# TAC ATTACK

SEPTEMBER 1974


MORE FUNNY FOTOS.... Pg 16

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# SEP


FOR EFFICIENT TACTICAL AIR POWER

## FEATURES



## DEPARTMENTS





***PUBLISHED BY THE CHIEF OF SAFETY***
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# Angle of ATTACK

angle of attack

William J. Bally jr.

## a message from the new CHIEF OF SAFETY

With this first editorial as Chief of Safety, I would like to extend my gratitude to all of you who have given so much support to TAC's safety programs. I'm looking forward to the opportunity to visit your bases to renew old acquaintances as well as make new ones.

As I study the 1974 statistics boards, I find that although the TAC major aircraft accident rate is down from 1973, the TAC-gained reserve force rates, both AFRes and ANG, are almost double that of last year. If a reserve force recall were implemented, the fighting force of TAC would almost double, so the importance of our reserve forces should not be underestimated. Perhaps you active duty safety advisors need to give your counterparts in the reserve units more support. It seems that someone always fails to get the word — make sure it's not your reserve counterpart. Give him any and all help that's within your power to provide.

Although my career has included both staff and line jobs, I have been involved with aircrew training programs in the majority of my assignments. One thing that has come through loud and clear from this involvement is that the better prepared to fly the student crew member is, the lower the accident rate. My last assignment as Commander of the 363 TRW at Shaw convinced me that to have an effective safety program, commanders and supervisors have to be directly involved. As a Commander, I considered myself in charge of the safety program with my Chief of Safety acting as my eyes and ears — identifying problem areas and following up on corrective actions. As TAC's Chief of Safety, I expect to serve the Commander, TAC, in like manner — ferreting out and identifying better and safer ways to operate the many and varied flying programs in TAC.

In future issues, I'll be giving you my philosophy, prognostications and expectations. Till then, let's spread the word to all units in the field. Be certain your aircrews are prepared to fly their very best and let's work at driving that accident rate down.

William J. Bally Jr.

WILLIAM J. BALLY, JR., Colonel, USAF
Chief of Safety

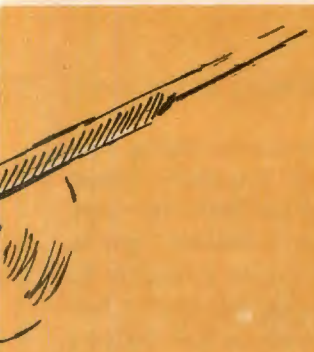
Looking at a crisis from my comfortable Monday morning 50-yard line, I find much truth in Roosevelt's inaugural comment,

*We have nothing to fear . . .*

# . . . BUT FEAR ITSELF . . .

**by Capt William R. Caldwell**
**317 TAW FSO, Pope AFB N.C.**

. . . after three weeks of waiting for this, here I am in the middle of it . . . man this seat is hard — wonder if they ever think about people when they design these things . . . knock off the bellyaching dummy — all you have to do is sit here — the other guy's doing all the work — all you have to do is just sit and bleed . . . but what if there's more to it than they thought? — I can't just cover my face and run—got to be a man—grin and bear it and all that B.S. . . . how am I going to react to the pain . . . got to get hold of myself — got to . . . God! it's hot in here —



got to get some air . . . what do they know about it — how can they be so sure there's no other way to do this — they're all alike, no feeling for the guy who has to go through it — sure it's got to be easy for them — they're not going to get hurt — bunch of heartless S.O.Bs — they all are — they don't care what happens to me — nobody does . . . oh, oh — here it comes — what am I going to do . . . get hold of yourself . . . you've got to sit here and take whatever comes — you're committed — come on, get hold of yourself — a lot of pain now is better than a little bit for a long time — if you don't do it now, you'll suffer later . . . hang in there — you can hack it . . . WHAT'S A LITTLE WISDOM TOOTH ANYWAY?

About now, you are saying to yourself, "This clown never recovered. He's really flipped out!" In a sense, you are absolutely correct. I'll never forget the first time I had a couple of teeth pulled; the trauma was just too great. On the other hand, I wish I could forget the first time I got a good look at "Charlie" operating in the "this land is mine" mode. Poor comparison, you say? Stick around.

During my SEA tour, I flew C-130s out of CCK Air Base, Taiwan. Normally, we would go in-country for a 15-day shuttle, hauling cargo and people to the major bases of RVN, then back to CCK for a week or so flying other logistic missions, training, etc. I had just gotten back from stateside leave and was anxious to get in-country before my landing currency ran out. So, as soon as the scheduling shop and I saw eye-to-eye, I was deadheading to Tan Son Nhut. The guys coming out of RVN had told me about "Charlie's" big play for 1972 and that things were a little grim up around Hue and the DMZ. I had convinced myself that this was no big deal — that's why you get combat pay — and really looked forward to renewing my associations with the detachment weenies at TSN.

After the rotator landed, I was ticked because the pilot, while practicing a shortfield landing, had max braked me into the next guy's seat. But that was normal. Nobody can handle this bird as well as a deadheading pilot. By the time I got into detachment ops with my old friend Budweiser, I was really hot to get "crewed up" and on the road again. But something was different. There was a tense feeling in the air that hadn't been there before.

I renewed old acquaintances, tossing out the new stateside stories and getting the best of RVN back. Then I made sure my landing currency problem was well known to the leaders and headed for the BOQ. The "Q" was a little quieter than normal. Guessing that everyone was at the club, I slipped out of the zoom suit, into a shower, and out the door for the club. I was right. Everybody was at the club, but so was the tension. The dull roar was duller; the drunks, drunker. Anticipation shrouded the bar. Finally, it dawned on me that something was up and that that something was bigger than normal.

One healthy gulp of a gin and tonic focussed my attention on two words: "An Loc" and "airdrop." There were phrases floating around too: "NVA's got 'em surrounded," "running out of ammo," "trucks can't get through." Being the impatient, inquisitive type, I turned to the guy I had elbowed to get to the bar and asked the only question applicable in a situation like this, "Hey! What the hell is going on?"

The past 3 weeks came at me in a slightly slurred but understandable verbal barrage. The North had completely surrounded An Loc. Some 8,000 defenders, mostly RVN troops and a few American advisors, were caught. Anti-aircraft guns were all around the place. It looked like we were going to airdrop supplies and ammo to them soon but no one was saying when, just yet.

Always the image of the American fighting man, I muttered something cool like, "That's what we get paid for," while thinking privately . . . "how do I get out of here?" Then other thoughts started to creep in . . . "Who would they pick for a mission like that? Probably the most experienced. Who has the most airdrop experience around? But I've just gotten back. Surely they'll give me a little time to get back in step. But will they?" The gin started to taste funny.

When I got back to the "Q" a note on my door said to call the detachment. The call put me into crew rest for a 1500 show. The mission? "Can't tell you yet — get some sleep." It wasn't one of my best nights.

At 1500, the briefing started. "This evening you are going to drop 30,000 pounds of ammo to An Loc. The weather is good. You've got the best crew you can get. Your route of flight is from here to there."

"What's Intel got?"

"Don't know too much yet. We think you've got two 37mm's here and here, but we're not sure. Lots of small arms and 50 cal stuff."

"What's the range on the 37mm?"

"Above you."

"Oh."

"Any other questions? Well . . . good luck."

When I got to the airplane, the loading had just started. Problems kept popping up and finally we ran out of

# ...BUT FEAR ITSELF.....

daylight. The decision was to finish up and go into crew rest. We would launch first thing in the morning. It was a bad night. So many things to think about.

"Our mission is to fly and fight." When you hear this, visions of an F-4 rolling onto the target bounce around your brain. One seldom asks the question, "But where does that ugly '130 fit into the picture?" If you are a C-130 crew member, you ask that question over and over. Likewise, when you think about that F-4, you intrinsically know that it's armed to the teeth — bombs, rockets, a cannon, and a few CBU pods thrown in for color. A '130 crew member knows that he has a personal, stubnosed, 38 cal. revolver and it's been a long time since his last small arms training. Looking at the mission, you know that the F-4 starts high, does his trick, and lights the scat power to get out of there. A '130 troop does his act low and slow and wishes he had "just a little" scat power. Finally, if things aren't going right that day, the F-4 guy pulls his curtain and waits for the seat to kick him out into the blue. The '130 guy has to unbuckle, get out of the seat, run (walk if you still think you've got fighter pilot potential) about 100 feet to the cargo ramp, and then decide if a PLF is better than riding this beast into the ground. Incidentally, it seems like a long time since you had PLF training too. I think you can readily see that the "fight" part of being an airlifter gives a guy a lot to think about. You think about it pretty damned hard when you hear about "Charlie" surrounding some place called An Loc and realize that you are the only way to get "shooting stuff" to our troops.

Somehow the night passed and 0530 hours found us in the briefing room. "Your mission is the same. The weather people say you'll be dropping under a scattered deck at 1,000 feet. Intel has pinpointed the Triple A. There are three 37s — here, here, and here — and one 23 here, about 3,000 yards from the drop zone. Everything else is the same. Oh! If you have to put it down or bailout, break out toward the east."

"If you have to bailout." Those words brought all the thoughts and fears of the past 36 hours crashing through to reality. Suddenly, it was really possible that I, the infallible I, wouldn't come back. It took four cigarettes and as many cups of coffee to get the shakes out enough to walk. This just couldn't be happening to me! But it was.

Back at the aircraft, I found the crew making final checks and completing the rigging. Everything looked good. I got the crew together and laid down the facts. They were all volunteers and really pros. We were ready to go. Just before engine start, the commander stopped by to wish us luck. In 1900 hours of flying, this was the first time the leader had personally wished me well before a mission. The shakes started again.

We were late starting engines because of all the ceremony and "extra checks." Pressed for time, we made several silly blunders and almost missed a whole checklist. We got off on time. I still think the aircraft flew itself off the runway. I don't remember pulling back on the yoke.

We were #3 of a three-ship flight. Once airborne, we headed for a common orbit point. The profile called for each of us to make a solo pass. It would be redundant to express my thoughts during that segment of the mission; the first paragraph of this article outlines them pretty well. I was just plain scared and at the same time, the guy in charge. The crew was shaky too. There was no chatter — just the running of the checklists.

Number one began his run-in. After his "two minutes out" call, all was quiet for an eternity. Finally, the UHF crackled his success. "Limited ground fire. Think I took one hit in the tail. Recommend a different approach."

When #2 called off the perch, we were sure that "Charlie" was awake and all ears were glued to the radio. The only sounds in the aircraft were the radio and the engines. On his slowdown, #2 had trouble. "Can't get the ramp down! Going to pull off and come back to the orbit. Three, you want it?"

My first reaction was NO! I'll wait. But fuel would not allow much waiting and the shakes were getting worse all the time. I looked at the "co" and then back at the engineer and nav. Their silent reply was go! "Tell 'em we'll take it," I said.

On the first pass, we missed the initial point and came back for another try. The second time around, everything fell into place. We made the two minute call and finished up the checklist. One minute out, we descended to drop altitude, 600 feet AGL. Thirty seconds out, the checkpoints started to come in right on the money. Fifteen seconds, ten seconds, "Got the timing point!" the nav yelled; "Five second warning!"

Suddenly the aircraft was a blast furnace. I heard a loud blast and the whole world pressed in on me. I glanced out the left side. The windows were shattered but holding. I glanced back at the engineer. He was slumped against his straps and bleeding badly. We were in a super hot hurricane. The noise was deafening. "We've had it!" I said, but nobody could hear me.

A voice far in the distance, the loadmaster's words cut through the intercom, "Jettison the load! Jettison the load! The load's on fire!" Each time he said jettison, I reached over and hit the button but the load didn't go. He finally released the load manually and watched two of the bundles blow up just as they cleared the aircraft. Now 30,000 pounds of class "A" ammo lighter, the airplane literally jumped through the scattered clouds above, but the airspeed was dropping through 115 knots.

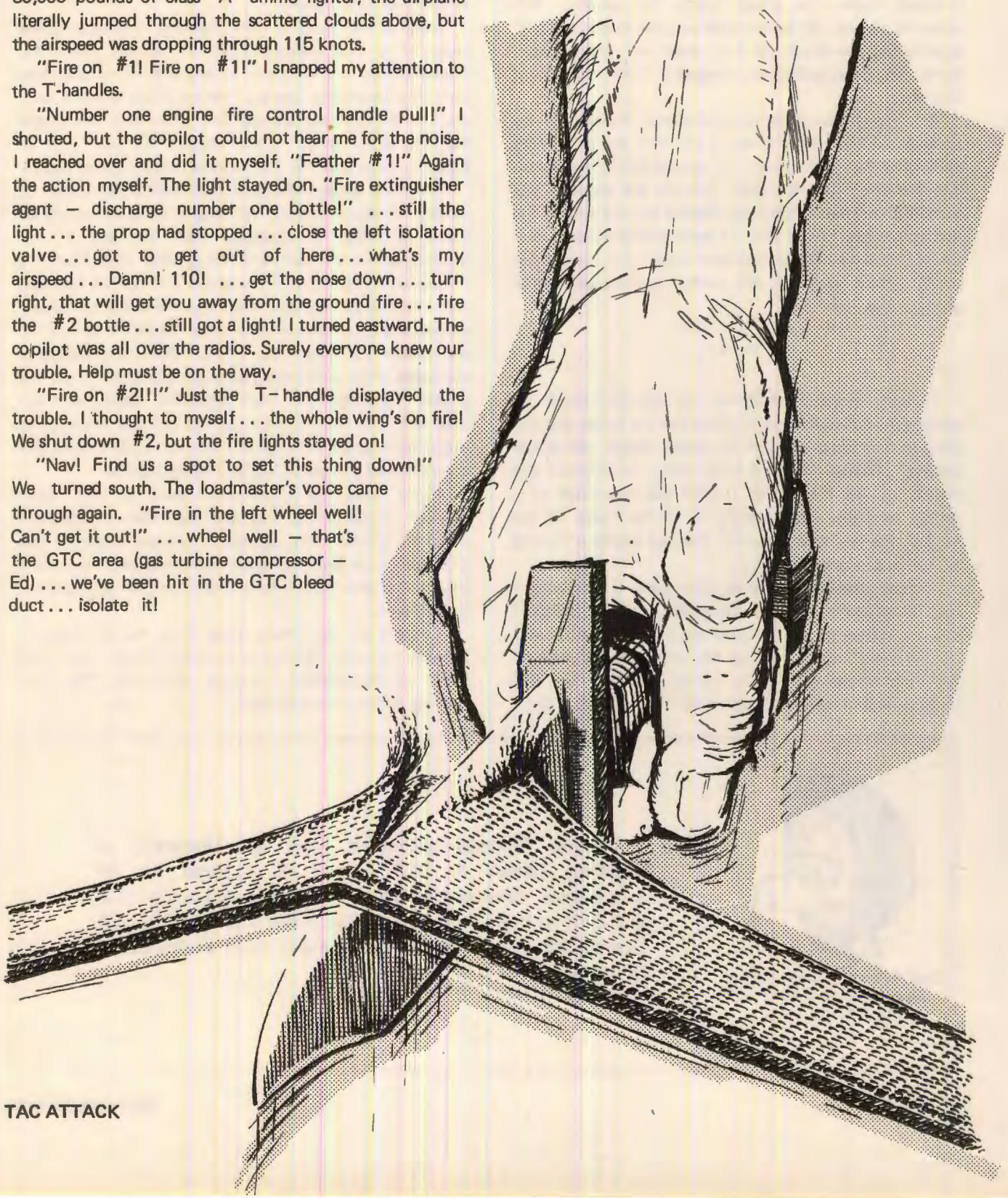
"Fire on #1! Fire on #1!" I snapped my attention to the T-handles.

"Number one engine fire control handle pull!" I shouted, but the copilot could not hear me for the noise. I reached over and did it myself. "Feather #1!" Again the action myself. The light stayed on. "Fire extinguisher agent — discharge number one bottle!" . . . still the light . . . the prop had stopped . . . close the left isolation valve . . . got to get out of here . . . what's my airspeed . . . Damn! 110! . . . get the nose down . . . turn right, that will get you away from the ground fire . . . fire the #2 bottle . . . still got a light! I turned eastward. The copilot was all over the radios. Surely everyone knew our trouble. Help must be on the way.

"Fire on #2!!!" Just the T-handle displayed the trouble. I thought to myself . . . the whole wing's on fire! We shut down #2, but the fire lights stayed on!

"Nav! Find us a spot to set this thing down!" We turned south. The loadmaster's voice came through again. "Fire in the left wheel well! Can't get it out!" . . . wheel well — that's the GTC area (gas turbine compressor — Ed) . . . we've been hit in the GTC bleed duct . . . isolate it!

GTC fire control handle — pull! . . . Close the other wing isolation valve — closed . . . damn, it's hot in here . . . no place to land . . . bailout? . . . engineer's hurt bad — so's the loadmaster . . . airspeed? . . . 125! . . . it flies!



# ...BUT FEAR ITSELF....

As soon as I closed the right wing bleed air ducts and isolation valve, the noise began to subside. The temperature was still tremendous and the loadmaster was fighting the fire above the left wheel well, but we were flying. From this point, we managed to limp back to Tan Son Nhut.

The key to the problem we faced that day was the fire above the GTC compartment. A one foot chunk of bleed air ducting had been blown out, spewing 625°F bleed air into the cargo compartment. This was the cause of our scorching hurricane inside the aircraft and the reason the two pallets had caught fire. To make a long story short — the loadmasters cranked the gear down and, except for losing a third engine in the traffic pattern, we landed safely at Tan Son Nhut.

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In each of the experiences I've described above, an extremely undesirable event loomed in the future and was subsequently dealt with. If one looks closely, the stories are each divided into two basic parts: anticipation and attack. In the first story, I faced the extraction of a couple of teeth after putting it off for years. In the second, the unknown was how I would handle a flaming aircraft and/or personal injury.

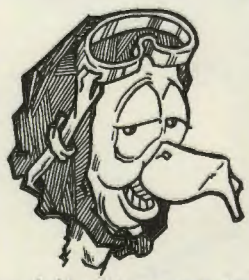
In each sequence of events, there came a time when I had no alternative but to attack the problem. Should I bite the dentist or just sit there and let him have his day? Should I wait for #2 to get his ramp open or press on with the mission? In other words, should I face this decision emotionally or reasonably? In both cases, I chose the reasonable approach. Once my decision was made, the effects of the anticipation began to diminish. While I can't say that all my fears disappeared, I can say that enough of them were set aside so that I could attack the problem. I don't think we can completely displace our emotions when things get tight-cheeked. To say this would take the "man" out of crewman, but we must not allow fear to interfere with our duties.

Imagine fear so great in a pilot that he freezes in the glow of a fire warning light — thinking about his impending demise. Or the pilot who is so afraid of getting hurt in a parachute landing that he delays ejection until the aircraft explodes around him. Only when we accept that old safety song, "It Can Happen To You," will we begin to cross the thin line between emotion and reason.

Once we accept the fact that sometimes things go wrong, we can direct our thinking to what we should do about it when it happens. Near the end of our involvement in Vietnam, a C-130 gunship took AAA in a critical area of the bird. The aircraft commander, knowing that the aircraft was doomed, gave the order to bailout. Although a gunship is not the easiest aircraft to get out of, the entire 15 man crew cleared the plane before it exploded. How could these guys get out so quickly? The answer is practice, and crew discipline. Reason won out over fear. The AC had accepted the fact that someday he might have to get his crew out in a hurry. As a result, the crew planned and practiced their egress actions.

If my crew and I had made good our first run-in attempt, would that gunner have been there to riddle our bleed air system? Who can say? I can say, however, that the time I took worrying about my young bod would have been better spent more fully analyzing what to expect on that mission.

Looking at the whole thing from my comfortable, Monday morning, 50-yard line vantage point, I find much truth in Roosevelt's inaugural comment, "We have nothing to fear, but fear itself!"



Capt Caldwell's contribution makes him this month's FLEAGLE T-Shirt winner.

**Captain Caldwell graduated from the University of Southern Illinois in 1967 where he received his AF commission. After completing pilot training at Laredo AFB, Bill went to Pope AFB in C-130Es. After a tour at CCK AB, Taiwan, he returned to Pope as the 317 TAW Flying Safety Officer.**

# PHYZ-BIZ

# HYPOXIA

**by Lt Col Harold Andersen,**
**TAC Physiological Training Coordinator**

True or false? Hypoxia is a disease most frequently encountered by aircrews at high altitudes. If you answered "False," you're right! Working with aircrews day in and day out, we sometimes develop a tendency towards channelized thinking. In this case, we tend to remember the reported physiological incidents which involve malfunction/misuse of oxygen equipment during unpressurized operations at high altitude, and forget other types of hypoxia. Deaths resulting from acute carbon monoxide (CO) poisoning, massive hemorrhage, heart attacks, drownings, blocked windpipe (strangulation), etc., are mainly hypoxic in nature. I'm sure you remember this from your past Physiological Training sessions, but in case your memory needs a bit of a jog, let's take a look at some of these in this and future issues.

Here's an example of an incident that could happen to any of us — at any time (any meal time that is): You and your family have just seated yourselves around the dinner table, all set to enjoy the steaks ol' Dad has just charcoaled over the open grill. Your young son is both hungry and in a hurry to finish and rejoin his friends in a badminton game, so he's eating like there's no tomorrow. Suddenly he gasps and strangles! His face reddens, then begins to turn blue as he struggles; he makes no vocal sounds but his panic-state is quickly transmitted to the rest of the family. In an adult, the incident is often taken to be a heart attack, but in reality a piece of food, usually meat, has lodged in the trachea (windpipe), preventing normal breathing. Unless the airway is quickly returned to its normal open state, unconsciousness and death will follow. So, you slap him hard several times on his back; no effect! Then you try, in quick succession, turning him upside down, then fishing for the object in his throat. Still no luck! What else can be done? Well, a new technique has been successfully employed, and recently half a hundred victims have been saved. It consists of this rather simple procedure:

1. Stand behind the victim and place one of your arms around his waist about belt high.

2. Bend the victim forward over your restraining arm (don't let him fall) so that he is nearly "bent double."

3. With a sudden, forceful squeeze of your arm around his waist, compress his upper abdomen and lower rib cage. If you have done these three steps properly, the lodged object will probably be expelled from his trachea by the compression of the air in his lungs. Simple, huh? Kinda like the new fangled gadget for clearing stopped-up sink drains using pneumatic pressure.

This simple emergency procedure requires no special equipment, just a little insight into the real problem and a desire to help. We'll have more good words on the subject (hypoxia) again next month.

# TAC TIPS

...interest items,

A CLOSED MOUTH GATHERS NO FEET

## REMOTE SWITCH AND AUTOMATIC CUTOFF FOR LAPES/CDS DELIVERIES

A Warner Robins ALC approved modification to operate the left static line retriever winch from the flight deck during CDS and LAPES missions was tested by USAFTAWC. Subsequently, TAC requested Warner Robins to expand the modification to include provisions for operating both retriever winches individually or simultaneously from the flight deck and at the same time by-pass the rewind limit switch. The modification consists of an electrical circuit which incorporates operation of the two retriever winches into the jump signal (red/green light) switch mounted on the copilot's paratroop panel. The system is controlled through two arming switches located at FS 245. In addition, a time delay relay is installed to provide power and an automatic cutoff feature to operate the retriever winches individually or simultaneously. When the arming switches at FS 245. are placed in the ON position, the copilot can operate the retrievers by actuating his jump signal switch. With the jump signal in the ON position, the retrievers will run for three seconds, which is sufficient time to cut a CDS gate or operate the LAPES release mechanism. An additional safety feature is included which permits the loadmaster to stop the winch operation at any time an emergency occurs during the operational cycle by dearming the right or left side switch.

The modification was approved by applicable C-130 MAJCOMs and will be published by Warner Robins ALC as TO 1C-130-902. The Tech Order is in the final stages of preparation. Kitproofing is tentatively scheduled for July. Issuance to field units for accomplishment is scheduled for October 74.

## GOOD SAMARITAN OR HOW TO HELP PREVENT DROPPED OBJECTS

Recently a good deed was witnessed at one of our TAC bases. It involved a C-130 and a T-33 taxiing out for takeoff, and went something like this:

HERK: "Hey, T-Bird, you have a door or something open on your side."

T-BIRD: "Oh! What is it that's open?"

HERK: "Don't know, but if you will hold your position, I will send someone to check."

T-BIRD: "Okay."

(At this point a typically well-dressed TAC crew member deplaned from the C-130, cautiously approached the T-33, did his thing, and returned to the C-130.)

HERK: "T-Bird, it was just your external power receptacle door. It's now closed and latched."

T-BIRD: "Thanks, Herk."

Both aircraft continued on their separate ways and completed their missions — without a dropped object. The moral: It takes all of us, working together and watching out for each other, to have a safe operation.

## TRUE OR FALSE ?

(1) Taxi accidents no longer occur.
(2) Yellow taxi lines guarantee you clearance from all obstacles while taxiing.

# mishaps with morals, for the TAC aircrewman

(3) If you stay behind the follow-me vehicle, you won't taxi into anything.

If you answered true to any of the above, go directly to AFR 60-11; do not pass the hold line and do not collect flight pay.

We still have taxi accidents; the yellow line doesn't guarantee safe taxi clearance; and a recent message points out all too clearly that follow-me vehicles do not always lead aircraft down the safest route. The left wing of a C-130 was damaged recently when a pilot stuck to the follow-me's six o'clock and hit a light pole 100 feet from the centerline of a taxiway. Granted, the ramp was crowded and the light poles were difficult to see, but taxi accidents, like inadvertent gear-up landings, should never happen. A few hints for aircrews, supervisors and Transient Alert:

1. Any time the aircrew sees that taxiing becomes hazardous because of congestion (less than 25 ft clearance), stop the bird until wing-walkers are available — and never taxi closer than 10 feet to any obstruction.

2. If you are a supervisor and have a question regarding ramp safety, get the area surveyed for obstruction clearance. Make sure the clearances are adequate for the largest aircraft likely to use the taxiways and ramps.

3. Follow-me drivers should always stick to the safest route — the path they want the aircraft to follow. Don't take unsafe shortcuts — even when nearing the final parking spot. Aircrews, especially those unfamiliar with your ramp layout, put a lot of trust in you. Don't lead them astray.

## *IPs BEWARE !*

A tragic accident occurred in another command which points out the heavy responsibility inherent with that "IP" affixed to your flight orders.

The student in the aircraft was attempting a heavyweight simulated single-engine landing, to be followed by a touch-and-go. The aircraft descended on final slightly steep, followed by an incomplete flare. The aircraft made a hard landing, became airborne (10 to 15 degrees nose high), stalled and contacted the runway again, damaging the left wing tip. The aircraft recovered to a wings level altitude and lifted off once more — this time the nose rose about 20 degrees and a second stall resulted in a loss of control — and the aircraft crashed.

The rest is speculation. Since neither pilot survived, we can only piece together eyewitness accounts to guess what happened, but one thing is evident: things happen pretty fast on training missions and IPs can't relax until the last engine is shut down.

This year in TAC, many accidents have involved aircraft with IPs on board. It only makes sense that a training mission with a green student involving low level, ACM and simulated engine-out approaches is riskier than a similar mission involving only combat ready crews. The important thing to be aware of is that the monotony of these RTU and upgrade missions can catch you napping. When your student has just shot six perfect touch-and-go's it's pretty tough to get yourself up for the seventh.

Take it from one who knows. Only some pretty wild gyrations and lotsa' luck have pulled it out of the fire for me because I went from bright-eyed and bushy-tailed to dull-eyed and tail-draggin'. Get lots of rest, anticipate the unexpected, and never let your guard down.

# Hey! pass it along... nine others are waiting.

# BLC believe the lights charlie

**by Bob Moore, McDonnell Aircraft Co.**
**Field Service Engineer**
**HQ TAC, Langley AFB VA**

The most disturbing aspect of the Boundary Layer Control (BLC) system is that most people exhibit only a superficial knowledge of it. The BLC system is not a Phantom system, but a Phantom II system (LES excepted) that can be easily understood by the lowest of low-time bent-wing types.

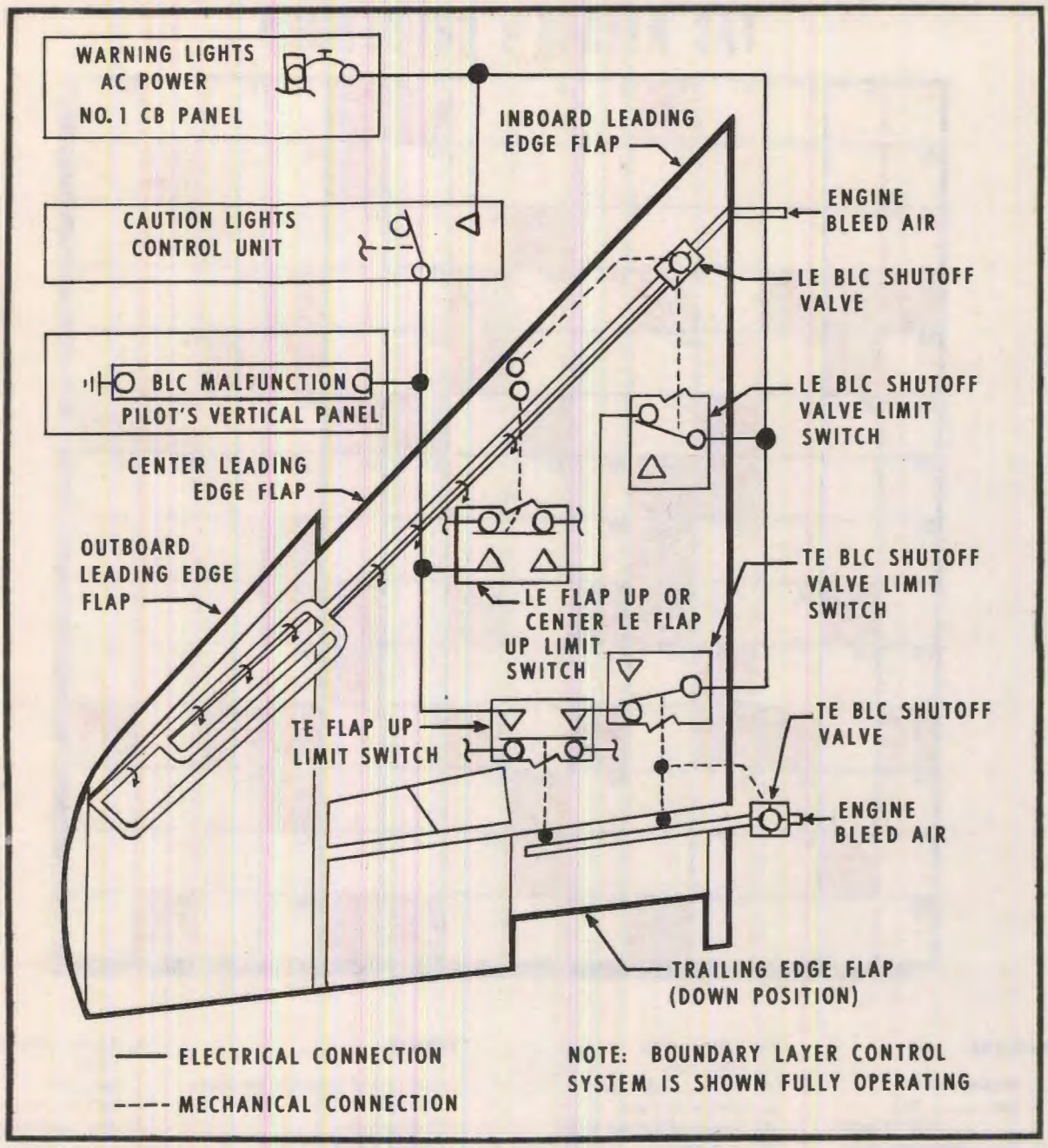
The BLC system is basically a high pressure, high temperature air-operated system which is supplied by the engine's 17th stage compressor section. This air is ducted through the forward and aft sections of the wings and then directed aft from both the leading and trailing edge flap hinge areas to improve laminar air flow. This results in more lift and gives the pilot better aircraft control at low approach speeds.

There are four bleed air shutoff valves operated by direct mechanical linkage. They are opened as the leading and trailing edge flaps are lowered and allow the bleed air to be directed to the wing and flap areas.

If a flap and its respective valve are out of sequence with each other (the flap in the "up and locked" position with the valve open), the 17th stage bleed air can cause some very undesirable conditions. The indicating system provided to inform the pilot when this undesirable condition exists is a series of limit switches, wiring, and a BLC malfunction light on the telelight panel. Ideally, the system will cause the malfunction light to illuminate if the flaps are up and one or more of the four shutoff valves are not closed. This is not always the case; a maladjusted switch will give the same indication as a valve not closed. Unfortunately, the design of most indicating systems is such that you can get a false warning if the system is not working correctly. The F-4 BLC light is no exception.

First of all, when the BLC malfunction light comes on inflight with the flaps up, the pilot can't tell which of the four valves or associated wiring is giving him the "open valve" indication. All he knows is that he has a BLC malfunction. On the other hand, if the BLC malfunction light is on prior to the flaps reaching the "up and locked" position, the problem is with the indicating system. Now . . . what can cause a BLC malfunction with no BLC malfunction light? It seldom happens, but when it does, the pilot should be ready for it. An incident recently occurred at a TAC base when the gear mechanism of a trailing edge BLC valve failed and the valve remained open while the linkage was allowed to actuate the limit switches to the normal position. If this happens, hot air travels through the open valve to the retracted flap area and will cause heat damage to the immediate structural area. Since the flap position indicating system uses some of the same switches, but different switch contacts from the BLC indicating system, a secondary indication will occur. If the wheels light begins to flash after the flaps have reached the "up" position (regardless of the subsequent flap indications), treat the flashing wheels light as a BLC malfunction – even if the BLC light does not illuminate.

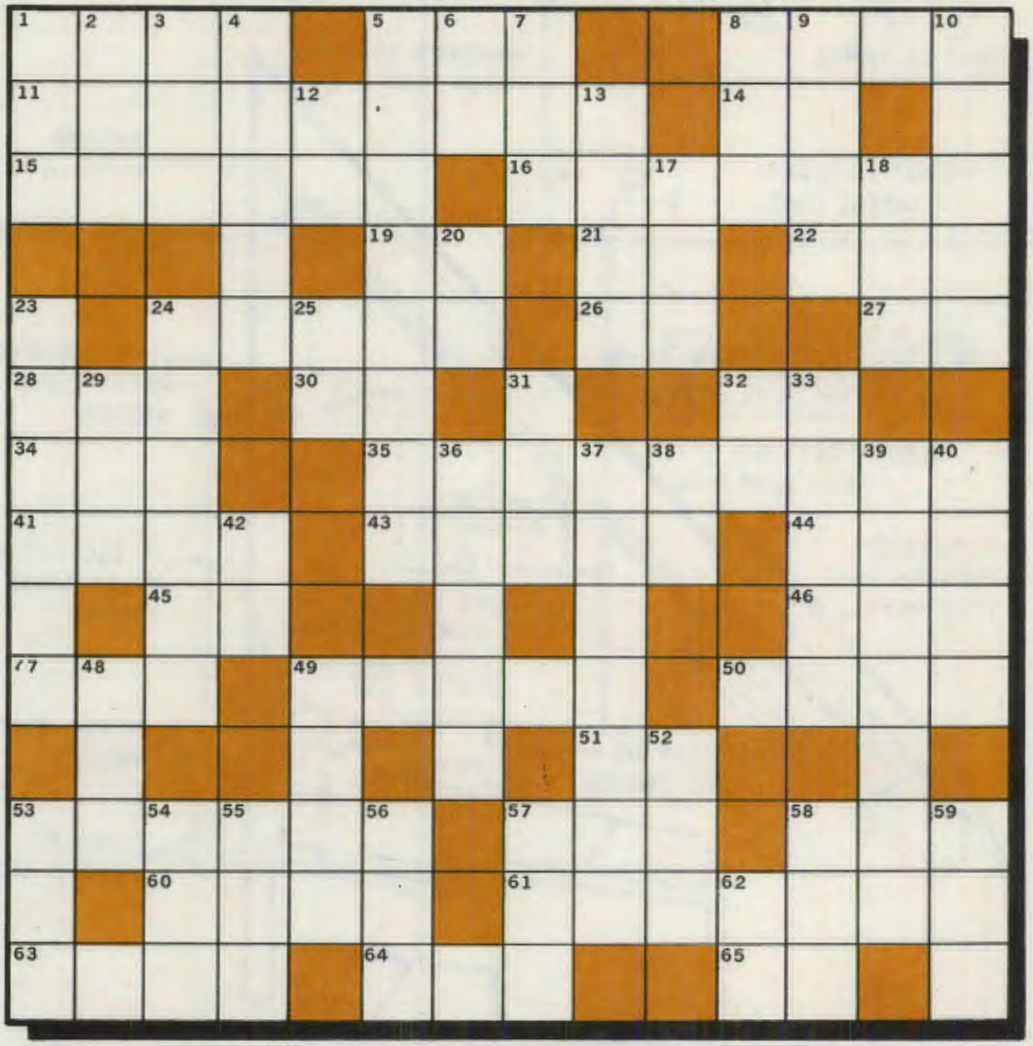
Failure of BLC valve linkage and/or bellcrank, or maladjusted switches will almost without exception cause




the BLC malfunction light to come on. How long it will remain on depends on what caused it to illuminate in the first place. For instance, a broken actuating rod may puncture the BLC duct and allow hot bleed air to be directed on the wiring and result in the BLC light circuit burning through and the light going out. The malfunction is still there. Get the flaps down and get it on the ground.

Okay! . . . so the pilot has gotten the Phantom back on the runway and written up the BLC malfunction light and/or the flashing wheels light. This might be a good time to look into the Dash Two with your friendly mech. Like a doctor, pilots sometimes confuse symptoms with disease. Taking aspirin may relieve a headache, but if your headache is just a symptom of a more serious disease, you may be led down the primrose path if you think you've cured your problem. Curing the symptoms of a BLC problem (BLC warning light, flashing wheels light, etc.) may not cure a failure of the BLC system itself. Know thine aircraft – and write it up accordingly. BELIEVE THE LIGHTS, CHARLIE!

# TAC ATTACK's CROSSWORD



## ACROSS

1. Weapon of war
5. Base _____ (SL)
8. "_____ BASE" Exercise
11. Unique feature of 7 down
14. "Give 'em the _____ "
15. Of the air
16. They pass gas
19. Preposition
21. Special Order (Abbr)
22. French coin
24. "Look out _____ "
26. Travel request (Abbr)
27. Wind direction
28. Not the ANG
30. "Ground checks_____"
32. Postscript (Abbr)
34. Self-induced problem (Abbr)
35. Nylon descents
41. Italian river
43. "_____ head" (SL)
44. Form of crew rest
45. Howard AFB is here (Abbr)
46. Wx hazard
47. _____ Tse Tung
49. _____ Farman, Early French Flier
50. Frozen up
51. "_____ over _____ max"
53. "_____ tea" (SL)
57. This eats engines (Abbr)
58. Inst. app. mode
60. "Scotch and _____"
61. Dresses
63. Grooming device
64. "_____ Weenie" (SL)
65. City near Tinker AFB (SL)

## DOWN

1. Measure of bombing effectiveness (Abbr)
2. Native metal
3. Forest humus
4. City near Mountain Home AFB
5. Accident witness
6. Petty Officer (Abbr)
7. TU 144, for example (Abbr)
8. "_____ 12" type of barrier
9. Intersecting lines
10. Follow up
12. Parent (colloq)
13. "_____ is least"
17. Negative word
18. Overnighter (Abbr)
20. Compass point (Abbr)
23. BLU, for example
24. OV-10
25. _____ and behold
29. Flight Information Region (Abbr)
31. Not a recip
32. Airdrop bullseye (Abbr)
33. After super or sub
36. _____ Task Force
37. "God is my _____"
38. Transformer – rectifier (Abbr)
39. Engine cover
40. Hurried
42. One wizard's domain
48. Medical organization (Abbr)
49. Inst. practice aid
52. Duster's weapon (Abbr)
53. Peace is their profession (Abbr)
54. Suffix with patriot
55. Seagoing counterpart
56. Vietnam (SL)
57. This guy reports 1 down (Abbr)
58. Irritate
59. Memorize this number (Abbr)
62. Intelligence officer (Abbr)



ANSWERS - PAGE 30

# CHOCK TALK ...incidents and incidentals with a maintenance slant.

chock talk

## BURNING GRASS

**by TSgt Whiting**
**HQ TAC/SEG**

A sergeant was attempting to remove grass from between cracks in his driveway. Attempts to cut the grass were unsuccessful, so he decided to burn it out. He sprinkled paint thinner on the grass and set it on fire. As the flames died down, he poured more thinner on the fire and – you guessed it – the container burst into flames. Result? Very painful second degree burns to his hands and arms.

When you have a bad weed problem, follow the example of experts and use weed eradicator. It may cost a little more than gasoline or paint thinner, but it's a lot safer – and works better too!

## PESKY NESTERS

**by TSgt Dennis R. Gamble**
**127 TFG, Selfridge ANGB MI**

If you think we've seen the last of the birds in Alfred Hitchcock's movie, you're wrong! Those pesky little creatures are back again and have found a way to disable every F-100 in the inventory. If the little feathered fellows are left alone and not disturbed by a probing crew chief or other conscientious maintenance man, they could cause an aircraft accident.

Several incidents like the following have happened here at our air patch, as well as other bases, but this was the worst in a long time and is worth sharing with all of you maintenance types.

During an aircraft phase, panels F-62 and F-62A were removed to facilitate maintenance. Inside were the remains of the largest bird nest we ever found. It seems that our little feathered friends had really built themselves a mansion. By entering through a vent on the right side of the aircraft in panel A-54A, the birds had carried grass, paper, twigs, and wire into the aircraft to build a nest. Behind the hydraulic reservoir and on top of a fuel probe intertwined in the flight control cables, were long pieces of wire and twigs. The wires were up to six inches in length and seemed to be wires that had broken off the ramp sweeper unit.

If this condition had not been made known, several problems could have developed, resulting in serious damage or loss of aircraft and/or serious or fatal aircrew injuries. The twigs and wire could jam the flight controls, resulting in an aircraft accident, or the wire strands could have shorted out any of the numerous wires in that area.

Local procedures have been developed to plug this vent when the aircraft is not being ground run or flying. An oversight on someone's part allowed the birds to do a "real number" on this aircraft and could have cost the government one air machine.

If birds are a real problem in your area, I suggest you look into initiating a program to insure that these vents are plugged. The F-100 might be old, but it still costs a lot of money and it can take lives if preventive maintenance is not performed.

Yes, the birds are still around and trying to defeat us. They just scored another "got-cha" here at Selfridge!


# FUNNY FOTOS







OH NO !!
IT'S THE IG
TEAM !


JUDGING FROM HIS UNIFORM
WE'RE EITHER IN CHINESE-OCCUPIED
GERMANY OR ON A MGM SET !


IT'S NO F-15,
BUT IT SURE BEATS
THE RATED SUPPLEMENT !

# the XP-58
## ESCORT LIGHTNING

by William G. Holder
Contributing Editor

Sitting there on the flight apron, her heritage was hard to discern. Strangely, there was the distinct reminder of the P-38, but she was too big to be a Lightning. In fact, she probably more closely resembled the P-61 Black Widow. But the XP-58's ancestry did come from the P-38 family and this never-to-become-operational bird was one of the hottest performing aircraft of the World War II era.

The exploits of the famous P-38 Lightning are well known. The fighter served in a number of different capacities and did its jobs well. It would have to be rated as one of the top aircraft of the war. However, it's little known that Lockheed attempted to develop an improved version of the Lightning more suitable for accompanying bomber formations. The initial specs for the new bird called for one 20mm cannon and four 0.5 inch machine guns in the single-seat version, and a movable 0.5 inch gun in the end of each tailboom in the two-seat version. An impressive range of over 1,600 miles and a 450 mph speed capabilities were also specified.

The XP-58 tag was hung on the project in July 1940 and with it came increased firepower. New armament consisted of two 20mm cannons and four machine guns in the nose, along with two machine guns in a power-driven turret at the rear of the central fuselage nacelle. This increased the weight, upping the liftoff figure of 12 tons. P&W R-2800 engines were substituted for P&W R-2600s when the planned engines were cancelled.

As the development program continued, it seemed that

This P-38 Lightning clearly reveals the XP-58's Heritage.

the spiraling weight could not be halted. Other modifications and another engine change pushed the already high weight up to 31,000 pounds. About this time, it was decided to equip the XP-58 with two rear turrets, one upper and one lower, each containing two machine guns. By early 1941, Lockheed was worried about the project in view of all the changes to the original concept, but was assured that the escort fighter aircraft was still needed. The continuing demand for additional equipment, including a pressurized cabin, increased the weight to over 34,000 pounds by August 1941, and the performance once again suffered.

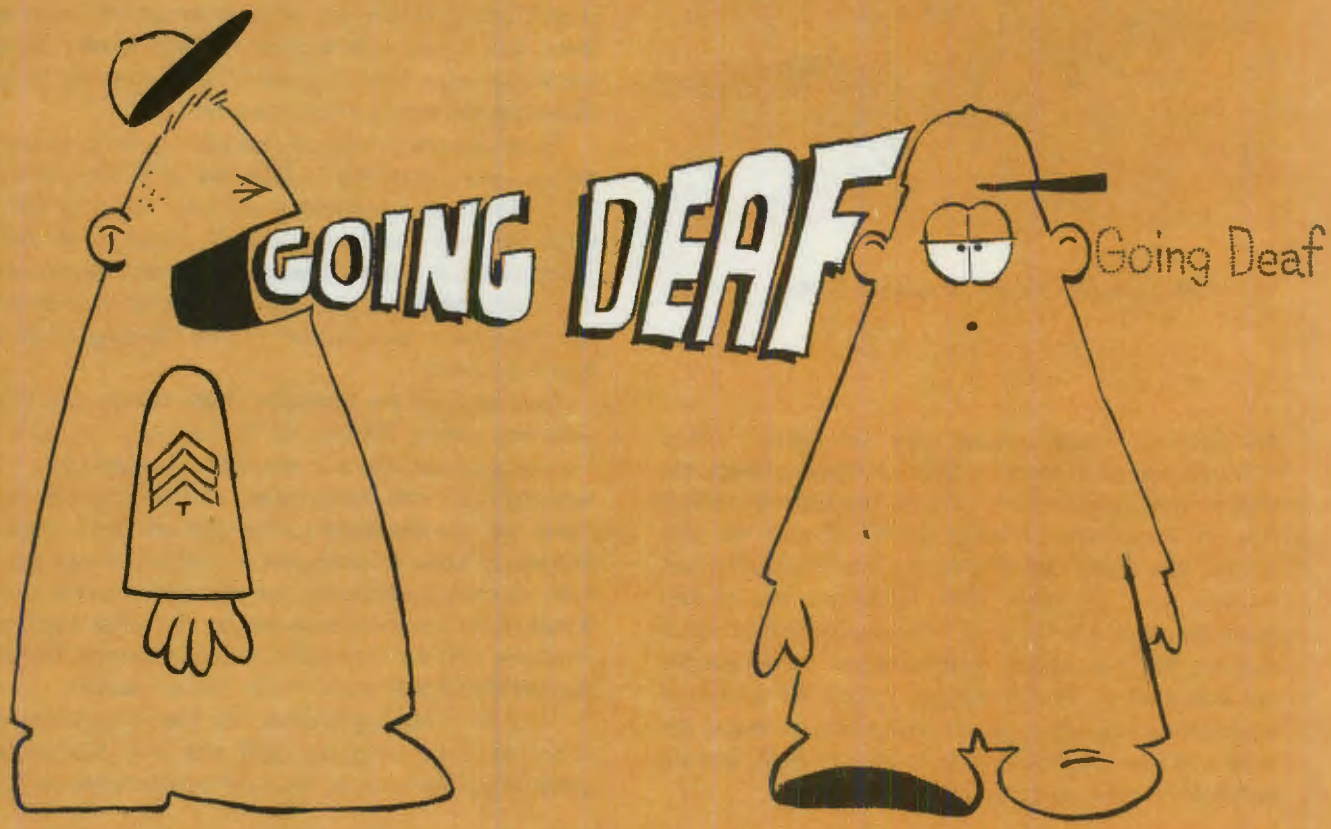
It seemed things were never to go smoothly for this program. In September 1942, the decision was made to convert the aircraft for the low altitude tank destroyer role. The new role dictated the removal of the turbo-superchargers, the replacement of the compensating gunsight with an adjustable sight, the elimination of the pressurization system, the replacement of the upper and lower rear turrets with a single four-gun turret, and the installation of a fixed forward-firing complement of one 75mm cannon and two machine guns.

These changes in mission kept altering the direction of the program, stretching it into late 1944. New aircraft which had been conceived much later than the XP-58 surpassed the Lockheed aircraft, leaving its status questionable. A critical manpower shortage caused work to be terminated on the second of the two prototypes, and manpower was diverted to the fledgling XP-80 jet fighter program.

Even with all the problems, flight testing finally got underway during 1944 at the Muroc Flight Test Center. During tests, considerable trouble was experienced with torching from the supercharger exhaust, causing burn marks on the starboard rudder and aft boom section. Everybody knew by then that the bird's fate was sealed. Even so, the lone stripped-down prototype was shipped to Wright Field for acceptance testing. But when additional problems with the hydraulic system appeared the AAF decided the aircraft would not go into production.

Thus the P-38's big brother, the Escort Lightning, fell victim to engineering problems and stiff competition, preventing it from joining the AAF's operational team.

**Ask anyone who wears a hearing aid. The guy who suffers from a gradual hearing loss is the last to know that he is . . .**




**by Joe Revell**

Without the hearing aid I now wear much of the time, I live in a muffled, low-frequency world. My effective unaided hearing is only about the lower 10 percent of the frequency range audible to the normal ear. It's not as bad as it sounds; in the speech frequencies, my effective hearing is up to about 33 percent. I hear frequencies about that level if the sound energy is great enough. But the sound must be so loud that it's discomforting to anyone with healthy hearing. It's even discomforting to me, for as the sound builds to my level of audibility, it gushes suddenly into my hearing sense.

I'm not a johnny-come-lately to hearing impairment. Mine is a high frequency, sensorinural loss, suffered while I was on active duty in the Marines. While there are different kinds and degrees of deafness, Family's editors have asked that I explain partial deafness from my special perspective — how you acquire it, and what you've got when you get it.

Sensorinural hearing loss is impairment of the hearing caused by damage to the cochlea (the snail-like organ of the inner ear), damage to the auditory nerve, or to both. The pathologic nature of the damage isn't understood by medicine; all that is known is that it occurs and is irreversible. It's the most common kind of hearing impairment, both in and outside the armed forces. It results from repeated bombardment of the hearing mechanism by excessively loud noises. Most persons living in industrial societies have some sensorieneural loss. About 16 million Americans suffer appreciable hearing loss, the largest percentage of which is sensorineural loss.

At the end of the sound frequencies, there are few singing birds, chirping insects, rippling brooks or rustling leaves. Pianos have 75 note keys and 13 identical clunks.

Automobile engines don't make alarming noises. My kids are forever telling me, "Turn signal's still on dad." My wife has given up shouting to me when we're on different levels in our home. The TV is always too loud for her or too soft for me. When we see a movie together, she gets a constant stream of "What did he say? How was that?" Our record player could give my maximum frequency response with the needle in upside down.

Compared with other possible disabilities, mine can't be considered major. I don't look disabled and I don't consider myself to be that way. It is frustrating for me and for my family.

Just before leaving active service a couple of years ago, I spent three weeks on temporary duty at the Army Audiology and Speech Center, Walter Reed Army Medical Center. The clinic is located at Forest Glen, near Silver Spring, Md., in a converted dairy barn, complete with milk house and silo. It's an unlikely setting, but there's no finer such clinic in the world. During the first week the clinic audiologists determined that a hearing aid might help me — not always the case with sensorineural loss — and I was fitted with one.

During the last two weeks, in a group of similarly afflicted and fitted members of the Army, Navy and Air Force, along with one other Marine, I was prepared psychologically, electronically and mechanically to live with the hearing aid. I also was introduced to "speech reading," a mustering of all the possible means to understanding speech, and a much broader term than the old "lip reading."

My hearing aid is mounted in a pair of eyeglasses. Since I also need the glasses, the hearing attachment isn't as inconvenient as it might be. The more I wear it, the more I appreciate it. It's an electronic marvel, a miniature private address system. But it's not really a replacement for natural hearing. It doesn't correct my hearing to "20-20." Wind, rain or sweat turns it into a screeching demon. When I wear it for more than five or six hours, that strange object sticking in my ear gets uncomfortable; it begins to feel like a strange object sticking in my ear.

When I first joined the Marine Corps, my boot camp instructors told me that the noise of firing weapons was harmful to the human ear. No one mentioned that the noises from trucks, tanks, ships and airplanes could be harmful, too. And even gunfire's harmful effect on hearing wasn't stressed as the imminent danger. I now know it to be. But I dutifully drew cotton at the small arms range and dutifully stuck it in my ears.

More than protecting my hearing, both my drill instructor and I were concerned that I wear the cotton to reduce the startling reports of weapons firing to my right and left. I'd get higher shooting scores. It's not known that while plain, dry cotton may raise shooter's scores, it's worthless for ear protection anyway.

During tactical exercise, when we fired blanks in our rifles, threw "grenade" firecrackers and used other exploding simulators, I didn't bother trying to protect my ears. After all, we weren't using the real stuff. Neither did I take precautions during tactical exercises and other combat training when we used live ammunition. They included such ear damaging activities as: directing tank fire onto a target while lying immediately to the rear of the tank, talking over the tank/infantry phone; or the infiltration course, which featured small exploding demolition charges around which we crawled while machine gun fire was directed several feet overhead. I was trying to earn the "badge of manliness": my friend took it; I could take it.

I wasn't fully aware of the noise hazards of steady sounds until long after I discovered my hearing loss. Helicopters, for example, which produce loud high frequency, ear damaging noise, were a regular part of the military life for about 17 years before I learned just how devastatingly they put ears at risks.

In two small wars, of which Korea was by far the most personally noise-hazardous, ear protection was without doubt the furthest thing from my mind . . . and rightfully so. A soldier in ground combat must hear. He can't protect himself against hearing loss from incidental combat noise. His life, the lives of his comrades, and their success as a fighting unit depends on his alertness to the slight noises that will reveal the close presence of the enemy. Some situations do permit the use of hearing protective devices in combat, such as for artillerymen and mortarmen firing from fixed positions or anyone riding in a noise producing vehicle, ship or aircraft. Outside these special circumstances, soldiers put their lives on the line in combat and that includes the life of their hearing.

In just over 20 years service, I spent about eight percent of my time in combat and 92 percent getting ready. Despite some painfully loud near misses by Chinese mortars and grenades, I suspect that I sustained my hearing damage in roughly those same percentages, the most of it preparing myself for the battle.

Like the guy in the TV ad with bad breath, the hearing loss sufferer is often the last to know. He makes small unknowing compensations and goes on about his life. For example, Dr. William Slasman, an otolaryngologist practicing in Hagerstown, Md., told me, "There's been more than one person on the psychiatrist's couch because

# GOING DEAF

of psychosomatic illness induced by unrecognized, subtle hearing loss."

After I'd lost a good portion of what I hope is my not-to-be-worsened hearing, I passed one physical examination for discharge, two for reenlistment and one for commissioning. Hearing didn't get a big play.

I didn't know about my hearing problem until my ninth year of service, when the CO of the rifle company in which I served as executive officer recognized symptoms of hearing loss and suggested that I get a meaningful hearing test. The audiogram revealed a moderate loss, scared the devil out of me, and that timely fright probably has kept me from profound deafness. I immediately threw off hearing "manliness" and began using properly fitted rubber ear plugs whenever possible.

My company commander's constructive suggestion that I get a competent hearing examination isn't a typical reaction by persons confronted with hearing loss symptoms in someone else. Too often it's an insensitive and irritable, "What'sa matter? You deaf or something?"

I met a lot of "You deaf or something?" remarks before I learned that mine wasn't an or-something problem. My reaction was defensive: "Speak up! Quit mumbling!" Sometimes I said it out loud, but more often it was a grumbling thought. I've since learned that most hearing loss victims react similarly. In many cases, the person losing his hearing undergoes perceptible personality changes, avoids people and withdraws into a private world where he isn't subjected to the constant embarrassment of not understanding.

The other big hearing hangup is the false conception of tigerhood that keeps people especially professional military people — from protecting their hearing from damaging noise, or from seeking treatment and help for damage. I encountered that contrariness throughout my service, in myself until I had some sense scared into me, and in others before and after I became a believer in and advocate for ear defense.

As a young Marine, I found the I-can-take-it attitude common among my contemporaries. Many shooters scorned ear protection, and were admired for their ability to hit bull's-eyes without using cotton crutches. Machine gunners shared an elitist view of themselves, compared with ordinary rifleman, that made ear protection almost a betrayal of the clan. Bazookamen and mortarmen felt the same.

Competitive shooters — I was one for several years after I discovered my hearing loss — wore ear protectors almost without exception on the firing line. But they often didn't wear them behind the line, in a hazardous noise zone, while other relays fired.

Among my officer contemporaries, I found machismo attitudes less common than among my earlier enlisted peers, but still present. There is strong pressure on officers, especially young, troopleading officers, to show the way to manliness among their troops. It's sometimes manifested by shunning ear plugs or other defense mechanisms. The consequence showed in a 1971 study by the Army: 42 percent of the officers in the Command and General Staff College, Fort Leavenworth, KS., were suffering substantial hearing loss. Officers in that course are in the middle seniority group and, although predominantly Army, are from all services.

Probably one big reason for this lack of self-protection is that men rarely see the consequences of it until it's too late. I never saw dramatic, sudden deafness in others, caused by some failure to protect their ears at some specific time and place. It just doesn't happen that way. The fiddler gets paid later. An Air Force colonel can't hear at age 45; he didn't wear any ear protection while a machine gun instructor in his early 20s. An Army tank crewman in the late fifties. The examples go on, by the literal thousands, but the people who haven't yet been damaged don't see these disabled former non- (now true) believers in hearing protection.

Navy Lt Cmdr John Castelli, an otolaryngologist, recently told me, "I have no sympathy for them . . . they were warned about protecting their ears!" In many cases of hearing loss, he's right. It's often a self-inflicted wound.

Virile self-image and the virility template against which military people measure themselves and one another not only keep them from protecting their hearing, these aberrations keep victims from seeking treatment for hearing loss once it has been suffered. A hearing aid can be an incongruous flaw in the whole-man image. As a young sergeant, I worked with an old master sergeant who wore a hearing aid. I considered him a cripple . . . even wondered why he was permitted to remain on active duty. And I wasn't alone; nearly everyone in our battalion wondered the same thing.

When my turn came, I fought against asking for help. I did only after long discussion with a respected friend who lives an active life without his larynx. He has a gaping breathing hole in his throat, and speaks with a controlled belch. He speaks well enough, incidentally, to teach adult education history classes and bicycle safety in his community's public schools. He convinced me that my objection to wearing a hearing aid was absurd.

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**TACTICAL AIR COMMAND**

# Maintenance Man Safety Award

Staff Sergeant Elvin O. Jackson, 35 Organizational Maintenance Squadron, 35 Tactical Fighter Wing, George Air Force Base, California, has been selected to receive the Tactical Air Command Maintenance Man Safety Award for July 1974. Sergeant Jackson will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.

SSGT JACKSON

**TACTICAL AIR COMMAND**

# Crew Chief Safety Award

Staff Sergeant William A. Elmore, B Flight, 4485 Test Squadron, USAF Tactical Air Warfare Center, Eglin Air Force Base, Florida, has been selected to receive the Tactical Air Command Crew Chief Safety Award for July 1974. Sergeant Elmore will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.

SSGT ELMORE

**TACTICAL AIR COMMAND**

# Ground Safety Man of the Month

Technical Sergeant Daniel A. Squillante, 474 Organizational Maintenance Squadron, 474 Tactical Fighter Wing, Nellis Air Force Base, Nevada, has been selected to receive the Ground Safety Man of the Month Award for July 1974. Sergeant Squillante will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.

TSGT SQUILLANTE

# SPO CORNER

## F-4 SYSTEMS SAFETY GROUP

**by Lt Col Burt Miller**

The following areas addressed by a recent USAF F-4 Systems Safety Group Meeting, with proposed corrective actions and status, may be of interest to you folks who have been living with these problems (too long in many cases).

Uncommanded Flight Control Inputs: As a result of Rivet Gyro III Study Group efforts, several correctable weaknesses within both the electrical and hydraulic portions of the flight control system were identified. Improvements to the autopilot control amplifier, rate gyros, and stab actuator are in the mill. In the interim, a special checklist will be used during maintenance debriefing which will aid the maintenance people in identifying and correcting the problem. We need the crew's support in this area. Write it up, then explain it in detail during debriefing.

Antiskid: Within about one year (or so), you can expect to be flying aircraft with the MK III antiskid system. This will give you touchdown protection (supposedly you can land with your brakes locked and not blow the tires, but don't try it just for kicks), crossover locked wheel protection, improved stopping performance and reliability.

Nosewheel Steering: Initial estimates on a two-stage (limited to $15^{\circ}$ deflection during takeoff and landing), hydro-mechanical (no uncommanded electrical inputs), nosewheel steering mod were too darned expensive. The depot is looking at the possibilities of an in-house developed mod to reduce costs.

Fuel Cell Fires: The mod which strengthened the top of the #4 cell is complete in TAC (back to AB and neg Gs). However, similar problems exist with cracks in the top of #3 and the bottoms of #2 through #6. By late this year, all those fuel cavities will be reopened and a liner will be placed under the floors of #2 through #6, and the top of #3 will be beefed up as #4 was. In the meantime, even if TCTO 1035 is complete, there is a possibility of cracked webs, ruptured bladders, and fuel leaks. The present Dash One procedures have resulted in a couple of saves, so don't forget 'em now. Also, continue to check those fuel drains on preflight. We're not home free yet!

## F-100 — WE SHALL OVERCOME

A recent accident, resulting in the loss of one Hun and its pilot, points out an old problem in F-models — unsecured equipment in the back seat. It's suspected that a helmet in the rear cockpit jammed the throttle in the outboard position, and a partial-power landing was tragically unsuccessful.

Although it cannot be definitely determined that this caused the accident, it has happened in the past and will continue to happen in the future — unless we stop carrying unsecured gear in the back seat of the "F."

If you suspect the rear throttle is jammed in the outboard (idle) position, remember that you can overcome the jammed go-lever with only moderate force. A local test revealed that of 18 aircraft tested, the force required to overcome the jammed rear throttle ranged from 16 to 35 pounds — easily within the pilot's normal capabilities. There's a modification in the mill to ramp the rear throttle inboard, but until it's completed, keep in mind that you can overcome a jammed aft throttle — it could save your life.

## THE INVISIBLE AARDVARK

**by Lt Col Des Jardins**

The F-111 has proven itself over the years as one outstanding low level, all weather, night fighter bomber. I know Aardvark drivers take a lot of garbage from the rest

of the fighter world, but then, those yeahoos ain't never flown the bird. As you all can well imagine, we headquarters weenies get our share of guff too, when it comes to the F-111.

Low level TFR capability of the F-111 and its night role go a long way towards making the bird nearly invisible to the enemy — both visually and to the ever watchful electronic eyes of their radar defenses. This is, of course, Sierra Hotel, and gives the big bird a great advantage over ground defenses. However, since a great deal of our training here and overseas is flown in flights of two or more, it seems logical that invisibility is great for combat but a little tricky for the wingman. It would be foolhardy to say that all systems and procedures used today are ideal. We are always looking for ways to improve our weapon systems and operational procedures. The point I would like to dwell on here is the external lighting of the F-111. It certainly could be improved.

## Tail Lights

The problem involving the tail light on the F-111 has been with us for years. Tail section vibrations can cause tail light failure. This is not limited to TAC's bird but also plagues the FB model. Those of you flying the "D" and the "F" are well aware that when the tail light shorts out, you are usually left high and dry without any external lights. This is one thing during the day but a completely new ball game at night when landing lights help on final. I would like to state for all you nonbelievers that this problem has not been ignored by higher headquarters. The problem has been solved. A new tail position light assembly has been designed and, with a little luck, the kits should be in the field during FY 75.

## Navigation Lights

The variable wing of the F-111 dictated a change in the standard wing tip lighting we had lived with for many years. We have two sets of navigation lights, one set on the wing tips and one set on the glove area inboard of the variable section of the wing. The wing tip lights are illuminated with a wingsweep of 16 to 30 degrees. Aft of 30 degrees, the wing tip lights go out and the glove lights illuminate. Several years ago, an astute pilot type discovered that the Aardvark was not the easiest bird to fly on the wing at night. His approach was: "If one set of navigation lights is good, two should be better, so why not keep both sets on all the time at night and forget the 30 degree jazz?" This "fix" sounded great but several questions arose, some of which were: Is the wiring strong enough to handle the extra current? — What does FAA require? — How much does it cost to modify the system? As of now, most of these problems have been ironed out and the mod is expected in the field in the not too distant future.

## External Luminescent Panels

This subject has been addressed several times in the last few years. Those of you who have flown the F-4 or other aircraft that have luminescent panels understand the advantages of the system.

During the past two years, there have been two midair collisions with F-111s that might have been prevented had the aircraft been equipped with luminescent paneling. This type lighting, should it be incorporated, would definitely make the mission less hazardous. Luminescent paneling is an excellent aid for maintaining close and route formation. It gives the pilot an outline of the aircraft and several references for formation flying. These lights are extremely helpful in determining closure rate and assisting depth perception as far back as 3 to 4 thousand feet.

We would be highly interested in the opinions of you jocks in the operational units. We solicit your ideas, both pro and con, on how to improve the capability of the F-111 aircraft.

# Det 99 comes to CHUK DUNG (a moral tale)


**by Capt Mike Byers**
**HQ TAC/DOXBL**

Captain Mark Huntley, his immaculately pressed jungle fatigues wilting in the 115 degree heat, sadly surveyed the warped and rusty expanse of PSP that served as the main (and only) runway of Chuk Dung FOL. It was a quiet day at Chuk Dung; an unremarkable event, as Chuk Dung had been more or less unoccupied since 1939, when the last of the Imperial Japanese Air Force "Zeros" had roared down the runway and disappeared over the karst in search of a more suitable base. Another bummer, thought the keen-eyed young captain, as he peered through the shimmering heat waves at a rapidly approaching cloud of dust . . . If only his gold-plated dzus fastener driver hadn't been found in the ninth-stage compressor blades of Colonel Whiffel's F-4 . . . Well, things could be worse, he mused. At least he was a base commander, even though the base consisted of himself and (he shuddered involuntarily) Sgt Grimp, an evil and wizened 50-year old buck sergeant. At any rate, it was only six months until Chuk Dung was closed for good. Then it was home for Capt Huntley, and who knows? Maybe a fighter assignment . . . He could see himself, G-suit clad, climbing

into his T-39 (a true safety weenie at heart, he figured that guns and bombs were dangerous, to be avoided at all costs).

Mark's pleasant train of thought was suddenly derailed, as he realized that the approaching dust cloud contained Chuk Dung's only vehicle, a battered and radiator capless jeep, and that the jeep was undoubtedly being driven down the middle of the runway (in gross violation of Operating Procedure 45-59) by Sgt Grimp. Vainly, Mark looked for a place to hide, but it was too late. Grimp's beady eyes had locked on, and the jeep unerringly swerved toward him, accompanied by its choking contrail. As the grimy pall settled over Mark's recently spit-shined combat boots, Grimp clambered down from the jeep, cackling wickedly.

"He he, Cap'n. There's a aero-plane an' she's a'gonna land here. He he!"

"Aerospace vehicle," corrected Mark, automatically. "In which case I had best man the tower."

"Aye, Cap'n an' here she be," said Grimp, handing Mark the microphone of Chuk Dung's 'tower,' a dented FM set that was tied to the only remaining fender of the jeep.

"It's 'yes sir' not 'aye'," Mark muttered wearily. Sgt Grimp's previous nautical service (as a pirate, Mark suspected) had given him a number of incurable traits, of which "Aye Cap'n," Mark had to admit to himself, was one of the less obnoxious . . .

"Aye, Cap'n," said Grimp.

As Mark's grip slowly tightened on the microphone, he realized that the ancient FM set was actually working, and that amazingly enough, someone really was calling.

"Chuk Dung tower, this is Cobra lead, over."

"Uh, Rog . . . Cobra lead . . . this is Chuk Dung Tower. Say intentions."

"Cobra lead, Chuk Dung. Ah'm gonna land, Sonny, if you just git that jeep outa the way. OK Cobras, combat power . . . now!"

Mark glanced up, and was petrified to see a formation of six black-painted, smoke-blowing, prop-driven monstrosities, as in perfect echelon they roared over his (now flat) tent at fifteen feet. Behind them at a slightly higher altitude was a twin-engined apparition, also painted dead black, bounding through the air like a fear-maddened kangaroo, and leaving a visible contrail of oil. Belatedly, Mark realized that the jeep had departed and he was holding only a microphone and three or four feet of ragged cord. The twin had its gear down and, to Mark's horror, was going to land downwind! As he neatly nipped into the adjacent klong, he caught a glimpse of the six-ship as the outside bird pitched over the rest of the echelon and onto downwind. His view of the rest of the

formation was abruptly terminated by the shallow, but opague, water at the bottom of the klong.

By the time Mark had extracted himself from the ooze, the rumble of abused engines and rattle of rippling PSP had stopped. The only sound in the otherwise eerie silence was the tick and ping of cooling steel. Cautiously, he looked over the edge of the klong . . .

"Uh . . . uh . . . er . . . I'm . . .

"You run this place, kid? Haw!" Looking down at Mark was an enormous figure, clad in tennis shoes and the salt-encrusted remains of a camouflaged flight suit. The upper half of the monster's face was hidden by a huge pair of silvered sunglasses and a sloppy, grease-stained cowboy hat. "Come on outa your swimmin' hole an' meet the troops, Ah'm Winfred Woodley, but you kin call me 'Speedbrake' an' this here (Speedbrake indicated with a wave of his meaty paw, which Mark noticed was still wrapped around the staghorn butt of a chrome-plated .44 magnum) is Det Ninety- Nine o' the ninehundredth Nasty Activities Squadron. You gonna like 'em,' he added, as he turned from the dripping Captain and clomped noisily across the ramp, shouting cheerful obscenities.

As Mark heaved himself over the edge of the klong and shakily got to his feet, he was greeted by the unbelievable

# CHUK DUNG

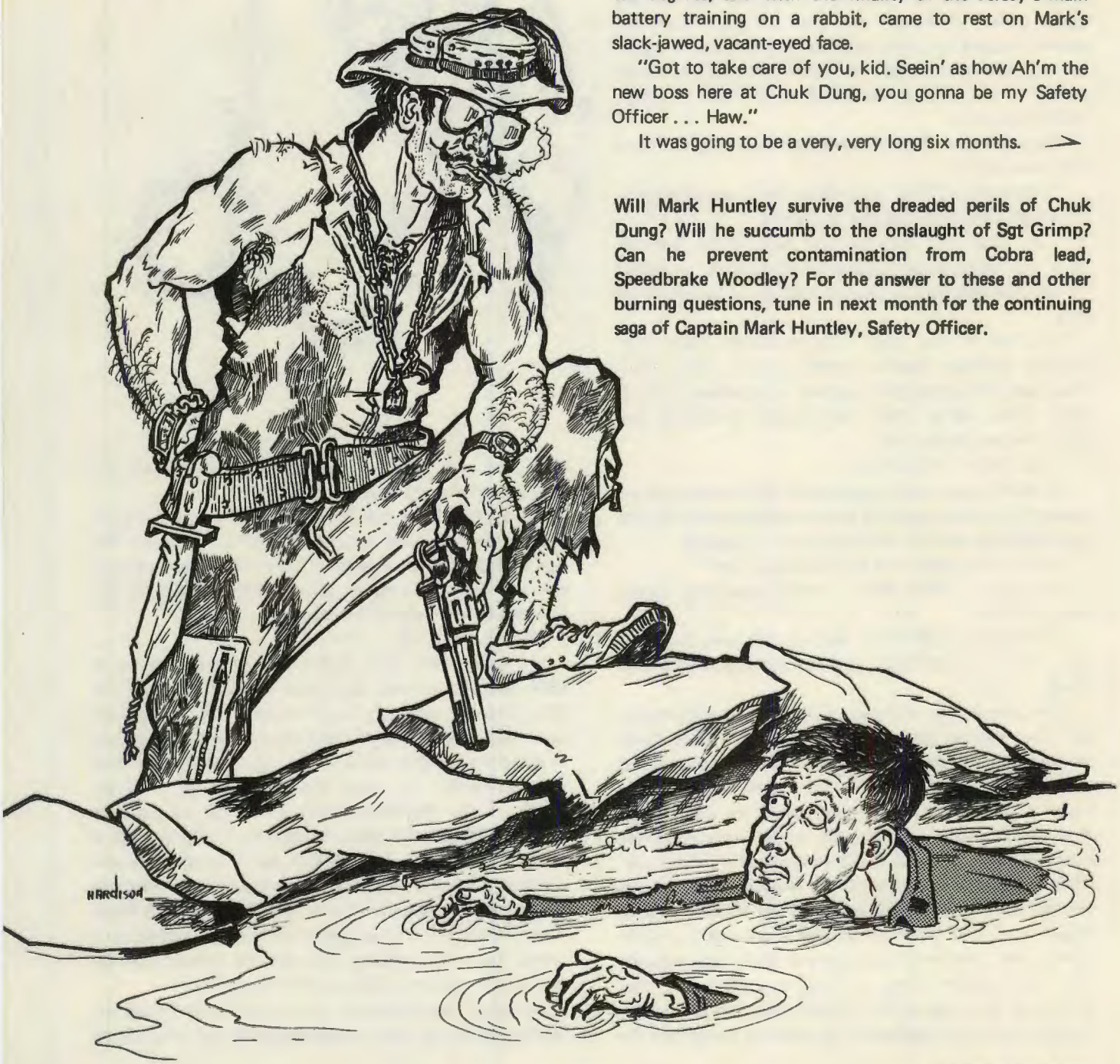
sight of Sgt Grimp, kicking napalm fuzes from the cargo door of Det Ninety-nine's decrepit support aircraft. On the ground below, in a jumbled, rapidly growing heap, was a collection of five-hundred pound (Comp B) bombs, fuel bladders, ammo belts, duffle bags and whiskey cases. Pawing through the mess and occasionally dropping hand grenades, knives and beer cans, was the rest of Det Ninety-nine. It was obvious to Mark that Speedbrake was indeed the leader, as he was in possession of the only flight suit or pair of shoes in the entire group. The rest of them were . . .

"Hey kid! Watch it! You're. . .BLAM! . . . standin' in the . . . BLAM! BLAM! . . . boresight pit."

Mark jumped for cover, narrowly missing a speeding bomb jammer that had whipped out from under the wing of a black oil-dripper, and stumbled into the vise like grip of the hulking Speedbrake. His silver sunglasses depressed ten degrees, and with the finality of the Jersey's main battery training on a rabbit, came to rest on Mark's slack-jawed, vacant-eyed face.

"Got to take care of you, kid. Seein' as how Ah'm the new boss here at Chuk Dung, you gonna be my Safety Officer . . . Haw."

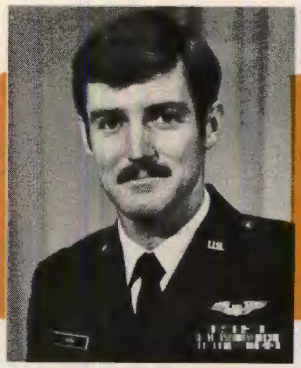
It was going to be a very, very long six months. →



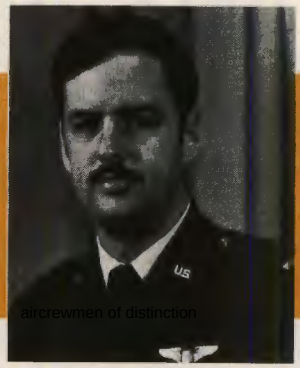

**Will Mark Huntley survive the dreaded perils of Chuk Dung? Will he succumb to the onslaught of Sgt Grimp? Can he prevent contamination from Cobra lead, Speedbrake Woodley? For the answer to these and other burning questions, tune in next month for the continuing saga of Captain Mark Huntley, Safety Officer.**

TACTICAL AIR COMMAND

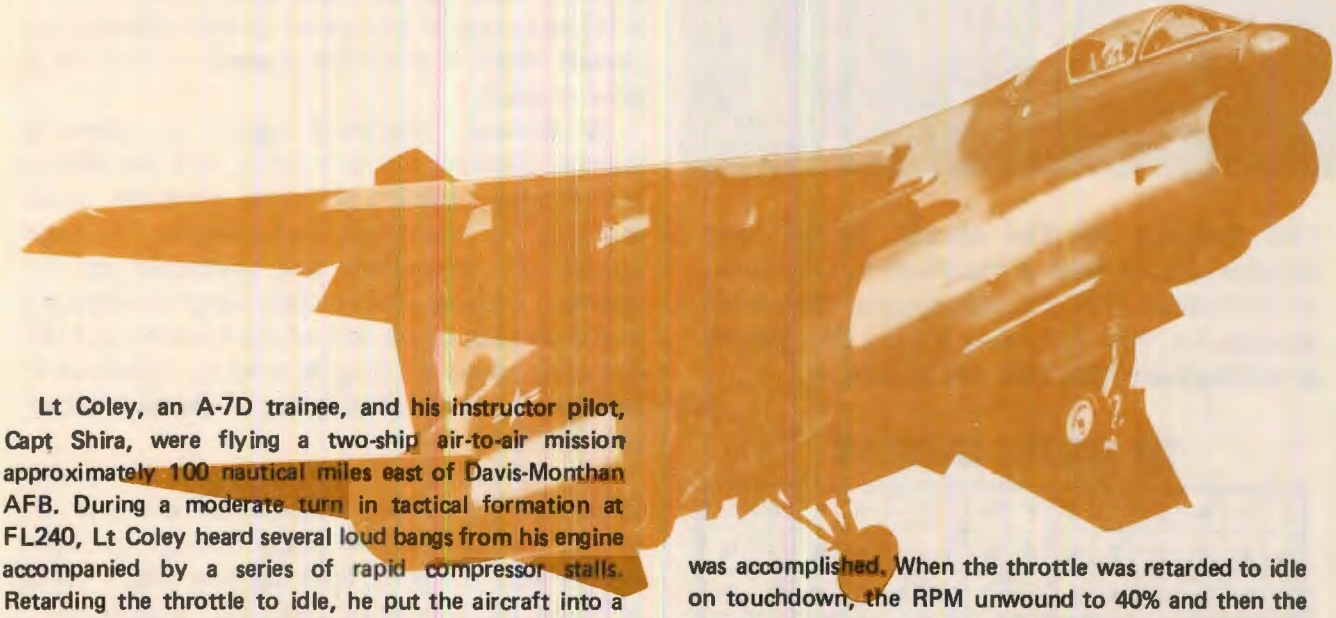
# AIRCREWMEN of DISTINCTION



Capt Michael J. Shira
354 Tac Ftr Sq
Davis-Monthan AFB AZ



2Lt David L. Coley
354 Tac Ftr Sq
Davis-Monthan AFB AZ



Lt Coley, an A-7D trainee, and his instructor pilot, Capt Shira, were flying a two-ship air-to-air mission approximately 100 nautical miles east of Davis-Monthan AFB. During a moderate turn in tactical formation at FL240, Lt Coley heard several loud bangs from his engine accompanied by a series of rapid compressor stalls. Retarding the throttle to idle, he put the aircraft into a dive. As his airspeed increased, the stalls cleared. When Lt Coley re-advanced the throttle, the engine again began to compressor stall. Again he retarded the throttle and the stalls cleared. Meanwhile, Capt Shira established the flight on a maximum range descent back to Davis-Monthan AFB.

Ten miles out on final, Lt Coley put his gear and flaps down and advanced power, but the RPM would not go above 80% even though fuel flow increased and the engine nearly overtemped. Lt Coley immediately brought the gear back up and again retarded the throttle.

Knowing the aircraft had insufficient thrust available for a normal approach and landing, Capt Shira analyzed the altitude, airspeed, and RPM to determine when the gear could be extended. He instucted Lt Coley to lower the gear at three miles on final, and a successful landing was accomplished. When the throttle was retarded to idle on touchdown, the RPM unwound to 40% and then the engine seized. A ten foot streak of fire was seen coming from the tail pipe about 2,000 feet after touchdown. Lt Coley stopped the aircraft on the runway and egressed, and the fire was extinguished with no damage to the aircraft.

Visual inspection of the tail pipe revealed severe damage to the latter stages of the turbine, and numerous metal fragments were present in the tail pipe. Extensive damage throughout the turbine section was found on a subsequent teardown of the engine.

Capt Shira and Lt Coley displayed exceptional skill, judgment, and teamwork in handling a serious inflight emergency. Their professional skill and timely actions prevented the loss of a valuable aircraft and certainly qualify them as Tactical Air Command Aircrewmen of Distinction.

# Letters to the Editor

6th Annual Tactical Airlift Reunion will be held in Atlanta, Georgia, 1-3 November 1974 at the Regency Hyatt Hotel. All those who have had anything to do with Tactical Airlift or the support thereof, past and present, are encouraged to participate. For further information contact:

Lt Col Rocky Bouldin, AV 486-4846
P.O. Box 9707
Pope AFB, NC 28308 or

Col Jim Ford, AV 432-7047
334 Alcove Drive
Hampton, VA 23669

FAC Reunion 74. The Second Annual FAC Reunion will be held at the Hurlburt O'Club on 25-27 October 1974. For information, Write FAC Reunion 74, Box 517, Mary Esther, FL 32569, or call Hurlburt Field EXT 6522/6864.

## TAC ATTACK's CROSSWORD


Air Commando Association, 11-13 October 1974, Ft. Walton Beach, FL All former and present members of air commando/special operations units and their support organizations are invited to attend. For further information write F. G. Owens, P.O. Box 7, Mary Esther, FL 32569

Dear Editor

Of particular relevance to personnel associated with aircraft maintenance is the discussion of safety in and around aircraft working areas. Safety is one aspect of aircraft maintenance that is incapable of being over-emphasized by maintenance administration, and should be applied by all concerned to every working day on the flight line. It is the personal responsibility of all, crew chief and specialist alike, to realize that it is just as easy to be injured or even killed by an aircraft while it is on the ground, as it is for a pilot at mach 2.

A seldomly discussed aspect of safety is rushing. Rushing is a bad habit, and has been a contributing factor in some accident cases resulting in bloodshed and stitches. A large number of crew chiefs and specialists can be observed rushing around their assigned airplanes in the chocks, at the end of the runway, and the dearming areas. Rushing is needless, moreover it could cost an individual a stay in the hospital, or even his life!

Try observing a crew chief launch his or her airplane. Pay particular attention to how quick he or she performs while going through preflight checks with the pilot, noticing how long it takes to finish the checks and wait for "chocks out". Then consult the work card as to how long the 2-1 allows for completion of these tasks. Chances are you will note that the crew chief compiled perhaps eight minutes of card items into three or four minutes, thus increasing the possibility of having to remove pieces of pylon from his or her forehead.

The point? Take your time! The 2-1 allows for your safety by allotting ample time for completion of checks correctly, and safely.

A1C Michael T. Lagueux
355 OMS
Davis-Monthan AFB, AZ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# TAC TALLY

| | TAC | | | ANG | | | AFRes | | |
|---|---|---|---|---|---|---|---|---|---|
| | JULY | Thru Jul | | JULY | Thru Jul | | JULY | Thru Jul | |
| | | 1974 | 1973 | | 1974 | 1973 | | 1974 | 1973 |
| TOTAL ACFT. ACCIDENTS ► | 2 | 15 | 27 | 3 | 13 | 13 | 1 | 5 | 1 |
| MAJOR ACFT. ACCIDENTS ► | 0 | 11 | 20 | 3 | 13 | 8 | 1 | 4 | 1 |
| AIRCREW FATALITIES ► | 0 | 6 | 13 | 0 | 7 | 1 | 1 | 2 | 2 |
| TOTAL EJECTIONS ► | 0 | 12 | 19 | 3 | 7 | 7 | 0 | 1 | 1 |
| SUCCESSFUL EJECTIONS ► | 0 | 11 | 13 | 3 | 4 | 6 | 0 | 1 | 0 |

## TAC'S TOP "5"

| FIGHTER/RECCE WINGS | | |
|---|---|---|
| ACCIDENT-FREE MONTHS | | |
| 76 | 33 TFW | TAC |
| 43 | 4 TFW | TAC |
| 28 | 127 TFW | ANG |
| 25 | 31 TFW | TAC |
| 23 | 121 TFW | ANG |

| AIRLIFT/REFUELING WINGS | | |
|---|---|---|
| ACCIDENT-FREE MONTHS | | |
| 109 | 440 TAW | AFRES |
| 108 | 136 ARW | ANG |
| 72 | 316 TAW | TAC |
| 61 | 126 ARW | ANG |
| 60 | 463 TAW | TAC |

| SPECIAL UNITS | | |
|---|---|---|
| ACCIDENT-FREE MONTHS | | |
| 139 | 130 SOG | ANG |
| 119 | 2 ADGP | TAC |
| 100 | 143 SOG | ANG |
| 88 | DET 1, D.C. | ANG |
| 64 | 135 TASG | ANG |

### MAJOR ACCIDENT COMPARISON RATE 73–74

| | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 4.5 | 4.0 | 3.6 | 3.0 | | | | | |
| 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 | 6.9 | 7.0 | 7.6 | | | | | |
| 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 | 8.8 | 6.7 | 5.3 | 5.8 | | | | | |


FLEAGLE
CAN'T WAIT TO GET BACK TO THAT OL' VEGAS STRIP.
FLEAGLE. NELLIS TOWER, YOU ARE CLEARED FOR RUNWAY ZERO THREE RIGHT.
OOPS !!
HARDISON
GOTTA FIND THAT TRAVEL POD !
STOMP!
WAS ANYONE HURT FROM THAT DROPPED OBJECT ?
ONLY FLEAGLE.
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