY LIVE". ➤

SPO CORNER

HALF OF THE FACTS

by CMSgt George Edenfield

During cockpit preflight, an F-4 driver tugged on the interdictor mechanism attaching cable and dislodged the interlock block portion from the seat. The crew chief reinstalled it. He tugged on it again. Then he requested expertise from the egress shop because he believed that the interlock block released too easily.

The discrepancy was related to the egress technician when he arrived. The crew member moved up to the right intake and watched while the egress man checked the interlock and reinstalled it. A discussion concerning the operation and purpose of the interdictor assembly followed. The egress technician briefed the crew member concerning the hazards involved in removing the assembly, inadvertently or intentionally, including the fact that the crew member should check only the interdictor mechanism for proper installation, not how much tension is required to release it from the safe position. When the discussion ended, the crew member apparently wasn't convinced because as the technician stepped across the seat to exit the aircraft, the crew member reached down, grasped the attaching cable, and snatched the interlock and safety pin assembly from the top of the seat. When this assembly is removed, we have a "hot seat" — one slip that trips one linkage can fire the seat. You probably think we're about to tell you how this curious crew member launched the technician into a low orbit. Fortunately, this did not happen. The incident remained an incident — but we have only luck to thank. We do know of three mechanics who received fatal injuries, and one pilot and one mechanic who received permanent disabling injuries, because the safety pin and interlock block were out and someone slipped up and tripped a linkage. Like I say, we were just plain lucky on this one.

Obvious mistakes:

1. The crew member should not have tugged on the cable.
2. The crew chief should not have reinstalled the interlock block.
3. The crew member should not have tugged on the cable a second time.
4. If the crew member did not believe that the system was safe after visual inspection, he should have written it up and refused the aircraft. Instead, he created a "hot seat" which could have killed someone.

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ALL CAUSE

by Maj Burt Miller

Any set of circumstances, no matter how minor, when put in the proper time sequence in the right environment can produce an accident. The following list of facts/conditions/circumstances resulted in a loss of an F-4 in another command:

Well qualified F-4 driver

New guy to command and area

*First F-4 flight in 67 days

*Late takeoff results in night mission

IP in back seat now in 11th hour of 12-hour crew duty day

Tuff part of mission, night AAR, completed — no sweat

Approach to planned aerodrome denied

Diverted to new field

*Limited time to review let-down plate

*TACAN approach plate meets USAF standards but could/should be improved

Dark night, no horizon — but VFR

*Radio problems with all controlling agencies

*GCA guidance being provided although not requested

Pilot flying the gauges — channelized attention

*Malfunctioning radar altimeter

*CADC has altitude error

*No RCP map light

*The only transmitted local altimeter setting — missed

*Pilot sees landing light on ground but has illusion of cloud bank

IP drops let-down book

IP leans over to retrieve book

Aircraft strikes trees — 5 miles short of runway, 500 feet too low

Both crewmembers eject safely

Under the old accident cause classification system, the board's requirement to identify a primary cause would often result in minimal attention being paid to correcting the lesser problems that were discovered.

With the inception of the new "All Cause" concept, boards now must identify and recommend corrective action for ALL findings/causes which directly resulted in the accident. Each of the asterisked items in the above list resulted in appropriate recommendations to get something fixed or changed.

This conceptual approach will help reduce the possibility of a similar problem or unique circumstance at some other location from occurring with the same result.

TSgt Manny Cortez slammed the door of his house trailer. "Who does she think she is?" he said to no one in particular. He climbed into his two-year old compact, cranked up, and then ricocheted gravel off his carport. The pre-dawn sky was lightening to the east as he ran the stop sign entering the back road to the base from the trailer park. As he slammed the car into third at 50 MPH, he began reconstructing this morning's argument — a more and more frequent occurrence since his wife started working at the club. "I don't give a damn if she does work 'til eleven — there's no way I'm going to get up an hour early and feed the kids. My crew day is long enough without doing her work"

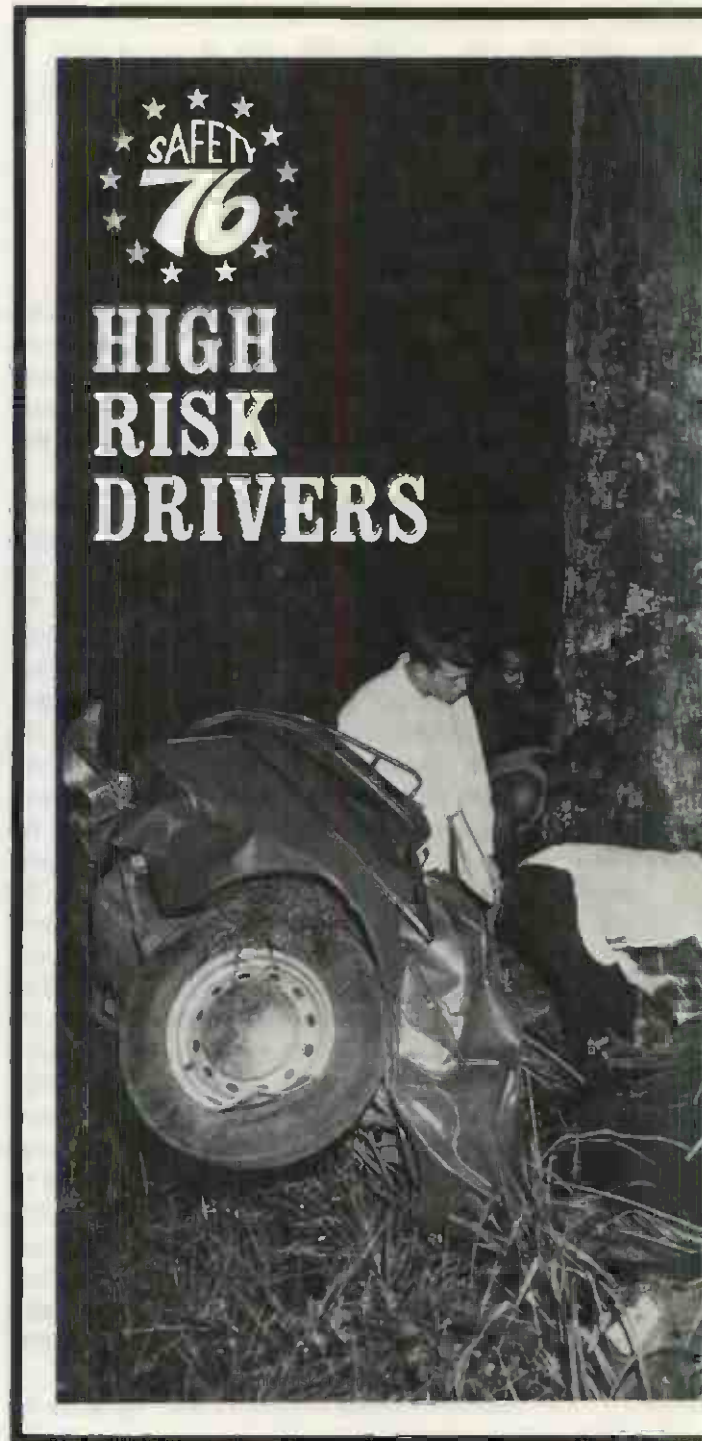
He hit the second turn, at about 60, and as he fought to keep the car in its lane, a truck came from the other direction with its lights on high beam

Investigators measured the skid marks and found that brakes had been locked for approximately .85 feet prior to impact with the back of Mr. Jamison's car. Jamison told the accident investigators that just prior to being struck in the rear, a truck coming from the other lane had temporarily blinded him and might have made it impossible for Sergeant Cortez to see him pull out from the side road until it was too late

TSgt Cortez was pronounced dead on arrival at the Clayton County Hospital.

TSgt Cortez was a high risk driver. He had never been identified as a problem driver despite the fact he had received two speeding citations and been involved in a minor auto accident in a two-month time period just prior to his fatal accident. The reason his supervisor didn't flag these incidents was probably because up to this time, Sergeant Cortez had maintained a perfect driving record. If his supervisor had been more familiar with the Air Force's High Risk Driver Identification Program, he might have realized this type of record is a good clue that the man was emotionally upset — and a prime candidate for yet another PMV fatal statistic. If his supervisor had been more familiar with the program, Sergeant Cortez might be alive today.

TAC's High Risk Driver Identification Program is outlined in Chapter 17, TACM 127-1, TAC Accident Prevention Program. It is wrong to believe that the problem driver is the only problem in traffic safety. The repeat offender is only a part of the problem, but a big enough part to warrant this special program. In the past five years, the accident/violation repeater has been involved in one out of every four reportable motor vehicle accidents in TAC. This is a most fertile area to direct our accident prevention efforts. For simplicity's sake, we will consider "problem drivers" and "high risk drivers" as one and the same.



● What is a Problem Driver? For our purposes, a problem driver is one who conducts himself in such a manner that he can be expected to have an automobile accident. He may operate his car in an unsafe and reckless manner, accumulate a series of moving violation citations, or be involved in and responsible for one or more traffic accidents. He often operates a poorly maintained and unsafe vehicle. He may be an emotionally unstable

... traits of problem drivers aren't necessarily permanent, but may be a temporary condition that anyone could experience...



individual, a heavy drinker, or involved with drugs. A variety of personal crises can impair one's capabilities and these emotional handicaps may place him in a high-risk category until his personal problems are resolved. Problem drivers can be identified and assisted. The important thing to remember is that the traits of problem drivers aren't necessarily permanent, but may be temporary conditions that anyone could experience. To be fair, we must point

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out that certain individuals are more likely to have an accident than others simply because their risk or exposure is greater.

● **How Do We Go About Identifying the Problem Driver?** Many problem drivers are "problem people" and exhibit tell-tale signs. Many are anti-social; some extend themselves beyond their endurance or operate unreliable cars, providing only mandatory maintenance. Sudden or drastic changes in attitudes or performance may also be a clue for the supervisor to watch for: the driver like Sergeant Cortez who has marital difficulties, unpaid bills, or an overdrawn bank account; the individual who suddenly hits the bottle or takes to drugs — including the over-the-counter variety; the man who operates a vehicle in bad need of repair or brags about taking chances at the wheel. These people are all prime candidates for auto accidents. Air Force records are available that can be checked to reveal a driver's past driving record. AF Form 1313, Driver Record, covered by AFR 125-14, is the best known. The record is maintained by the Security Police and lists all moving violations, chargeable accidents, suspensions, or revocations of driving privileges. The entries remain on the driver's record for a period of three to seven years. Another is the AF Form 1286, Driver Background Experience Survey. Maintenance of this form is covered by AFR 50-24, Traffic Safety Education. This form is prepared by an individual when he first attends Traffic Safety Education and is a survey of his previous driving experience.

In the future, the Air Force will have access to the National Drivers' Register (NDR). The purpose of the NDR is to provide a central driver records identification facility containing the names of drivers whose licenses have been denied, suspended, or revoked.

The Air Force medical facility is another way to identify some problem drivers. Motor vehicle accidents have occurred in which the operator had a medical condition which precluded safe operation. AFR 161-1-10, Medical Conditions Affecting Motor Vehicle and Equipment Operations, outlines the conditions for which an individual should be evaluated. Commanders must be informed by medical personnel of those individuals medically disqualified to drive. The administrative method is established in AFM 160-1, Medical Examination and Medical Standards. This can be a strong weapon in our fight against accidents.

● **What Can We Do About It?** Since the commander and supervisor have access to the problem driver's records — now what? How does the boss get the individual to drive safely? The number of approaches is as great as the number of high risk drivers. One of the most important things he can do is provide the problem driver with information. Let him know that as his supervisor, he is aware of the individual's record and wants to help prevent



PRIVATE MOTOR VEHICLE ACCIDENTS

<u>YEAR</u>	<u>TOTAL</u>	<u>ADVERSE DRIVING RECORD</u>	<u>ALCOHOL</u>	<u>TOTAL FATALS</u>	<u>ADVERSE DRIVING RECORD</u>	<u>ALCOHOL</u>
1969	330	75	127	49	9	24
1970	279	60	112	48	8	24
1971	285	65	93	61	14	29
1972	300	87	107	61	12	30
1973	268	73	91	38	12	20
	1,462	360	530	257	55	127
		24.6%				

AIR FORCE MOTOR VEHICLE ACCIDENTS

<u>YEAR</u>	<u>TOTAL</u>	<u>ADVERSE DRIVING RECORD</u>	<u>ALCOHOL</u>	<u>TOTAL FATALS</u>	<u>ADVERSE DRIVING RECORD</u>	<u>ALCOHOL</u>
1969	102	*	1	1	0	0
1970	107	*	4	2	0	0
1971	132	32	3	0	0	0
1972	123	33	3	0	0	0
1973	119	40	0	1	1	0
	583	105	11	4	1	0
		28.1%				

* Driver Record data incomplete for 1969 and 1970 — Percentage based on years 1971, 1972, and 1973.

future violations. Give him a few statistics that point out the probabilities of the problem driver receiving another citation or being involved in an accident. Then let him know the consequences of such an incident — don't threaten the man — just tell him the facts and try to help him. Help may come in the form of a driver improvement program. It's important to let him know that the driver improvement program is educational and not punitive. Advise him that effort will be required to improve a bad record but that it is possible. Tell him the consequences of poor driving may be a night in jail, a long tour in a hospital, or a short trip to a funeral home.

● How about the "temporary" high risk driver? The man with personal problems so severe that good driving habits are disregarded? This man is just as great a hazard to himself and others as the problem driver with a record as

long as your arm — and he can be helped. To tell this man to drive safely is not enough. You must cure the disease and not the symptom. As his supervisor, you should offer him all the support you can to eliminate the problem that's bugging him. If it's financial, try to set him up with a financial or legal advisor to get his affairs straightened out. Marital problems? Suggest professional counseling. All he may need is a few days off to set things straight. As supervisor, this man's welfare is your responsibility — if in the process you create a safer driver, the Air Force reaps the extra benefit.

If the program is effective, the rehabilitated problem driver will employ good driving habits. If good driving habits prevent only one unnecessary and tragic death, the High Risk Driver Identification Program has paid for itself. Let's make it pay off.

AIRCREWMAN of DISTINCTION



CAPT ROURKE

Captain Thomas M. Rourke, 550 Tactical Fighter Squadron, 58 Tactical Fighter Training Wing, Luke Air Force Base, Arizona, has been selected to receive the Tactical Air Command Aircrewman of Distinction Award for April 1974.

On 13 March 1974, Captain Rourke was flying as an instructor pilot in the rear cockpit of the second F-4 in a two-ship transition training mission. Working in close formation, in the local transition area, the flight began a series of climbing and descending turns. Shortly after initiating the maneuvers, during an unloaded descending turn, Captain Rourke felt a thump. He was advised by his flight leader that fuel was streaming heavily from the auxiliary air doors and the main gear doors. Both cockpits immediately filled with heavy fuel fumes. Suspecting a fuselage fuel cell rupture, Captain Rourke directed the student to switch to one hundred percent oxygen and pull the cabin pressure dump valve. At the same time, Captain Rourke selected one hundred percent oxygen, turned off the radar, and took control of the aircraft. He began a climbing turn directly for Luke AFB, 65 miles away, and declared an emergency. Captain Rourke increased airspeed to 350 KCAS and directed the student to monitor the fuel quantity and to read the emergency procedures checklist for fuselage fuel cell leak. Compliance with checklist procedures failed to stop the rapid fuel loss. The fuselage fuel quantity reading continued to decrease rapidly, and the fuel fumes in the cockpit became stronger. Captain Rourke considered turning off all unnecessary electrical power but decided not to do so due to the possibility of electrical arcing. Captain Rourke realized ejection might be necessary and covered the procedures for a sequenced ejection with the student, including the fire hazard associated with the seat firing. He notified Luke tower to alert the range support helicopter for a possible rescue. The flight leader advised him that fuel was streaming from

the RAT doors, the IFR door, the wing fold area, the leading edge flap area, and the intake ramp area. The flow of fuel was so heavy, it completely engulfed the aircraft aft of the trailing edge of the wings. Captain Rourke estimated that he was losing fuel at a rate of one thousand pounds per minute. Due to the rapid fuel loss and his recovery flight path, he advised the tower of his intention to land downwind and requested early landing or breakout of all local traffic. Captain Rourke directed the student to lower the landing gear, using normal procedures at 5,000 feet AGL in order to have sufficient time to eject in case a fire broke out as the auxiliary air doors opened. Because of the fuel in the flap/BLC area, Captain Rourke decided to make a no-flap approach and landing. Although not certain of the extent of damage caused by the fuel cell rupture, he ruled out an approach-end barrier engagement because of the possible disastrous consequences of the fuel rushing forward during the arrestment. Maintaining a zoom capability for ejection on final approach, Captain Rourke made an uneventful, no-flap, back-seat landing on the downwind runway. After clearing the runway, the crew shut down the engines, turned off the master switches, and egressed the aircraft. The fuel reading at shutdown was 2800 pounds remaining in the fuselage fuel cell. Postflight investigation revealed that the left external wing and the centerline fuel tank pressure regulators malfunctioned, resulting in a massive rupture of the #3 fuselage fuel cell.

Captain Rourke's decisive action during this critical emergency resulted in the saving of a valuable tactical aircraft and prevented possible loss of life. ➤

CHOCK TALK

chock talk... incidents and incidentals

C-130—UNCOMMANDED CPI DEPLOYMENT

An Alaskan Air Command C-130A lost its crash position indicator soon after take-off. After hearing the beepers, and DF'ing it at his six o'clock, the pilot checked his CPI panel and found the "deploy" light was on and the deploy switch still saftied to the "off" position.

Postflight trouble-shooting revealed that the electrical harness to the right wing tip frangible switch was not connected. The wires that should have been attached to the switch were coiled inside the anti-icing duct disconnect access panel — with the ends taped. One wire end showed signs of severe corrosion; the resultant short is believed to have been the culprit.

A record check revealed no wing tip maintenance on the Hercules since its last trip to PDM for reconfiguration from gunship to standard A-model specs. This is not the type of mistake that can be discovered during routine, base-level inspections. It does point out, however, the importance of following checklists and tech data — at all levels.

Someone deprived the aircrew of one of their life-saving devices. Let's do it right — the first time.

T-29—TORQUED OFF

Shortly after takeoff, the crew of a T-29 shut down number one engine for fuel pressure fluctuation. Recovery was uneventful.

Prior to this flight, maintenance crews had changed the fuel pump three times to correct fuel leakage write-ups. During one of these three changes, the flange on the fuel line was cracked — hence, the leak, fuel flow fluctuation, and engine shutdown. Probable cause for the cracked flange? Overtorquing during installation.

One of Murphy's favorite playthings is the torque wrench. There's a good reason for the torque valves outlined in your tech data — let's follow the book and deprive Murphy of one of his pet weapons.

...incidents and incidentals

TOO MUCH OR TOO LITTLE

An F-4 recently experienced a flight control problem that was caused by something out of the ordinary. The fighter was flying a ground attack training mission, and prior to his first roll-in, the lateral controls felt extremely stiff. After accomplishing his emergency procedures, the pilot was able to successfully land the airplane. A postflight investigation revealed the lateral trim screw jack actuators to be binding. The reason they were binding was excess lubricant. This lubricant had combined with dirt and foreign matter and formed a sludge type material. This incident shows that too much lubricant can be just as bad as too little.

HIGH VISIBILITY VEST

Personnel working on the flight line during hours of darkness are not easily seen. A vest, high visibility, FSN 8415-177-4974, can be requisitioned. The poncho style vest is flourescent orange and has silver-white reflectorized stripes. The orange color and the stripes will provide high visibility for day and night. One size fits all and the vest fastens on the side with Velcro tape for easy donning.

The vest is authorized in TA 016 for flight line personnel and can be issued when approved by the unit commander. The vest contains nylon so it should not be worn when static electricity would be a hazard.



with a maintenance slant.

BATTLE OF THE CENTURY

In this corner, a 5,000-lb aircraft tug, dressed in orange paint, with bumper and exterior of 1/4 to 1-inch steel and cast iron.

In the other corner, a 45,000-lb aircraft, dressed in camouflage paint, and made of 1/16-inch aluminum and other man-made metals.

Let the fight begin —

Oh no, the aircraft isn't moving. It has lost its power to move.

It's chained down. It's sitting there awaiting the obvious.

The tug moves forward, dragging behind it a large-wheeled monster.

It leads with a left to the radome and follows with a right to the nose gear.

The aircraft is down, its skin broken, its leg collapses; it oozes its internal fluids, it dies; millions of dollars go with it.

The tug slowly backs away, unharmed by its now-dying opponent. Only chips of paint and a puddle remain to verify contact.

The count is at 7, 8, 9, now 10. The 45,000-lb fighter is down and out. Maybe never to fly and fight again.

The above occurrence happened; names, places, and date have been omitted to protect the guilty. This fight need not have happened.

A rematch is not necessary for it's common knowledge that the short, squat, heavy tug will retain its title as winner and still champion . . . unfortunately.

TAC ATTACK

GOOD IDEA

It has been brought to our attention that some units are using empty intravenous fluid bottles for fuel sampling. Reports indicate the item is superior to the "fruit jar" type bottle because its smaller neck allows the bottle to make direct contact with and depress the fuel drain plug through the skin of some aircraft, deleting the necessity for a wooden stick to depress the drain plug. There is no spilling of fuel while taking the sample and virtually no spilling while moving around the aircraft and to the fuel sampling point. The bottle has a flat base so it can stand in existing fuel sampling points. A hanging ring is also attached, so the bottle may be hung upside down to drain completely to prevent contamination. The rubber stopper that comes with the bottle may be used when fuel samples are to be kept.

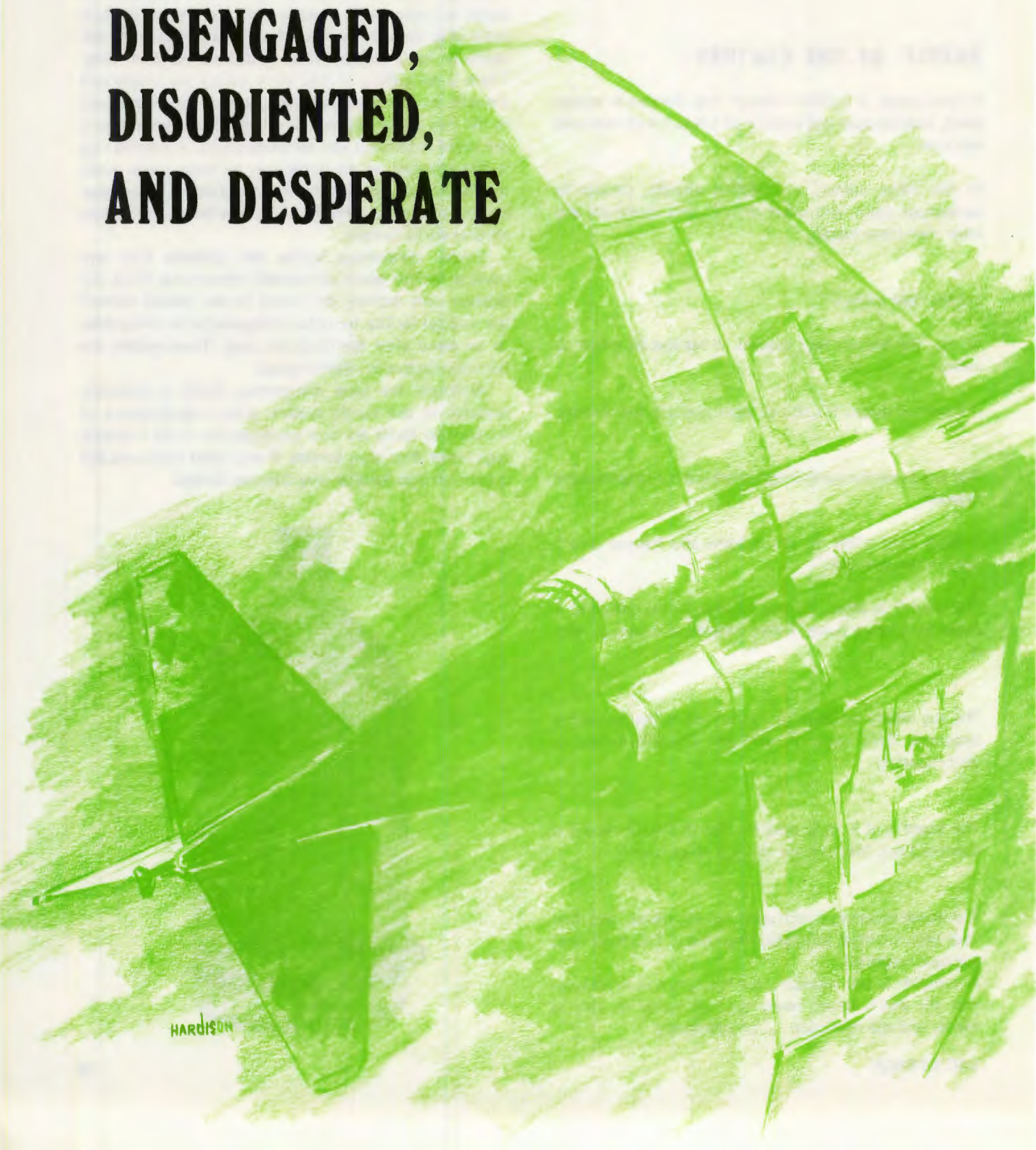
Empty intravenous bottles are available from any medical facility which administers intravenous fluids. An aviation unit desiring the empty bottles should contact the medical facility to make arrangements for the bottles to be saved after the fluids are used. These bottles are normally destroyed when emptied.

Although the glass intravenous bottle is presently available in the supply system, some manufacturers of intravenous fluids are now supplying the fluids in plastic bags rather than glass bottles. If this trend continues, the supply of glass bottles may become limited.



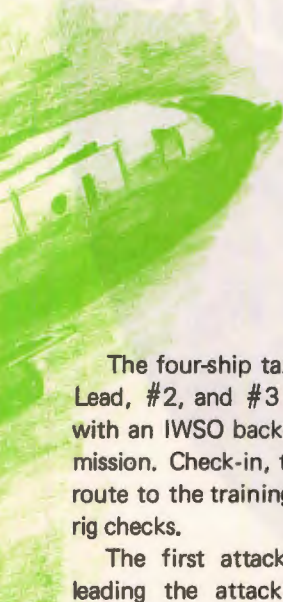
THE F-4 ACM MISSION WAS PROGRESSING AS BRIEFED
UNTIL THE CREW GOT THROWN OUT OF POSITION
AND ENDED UP...

DISENGAGED, DISORIENTED, AND DESPERATE



Ask anyone who has time in F-4s about squirrely maneuvers and the phrase "out of control" will undoubtedly crop up. It has been the subject of innumerable articles, messages, briefings, tests, and lectures. It has been involved in over half a hundred accidents.

"Out of control" emergency recovery procedures are drummed into the head of every F-4 pilot from the time he enters the training program until he steps out of the cockpit for the last time. Is this rote procedure that's continually emphasized the panacea for all unusual situations? No! And (as you might guess) we have an accident to prove it! Here's what happened.



The four-ship taxied out on an ACM training mission. Lead, #2, and #3 were all IPs, while #4 was a student with an IWSO back-seater. It was the student's third ACM mission. Check-in, taxi-out, and takeoff were normal. En route to the training area, the flight spread and performed rig checks.

The first attack was a barrel roll attack with #4 leading the attacking element. The attack progressed normally and, as briefed, was terminated when #4 lost mutual support.

It was during the second attack that the accident occurred. The attacking element (#2 with lead flying fighting wing) set up for a high-speed yo-yo. The defending element (#3 with #4 flying fighting wing) began a right banked, unloaded acceleration. Number 3 then started a four G right turn. As #3 increased the turn rate to force an overshoot, #4 vector rolled to the outside. As #4 started his vector roll, #3 started a nose-high reversal into the attacking element. This left #4 45-to-60 degrees nose high, inverted, above and behind #3. He wisely called a disengage, and continued a nose-high inverted climb to gain separation from the other airplanes. About this time, he began to run out of airspeed and ideas. The aircraft stalled and dropped nose low. He

initiated his out-of-control procedure, which called for stick forward and drag chute out. Neither had any noticeable effect. After falling out of control for some 10,000 feet, he ejected successfully.

The accident investigation board concluded that he had gotten into an inverted stall, and that the out-of-control recovery of getting the stick forward only aggravated the stall. The flight manual, in a brief discussion of inverted stalls, says the following:

An inverted stall (negative angle of attack) can be entered with abrupt application of full forward stick. Light to moderate buffet will occur at the stall and there are no distinct yaw or roll techniques. Recovery from the inverted stall is effected by relaxing the forward stick pressure and maintaining an angle of attack of 10-to-15 units until recovered.

What we have, then, is an inexperienced pilot, in an unusual flight attitude, failing to recognize what was happening, and thus applying the wrong recovery procedures.

However, there's more to this accident than meets the eye. You know what happened, but what we haven't told you is why. Why did the pilot apply the wrong procedure? There are a couple of reasons. First of all, he was disoriented. During the ACM maneuvering, his primary flight reference had been his leader. When he got thrown out on the reversal, he didn't use visual or instrument references to recover from his unusual attitude. Additionally, he had never been in a negative stall before.

He also believed that getting the stick forward would recover the airplane from all nose high flight attitudes. This erroneous belief led to an early crew ejection. As a matter of fact, the F-4 recovered by itself just prior to impact.

We all know that the pilot is ultimately responsible for the safe conduct of the mission; however, the board believed that crew coordination was also a cause. Advice given by the IWSO was incorrect. Regardless, the pilot must never forget that there's only one person responsible for the mission — and that's him! He can accept advice for what it's worth, but he can never forget that he's the one asterisked on the flight orders.

All accidents result from a chain of events and this one is no exception. First of all, the student pilot got thrown out of position in ACM and ended up in an inverted nose high, low airspeed unusual attitude. He then failed to transition from formation references to visual or instrument references. He failed to recognize his flight attitude and thus initiated the wrong recovery.

The result of this chain of events was a major accident. Fortunately, we didn't lose any people in this one, but the next time we might not be so lucky. ➤



by William G. Holder,
Contributing Editor
Aerospace Engineer
Wright-Patterson AFB

Just sitting there she looked mean. With her body painted in a sinister black, The Widow proved a terror to enemy fighters on both sides of the war. Built more like a tank than an aircraft, the P-61 was really built to

take it. As big as a light attack bomber, the aircraft resembled slightly an overgrown P-38. Although she didn't get into the war at its beginning, she more than made her presence felt when she did.

There were not predecessors to the Black Widow, she was the first of her kind. The Germans, however, early in the war had realized the importance of night fighters and had adapted two—the Me-110 and the Ju-88—to

fulfill that role. The RAF also adapted several of its front line aircraft to perform that mission. The first Army Air Force night fighter also evolved as the result of a modification—that of re-equipping an A-20 light attack bomber.

The P-61 itself was started late in 1940. The contract called for two XP-61s at a total cost of \$1,367,000. The initial flight was made on 21 May 1942 and the aircraft was deemed

basically sound. Development was quickly pushed forward on the aircraft because there was a crying need for the plane immediately. It was because of this pressing need that 13 YP-61 service-test aircraft were ordered shortly thereafter, and a production contract was signed before the prototype was even flown.

The P-61 had several innovative devices incorporated in its design. It was the first aircraft to use spoilers which were connected with conventional ailerons in order to provide lateral control. The spoiler on the P-61 rolled out of the top of the wing, interrupting the airflow, and allowed the aircraft to accomplish its quick turns. The P-61 carried a three man crew fully enclosed in a crew nacelle located on the wing between the two engine nacelles. The crew consisted of the pilot, radio/radar operator and gunner. Only the pilot was able to fire the cannon which was usually used for ground strafing missions, but any crew member could operate the power-driven dorsal turret housing the four machine guns.

The all-important radar system of the P-61 was housed in the nose of the aircraft. The main component of the radar installation was a reflector with a slender arm antenna pro-

jecting from its center. This antenna emitted radar transmissions which bounced off targets and allowed the P-61 to home in on its target. The Black Widow was also equipped with IFF equipment. The great advantages of radar aboard aircraft were only being learned during the time the P-61 was being designed but it served as a test bed for many of the new electronic developments.

The first production model, the P-61A, had 200 of its numbers produced. Only the first 37 had the power-driven turret installed. The 450 P-61Bs served as the backbone of Black Widow production. The B version featured a pilot radar scope for the first time and four wing racks for holding four 310 gallon drop tanks. This extra fuel provided an extra 1800 miles range over the range-short P-61A. The P-61C came along too late and only 41 were procured. But the advances on this version were outstanding. The version featured fighter brakes in the form of flat perforated panels that could be extended into the airstream by the pilot at will. They gave the Black Widow the capability to pull extremely tight turns.

The one SP-61D was a converted P-61A. The only change in this test version was the substitution of power-

plants in an attempt to acquire better high altitude performance. The two P61Es were converted B versions. Armament changes were the keynote in this aircraft. In the nose were placed four fixed machine guns and the crew was reduced to two sitting in tandem under a long bubble-type canopy. The first XP-61E took to the air for the first time on 3 January 1945. Finally, was the XF-15 which was the final change to the Widow and the conversion of the bird to perform a reconnaissance role.

The crews that flew the Black Widow were a select and highly motivated group. First, all were volunteers and had to already be qualified pilots. Secondly, they had to be men who could work together because in night fighter work it was imperative that a close personal bond be established between the crew members, particularly the pilot and the radar operator. Once trained, the crew remained together for the entire tour of duty.

The 414th Night Fighter Squadron was the first P-61 unit to be activated, the event taking place in January of 1943. It carried out harbor patrols in North Africa to protect shipping from aerial attack. During these operations the unit was equipped with the RAF

The Air Force Museum's restored widow, "Moonlight Serenade."



PHOTO BY
ROBERT SHENBERGER

LADY in the DARK



Beaufort aircraft. P-61s were not received until late 1944 in Italy. But then the 414th really went to work, and by May of 1945 had flown almost 7,000 hours, destroyed 13 enemy aircraft, 38 locomotives and dropped 195,000 pounds of bombs.

But in the Pacific, the P-61 was a much more determining factor. They performed missions such as night cover work for PT boat raids and aerial defense work. During the Luzon campaign they covered the air drop of the 11th Airborne Division. They were also used to escort B-24 bombers on dangerous night missions.

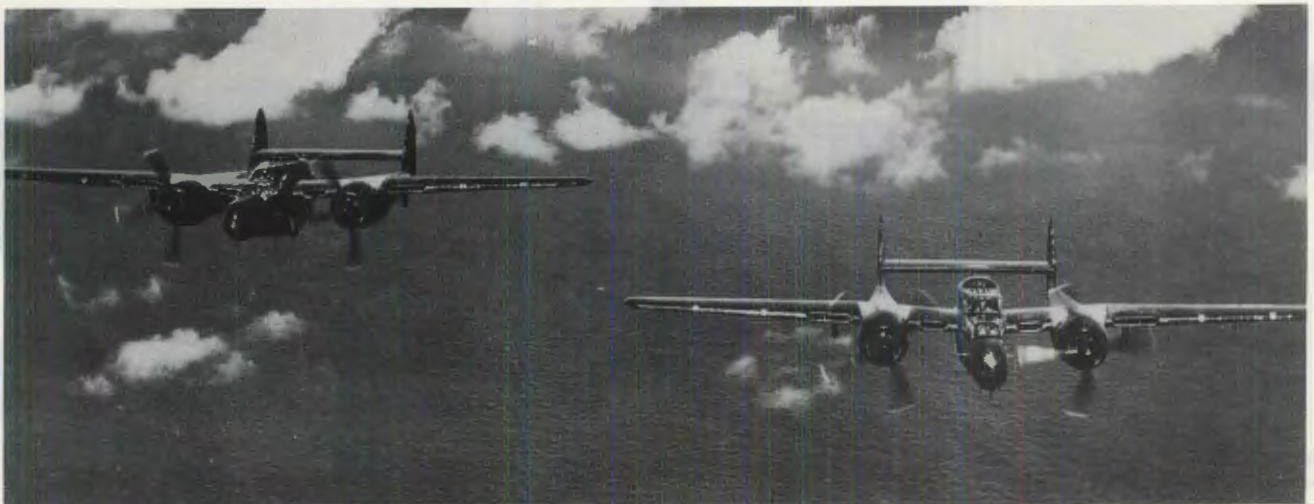
From a pilot's point of view, the

P-61 was a true pilot's airplane when flown by a well-trained crew. Although it did have a bulky look about it, the P-61 with its 370mph capability at 20,000 feet could easily stay up with almost anything in the air. The Widow got off the ground in a big hurry using only about 1000 feet of pavement to push 15 tons into the air. It could reach 5000 feet in only two and one-half minutes. This performance compared quite impressively with fighters of the day which by their very nature had much higher

power-to-weight ratios. The Widow's aileron control response was quick, and the aircraft could perform combat rolls with ease.

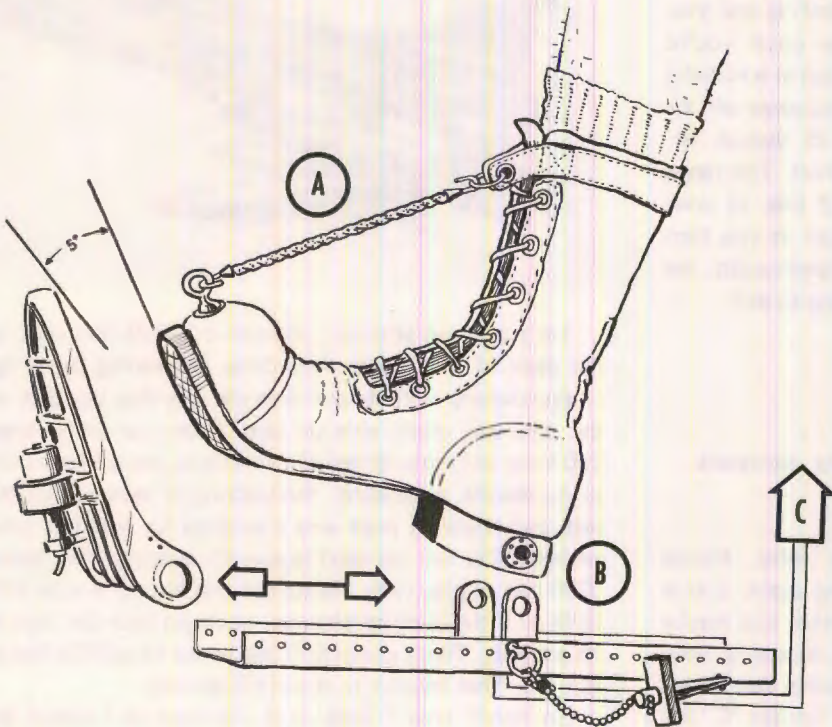
She was one of a breed. Her lifetime was short but during her stay she made her presence known. She went about her work quietly at night. And many an enemy felt deadly venom before he knew he had been struck. This then was the P-61 Black Widow, the only aircraft designed by America during WWII specifically to perform the night fighter mission. ➤

lady in the dark



There has been a continuing problem of F-4 blown tires resulting from inadvertent pilot brake application during landings. Research may have finally come up with a solution and TAC ATTACK, in its continuing efforts to keep our readers informed, is proud to present the ultimate solution, the . . .

F-4 BRAKE MOD



A. Bungee cord limits toe travel to 5°, based on Mean Physical Foot Strength (MPFS) of F-4 pilots (95 percentile).

B. Sliding heel track. Prevents pilot from lifting foot to apply heel on brakes.

C. Electrical release solenoid to free heel from track. Provides automatic release when canopy is jettisoned or raised. Used for ejection or emergency ground egress.*

*This tag-on modification resulted from an inadvertent ejection by test pilot, Major "Stretch" Frisbee, during brake mod tests. The ejection modified Maj Frisbee and he has since been assigned as player/coach of the test squadron's basketball team.



Stretch after his ejection

EMERGENCY SITUATION TRAINING F-100

by Capt Wiley Greene
FSO, 162 TFTG, Tucson AZ

SITUATION. The trip out to the range hasn't been too bad. The bombs didn't fall off, the rockets didn't go "whoosh" and nobody hosed off any 20 Mike Mike. On downwind the switches are set up for strafing and you turn base. On final everything looks so good you're tempted to fire more than a sighter burst but at a nickel a hole, better judgement prevails and you squeeze off six rounds. Four Gs in two seconds, nose 15 degrees up, blend rudder and aileron to turn crosswind. The range officer does his thing and says you got 6 hits. In your super-suave voice, you acknowledge his call as you turn downwind. Suddenly, and with malice aforethought, the engine rolls back to 60%. What are you going to do?

- OPTIONS:**
- a. Cry a lot.
 - b. Cancel the bet.
 - c. Attempt an airstart.
 - d. Zoom and jettison the aerospace vehicle.

ANALYSIS: Option "A" is definitely valid. Maybe Option "B". If you get the engine going again, you're going to go home with a noneffective sortie, but maybe you can con the rest of the flight into accepting your 100% strafe score. If you don't get it going, people are going to forget all about the bet anyway. Option "C" has some merit and so does Option "D". Being smarter than the average jock, you've come to the conclusion that there is no "right" answer.

Option C is easy. If you're in a standard strafe pattern, you were about 2500 feet AGL and doing about 350 knots when it all happened. You're going to pull the nose up and exchange some of that airspeed for altitude, getting rid of that junk on the wings at the same time. (Remember that stuff hanging on the wings is drag and you sure don't need a lot of drag.) By now you're about 3000 feet AGL and the airstart switch is "on" and emergency fuel has been selected. The airspeed is 220 and now you have to make the decision to go or stay. Option "D" may be in order. The real question we want to answer is, "How much time do I have before ejection is the ONLY recourse?" Answer — "Very little".



Let's pick an arbitrary altitude of 4000 feet AGL as the peak of your zoom. Any delay in cleaning the wings or establishing a climb, and even the way that you pull on the pole will affect altitude gain. From our wings level, 220 knot zero rate of descent condition, we are beginning to accelerate downward. Subtracting 4 seconds for the seat and chute to work and 2 seconds for reaction time, we have 300 feet we need to save for survival. That leaves 3700 feet to play with. We started this discourse with 60% RPM so if the dude accelerates, we might have full bore in 13 seconds. That's about 600 feet so we have 3100 feet as a buffer. That equates to about 60 seconds.

So here's how I look at it. As soon as I detect the problem, I'm going to clean the wings and go for altitude. In the zoom I'm going to hit the airstart switch (true, you don't need it but that's what habit will do) and emergency fuel. As I hold my 15 degree nose-high attitude, I watch the airspeed and at 230 knots I start lowering the nose. By the time I get 220 on the clock, a good ten seconds have passed and I will know whether the engine is going to work or not. If it's starting to accelerate, I can anticipate some chug, chug, boom, booms because of throttle position. It's a sweet sound and I'll stay with it. If the engine doesn't accelerate, with or without chugs and booms, I'll neatly bring the throttle to "OFF" and jettison the aerospace vehicle. I'll use that 3100 feet to watch the gunnery pattern and deploy the survival kit. (And maybe I can see where my next drink is coming from.)





TACTICAL AIR COMMAND

Maintenance Man Safety Award

Airman First Class David M. Dugrenier, 366 Organizational Maintenance Squadron, 366 Tactical Fighter Wing, Mountain Home Air Force Base, Idaho, has been selected to receive the Tactical Air Command Maintenance Man Safety Award for April 1974. Airman Dugrenier will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



A1C Dugrenier



TACTICAL AIR COMMAND

Crew Chief Safety Award

Staff Sergeant John H. Harrison, Jr., 4 Organizational Maintenance Squadron, 4 Tactical Fighter Wing, Seymour Johnson Air Force Base, North Carolina, has been selected to receive the Tactical Air Command Crew Chief Safety Award for April 1974. Sergeant Harrison will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



SSgt Harrison, Jr.



TACTICAL AIR COMMAND

Ground Safety Man of the Month

Master Sergeant James T. Cheeseboro, 354 Supply Squadron, 354 Tactical Fighter Wing, Myrtle Beach Air Force Base, South Carolina, has been selected to receive the Ground Safety Man of the Month Award for April 1974. Sergeant Cheeseboro will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



MSgt Cheeseboro

TACTIPS

...interest items,

IF YOU'RE NOT PART OF THE SOLUTION, THEN
YOU'RE PART OF THE PROBLEM

C-130 HOT BRAKES

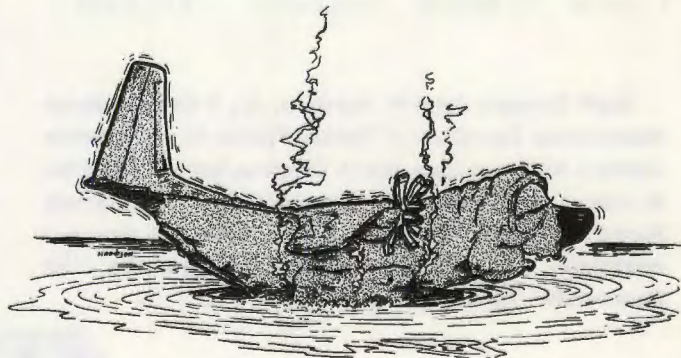
A Reserve C-130A was completing a windmill taxi start after a series of phase II training events (no-flap, normal landings and simulated three-engine take-offs). When the brakes were checked, the upgrade pilot noticed the aircraft pull to the left. The IP felt they might have an anti-skid or nose-wheel steering problem so after calling for fire trucks and clearing the runway, the engineer was deplaned for a visual gear check. He reported that everything looked normal, but just then the loadmaster reported a fire in the left wheel well. The left rear main tire blew about two minutes after the crew evacuated the aircraft. The fire department, already at the aircraft due to the IP's timely call, put the fire out but not before the aircraft received \$6000 damage. It could have been much, much worse.

Post incident investigation found that improper guard pins were installed on left brake pedal cross-over cable pulley at station 93. This allowed the cable to slip off the pulley and bind between the mounting bracket and pulley. The result? Between 150 and 300 psi hydraulic pressure being applied to left brake at all times!

The unit inspected the rest of their aircraft and found one other Herk with the wrong pins installed and the cable off the pulley. In addition, three other birds had the wrong guard pins installed but the cables were still on the pulleys. Why so many improper pins? It seems the A-model tech manuals don't adequately portray the pulley bracket installation or the breakdown of the assembly. Maintenance actions have been initiated to correct the problem, including the requirement for a rigging check. In the meantime, there are several things pilots can do to lessen the dangers of hot brakes:

- When you release the brakes, guard the parking brake handle so it doesn't snap back into its mount. This can cause the brake cable to slip off its pulley.

- If it seems to take a little more power than normal to pull out of the chocks, stop right there and have your brakes checked.
- If on the initial brake check, one or both of the rudder pedals don't return to their normal position after brake application, have it checked. This can be a clue to a slipped cable problem.



- Don't make unnecessary or exceedingly rapid brake applications. Hot brakes can, and have, occurred with a properly operating system because of poor pilot technique.
- If you suspect hot or dragging brakes, do as this IP did and call for a fire truck as soon as you get the first indication, not after the loadmaster cries "Fire" — it may be too late then. An inspection immediately after brake use may indicate normal temperatures, so be sure to give the brakes a few more minutes to see if heat build-up occurs before you continue.

mishaps with morals, for the TAC aircrewman

- Finally, after aborts and while performing operations such as short-field landings and windmill taxi starts, follow Dash One procedures to give the gear time to cool off. Remember, it takes from one to five minutes for the brake assembly, and twenty to thirty minutes for the wheel and tire assembly to reach max temperatures after heavy braking.

This is the first serious C-130 brake problem in the recent past but wheel-well fires seem to come in bunches. Let's work at keeping this one an isolated incident.

ATTITUDES

The two TAC fighter pilots landed at Fun City AFB, jumped down the ladder, and grabbed their bags, ready for a night on the town. "Hey, TA, we need gas and drag chutes; oh yeah, get SOAP samples too, will ya?" Quickly signing off an "OK" flight, they headed for town.

The next morning, after a good night's rest, they hit base ops and filed for home. Heading out to the airplane, they discovered that the birds weren't ready. No chutes, no SOAP samples and no preflight. After hassling around for a while, they finally got the birds ready to go — they thought. Unfortunately, one panel — the one where the luggage goes — wasn't buttoned up. This was dramatically revealed on takeoff, when the panel fell off.

As you can imagine, there was quite an investigation on this one. The pilots found out that in order to get drag chute repacks, it must be entered into the forms. They also discovered that verbal requests for SOAP samples often are not sufficient.

Transient Alert learned a few things too. Often it's not what you do, but the attitude with which you do it that makes a difference. In this case, obviously no one was communicating. Transient Alert was swamped with airplanes, and the pilots were somewhat less than



sympathetic. The pilots expected certain services, and didn't receive them.

The result? Hard feelings on both sides and an aircraft incident. Maybe we can all learn something from this one.

T-29... A STUDY IN TEAMWORK

On the sixth approach during a local training mission, the main gear of a T-29 failed to extend. The crew initiated a go-around and broke out of the traffic pattern. All dash-one procedures were tried, but still no luck. Finally, the crew contacted maintenance personnel through the Command Post. The maintenance people suggested that the crew check to see if the landing gear cable was broken. The necessary floor panels (behind the pilot) were removed and sure enough — a break in the cable was discovered. Following maintenance instructions, the engineer pulled on the cable leading to the gear and voila! Both uplocks were unlatched and soon the crew was staring happily at three green lights. An uneventful landing was made.

Here we have just the opposite of "a failure to communicate" — and we need more of the same.

low level in a **HUN**



is **FUN** ! ... but ...

Anonymous

Having just finished reading the February 1974 TAC ATTACK and the article about low fuel war stories (Between Pit Stops), it reminded me of an incident that happened to me which I thought you would like to hear. Actually, the incident didn't happen to me — I happened to it. A few of your readers might recognize this story although I have been careful to whom I've told it. No sense in advertising deficient judgment, I always say — when the lesson is learned.

The recital begins in Phan Rang in 1967, the day the Squadron Commander told me to hitch a ride on a trashhauler to Bien Hoa and pick up the Hun that had recovered there two weeks ago with battle damage. The last words were "get that bird back here fast so maintenance can get at it . . . and don't let those armorers forget to install the cartridge holders in the pylons — we're running short!" I was rather pleased that the squadron commander had selected me — a gesture of confidence, so to speak. Having been in Viet Nam for four months following a previous six-month tour, I felt I knew the country well. Being a senior first lieutenant and in the squadron for three years (almost), I felt like an "old head" — flight lead qualified, decent gunner, and all that. Every action was keyed to doing what was expected of me. I even knew by heart the heading to Bien Hoa — 240; and most of the ground references within our combat radius.

Reporting to the trashhauler Ops, I got the first bird going that way and an hour-and-a-half later landed at Tan Son Nhut. After two hours and a little scrounging, I got a Huey ride to Bien Hoa with some Army troops and reported to 3rd Wing ops for the pick-up and the mission number. The drops were supposed to be empty but — lotsa fuel. Preflight showed the drops crammed full. "Oh well" says I — too much hassle to defuel — "I'll take it."

Taxi instructions were for runway 24 and I was hustling. Into the arming pits and much persuasion later, I got all 16 cartridge holders. Those guys must have been using them for something — they didn't give up easy.

On the roll, nose up — gear up, flaps up and "BRAINSTORM"! Leave it in AB and stay at low altitude. If anything could get that sabre down to landing size — that would!

Back to being diligent, I contacted Paris and gave them the mission number and destination and turned on course to Phan Rang. A nice, quick snap from runway heading and off to the races. Paris did come up and asked me to reconfirm my destination (Phan Rang) and I did so, just before I lost radio contact due to my low altitude.

Well, it wasn't long before I was smoking across the countryside at 200 feet AGL about mach .95 and enjoying every minute of it. You know — going fast in an F-100 at low altitude — by yourself — is FUN!!

Now you probably think I was going to forget about AB and burn my fuel out and get in trouble. No chance. Phan Rang was only 30 minutes away and I was monitoring fuel flow. I would arrive with 6000 pounds plus, AB all the way — no sweat.

I normally didn't do much low altitude cruising around Nam so the chance to do so was pleasant. Euphoria set in quick. A few bars of "Sally in the Alley" accompanied by some fist banging on the glare shield to keep time and I was really enjoying it. Wow — "FIGHTER PILOT — HOT DAMN."

The land started to smooth out as the hills gave way to the flatlands, and I thought about that for a moment. "There's supposed to be some hills here, I think." Oh well — press on. Well, shortly this large river appeared up ahead — now that should have clued me in but the big Navy ship right in my path got my attention. "What a chance to shine to the Navy." A little dive and I cross 50 feet over that boat, pull it up sharply and two quick rolls. Man, that must have made them envious. Back to 200 feet and still in AB. Getting fatter, dumber, and happier.

I was still congratulating myself when I started noticing a pretty reasonable number of virgin villages — still untouched by 750s and 20mm. "Curious — eh?"

Soon I heard a call on guard —

"Single fighter aircraft that just flew over umpty-ump special forces camp. Come up 277.6"

I knew they were talking to me because I was too close to the ground to hear anybody far away and besides, fighters just don't normally tool around Nam solo. "Well, I'm not going to come up that frequency and get myself in trouble. Scratch that plan."

Still in AB!!

LOW LEVEL...



Five minutes later, the wheels of awareness began to turn. Uneasiness at first. Then my eyes riveted on the heading indicator. Oh—I 240°. That's the heading from Phan Rang, not to Phan Rang.

Two gallons of adrenalin hit my system. Fuel — 5000 pounds — another "Oh—" escaped my mouth.

With adrenalin fogging my thinking, I quickly decided I was 40 miles into Cambodia — why else the virgin villages? I even envisioned MIGs scrambling at that moment!

"Get the hell outta here," I thought. Five Gs — no six Gs, into a Cuban Eight and I reversed course. Decided to leave it in AB 'til out of Cambodia. By now I was glancing over both shoulders looking for MIGs, sweating, and wondering whether they would still be hacked off at me if I were the first guy to E&E out of Cambodia.

Finally, I caught sight of a bombed village and decided I was back in 'Nam. Out of AB, I traded airspeed for altitude and set up a 300 KIAS climb. 3400 pounds.

Crossing Saigon at 10,000 feet, I was down to 3000 pounds. Now what? Well, I could never explain landing at Bien Hoa to refuel so press on for Phan Rang. I judged that if I ran out of fuel, I could get out over water and claim loss of oil pressure and engine freeze. No way to check that!

Good luck was still with me. The world's biggest CB —

12 o'clock. Another "Oh —" with feeling!

Angled south (sea side) to go around. Thank God it was isolated.

With the TACAN showing halfway home and now at 30,000 feet and 1600 pounds of fuel, I pulled the throttle back to idle, picked up 255 KIAS, and coasted in. Didn't have to add power 'til I turned on initial. I taxied in with 1350 pounds and parked that beauty, a lot smarter and at least five pounds lighter.

The one thing that saved me that day was that Army grunt who came up on the radio — pulled me out of euphoria and got the computer to working. And he doesn't even know it.

With unabashed pride (?), I tell you this story and request anonymity. I'm sure you understand why. ➤

Dear Editor — You know I've thought this happening over many times and I think I isolated all the causes. Maybe if you print this story, you could add your analysis. I've always tried to tell the story to those who wouldn't ridicule too much so I never have had an outside opinion. Regards and keep up the good work in TAC ATTACK.

I don't think any analysis is really necessary. It speaks for itself. Thanks for your story. Ed.

PHYZ-BIZ PHYZ-BIZ PHYZ-BIZ PHYZ-BIZ

THE PANACEA

BY Lt Col Harold Andersen,
TAC Physiological Training Coordinator

Mr. Webster's dictionary of the "American Language" says that a panacea is "a cure-all." Of all the substances known to man, none comes closer, based on usage, than alcohol. This fact hit me as I read a recent article in "Aerospace Medicine" by Commander J. A. Pursch of the Navy's Alcoholic Rehab Center; he points out that, "Socially we use it (alcohol) when we feel good, when we feel bad, as a pick-me-up, to calm down, as an eye-opener, and as a night cap. At cocktail parties we use it to say hello, to get on step, to unwind, as an ice-breaker, courage maker, socializer, or friendship maker and finally, as one for the road. At a dinner party, we use it as an appetizer, as a main beverage (beer or wine), as an after-dinner drink, and as more of the same during late evening socializing until we drive home with one for the road toward the night cap before bedtime.

"Executives discuss business while having cocktails and the salesman buys another round when he lands the contract. If his sales pitch falls through and the customers leave, he is apt to buy a double for himself to control his frustration.



"In sports, we drink at the clubhouse, at the golf shack, on the beach, during the hunt, and at the races. We drink cold beer at baseball games because it's hot in those bleachers, and Irish coffee at football games because it's cold in those bleachers. Winners of the World Series shower in champagne before cameras and the press, and the losers drink heavily, silently, resentfully, and alone at the hotel.

"We drink when we hear good news, when we get bad news, to go off to war, to celebrate peace, to commemorate a birth or mourn a death. We drink at birthdays, reunions, Christmas, Halloween, and the New Year. Drinking goes with courting ("Candy is dandy but liquor is quicker," said Ogden Nash), with engagements, marriages, anniversaries; nowadays, even with divorces."

There are some specific references to the military "happy hour" and flyers who drink "after a good flight, after a bad flight, and after a near mid-air collision, to calm our nerves. To celebrate our first solo flight, when we get our wings, when we get promoted, when we get passed over, at formal dining-ins, change of commander ceremonies," etc, etc.

The man makes his point extremely well. Whatever the occasion, a drink is always appropriate. For those with a predisposition to alcoholism (and some people apparently are more susceptible to this disease than others) there seems little chance to escape. Such are the "normal American drinking practices" — firmly entrenched in our culture; deeply ingrained attitudes. What's your attitude? Are you becoming more reliant upon "The Panacea" than you like to admit? An honest appraisal of your attitude now may help in avoiding addiction later. ➤



by Lt Col William R. Barrett
HQ TAC/SE

PICTURE — A THOUSAND WORDS

Not too long ago a TAC munitions maintenance squadron commander asked the base EOD people to perform a base-wide survey to locate souvenir munitions. The results were difficult to believe. Over 400 munition items were identified ranging from miniature bomblets to bomb fuzes, of which many were live or not properly marked. The picture shows some of these items.

The thousands of words that were passed along on this type hazard have not always stimulated the desired action. So, we'll try one picture which should make it obvious an active campaign is needed if dangerous items are to be purged from quarters, desk drawers, and display cases. When in doubt about the safe condition of munition items, call your local EOD element!



TAC			WEAPONS MISHAPS			ANG			
APRIL	THRU APRIL		EXPLOSIVE	APRIL	THRU APRIL		APRIL	THRU APRIL	
	1974				1974			1974	
17	34	51	TOTAL	3	12	15	3	12	15
4	15	19	Personnel	2	6	8	2	6	8
13	16	29	Materiel	1	6	7	1	6	7
0	3	3	Other	0	0	0	0	0	0
0	1	1	MISSILE						
1	6	7	NUCLEAR						



TAC TALLY

TAC			
APR	Thru APR		
	1974	1973	
TOTAL ACFT. ACCIDENTS ▶	1	9	14
MAJOR ACFT. ACCIDENTS ▶	1	9	10
AIRCREW FATALITIES ▶	0	5	9
TOTAL EJECTIONS ▶	1	10	9
SUCCESSFUL EJECTIONS ▶	1	9	4

ANG			
APR	Thru APR		
	1974	1973	
TOTAL ACFT. ACCIDENTS ▶	0	5	7
MAJOR ACFT. ACCIDENTS ▶	0	5	5
AIRCREW FATALITIES ▶	0	4	1
TOTAL EJECTIONS ▶	0	3	3
SUCCESSFUL EJECTIONS ▶	0	1	2

AFRes			
APR	Thru APR		
	1974	1973	
TOTAL ACFT. ACCIDENTS ▶	0	3	1
MAJOR ACFT. ACCIDENTS ▶	0	2	1
AIRCREW FATALITIES ▶	0	1	2
TOTAL EJECTIONS ▶	0	1	1
SUCCESSFUL EJECTIONS ▶	0	1	0

TAC'S TOP "5"

FIGHTER/RECCE WINGS		
ACCIDENT-FREE MONTHS		
73	33 TFW	TAC
41	162 TFTG	ANG
40	4 TFW	TAC
25	127 TFW	ANG
22	31 TFW	TAC

AIRLIFT/REFUELING WINGS		
ACCIDENT-FREE MONTHS		
106	440 TAW	AFRES
105	136 ARW	ANG
69	316 TAW	TAC
58	126 ARW	ANG
57	463 TAW	TAC

SPECIAL UNITS		
ACCIDENT-FREE MONTHS		
136	130 SOG	ANG
116	2 ADGP	TAC
97	143 SOG	ANG
85	DET 1, D.C.	ANG
61	135 TASG	ANG

MAJOR ACCIDENT COMPARISON RATE 73-74

TAC	73	5.0	5.1	5.1	4.2	4.3	5.0	4.8	4.4	4.2	4.1	4.2	4.1
	74	4.5	5.4	5.6	4.6								
ANG	73	8.5	8.6	6.8	5.0	4.7	5.1	4.3	4.2	4.6	4.2	3.9	3.7
	74	7.2	8.6	8.2	5.7								
AFRes	73	14.9	6.7	4.1	3.2	1.8	1.5	1.3	1.1	1.0	.9	.9	.8
	74	0	16.4	8.9	6.1								

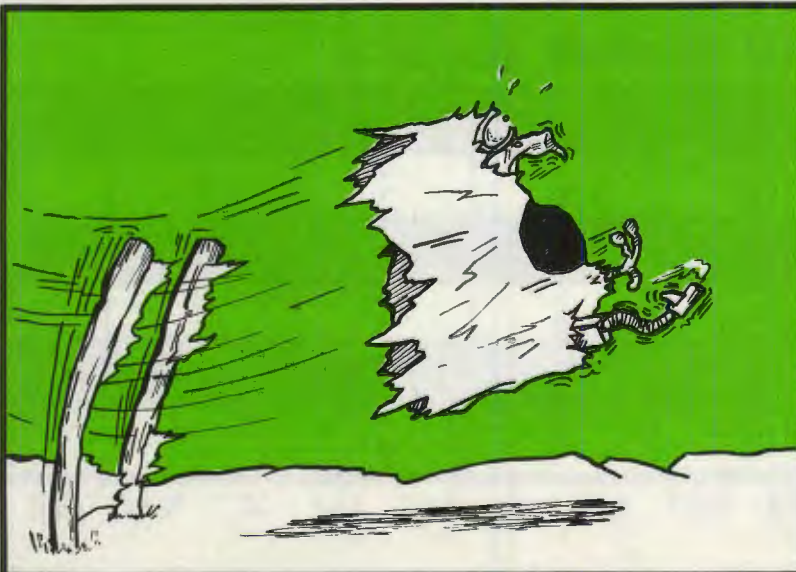
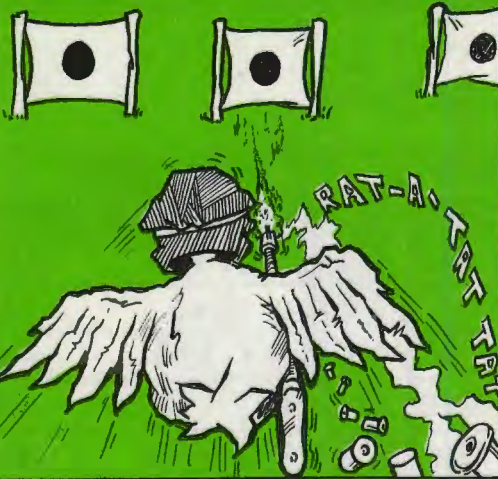
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

FLEAGLE

THE ICEMAN
RETURNETH !



HARDISON



TOO STEEP?

NO, TARGET
FIXATION.

