

Safety In Air Combat Sandwise Maintenance If You Think That's Funny... Refueling Over the Desert

Airpower in the Desert



■ I was flying a five-target, singleship recce mission in the Desert Shield AOR. The first half of the mission had gone well, and I had just finished the air-to-air refueling before beginning the next low level route.

By now, I had moved toward the northern area of Saudi Arabia, and the weather was the usual mixture of clear skies with dust in all quadrants. After flying for 15 minutes, heading west into the afternoon sun, I realized the visibility was getting worse.

Concentrating on finding a small target in the middle of the desert, I had neglected to keep a watchful eye out for approaching sandstorms. Suddenly, I was in the middle of one. Visibility went to zero in any direction you looked. I elected to abort, pushing the throttles to military and raising the nose to 30 degrees pitchup on the HUD.

Since my only previous experience with sandstorms had been from the comfort of my hooch, I naturally assumed they didn't extend much above the surface. After setting up the climb, I pretty much stopped flying the jet and waited for clearer skies. Passing 7,000 feet, I realized conditions were not as I had expected. Noting my attitude was now 35 degrees and my airspeed was rapidly decreasing, I attempted to recover the aircraft, but it was too late.

The airspeed went to zero and the

nose pitched down. I let go of the controls and the aircraft started a disorienting spiral dive. Some very basic instrument training finally kicked in, and I recovered to level flight at about the same time I flew out of the side of the blowing sand.

There was nothing inherently dangerous about this training mission. I had flown enough low levels in the AOR to feel confident. The weather wasn't anything I hadn't seen before either. Before this little incident, I didn't believe it was possible to become complacent when you're deployed half-way around the world and preparing to go to war. I was wrong. *People* get complacent — not the aircraft or the missions.

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Safety In Air Combat

... an interview with Major General Olsen

■ During the time we were able to spend in the Desert Shield AOR, *Flying Safety* had the opportunity to talk with Air Force members at every level of the operation. Despite a very busy schedule, Major General Thomas R. Olsen, CENTAF/CV, found a few minutes to share his and CENTAF Commander, Major General Charles A. Horner's views on the role of safety in Desert Shield and future operations.

FS: General Olsen, why is the Air Force Safety Program still important here in the desert?

M/G Olsen: The reason for our safety program is so we can have a combat-ready force that can do the job that we were sent over here to do, whenever we're called upon to do it.

FS: How is the safety program in-

tegrated into these goals?

M/G Olsen: Through adequate training which builds confidence in those aircrews and ground support people, while it also is building discipline. It is *that* discipline which we've integrated and instilled in our people which is now paying big dividends. We have people who know how to employ their aircraft and weapons; now, they are adapting tactics to meet the demands of this mission in the desert.

FS: How long has this training been going on?

M/G Olsen: Over the last 10 years or more, we have been working for a combat capability which can be deployed anywhere in the world. We see right now these forces in the theater are the result of that 10 years of training and preparation.

FS: Has the desert required our

forces to change any of their rules of engagement (ROE) from those which they previously used during training missions?

M/G Olsen: We stand by our ROEs. They've been good for us up to now, and there is no reason to change it just because we've come to a new AOR in a crisis situation. It all returns to an old adage: If we've done in our training, that which we expect to do in wartime, there is no reason to change.

FS: Have you seen any innovative solutions to safety problems since you've been here?

M/G Olsen: I don't think I've seen any drastic innovations, rather, many adaptations to the environment. For example, some of our aircraft arrived at an airfield with little more than runways, taxiways, and some fuel. They built a base around their needs for operations. They've had to contend with sand, wind, and dust. I've seen their innovative covers for sophisticated missile guidance heads which keep out the elements. They also locally manufactured some canopy shades which help protect the aircraft instruments from the burning sun. But when you get back to the basic operation of aircraft, that has not changed, because the way we trained is the way we're operating.

FS: Many people tend to believe there is no way we could have trained for the extreme heat encountered in the theater. Has it affected our operations?

M/Gen Olsen: When we first arrived in August and early September, it was very hot — in the 120-degree range. There was no shade, there were no clouds, and there was no place to hide. Our maintenance crews had to learn to pace themselves to keep operating throughout the heat. People also had to learn to take care of each other; to watch out for each other; and to make sure each member of their team was drinking enough water.

FS: Where will you focus your attention as this and future operations continue?

M/G Olsen: For now, we understand the hazards of where we are living and working. But when we go into an increased mode of operation to support combat ops, people will be stressed. They will be stressed not only for time to accomplish missions, they will be stressed by working longer hours, and they will be stressed by the pressure of getting the mission accomplished. It's going to take some strong leadership and understanding at every level that people are going to have to watch each other so they don't stress themselves to the point where they begin to affect the unit's ability to accomplish its mission.

FS: What advice would you give to people preparing to join you in this theater?

M/G Olsen: First of all, they should understand they are to train as we have for years. The training is still valid, and the programs we have going in the Air Force are still valid.

Secondly, they need to understand this environment is harsh because of the sun, the sand, and the wind.

Thirdly, when they deploy, they will find themselves in a stressful situation, and they need to come prepared to operate in a stressful environment. The supervisors and the leadership must understand the limits of activities and personal capabilities.

Fourthly, they should come prepared with the proper equipment, clothing, chemical defense equipment, safety equipment, and all those things they need to accomplish their job easily and safely.

FS: Given the sheer volume of flying in this deployed theater, the mishap record is remarkably low. How has that happened?

M/G Olsen: The key to our success is in four areas. One, our training has been proper. Two, we have developed the proper leadership. Three, we have a very dedicated group of people. Four, the discipline we have developed and instilled in all of our people is paying off. I think you will find in any combat operation everyone is more safety conscious, because the actual operation of the airplane really becomes less of a factor than the time we spend supporting it on the ground. These are the keys to our success now and in the future.



Over the past 10 years, we have been working for a combat capability which can be deployed anywhere in the world ... safely!





The predictions of heavy damage to our deployed fighting equipment due to the abrasive sands of the Arabian Deserts have not occurred. The doomsday prophets failed to recognize that in the deserts of our Southwest we long ago learned to routinely practice ...

SANDWISE MAINTE-NANCE

■ A lot of press has been given to the damaging effect the sand in the Arabian desert has had on aircraft and equipment. Some articles present the sand in the Mideast as some kind of a mysterious threat for which the deployed forces were totally unprepared.

The fact is, maintaining aircraft in the Arabian desert is not much different than at many bases in the southwest United States. And many Air Force units, including some deployed to Desert Shield, are experienced in operating in the desert. Flying jets in the Mojave Desert year after year, when the Santa Anna winds are blowing waves of sand over the flight line at Edwards or George AFBs, proves while the desert sand is a problem, its effects can be minimized by using some pretty basic techniques.

While there is little evidence the sand and dust are causing any appreciable wear on the compressors of jet engines, heavy accumulations of sand in the intakes of aircraft parked on the flight line during a sandstorm could cause serious damage. The same holds for the exhaust nozzle section. This problem can be eliminated by keeping engine intake and exhaust covers installed. Other access areas, such as ECS and air-conditioning intakes and gun ports, should also be kept covered.

Sand and dust in the cockpit can cause all kinds of problems. For a pilot flying inverted, a face full of the stuff may be deadly. Sand in the cockpit can also damage avionics and comm equipment by grinding

Frequent washing will rinse sand from hidden areas in the fuselage.





away at rheostats and contacts in switches, and since it is an insulator, it can disrupt circuitry. The problem can be minimized by making it a habit to keep canopies closed and by regularly vacuum cleaning the cockpit. Many units use portable hand-held vacuum cleaners. A word of caution — don't use any type of vacuum cleaner in an explosive atmosphere.

Frequent aircraft washing rinses sand and dust from hidden areas in the fuselage. However, after washing, be careful not to over lube. Wipe fittings clean and use dry lube instead of liquid whenever permitted by tech data. Changing or repacking a strut is a major maintenance task, especially when deployed with limited parts and facilities. Wiping down the struts before every flight will go a long way to prevent sand from causing excessive wear on seals and O rings. During sandy conditions, many units even wipe the struts at EOR.

Even small amounts of sand in hydraulic fluid or engine oil can cause major problems. Although on most aircraft these are closed systems, careless servicing practices can allow them to become contaminated. Good servicing practices include keeping hose connections covered, frequently washing servicing carts, and taking time to wipe sand and dust from the top of fluid and oil cans before opening, thereby helping to prevent system contamination.

A scratched or crazed canopy can deny a pilot an important advantage

during combat. To prevent canopy damage, always use a clean, soft cloth and plenty of liquid when cleaning a canopy. Grabbing any old rag from a barrel is asking for trouble. Wiping a dusty canopy with even a clean, dry cloth is like using mild sandpaper. So, before applying canopy cleaner, it is important to preclean the canopy by rinsing the dust off with clear water and wiping it dry with a soft cloth. This is important because it removes the fine, almost invisible, dust and surface contaminants which may scratch the transparency.

Although these may seem like pretty simple ways to prevent sand and dust damage, they have worked for many units who have flown daily missions in the desert environment for years.

Good servicing practices will keep sand out of engine oil and hydraulic systems.





AIRSPACE NIGHTMARES

■ The computer on Capt Bob Peacock's desk at the Desert Shield CENTAF headquarters location accesses the hard drive and begins to paint, first one colored line on the screen and then another. The colors represent refueling tracks, low-level routes, aerial practice areas, close air support areas, civilian air routes, restricted airspace, special holding patterns, and a lot more. By the time the computer finishes, the colors have so overlapped one another, the screen is nearly a solid rainbow pattern.

Without the aid of the Combat Airspace Deconfliction System, the picture for flight safety might, however, be very black. All of the charted areas and routes will be used for training on the following day, often by as many as 1,500 aircraft from every member of the Operation Desert Shield forces. When those forces are called upon to carry out the mission of Operation Desert Storm, they will do so with the confidence their only enemy in the air will be the one across the border.

The combat airspace deconfliction system used by Capt Peacock and his team has been in use for some time. It was conceived of, and created, at the direction of the Ninth Air Force. For more than 3 years, it has been used at exercises such as Blue Flag, Quick Force, Gallant Eagle, and Bright Star. In each of these, the map display on the computer has been precisely matched to the area of operations to guarantee maximum efficiency.

A simplified description of the process starts with duty officers representing various weapon systems asking general questions about the availability of airspace during the next day or two. These "fraggers" then plan their missions based upon the most effective use of airspace. They return with their air tasking orders which will be input into the system by Capt Peacock or SMSgt Grover Eggleston. Depending upon the complexity or volume of the orders, the computer will shortly begin a rundown of the potential conflicts.

The conflicts can range from simple time or boundary conflicts, to inadequate vertical separation or mission altitudes which place the crews too close to geographic obstacles. When looking at conflicting times, the system will notify the fraggers of conflicts within a minute of one another. And when using longitude and latitude references for horizontal separation, the sys-





Above is an illustration of a screen display from the computerized airspace deconfliction program. By moving a mouse-driven cursor, any of several options can be examined. The illustration at the right shows how special-use airspace is displayed. Airspace plans can look at one, or all, of airspace requirements being fragged.

tem will use an accuracy to within 100 feet. But accuracy is not the only benefit of the system.

It is very quick at what it does. In the past, airspace deconfliction took upwards of 5 hours, and then it was all eyeballs and instincts. Given the size of the air battle in Operation Desert Storm, airspace deconfliction would have required six people working around the clock, 7 days a week, to do the same job the computer can do in a few minutes. With a quicker response from the system, users can change their air tasking orders in a few minutes and be assured of reducing any conflicts from missions simultaneously flown by Army, Navy, Marine, or other Allied forces.

Can a few people, sitting in a corner of a building far removed from the flight line, contribute to flight safety and, thereby, to successful mission accomplishment? You bet they do. As the motto to the Combat Airspace Plans shop says, "We fight tomorrow's battles, today."

ON TOP OF THE WORLD

There you are — a senior air traffic controller, en route to the Middle East in support of Operation Desert Shield. The good news is you'll be controlling airfield traffic from a control tower high above the brandnew runways. The bad news is there is still no electrical power to the cab. Events have overtaken the construction schedule, and you and the other members of the 2d, 3d, and 5th Combat Communications Squadrons/Deployed will have to use the field radios currently used by the combat control team on site.

Still, it doesn't sound too bad. Early flight operations only amount to 300 or so each day, and all that's been under visual flight rules since there is no instrument approach. By the end of the first 90 days of Operation Desert Shield, things changed considerably.

The tower personnel were handling over 30,000 operations a month. Flights departed and arrived, any time of the day or night. An instrument approach procedure was being tested for further mission enhancement. And new aircraft were arriving daily to add to the readiness for Operation Desert Storm.

All of this was accomplished without compromising safety. As controllers are working duty days prescribed in regulations, they have adequate crew rest and rotate control positions often.

The key to the safety, and, therefore, the success of the mission of the combat communications squadrons, has been leadership. Like so many other organizations throughout the area of operations, supervisors in this, and many other control facilities, insisted on meeting the standards they had set earlier. They stepped in guickly when the first signs of stress indicated a slight drop in performance. As a result, departures and arrivals are often the easiest and safest part of the Air Force's mission.

FLYING SAFETY . FEBRUARY 1991 7

Getting There Is Half The Fun

■ Getting there is supposed to be half the fun of any trip. For all of the units participating in the deployment of forces in support of Operation Desert Shield, getting there was rarely fun, but it also wasn't as hard as it might seem.

This is a story of three different units which all received orders to deploy in the first few days following the invasion of Kuwait. Each looked to the theater of operations with a different eye, with different requirements, and with different missions.

The years of training for their deployment missions made each fully prepared for the job ahead. Over the years, the problems related to safety had been identified and corrected. Each unit was confident of its ability to carry out a mission on the other side of the world.

Like Coming Back Home

For the 552 AWACW/Deployed, flying the E-3A, deployment to the Middle East was like returning to home. They had previously operated in the area in support of earlier Air Force missions. They had left their former base of operations less than 2 years earlier and were now returning to the same.

They knew exactly what to bring to meet the unusual requirements of a desert operation. Their pilots and crews were familiar with air-



Having flown many missions over the deserts, the crews of E-3As knew just what precautions to take. Aircrews were familiar with airspace restrictions, and maintenance teams knew the best ways to beat the heat.

space and air traffic control requirements in the region. The maintenance specialists knew how to work at peak levels in the hottest times of the day. They even brought their own flight surgeons to help maintain peak physical fitness.

Their familiarity did not make them careless, however. For example, sorties may last from 12 to 16 hours. Supervisors were conscious of the effects these flights would have on circadian rhythms and made sure the switch from daytime flights to night sorties was made gradually.

There were also a lot more aircraft on the field than before. Cautious throttle techniques were required to prevent FO damage to surrounding aircraft.

With all the company in the sky, crews had to use every available set of eyes to ensure they didn't get too close to another aircraft on a Desert Shield training mission.

Still, this deployment proved no more difficult than any of the others flown around the globe by the AWACS professionals. Solid training programs backed up by adherence to established procedures allowed them to support allied forces from the very first day of their arrival.

A First Time for Everything

While the 552 AWACW/Deployed



The C-130 fleet was ready whenever it was called upon.

had the good fortune to return to a previous operating site, the men and women of the 7 ACCS/Deployed were arriving at their deployed location for the first time. Surely, the problems would be vastly different from the humid climate of the southern United States.

Not so, according to Col Terry Oldham, 7 ACCS Commander. "Every mission we flew stateside was in preparation for the mission here." Recalling the day his unit was notified, Col Oldham noted they were in the midst of practicing a theoretical mission to Kuwait. Even the map cases were loaded with maps of the region he's now flying in.

The 7 ACCS/Deployed flies the C-130 fitted with the airborne battlefield command and control center (ABCCC). The modular unit slides

This C-130 pilot, like the crews of the 7 ACCS/Deployed, found flying in the Middle East both challenging and rewarding.



into the cargo space of the C-130 and provides the "office space" for the airborne battle staff to monitor and support the air/land battle plans.

Preparation for an ABCCC mission involves at least 2 hours of premission planning. In addition to four different weather briefings, the crews will get detailed information on close air support requirements, local departure and recovery procedures, and on unique enroute situations they are likely to encounter.

All of this doesn't sound much different than a mission to any other spot in the world. For the 7 ACCS/Deployed, it's not. The same safety concerns back in the states are still present in this theater. First, crew rest and crew duty days are always maintained. Next, training schedules must be maintained to ensure adequate experience at low-level flying or night landings.

For the people who maintain these aging aircraft, there has also been no real problems. Although some aircraft are nearly 30 years old, the dry, desert heat has hardly affected them. Some maintainers even feel the lack of humidity has arrested some of the potential corrosion problems.

In the final analysis, the 7 ACCS/Deployed made the move to the Middle East as easily as othcontinued

Dry, desert heat seemed to agree with aging C-130s.



It's hot ... what else do you need?

■ Your typical weather report for the Desert Shield area of operations read the same for the first few months — HOT. What else was there to report? Well actually, quite a bit.

Capt Gary C. Grigorian, the commander of Det 2, 1690 WGP/ Deployed, brought people and equipment to conduct a 24-hour weather forecasting and briefing operation. Shortly after arrival in the theater, his folks discovered more than just heat. There was early morning fog, even though the temperatures were already at 65 degrees Fahrenheit. Other factors were high winds, localized smoke, and variable haze.

Besides local conditions, Det 2 must be prepared to forecast weather all along the route to the pilots' eventual target or landing zone. With the help of the theater's tactical forecast unit, using secure satellite links, Desert Shield/Storm forces needing accurate weather forecasts for any location in the Middle East can get them on a moment's notice.

The professionals at every weather detachment are ensuring a safe flight means an effective mission. As we've seen elsewhere, the safety program isn't some outside set of rules, but is built into the way we all do business in the Desert Shield area of operations.

Getting There Is Half The Fun



What's the difference between operations in South Carolina and the Middle East? According to everyone who deployed — nothing.

er units who previously called this region "home." The reason for such a smooth deployment was summarized by Colonel Oldham: "We do everything here exactly as it was done at home."

Teamwork Wins Every Time

The third part to this story starts with a rather unusual event almost a year before the deployment of the 363 TFW/Deployed. Hurricane Hugo hit the shores of the southern United States, spreading confusion and devastation. The members of the 363d pulled together to get all their F-16s ready to fly as soon as possible. Despite the cramped quarters and loss of normal conveniences immediately following the hurricane, the wing was able to earn an "Outstanding" rating on the deployment phase of their ORI.

Colonel Raymond Huot, Wing Commander, is quick to recognize the importance of a sense of family togetherness, both in the theater and at home. By keeping the morale high at both locations, Col Huot is confident a proper attitude will remain focused on getting the mission done.

If proof were needed to demonstrate the effects of a positive attitude, you would need to look no further than the day the F-16s deployed. On that day, 24 fighters departed their home station enroute to the Middle East. After more than 16 hours and 12 midair refuelings, *all* fighters completed the nonstop flight to their destination.

But deployment of aircraft is only part of the responsibility. Within 6 hours, five aircraft were serviced and loaded with missiles to defend their airfield. Twelve hours later, another 12 falcons were serviced and loaded with bombs to take the mission to the enemy if directed to.

Other than a lot more sand than they ever had in the South, the members of the 363 TFW are operating as if they were still back home. After all, home meant temporary structures and "field" repairs following Hugo's wrath, and conditions in the desert are no worse.

Training Pays Off

After visiting with these three units, and a lot more, there is a consistent view about what it took to make a smooth deployment training. Every unit has spent the last few years preparing and training for this deployment. Whether they were sent to jungles, deserts, or snowy fields, all were prepared to move, set up, and take the fight to the enemy. During those years, safety problems were discovered and answered to ensure the maximum effectiveness for their particular missions.

Were there any glitches in the deployment? Sure, but then most of us can't load the spouse and kids into the station wagon for a trip to grandma's without some foulups. For the deployed units, however, the solution to problems was, and is, a steady adherence to established procedures. Long ago, they learned the difference between "exercise" and "operation" is how you spell the words.

Nonstop to the Middle East requires 12 refuelings.

A few hours and two more Falcons will be ready.





If you think that's funny ...

■ Nobody would ever pretend life in the Middle East is just like back home in the states. In fact, some of the circumstances can be downright annoying. Often, the best way to handle these problems is to laugh at them. If American fighting forces share anything in common, it's their sense of humor.

So what's the connection between humor and safety? The commanders in the area of operations know only too well how important it is to provide a means to relieve stresses upon their people. Too much stress causes more human factors incidents, with a potential loss of mission capability.

These cartoons are the talented work of Desert Shield participants who discovered they had a special skill for addressing the problems of daily life and putting them into the proper perspective. The success of any air battle is the result of professionals putting minor annoyances in their place and giving no less than 110 percent to the job at hand. ■











Water, Water Everywhere

■ Riding around inside an Air Force aircraft in the Middle East during the hot days of August and September, one might argue about the relative comfort and relief from the blazing sun. But nobody would argue the time spent on the black asphalt flight lines was pure ... misery.

For the professionals of the 355th Aircraft Maintenance Unit/Deployed, there weren't adequate words to describe the heat. With outside air temperatures exceeding 125 degrees Fahrenheit, dealing with the heat while accomplishing the mission was a top priority.

According to the Officer in Charge, Capt L. M. Souza, "We had prepared for the heat prior to deployment, so we all believed in drinking lots of water. In fact, every time they even thought about water, they drank some more." Water bottles were everywhere — on trucks, in coolers, and in the sleeping tents. Capt Souza even made sure there was a steady supply of 5-gallon bottles available to refill the personal water bottles carried by her people.

Next on her list of priorities to defeat the summer heat was adequate shelter for people to work in. Modular hangars got the aircraft out of the sun for longer maintenance



OIC, Capt Lorraine Souza, 355th Aircraft Maintenance Unit, ensures the unit's maintenance people drink plenty of water.

Most of the drinking water provided to the troops deployed to Desert Shield comes in plastic bottles.





projects, and air-conditioned tents provided a suitable place to repair components.

The final step to meeting the demands of Operation Desert Storm was taken by every supervisor. They recognized the importance of minimizing human factors problems before these factors affected the quality of their work. According to Capt Souza, all of the first-line supervisors are careful to watch for fatigue. They have also come to recognize the value of 2 consecutive days off every 2 weeks when possible. The troops return rested and anxious to start work after taking care of their personal chores.

To those who have not faced it, the desert heat may seem to limit the abilities of our forces. To those who have, a few safety precautions have made the heat nothing more than a seasonal annoyance. ■



A Dark and Moonless Night

■ Maintenance people have always worked their wonders around the clock. You get used to seeing someone crawling over a jet on the flight line under the ball park lights near the maintenance shack. But when they moved to the Operation Desert Shield area of operations, the members of the 355 AMU/Deployed had to increase their safety awareness.

According to the Officer in Charge, Capt L. M. Souza, there were many unique problems to solve at the desert location.

First, the ball park lights did not exist, and even if they had, the target they would have provided to a potential enemy was too obvious. So a lot of work accomplished during the cooler hours of night was originally accomplished with personal flashlights until extra "light-alls" were brought with the second stages of the deployment.

Next, the simple act of towing an aircraft was made more difficult due to the narrow lanes and the lack of ramp lights. "At first," said Capt Souza, "we tried hanging marshaling wands from the wingtips, but even these were not very helpful. Finally, we solved the problem by starting the aircraft's auxiliary power unit and running the position lights during towing operations."

As night operations continue, Capt Souza has one more safety concern to address. Her unit must never take night operations for granted. Speeding down a now-familiar flight line in a pickup truck is just as dangerous as taking a nap underneath a modern Air Force fighter. Working through the moonless nights of Operation Desert Storm doesn't have to be any more dangerous than working in the South Carolina humidity.





Capt Bob Hamilton, 56 ATH/Deployed administrator, describes the complexity of bringing a fully equipped hospital to the desert.

Along with the most modern equipment, the ATHs also brought a stock of necessary pharmaceuticals.

Beyond First Aid

The evolution of the old M.A.S.H. concepts are one more addition to our technological advances.

■ For most of the Air Force people deployed to Operation Desert Shield, the last concern on their minds was medical care. Fortunately for a lot of them, medical care was the first thing on the staffs' minds of TAC's air transportable hospitals (ATH).

According to Capt Robert Hamilton, administrator for the 56 ATH/ Deployed, the ATH is a completely self-contained unit, capable of performing major surgeries and dental procedures. Additionally, the unit has a blood lab to handle the needs of surgeons and a completely equipped operating room. If x rays are required, the patient can get anything which was available at the home unit.

Approximately 150 professionals make up the ATH team. They were alerted on 8 August and arrived in the area of operations 3 days later. Their primary mission in the event of hostilities is to stabilize patients brought in from the field and prepare them for air-evac flights to larger hospital facilities, or to return them to duty as quickly as possible. A secondary job will be to provide chemical decontamination services if required. Since their arrival, 56 ATH personnel have continued their mission preparation and training programs. And they have performed three surgeries in the facility, including one appendectomy. But their main work has been to keep our people fit for the mission ahead. While on-the-job injuries have been rare, sports and recreation sprains have kept them steadily at work.

All of the ATHs are providing for the unique needs of operational pilots. They offer two sick calls per day, and pilots can be sure of having a number of flight surgeons at every location to help solve minor illnesses. The safest flier is still the one physically fit for the mission.

For those of us familiar with the chrome buildings of a modern hospital, the dusty outside of rows of tents hardly seems a likely source for top-notch medical care. But rest assured the people of the air transportable hospitals have brought the best equipment and experts for your benefit. Their commitment and dedication to caring for every member of Operations Desert Shield and Desert Storm mark them as true professionals. ■





The Red Crescent or the Red Cross — both mean life-saving care for troops in the desert.

Identifying disease or matching blood types is a routine capability for USAF ATHs.





TWO TIMES THE FUN

■ Take a trip down south one of these days to a typical A-10 base. You'll see a wing's worth of aircraft, perhaps a small aero club, and maybe a tenant flying unit with half a dozen airplanes. The wing safety office probably has a chief, a flying safety officer, an explosives expert, a ground safety technician, and an administrative specialist.

Now, imagine you are able to visit that same A-10 wing when it has deployed to the Middle East. Only this time, the airfield's a bit more crowded. Another entire wing of A-10 aircraft has joined it. There's a squadron of OA-10s there as well, along with more than a thousand Army aircraft awaiting movement forward in support of Operation Desert Storm. Pretty impressive, huh? You might expect to see more than twice as many people in the safety offices tracking down all the program elements. But you would be disappointed.

The 354th Tactical Fighter Wing/ Deployed, and the 23d Tactical Fighter Wing/Deployed share the same airfield in support of Operation Desert Storm. One small safety office, headed by Lt Col "Con" Rodi, with the normal complement of professionals is handling one of the most diverse safety programs in the theater.

During the early stages of Operation Desert Shield, the combined missions of these wings and the tenant units accounted for more than 2,000 movements on the airfield each day. Hundreds of Army helicopters would depart and return from training missions in the desert. At any time of the day or night, Air Force special operations aircraft would use the field to support their training requirements. And, of course, there was always a steady stream of airlift aircraft arriving and departing with supplies and troops.

There is a lesson here which some people may have not fully understood. Operation Desert Shield has served to remind us the Air Force Safety Program is not run out of an office full of people and paperwork. It is the integrated working of safety into mission planning which ensures the best possible chance for success.

When we continue to do our jobs as we have been training to do them, it doesn't take a big safety staff to see everything's on track. The 354 TFW/Deployed and the 23 TFW/Deployed, along with the many tenant units sharing their airfield, have definitely put it all together.

The A-10s of the 354th and 23d Tactical Fighter Squadrons fly daily missions, training to destroy enemy ground forces in the desert.





Desert Shield's First Class A

CAPT WALLY SCALES CENTAF/SEF

■ It was Labor Day evening. I had just returned from a fun-filled weekend of water skiing when my commander called and said I was to leave for Saudi Arabia to investigate an F-16 Class A mishap. The first thing through my mind was, "I hope it's not close to the border!" The second was, "I hope the war does not start while I'm in the middle of the desert trying to pick up the pieces." The third was, "It's going to be hot!" After I pondered these vast questions for a few minutes, I started to pack.

The rest of the evening I spent trying to sort out what to take and how to travel light at the same time. Some of the most important items I took were a hat (large), sunscreen, sunglasses, two good pairs of boots, a scarf, and a pair of gloves.

The next morning I visited supply, immunizations, finance, and the safety office. I departed with field gear, shot records, orders, chemical warfare gear, and, most important — our wing safety investigation kit. I ensured the kit contained all the regulations, forms, and plenty of administration supplies.

Our team departed knowing only the mishap site was on the peninsula, and the war might start any day. The flight over to the Middle East was a perfect time to study all the applicable safety regulations concerning the mishap. It also was a good time to brief the board president on some of the things he needed to know.

A day and a half later, we arrived "in country." We departed for the mishap site on a C-130 later that morning. We arrived late in the af-



A lot can be learned investigating an aircraft crash in a foreign country and the hostile environment of the Arabian Desert.

ternoon, got a quick inbrief from the interim board, and got settled into our quarters.

The interim board did an outstanding job of gathering evidence, performing interviews, accomplishing site surveys, taking photographs, and coordinating with the host nation on all pertinent items. They were completely ready to brief us when we arrived. This insured no evidence was lost or destroyed.

The next day we traveled to the mishap site with the interim board to begin our investigation. The temperature was 125 degrees, and the humidity was above 75 percent. This made our investigation very difficult, and we could work in the sun only 30 to 45 minutes at a time. All the aircraft parts were so hot that touching them without gloves quickly proved to be very unwise.

We began to work in shifts and to ensure we watched each other for signs of heatstroke. We had two people suffer symptoms of heatstroke the first day. The second day, we were at the mishap site at sunrise and stopped work at 1300. After 1300, it was too hot to do any work of value without risking more problems with heat stress. We spent approximately 4 days in the desert examining wreckage.

The wreckage removal was an operation within itself. The board president started ahead of time to arrange equipment we needed. This is a very important step — you must "lead turn" everything. We had to coordinate host nation equipment to help remove most of the large parts of aircraft. One problem was to bring in heavy vehicles on which to load wreckage without them sinking in the sand. There were many areas of the desert, with water close to the surface, which could cause a crane or heavy truck to sink into the desert. Having the host nation safety officer was essential during this phase.

The next few days were spent interviewing witnesses, helping analyze the engine, and gathering all the data we needed to complete the investigation at our home base in the CONUS. On our way out of the AOR, we briefed the CENTAF/CC on the status of our investigation. Upon arriving home, we reconvened and began writing the final message and the formal report.

There were many things learned by performing this Class A in a foreign country. Without a doubt, the environment was the biggest problem we encountered — the heat, the sand, and the remote location. Travel time also cuts down the amount of time you have to complete your investigation. Plan on 2 to 3 days each way to that area of the world. Be sure to "lead turn" your technical experts — the interim board could get them en route early, even before your arrival.



When investigating the loss of an aircraft, nothing can be overlooked. The desert sun makes parts too hot to handle without gloves.

Most important of all, your host nation safety officer can help you in more ways than you could ever imagine. Anything you will need will more than likely come from his unit. Do not hesitate to ask for help. They understand what is at stake, and many of them have attended the USAF Safety School. Keep all of these things in mind if you ever end up in the same situation, and, hopefully, things will go as smoothly during your investigation.

Desert Lowriders

■ Any chopper driver or crewmember will tell you landing in sandy terrain is at best tricky, at worst, downright dangerous. Unfortunately, brownout landings are often dictated by the mission and add special meaning to IFR flying. Since no trip to Desert Shield would be complete without some experience with Air Force helicopters setting down in the sands of the American desert, I arranged to join an H-53 training mission. The H-53 crews not only routinely make desert landings, they often make them at night.

At the premission briefing, the pilot pointed to a spot on a chart. He explained this was where he planned to drop me off so I could watch a brownout landing from the outside. We took off as scheduled at 1500. The late afternoon sun provided soft shadows and vivid colors ideal for highlighting a manmade sandstorm. Although I get dizzy when climbing a stepladder, I found myself sitting bravely on the opened cargo ramp, camera in hand, 100 feet over the barren desert. Occasionally, we would fly near a mining operation. Modern technology has come to the desert as some of these prospectors have traded their pickups for small helicopters. Except for an occasional wave of approval, the miners paid little attention to our passing.

This mission would be a low-level

Undefined horizons and sandouts are perils of desert flying which require constant crew coordination.





search and rescue (SAR) scenario. Since the entire flight would be conducted at an altitude of 100 feet or less, terrain avoidance would be critical. Even during the day, the sandy desert haze and lack of contrast can obscure the horizon.

After about an hour of low-level flight, we arrived at the photo site. Landing a 40,000-pound H-53 on a sandy, soft surface presents some interesting problems. Ideally, when landing on a dusty surface, a chopper crew will approach the touchdown point in a moderate descent at an airspeed of about 10 knots. This puts most of the blinding dust toward the rear of the aircraft, allowing the crew to keep the intended landing spot in sight. But, on a soft surface, the descent must be vertical (no forward movement) to avoid damage to the landing gear.

In addition, the landing area must be fairly level to ensure neither the main nor tail rotor blades come in contact with the ground or an obstacle. If a gear sinks in the sand, it could cause the aircraft to list, causing a rotor blade to hit the ground or a low object such as a bush or rock.

As the aircraft descended to 75 feet, a dust cloud formed below it. About 50 feet above the ground, the horizon completely disappeared, and, at 10 feet, the aircraft was completely swallowed by the cloud.

Aided by the copilot counting down the reading on the radar altimeter, the pilot eased the aircraft down. The touchdown was gentle and precise. It was obvious this crew had had plenty of practice making brownout landings. At the copilot's direction, and being careful to avoid the tail rotor, the observer and I exited through the cargo ramp. When we were at a safe distance, the H-53 lifted off above the dust and disappeared behind some nearby rock formations. The sun, now just above the horizon, gave the area a burnt orange hue and cast long shadows which gave the desert the look of a piece of Martian landscape. In fact, the only sign of life was an occasional scrubby desert plant or cactus.

After what seemed an eternity, the helicopter returned. Watching





the landing from the ground was even more impressive. At 10 feet, the rotors churned up so much sand after a few seconds, I had to cover my face to protect it from being sandblasted.

Our simulated rescue complete, we headed back over the desert. During the 3-hour flight, I learned this helicopter was more than a sophisticated aircraft. It also required precise teamwork and crew coordination to make it work. One thing is certain, whether flying a practice mission or the real thing, these rescue crews are trained and ready to meet the challenge.



Refueling Over The Gulf

■ Since the first day of OPERA-TION DESERT STORM, coalition aircraft have flown an average of 2,000 daily sorties. Some of these missions, especially CAP sorties, can log 8 or 9 hours. Sustaining what may be the most massive air combat operation in history requires intense and well-coordinated air refueling operations.

For the tanker crews, the challenges of flying in the Arabian Gulf area were not new, they were just more intense. It required operating in and out of strange fields where approach lighting was either different or nonexistent.

And there were more subtle challenges such as reading an approach plate in meters instead of feet. Heavy traffic, both on the ground and in the air, tasked the crew from the time they left the chocks until the end of the mission. Host nation ground and air controllers were heavily tasked by the unusually heavy traffic. The problem was further complicated by operations being conducted by aircraft from three or more coalition nations. In fact, at times, task-saturated controllers would suddenly revert from English to their native language. Still, caution prevailed and operations were controlled safely.

The crews of the 306th Air Refueling Squadron/Deployed have been meeting the challenges, flying daily



KC-135s provide fuel for the multiservice air units over the Arabian Gulf.



KC-135 crew orbit the refueling area.

missions since the beginning of Operation Desert Shield. Capt Mike Cahill, the aircraft commander of a KC-135R, allowed me to experience firsthand how planning and crew coordination are paramount to the accomplishment of an air refueling mission over the Arabian Gulf.

Having flown in the A model KC-135 many times, I was really impressed with the power of the R model's CFM-56 motor and the aircraft's eagerness to take to the air even with a full load of fuel. The increased thrust and economy afforded by the new engines not only allows the aircraft to take off heavier, but their greater fuel efficiency also greatly extends its refueling capability.

We were the second in a two-ship cell. Our mission was to refuel aircraft from the aircraft carrier *Midway* operating somewhere over the Arabian Gulf. Mission planning was critical. It required close coordination with AWACS in and out of the refueling track. Capt Mark Thomas, the navigator, put us at the rendezvous spot exactly on time. The first receiver aircraft was an F/A-18. The boom operator, AlC David Hart, lowered the boom, and the Navy pilot easily mated the tanker's basketlike drogue adapter with the fighter's refueling probe. On this mission, we refueled a total of nine A-6 and the F/A-18 aircraft.

The refueling complete, while the copilot, ILt Kevin Bently, computed the aircraft's landing weight and corresponding landing roll, Capt Cahill headed back to the deployed base. Capt Thomas set the return course and then boasted to the crew he had figured the landing times of the last three missions within 20 seconds.

Landings in the desert theater pose some unique challenges. In addition to the crowded skies and air traffic controller saturation, the desert scheme provides little contrast, resulting in an obscure, or misleading, horizon. Flying facing the sun in the late afternoon complicates approaches even more. Under these conditions, a safe approach requires close coordination between the pilot and copilot.

Although the sky above was clear on final, a fog-like dust required the crew to rely on instruments until the runway came into sight only a few miles from touchdown. Because the aircraft was landing fairly heavy, to avoid hot brakes, Capt Cahill set the tanker down early and used the entire runway to bring the tanker to a gentle stop.

Capt Cahill and his crew are just part of the tanker task force supporting the thousands of air operations which, from the beginning of Operation Desert Shield, have guaranteed the Allied coalition forces air superiority in the skies over Iraq and Kuwait.

A KC-135R refuels Navy jets over the Arabian Gulf.







I recently had an opportunity to fly as a C-141 crewmember during an 18-day Desert Shield and Desert Storm mission. We logged 95 flying hours, transited 11 different airfields, and flew 15 sorties, including three missions into three different airfields in Saudi Arabia. We transited most of the major MAC staging bases on the East Coast and in Europe. I was particularly interested in observing the dynamic flying environment which the MAC strategic aircrews are engaged in and, at the same time, evaluating the services and facilities being provided to these crews. What follows are my impressions during this 18-day mission.

Transient Aircrew Services

Throughout the mission, it became apparent the people on the ground providing the critical transient aircrew services were the unsung heroes of MAC's unprecedented airlift over the past several months. A tremendous increase in transient MAC aircraft, coupled with a decrease in personnel due to deployment, severely taxed remaining personnel and facilities to the limit and beyond. Yet, with few exceptions, every person I dealt with from the base ops dispatcher, weather briefer, billeting clerk, intel, or command post controller had a positive attitude and was motivated to do the best job he or she could under the circumstances.

I was particularly impressed with the performance and attitude of the crew transportation folks and the people on the flight line providing MAC maintenance. Crew transportation was always available and on time whenever we needed it. Vehicle operators were friendly, courteous, and willing to take us anywhere we needed to go. When one considers the number of crew movements required, especially at the major staging locations, the performance of the crew bus system was amazing.

The other area of service far exceeding my expectations was MAC maintenance. My unofficial sources tell me aircraft reliability has equaled or exceeded normal peacetime reliability in spite of the huge increase in flying hours. Maintenance troops deserve the credit for this. I saw dedicated, highly motivated individuals working long hours, in bad weather, performing seemingly endless maintenance on tired, overworked airplanes. In spite of that, each managed to display a positive attitude and keep their sense of humor intact. MAC ALCE support personnel deployed to various locations also exhibited the same willingness to make the extra effort to get the job done.

Many times, ground support personnel fail to get the recognition they deserve for successful mission accomplishment. However, safe, successful completion of a mission depends on the combined efforts of





the desert

individuals working behind the scenes in aerial port, operations, maintenance, services, and other related areas. All of you are doing a fantastic job. Keep up the good work.

Rex Riley Award

I evaluated five bases which were candidates to receive or retain the Rex Riley Transient Services Award. Evaluations took into account limitations and restrictions imposed by Operation Desert Storm. Three bases which were previous award winners proved their continuing commitment to providing quality aircrew services and retained the Rex Riley award. They were **Ram**- stein AB, Germany, and Zaragoza AB and Torrejon AB, Spain.

Charleston AFB, SC, received the award for the first time and will be added to the list. Crew transportation, billeting, and MAC maintenance all were rated outstanding. Everyone went out of their way to make our stopover as pleasant as possible.

Base X: This base did not meet Rex Riley standards in two specific areas. Maintenance attempted to marshal the aircraft such that the wing would pass well over a prepositioned power cart. No attempt was made to move the cart until the aircraft commander insisted. An extended delay was encountered entering crew rest when billeting assigned dirty rooms to the aircrew and then wanted to make them wait for them to be cleaned when clean rooms were available. Mistakes are understandable and even expected during conditions which exist with Desert Storm. However, they are unacceptable when accompanied by an unrepentant attitude which makes you feel like you are a nuisance.

Four other bases have received the coveted Rex Riley Award in the past several months — **Travis AFB**, **CA**, **Sembach AB**, **Germany**, **Norton AFB**, **CA**, and **Patrick AFB**, **FL**. Congratulations to all. Keep up the good work.

Loring AFB	ME	RAF Mildenhall	UK	RAF Upper Heyford	UK	Hahn AB	GE
McClellan AFB	CA	Wright-Patterson AFB	ОН	Andersen AB	GU	Kunsan AB	KOR
Maxwell AFB	AL	Pope AFB	NC	Holloman AFB	NM	Ramstein AB	GE
Scott AFB	IL	Dover AFB	DE	Dyess AFB	ТХ	Johnston Atoll	JQ
McChord AFB	WA	Griffiss AFB	NY	Aviano AB	IT	Wake Island	WQ
Myrtle Beach AFB	SC	KI Sawyer AFB	MI	Bitburg AB	GE	Sembach AB	GE
Mather AFB	CA	Reese AFB	тх	Keesler AFB	MS	RAF Alconbury	UK
Lajes Field	PO	Vance AFB	ОК	Howard AFB	PM	Hurlburt Field	FL
Sheppard AFB	тх	Laughlin AFB	тх	George AFB	CA	Carswell AFB	тх
March AFB	CA	Minot AFB	ND	Peterson AFB	со	Altus AFB	ок
Grissom AFB	IN	Vandenberg AFB	CA	Clark AB	RP	Grand Forks AFB	ND
Cannon AFB	NM	Andrews AFB	MD	Moody AFB	GA	Fairchild AFB	WA
Randolph AFB	тх	Plattsburgh AFB	NY	Rhein-Main AB	GE	Mountain Home AFB	ID
Robins AFB	GA	MacDill AFB	FL	RAF Lakenheath	UK	Barksdale AFB	LA
Seymour Johnson AFB	NC	Columbus AFB	MS	Zaragoza AB	SP	Hickam AFB	HI
Elmendorf AFB	AK	Patrick AFB	FL	Torrejon AB	SP	Kelly AFB	тх
Shaw AFB	SC	Wurtsmith AFB	MI	Luke AFB	AZ	Travis AFB	CA
Little Rock AFB	AR	Williams AFB	AZ	Eaker AFB	AR	Norton AFB	CA
Offutt AFB	NE	Westover AFB	MA	Bergstrom AFB	ТХ	Tinker AFB	ок
Kirtland AFB	NM	Eglin AFB	FL	Davis-Monthan AFB	AZ	Charleston AFB	SC
Buckley ANGB	со	RAF Bentwaters	UK	Zweibrucken AB	GE		



Eyes in the Skies

Ahhh. AWACS. The magic on that airplane can see everything. Right? I mean, when you find yourself in the crowded skies of the Arabian Peninsula, trying to complete a mission within the confines of the "Junkyard,"

I'M SORRY... BUT YOU GUYS WILL HAVE TO KEEP YOURSELVES FROM RUNNING INTO ONE ANOTHER ... IT'S NOT MY JOB TO KEEP YOU SEPARATED!! the folks on board AWACS will keep you from having a midair. Yup. And if you believe

all that, I've got some beachfront property for sale in Al Jauf.

Who knows how ideas get started? The one about AWACS providing air traffic control services is definitely wrong — unless helping to clear the skies of Iraqi aircraft is a kind of air traffic control. The capabilities of the AWACS aircraft are, indeed, phenomenal, but their capabilities are directed against the enemy.

When it comes to avoiding a midair with our fellow pilots, Pogo was right, "We have met the enemy, and he is us." We are the ones who must follow our routing exactly. We are the ones who must make sure we understand the controller's instructions. And we are the ones who have to "clear" more than ever before.

I'm Supposed To Go Where!??

You walk into the operations center to get your mission for the day. The supervisor tells you the cargo run is to take you to a desert airfield. No sweat, you think, and head for the flight planning area.

There must be some kind of mistake - you can't find the airfield on any of the maps. It's not listed in any of the publications. There doesn't even appear to be an approach to this mystery field, and you're supposed to land after dark. Your C-21 can do a lot of things, but landing on invisible airports is not one of them. A return to the ops center won't change the supervisor's mind. Headquarters insists the package reaches its destination and gives you a tactical phone number for the airfield.

The preceding story is not fictitious. Many of the airfields the C-21s flew into during the first days of Operation Desert Shield could not be found on aeronautical charts. How could they possibly fly safely into these fields?

Simply put - Airmanship. All available resources, even highway maps, are used to gather information about an airfield when there is no NOTAM system. Flights are planned with strict adherence to minimum altitudes. Crew coordination is the rule. Every aid is used to ensure a safe arrival, from basic pilotage to radar altimeters.

Like many other pilots

facing unique flying situations, the C-21 crews proved the safety program they had used in the past would guarantee they got the mission accomplished today.





Drink FOD



From the very beginning, we have made it a point to ensure the folks deployed to Desert Shield drink plenty of water. Although it is not unusual for a person working in the desert to drink several gallons daily, it is rare to see a canteen strapped to an airman's side. Instead, almost all drinking water comes in sealed plastic bottles. These containers which come in several sizes are kept in refrigerators, coolers, tents, and in various places on the flight line.

Unfortunately, when these bottles are empty, they become a serious FOD hazard. On a windy

The A-10 was no. 3 in a

desert day, it is not unusual to see one or more of these villainous vessels blowing across the ramp, often pursued by some FOD-conscious maintainer. However, since flight crews also require copious amounts of H_2O , the bottles unfortunately make their way into aircraft cockpits and have been found under seats and even dangerously close to rudder pedals.

Considering an estimated 1,600,000 plastic containers of water are consumed by US forces in the theater every day, the scope of the problem is tremendous. At this rate, the number of empty containers generated by Desert Shield will soon be well over a billion!

It has been predicted if something isn't done to prevent it, the Middle East will soon, unwittingly, corner the market on the world's plastic supply. The problem of disposal of this much plastic is being worked by scientists, environmentalists, and economists throughout the free world. In the meantime, we need to make a special effort to prevent the plastic menace from becoming a FOD problem by properly disposing of empty water bottles.

Warthog FOD

four-ship mission operating from a forward location (FOL). It was scheduled to turn twice at the FOL, then recover at a TDY location. During the first turn, the dearm crew noticed the LOX servicing access panel was open. Taking a closer look at the panel, they noticed two of the tridair fasteners were missing. Concerned about engine FOD, the pilot checked the engine instruments and noticed no

abnormal indications. The dearm crew replaced the fasteners, and the aircraft flew the remaining sorties without further incident.

Because the Warthog was hot refueled, the engines were not shut down until the end of the day at the main operating base. During postflight inspection, the mystery of the missing fasteners was solved. It seems the fasteners were ingested into the right engine, causing extensive damage.



There are two lessons to be learned from this mishap. For one, any time fasteners are missing forward of the intake, they are a serious FOD threat. By virtue of aircraft design, the odds are pretty good anything departing the aircraft forward of the intake will find its way into one of the motors.

The second lesson is, engine gauges do not always indicate FOD damage. In this case, there was serious damage to 28 fan blades. Had one of these blades broken off, the engine could have come apart like a stale taco shell and caused serious collateral damage to the aircraft structure, or even worse, loss of the aircraft. It never pays to gamble with FOD. As it was, the cost of repairs was estimated at about \$35,000.

Once Again, Thanks For Your Support!

AND THE WINNER FOR THE SEPTEMBER 1990 DUMB CAPTION CONTEST IS



I KNOW YOU HAVE 20 MINUTES TO 60 ON YOUR HOUR OF INSTRUCTION. BUT THE FLIGHT IS OVER AND YOU CAN'T JUST HANG THERE UNTIL THE HOUR IS UP!!

THUMP! There he goes again. Ever since the stack of great captions for last month's contest THUMP! started coming in, we have had to listen to the sound of ol' Byron Q. Lackluster's THUMP! head banging against the wall.

By now, it's getting a little annoying, THUMP! and the plaster is starting to fall from the ceiling. But at least we THUMP! don't have to listen to his usual whining about how unfair you all have been to THUMP! the United Organization of Dumb Caption Writers of America.

We think Byron finally went over the edge when he read all the captions from this month's repeat winner Jim Burt (along with his 3 Honorable Mentions -WOW). THUMP! Jim, for the second time in as many months, your legendary CHEAP LITTLE PRIZE is on the way. However, we suggest you THUMP! wash off the little bits of plaster before showing it off to your friends. Our 7 other Honorable Mentions THUMP! recipients can also take pride in knowing they helped to force Byron Q. Lackluster into silence THUMP!

It's amazing THUMP! how long ol' Byron has been able to keep this up. But watch out! When he finally THUMP! gets tired of beating his head against the wall, he's going to have a whale THUMP! of a headache. And when his head is hurting, he writes some of his best stuff.

Honorable Mentions

- I'm going to borrow that tractor. I'm going to cover this thing with dirt. I'm going to go home. I'm going to go to bed. I'm going to forget this day ever happened!!! Jim Burt, Academic Training, NAS Corpus Christi, Texas
- G'day mate! This is your first time to Australia? SSgt Joseph P. Ficklin, AFROTC, Brigham Young University, Provo, Utah
- 3. They say it's a good one if you can walk away from it ... I'm walking! TSgt Charles M. Shearer, 6510 LTS/MALE, C-17 CTF, Edwards AFB, California
- 4. Well, so much for our "Fido The Flying Wonder Dog" series. Jim Burt, Academic Training, NAS Corpus Christi, Texas
- Okay, so you got it to roll over and play dead. Now let's see you make it sit up and beg!
 SSgt Darl V. Tremain, 437 MAW/MAMP, Charleston AFB, South Carolina

 Look Harry, I don't believe the FAA will accept "you thought you saw Elvis" as an explanation.
Sgt Stephen M. Sanchez, SWC/SE, Ellsworth AFB, South

Dakota

- 7. You're doing better, kid. We almost got it in the air this time. Jim Burt, Academic Training, NAS Corpus Christi, Texas
- No, I don't think this is what your flight instructor meant when he refers to a "gear-up" landing! SSgt Joseph P. Ficklin, AFROTC, Brigham Young University, Provo, Utah
- 9. TITLE: "I WAS THERE" "WAS THERE" "THERE WAS I" "THERE I WAS" Sgt Randall F. Ramsey, 380 MMS, Plattsburgh AFB, New York
- Don't forget to chock it before you leave. Major Ralph C. Mayton, Jr., 12814 Brockwell Road, Prince George, Virginia

WRITE A DUMB CAPTION CONTEST THING



For once, Byron Q. Lackluster, President and International Director of the United Organization of Dumb Caption Writers of America (UODCWA), is speechless. His claims that only professional dumb caption writers could meet the grueling schedule of *Flying Safety* magazine were cut off when we reminded him some of our best writers were now serving in the Middle East. Therefore, and before he could make any more excuses, we announced an extension to this month's Dumb Caption Contest to allow for delivery of the magazine to all our deployed units.

We will wait until May 15. (Hey! Troops in the desert don't have to worry about taxes, so why not send in an entry to the contest?) Everyone is eligible to join in humiliating the UODCWA — Air Force, Army, Navy, Marines, and our Desert Storm allies. We can mail our CHEAP LITTLE PRIZE to any place in the world. Now, if we could just mail Byron to Baghdad!

Write your captions on a slip of paper and tape it on a photocopy of this page. DO NOT SEND US THE MAGAZINE PAGE. Use "balloon" captions for each person in the photo or use a caption under the entire page. Entries will be judged by a panel of experts on humor in June, 1991. All decisions are open to bribes in excess of \$100,000. In fact, make it big enough, and we'll go back and make you the winner of previous contests. Hey, we're flexible, gang, and we've still got to feed all these dumb caption writers.

Send your entries to "Dumb Caption Contest Thing" • Flying Safety Magazine • HQ AFISC/SEPP • Norton AFB, CA 92409-7001

Desert Dreams

Desert winds blow, burning sun sinking low, Twilight nudged over by cold, still night.

Prepared, standing ready, my love for her steady, Days lonely, endless, dreams, I hold you tight.

Endless procession of emotions, love, it never dies, I will remember, always, the look of her eyes.

Miles from home, a heartless, foreign land, For my country's will, now, I shall stand.

Fortress, my soul, my love for her grows, Warbirds circle, sands shift, like winter snows.

Faith in my God, His promise crystal clear, My rock, my stronghold, my deliverer near.

My love for home, family, life, all ember coals, My bones burn, like a furnace, my soul glows.

Trumpets of war, I hear, a deep breath draw in, Here, so far from home, will I die with men?

My faith, my love, my sword held high, One last thought, of you, then, I dive from the sky.

On ground in my eager craft, mission over, it seems, At night, later my love, you appear, in desert dreams.

CAPT GARY W. DUCOTE 78th Tactical Fighter Wing/Deployed