

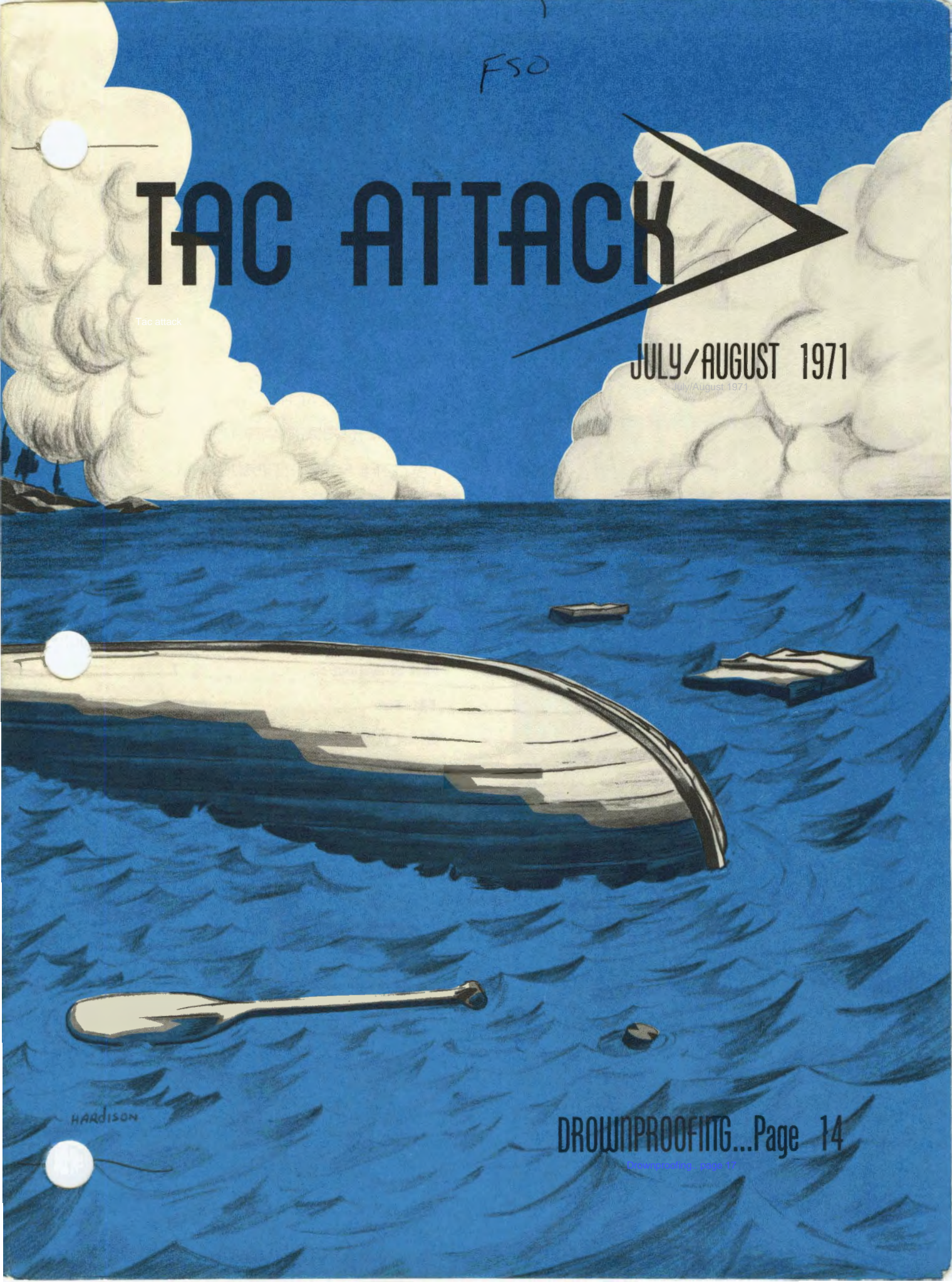
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TAC ATTACK

Tac attack

JULY/AUGUST 1971

July/August 1971



HARDISON

DROWNPROOFING...Page 14

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for efficient tactical air power

TAC ATTACK

JULY/AUGUST 1971

VOL. 11, NO. 6

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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Angle of ATTACK >

THE "I's" HAVE IT

I'm going to address this message to the group people known as SUPERVISORS. Keep reading, for most likely I'm talking to you. There are only two categories of supervisors — those that are and those that will be. So, in reality this blurb applies to all of you.

How do you get things done in safety? Do you take the words of wisdom from the head shed, reduce it to a catchy phrase such as "Hey, you guys be careful," and let it go at that? Or do you pass it to the next man in line and say, "Hey, Joe, do something about that." I prefer the second method, but let me explain.

The second method will work but it depends upon you and how carefully you've selected "Joe." The key to a successful safety program lies in INDIVIDUAL INITIATIVE, let's call it the "I's." Obviously you are not going to find everyone equipped with the same amount of the "I's." But you can find someone who shows the

extra spark; the man you give things to when you want something done. Give that man a function in safety; let him take the ball and run with it, then back him up. His enthusiasm will be infectious and that's what you want.

It doesn't matter where your job fits in the long supervisory chain. The principle remains the same. You have got to get the word out and get it out so that it's believed, accepted, and acted upon. Find the man with the "I's," give him the job, and stand behind him.

When you're in the business of saving lives you cannot afford to skimp. You must use the best. The "I's" have it. Watch 'em go.

GERALD J. BEISNER, Colonel, USAF
Chief of Safety

A BOMB



From material supplied by

Maj William B. Sandmann
463rd TAW (PACAF), Wing Information Officer
and SMSgt Daryl Shepherd, 7th AF



In a dimensional world running very slightly tangential to ours two observers, father and son peer down . . .

"Daddy, what is that big thing?"

"Why, Son that's a C-130 Hercules, the very backbone of U.S. Tactical Airlift."

"Backside of . . ."

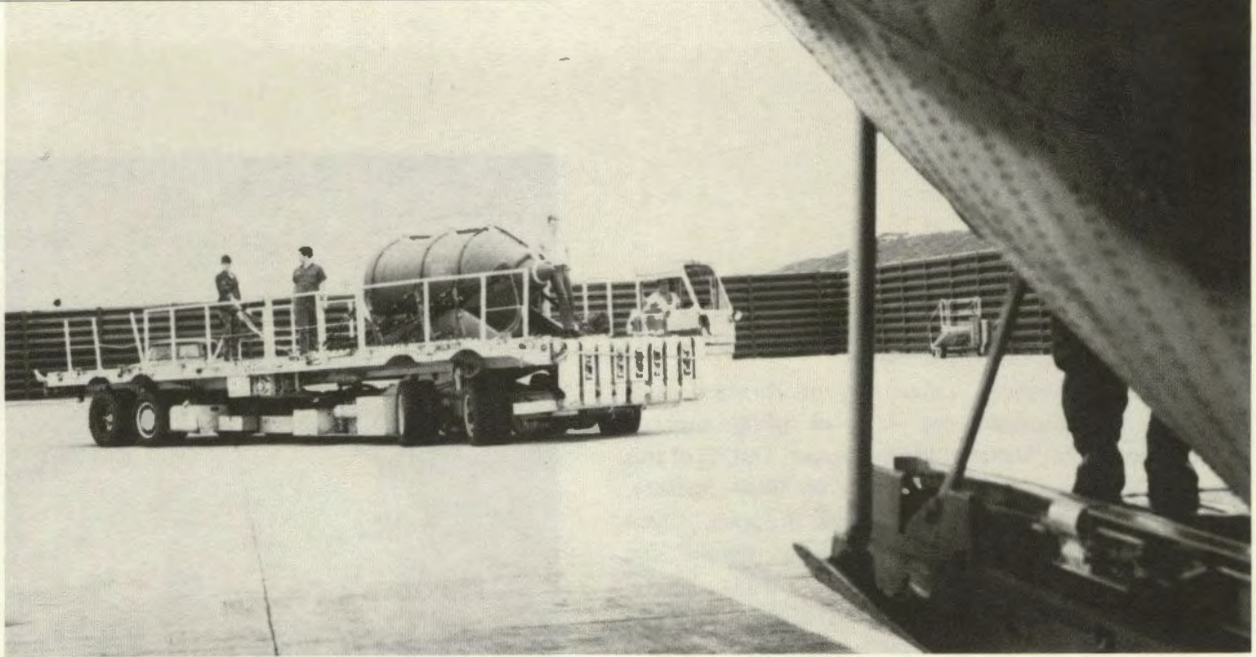
"Bone, Son, backBONE of airlift!"

"Oh, I see," said the boy with a quizzical expression. "Just what do they do?"

"Do," said the father astounded. "Boy, don't you know nothin'? That airplane does just about everything. It'll haul just about anything just about anywhere. Y'know, 'You call, We'll haul.' Haven't you ever heard of that?"

"Uh . . .," said the boy whose attention had

by any other name



shifted to an F-4 taxiing out for takeoff. "Daddy," said the boy with wide-eyed excitement, "What's that neat . . ."

"Just a fighter, Son, now pay attention when I'm talking to you."

"Yes Sir," said the boy focusing again upon the C-130 but sneaking frequent looks at the F-4 which was now screaming into the morning sun.

"... As I was saying, the C-130 . . ."

The boy interrupted, "What's that they're loading on the airplane?"

"Looks like a bomb . . . a big bomb . . . must be hauling it someplace for those (choke) SAC people."

"That doesn't sound like much fun, just load up, fly someplace and land, then unload . . . can we talk about that whatcha callit . . . fighter . . . now?"

"Good grief, Son, can't I hold your attention for more than a minute?"

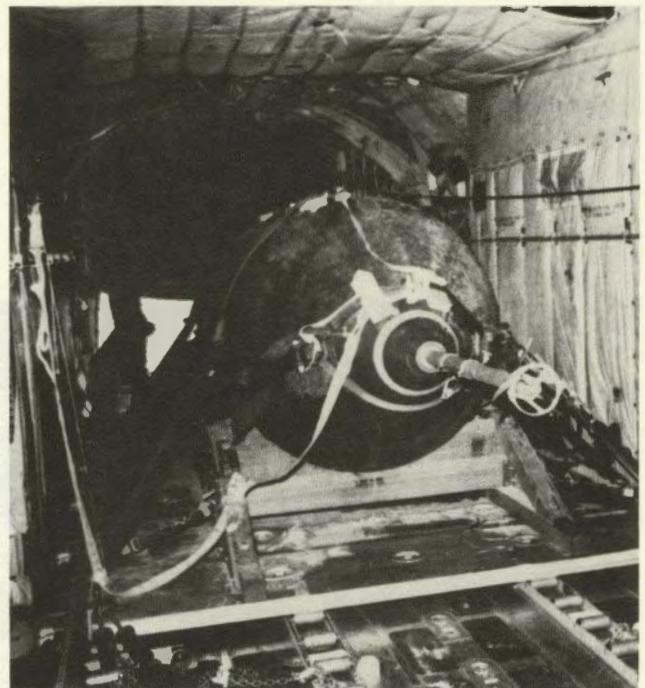
We join the pair again after the aircraft is enroute to somewhere:

"Look, Dad, they're opening up the whole backend of the airplane."

"Yes, I see, must have some kind of emergency . . ."

"DAD, DAD," said the boy his voice rising in pitch and volume, "That big bomb . . . it's coming out."

"Hmmm . . . those boys in that airplane better be careful, they're liable to hurt somebody."



The largest conventional bomb in the U.S. Air Force inventory has picked up many nicknames, some known to the public; others less printable, given by sweating groundcrews trying to wrestle it into position inside an aircraft.

During the early days of the Vietnamese War the Army had often lost one of the chief advantages of its air mobility; tactical surprise. Clearance of jungle growth for proposed helicopter landing zones at that time required

A BOMB

insertion of both a working party and a protective force. The clearing operation normally required several days and seldom went unnoticed by the enemy.

The USAF Weapons Laboratory at Kirkland AFB consequently developed the idea of using airborne weapons to create "instant" landing zones. Testing of this new concept began during the fall of 1968. Initially, obsolete 10,000 pound bombs were dropped. These modified weapons were designed to flatten the surrounding jungle sufficiently to permit several helicopters to land at one time. The tests were so successful that the current bomb, the 15,000 pound BLU-82, was developed.

The bombs, best known as "Commando Vault," have a unique application. They are not used directly for destroying enemy positions. Rather, they have been modified with a long probe which causes the bomb to detonate a short distance above the ground. The blast creates no crater, instead it simply blows a hole in the jungle; a hole which can be immediately put to use for landing U.S. Army helicopter, which deliver ground forces who will attack the enemy nearby. ➤



TACTICAL AIR COMMAND

PILOTS of DISTINCTION

Major Carlos W. Higgins and Captain Ronald F. Kozma of the 429th Tactical Fighter Squadron, Nellis Air Force Base, Nevada, have been selected to receive the Tactical Air Command Pilots of Distinction Award.

During a practice bombing mission in an F-111, Major Higgins and Captain Kozma experienced a sudden explosion followed by a loud sustained roar, momentary darkness, and a cockpit full of shattered glass, dust, and debris. Both sides of the canopy glass had separated from the aircraft. Both crewmembers had their helmet visors down and oxygen masks on, but dust and shattered glass blew into their eyes causing pain and reduced vision. Major Higgins was violently buffeted by the windblast and experienced severe ear pain. Captain Kozma, who was leaning forward at the radar scope, was struck on the back by a piece of glass, causing lacerations and a large bruise. Major Higgins was able to take manual control of the aircraft and initiated a climb to reduce airspeed and gain a rejection altitude. Hand signals were used by the crewmembers to confirm their condition and decision to stay with the aircraft since use of interphone and UHF communication was impossible because of the noise level.

Major Higgins was able to lower his seat and lean forward far enough to escape the worst part of the windblast. This reduced his ear pain and allowed him to check the cockpit for damage and malfunctions. Major Higgins then called his wingman and reported he had lost the canopy and could not hear radio transmissions, and requested the wingman to take the lead for the return to base. En route to Nellis, Major Higgins and Captain Kozma passed notes and used hand signals to coordinate their actions. As they dumped fuel, Captain Kozma completed the required checklists, signaling after each item was complete. On final approach, abnormal buffeting occurred, probably due to the airflow over the open hatches. Major Higgins counteracted this by flying an 8.5 degree angle of attack, rather than the normal 10 degrees. A successful landing was accomplished. Investigation revealed that a bird had struck the aircraft shattering the canopy.

By their professional competence and teamwork during a serious inflight emergency, Major Higgins and Captain Kozma readily qualify as Tactical Air Command Pilots of Distinction.



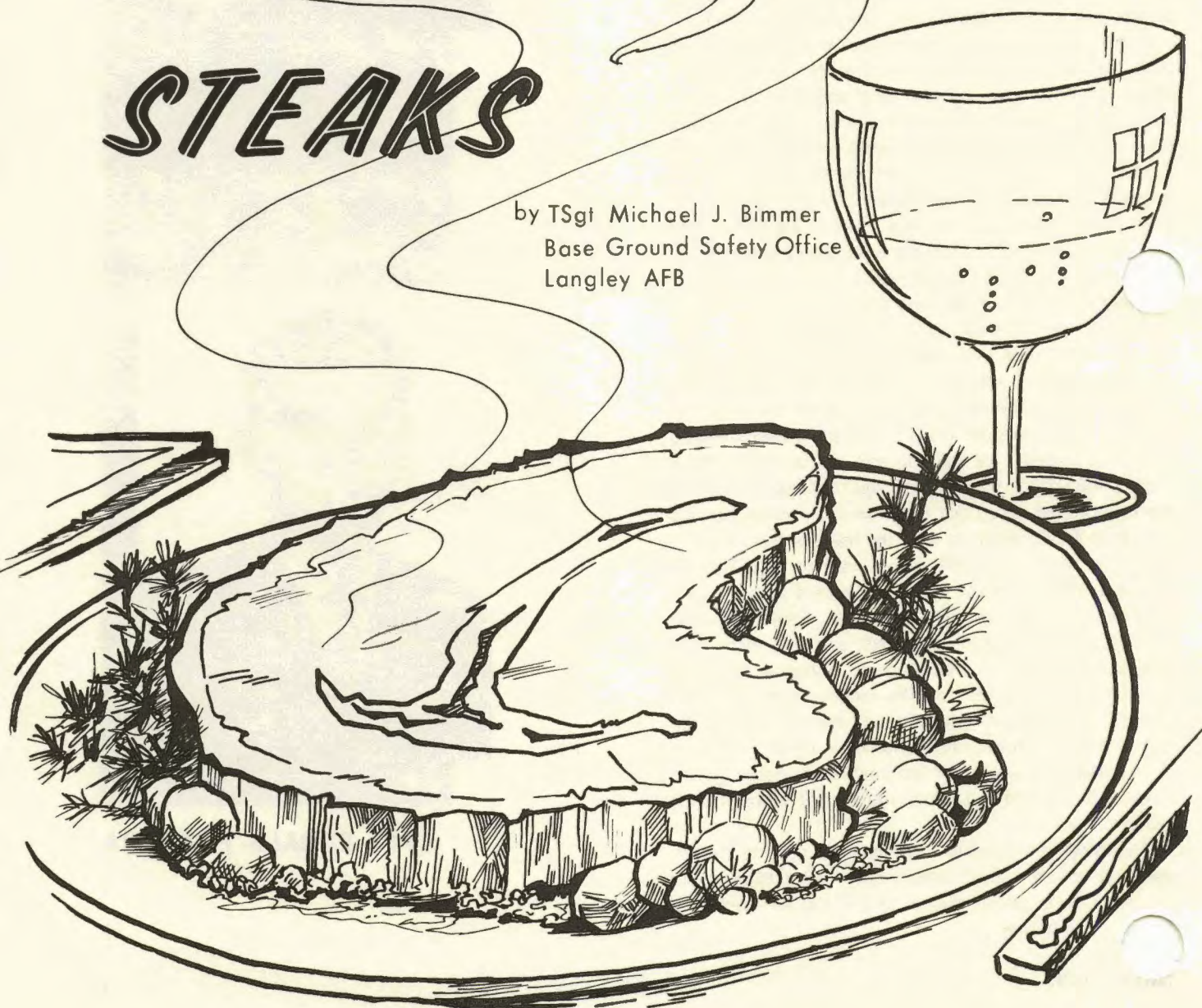
MAJ CARLOS W. HIGGINS



CAPT RONALD F. KOZMA

SAFETY AT STAKE FOR STEAKS

by TSgt Michael J. Bimmer
Base Ground Safety Office
Langley AFB



Safety at Stake for Steaks??? Cents for Sense??? What we're saying is that at Langley we have a program going on that is just that — Buckle up for Bucks!!!

This is nothing new in the safety business, nor did the idea originate here. But, if you don't have a Safety Belt Incentive Program going, we believe you are missing out on a very important accident prevention tool. This current campaign was initiated at Langley in February 1971. The program took almost two years of planning and some very hard convincing on the part of safety people to get base agencies interested to set it in motion.

The way it works is simple. Ground Safety personnel (and the SPs patrolling) just wave drivers down and ask if they are wearing their safety belts. If they are, they receive a steak dinner at the Officers or NCO Open Mess, or \$5.00 in cash. The dinners are donations of the clubs while the cash funds come from the Thrift Shop and the NCOWC.

Several samplings of seat belt usage prior to instituting this campaign revealed an average of 20 percent usage. (Shoulder harness usage was not observed.) Since this program has been in effect, a check on belts in use has revealed improvement, with the exception of one month.

In February, one-third of drivers stopped were wearing their belts and received their rewards. In March, there was a drop to 26 percent. (We believe this was due mainly to the location where the sampling was conducted — parking lot exit.) April, May, and June showed consistent increases with 31, 32, and 38 percent belt usage.

Based on these checks, the safety belt usage is on the rise at Langley. With the support of the base organizations and clubs it can and should continue to increase. This increase should reflect in better drivers, less accidents, and safer traffic around the base.

Reactions from people stopped for these checks have been varied. Most of them are perplexed at first ("Who, me???"). But then, when they say "yes" and show you that they have buckled up, they are proud, and when they are given a token reward, they are elated. One Sergeant described the program as a funny one "because I take care of me with a seat belt and you take care of me with a dinner." Younger Airmen are particularly happy to receive a five dollar bill just before payday. We might mention that there is a consolation for those not wearing belts — the safety office gives them a safety pen or like item, as thank-you as well as an incentive — they could be stopped again.

The biggest group of users, based on these studies, are NCOs E-5 through E-9 accounting for 36 percent of the persons awarded. Officers accounted for 28 percent, E-4s and below 23 percent, dependents 11 percent, and retirees 2 percent.

This whole program is designed to be a reminder. It is a

proven fact that wearing of seat belts not only reduces injuries in the event of a crash, but also affords the driver stability necessary to maneuver and steer to control his vehicle under unsafe conditions, to prevent an accident. It is also a proven fact that when reminded to do something after a number of times it becomes a habit. This is what this "reminder program" is all about. Do you THINK about putting on your shoes each morning? No, but you put them on irregardless WITHOUT thinking about it. So — the same with buckling up — get the habit.

For those of you who are fashion conscious, this season the word is "Belts are in." Look at the fashion magazines, browse around the Exchange, notice the wide belts, bright colors, different fabrics, and buckles. Your belt serves two purposes these days and times — it adds to your attire and holds up your pants. Your seat belt works the same way: it adds to your safety and holds you in. Try buckling up — belts are the in thing, and who knows — YOU may be the next one stopped and get that fin!!!



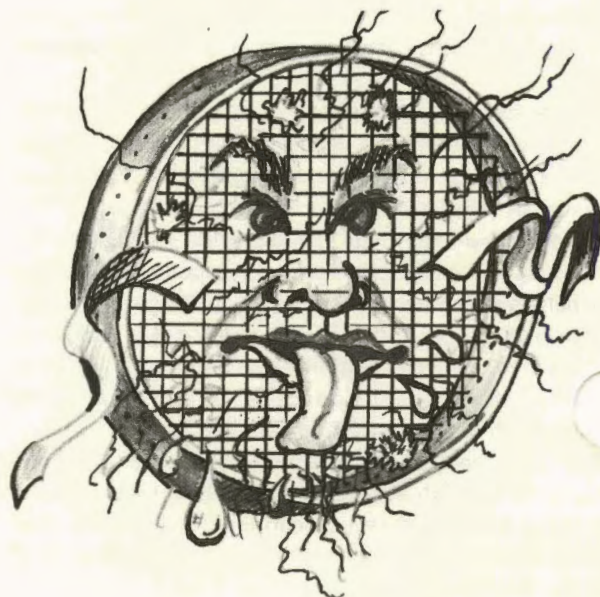
Airman William J. Miller, Hq 5 WWg Graphics Section, caught in the act of wearing his seat belt. Amn Miller received a \$5 certificate from TSgt Michael J. Bimmer, Langley Base Ground Safety Technician.

TAC TIPS

...interest items, mishaps

A Hairy Story

A rote crew had their trusty Herky juiced up a couple of times from fuel trucks at foreign airfields. While taxiing for takeoff the tank fuel pumps were checked and were performing — but not within limits. The crew decided to let maintenance take a look. Suspecting a clogged fuel system maintenance checked the entire system and . . . get this . . . several pump intake screens were found clogged with lint, thread, metal filings, coated paper strips up to six inches long, and HAIR!



It Pays

To Have A Good Aim

The pucker checklist was completed as the F-4 passed thru 38,000 with both engines ticking — again. However at 48,000 feet in a 60 degree bank at 1.1 mach both had quit — flamed out shortly after firing an AIM-7. As the beast tracked across the nose of the four, both engines flamed out due to hot exhaust gas ingestion from the AIM-7. Several re-starts later . . . uneventful landing.

F-4 Canopy

Climbing through 6000 feet at 350 knots, the canopy unlocked light illuminated. Prior to takeoff, the light was checked out and the canopy tapes were aligned. The front-seater checked the locking level forward and began to slow down. The Nav said that the front seat canopy strut did not appear to be fully seated. Two minutes later the canopy departed — cause unknown. This unit is going to recheck canopy rigging during phase and will paint new aligning stripes.

with morals, for the TAC aircrewman

Intimate Familiarization

Imagine yourself on a familiarization ride in an OV-10. The pilot briefs you on the mission and the nitty-gritties of the egress system. Happily content you climb into the back seat and the pilot straps you in while once again going over the "quick way out" system. While taxiing out the pilot instructs you to remove the safety pin (a procedure he has already covered). You reach down grab ahold of the pin take it out after a little jiggling and then reach for... smells like something burning... what's that hissing sounnnnd... seconds later after a remarkably successful zero-zero ejection you float to a landing stop forty-eight feet in front of the aircraft from whence you just cometh. Science fiction you say?! It happened... in another command. Seems like the D ring pin streamer was routed through the D ring while the other end was lodged on top of the instrument panel. When the passenger attempted to secure the safety pin he pulled up with enough force for the streamer to move the D ring and—zingo.

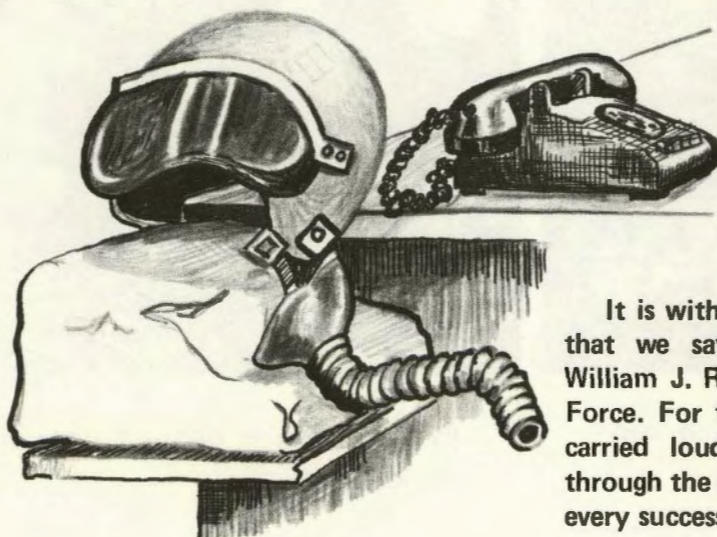
Check

Before You Squawk

Various incidents have been attributed to the improper use of VFR beacon codes 1200 and 1400. A common occurrence is the failure of VFR pilots to change to the appropriate code when climbing/descending through 10,000 feet MSL.

VFR pilots are reminded to always squawk 1200 when operating below 10,000 MSL and 1400 when at or above 10,000 MSL, unless a different code has been assigned. Proper use of these codes is essential to effective air traffic control since each code has a special meaning to radar controllers. Use of the wrong code could result in your beacon return not being displayed on the appropriate radar scope or, if it is displayed, convey the wrong meaning. Either case can develop into the type of incident which should have been avoided.

Rex M. Stewart
FAA/TAC Liaison Officer



It is with sincere appreciation and deep regret that we say Godspeed to our Editor, Major William J. Richardson, as he retires from the Air Force. For two and one-half years his voice has carried loud and clear the message of safety through the pages of TAC ATTACK. We wish him every success in civilian life.



"Shucks---my identity is no longer a secret!"

Foto



"Aw come on---you're kidding me!"



"By golly you're right---it does have hemorrhoids...."

Folly



"Audubon Society or not--do that once more and I'll have squab for dinner!"

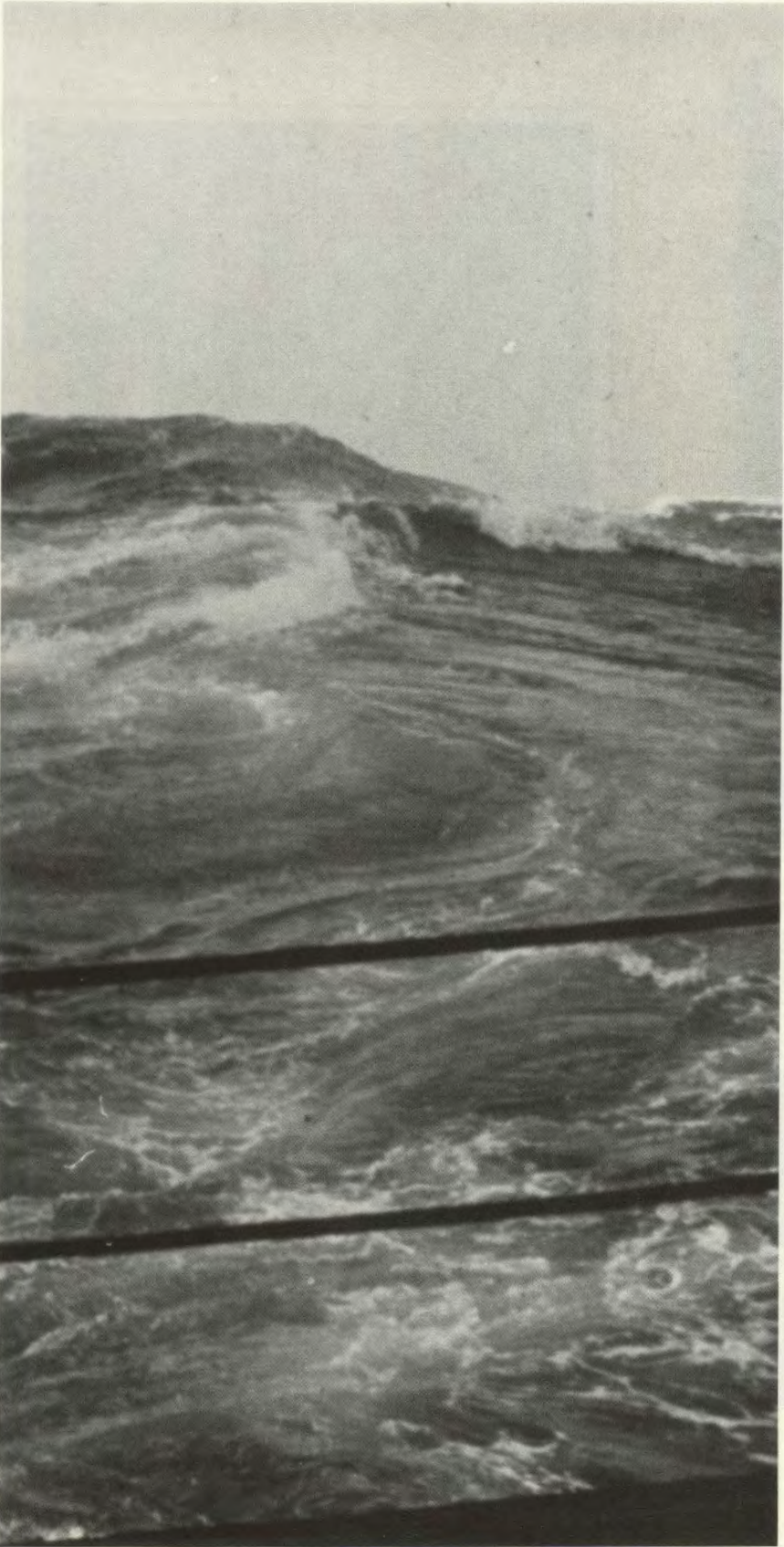


"This emergency exit is hell!"



"My girdle is killing me..."

DROWNPROOFING



Would you like to be able to remain afloat and swim for miles without depending on floatation devices, even while fully clothed? There is a deceptively simple method of combining arm and leg motions with a precise breathing technique so that anyone can do it, irrespective of sex, age, condition, strength or fear.

You have doubts? Here's proof!

Every graduate of Georgia Tech in the last twenty years, except for a few medically excused people, has stayed afloat at least one hour, and has swum one mile with clothing, using the technique I call "drownproofing."

Persons using the drownproofing technique find cramps and injuries moderately annoying, but never dangerous, because, when the method is mastered, it is just as easy to stay up with only one arm as it is with both arms and legs.

The results obtained with this system on handicapped children are fantastic. Nearly a thou-

W N P R O O F I N G

by Fred R. Lanoue
Professor of Physical Education
Georgia Institute of Technology

four and five year old children in the Atlanta area have stayed up one hour, swum one mile, then, with 'es tied up to the waist, reed afloat one half hour and then swam 100 yards. The same thing was repeated with hands tied together behind the back. All this was done with clothes on, and usually with ten hours or less instruction.

It is a fact that about 3,000 swimmers, rated as beginners, drown each year. And the majority of these happen within only yards from safety. It is obvious that if this technique were taught before traditional swimming methods, drowning rates could sink to an all time low.

In a short summary of drownproofing, I can tell you that it's based on several aspects of physics. The first is that 99 percent of all men will remain on the surface in fresh water without moving if they are chock full of air. About 99.99 percent of all women do the

An average head weighs close to 15 pounds. So, as a man floats vertically about five pounds of weight is in the air. With women about eight pounds protrude. These figures are general. Fat and tidal air volume, muscle and bone density, air trapped in clothes, the wet weight of clothes themselves -- all are factors. If a man wants to keep his nose and mouth out of water all the time to see where he is going, he must hold up with muscular energy at least five pounds all the time ... and during exhalation, a lot more. With clothes, even more. This sounds too small to be important, but over a period of time it causes most of our drownings because of the steady drain of energy.

Women and teenage girls, most children, men and teenage boys who are good floaters use one technique, while men and teenage boys who are poor floaters use a slight variation. In an emergency these basic strokes can help you bob along until you are rescued or

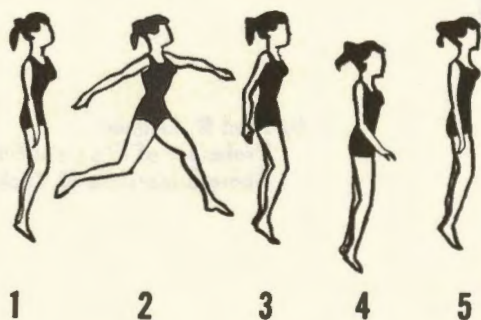
drift ashore. To be able to propel yourself long distances without tiring, you also will need to learn the travel stroke.

When using one of the illustrated techniques, the following tips will add to your success.

1. When exhaling, blow hard through the nose, clearing nostrils of all water to avoid choking if it trickles down throat.
2. Move arms and legs slowly. Quick, vigorous motions force body too far out of water and can be exhausting. Rest under water five to ten seconds.
3. Learn arm and leg strokes separately, then together. Either, used alone, will keep you afloat. Practice with hands behind back, using legs for upward motion.
4. During first attempts, you may ship water and sputter. After 10 or 15 cycles, the technique will become easier and comfortable.
5. Ask someone to observe and criticize your technique, noting your mistakes which can be corrected.

STAY-AFLOAT STROKE

for women, teenage girls, most children
and many men who are good floaters



1. After breathing through mouth, sink under. Float relaxed, in vertical position with arms and legs dangling. Be sure head is relaxed.

2. Let yourself float to surface. The air you have inhaled will raise you naturally with no effort. When head is partly out of water, raise arms to side. At same time, stretch one leg forward and the other back as in scissors kick.

3. To thrust head above water to breathe, gently pull arms downward toward hips and bring legs together, pressing water easily with sole and heel. As arms start down (not before), begin to exhale through nose and continue until nose comes above surface. Be sure eyes are open. Then, inhale through mouth. Chin should be on surface, not above.

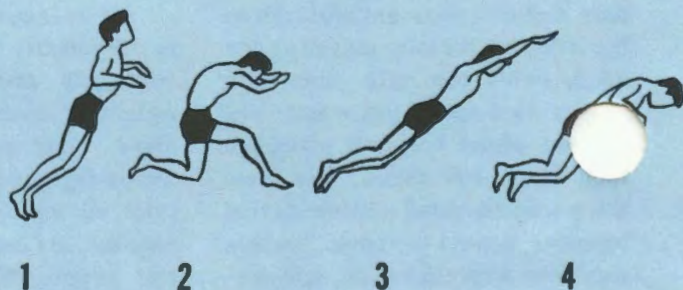
4. Just as head goes under again, give slight downward push with arms, legs, or both. This prevents sinking too deep. Though unnecessary in calm water, you should learn technique for less favorable conditions.

5. Rest under water, completely relaxed. Stay submerged until you desire a breath, not until you need one. At first you will probably stay under three seconds this should be the minimum. Gradually you must increase time of rest while submerged. Average under water time is 10 seconds after doing cycle for an hour.

6 Repeat entire cycle.

TRAVEL

for all



1. Inhale to stay afloat.

2. When head sinks under, tip face down and bring hands up to forehead. Prepare for scissors kick by cocking one leg so rear foot is high as possible.

3. Extend arms forward and upward toward surface with elbows straight, hands together. As you do this, complete scissors kick.

4. When kick is completed and feet come together, bring arms backward so hands touch thighs.

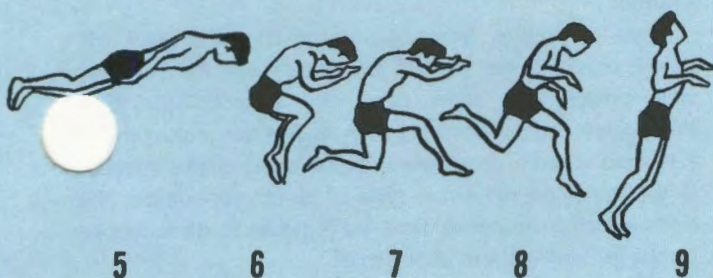
5. Glide toward surface, keep head down and horizontal. Body must be in a straight line. During glide, exhale slightly but never completely. How much to

STAY-AFLOAT STROKE

for men and teenage boys
who are poor floaters

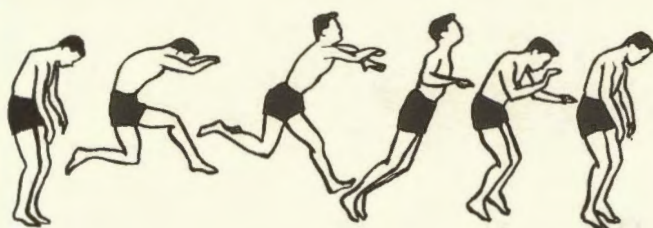
STROKE

swimmers



exhale will be learned from practice.

6. When you want a breath, begin return to vertical position by drawing both knees up near chest. Round the back and extend hands forward, up toward face.
7. Extend one leg forward for the scissors kick, without letting other knee go back. Keep arms in front of you.
8. When trunk is nearly vertical, raise head and press gently downward with sole of front foot and both hands. This will support you while taking a breath.



1 2 3 4 5 6

1. Take breath, relax with arms and legs dangling, and head resting horizontally. Back of head should protrude from the water. If buttocks swing upward, you have taken too big a breath. Exhale a little air through nose.
2. As air floats to surface, cross forearms in front of forehead. Bring one knee up toward chest, then extend the foot forward. At same time, raise other foot behind and extend. Don't lift head yet, or raise arms or legs too fast. Such motion will cause head to duck under.
3. With legs extended and arms crossed, raise head quickly out of water, stopping with chin in water. As head comes up, exhale through nose and continue until head is raised.
4. The instant head becomes vertical, sweep palms outward so they nearly scratch surface. Step gently downward with both feet, bringing legs together. Strokes should not be fast or vigorous or you will rise too far out of water, and go under again quickly, giving little time for inhaling. Take a breath through mouth.
5. Relax and sink. In rough water and while wearing clothes, you will sink too far unless you drop head as soon as it is under water, and make downward stroke with arms and legs.
6. Repeat entire cycle. ➤

CHOCK TALK

chock talk

...incidents and incidentals

RF-4 Bent Flaps

This bird returned from a cross-country with the left trailing edge flap and other assorted hardware damaged to the tune of eight manhours and \$365 for repair. They had a travel pod but the aux air door locks were stowed in door 514L. During flight one of the aux air door locks worked its way between the inboard trailing edge of the left hand flap and the trailing edge flap BLC duct. Subsequent activation of the flaps resulted in the damage.

This unit states that door 514L has been used by RF-4 units to stow downlocks on cross-country flights since the aircraft has been in the inventory. And further, that this practice does not constitute a hazard if the locks are stowed properly.

They gave this one to the aircrew for failure to determine the location and security of their locks prior to departure. Contributing went to transient alert at the turn-around base for failure to secure the locks.

In the future they will use the luggage pod if one is installed. Failing that, a heavy duty bag will hold all locks when door 514L is used to stow 780 equipment.

Secure Them

Shortly after becoming airborne on a formation takeoff, the lead F-4 had an unsafe nose gear indication. When the gear was recycled the wingman observed an

object fall from the nose gear area. The leader aborted and after recovery it was discovered that the CNI access door in the nose wheel well was missing. It had not been secured.

Two preflights were accomplished and signed off before this bird was started. Don't ever assume that all is well unless you have personally checked the bird thoroughly. Little incidents such as this don't draw much attention when a panel falls into the water as this one did. If we continue with this type of sloppy operation, the odds are that sooner or later we're going to hit someone on the ground — think about that!

C-130 Controls

Just after takeoff severe lateral control difficulties were encountered by the crew. They settled on two-thirds left aileron and twelve degrees left aileron trim to hold the right wing up. Lining up on final was difficult but a safe landing was accomplished.

Investigators found that the right aileron push-pull rod was not connected to the aileron! The rod had been disconnected during fuel tank maintenance without that fact being documented. It was not reconnected after completion of this maintenance and to top it all off, the flight engineer missed it on preflight because he didn't use a ground controller. What a way to lose an airplane . . .

with a maintenance slant.

Yellow Dots

The familiar yellow dots painted on the ramp will soon be a thing of the past. The next change to AFM 85-16 (Change F) will change the testing frequency of static grounding points to every three years. Any ground rod exceeding 100,000 ohms resistance will either be replaced or removed if not needed as an airfield tie-down anchor.

Ohmic requirements of paragraph 0714.5(1), AFM 85-100, and TO 00-25-212, for loading and unloading explosives will be changed to agree with the revision to AFM 85-16. Painting the static grounds and stenciling the test results will no longer be required. In short, if the ground rod/tie-down anchor is there, painted or not, use it.

Reliability Programs

The Personnel Reliability Program and the Human Reliability Program as found in AFM 35-98 and AFM 35-99, 10 June 71, respectively, should by now have been distributed to base level. When compared to the previous version of AFM 35-99, the method of screening personnel under these two programs remains pretty much as it had been performed in the past. One very noticeable change in the directives is the guidance pertaining to the types of individuals requiring screening. As for TAC personnel screened under the previous programs, the greatest impact will be found in the current guidance which states that

there is no requirement to place personnel in the programs merely because the organization or base has a nuclear/chemical/biological support mission under a contingency plan. So find a copy of these new directives and bring yourself up-to-date on these important programs.

Two Wrongs Don't Make It Right

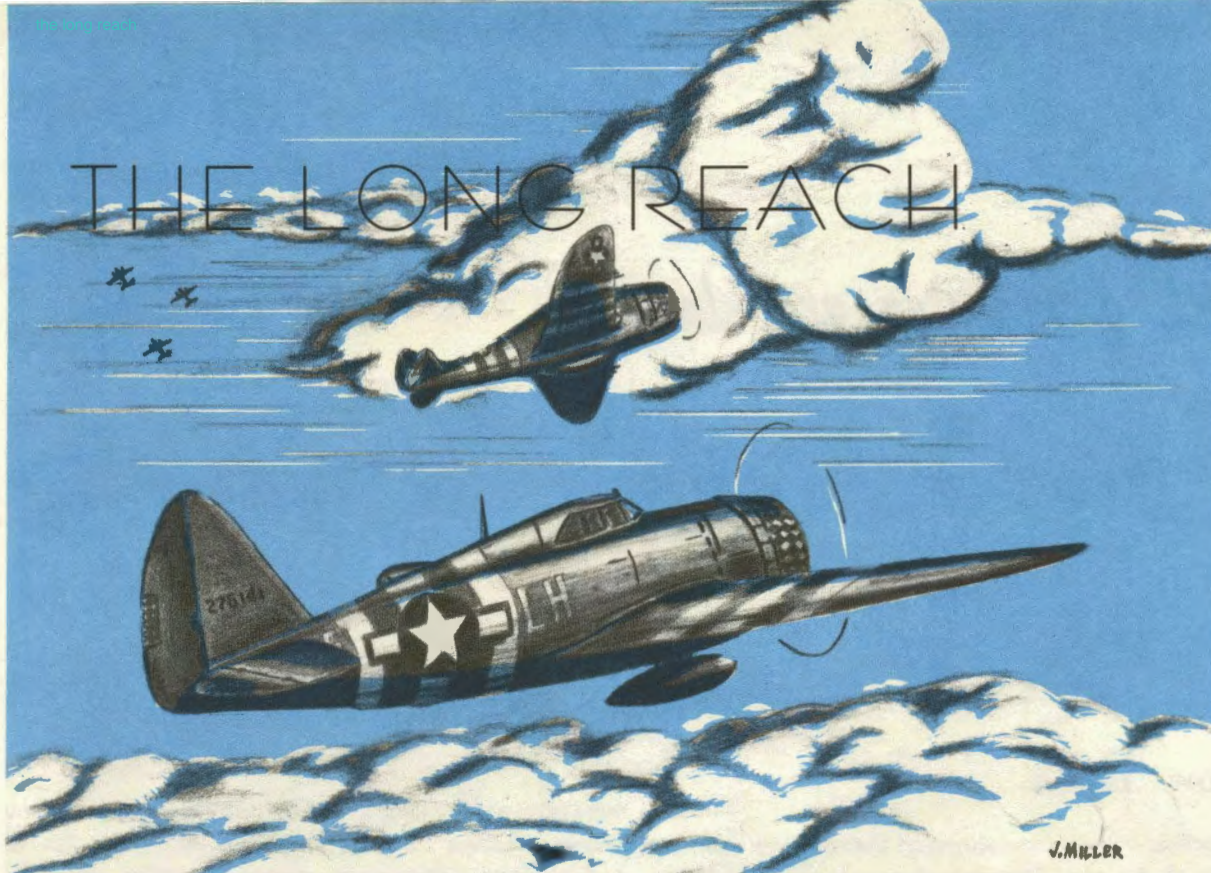
A parachute assembly installed in the front seat of an aircraft was given a routine inspection which revealed that the parachute timer cartridge had been fired and a new safety wire had been installed on the forward seat secondary handle.

It was determined through investigation that the seat handle was actuated, which fired the timer cartridge. The handle was then returned to the original position and a safety wire reinstalled to conceal the error.

This incident is inexcusable in that the individual tried to cover up his error. A person's life would have been placed in jeopardy if the life support system had been used.

We all know that people are subject to error. The facts and circumstances concerning these errors are valuable tools which can be used in preventing similar mishaps.

From SOF Safety Bulletin



"Put a wing tip just over the sun"

You reach out and pick up this VIII Fighter Commander tactics "Manual" dated 29 May 1944 with a respect bordering on reverence. You scan pages eagerly and recognize pictures of the fighter pilot contributors, names and faces ranking among our country's greatest World War II aces. The acronyms KIA and MIA appear all too often in their brief "biogs." You marvel at the obvious youthfulness and their friendly smiles, realizing that they have learned much about flying and compressed a lifetime of air battles into a time period of months, not years. They are trying to "reach," to teach, to impress those follow-on generations of fighter pilots who must follow them, and are as yet untrained in aerial combat maneuvering. They recount experiences, tactics, and pilot techniques proven in aerial battles beginning as mass formations in crowded skies and ending in single-ship or element versus element hassels. Not all of their tactics and techniques still apply, some are now impractical. However, they do present and show surprising agreement on some fighter pilot fundamentals. We think you will learn much in reading their personal accounts about flying "into the wild blue yonder," and respect the contribution they have made to a proud profession: the fighter pilot!

By Capt R. S. Johnson
62nd Fighter Squadron
56th Fighter Group
P-47

A lot of green pilots fly good combat formation for the first, second, and third mission. If they see no enemy, many of them get cocky and think combat is a cinch. They relax and may get away with it several trips over enemy territory — then it happens! The first enemy they see or have contact with knocks them down, simply because they didn't see him. They were too relaxed to kick rudder or roll the ship up on a wing and look around. It's much more satisfying to come home tired, with a sore neck from looking constantly in every direction, and being tired from constantly skidding sideways to look behind you, than it is to leave the thing you sit on over enemy territory. Once in awhile it's good business to put a wing tip up just over the sun and look around it too. Often there is plenty of company there.

Never let an enemy get his sights on you. No matter whether he is at 100 or at 1000 yards away, 20 mm will carry that far and will easily knock down a plane at 1000

yards. It is better to stay at 20,000 feet with a good
up, with an enemy aircraft at 25,000 feet, than it is to
up in his vicinity at stalling speed. If he comes down
on you, pull up into him and 9 times out of 10, if you are
nearly head on with him he'll roll away to his right. Then
you have him. Roll on to his tail and go get him. If he
tries to turn with you, and can out turn you, pull the nose
up straight ahead and apply rudder and stick toward him
so you can slide to the inside. The enemy thinks then that

you are turning inside him and tries to dive away and
outrun your bullets!

Try this and any other trick you think of in friendly
combat.

Any time you lose your wingman or leader you've lost
75 percent of your eyes and firing strength. The enemy
will shoot at anyone. Never think you're a favorite to
them. Any one can get it, some of the best have. So keep
your eyes open.

"Numbers, as such, do not greatly enter into offensive tactics."

By Major James H. Thorne
359th Fighter Squadron
356th Fighter Group
P-47

When an individual pilot is attacked by enemy aircraft,
the most important thing to do is something violent, and
to do it quickly.

When an element traveling alone, the wingman should stay
with the element leader unless told on the R/T to break
and start coordinated defensive tactics.

I do not believe that a pilot should remain on the deck
except when actually under attack, or for camouflage
reasons. To remain on the deck makes navigation poor,
restricts the area of vision, and leaves the pilot open to
automatic weapons fire from the ground.

When the element leader is making an attack I believe
the wingman should stay slightly behind and higher than
the element leader. If possible he should be off to one side
but quite often maneuvering precludes this. Enemy single
engine aircraft almost always use a descending maneuver
for defense which I cannot understand, because it is the
one time a P-47 really has performance over enemy
aircraft. A good enemy pilot will keep you from hitting
him until you arrive at the deck. As long as he has altitude
to maneuver with, he will go through a series of
maneuvers that make him an extremely poor target.

Numbers, as such, do not greatly enter in offensive
tactics. Altitude makes the attacking of superior numbers
very profitable.

In firing at enemy aircraft, except for purely defensive
firing, I would never take a shot of over 15 degrees
deflection. Although you may think you are dead astern,
there is a very great probability that you are not;

therefore allow some deflection.

We use a very tight formation from takeoff to just
before landfall in. This formation saves a considerable
amount of gasoline for the number four men of the
squadron. From just prior to crossing the enemy coast to
rendezvous we fly sections line abreast with the individual
aircraft line abreast. Although this formation is not very
maneuverable, it is very good defensively if frequent turns
are not expected prior to rendezvous.

Flights have individual initiative as to beginning
attacks, anytime, anywhere. The attack is generally made
by whoever sees the enemy aircraft first. Seldom will the
squadron leader have time to detail a specific flight or
element to make an attack.

Very rarely will flights be able to join the squadron
after making an attack. Where it is possible for the flight
to rejoin, it should do so. If it is not impossible, the flight
should either start home or join another squadron.

Recently, within our own organization, we have
tended towards smaller combat units, that is, permitting a
flight of four ships to have more freedom of action. An
element of two is the absolute lowest division for combat
and a four ship section is very desirable.

On a normal bounce the man seeing the enemy
aircraft, whether he is a wingman, element leader, or
section leader, makes the attack. He is covered by his
flight. The other four ship flight stays high long enough to
be certain that no more enemy aircraft will join the fight
from above.

As to individual initiative in beginning attacks,
standard practice does not permit a wingman to attack if
his leader sees the enemy. An over-anxious or badly
disciplined wingman can easily mess up an attack. ➤

You're cruising along — taking it easy; everything is humming, ticking, and purring nicely. Instruments look good — no sweat. Then a relay inside the brain closes and a small thought pops to the surface . . . weather . . . get an update on the weather and see if the forecaster passed along the straight skinny. You call Center and

clear off frequency for a few minutes. "Pod Metro this is"

What actually happens when you call Metro? What process has taken place in order for Metro to give you the poop you request? Read on friends and find out about

A WEATHER OBSERVATION



Why is it?

What is it?

Where does it go?

Have you ever noticed the small one or two-story building located by the side of the runway, or noticed a glass-walled section below the control tower? These are

Representative Observation Sites (ROSs) and have been programmed and constructed for the Air Weather Service because of the requirement that a weather observer have an unrestricted view of the active runway or the greatest possible view of the entire runway complex.

The ROS is equipped with such exotic pieces of machinery as a Rotating Beam Ceilometer (measures cloud heights), Transmissometer (measures visibility), a Temperature/Humidity Measuring Device, a Runway Visual Range Computer which works in conjunction with the Transmissometer to give Runway Visual Range (RVR) readings during periods of low visibility, and a Wind Measuring Set. Local and longline communications equipment are added so that the weather observation can be disseminated in the shortest possible time to support first, the local operational requirements and then the AWS Global Mission. Now take an intelligent and highly motivated airman whose only job while on duty is a dedicated continuous weather watch and put him in the ROS with the meteorological and communications equipment to collect and disseminate a complete, accurate, and timely surface weather observation. Why — so the man in the cockpit gets the best possible weather observation with the least possible delay for his safety and convenience.

The Why has been answered; now, What is an observation? Basically, it's what is happening, weatherwise, at the time of the observation. The elements of an observation are collected hourly and transmitted locally and longline (via teletype). These elements include as a minimum the following:

- Type of observation if other than a Record (Hourly) observation.
- Ceiling and sky information taken visually by the observer or with the ceilometer.
- Prevailing visibility taken visually or from the Transmissometer or Runway Visual Range Computer.
- Weather or obstructions to vision: rain, drizzle, sleet, or snow; fog, haze, or smoke; thunderstorms, etc.
- Sea Level Pressure
- Temperature
- Dewpoint
- True wind direction
- Wind speed in knots
- Character of wind: gusts or squalls
- Altimeter Setting
- Remarks: Beginning with Runway Visual Range and expanding on any previous entry such as ceiling or visibility and obstructions. Other supplemental observations such as Record Specials (RS), Specials (S),

and Locals (L) are taken as required to fulfill a standard requirement as directed in the Federal Meteorological Handbook or are based on locally significant criteria as outlined by local directive or flip chart requirements. This basically is the What of an observation.

Now, to the "Where it goes." Using an Electrowriter or Telautograph, which are both instruments for locally disseminating a surface observation, the observer transmits his observation to the control tower operator, GCA, base weather, command post and RAPCON — all at once. This fulfills the local dissemination or first half of his requirement. Next a teletype tape is prepared and the observation is transmitted to all military airfields and selected civilian stations in the ZI and to selected military and civilian stations overseas. Since weather observations are highly perishable, they must be moved rapidly to be of any value. This is accomplished by use of the Air Weather Service computer programmed switching system which makes an observation taken at Langley AFB routinely available at most USAF air bases in less than five minutes.

Put it all together — the ROS, the meteorological and communications equipment, the skilled technician — result in a highly efficient system to "tell it like it is." CEILING 200 FEET, VISIBILITY 1 MILE IN RAIN AND FOG, WIND 310 DEGREES 10 KNOTS, ALTIMETER 29.89. ROGER PODUNK CENTER AIR FORCE ONE FIVE ZERO FIVE OUT.

You are about 200 N.M. from your destination and, as any sharp jockey would do, you have just checked on the latest terminal weather. You have planned carefully and have a good alternate lined up. The decision making process begins as you carefully weigh the facts and consider possible courses of action. Integrated into your thought processes should be such factors as these: (1) the weather at the intended terminal is marginal; (2) the ceiling and visibility measurements that you received were taken at some point on the ground near the runway; (3) under marginal conditions, the ceiling and/or visibility in the approach zone may vary considerably from the reports you have received; (4) the weather observer's visibility is measured horizontally a few feet above the ground — your visibility will approximate your approach path and be affected by the rain driving against your windshield due to your approach speed.

The important thing to remember is that although the weather observation you receive is the best that can be provided within the current state of meteorological instrumentation, under marginal conditions it will not tell you exactly what the weather is at any point in the traffic pattern. ➔

Tactical Air Command

Unit Achievement Award

Our congratulations to the following units for completing 12 months of accident free flying :

179 Tactical Fighter Group, Mansfield Municipal Airport, Ohio
14 May 1970 through 13 May 1971

426 Tactical Fighter Training Squadron, Luke Air Force Base, Arizona
16 May 1970 through 15 May 1971

702 Tactical Air Support Squadron, Bergstrom Air Force Base, Texas
22 May 1970 through 21 May 1971

91 Tactical Reconnaissance Squadron, Bergstrom Air Force Base, Texas
29 May 1970 through 28 May 1971

4546 Tactical Training Squadron, George Air Force Base, California
1 June 1970 through 31 May 1971

126 Air Refueling Wing, O'Hare IAP, Chicago, Illinois
13 June 1970 through 12 June 1971

128 Air Refueling Group, General Billy Mitchell Field, Wisconsin
14 June 1970 through 13 June 1971

105 Tactical Air Support Group, Westchester County Airport, New York
18 June 1970 through 17 June 1971

186 Tactical Reconnaissance Group, Key Field, Meridian, Mississippi
19 June 1970 through 18 June 1971

156 Tactical Fighter Group, Muniz Air National Guard Base, Puerto Rico
20 June 1970 through 19 June 1971

777 Tactical Airlift Squadron, Pope Air Force Base, North Carolina
24 June 1970 through 23 June 1971

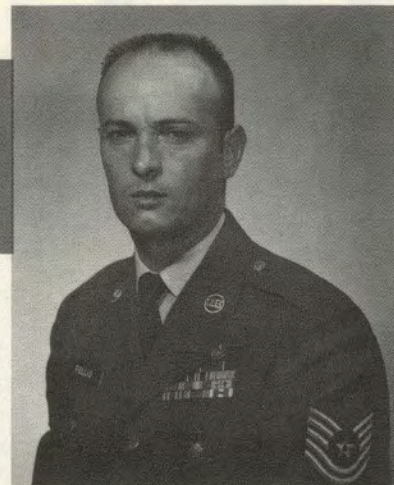
39 Tactical Electronic Warfare Training Squadron, Shaw Air Force Base,
South Carolina
25 June 1970 through 24 June 1971



TACTICAL AIR COMMAND

Crew Chief of the Month

Technical Sergeant Leonard T. Follis, 4407 Combat Crew Training Squadron, Hurlburt Field, Florida, has been selected to receive the TAC Crew Chief Safety Award. Sergeant Follis will receive a letter of appreciation from the Commander of Tactical Air Command and an engraved award.



Crew chief of the month

TSgt Follis



TACTICAL AIR COMMAND

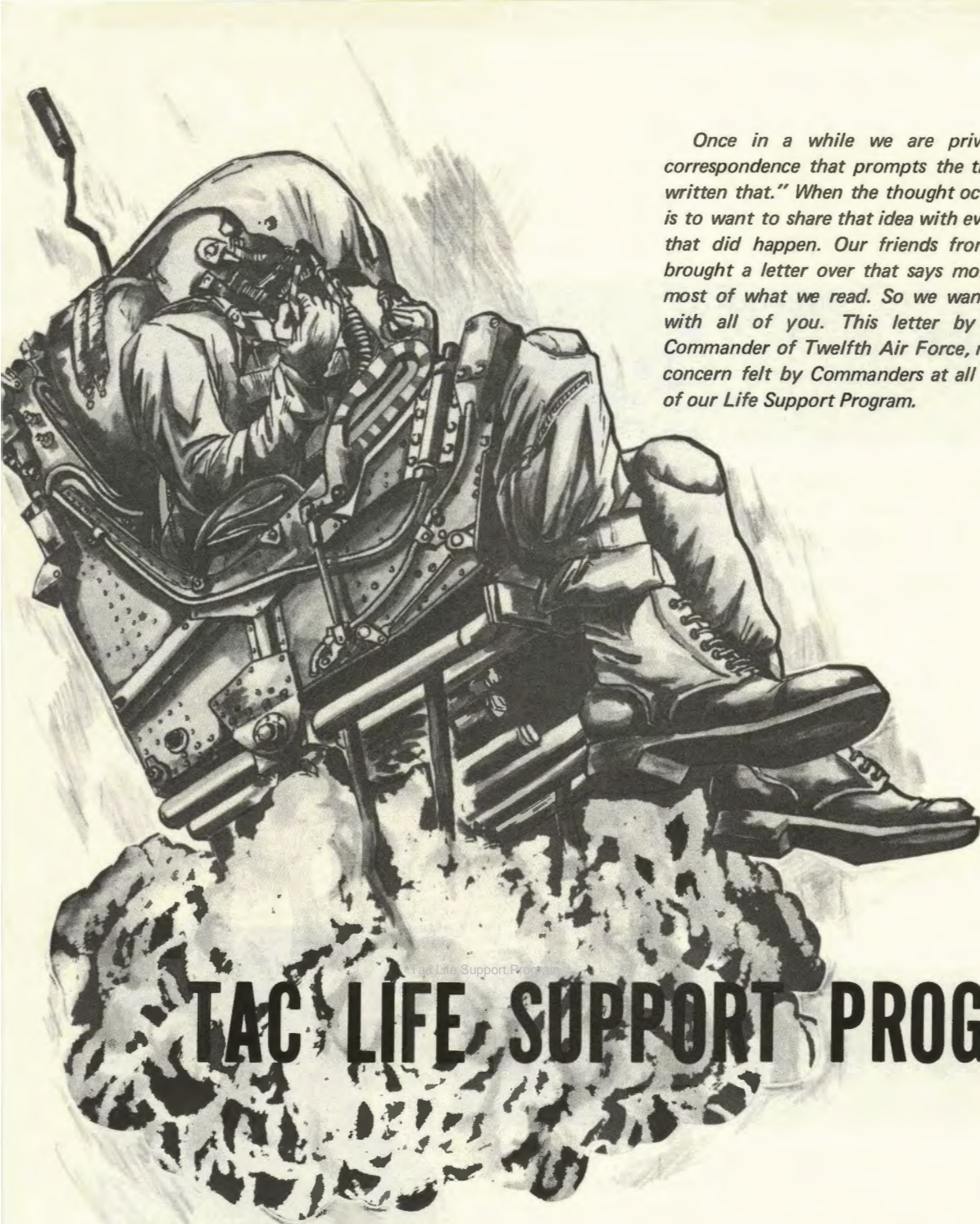
Maintenance Man of the Month

Staff Sergeant Frederick A. Bahner, 834 Field Maintenance Squadron, Hurlburt Field, Florida, has been selected to receive the TAC Maintenance Man Safety Award. Sergeant Bahner will receive a letter of appreciation from the Commander of the Tactical Air Command and an engraved award.



Maintenance Man of the Month

SSgt Bahner



Once in a while we are privileged to read some correspondence that prompts the thought, "I wish I written that." When the thought occurs, the next impulse is to want to share that idea with everyone. A while back, that did happen. Our friends from TAC Life Support brought a letter over that says more, in less space, than most of what we read. So we want to share these ideas with all of you. This letter by General Blood, the Commander of Twelfth Air Force, reflects the continuing concern felt by Commanders at all levels, about all areas of our Life Support Program.

Ed.

TAC LIFE SUPPORT PROGRAM

It has been disheartening to read in accident reports of occasions where life support programs fell below desired standards. For example, an RF-4C aircrew fatality was attributed to the crew member's actuation of the improper handle; a survival radio was rendered useless because the downed crew member was unfamiliar with its operating procedures, and a parachute drogue gun failed to fire because there was no cartridge installed. Hopefully, these examples are history and we have all learned from such mistakes. It is unfortunate to lose

aircraft, but it is senseless to lose both the man and the machine. The aircrew member has always been our most valuable resource and this philosophy will not change. On the other side of the coin, however, we have had numerous cases where everything went exactly as advertised. The improved ejection success rate within 12AF from 67 percent in 1969 to 85 percent in 1970 is certainly a welcome trend.

Two factors are vital in a life support program for aircrew preservation. They are equipment and training. Technology has given us a variety of life support and survival equipment scarcely imagined a few years ago. Much of it is complex and requires extra diligence on the part of life support technicians and aircrews during the inspection, maintenance, and operating phases. Every effort must be made, therefore, to insure that such resources are maintained in the best condition humanly possible. Similarly, I can not overemphasize the importance of life support training. The finest equipment in the inventory is worthless if technicians do not know how to properly maintain it, or aircrews do not know how to use it. Occasionally, crew members like to believe they enjoy some magic protection against emergencies which are simulated in life support training. They buy temporary peace of mind by rationalizing that such events occur only to "the other guy." Some individuals are even convinced that their particular type of aircraft is so dependable that there is no need for life support training. Such views do not reflect the maturity incumbent on a professional flying force. Finally, Inspector General and staff visit ratings of "unsatisfactory" in life support functions are unacceptable. For that matter, marginal ratings should be viewed equally. I strongly suspect a degree of anxiety or distress exists when a crew member is issued equipment from a life support facility that has just been rated "unsatisfactory." It is a sickening feeling to learn that your life and survival hinges on individuals who have demonstrated less than their best in guaranteeing systems/equipment reliability.

Within the Air Force, TAC is the undisputed leader in aircrew life support and we are realizing many dividends from earlier efforts to optimize resources and training. This is a sound foundation and an ideal departure point for further advancements. In this respect, I consider the appointment of qualified and dedicated life support officers and supervisors fundamental. Furthermore, the adequacy of training aids, facilities and working environment must highlight your efforts for the TAC Life Support program to progress. Accordingly, I urge your personal attention in continuing a viable program in this vital part of our daily operation.

*GORDON F. BLOOD
Major General, USAF
Commander*

BEWARE



the sun

By Major Hubert F. Bonfili
Flight Medicine, 49 TFWg,
Holloman AFB, NM

That's the general exclamation of the day, this time of year here in the desert. But this exclamation has much more significance than just opening conversation. The sun and heat in this area have a particular medical implication. The two important implications are direct sun exposure and heat sickness. We are all familiar with the immediate result of the first . . . that's being sunburned, of course. As a lot of us know from personal experience, excessive sun exposure can be a very uncomfortable and incapacitating medical problem. However, it is a very preventable type of problem. Just as most of us would not go outside or expose ourselves to extreme cold if we were stationed in Greenland; likewise, we should take steps to protect ourselves when we are going to be unduly exposed to the sun. An ounce of prevention (or a drop or two of suntan lotion) can go a long way!

The second, and more serious of the two, is heat sickness. There are three specific conditions in heat sickness; they are heat cramps, heat exhaustion, and heat stroke (sunstroke). Heat cramps are primarily a result of excessive loss of salt from the body. With the replacement of water but not of salt, increased sweating or continual sweating will result in heat cramps. Painful cramps of the abdominal wall and extremity muscles with a normal body temperature characterize heat cramps. On the other hand, heat exhaustion is the result of excessive loss of both water and salt. This condition is manifested by headache, mental confusion, drowsiness, extreme weakness and occasional vomiting. The body temperature may be slightly elevated. The skin is cool with profuse perspiration, and the pulse rate is rapid. The most serious condition (classified as a medical emergency) is heat stroke. This illness has a potentially high mortality rate. It is associated with an extremely high body temperature (106-110 degrees) usually with a coma. Heat stroke represents a breakdown of the body's heat regulating

mechanism. This is manifested by the stoppage of sweating. The body has lost its ability to lose heat by sweating, thus the temperature of the body continues to rise. The initial symptoms are dizziness and headache, dryness of the mouth and skin, and nausea.

There are specific steps to be taken in the prevention of heat illness. One is the replacement of water. Up to a quart of water per hour may be lost in high heat stress. Water loss must be replaced, preferably by periodic intake of small amounts of water throughout the work period. Salt is lost also in the sweat. While the diet ordinarily contains an adequate amount of salt, additional salt should be provided during the first few days of exposure to heat, especially in the case of nonacclimated individuals in whom salt losses are greater than after acclimatization. Extra salt in the cooking, in the bread and on the plate will usually provide what's required. However, salt tablets should be available near drinking fountains and will provide any needed additional salt.

Acclimatization is another important factor in prevention of heat illness. Acclimatization to heat begins with the first exposure and is usually fairly well developed by the end of the first week. Full acclimatization (the ability to perform a maximum amount of strenuous work in the heat) is obtained most quickly by progressively increasing work in the heat. The general physical condition of the individual has a significant bearing on the reaction to heat stress in the process of acclimatization. Several important conditions that detract from physical condition are: fatigue, use of alcohol, dehydration, lack of sleep, and obesity. The rate of heat illness is very much higher in the overweight person.

As we can see, the sun and heat have a particular medical implication for us especially in our particular environment, and there are certain preventative measures we can take to preclude a medical problem. ➤



LETTERS

to the Editor

F-4 NWS

Your article entitled "Left Phlank" which appeared in the January 71 issue of TAC ATTACK has caused some confusion amongst the aircrews at this station. Without going into a lengthy philosophy on the use versus non-use of nose wheel steering, suffice it to say that your article could well result in a bunch of F-4s off the side of the runway.

Ever since TCTO 1F-4-6-08 (3 Feb 61 - 3 Feb 68) the bulk of the nose wheel steering problems have been eliminated. Here in USAFE, we have now pretty well re-indoctrinated our jocks that with a bit of low ceiling, a not very low RCR, and just a tad of crosswind, you either use nose wheel steering or you run an odds on chance of ending up in the mud!

Lt Col JOHN F. TAYLOR
Chief of Safety
10th TRW, APO NY 09238

What we meant was - if you need it, use it; if you don't need it, don't use it. Just like your brakes. Ed.

REUNION NOTICES

The 36th, 49th and 50th TFW reunion will be held in Las Vegas, Nev., at the new Union Plaza Hotel on 8-9-10 Oct. 71. Contacts: Lt Col Frank Hubbard, Autovon 682-2593, or Lt Col Jay Pennington, Autovon 682-2446, Nellis AFB, Nev.

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The 12th TFW will hold its 1971 Reunion September 10, 11, 12 at Crystal City Marriott Hotel, Alexandria, Va. All officers associated with the 12th or support units since 1950 should contact Lt Col Kenneth A. Ward, Hq USAF (XOOSLA), Pentagon, Washington, D.C. 20330. Autovon 227-0552 or 225-5867.

DISTRIBUTION

AFAT-4 provides advice and assistance to the Vietnamese Air Force's 4th Air Division. Many of the pilots were exposed to your fine magazine while attending pilot training in the United States. They are very interested in keeping abreast of the current safety trends in the USAF and especially TAC. They have frequently asked for copies of TAC ATTACK.

Your February 1971 issue had a very fine article on Safety Officer Utilization. Do you have an extra copy lying around? Also, request AFAT-4 be placed on distribution for 8 copies of TAC ATTACK. These magazines will be used by AFAT-4 members and VNAF personnel.

Major David E. Rale
Safety Advisor, AFA
APO San Francisco 96307

You're on for eight. The February issue is on the way. Ed.

Distribution

We have been informed that our units will be assigned to your command in the near future. With this in mind, I have been trying to acquire copies of your excellent publication.

To date, I have managed to obtain only the January through March 1971 issues and wonder if you have back copies for the months of July through December 1970? If so, I would greatly appreciate one copy of each issue.

Thank you very much.

Colonel Stanley F. H. Newman, OKANG
137th Military Airlift Wing
Oklahoma City, Oklahoma

Welcome to TAC. July through December of 1970 are on the way. We'll keep you up to date until you begin receiving the TAC ATTACK through your PDO. Ed.

TAC TALLY

AIRCRAFT ACCIDENT RATES

* Estimated

MAJOR ACCIDENT RATE COMPARISON

	TAC		ANG		AFRes	
	1971	1970	1971	1970	1971	1970
JAN	1.6	4.8	16.7	5.9	0	0
FEB	1.6	3.9	11.6	2.6	0	0
MAR	3.1	4.6	7.0	1.7	0	0
APR	2.7	4.9	4.9	2.4	0	0
MAY	2.5	6.2	5.7	3.6	0	0
JUN	2.6	5.5	6.9*	3.6	0	0
JUL		5.1		6.1		0
AUG		5.0		6.9		0
SEP		4.7		6.6		0
		4.5		6.8		0
NOV		4.6		6.7		0
DEC		.6		6.6		0

UNITS

	THRU JUNE			THRU JUNE	
	1971	1970		1971	1970
9 AF	3.1	2.2	12 AF	1.1	8.3
4 TFW	0	0	23 TFW	0	7.9
1 TFW	0	4.7	27 TFW	0	6.9
33 TFW	0	0	49 TFW	0	10.3
31 TFW	8.9	8.0	479 TFW	0	13.8
354 TFW	8.6	0	474 TFW	0	0
4403 TFW	24.2	0			
363 TRW	0	5.6	67 TRW	0	14.7
			75 TRW	0	0
316 TAW	0	0	64 TAW	0	0
317 TAW	0	0	313 TAW	0	0
464 TAW	0	0	516 TAW	0	0
68 TASG	0	0	58 TFTW	3.8	20.6
			4442 CCTW	0	0
			4453 CCTW	6.6	0
			71 TASG	0	0
TAC SPECIAL UNITS					
1 SOW	6.1	15.7	2 ADG	0	0
4409 SUP SQ	0	0	4500 ABW	0	0
4410 SOTG	8.1	0	57 FWW	0	0

TAC SUMMARY

	JUNE 1971	THRU JUNE	
		1971	1970
TOTAL ACCIDENTS	3	16	24
MAJOR	2	10	22
MINOR	1	6	2
AIRCREW FATALITIES	2	6	20
AIRCRAFT DESTROYED	2	7	20
TOTAL EJECTIONS	0	5	16
SUCCESSFUL EJECTIONS	0	5	11
PERCENT SUCCESSFUL	0	100	69

FLEAGLE

