

TAC ATTACK

MARCH 1986

Office	Info	Action	Initial
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SEG			<i>R/S</i>
SEW			



FIRE ALOFT: Bringing home
a crippled bird.

ANGLE OF ATTACK



Well, January certainly got our attention (on the flight side of the house, anyway). To some of us it came as no surprise. History has shown the first month of the year is our second highest month in terms of Class A flight mishaps. Why? Are there any new hazards? Is January just a bad month?

There are several theories being discussed—the most popular being the end-of-the-year wind-down, leaves, holidays and a general lack of proficiency cause us to be a little off balance. Rusty, if you will, and we can expect losses. It's the cost of doing business. I say hogwash.

When you examine ops factor mishaps, the same old hazards that were lying in wait for us years ago are still there causing us to "check in" the old grim reaper. Since 1980, for example, we have averaged about one ops factor mishap per month. We surged this past January with three. When you tally it all up since 1980, 73 percent of all our mishaps in TAC have been ops factor mishaps. That's right, 73 percent.

If you think that's the cost of doing business, you're in the wrong business. In TAC, we are winners, and winners don't and won't accept *reasons* for losing. Reasons like controlled flight into the terrain, misorientation, loss of control, even GLC. Regardless of the ops factor category, the pilot's actions were tactically UNSOUND, period.

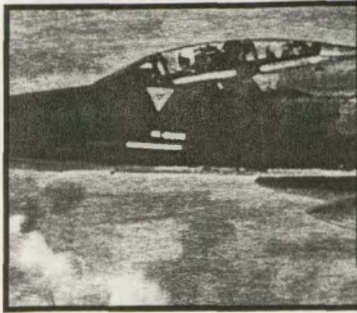
Every one of these ops factor mishaps can be prevented. They are the enemy. We have the tactics and weapons to shack them all—leadership and teamwork. But, as always—first, you have to want to. What's your plan?

Edsel J. De Ville

EDSEL J. DE VILLE, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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FEATURES

5 Fire Aloft: Bringing Home a Crippled Bird

An RF-4 crew recently experienced a fire in flight and lost all electrical power in the weather. Here's how they brought their aircraft home and lived to tell about it.

A Team Effort: Fighters and GCI

Fighters and ground control and intercept units form a valuable team. The future will require even closer cooperation and communication to ensure that the mission is accomplished. Here are a few ways we can make it happen.

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Moving munitions and weapons around base and on the flight line is a challenging task. It can be frustrating if you let it, but here are a few simple actions you can take to make the whole process easier and safer for everyone.

26 Out in the Field: Doing It Right

TAC personnel are becoming more involved every

day with the use of small arms during field operations. Individual weapons are a necessary part of many of our mobility commitments, but their presence doesn't have to result in more mishaps.

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Wha'cha gonna do now, Ace?

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TACRP 127-1

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MARCH 1986



FIRE ALOFT: Bringing home a crippled bird.

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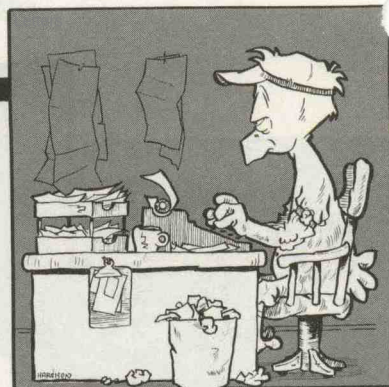
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LETTERS

Dear Editor

I read your November 1985 issue with great interest, as I have all your past issues. However, in Chock Talk, the "Murphy Strikes Again" brings to mind an interesting question. Did the Eagle ever have a drop check (landing gear operational check) done after the WOW relay was changed? We in Naval aviation, and I'm sure our Air Force counterparts, know that anytime the integrity of a flight control system, etc., is broken, a functional check of the system(s) involved is necessary. Did the maintenance crew follow the TO? Maybe a TO change is necessary. Our maintenance instruction manuals (MIMs) also have mistakes in them which are correctable. Many changes are generated from the user. Don't be satisfied with incorrect information. Incorrect publications lead to a lack of trust and disuse of a valuable tool.

Keep up the good mix of aircrew/maintenance subjects.



Donald G. Payton, AMSC
VAW-125

Dear Mr. Payton

Our logistics contact says that a landing gear ops check is required after a WOW switch change. The mishap that the Chock Talk article refers to occurred in an overseas command and we don't know if an ops check was actually accomplished. Seems like that would have identified the problem on the ground instead of in the air, though, doesn't it? We think our TOs are up to speed in this case but, as you know, Murphy can't read or follow orders well. Thanks for your interest.
ED

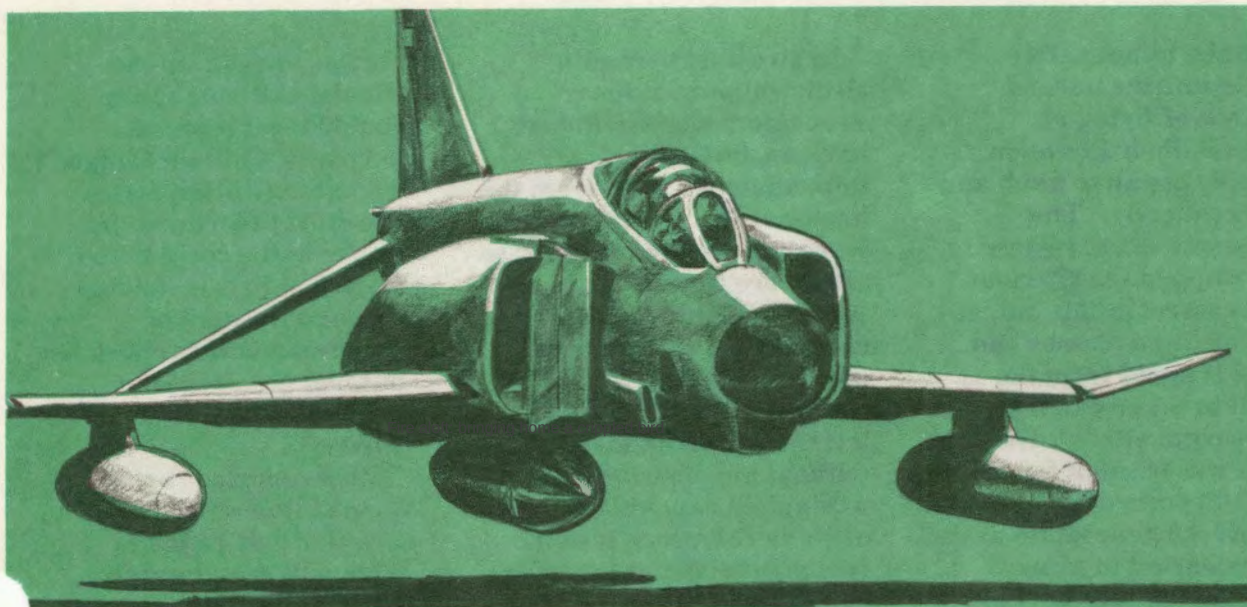
1985 Flight Safety Accomplishments

We just completed our best aviation safety year in history. The 1985 Class A rate of approximately 1.5 is well below the previous record low of 1.73 established in 1983. Furthermore, 1985 marks the third consecutive year in which the rate has been below 2.0.

1985 marked exceptional accomplishments in virtually every area of our flying operations. Notable among these were the all-time low number of logistics-related mishaps; the zero mishap rate of the bomber force and, for the sixth consecutive year, a record-setting low fighter attack rate — an outstanding team effort and one which has major implications in terms of improved combat readiness and national security. Congratulations on a job extremely well done.

General Charles A. Gabriel, USAF
Chief of Staff

FIRE ALLOTT: Bringing home a crippled bird



The day started out like any other for Captain Byron "Boo" Dodgen and First Lieutenant Mike Parker, an RF-4C crew in the 16th Tactical Reconnaissance Squadron at Shaw AFB, South Carolina. As they arrived at the squadron early that morning, the weather certainly didn't promise to be "clear and a million" for their flight as the effects of a Gulf hurricane continued to create heavy overcast skies and rain throughout the entire eastern half of the nation.

They had flight planned and prepared to fly IR-002, a low-level route in the Shaw local flying area, and to end up over Fort Stewart Range, near Savannah, Georgia.

Following the morning mass briefing, which included a "not

so rosy" weather forecast, they decided to fly the low level using simulated night low-level reconnaissance procedures with Mike concentrating on radar navigation in the back seat. After their crew briefing and a final update on the current weather and NOTAMs, they collected their flight gear and headed out to their jet. Due to the mission length, the aircraft was loaded with three external fuel tanks in addition to its normal load of reconnaissance camera equipment.

Captain Dodgen, an IP with about 2000 hours of total flying time, and Lieutenant Parker, who had arrived at Shaw a few months earlier from RTU, had flown together enough

to know how they each operated in the jet. Their ability to work together as a crew would prove invaluable throughout the entire flight.

After takeoff, they climbed to flight level 280, turning towards Harris VORTAC. Cruising at medium altitude, the wing tanks emptied and the centerline was selected as they continued toward the low-level entry point. Fifty miles away from Hinch Mountain VORTAC, they started a gradual descent for low-level entry. After a short holding pattern to obtain spacing on another RF-4 preceding them on the route, they headed for the entry point. Mike took a radar hack as they reached it; and they entered the clouds passing 4200 feet, accelerating to 480 knots.



Bringing home a crippled bird

About a minute after settling into the normal demands of flying at low-level, their Phantom suddenly began to pitch and yaw erratically. The emergency quick release lever stopped the spurious flight control inputs but, at the same time, flames and smoke erupted from the circuit breaker panel at Mike's right elbow. His first action was to shout for Boo to go to 100 percent oxygen and shut off the generators as the flames started to grow higher in the rear cockpit.

Beginning an immediate climb out of the low-level environment in search of a clear piece of sky, Captain Dodgen gangloaded his oxygen regulator, hacked the clock and went standby on the heading reference system. He then turned toward the south in order to remain in the only clear area available and extended the ram air turbine (RAT) in an effort to get emergency electrical power.

While Captain Dodgen searched for an area where they could maintain VMC conditions, Lieutenant Parker stayed busy battling the flames, now 12 to 15 inches high. He tried to smother the flames with his gloved hand, attempting to put them out with the only "tools" available.

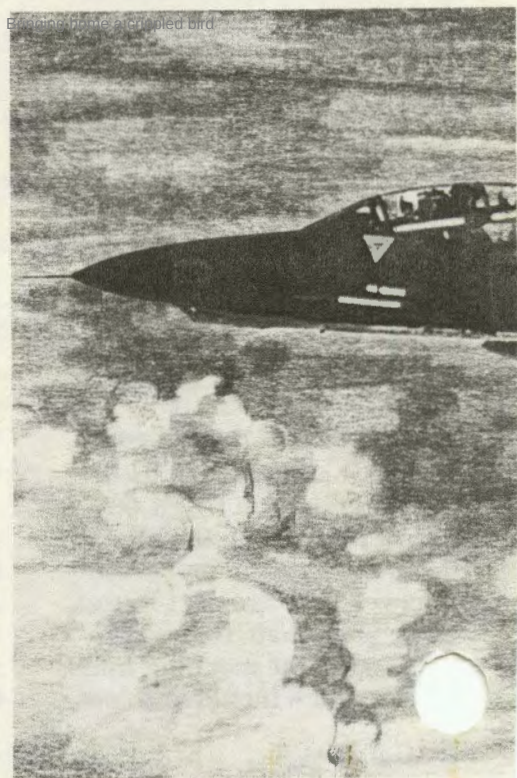
In an effort to regain electrical power, the generators were switched back on, but Mike immediately waved from the backseat that the flames were growing in intensity; so they were turned off again. About a minute later, the aircraft lost all electrical power, including that from the battery and RAT. That left them with an aircraft without any instrument navigation capability, attitude reference system, fuel monitoring or transfer capability, UHF or HF radio, intercom, transponder, nose gear steering, antiskid protection or external fuel tank jettison capability. They now had only airspeed, altimeter and engine tachometers for instruments and could only communicate with written notes or hand signals for the rest of the mission.

Captain Dodgen found a small area of VMC at about 10,000 feet and Lieutenant Parker finally got the fire put out in the back seat. His cockpit was completely filled with sooty black smoke and he used the emergency oxygen from his mask to blow the smoke out from underneath his visor.

The weather was bad in every direction, but they were able to stay VMC and keep the ground in sight

between breaks in the clouds. Although they couldn't communicate normally, Captain Dodgen completed appropriate checklist procedures for smoke in the cockpit and electrical fire, then went through the double generator failure check list, but had no success in regaining any electrical power.

Mike reported that he wasn't injured; but his shoulder had gotten extremely hot, the right elbow of his flight suit was burned and he couldn't feel anything in his right hand. He was also unsure about the condition of his parachute



pack because of the intense temperature which the flames had created. Later investigation found that some areas of the fire had reached nearly 2000 degrees Fahrenheit.

Unsure whether ejection was a viable option, the crew set about to "analyze the situation and take appropriate action." If they could get power back to the aircraft, Captain Dodgen knew they could get to Dobbins AFB, the nearest airfield with a barrier, or summon help from another aircraft.

During the next hour, the two men attempted to get some electrical power by

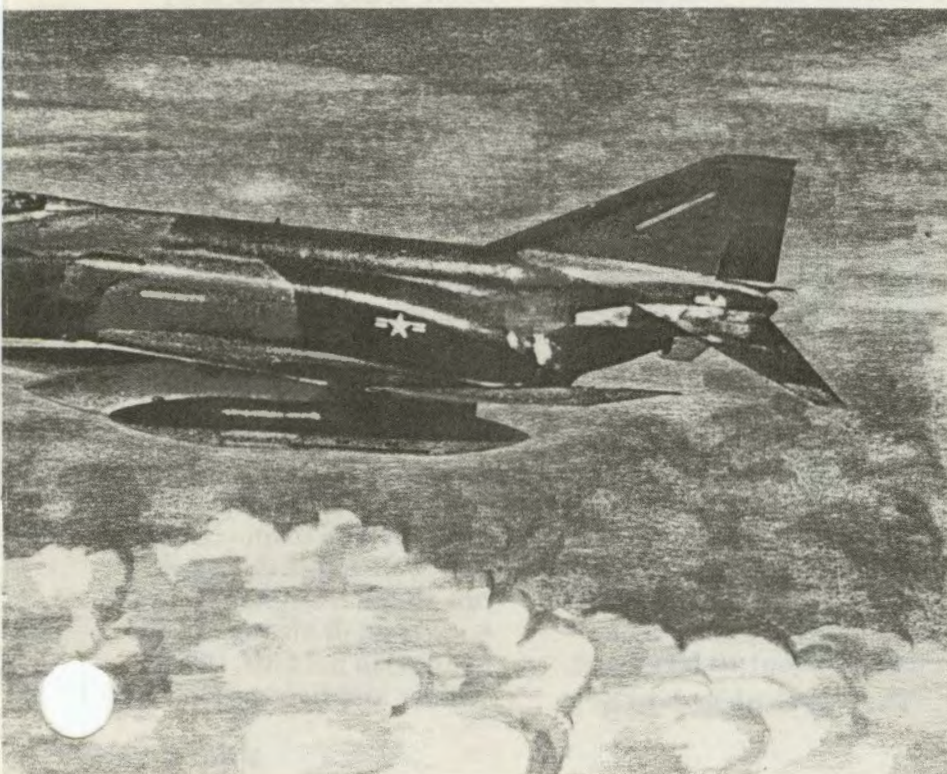
pulling each circuit breaker in and out. Despite their efforts, the attitude-heading reference and navigation systems never provided any reliable indications.

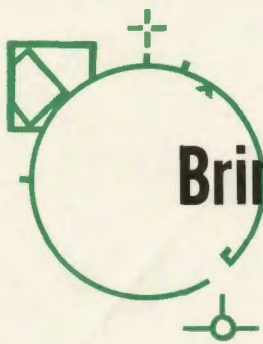
About 20 to 30 minutes after the fire stopped and the smoke cleared, Mike noticed an airliner off to their left. He shook the stick to get Boo's attention and pointed out the left side of the canopy. Unfortunately, the airliner didn't show any signs of heading in their direction and they didn't have enough clear air for a rejoin.

The crew noticed both a river and highway below them that were distinctive

landmarks. Checking their maps, they realized that the road was Highway 40 which headed northeast to Knoxville, Tennessee, and McGhee-Tyson Airport. As they turned in that direction, the weather ahead thickened and the cloud bases went all the way to the ground. They remained in their little hole, not wanting to fly into obvious IMC conditions without attitude or navigation instruments through the mountainous terrain around them. The crew also considered flying a distinctive pattern which might alert Atlanta Center's controllers to vector another aircraft to their aid, but they didn't have enough clear airspace to maneuver without flying into the clouds.

As all their efforts to navigate to a suitable airfield seemed to vanish, Captain Dodgen turned to an option that he had tucked away for a last resort. Just after they had entered the orbit area, he had noticed a small airfield nearby. Because previous efforts failed to produce the desired results, he decided the only remaining choice was to land his Phantom on that runway. From the time elapsed on the cockpit clock, he knew it had been nearly an hour since they had first experienced





Bringing home a crippled bird

their emergency and his fuel calculation indicated that it was time to get the airplane on the ground.

Boo passed a note to Mike: *We're going to force land the airplane at a little airfield back there behind us. Help me look for it.* They located the small paved airstrip which appeared to be no more than 3500 to 4000 feet in length. The runway was essentially a postage stamp nestled in the Tennessee mountains, surrounded on both sides by wooded areas that came right up to the runway. The surrounding terrain dropped off abruptly on each end of the runway. As Captain Dodgen considered his landing, he realized that he should be able to lower his gear through the emergency pneumatic system but he would have no gear or flap indications. Checking the tables, he knew he might not be able to stop the aircraft on such a short runway. Without electrical power, he would have no nose gear steering or antiskid protection.

Remembering a recent mishap when an RF-4 crew landed gear-up with only minor damage to the jet, Captain Dodgen felt that he could do the same. Landing gear-up on the external tanks appeared to be the plan considering the possible

fire damage to his backseater's chute.

Captain Dodgen lined the aircraft up for a low approach over the airfield to check for obstacles. Everything looked good, so he pulled up to downwind and positioned for a 5-mile final. He lowered both the gear and the hook while he began a very shallow approach.

The arresting hook hit first, 60 feet down the runway, and aircraft settled down on its tanks about 300 feet later. When they landed, Captain Dodgen shut down both engines to prevent further damage from FOD and to reduce the chance of fire. The aircraft began sliding to the left but he quickly used the rudder to swing the aircraft back towards the centerline.

When the jet finally came to a stop, both men quickly unstrapped and made their way out of the airplane. They had seen flames and sparks behind them as they skidded down the runway and flames from residual fuel in the tanks licked up both sides of the fuselage as they made their getaway. Captain Dodgen jumped out on the right side while Lieutenant Parker exited the cockpit from the left and headed for the edge of the runway about 10 feet away.

They were picked up by

helicopter later that day and returned to Shaw. While Mike had gotten *very* warm in the backseat, he found that he hadn't even suffered a "sunburn" from his battle with the fire. His Nomex gloves and flightsuit worked as advertised.

The aircraft suffered some repairable damage to the external tanks and left wing as well as some minor fire damage from the spilled fuel. But the Rhino and its crew were in one piece. All would fly again.

Airmanship is a crucial quality in the pursuit of flight. Each of us may have a different definition for it, but it finally boils down to being ready to cope with whatever comes up during the course of a mission. Captain Dodgen and Lieutenant Parker demonstrated airmanship of the highest level during a serious emergency and unusual flight experience. They remembered to keep first things first. They handled the emergency and flew the jet...flew the jet...flew the jet. They evaluated their options, made a plan and executed it, just as in combat. They worked together as a team. They had some tough decisions, but all the training, long hours and dedication to our profession paid off. They will fly and fight again. ➤

AIRCREW OF DISTINCTION



Major Richard W. Brandenburg, an F-16 IP, was leading a surface attack training mission on 3 October 1985 when he experienced a serious engine malfunction. During his first low angle strafe pass, he realized that his engine was operating abnormally as he immediately began a climb and turned towards Gila Bend AFAP. As he analyzed the engine problem during his climbout, Major Brandenburg determined that the engine was producing full military thrust, regardless of throttle position. He completed the appropriate checklists and decided that a flameout landing would be necessary. While circling over Gila Bend and discussing his aircraft problem with the Luke SOF, the engine had a massive compressor stall, the RPM dropped rapidly to 10 percent and froze. Major Brandenburg's wingman also told him that the aircraft was trailing flames and smoke. He immediately performed a descending turn to high key for a landing at Gila Bend. During the turn, he accomplished the critical actions for an airstart; but attempts in both UFC and BUC were unsuccessful. Determining that further airstart efforts would be futile and satisfied that he would arrive at high key with sufficient altitude and airspeed, he focused his attention on the flameout landing. Major Brandenburg handled yet another emergency



Maj Richard W. Brandenburg
311 TFTS, 58 TTW
Luke AFB, Arizona

when his landing gear failed to extend normally. Using the backup emergency gear extension system, he continued the flameout pattern by the book, landing the aircraft precisely where planned. Backup accumulator brakes were used to stop straight ahead on the runway. Major Brandenburg rapidly egressed his aircraft as the fire department reported that the engine was still smoldering.

Major Brandenburg's correct analysis of his engine problem coupled with his prompt actions and superior airmanship in coping with a serious emergency saved a valuable TAC combat aircraft. ➤

TAG

tips

INTERESTING ITEM

Subtle odors

Had any smoke and fumes in the cockpit lately? Hopefully not. What would your reaction be if you did suddenly notice strange smells and clouds of smoke coming from behind the panels around you? Think about it a few minutes before you go fly next time.

An F-4 EWO got to practice his "smoke and fumes" procedures following a mission to the range. Back on the ground in the dearming area, he noticed an unusual odor and then identified the smoke was coming from behind the console at



his right elbow. The EWO directed the pilot to shut everything off as he quickly unstrapped and ground egressed over the aircraft wing. While walking back to the squadron building, the EWO noticed throat irritation and a stuffiness in his breathing.

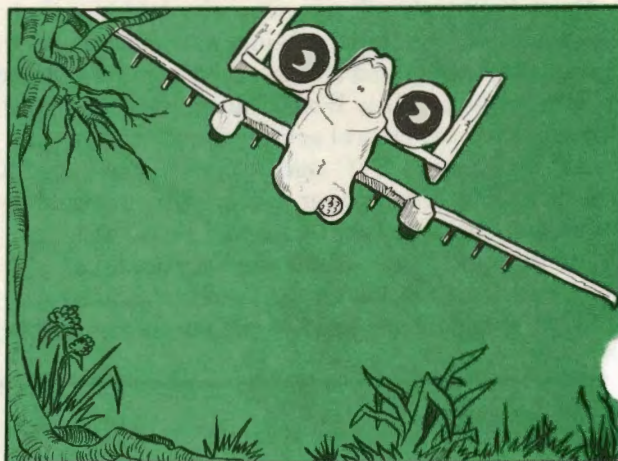
Smoke and strange odors in the cockpit are good indicators that something's not right. Your reactions in flight are particularly time critical

because some burning materials can produce fumes that can render you helpless or unconscious very quickly. Get on 100 percent oxygen, get the defective systems turned off and try to get the bad air out of the cockpit as soon as possible. Think about it now because there's no time to waste in the air.

Spatial misorientation

Flying good instruments is not just a combination of being a good stick and rudder man and knowing all the rules and procedures for instrument flying techniques and approaches. An absolutely crucial part of good all-weather instrument flying is a timely crosscheck of backup as well as primary instruments and always keeping your situational awareness (SA) intact.

An A-10 driver nearly bought the farm while he was flying an instrument approach because he lost



AS, MISHAPS WITH MORALS, FOR THE TAC AIRCREWMAN

SA. About 15 minutes into an instrument proficiency sortie, the pilot made a left turn to establish himself on the arc for a TACAN penetration. As he banked to the right to stay on the arc, he cross-checked the attitude indicator several times while he programmed several reference points in the INS. Each time he looked at the ADI, it showed straight and level; so he added more right aileron input. As he descended through 5,000 feet, the ADI continued to show he was in a wings level attitude. Just as he started to crosscheck his backup attitude references, he broke out of the clouds into the clear and found that the aircraft was in 110 degrees of bank and a slight descent. He immediately recovered to upright, level flight and had another aircraft lead him through the weather for a safe landing.

The faulty attitude indicator never had any "off" flags visible during the flight, and a benchcheck of the system duplicated failures in both the pitch and roll axes.

The high reliability of our current aircraft instrumentation can tend to produce a false sense of security and complacency. Don't rely on "off" flags or seat-of-the-pants indications to tell you that all may not be as it seems. Keep your backup ADI and other attitude references active in your crosscheck.

A shocking trip

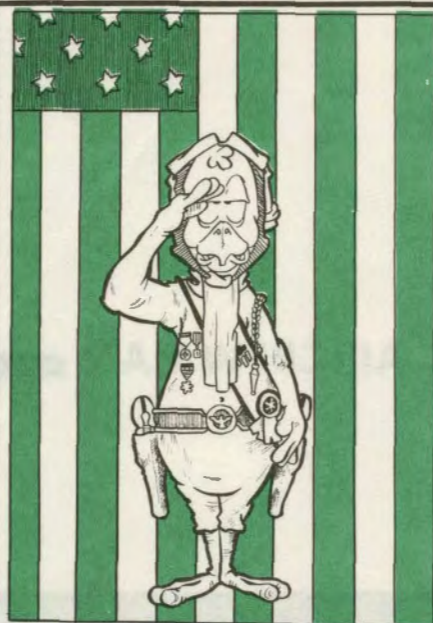
An F-111 crew was entering an IR route at 10,000 feet MSL when they saw two bright



glows of light come from under the radome followed by two audible bumps. They didn't notice any problems inside the aircraft, but they immediately aborted the mission and went home.

The crew had been flying in instrument conditions with rime icing occurring between 8000 and 10,000 feet when the incident occurred. The freezing level had been forecast at 7000 feet. Examination of the jet revealed damage to the radome and both UHF antennas as a result of static discharge.

During the preflight weather briefing, note the freezing level. Static discharge and lightning strikes are most likely to occur within 10,000 feet of this altitude. Avoid prolonged flight at or near the freezing level and prevent an electrifying experience.



FLEAGLE SALUTES

On 25 July 1985, Captains **Owen G. Dwire** and **Robert L. Key**, 549 TASTG, Patrick AFB, FL, were performing an OV-10 simulated single-engine approach for a touch-and-go at Patrick. The approach and touchdown made by Capt Key from the rear cockpit were normal; but during the go-around, Capt Dwire noticed a very large flock of seagulls on the runway. He immediately took control of the aircraft as it began striking birds at the runway midpoint. Confirming that the engines were still running normally as the aircraft emerged from the flock with less than 1500 feet of runway remaining, Capt Dwire elected to continue the takeoff. Having impacted over 45 large gulls, the aircraft canopy, both engine intakes, the fuselage and landing gear were covered with bird parts and feathers. Capt Dwire set up for an extended straight-in final while Capt Key coordi-

nated with RAPCON and the SOF. Capt Dwire then safely landed the aircraft without further incident.

A1C Clarence J. Anderson, 405 EMS, 405 TTW, Luke AFB, AZ, was servicing the oil system of his helicopter when he noticed that the engine oil being added had an unusual appearance. He arranged to have a non-destructive inspection; the oil was found to be badly contaminated. Additional investigation revealed that the entire lot of oil was contaminated and was being used in other aircraft. Thanks to his alert action, appropriate organizations were notified and an MDR was submitted.

Capt John L. Burke, 357 TFTS, 355 TTW, Davis-Monthan AFB, AZ, was about 200 feet off the ground after a heavyweight takeoff in his A-10 when the left engine hot light came on. With the engine's temperature 100 degrees above the allowed maximum and the rpm decreasing, the aircraft began to sink. Capt Burke quickly jettisoned his external ordnance and stabilized the aircraft in level flight. With the left engine shut down, he brought the aircraft in for a successful straight-in approach and landing.

TSgt James D. Souther, 4507 CAMS, 507 TAIRCW, Shaw AFB, SC, was performing duties as flight line weapons expeditor when the timer assembly of one of the LUU-2A/B flares popped out of the flare. Sergeant Souther caught the timer assembly and pressed it back into the flare body, preventing the parachute from being deployed. Then, while holding the timer assembly pressed into the flare

body, he called for one of the load crew members to bring him a roll of masking tape and instructed other load crew members to notify the maintenance operation center, explosives ordnance disposal (EOD), the fire department and the weapons safety NCO. Sergeant Souther then secured the timer assembly into the flare body with the masking tape and held it in position until EOD arrived. If the parachute had deployed, the flare could have ignited and burned producing enough candle power to ignite the remaining flares on the trailer.

Capt Jerry Rouse, RF-4C aircraft commander, and **Maj Steve Pedersen**, weapon systems officer, 91 TRS, Bergstrom AFB, TX, were about 15 minutes into their low level mission on 9 August 1985 when a large bird struck the top of the front canopy and subsequently shattered the rear canopy. The crew immediately aborted the route and started a climb out of the low level structure as they reestablished intercockpit communication. As they completed the appropriate checklist actions for both birdstrike and structural damage, Maj Pedersen discovered that his face curtain ejection handle had been ripped from its mount and was floating in the windstream outside the aircraft. Suspecting a possible "hot" rear seat and the potential for an uncommanded ejection, the crew made an emergency landing at the closest airfield which was a civilian airdrome. After the aircraft was safely stopped and taxied clear of the runway, the aircrew ground egressed (Maj Pedersen through the hole in his canopy) and the ejection seats were pinned safe.

GROUND SAFETY AWARD of the QUARTER

Shortly after arriving in the 23 TASS, TSgt Gary N. Clark became one of thirteen base motorcycle safety instructors. His dedication to provide the best motorcycle safety training has been exemplary.

Sergeant Clark has contributed countless hours of off-duty time, teaching the beginning motorcycle safety course and in completely redesigning the motorcycle road test course. As squadron motorcycle safety manager, he was one of the key organizers of a motorcycle rodeo to test motorcyclists' skill and coordination. He also organized motorcycle display booths during open house and safety day activities.

After attending the Motorcycle Safety Foundation Instructor Update Seminar, Sergeant Clark promptly educated the remaining instructors on the techniques and information he acquired. He assisted in the research and development of the Motorcycle Operator Skill Test (MOST II) range that is used as the licensing criteria in 26 states and provides base cyclists with the best quality in testing facilities.



TSgt Gary N. Clark
23 TASS, 602 TAIRCW
Davis-Monthan AFB, Arizona

ties.

To date, Sergeant Clark leads all Davis-Monthan instructors in the number of classes taught, bringing the total number of people he has trained to 344.

WEAPONS SAFETY AWARD of the QUARTER

Sgt Randy A. Vig is an outstanding contributor to weapons safety. His sustained superior performance is impressive.

Sergeant Vig developed safe, reliable workaround procedures for weapons functional checks when verified technical data and test equipment were unavailable. While working closely with interim contract service personnel, he verified all aircraft and suspension equipment safe for munitions loading and delivery. His outstanding efforts resulted in an impressive 99 percent reliability release rate for over 3000 munitions.

While performing acceptance inspections on newly assigned aircraft, Sergeant Vig discovered that the aft gun mounts were improperly tightened during assembly at the factory. He advised restriction of gun firing until this unsafe condition could be corrected and ensured a one-time inspection was accomplished. Additionally, upon discovering that a major inspection on the triple ejector rack (TER) had been omitted from the TO, Sergeant Vig submitted an AFTO Form 22 to correct the deficiency. Furthermore, while monitoring the loading of BDU-33 practice bombs, he observed that a proper bomb lock check could not be accomplished on the TER when mated to the modified C/D pylon. He took immediate action to get the lock check tool



SSgt Randy A. Vig
312 AMU, 58 AGS, 58 TTW
Luke AFB, Arizona

modified.

Sergeant Vig's technical knowledge is frequently sought out by investigative teams. His inputs during the investigation of an AIM-9 missile that inadvertently activated were a key factor in the final determination of the cause. He was selected to assist TAC inspectors during the evaluation of the LEADING EDGE exercise and to review and validate several F-16 C/D TOs at General Dynamics.

TAC SAFETY AWARDS

CREW CHIEF SAFETY AWARD

Sgt Frederick W. Warner's performance was superior as dedicated crew chief of his F-16A.

While performing a thru-flight inspection on his aircraft, he noticed a minor leak on the left brake assembly. He removed the leaking brake, installed a new brake assembly and eliminated a hazardous condition that would have affected the next flight.

On another occasion during a basic post-flight inspection, Sergeant Warner found a minor oil leak from the constant speed drive (CSD) sight glass. He then aided the electrician in the removal and replacement of the CSD. Evidence of the oil leak could have easily been missed. His quick thinking saved a sortie and eliminated a possible in-flight emergency.

Sergeant Warner's safety awareness is not limited to his assigned aircraft. Recently, he noticed an aircraft being towed on the active taxiway that was dragging the aircraft's exhaust cover. He stopped the tow vehicle and prevented a ground incident and foreign object damage to taxiing aircraft.



SSgt Frederick W. Warner
474 AGS, 474 TFW
Nellis AFB, Nevada

INDIVIDUAL SAFETY AWARD

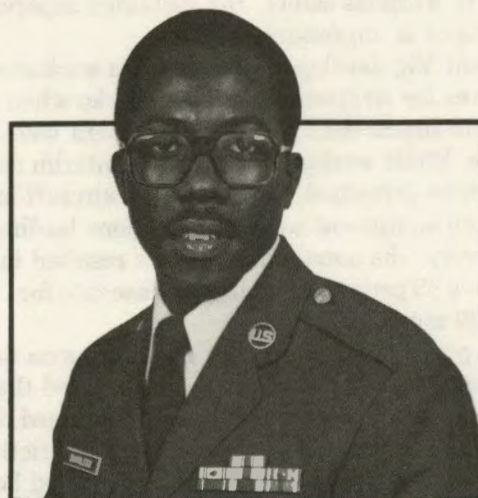
TSgt Gregory D. Quarless was selected to receive this award because of his determination and dedication to prevent foreign object damage.

While TDY to Nellis AFB on a Green Flag Deployment, Sergeant Quarless was notified that a pair of needle-nose pliers had been lost on the flight line and was missing from the ECM composite tool kit. The only work that had been performed using that tool kit was under panel 185—on 12 aircraft.

Sergeant Quarless immediately initiated a foreign object search on the 12 aircraft, notifying MOC and the Green Flag DCM that the aircraft would be grounded until the tool was found.

While he was conducting the search of the third aircraft, aircrews started coming out to fly. Several aircrews were already strapped in; however, Sergeant Quarless never considered compromising flight safety for the sake of expediency, and the aircrew members left their aircraft so he could continue his search.

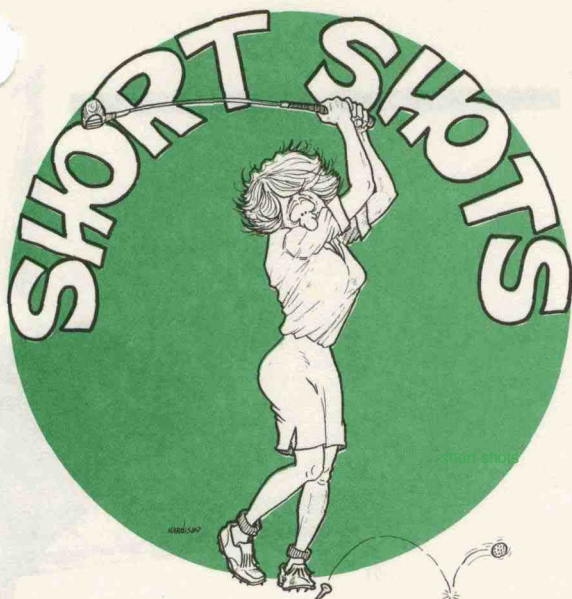
He found the needle-nose pliers on the fifth aircraft wedged between the survival kit and the forward



TSgt Gregory D. Quarless
347 TFW
Moody AFB, Georgia

ward ejection seat bucket. If the pliers had gone unnoticed, they could have become airborne, possibly injuring the pilot or causing an inadvertent ejection of the forward seat.

MARCH 1986



What's the worst that can happen with a paint sprayer? Irritated eyes and respiratory tract are problems, but the serious one comes when the person using the sprayer tries to unclog the nozzle with a finger. With pressures of up to 3,300 pounds per square inch, if the sprayer is left on, paint (usually toxic) is injected deep into the finger along with bacteria. If not treated, amputation may be necessary.

There are now two less emergency exits on Boeing 747 jumbo jets in the British Airways, Korean Air Lines, KLM and Thai Airway International. Two of the ten emergency exit doors have been sealed off. The modification was approved by

the FAA; however, the FAA encourages retention of all ten exit doors. No U.S. airline has sealed off any exits and none plans to do so.

Balloons, according to the Consumer Product Safety Commission, are the most likely toy to cause death by suffocation in children 6 and younger. Children inhale the balloons while trying to blow them up or swallow pieces of broken balloons which can completely block the breathing passage.

Six rules for proper lifting:

- 1) Get comfortable.
- 2) Bend your knees, not your back.
- 3) Keep the load close to your body.
- 4) Lift steadily and smoothly, don't jerk.
- 5) Avoid twisting your body as you lift, move your feet instead.
- 6) Get help with a load that weighs more than a third of your body weight.

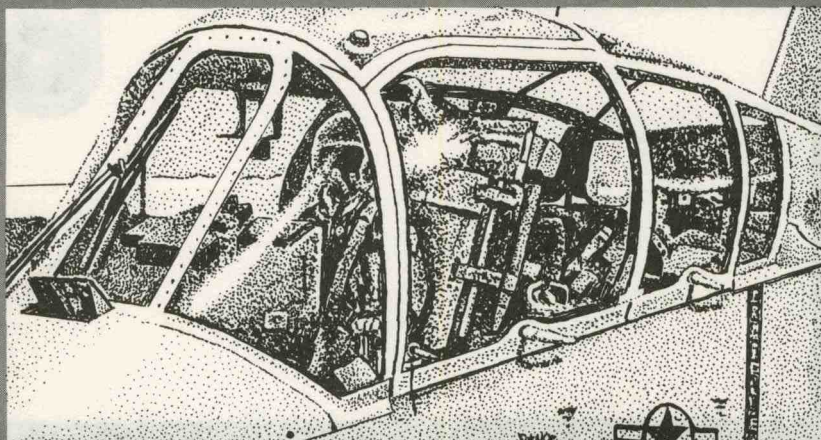
Forty percent of all accidents that cause blindness happen at home says the American Optometric Association. The accidents occur around the house or in the yard while using cleaning agents, power tools, fertilizers, weed killers and power yard equipment. Eyeglasses should be impact-resistant, but many aren't strong enough to protect against debris thrown by power tools. Use of safety goggles, face shields or safety glasses, all available at hardware stores, is the only way to prevent this tragedy.

HEADS UP

Next month, in the

APRIL

issue of *TAC Attack*, you can look forward to seeing SrA Kelvin Taylor's stipple rendition of the OV-10 Bronco **IN THE CENTER.**



E-3A Sentry

E-3A SENTRY

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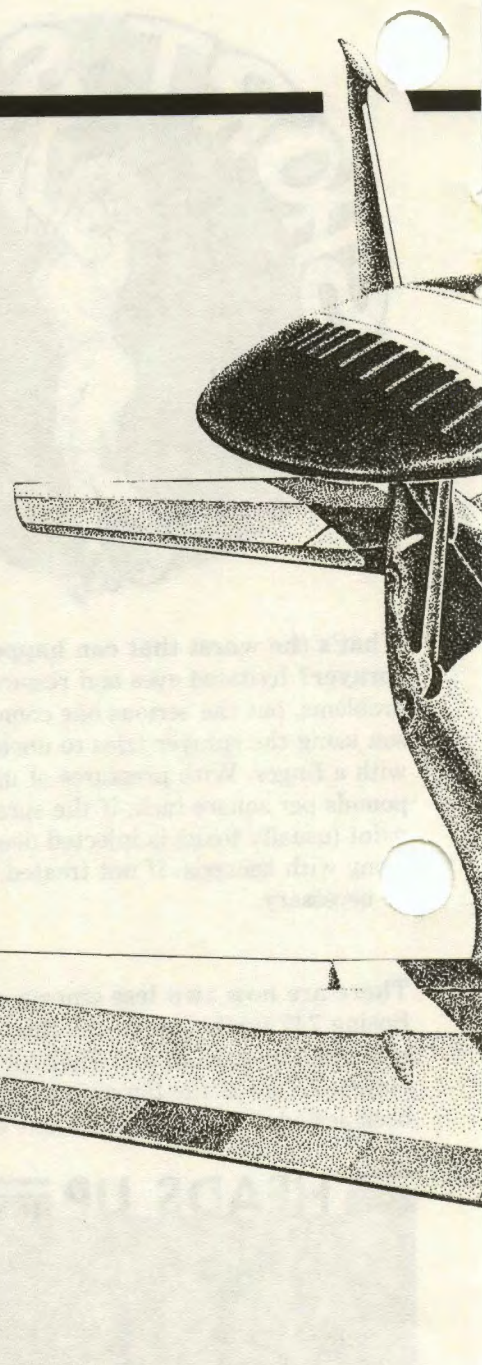
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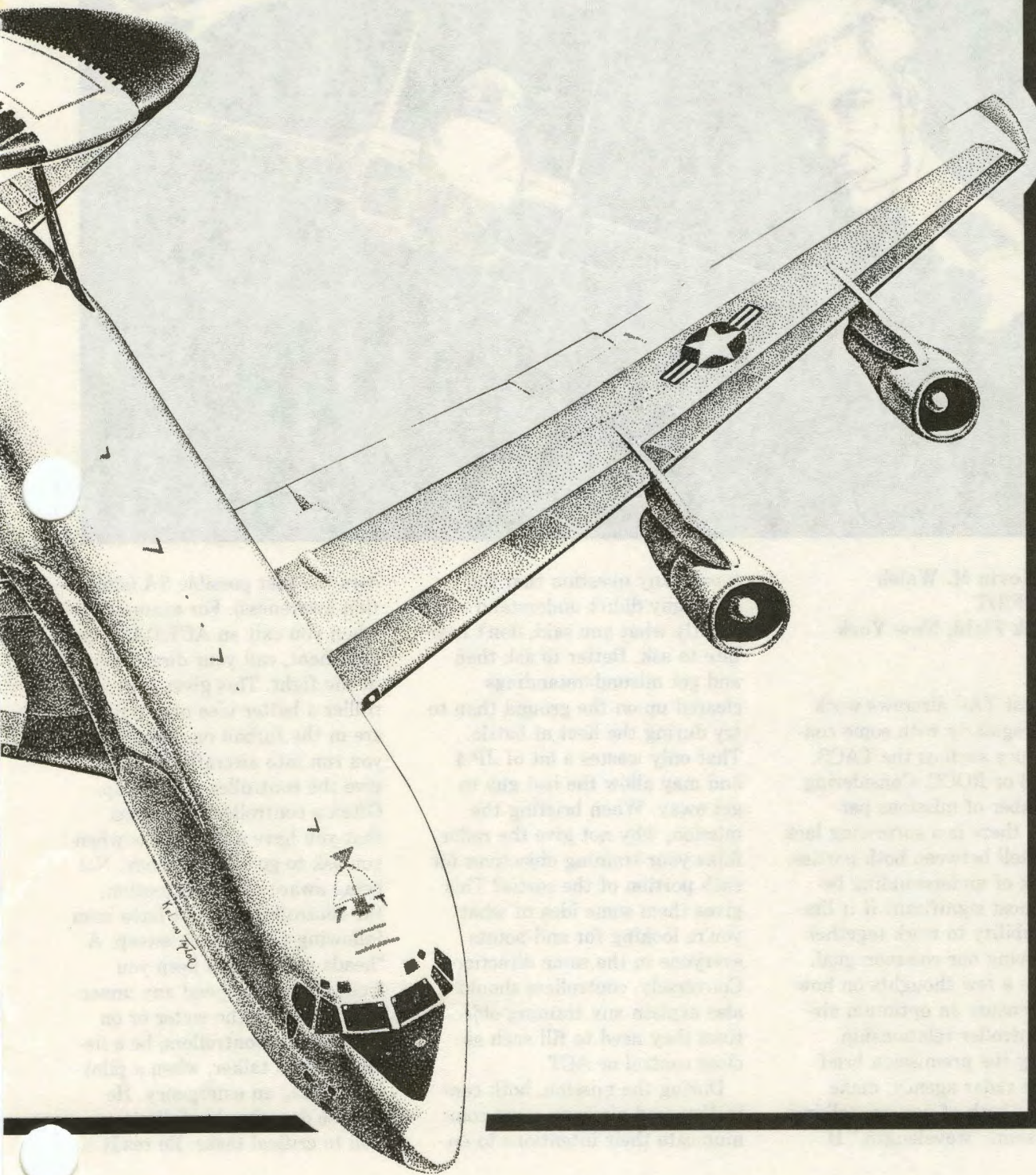
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A TEAM EFFORT



2d Lt Kevin M. Walsh
113 TCF/OT
Hancock Field, New York

Most TAC aircrews work regularly with some control agency such as the TACS, AWACS or ROCC. Considering the number of missions performed, there is a surprising lack of crosstell between both parties. Our lack of understanding becomes most significant if it limits the ability to work together in achieving our common goal. Here are a few thoughts on how we can ensure an optimum aircrew/controller relationship.

During the premission brief with the radar agency, make sure that both of you are talking on the same "wavelength." If

there's any question that the other guy didn't understand exactly what you said, don't hesitate to ask. Better to ask then and get misunderstandings cleared up on the ground than to try during the heat of battle. That only wastes a lot of JP-4 and may allow the bad guy to get away. When briefing the mission, why not give the radar folks your training objectives for each portion of the sortie? This gives them some idea of what you're looking for and points everyone in the same direction. Conversely, controllers should also explain any training objectives they need to fill such as close control or ACT.

During the mission, both controllers and aircrews must communicate their intentions to en-

sure the best possible SA (situation awareness). For example, when you exit an ACT/DACT engagement, call your direction out of the fight. This gives your controller a better idea of where you are in the furball on his scope. If you run into aircraft problems, give the controller a heads up. Often a controller's first idea that you have a problem is when you ask to go off frequency. Not being aware of your situation, the controller may not have been following you on each sweep. A "heads up" call can keep you from having to spend any unnecessary time in the water or on the ground. Controllers, be a listener, not a talker, when a pilot is handling an emergency. He may be devoting his full attention to critical tasks. Be ready to

ve help when asked.

Brief your RTB plans before takeoff and try to stick to them, if possible. Weapons controllers serve as a direct liaison between aircrews and the ATC folks. Keeping your RTB requests within the letter of agreement parameters is the best way to expedite your recovery.

Certainly the best tool for aircrew/controller communication is the mission debrief. It provides each of us the chance to both give and receive the necessary "atta-boys" and "aw-shucks" as well as to exchange ideas. Unfortunately, this tool is not always used or done so abruptly that little is gained from it. It doesn't

have to be a long drawn out postmortem; hit the high points so everyone can do better next time. When mistakes aren't pointed out, chances are that they will be repeated on subsequent flights.

Controllers are required to know the capabilities of both friendly and threat aircraft. By doing that, we are able to work better with the friendly forces under our control and also to anticipate what an enemy aircraft might do next. Aircrews can also enhance their effectiveness by learning about the control unit they work with. Is the site a manual or computer-assisted system? Does it have a

height estimation capability? How closely can the controller distinguish between targets? Do they use Have Quick? The more you know, the better you'll be able to call upon the services available to conduct *your* mission.

Open lines of communication between aircrews and controllers are essential to successful, safe completion of the mission. A working knowledge of the system affords everyone a greater degree of versatility and safety. When we achieve that kind of understanding, the aircrew/controller team is a hard one to beat and absolutely essential in combat.

TAC Flight Safety Award of the Quarter

Captain Robert I. Hooks' drive, determination, innovation and professional approach to all areas of safety have significantly improved safety in the 426th Tactical Fighter Training Squadron.

During his tenure as squadron flying safety officer, Captain Hooks identified a span of the year in which the majority of supervisors would be changing over, on leave or TDY. He immediately went to work and organized a safety campaign titled "The 36 Days of Summer." Captain Hooks' briefings emphasized worldwide F-15 mishap trends, heat stress recognition and prevention and reiterated the priority that safety has over all other tasks. The effect of his briefings was immediate and impressive: those 36 days were incident-free and the AMU recorded the highest fully mission-capable rate ever achieved by an F-15 unit.

Captain Hooks has also established a tracking system for aircraft write-ups that alerts pilots to aircraft with recurring problems. Besides being useful, it also provides a readily accessible data base that a pilot can use to make a more detailed write-up of a discrepancy. These better, quality write-ups are one reason the squadron has consistently exceeded the TAC standard for percentage of fully mission-capable aircraft.



Capt Robert I. Hooks
426 TFTS, 405 TTW
Luke AFB, Arizona

These are just a few examples of Captain Hooks' in-depth involvement in flight safety. He also established a commander's safety file of fighter-related mishaps and developed an in-depth surface attack training course. His mishap reports are concise and to the point, and he is frequently selected to represent the entire 832 AD at important conferences.

CHOCK TALK

INCIDENTS AND

Don't get in my way

During climbout following a normal takeoff, an OV-10 pilot noticed that he could only move his rudder pedals in either direction with great difficulty. Everything had checked out fine on the ground but now something serious was wrong. An inflight controllability check was performed and



everything seemed OK except for the jammed rudder pedals. The pilot brought the Bronco back for an uneventful straight-in landing.

The problem turned out to be a wiring bundle that ran along the fuselage near the top of the right rudder pedal. When the rudder pedals were at an intermediate position, the right one contacted the wiring bundle and hung up. The wire bundle was hanging in the way because the string ties that it was secured with had loosened with age. The wiring bundle was subsequently retied with plastic

ties and a restraining clamp was repositioned to prevent future problems.

Have you been working around wire bundles that aren't neatly secured like they should be? Next time you get around some, take a few extra minutes to make sure everything's tucked away and not likely to conflict with any moving parts.

Too warm for a Tomcat

Most of us never see one of the Navy's swingwings, the F-14 Tomcat; but if you do, here's something to keep in mind. Two F-14s stopped by one of our TAC bases for fuel, a quick bite to eat and a flight planning update before continuing on the next leg of their trip. Transient Alert (TA) marshalled the jets into the transient parking area and then the naval aviators went about their business. It was a warm, clear day, and the jets were parked facing directly into the sun.

About an hour later, one of the TA folks saw wisps of smoke coming from the cockpit of one of the Tomcats. Climbing up the aircraft ladder to investigate, he found both a flight jacket and a canvas clothing bag smouldering and starting to burn. Calling for additional help, the crew chief grabbed a fire extinguisher and put out the fire as other Transient Alert folks responded and found a similar fire in the other F-14 as well.

Now what could have caused a fire to break out in two unattended Navy jets at the same time?

INCIDENTALS WITH A MAINTENANCE SLANT



Sabotage? The Twilight Zone? No, they found that the fires were caused by sunlight coming through the fully closed aircraft canopy. By parking the jets facing into the sun, the curved glass of the closed canopy caught the sunlight and, acting like a magnifying glass, focused the energy on the items stored in a small compartment at the rear of the cockpit. The result was two fires and a destroyed jacket, but it could have been much worse. In addition to the fire, the aircraft ejection seats hadn't been pinned safe; so we were very fortunate that no one was injured while fighting the fires.

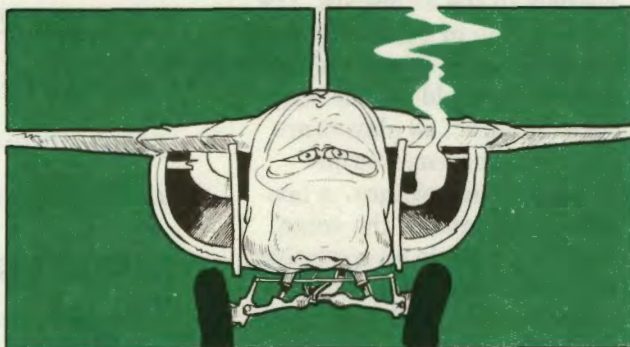
So, when you have Navy Tomcats drop in at your base for refueling or a static display during community appreciation day, don't park them facing into the sun with canopies closed unless the storage self is empty. Canopy open or in-between is OK,

TAC ATTACK

too. In addition, make sure that transient aircraft have their ejection seats properly pinned to insure your safety in case you or the fire department has to get into the cockpit for some reason.

Down the hatch

An engine run team discovered FOD (foreign object damage) to an F-111 engine during a pre-run inspection. The damage was several nicks on numerous first and second stage engine blades,



and the cause was a rivet from a locally manufactured intake cover plug used during phase maintenance.

Whether you're using a locally produced item or something from normal supply channels, give the intake cover, or whatever else you're using, a thorough once-over before you start work. Before you place anything around an engine, make sure that all parts and fasteners are secured and won't be left behind when you're finished to get sucked in when the motor starts turning.



Transportation of explosives on base doesn't have to be a hazardous operation. In most cases, vehicle routes are well defined and are selected to expose personnel and mission essential facilities as little as possible to the explosives. The introduction of outside hazards, not necessarily associated with explosives, could set the stage for a disaster if all players are not using the same script.

In the above picture, a non-player has entered the scene. The stage here is an explosives transportation route which crosses a busy public highway. We have to take for granted that unless you dig a tunnel or construct a "fly-over," you'll have to cross the highway many times daily in order to perform your mission. Many people are quick to say that a lack of accidents in a specific area is reason to leave "well enough" alone. Not so when it comes to transportation of explosives. Let's take a

closer look at a few of the problems you may encounter performing this simple task of crossing a public highway.

One of the first problems you encounter is the size and weight of your load. Whether you're

One of the first problems you encounter is the size and weight of your load.

transporting rockets and practice bombs or tons of live, general purpose bombs, acceleration from a dead stop is difficult. A seemingly far-off, oncoming vehicle will arrive on the scene very fast at your slow speed. Couple this with the length of your vehicle, either a 40-foot flatbed or tandem trailer, and what may appear to be a safe crossing to you may be a bit of a

surprise to the motorist when he encounters a trailer load of bombs in his path.

Darkness, as always, adds its unique problems. The small lights on our trailers provide little warning to oncoming traffic. Judging the speed of these oncoming vehicles is also hindered. Again, with slow acceleration, timing of the crossing becomes critical. If the situation permits, you are better off waiting until all traffic has passed before proceeding. Basic concepts of defensive driving are always important when transportation of explosives is involved.

Those are some of the problems of crossing a public highway. But let's look at some considerations in making this intersection safer than any other. Since we can usually avoid what we can see, lights appear to be a good start. If operations are conducted at night, a well-lit intersection is a must. Flashing yellow lights could be employed as

THE LONG HAUL

SMSgt Ed Hartman
TAC/SEW

a caution to approaching motorists or traffic signals could be considered as an option. If these are not feasible, we may be back to the old "judgment call." To assist in this judgment, a little advance testing and planning may be needed.

One suggestion is to hook up one of your tow vehicles to the heaviest load you normally haul; for instance, two trailers of MK-82 bombs. From a dead stop, using a stop watch, time your acceleration and crossing of that intersection. Start the time at the stop sign and don't stop it until the last trailer passes the stop sign on the other side of the road. Now double the time and multiply by 88. (Eighty-eight is the number of feet a vehicle traveling 60 miles per hour will cover in one second.) Your answer equals a safe distance between you and an approaching vehicle. Pick out a landmark, tree or fence line to mark this distance. If a vehicle is between

this mark and the intersection, don't enter the intersection.

EXAMPLE: It takes 12 seconds for your vehicle to completely cross the intersection. Double this and you get 24. Multiply 24 by 88 and you have 2112. This is the distance in feet where you want to establish the landmark from the intersection. Now, make it standard practice for all drivers, regardless of load, that no one will enter the intersection if a vehicle has passed the landmark and is approaching the intersection. These calculations are guidelines only, but you only need to figure them once. The solution is not a cure-all either. It must be employed with all the other tactics of driving safely.

The folks at George AFB have employed a similar solution to a potentially dangerous crossing. They emphasize additional words of caution. Not all vehicles travel at the posted speed limit; if in doubt, wait.

While we've focused mainly on the hazards of crossing a public highway, explosives transportation routes can involve the same

Careful evaluation of all hazards on a route, regardless of location, is essential.

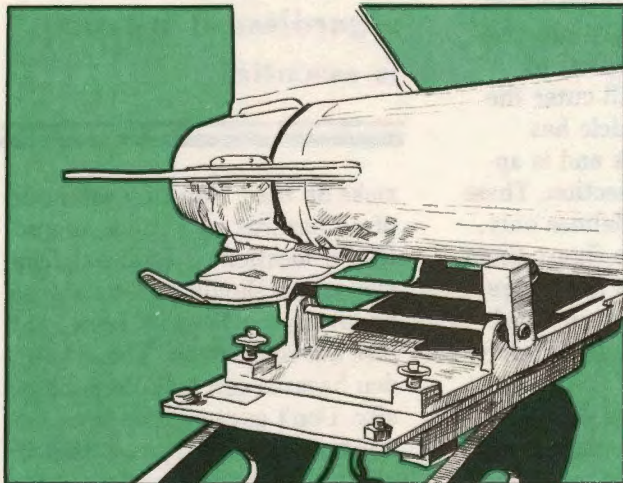
risks on base. Careful evaluation of all hazards on a route, regardless of location, is essential. This evaluation should include a drive on all approaches to a route, not just the route itself. Those hidden hazards can be killers, literally. Don't assume that since an accident hasn't happened that it won't. The old adage "An ounce of prevention. . . ." is very appropriate here to insure that this long haul won't be the "last haul."

WEAPONS WORDS

It's not over till it's over

It was late in the day and one F-4 still needed to be downloaded following completion of the day's ICTs. The combat turns had started later than planned, and the actual downloading of the munitions would extend beyond normal duty hours for the day-shift load crew. The weapons flight supervisors and ICT directors had already left the ICT area and told the load crew to go home as soon as they got the job finished.

As the removal of the AIM-7s began, the jammer driver pulled under the first missile and the crew chief began raising the MJ-1 lift table with hand controls. The bomblift adapter wasn't properly aligned and, as the lift arms came up into contact with the missile, the rocket motor was damaged.



Of course, the damage could have been prevented if the weapons load crew had taken their time and used a little more care. But their supervisors had sent a very clear message as they left the area and

told them to take off when the job was done. *If it's not important enough for the boss to hang around then it must not be very important.* Don't send that message to your folks. The job isn't done until it's done and then all of you can go home.

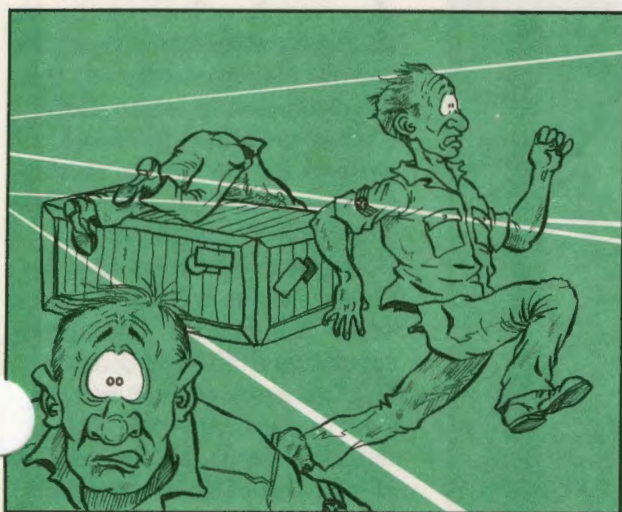
It's the old unloaded gun story

SMSgt Ed Hartman
HQ TAC/SEW

A crew from one of our sister services was dispatched to perform a functional check on a 20-mm gun system installed in one of their aircraft. The crew performed a walk-around inspection that included a "quick" visual check of the gun and feeder system.

Thinking the gun and feeder were clear of ammo, they proceeded to perform the operational check on the gun system. All switches were verified as being in the correct position; external power was applied and the crew took their positions in the aircraft. Switches were set up for the check; as the crew member engaged the trigger, the gun fired four 20-mm HEIT (high explosive incendiary tracer) rounds. Six aircraft and an NF-2 light cart were damaged by the rounds. Luckily, personnel working on those aircraft received only minor injuries from fragments.

Investigation revealed that both crew members had performed all tasks leading to the mishap from memory. The supervisor had the required checklist in his pocket but failed to ensure that all steps were performed properly.



Assuming that a gun system is empty is an invitation to a catastrophe. Checklists and technical orders were designed to keep mishaps like this one from happening.

Of course, this would never happen in the Air Force. Or could it? The day after this item was written an almost identical incident occurred within our own command. Never drop your guard because things don't just happen to the other guy, they can happen to you if you let them.

Just a little push will do

The missile maintenance crew had completed checkout of an AGM-65 Maverick and was preparing to return it to storage. The missile was being rotated on the MHU-32/E maintenance stand so that the guidance unit cover could be installed. As the AGM-65 was turned, one of the fins contacted the ADU-330 adapter. The crew member continued to turn it, causing the missile to fall off

the adapter. The missile hit the stand on its way down and damaged one of the control surfaces.

Part of the cause of this incident was that the maintenance stand had not been properly assembled. The forward and aft adapters were reversed. That allowed the missile fin to bind up as it was rotated on the adapter. With that trap already set, the excessive force used to turn the missile caused it to roll off and suffer damage. Make sure you've got the proper tools and that they're correctly configured before you start to work. Don't complicate matters by having to send something back to the depot for repair when all you were supposed to do was put it back on the shelf for storage.

Steady as you go

A crew of munitions maintenance folks was busy removing AIM-9M AURs (all-up round) from a flatbed trailer. Several AURs were stacked on the forklift and the driver headed for the storage area. Unfortunately, he had the tines of the forklift tilted forward and, when he reached a downslope in the road, the top two containers started to slide off the stack. While trying to stop and lower the forks to the ground, the AURs fell several feet to the ground and damaged the assembled missiles.

Keep an eye on your tine position as you move material from one spot to another. Make sure you not only avoid the rough spots in your path but also keep your tines and mast tilted back as you move along.

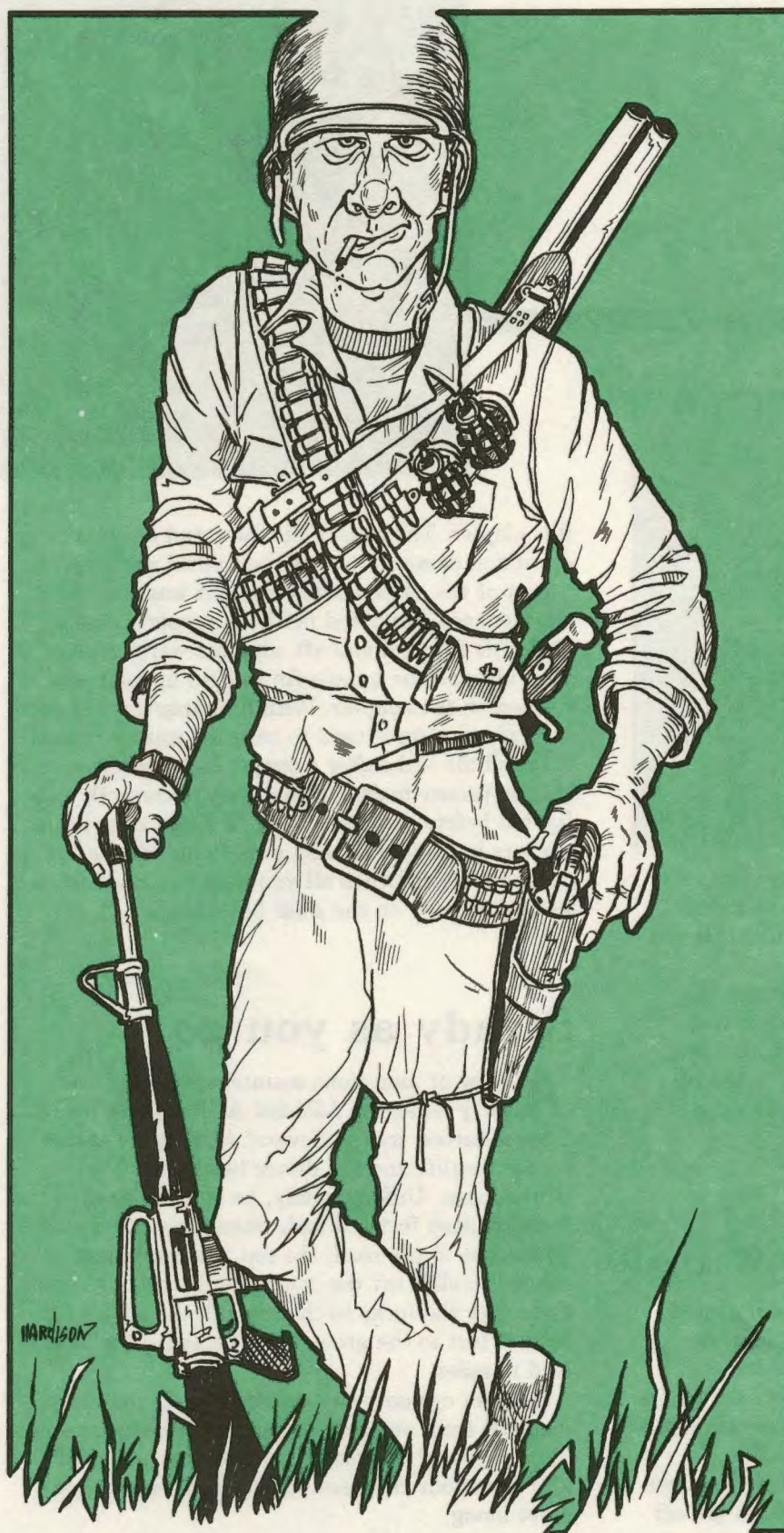
OUT

**Capt Kerry S. Crenshaw
TACOPS/DOXX**

Increased emphasis on the Air Force's warfighting capability and our ability to carry out the USAF mission in low intensity combat has placed increased importance on the need to provide air base ground defense (ABGD), deployable Prime Beef/Red Horse teams and specialized groups such as the CBPO's personnel in support of contingency operations (PERSCO) teams. This has resulted in an increased need to train and equip TAC personnel in the proper care and use of a variety of small arms such as the .38 caliber revolver, the M-16 automatic rifle, the M-60 machinegun and the M-79 grenade launcher.

While the increased availability and employment of such weapons does require corresponding attention to their safe and proper use, it does not mean that we should expect a corresponding increase in the number of mishaps due to their improper use. But, if we don't acknowledge the increased care necessary to ensure proper use of small arms, mishaps can result in drastically reduced effectiveness while we're deployed in the field.

Several examples of what can happen occurred during a recent TAC small unit field training exercise. The team was going out into the field for three days and



IN THE FIELD

DOING IT RIGHT

had been thoroughly briefed and trained in preparation for the exercise. During the trek and encampment, the trainees committed several safety violations which endangered their lives and possibly the lives of others around them.

The first violation occurred when several patrol members stopped to rearrange their equipment. While doing this, two members of the team placed their M-16s butt down on the ground and leaned against the muzzles. The weapons had not been safed, and the rifle muzzles pointed directly at one trainee's face and at the other's midsection. Any accidental discharge would have meant serious injury or death.

Obviously this procedure wasn't correct. The trainees had several options which would have enhanced their safety such as safing their weapons and leaning them against a tree since perimeter guards had been posted. They also could have used the buddy system and asked fellow trainees to assist in rearranging their equipment.

The second violation involved one trainee who brought a 12-inch Bowie knife along on the exercise as his personal weapon. He stowed the knife down inside the front of his fatigue trousers. He would have been in big trouble

if he'd had to take cover quickly.

What was wrong with this incident besides the improper method of stowing the knife? It should be a well known fact that personal weapons are not allowed on official military exercises and all weapons should be maintained in a safe manner. Second, any weapon or field tool that has a sheath or carrying case should be carried properly, not stuck down inside your trousers like some type of mountain man.



The third violation occurred when one of the trainees held a practice grenade to his chest instead of at arms length after pulling the pin. A premature grenade explosion would cause severe damage no matter where it's held, but next to one's chest would result in irreparable damage.

Even though this was a short exercise, these folks committed some very serious safety violations which could well have "ruined their whole day." The safety violations not only endangered the lives of those involved, but there was little chance for rapid medical treatment due to their distance from any form of quick transportation. These are only three examples of the kinds of safety violations that we might be tempted to commit during a field deployment. As you prepare to go into the field, consider all of the areas of your operation, and especially those surrounding your use of firearms, which could get you into trouble if you're careless.

To prevent injury or death, it is of utmost importance during field training exercises that we stay alert, attentive and follow all safety procedures. It will certainly make life more bearable and enhance our effectiveness and readiness as a fighting team.

DOWN TO EARTH

ITEMS THAT CAN AFFECT YOU AND YOUR FAMILY

It can't happen to me

A young airman was driving his car at approximately 85 mph. He wasn't wearing his seat belt; but his passenger, another young airman, was. They were about three-tenths of a mile from their destination when the driver lost control and veered off the road onto a grassy area where the car hit a telephone pole. The driver was thrown from the car. He died. The passenger just got bumped and bruised.

Now check the *Buckle-Up Fact Sheet* below (from the National Safety Council) and try to convince yourself that *it can't happen to me*.

BUCKLE-UP FACT SHEET

- Every 12 minutes 1 person is killed in a motor vehicle accident. Every hour 5 people are killed in motor vehicle accidents. Every week 800 people are killed in motor vehicle accidents and 35,000 are injured.*
- Motor vehicle accidents are the number one

killer of children age one and older. Each year about 810 children under the age of five die from injuries received in accidents.

- The chances of being killed in a motor vehicle accident are 25 times greater when thrown from the vehicle.
- It is the second collision that injures and kills people in an accident. The initial collision is the crash of a motor vehicle into some object. The second collision occurs when unbelted occupants, still moving forward, are stopped by something—the car's windshield, steering wheel, doors, dashboard or other hard, interior surface.
- Most motor vehicle accidents happen within 25 miles of home at speeds of less than 40 miles per hour.
- When a driver brakes at a speed of 30 mph, an infant held in an occupant's lap/arms will be thrown forward even when held tightly by a restrained adult and will almost certainly strike the



HERE ON THE GROUND



dashboard or windshield. The unrestrained occupant will also be propelled forward probably into and crushing the child.

- Motor vehicle accidents cost America an estimated \$39.3 billion each year. In addition to incalculable grief and emotional suffering, each death is estimated to cost the community \$170,000. Even relatively minor injuries create an unnecessary and drain on the resources of families and communities.

*Motor vehicle occupants only.

Put a lid on it

A common place for household fires to start is the kitchen. Most often, they occur when burners are set too high and the stove is left unattended.

To remind the public how to handle a cooking fire, The Ohio Fire Department has been promoting the slogan "Put a Lid On Grease Fires." A lid that is the same size or slightly larger than the pan will smother the flames. As soon as the lid is safely in place, turn off the burner and let the pan cool before removing it from the burner.

The worst action you can take is to try moving the burning pan to the sink. The pan will be hot, the handle will provide little protection; and you'll probably drop it, splattering grease on yourself. Even if you do move it to the sink, water will splatter the burning grease.

Oven fires are less common than stove-top grease fires. Fire officials say food on fire in a closed oven probably not spread, but smoke will leak out



into the kitchen. If a small fire is discovered when the oven is opened, throw baking soda on it.

Every home should have a fire extinguisher in the kitchen. Read the instructions and know how to use the extinguisher before a fire starts. Otherwise, you can make mistakes, such as getting too close to the stove and causing the grease to splatter on you.

Don't try to extinguish a large fire. If the fire has spread beyond its point of origin, get everyone out of the house and call the fire department from a neighbor's house. And once you are out, stay out.

Courtesy National Safety News

F-16

EMERGENCY SITUATION TRAINING

Maj Bill Sanders
HQ TAC/DOV

SITUATION: While ingressing to the target area (100 NM from any usable concrete) at 480 knots and 500 feet AGL, you experience a noticeable loss of thrust and note RPM decreasing through 60 percent and FTIT rapidly decreasing—you've lost your engine. Your first reaction should be to get away from the dirt: zoom, stores—jettison, JFS—Start 2, perform BUC airstart (altitude permitting).

OPTIONS: As you accomplish the above steps several questions arise. To answer them, you'll need to retrieve your "brain" from the map case.

- A. What airspeed do you zoom to?
- B. Is RPM decay slower/faster at 170 knots/210 knots or 250 knots?
- C. What altitude do you think you'll get out of your zoom climb?
- D. Will you have time for a BUC airstart?

DISCUSSION: Despite the fact that Change 2 of the Dash One neglects to mention the minimum airspeed of 250 knots for suspected tower shaft failure (returning in Change 3), it is still a player if indeed you have tower shaft failure. In this case, as you are zooming, you note the RPM decreasing gradually, so you eliminate tower shaft failure. That leaves 170 or 210 knots. The Dash One states

that RPM decay below 10,000 feet is relatively independent of airspeed, so any excess airspeed may reduce your available time for airstart.

According to the chart in the Dash One, a zoom to 170 knots will get you close to 6000 feet AGL, assuming you do a 3-G pull to a 30-degree climb and not a 9-G pull to a 60-degree nose high recovery. For those still working with tower shaft failure, a zoom to 250 knots gets you about 4500 feet. Therefore, with the JFS running and nowhere to glide to, go to 170 knots and the engine rotation from the JFS will provide sufficient airflow for a good start. At this point with JFS running, you hopefully have already started your BUC airstart procedures and are milking the throttle forward for a start. You probably only have one good shot for a BUC. If you reach 2000 feet AGL with insufficient thrust available to maintain level flight or to safely control your sink rate—EJECT.

You probably noticed that there isn't anything new in the above discussion; it's all in the Dash One. The point is, there are many options associated with specific emergency checklist items. Consider all the "What-Ifs" peculiar to your mission that day, and you'll be less likely to get caught by surprise and hesitate when you can least afford it. Read the small print and always be aware of your options.

TAC RALLY



CLASS A MISHAPS
AIRCREW FATALITIES
TOTAL EJECTIONS
SUCCESSFUL EJECTIONS

TAC		
JAN	THRU 1986	JAN 1985
3	3	2
4	4	1
0	0	2
0	0	2

ANG		
JAN	THRU 1986	JAN 1985
1	1	1
0	0	0
2	2	1
2	2	1

AFR		
JAN	THRU 1986	JAN 1985
0	0	0
0	0	0
0	0	0
0	0	0

TAC'S TOP 5 thru JAN 85



TAC FTR/RECCE		
class A mishap-free months		
42	405 ITW	(F-15, F-5) Luke AFB, AZ
35	33 TFW	(F-15) Eglin AFB, FL
33	366 TFW	(EF/F-111) Mtn. Home AFB, ID
32	49 TFW	(F-15) Holloman AFB, NM
31	67 TRW	(RF-4) Bergstrom AFB, TX

TAC AIR DEFENSE		
class A mishap-free months		
106	48 FIS	(F-15) Langley AFB, VA
65	318 FIS	(F-15) McChord AFB, WA
16	49 FIS	(F-106) Griffiss AFB, NY
11	325 FWW	(F-15) Tyndall AFB, FL
0	5 FIS/57 FIS	

TAC-GAINED FTR/RECCE		
class A mishap-free months		
157	138 TFG	ANG(A-7) Tulsa, OK
134	114 TFG	ANG(A-7) Sioux Falls, SD
123	183 TFG	ANG(F-4) Springfield, IL
120	180 TFG	ANG(A-7) Toledo, OH
112	124 TRG	ANG(RF-4) Boise, ID

TAC-GAINED AIR DEFENSE		
class A mishap-free months		
139	177 FIG	ANG(F-106) Atlantic City, NJ
105	125 FIG	ANG(F-106) Jacksonville, FL
88	119 FIG	ANG(F-4) Fargo, ND
72	107 FIG	ANG(F-4) Niagara Falls, NY
64	147 FIG	ANG(F-4) Ellington AFB, TX

TAC-GAINED Other Units		
class A mishap-free months		
198	182 TASG	ANG(OA-37) Peoria, IL
182	110 TASG	ANG(OA-37) Battle Creek, MI
178	USAFTAWC	(many fighters) Eglin AFB, FL
170	84 FITS	(T-33) Castle AFB, CA
112	552 AWACW	(E-3, EC-130) Tinker AFB, OK

CLASS A MISHAP COMPARISON RATE

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

TAC	1986	4.8											
	1985	3.2											
ANG	1986	4.8											
	1985	4.8											
AFR	1986	0.0											
	1985	0.0											

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

FLEAGLE

WHEN YA' BEEN FLY'IN
AS LONG AS I HAVE...



YA' FIND THAT YA'
DON'T HAVE TO
THINK VERY MUCH.



ALL TH' MANEUVERS
JUST SEEMS TO
COME NATURAL.



EAT YA' HEARTS
OUT, ROOKIES.



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WHA!



ROB, YA' THINK THIS OLD SUGAR
MAPLE KNEW WHAT A GOOD
FLYER FLEAGLE WUZ ?

I DON'T THINK IT
CARED, GRIFF.



HARRISON

