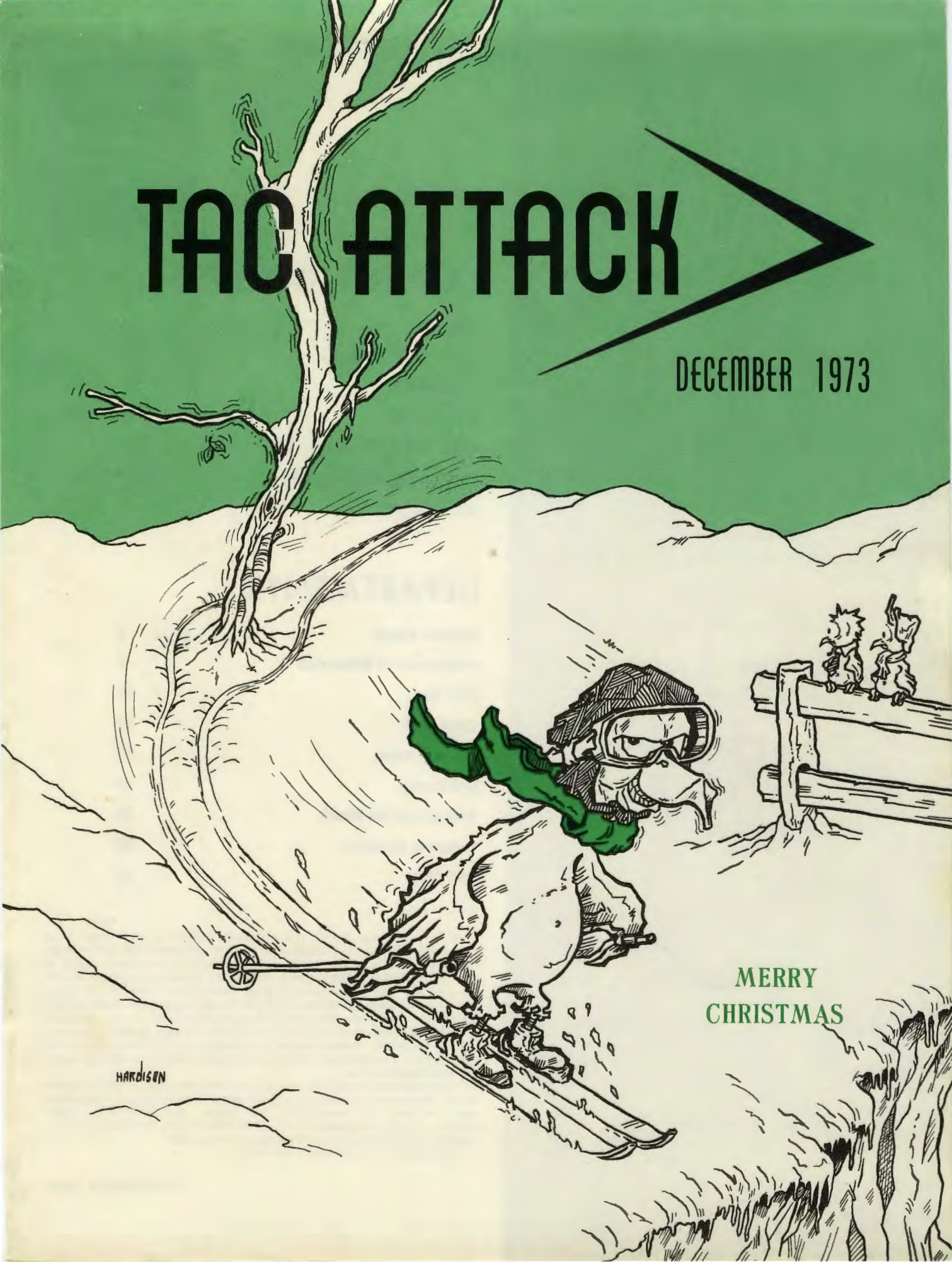


TAC ATTACK

DECEMBER 1973

MERRY
CHRISTMAS

HARDISON



for efficient tactical air power

TAC ATTACK

DECEMBER 1973

VOL. 13, NO. 12

Tactical Air Command

COMMANDER

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VICE COMMANDER

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TACRP 127-1

Articles, accident briefs, and associated material in this magazine are non-directive in nature. All suggestions and recommendations are intended to remain within the scope of existing directives. Information used to brief accidents and incidents does not identify the persons, places, or units involved and may not be construed as incriminating under Article 31 of the Uniform Code of Military Justice. Names, dates, and places used in conjunction with accident stories are fictitious. Air Force units are encouraged to republish the material contained herein; however, contents are not for public release. Written permission must be obtained from HQ TAC before material may be republished by other than Department of Defense organizations.

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DECEMBER 1973



Angle of ATTACK

NO PLACE FOR AMATEURS

At the end of each year it's a good idea to look back on the previous 12 months, to survey your situation, to reflect on your accomplishments and failures. I have, and from a flight safety standpoint, I find some very disturbing trends. The first six months of 1973 showed materiel factor caused the majority of accidents for the first time in TAC history. But since 1 July pilot error accidents have outnumbered materiel factor by two to one. What is disturbing about these tragic accidents is that many of them could have been prevented. Any loss of life is a terrible thing, but a death caused by stupidity, complacency, or a lack of supervision is inexcusable.

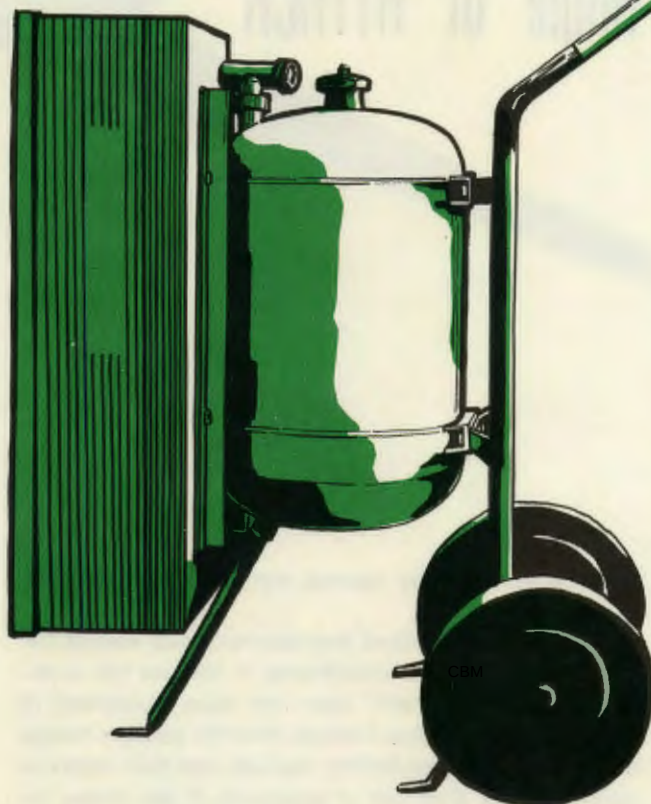
Complex aircraft, maintenance problems, adverse weather conditions, and difficult training missions tax the aircrew members' abilities to the limit. Throw in complacency or an unprofessional attitude and you've got a real "smokin' hole" candidate — and all of our

double-checks, quality control, and safeguards can't help this man.

You may have noticed that the experience level of our aircrews has dropped considerably in the last few years. This "youth movement" does not mean a decrease in aircrew quality. It does indicate that the younger troops have to study the regulations, manuals, and tech orders to compensate for their lack of experience. It also means the supervisors must provide our young aircrewmembers the guidance to insure strict compliance with established command and control procedures and directives. This supervisory responsibility does not stop at the higher levels of command — squadron commanders, operations officers, flight commanders, and even aircraft commanders are responsible for insisting on only the highest level of aircrew performance.

If we can continue enjoying good maintenance and logistical support, if we can insure effective supervision, if we can eliminate complacency and unprofessionalism in our aircrews, then 1974 will bring TAC its lowest accident rate in its 27-year history. With your help it can. I hope you and yours have a happy — and safe — holiday season.

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



CBM

by Albert H. Lane, Jr.
Assistant Fire Chief
Technical Services Section
Nellis AFB, Nevada

As an old, bold firefighter (my first crash response was on a P-40), there are some people that tend to burn my tail: there are people that think the presence of a fire truck or fire extinguisher will prevent a fire; people who still think of firefighters as checker players, good only for telling them to douse their cigarettes on the flightline; people who say they wouldn't use a CBM (or CB) extinguisher because they are afraid of it.

We have progressed from bucket brigades to highly sophisticated electronic systems and equipment that can pinpoint the presence of a fire, alert the fire department, and in some cases automatically apply water, chemicals, or gases directly onto the burning area. We have many items in the development stages that border on the fantastic. The only thing we have not been able to fully cope with is the human element — a problem underlined everytime I pick up a newspaper and read about fire

deaths resulting from a mistake somebody made. This human factor could result in an unnecessary loss of lives or equipment because someone was afraid to use CBM (Chlorobromomethane), one of the finest firefighting agents existing today.

The next time you happen to be on the flightline, look around, and you'll see large-wheeled, CBM extinguishers, silver and red, located in strategic locations near the aircraft. The fact that they make a handy place to hang your jacket or use for a stepladder when you cannot find a workstand does not diminish their firefighting effectiveness.

Chlorobromomethane was developed by the German Luftwaffe because of the need for a reliable, all-purpose, quick-acting extinguishing agent. While carbon dioxide (CO_2) extinguishers are effective on fires in fuels and electrical systems, they are not effective on deep-seated fires involving paper, rags, wood, and other combustible materials. Furthermore, in southern climates, CO_2 extinguishers are subject to rupture of the safety disc from heat-generated pressures. Carbon tetrachloride (CTC) was found to be an excellent extinguisher but far too dangerous to the user. (CTC has been outlawed for use as a fire extinguishing agent by Federal health agencies.) With the elimination of CO_2 and CTC, this left only water and foam — effective only in large quantities and on specific types of fires, limiting their use to large, self-propelled units. We also have a dry chemical extinguishing agent that is effective and easy to handle, but is difficult to spray in hard-to-get-at areas and leaves a residue that requires extensive clean-up. Until new developments replace it, however, CBM is still our number

Cursed But Misunderstood

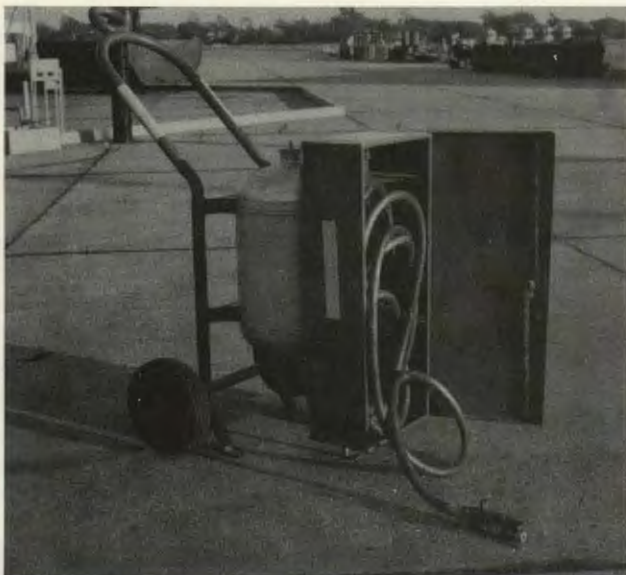
one fire extinguishing agent, for use both in the aircraft and on the flightline.

Enter the human element. Rumors began circulating that CBM would cause sterility, blindness, blood disease, and respiratory problems. Despite intensive educational

programs by the fire departments, many people were afraid to use the CBM extinguishers. Recent past has proven CBM to be effective time and time again. The solution seems to be the need of a good press agent. Since I am a firm believer in the effectiveness of CBM from



CBM



actual firefighting experience, the following facts may be of help:

Without getting into deep formulas and figures, CBM can be used effectively on any of the classes of fire. Class A fires involving wood, paper, trash, etc., require an extinguishing agent that can get to the deep-seated embers. CBM, using stored air pressure, can be directed on a fire in a solid penetrating stream. Class B fires involving fuels, paint, oil, etc., require an extinguishing agent that can smother the fire. CBM can be applied in a spray or "flat pattern" by a combination nozzle; the agent decomposes as it strikes a hot area, thereby smothering the fire with a heavier-than-air gas. Class C fires involving live electrical equipment require an extinguishing agent that is a nonconductor of electricity. CBM fills this need nicely.

The containers for CBM agent range from one quart to 1, 2, 10, and 20 gallon sizes. The 10 and 20 gallon units are mounted on pneumatic tires and the frames are designed for towing with any standard pintle hook. The hose cabinets contain 50 feet of hose on the 10 and 20 gallon sizes and the agent can be dispensed another 50 feet. This eliminates the need for getting "on top of the fire" that is required by carbon dioxide type extinguishers.

The fear of CBM that some people have may result from a lack of knowledge of firefighting procedures on the flightline. You supervisors should occasionally check your personnel — find out if they know how to fight a fire. Your local fire department will be more than happy to provide instruction for all of your people.

Before we go off the deep end on the value of CBM and develop a false sense of security, let's cover some of the things that you should not do when using CBM. The agent is a clear liquid, and a halogenated hydrocarbon, which means you should not spray it on people. The liquid will cause reactions on skin similar to JP-4 — and can be neutralized just as easily with water. The liquid should not be splashed in the eyes. If it is splashed in the eyes, you should immediately wash the eyes out with clear water and then go to the dispensary for eye drops or eye wash. It will cause vision to blur but its effect is not permanent. CBM liquid in open sores or wounds may cause a dermatitis condition resulting in a red and white blood cell imbalance. This condition is temporary but you should consult your medical personnel if subjected to excessive concentrations. CBM should never be used in a closed or confined area. The effects of the vapors from the decomposing liquid will cause lightheadedness, dizziness, and in some cases may cause unconsciousness. Getting out into the fresh air or depressurizing and venting your aircraft will alleviate this problem. The effect of these vapors is temporary and will not build up in your system, unlike carbon tetrachloride which can be fatal. Extreme caution is required when dispersing CBM to assure that it is not ingested orally. Pulmonary edema (an excessive accumulation of watery fluid in the lungs) is one result from excessive exposure to the liquid or its vapors. This is the main reason that CBM extinguishers will normally be found only in open areas such as the flightline. If you are concerned about the corrosive effect of CBM on metals, wiring and the like, consult your local fire department. The National Fire Protection Association handbooks contain complete information.

Is the stuff any good? Consider this experience. An F-100 threw some turbine blades inflight which punctured the fuselage fuel tank and outer skin. A fire resulted but the bird limped back to the field and made a successful emergency landing. The fire department pumped water and protein foam into every opening on the bird. Carbon dioxide was dumped into the engine, from front and rear — with very little result. Then, one 30-second application of CBM into the hole in the fuselage completely extinguished the main fire and other smaller fires burning in the engine section. The accident investigation team later estimated that if it had not been for CBM, the aircraft would have gone up in a ball of fire.

CBM is a fine firefighting agent, but it is not the ultimate. We are working on high expansion foams; a new foam referred to as AFFF and light water has replaced the old protein foam that smelled like the inside of an old boot. We also have new sensor and detector devices for locating fires — but for the present CBM is our number one agent . . . trust it!



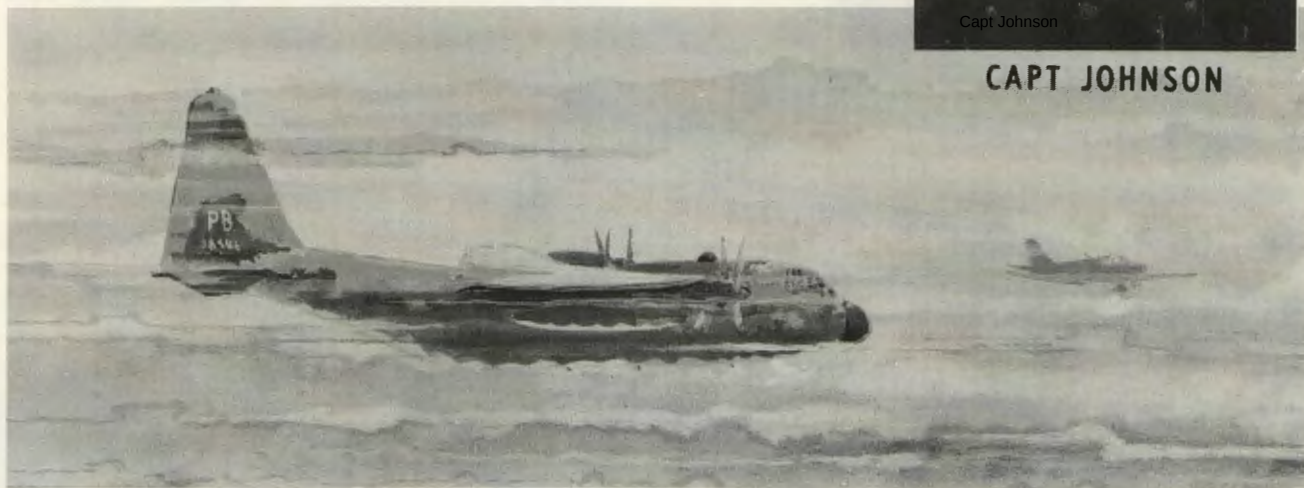
TACTICAL AIR COMMAND

AIRCREWMAN of DISTINCTION



Capt Johnson

CAPT JOHNSON



Captain Carl S. Johnson, 317 Tactical Airlift Wing, Pope Air Force Base, North Carolina, has been selected for the Tactical Air Command Aircrewman of Distinction Award for October 1973.

Capt Johnson was the instructor pilot aboard a C-130E flying a routine training flight. He overheard an emergency distress call from a civilian pilot of a Piper 180 single-engine aircraft trapped on top of a 13,000 foot cloud layer. The Piper 180 pilot and his three passengers had been en route from Florida to Raleigh, North Carolina, and had been VFR on top for two hours trying to find a way through the weather. The weather was a measured cloud deck from 400 feet to 13,000 feet solid overcast, with less than one mile visibility. The pilot was at 13,000 feet without supplemental oxygen. Not being instrument rated, he was afraid of trying to penetrate the weather below. At the time of his radio call, he advised that he had only 30 minutes of fuel remaining.

Capt Johnson, an FAA certified flight instructor familiar with the type of aircraft and pilot experience in question, offered assistance. With the aid of radar vectors, he accomplished a rejoin while beginning the major task of reassuring the worried pilot. Heading the pilot toward

the only field reporting VFR for 500 miles, Capt Johnson instructed him on basic instrument procedures, altimeter, airspeed, altitude indicator, and heading. At this time, the Piper 180, at its service ceiling, inadvertently entered the clouds. Obtaining obstacle clearance information from his navigator, Capt Johnson talked the Piper 180 pilot down through the cloud layer, offering assurance and instruction along the way. Capt Johnson's expertise and professional ability proved sufficient for the task as the Piper aircraft finally broke out of clouds 20 miles from the airfield. Capt Johnson then descended and rejoined on the aircraft. The only nav aid available was ADF, which the Piper 180 pilot did not know how to use. Again offering instruction and advice, Capt Johnson led the aircraft to the airfield on which the Piper 180 pilot made a safe landing, with three gallons of fuel remaining.

Capt Johnson was credited with the saving of four lives by the General Aviation District Safety Officer. The timely, professional response he exhibited prevented a disastrous accident. Capt Johnson's professionalism and skill certainly qualify him as a Tactical Air Command Aircrewman of Distinction. ➤

A STABLE FABLE

By Wiley E. Greene, Capt, AzANG

Once upon a time, in a land not far away, there was a King and all those other things that go with kingdoms.

One of the King's Men was a shrewd cat and he figured out that if the Knights rode line abreast, more of them



would get by Sam the Serf's Bar than if they stayed in single file. And the King thought that any idea that would get his Knights from the stable to the gate couldn't be all bad so he would give it a try.

A committee was formed and, as is the wont of committees, submitted their report after the King reminded them of the fine accommodations in the Castle's basement. The report was thorough and it was determined that four mounted Knights could ride line abreast down the street in front of Sam's and still have foot to foot clearance. So the King decreed, "Henceforth you guys are going to ride in formation".

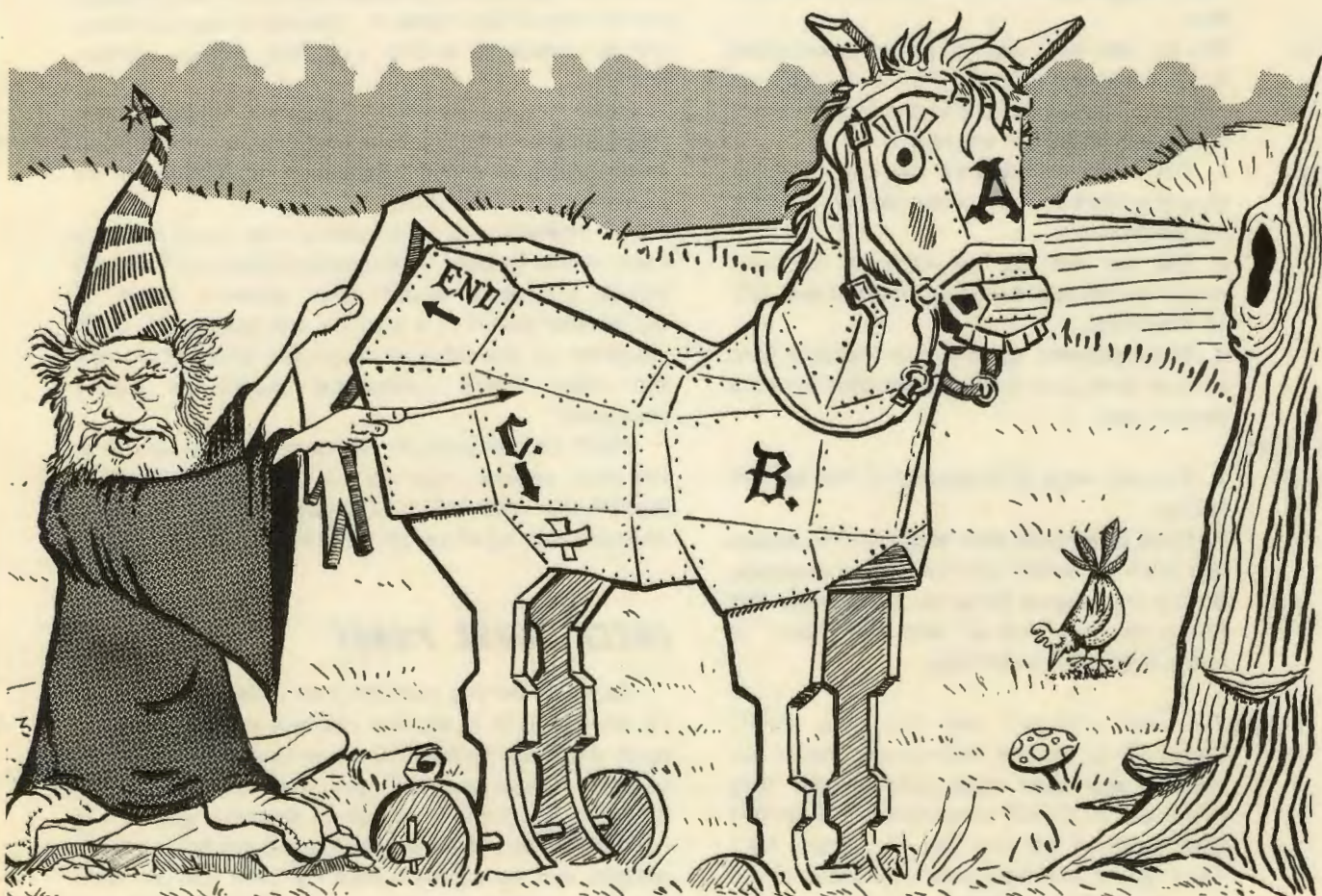
Since the Knights were well trained in jousting and such, everybody figured they could manage to ride side by side without hurting each other. Ah, but not so, for the King's Physician reported incidents of spurred ankles, bumps on the head from lances, and sundry bruises on the horses.

Naturally the King was bent out of shape. It was bad P.R. when the Subjects saw all the King's Men wearing

bandaids and all the King's Horses sporting adhesive tape. So the King called his advisors together and said, "OK, my guys can shoot apples off of heads, lop off heads, and otherwise display feats of skill, so why can't they walk their horses side by side without hitting each other?"

Everybody had their opinion. Some said walking horses side by side was unnatural. Some said, "Put bells on the stirrups so that they will ring when the stirrup is bumped". One suggestion was to put two knights on one horse so that there would be another pair of eyes to keep track of everything. (It didn't work. The Horses complained of backache and two pairs of eyes watched the girls at Sam's place.)

And then the Grand Wizer spoke, "Cool it, you guys. The only way we're going to cut down on the doctoring is for everybody to be reminded each and every time they crawl onto a horse that there will be distractions and they gotta' keep their mind on their work". And the King said, "So be it... and let these reminding sessions be called briefings".



TAC TAC Attack TIPS

...interest items,

It's extremely difficult to sneak up on someone who is going faster than you.

F-105 LAP BELT LATCH

WHAT: As the pilot of an F-105G positioned his aircraft at the end of the runway, the EWO raised his seat, causing his lap belt initiator to function. The rotary actuator forced the BEAR forward, the parachute drogue gun fired, propelling the drogue slug through the aft canopy. Then the retard drogue gun fired, puncturing the cockpit floor.

HOW: The lap belt latch was not properly positioned in the bulkhead channel. The latch was bent sideways, causing it to trip the M-26 initiator mount bolt as the seat was raised.

WHY: 1. The F-105 maintenance checklist does not require a check of the rear seat lap belt latch for proper clearance.

2. The rear seat lap belt latch has no guard similar to the guard used in the front seat (TO 1F-105-1131).

3. The unguarded lap belt latch had been bent at some point during removal/installation of the ejection seat.

OK, NOW

WHAT? 1. The unit made an inspection of their lap belt latches.

2. Local procedures were established to inspect belt latch for proper positioning and clearance.

3. The unit's egress personnel are now required to run the seat "full up" and "full down" to insure freedom from binding.

The unit submitted two emergency AFTO Forms 22 to include these procedures in the ejection seat tech data. Additionally, they submitted an EUMR recommending a lap belt latch guard in the rear seat. So, if you fly a Thud, you should have gotten the word. If you have, great; if you haven't . . . here 'tis.

C-130 GEARBOX FAILURE

While cruising at FL 200, the crew of an AFRES HC-130H noticed the number three torquemeter slowly creep up to full-scale high. No yaw was experienced. Five minutes later number three oil quantity began dropping rapidly, but the engine scanned clean. When the oil quantity gage showed four gallons remaining, an out-of-limit gearbox oil pressure fluctuation was indicated and the low-oil light came on. The engine was shut down and an emergency landing was made without further incident.

SOAP results showed a materiel failure of the reduction gear assembly, later verified by chunks of metal found during magnetic plug check. It is believed the planetary gear spacer failed.

An interesting recommendation was forwarded as a result of this incident — "recommend Dash-One Section 3 include a note or caution that apparent failure of torquemeter gage with a full-scale high reading may be an indication of impending or in-progress failure of gearbox and other engine instruments should be closely monitored."

The C-130 torquemeter has never won any awards as the most popular instrument in the cockpit, but it's possible that what you think is just a gage failure may be advanced warning of a much more serious problem.

CHECK THOSE PUBS!

How well do you preflight your pubs prior to flight? Do you just look to see that you have the appropriate en route charts and letdown books, or do you actually look to see if the approach you intend to shoot is in the book? We've all heard the stories about the pilot approaching high station and flipping open his letdown book only to discover that the approach plate had been torn out. Well, recently a serious hazard report was submitted that

mishaps with morals, for the TAC aircrewman

uncovered a new way to confuse, disorient, and disrupt the poor pilot. It seems that this unit found four high altitude Southwest letdown books that had Northeast approach plates in them. The effective date of these books is 11 Oct 73 through 6 Dec 73. They found three of the four books in their operational aircraft.

In these days of en route/radar letdowns, we sometimes don't need the book, or at least don't think we do. However, they're still essential for radio failure situations, and chock full of other good information such as field elevations, approach lighting, airdrome obstacles, etc.

The next time you fly, check those pubs closely. You may do more than discover a printer's error; you may save yourself a lot of grief.

SUSPICIONS CONFIRMED

One of our staff officers recently attended a conference, the subject of which shall remain nameless. It's not often that you will find a collection of highly trained professional staff officers assembled in one room, and dedicated solely to the intricate and demanding art of "weasel-wording." The following choice excerpts are submitted for your confusion:

... optional exception, where required.

... yes, but you should remember that the man who makes the equipment isn't always the man who makes the equipment.

... mandatory, but not really required unless you need it...

... while it has been disapproved, this system is still being considered...

... except where serious injuries or fatalities have occurred, the system has been generally satisfactory.

Suspicions confirmed? You bet!

T-39 — SIDESLIP & FLAMEOUT

The problem of maintaining a 200 lb fuel balance between wings has plagued T-39 jocks since the first "Saberliner" rolled out of the hangar. A recent incident reminds us to be very careful not to let the "solution" to a fuel balance problem give us more trouble than the heavy wing.

While cruising at FL 370, the right low-pressure fuel light illuminated. The pilot went to crossfeed and the light went out, indicating a failed tank-mounted boost pump. At this point, a fuel imbalance began to develop. Using dash-one procedures, the aircraft was put into a one-half ball width sideslip to transfer fuel to the lighter wing.

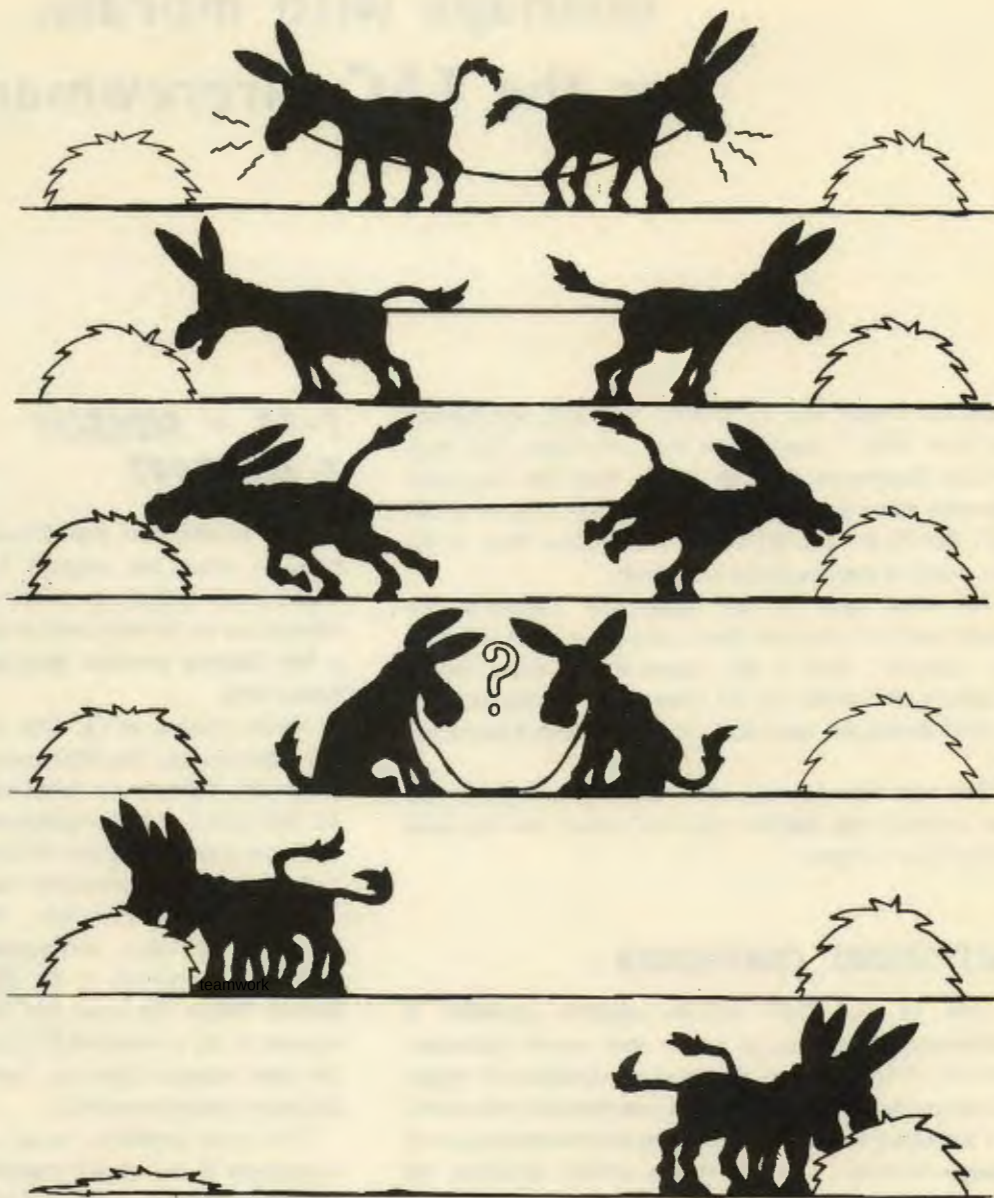
Fuel balance complete, the pilot returned to a wings-level attitude — and number two engine flamed out. The crew descended to FL 290 and made a successful airstart. When the crew got the bird back home, they elected to fly a modified SFO and on short final switched the tank selector back to "normal". Landing, taxi, and shutdown were uneventful.

The most probable cause of the flameout was air disruption to the engine caused by uncoordinated flight while attempting to balance fuel. It's also possible the fuel was not "cold-soaked" (see TO 1T-39A-1, p. 3-22).

Although the crew did everything "by the book," there are maneuvering restrictions above FL 250 that indicate the problems that may be encountered with insufficient or turbulent airflow to the engines at high altitudes. The recommendations in the final incident report suggest AFLC determine the sideslip limits of the T-39 at high altitudes. It was further recommended that an interim safety supplement be issued, recommending a descent to lower altitude before using the sideslip method to balance fuel... Amen...

teamwork

by Captain Jerry L. Carroll
316 TAW, Langley AFB, Va.



Sometime around December 1969, a young aircraft commander and an old head copilot began a tactical airlift mission in Southeast Asia. The first lieutenant AC had 1000 hours C-130 time, and had just been qualified. All of his C-130 time had been logged in SEA as a copilot; however, this was his first time back in as an AC. The captain copilot had logged thousands of hours as a



navigator prior to changing his rating. He now had about 400 hours C-130 time. The copilot had obviously been around, and was well at home in the air. These two were paired up because the squadron had a policy of matching "highly qualified" copilots with new ACs for their first trip "in-country." Their mission was to fly C-130 tactical airlift for 16 days and then return to home base.

The first day, this crew was scheduled to fly from Long Bien to Bangkok and back. All went well until the approach into Bangkok. The flight had been picked up by approach control and was being vectored to the field. The field was VFR; however, the visibility was marginal due to haze and a setting sun. The crew assumed that the radar vectors would continue until the field was in sight. Five miles from the field, the controller gave the clearance: "Cleared ILS approach runway...contact tower now..." Number one VOR was tuned to the ILS, but was not receiving; number two VOR was still tuned to an en route fix. Before the confusion could be straightened out with approach control, the copilot sang out, "I have the field, turn right." After 30 degrees of turn, the AC asked, "Where in the — is the runway?" The copilot answered, "I don't see it now...I saw the buildings..." The aircraft was returned to the original heading, and the field was finally located by a sloppy ADF intercept and a lot of luck. During the confusion, harsh words and hurt pride were exchanged. No reconciliation was attempted during the return from Bangkok to Long Bien. On final approach to Long Bien, the tower requested a short turn-off. The AC set up an assault landing approach, and blew it by dropping it in. After engine shutdown, the copilot leered and said, "Would you like to know what you did wrong?" The AC gritted his teeth and said, "I know." The copilot was convinced he could fly Immelmans around the AC. Besides, he had the offensive and wasn't about to give it up. The AC was convinced that the copilot was an SOB. From there on, the relationship raced downhill.

The copilot assumed the role of instructor. He made every attempt to stay one step ahead of the AC. A great deal of unsolicited advice was given; some good, some bad, but most of it unnecessary. The personal animosity and tension continued for the next seven days, and was definitely affecting the performance of the AC and the crew. Then the situation changed drastically. While approaching the DaNang area, it became apparent that the flight could not continue VFR to a landing. The AC

told the copilot to request an IFR clearance for a precision approach to DaNang. The copilot fiddled with the radios a few minutes and then told the AC, "Don't go into those clouds until I get a clearance." The AC was really beginning to see red. He had no intentions of entering clouds without a clearance. Likewise, he didn't intend to put up with this copilot much longer. After landing, the AC got the copilot alone and started to chew. He told the copilot that from now on he, the AC, would fly the airplane and make the decisions; the copilot was to run the checklist and the radios — period. That outburst changed the relationship for the rest of the trip.

On taxi out at DaNang, the AC asked if an IFR clearance for departure had been requested. The copilot replied, "Oh — did you want an IFR departure?" The field was obviously socked in, and IFR was the only way they were going to get out. After a few more similar incidents, the AC realized what was happening. The copilot was doing just what he was told back on the ground at DaNang. He was playing the "dumb copilot" role, and wasn't going to do a damn thing until specifically told to. The AC realized the hazards of this situation, but made no attempt to rectify it. Running a one man show created less strife than two men fighting for command. The relationship remained this way until the TDY was completed and the crew returned to home base. There, both the AC and the copilot requested a separation, and new crews were formed.

After reviewing this situation, a few questions are in order.

Was the AC really incompetent? As a pilot — possibly! As a manager — certainly! Hopefully he has learned something about crew coordination and human relations since then.

Was the copilot an SOB or did he really have apprehensions about the pilot's ability? The answer isn't really important. What is important is that all crewmembers realize that the cockpit is no place for personal animosity. It is a place for professional performance, nothing more and nothing less.

The teamwork concept extends outside the cockpit, too. "Ground, haven't you got my clearance yet?" in an angry voice is NOT the way to get whole-hearted cooperation. If you remember that teamwork is a two way street, requiring a professional attitude, then your teamwork won't break down and you, your crew, and your mission will benefit.

CHOCK TALK

...incidents and incidentals

chock talk ... incidents and incidentals

MAKE A LIAR OUT OF ME...

The terrible, tragic automobile fatalities that happen every holiday season will happen again this year. Someone will push it to get home for the holidays and fall asleep at the wheel. Someone will ignore the statistics and sit on their seatbelts — and not live to regret it.

Someone will try to maintain a high average speed despite freezing rain, snow, or sleet.

Someone will drive while red-lined with booze — for the last time.

Someone will keep warm in their parked car by running their engine — with a bad exhaust system.

Someone will wait in vain for a loved one to arrive.

Someone will have presents under a tree that will never be opened by them.

Please, please . . . make a liar out of me.



COMPLACENCY

A sergeant from another command died of injuries recently when the car he was working under slipped off the bumper jack. He was in the process of changing a muffler and did not use jack stands or blocks. As any experienced mechanic knows, these safeguards are a prerequisite to crawling under any vehicle. Who was this unfortunate fatality? A young, inexperienced airman? Wrong. He was a Special Vehicle and Base Maintenance Equipment Repair Supervisor! Perhaps he was in a hurry. Perhaps he was tired, it was late and the job needed to be done. Perhaps . . . just perhaps he was struck by the old nemesis of experience — complacency.

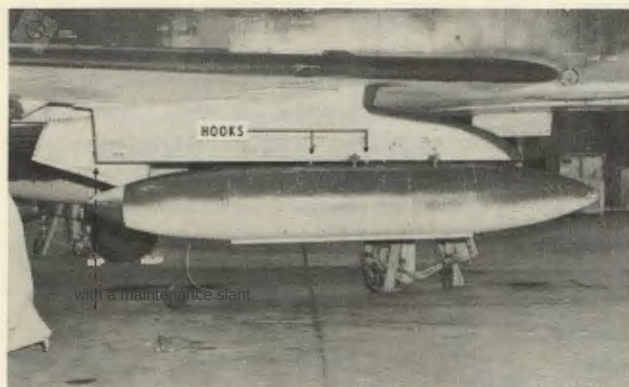
FOD IN THROTTLE QUAD

When the pilot of the C-130 tried to advance his throttles for a max effort takeoff, number 2 and 3 throttles would not move more than one inch above flight idle. The Herky-bird was taxied back in and the engines were shut down without further incident. An investigation found numerous items in the throttle quadrant. Approximately 15 assorted screws, nuts, and washers were found — none of which should have been there. The dangers of FOD in flight control and throttle linkage systems have been known for a long time. All the neat little slots and openings in the quadrant seem to be designed specifically to gobble up FOD and accidents are bound to happen. If you lose something in the throttle quadrant, let someone know — write it up in the aircraft forms. You might save the flight crews (or their next-of-kin) a lot of grief.

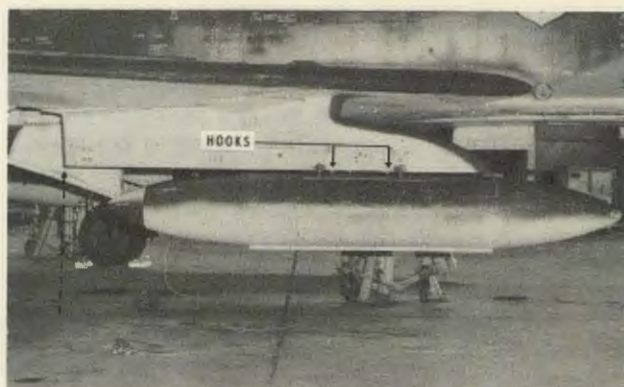
with a maintenance slant.

A RIGHT WAY AND A WRONG WAY!

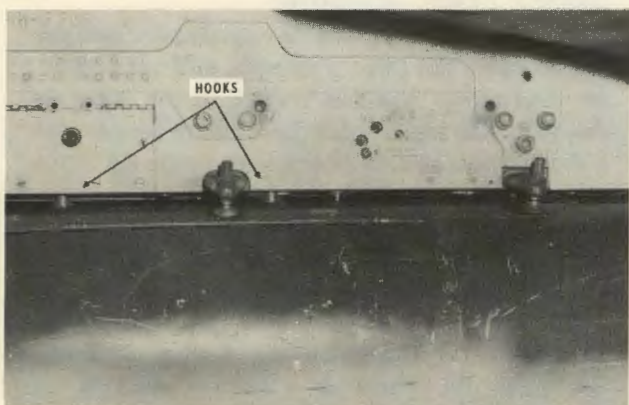
Recently an F-4 had its travel pod interfere with gear retraction after takeoff. A close look at the bird after landing showed why. The pod had been installed incorrectly, proving once again that Murphy is still on the loose.



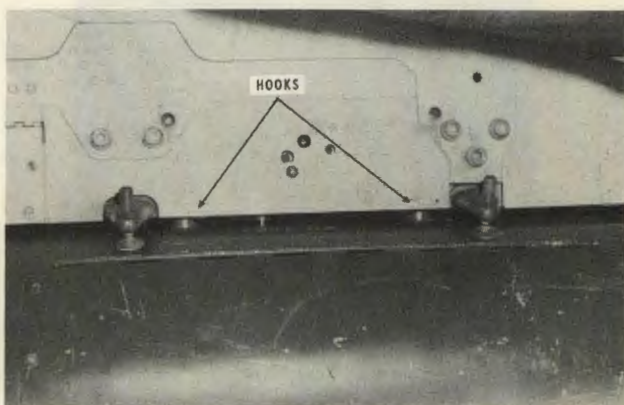
POD LOADED INCORRECTLY



POD LOADED CORRECTLY



**POD LOADED INCORRECTLY
USING ONLY AFT 14 INCH RACK HOOK**



**POD LOADED CORRECTLY
USING 14 INCH RACK HOOKS**

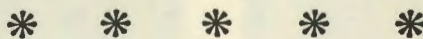
SPAD 12¹/₂

A Tale Of Confusion

EVERY time I see the old photo of my Spad captioned, "American Plane Brought Down By German AA Fire," my adrenalin starts pumping. I wasn't shot down; I made a beautiful landing, albeit it was dead stick and in No Man's Land. At the time I was a member of the 103rd Aero Pursuit Squadron, Third Pursuit Group, in

France. Here's my story, and you'd better believe it!

On the morning of September 13, 1918, Edgar Tobin, Bill Ponder, and I took off on a balloon busting mission in the vicinity of Pont-a-Mousson. Tobin was to attack while Ponder and I flew top cover. We climbed to the east to get between the sun and the target and gained altitude



ABOUT THE AUTHOR:

Livingston G. "Jimmy" Irving won his pilot rating at North Island, San Diego, California, in October 1917. He received his advanced training at the 3rd AIC, Issoudun, France, and then flew combat patrols with a French squadron. He later transferred to the 103rd Aero Pursuit Squadron (formerly L'Escadrille Lafayette). Billy Mitchell pinned the DSC on him in December 1918. Jimmy served in the active Reserve from 1919-1941 and was recalled to active duty, for World War II. In civilian life he was an aircraft inspector at the U.S. Naval Air Station, Alameda, California. He retired as a Colonel, USAFR, in October 1955 and lives in Oakland, California.

to about 10,000 feet. In those days, the Germans used to hold their antiaircraft fire as long as you flew into their territory, in the hope you were lost. But when you headed back toward allied lines, they'd let loose. And that day when we turned to get into attacking position, the German gunners really let us have it.

While still in my turn, I felt a terrific jolt, hot engine oil blew in my face, and the engine stopped. I felt certain I'd been hit and immediately went into a dive toward friendly territory. Looking back into the sun through my oil covered goggles, I saw two aircraft behind me. Thinking they were Germans, I twisted and turned and increased my dive angle. I had had plenty of altitude to get behind our front lines, but my evasive action left me short, and I had to land in a field at the first bend of the Moselle river above Pont-a-Mousson. My map showed the German lines to be at the second bend of the river. I was in No Man's Land!

I jumped out of my aircraft, grabbing my .45, and prepared to do battle with the two aircraft that followed me down. Only then did I realize that they were Spads, piloted by Tobin and Ponder. They told me later that they thought I'd decided to go after the balloon and they were covering me! I waved them off and looked over my aircraft. There was not a hole in it but the engine had thrown a connecting rod through the crankcase. Outside of that, the aircraft was in perfect condition. Fortunately, I had landed in a field pockmarked with shallow gas shell holes not deep enough to cause me any trouble.

Strangely enough, all was quiet. I was under the impression there was supposed to be a war going on somewhere around me, so I thought I'd better head for friendly territory. I took my map and removed the altimeter and clock for souvenirs. Suddenly, a big gun on the cliff on the allied side of the Moselle started firing. I moved out in that direction; I knew if we could shoot at



JIMMY IRVING MADE A PERFECT DEAD STICK LANDING IN THIS SPAD 12½ IN NO MAN'S LAND. FORTUNATELY, HE WAS ENJOYING LUNCH BEHIND THE AMERICAN FRONT LINES WHEN

GERMAN ARTILLERY FIRE CAUSED THE DAMAGE SHOWN HERE. NOTE THE ROUNDED TIP ON THE UPPER WING AND THE SQUARE TIP ON THE BOTTOM WING – THE CAUSE OF THE CONFUSION.

A Tale Of Confusion



JIMMY IRVING'S OFFICIAL PHOTO TAKEN IN FRANCE IN 1918. HERE, HE'S IN FRONT OF A SPAD 13.

the enemy, the Germans could shoot at me. As I hurried, I picked up a steel helmet (it had a hole in it) and more souvenirs. I soon came to empty trenches and then some barbed wire in which I promptly became entangled. Finally getting clear, I climbed up to some clear ground and there ahead of me was more barbed wire. As I was trying to find a way through, I glanced up and saw a redheaded doughboy pointing his rifle at me!

I had taken off my flying helmet and goggles and was wearing an overseas cap with my souvenir steel helmet over it. I stopped short, took off the steel helmet so

"Red" could see my First Lieutenant's bar on the cap and said, "How the Hell do you get out of here?" That did it! "Red" said, "I beg your pardon, sir, follow me. I thought you were a German!" He led me through a path in the wire, while two other riflemen fell in behind me. (They were taking no chances with this stranger in No Man's Land.) We soon reached a camouflaged forward bunker. As we arrived, a Captain rode up on a motorcycle asking where the prisoner was. I was introduced. He looked at me quizzically and exclaimed, "I'll be damned."

The Captain took me in his sidecar to the headquarters of the Keystone Division, commanded by a General Ely. I was immediately ushered into his office, where the General asked me to indicate on a map exactly where I had landed. When I showed him, he pointed out a series of marks along the river bank, each of which was a German machine gun nest! "Why," he asked, "didn't they fire at you?" I replied, "I don't know, but I'm not unhappy about it!"

Just then, a Lieutenant came down from an observation post on the hill to ask what kind of a plane I was flying, as he could not identify it. I told him it was a Spad 12½, the only one of its kind! I explained that the first 220 horsepower Spads (type 12) had rounded wing tips, but that the bottom wing of this one, with my number 7 painted on the fuselage, had been damaged during a ground loop. (Not mine). We had no more bottom wings with rounded tips, so #7 was fitted with Spad 13 bottom wings which had square tips; hence, the designation Spad 12½.

Apparently the Germans had been just as confused about #7 as were the Allied observers. The German gunners had seen my unique aircraft followed into the ground by two Spad 13s, which then flew off. They must've thought I was German, so they held their fire. Then both enemy and ally let me roam around picking up souvenirs. How lucky can one get!

EPILOGUE

The General added to my good fortune by inviting me to lunch with him and his staff. One of the officers suggested I volunteer to lead a patrol that night to recover the aircraft's two machine guns. I lamely explained that I was only a pilot and didn't know how to remove the guns, etc., etc. The looks that passed between the infantrymen indicated they looked upon me as something less than a "bold" pilot. But, I could have been a hero in their eyes — and taken no chances — had I volunteered. A few minutes later, a runner came in to tell the General that the Germans had shelled my aircraft with 155s and the tenth shot had been a direct hit. C'est la guerre! ➤

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EXPLOSIVES & YOUR SAFETY

by TSgt Larry L. Ammon
Explosives Safety Technician
Hq TAC/SE, Langley AFB, Va.

Next time you want to give the Base Ops people a blast because your explosives-loaded aircraft is parked so far out in the patch you're afraid it may be beyond the field boundaries — don't. We have often seen the disastrous results when the basic safety premise, "expose the least amount of resources during explosives operations", is violated. In one mishap, besides several fatal injuries, almost all explosives-loaded aircraft on a congested ramp were destroyed or damaged by sympathetic detonations.

As a result of costly accidents, we have had to learn proper respect for explosives. One of our effective explosives safety management tools is the explosives-loaded aircraft parking plan found on base maps located in the safety office, fire station, explosives

storage area, and base operations. It provides the user a method of viewing all explosives locations, classes, and explosives weights authorized at each location. It also indicates where explosives-loaded aircraft are to be parked, armed, and dearmed. These locations must conform to requirements in AFM 127-100 and TAC Supplement 1 to AFM 127-100. The explosives-loaded aircraft parking plan is one of the important parts of the base explosives safety program. It

requires careful coordination and planning between the Deputy for Operations, Logistics, Civil Engineering, and Safety. The safety office monitors the unit's explosives activities and recommends necessary changes to keep explosives violations from occurring at your base.

Before you complain about limitations which cause inconvenience during some explosives operations, remember the restrictions are necessary for your safety.

TAC			WEAPONS MISHAPS			ANG		
OCT 73	THRU OCT		EXPLOSIVE	OCT 73	THRU OCT		OCT 73	THRU OCT
	1973	1972			1973	1972		
16	158	109	TOTAL	2	47	25		
8	58	30	Personnel	2	31	14		
4	69	51	Materiel	0	13	11		
4	31	28	Other	0	3	0		
0	15	20	MISSILE					
0	5	3	NUCLEAR					

IT'S STILL WITH US

by Maj Burt Miller

"Shortly after takeoff and entry into clouds, the attitude directional indicator (ADI) failed in all axes. There were no indications of failure, such as warning flags, erratic movements, tumbling, etc. The indicator failed in both primary and standby modes. Standby attitude indicator was used by the AC to recover aircraft while the IP monitored his attitude indicator in the rear cockpit."

Good crosscheck coordination solved this one! The dash one is once again proven right!

Blown tire on landing — cause: "Determined." With the abundance of "undetermined" findings we get on this type incident, it is sometimes nice to read a positive cause factor listed. In this case, though, the main point is that seemingly minimum emergencies can develop into pretty hairy happenings and can get even the most experienced aircrew excited enough to make mistakes which compound the problem. Accidents often result.

After a utility failure on final, an unsuccessful BAK-9 engagement, another emergency tying up the one approach end BAK-12, rapidly dwindling fuel, and the anxiety associated with "what to do if we miss this midfield barrier and can I get it stopped in the remaining 5000?", the incident aircraft commander made his first mistake. Knowing he might need braking, he had the WSO actuate the emergency brakes in the air or just after touchdown. Then to be sure they worked, he tapped the pedals. Both main gear tires blew, as could be expected. Fortunately, about 2 seconds later, the BAK-12 successfully arrested the aircraft's progress. Also fortunately, the metal wheels, sans rubber, did not cut the cable. Granted, the dash one guidance that says "don't actuate the brakes until just prior to needed", is mainly directed toward the possibility of pressure loss. But, we've already proven that without antiskid protection and especially at high speeds, the brakes lock up easily and, once locked, the tires skid and blow.

Our efforts to get the MK-III antiskid system with touchdown protection and improved stopping performance may reduce the number of undetermined "blown tires on touchdown" incidents. It won't reduce this type of pilot error incident or accident.

FOR SLATTED DRIVERS

by Maj Burt Miller

For Slatted Drivers — As the flying hours increase in our leading edge slatted aircraft, we are building up a bank of valuable info and lessons to be learned. A few things

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have filtered across our desk and through Bell's menace to mankind, that we'd like to pass on to all troops who are flying, or will fly the LES bird.

1. The aircraft touches down at higher airspeeds and requires a longer rollout. On a dry 12,000 x 500 foot surface — no sweat. However, with the F-4's past history of blown tires on touchdown, nose wheel steering problems, and inherent hydroplaning ability — it pays not to get complacent. Additionally, since the bird is a little "Squirrely" at 19.2 on final, some guys have figured out 17.0 units or so appears to work better. The end result is an even hotter touchdown, with increased potential for trouble. Keep it in mind.

2. The machine really performs at high AOA; optimum turn being around 25 vice 19.2. It stalls around 30 plus. Exactly how much plus? We're not sure. Besides, don't worry about it, your AOA indicator only goes to 30 units anyway. More important, there's no real need to go past 30 (or even 25). The drag really leaps up and causes airspeed to go down — rapidly. Since this is seldom an advantage in air-to-air, it doesn't appear we need practice flights by self-appointed test pilots to determine just how far she'll go.

3. Since the bird is used mainly as an air-to-air weapon, a lot of our hours have been in a maneuvering, high AOA, environment. Although the improved handling and reduced tendency to "bite" when ailerons are used make it fly like an airplane should — it can still depart. We've proven it! We've also proven that dash one recovery procedures and the use of the drag chute work. Keep that in mind.

4. We've had several flameouts at higher altitude (35,000') and high AOA (25 units). Since we have few, if any, missions that require this particular combination of parameters, and since existing dash one and 55-4 guidance gives you the optimum maneuvering environment and parameter, it doesn't appear the average line jock needs to horse it in to a 30 unit split S from 45,000 feet.

NER



5. One last tidbit. If you're in the habit of jazzing the throttle on base to final, to give you a little more blown air so the bird will turn tighter — forget it. No trailing edge air! Best plan it better or take it around and apply an appropriate correction.

We'd appreciate any other words of wisdom you slatted drivers have to pass on. Our allies in USAFE, PACAF, and AAC have indicated an interest in the subject also.

COMETH THE ICE MAN (AND HIS GLIDER)

by Maj Al Mosher

Now that Old Man Winter is here, it's time to reiterate the icing problems associated with the A-37. The guidance presented in TO 1A-37A-1, Section VII, "All-weather operation," is disconcerting reading, but it is accurate. "Cruising in areas of known or suspected icing conditions is not recommended." This statement from the dash one should be strictly interpreted and adhered to. In view of the inherent hazards associated with flying in icing conditions, supervisors and flight crews must carefully review mission requirements and flight plans when icing conditions are forecast. Once an area of icing is entered, ice buildup can occur at rates which degrade the effectiveness of 180° turns, climbs or descents. Flameout in the A-37 occurs very shortly after the ice light illuminates — and nothing beats the silence of an iced up glider.

And don't you other airplane drivers get complacent. Pilots of all types of aircraft should have a healthy respect for icing problems associated with winter weather. Check those ALL WEATHER PROCEDURES.

GUEST SPO CORNER

F-4 SCISSORS SHACKLE GUARD

by Maj Jim Downey

HQ TAC/DOXBL

Does anyone remember the problems experienced with scissors shackle guards used on the F/RF-4 ejection seat? The original guard was made from aluminum. It was discovered that during ejection the relatively soft aluminum could bend, resulting in a scissors shackle restriction and the seat would then be trapped at the apex of the aircrew's parachute during descent. Of course, this was a very serious defect or malfunction and it resulted in the death of one pilot and two other close calls before the cause of the malfunction could be identified. The bending problem was solved by installation of a flexible plastic guard. Early guards were clear and strict instructions were provided directing that these guards not be painted because the paint would deteriorate the plastic. Here's the point to our story. The latest guards are still plastic; however, instead of being clear they are fabricated from black plastic, so don't get alarmed if you see a black one installed. They are new and will become more common through the fleet of F/RF-4s as the old clear guard is replaced due to wear and tear. For those of you that like to commit numbers and such things to memory, here are the particulars on the new guard: FSN 1680-129-3084BF.

Life Support UPDATE

By CMSgt Jim Heart

Ed Note — The following program updates are run courtesy of TAC DO Life Support Branch. If you have any favorite programs you'd like to see covered, let us know what they are and we'll try to cover them in a later issue. Remember — life support may be your last resort.

CURRENT PROGRAMS

SUBJECT: F-4 Ejection Seat Inertia Reel Problems

PROBLEM: Present inertia reel is causing excessive unscheduled man-hours to maintain.

CAUSE: Erratic/intermittent and internal problems.

ACTION TAKEN: TAC, SAAMA, AAC, PACAF, and IG have all recommended that present reel be replaced with a more reliable unit. OOAMA concurs. Approval and monies received. Contract awarded to Pacific Scientific Company. TCTO 1F-4-989 applies.

ACTION TO BE TAKEN: Kit proof scheduled late Oct 73.

ESTIMATED COMPLETION DATE: Mod Kits scheduled to be available Dec 73.

SUBJECT: F-4 Lexan Scissor Shackle Guard

PROBLEM: The presently installed Lexan guard is susceptible to crazing and cracking.

CAUSE: Overstress from riveting and weakened by solvents.

ACTION TAKEN:

An improved Lexan shackle guard has been developed. Six of these have successfully undergone OT&E for over a year without failure. New Lexan guard P/N 53-820005-3, FSN 1680-129-3084BF is available.

ACTION TO BE TAKEN: Installation by attrition.

ESTIMATED COMPLETION DATE: Unknown.

SUBJECT: F-5/T-38 Egress System Upgrade

PROBLEM: System improvements are required to provide seat stability, positive seat/man separation and rapid parachute inflation, improving crew member's chances for survivability during low altitude, low airspeed and/or adverse attitude ejection.

CAUSE: State of the art egress system improvements were not incorporated as they became available.

ACTION TAKEN:

a. The F-5/T-38 SPO has approved two Northrop Corporation ECPs which include a development and test program intended to provide the desired seat stability and reduce time for completion of ejection sequence. Specific changes involved are installation of an M-38 adjustable nozzle rocket catapult, seat drogue parachute, ballistic spread parachute, with reduced times for lap belt opening and automatic ripcord activation.

b. HQ USAF Program Management Directive No R-02-069-(1) received by F-5/T-38 SPO, 17 Jan 72, and Life Support SM, 25 Feb 72.

c. SAAMA received Northrop ECPs 282 and 791 and revisions thereto 8 Aug 72 for CCB action.

d. AFLC CCB disapproval 2 Nov 72 pending completion of engineering and qualification testing.

**ACTION TO
BE TAKEN:**

- a. Complete engineering and testing.
- b. Obtain CCB approval and funds to procure modification kits.
- c. Obtain modification kits.
- d. Kit proof and initiate installation of kits.

**ESTIMATED
COMPLETION
DATE:**

- a. Dec 73 ASD approval of testing and engineering.
- b. Jul 75 modification kit availability.

SUBJECT:

A-37 Single Motion Seat Ejection Initiation System

PROBLEM:

To effect seat ejection, it is necessary that two independent controls be actuated. The canopy must be jettisoned; then, by separate action, the seat occupant must actuate the seat ejection controls. These actions consume time which may not be available when it becomes necessary to eject. Also, the seat occupant must be able to actuate the single seat firing trigger installed on the seat.

CAUSE:

The A-37 egress system was designed and developed to permit separate canopy jettison and seat ejection actuation.

**ACTION
TAKEN:**

- a. A single motion initiation project was established in Jan 70 and a system was partially designed; however, the effort was suspended in 1971 due to a complete egress system update effort established by the A-37 aircraft SPO and decision on the final seat configuration was in doubt.
- b. In May 72 the single motion project was re-established.

**ACTION TO
BE TAKEN:**

- a. SAAMA engineering to complete development of a single motion initiation system.
- b. Prototype new designed system.

- c. Obtain CCB approval.
- d. Accomplish kit proofing and TCTO verification.
- e. Obtain modification kits and release TCTO.

**ESTIMATED
COMPLETION
DATE:**

Nov 74

SUBJECT:

Life Support Equipment Checklists/Workcards

PROBLEM:

Lack of standard Air Force checklists/workcards on life support equipment.

CAUSE:

Standard Air Force checklists on individual Life Support items were never developed. TO 00-5-1 authorizes the major commands to develop and maintain checklists/workcards as required; however, the commands have stated a requirement for standard Air Force checklists/workcards.

**ACTION
TAKEN:**

A working group comprised of representatives of the major commands was convened at SAAMA/MMDT following the 13-16 Mar 73 Life Support Conference. This working group prepared drafts of required workcards/checklists acceptable to all commands in standard Air Force technical order format.

**ACTION TO
BE TAKEN:**

- a. Forward drafts in AFTO format to all major commands for final prepublication review and verification.
- Print and distribute final product as official Air Force technical order.

**ESTIMATED
COMPLETION
DATE:**

Action a. Nov 73
Action b. Jul 74

SUBJECT:

Base Level Custom Fit Helmet

PROBLEM:

Helmet retention during egress; external noise and discomfort.

LIFE SUPPORT UPDATE



ACTION TAKEN:

Funded purchase request was forwarded to ASD for procurement action.

ACTION TO BE TAKEN:

Award of contract by 1 Nov 73 with delivery to begin 150 days hence.

ESTIMATED COMPLETION DATE:

Will be established after award of contract.

SUBJECT:

Seat/Man Separation, OV-10 Aircraft

PROBLEM:

Seat/man separation failed to occur following parachute deployment.

CAUSE:

Three Navy and one Air Force incidents have occurred in which separation difficulties were experienced but no seats were recovered. From descriptions of difficulties obtained from the aircrew or rescue personnel involved, two different malfunctions appear to have been encountered. In the three Navy incidents, automatic lap belt release occurred, indicating proper unlocking of the seat back/bottom latch. However, the seats remained attached to the crew member by the shoulder harness straps, indicating malfunction of the shoulder harness release mechanism. In the Air Force incident, the crew member apparently was restrained in the seat by both the lap belt and shoulder harness straps, indicating malfunction of the seat back/bottom unlocking latch.

ACTION TAKEN:

TO 1B-10A-646, 9 Apr 71, was published to require inspection of the entire seat separation mechanism. Also, two Air Force proposed modifications, manual override provisions for shoulder harness release mechanism and one piece harness release cable (calculated to be less prone to installation error), were submitted to the Navy as the cognizant engineering agency. Ejection seat changes representative of the Air Force recommendations were developed by the Navy and were evaluated by ASD/SML. SAAMA will do the engineering in-house.

ACTION TO BE TAKEN:

- Finalize engineering.
- Engineering prototype.
- Obtain SAAMA/AFLC CCB approval and funds.
- Kit proof and TCTO verification.

ESTIMATED COMPLETION DATE:

- Late 73 for engineering prototype.
- Oct 74 TCTO and kit release.

TO BE CONTINUED.....

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SC — SPO Corner
CT — Chock Talk
WW — Weapons Words

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FORMATION	AUG	3	MISSION	MAY	3
SYMPTOMS AND DISEASES	SEP	3	TRANSITION TRAUMA	MAY	14
THE "ALL CAUSE" ACCIDENT INVESTIGATION SYSTEM	OCT	3	"PHASING" INTO FLYING	JUL	4
NO PLACE FOR AMATEURS	DEC	3	TT - SEE THE LIGHT	AUG	12
AIR TRAFFIC CONTROL			FLEAGLE	AUG	BC
WHAT'S NEW IN TERMINAL CONTROL?	JAN	20	SAFETY IS PARAMOUNT, EXCEPT...	OCT	4
CT - CLEARANCE READBACK	FEB	22	THE EYES HAVE IT	OCT	24
TRAFFIC, TWELVE O'CLOCK	APR	4	FOD		
THE ALLIGATORS WILL GET YOU, IF YOU DON'T WATCH OUT	APR	8	CT - DON'T GET SUCKED IN	MAR	29
TT - ASR-FULL CIRCLE	APR	21	CT - STEP BY STEP	JUL	22
STANDARD TERMINAL ARRIVAL ROUTES - STARS	MAY	4	CT - RAGS	AUG	23
TT - CHANGE IN THE USE OF RADAR BEACON CODE 7600 (RADIO FAILURE)	OCT	9	CT - F-4 LIGHT COVERS	SEP	22
AUTOMOBILE SAFETY			CT - FEEL LISTLESS?	SEP	22
CT - SEE AND AVOID	JAN	27	CT - FOD IN THE THROTTLE QUAD	DEC	14
TT - MORE MILES PER GALLON	JUL	13	FUEL AND FUEL SYSTEMS		
CT - MAKE A LIAR OUT OF ME	DEC	14	TT - THEY'RE RIGHT!	FEB	24
BIRDSTRIKE			SC - EMERGENCY SITUATION TRAINING	MAR	24
THE COST OF POULTRY	SEP	8	CT - FUEL CONTAMINATION	MAY	19
EMERGENCY SITUATION TRAINING - F-100	SEP	15	SC - FUEL MANAGEMENT A-7	MAY	28
BRAKE SYSTEM			CT - THE FOLLY OF A FUEL LEAK	JUL	23
TT - REMEMBER LAST YEAR	JUN	9	CT - C-130 REFUELING PANEL	JUL	23
TT - HF/BRAKE FAILURE (EC-135)	OCT	8	SC - AERO CLUB - WE TESTED, AND WE LOST!	JUL	24
TT - THE UNEXPECTED	NOV	26	GENERAL		
COMMAND AND SUPERVISION			THE FOUR HORSEMEN	JAN	8
KNOW YOUR PEOPLE	JAN	3	THE ONE AND ONLY P-47N	JAN	12
INTROSPECTION	JAN	24	TO KILL A MIG	JAN	16
WW - LET'S HEAR IT FOR THE SUPERVISOR!	AUG	27	CT - MEETING ADJOURNED	FEB	23
SYMPTOMS AND DISEASES	SEP	3	TT - WHAT IS IT?	FEB	26
COMMUNICATIONS			NUMBERS	FEB	26
GET IT ON PAPER	APR	3	PATTON: THE BABALAS INVESTIGATION	MAR	25
TT - CHEER UP	MAY	24	THE GOOD OLD DAYS	APR	16
A DASH ONE OF DO'S AND DON'TS	JUN	3	GREETING TO POWs	APR	BC
SC - ALIBI	JUN	13	STRAIGHT UP - STRAIGHT DOWN	MAY	8
WHY DON'T YOU GUYS TALK TO EACH OTHER?	AUG	20	CT - HAZARD REPORTS DO WORK	MAY	18
TT - CONTROL YOURSELF	SEP	13	TT - PATCHWORK APPROACH	MAY	25
USE HAZARD REPORTS... THEY WORK	SEP	26	LATEST ON THE BOOZE NEWS	JUN	10
EJECTION AND EGRESS			SOMETHINGS ARE BEST LEFT ALONE	JUN	24
SC - EMERGENCY - COUNT THE PIECES	JAN	14	TAC ATTACK SURVEY	JUN	27
UPRIGHT, UPTIGHT, AND OUT O'SIGHT	MAY	16	FLEAGLE	JUN	BC
TT - DEMISE OF THE FINGER BITER	MAR	21	TT - VANISHING HAZARD	JUN	8
TT - THE CUT CANOPY CAPER	JUN	8	ANGLE OF ATTACK - OSHA	JUL	3
ZOOM AND BOOM	JUL	16	BETWEEN PYOSIS AND PYRALIDAN	JUL	14
TO TWIST OR NOT TO TWIST	SEP	24	LET'S TALK	JUL	20
SC - EJECTIONS	OCT	14	DO YOU HAVE A NEED?	JUL	28
CT - WHAT WOULD YOU HAVE DONE?	OCT	28	SCORPIONS	AUG	14
SC - EJECTIONS	NOV	8	GUESS WHO DROPPED IN?	AUG	16
ELECTRICAL			METRIC PROGRESS REPORT	AUG	28
WW - TAC RPVS AND DRONES	APR	11	FRONT COVER - GEN MONYER	SEP	FC
CT - ELECTROCUTION	JUL	22	TAC - VIETNAM, AND BEYOND	SEP	4
SC - EMERGENCY SITUATION TRAINING	JUL	26	OHI FOR THE GOOD OLDE DAYS	SEP	16
			CT - SOONER OR LATER	SEP	23
			THE FIRST ACE	OCT	10
			TAC'S NEW COMMANDER	NOV	3
			WELCOME HOME	NOV	29
			SPAD 12%	DEC	16
			BUZZ-PHASE GENERATOR	DEC	24
			FLEAGLE AND FRIEND	DEC	26
			TT - SUSPICIONS CONFIRMED	DEC	10
			GROUND SAFETY		
			GROUND SAFETY - FLEAGLE	MAR	BC
			CT - THESE PHOTOS SPEAK FOR THEMSELVES	JUN	19

TITLE	MONTH	PAGE
CT - ELECTROCUTION	JUL	22
FLEAGLE - GRILL FIRE	JUL	8C
CT - CREATIVITY	AUG	22
TO THE RESCUE	SEP	21
FLEAGLE	SEP	8C
SAFETY MAN REINVENTS JET ENGINE	OCT	15
G-R-R-R I'M A BEAR	OCT	20
GET LIT AND LIVE	OCT	23
CT - YOU ONLY HAVE TWO	OCT	29
CT - COMPLACENCY	DEC	14
INSTRUMENTS		
TACAN ERRORS	JAN	12
TT - ON PAR WITH IFR	JUL	12
TT - MISREAD ALTIMETER?	JUL	12
TT - CHECK THOSE PUBS!	DEC	10
INVESTIGATION AND REPORTING		
WHY DIDN'T THEY GET OUT?	MAR	8
SC - DEAD PILOT FACTOR REVISITED	MAR	22
CT - HAZARD REPORTS DO WORK	MAY	18
TT - VANISHING HAZARD	JUN	8
TT - YOUR CHOICE	JUN	9
TT - I GOTTA 781 SECRET	JUN	8
SC - ALIBI	JUN	13
WHEN IT HITS THE FAN	AUG	8
GUESS WHO DROPPED IN?	AUG	16
SC - INVESTIGATION AND REPORTING	AUG	25
SC - THE INVESTIGATION OF CREW FATAL ACCIDENTS	AUG	26
LANDINGS		
CT - NOBODY TALKED TO ANYBODY	JAN	26
GEAR-UP LANDINGS OR ...	FEB	8
SC - F-4 ANOTHER SUBJECT	FEB	12
MY FIRST GCA LANDING	MAR	4
WHEELS ARE SQUARE	MAR	12
TT - I NEVER HAVE TO GO AROUND	APR	20
TT - ASR - FULL CIRCLE	APR	21
TO FLARE OR NOT TO FLARE - THAT IS THE QUESTION	APR	26
TT - PATCHWORK APPROACH	MAY	25
SC - AFTER LANDING IN A CROSSWIND	MAY	28
TT - YOUR CHOICE	JUN	9
TT - IT GETS MIGHTY QUIET ...	SEP	12
TT - AN OPEN LETTER FROM A FLIGHT SAFETY OFFICER	OCT	8
LESSONS THAT LIVE		
HOW LONG WILL A B-18 FLOAT	JAN	11
TOO MUCH WEATHER	FEB	29
OVER THE WAVES	MAR	11
THE SECOND FOOL WAS LUCKY	APR	15
HOW TO GROW OLD IN THREE MINUTES	MAY	13
ALMOST A BUM	JUN	23
PANIC OVER CHAME BAY	JUL	11
LUCK IS PRECIOUS STUFF	AUG	11
HIGH-JINKS	SEP	11
ONE TOO MANY GREEN LIGHTS	OCT	19
TOO GOOD FOR FLYING SCHOOL HABITS	NOV	28
LIFE SCIENCES		
HYPOTHERMIA... IT'LL LEAVE YOU COLD	JAN	4
TT - LUCKY!	JUN	8
LATEST ON THE BOOZE NEWS	JUN	10
TT - INCREDIBLE	JUL	12
CT - NOW HEAR THIS	SEP	22
TT - WHAT WOULD YOU DO IF?	NOV	27
MAINTENANCE		
CT - MANUFACTURED LOCALLY	FEB	23
CT - THE ROLLING SCHRAPPNEL FACTORY	FEB	28
CT - BALLAST	FEB	28
CT - LIFE RAFT RAT RACE	FEB	29
CT - ROTOR BLADE FATALITY	FEB	29
TT - ICY BREATH	APR	20
CT - UNSECURE PILOTS	APR	28
CT - TWO AND A HALF TURNS FOR THE WORSE	APR	28
TRANSITION TRAUMA	MAY	14
CT - GET THE LEAD OUT	MAY	18
CT - BUNDLED UP	MAY	18
CT - GET A HANDLE ON IT	MAY	19
CT - MULTIPLICATION	MAY	19
CT - SPOOKY AILERONS	JUN	19
CT - DUMMY!	JUN	19
CT - SNAPPED	JUL	23
CT - GROUNDED	AUG	23
CT - OOPS!	SEP	22
CT - "B" NUTS	SEP	22
CT - SOONER OR LATER:	SEP	23
CT - COMPONENT CORROSION, PART I	OCT	28
CT - COMPONENT CORROSION, PART II	OCT	28
CT - 1/2 FEATHER	OCT	29
CT - GREASE IS A LUBRICANT - SOMETIMES	NOV	10
CT - TRAVEL PODS	NOV	10
CT - BALING WIRE?	NOV	11

TITLE	MONTH	PAGE
MISSILE AND EXPLOSIVES SAFETY		
TT - EXPENSIVE TROPHY	JAN	12
FLEAGLE	FEB	8C
SC - READ THE DIRECTIONS	APR	22
CT - NO DIVOTS AT LANGLEY	APR	29
WW - THE GUN WAS FLARED	JUN	22
OPERATIONS		
TO KILL A MIG	JAN	16
THE 61ST TAS GOES WEST	APR	12
SLUF... CHAPTER TWO	MAY	16
FORMATION	AUG	3
SC - KNOW YOUR WINGMAN	OCT	14
TIGERS AND FOOLS	NOV	12
PERSONAL EQUIPMENT		
SC - SPECIAL, TO LIFE SUPPORT TYPES	JUN	14
TT - UNSTRAPPED	AUG	13
SCORPIONS	AUG	14
TT - STASH YOUR TAGS	SEP	13
SC - IMPROVED FLIGHT SUITS	NOV	9
LIFE SUPPORT UPDATE	DEC	20
POWER PLANTS		
F-4 MINUS TWO	FEB	4
TT - POWER PLANTS	FEB	21
SC - EMERGENCY SITUATION TRAINING - F-4E	MAY	30
PROFESSIONALISM		
WW - I THINK I THOUGHT I THUNK	FEB	6
DECAY	MAR	3
A BUNCH OF PROS	JUN	16
FORMATION	AUG	3
WHAT IS AN AIRLIFTER?	AUG	4
THE TOTAL FORCE CONCEPT	SEP	18
CT - THANKS	OCT	28
TT - PLAN AHEAD	NOV	26
A STABLE FABLE	DEC	8
TEAMWORK	DEC	12
REFUELING		
SC - C-130A REFUELING VALVE: OPEN OR CLOSED?	APR	24
CT - C-130 REFUELING PANEL	JUL	23
CT - HURRY, HURRY	AUG	23
THE TOTAL FORCE CONCEPT	SEP	19
SPINS		
THE SPIN - AN ACCIDENT ANALYSIS	JUN	4
SURVIVAL AND RESCUE		
FLEAGLE	JAN	8C
TT - NEW PERSONNEL LOCATOR BEACON	MAR	20
WINTER SURVIVAL	NOV	17
TAKEOFF		
SC - THREE STEPS TO DISASTER	JUN	12
EMERGENCY SITUATION TRAINING	NOV	14
TAXIING		
TT - DOWN THE PRIMROSE PATH	SEP	12
TIRES		
SC - F-4 USE OF NOSE GEAR STEERING	JAN	15
CT - HISTORY	FEB	22
CT - PLYS AND PLY RATINGS	AUG	22
TRAINING		
EMERGENCY SITUATION TRAINING	JAN	28
NUMBERS	FEB	26
"PHASING" INTO FLYING	JUL	4
WEAPONS WORDS		
WW - I THINK I THOUGHT I THUNK	FEB	6
WW - TAC RPVS AND DRONES	APR	11
WW - THE GUN WAS FLARED	JUN	22
WW - LET'S HEAR IT FOR THE SUPERVISOR!	AUG	27
WW - IS YOUR NUCLEAR EQUIPMENT CERTIFIED?	OCT	12
WW - EXPLOSIVES AND YOUR SAFETY	DEC	19
WEATHER		
HYPOTHERMIA... IT'LL LEAVE YOU COLD	JAN	4
SPRING FLYING CAN BE COLORFUL	MAY	20
TT - LIGHTNING	MAY	24
WEATHER SERVICES AXED	JUN	20
TT - SUMMER SUMMER	JUL	13
CT - TORNADO	JUL	22
HOT ROCKS AND COLD WEATHER	NOV	4

LETTERS TO THE EDITOR

Dear Sir:

With regard to your article, "Use Hazard Reports... they work" in the September 1973 issue of TAC Attack, I agree wholeheartedly. As hazard report monitor for the ADC Flight Safety Division, I have seen numerous problems identified and solved by their use.

I would, however, like to point out that the appreciation expressed in your reply to the hazard reports in the article should have been addressed to Lt Col Girling, the originator of the report, rather than Major Whelton, the reviewing official.

We at this headquarters enjoy your magazine. Keep up the good work.

Sincerely,

JOSEPH L. NUVOLINI, JR., Maj, USAF
Flight Safety Officer
Office of the Chief of Safety (SEF)
HQ, ADC, ENT AFB CO 80912

Thanks for the letter. You're right — we gave credit for the HR to the reviewing official rather than the originator of the report. Our apologies to Lt Col Girling.

Mistakes aside, we're glad you like the magazine — it's good to see we're giving "brand x" a little competition. Ed

1. In a recent article, JUNE issue by CMSGT JIM HART, on LIFE SUPPORT TYPES, noted discrepancies on the LRU-6/P Life Rafts. QUOTE: LRU-6/P Rafts were being folded with

floor and spray shield (canopy) oral inflation valves open.

2. T.O. 14S-1-102 (dated 1 Jun 72), Change 1 (30 May 73), Page 4-5, Section 4-3, "PACKING", par 4-12, "FOLDING", QUOTE: 2. Insure locknut of oral inflation valve is closed (oral valves of LRU-6/P FLOOR and CANOPY shall remain OPEN and placed in valve pocket. UNQUOTE.

3. Also in SEPT issue (Letters to the Editor), I concur with MSGT James M Fears of TEX ANG, Life Support Supt, Hensley Field, TX. BUT is it CMSGT JIM HART in JUNE issue or CMSGT HEART in SEPT? Hav-a-heart!!

VICTOR M DE DERA, MSGT, IL ANG
126 Group Life Support Superintendent
O'Hare IAP, Chicago, IL 60666

1. You're right. The article was in error. The oral inflation valves for the floor and canopy should remain open, not closed. As for the Heart vs Hart, we sent our weak-eyed proofreader over to conduct a careful study of nametags, and he reported back that H-E-A-R-T is the correct spelling.

Ed

Editor
TAC ATTACK

Question: Does anyone in the Air Force, besides me, have trouble fitting the standard aircrew checklist pages in the standard aircrew checklist binder? If so, please drop a line to Box 695, Langley AFB VA 23665. I will compile all comments and forward to AFLC. As a Safety Officer, I know the value of proper use of up-to-date checklists. It seems to me that everyone would benefit if we could eliminate the punch and scissor drill each time a checklist change is published. Hopefully AFLC will find a way to cut the pages to fit the binder or make the binder to fit the checklists.

LT COL LOU KENISON
HQ TAC/SEFI



TAC TALLY

TOTAL ACFT. ACCIDENTS ►
MAJOR ACFT. ACCIDENTS ►
AIRCREW FATALITIES ►
TOTAL EJECTIONS ►
SUCCESSFUL EJECTIONS ►

TAC		
OCT	THRU OCT	
	1973	1972
3	36	41
2	24	30
8	23	37
0	22	29
0	14	18

ANG		
OCT	THRU OCT	
	1973	1972
0	16	18
0	11	14
0	1	3
0	8	8
0	7	8

AFRes		
OCT	THRU OCT	
	1973	1972
0	1	3
0	1	2
0	2	2
0	1	0
0	0	0

TAC'S TOP "5"

FIGHTER/RECCE WINGS		
ACCIDENT-FREE MONTHS		
67	33 TFW	TAC
37	67 TRW	TAC
35	162 TFTG	ANG
34	4 TFW	TAC
26	122 TFW	ANG

AIRLIFT/REFUELING WINGS		
ACCIDENT-FREE MONTHS		
99	136 ARW	ANG
88	440 TAW	AFRES
63	316 TAW	TAC
52	126 ARW	ANG
51	463 TAW	TAC

SPECIAL UNITS		
ACCIDENT-FREE MONTHS		
110	2 ADGP	TAC
79	DET 1, D.C.	ANG
51	182 TASG	ANG
46	68 TASG	TAC
44	193 TEWG	ANG

MAJOR ACCIDENT COMPARISON RATE 72-73

TAC	72	0	.8	1.6	2.8	4.0	4.8	4.2	4.6	4.6	4.2		
	73	5.0	5.1	5.1	4.2	4.3	5.0	4.8	4.4	4.2	4.1		
ANG	72	0	0	6.3	8.1	6.3	5.1	6.2	6.4	6.2	5.9		
	73	8.5	8.6	6.8	5.0	4.7	5.1	4.3	4.2	4.6	4.2		
AFRes	72	0	0	0	0	0	0	0	1.9	1.7	3.0		
	73	14.9	6.7	4.1	3.2	1.8	1.5	1.4	1.1	1.0	.9		

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

**TAC WISHES
A MERRY CHRISTMAS
TO ALL RETURNED POW's**

