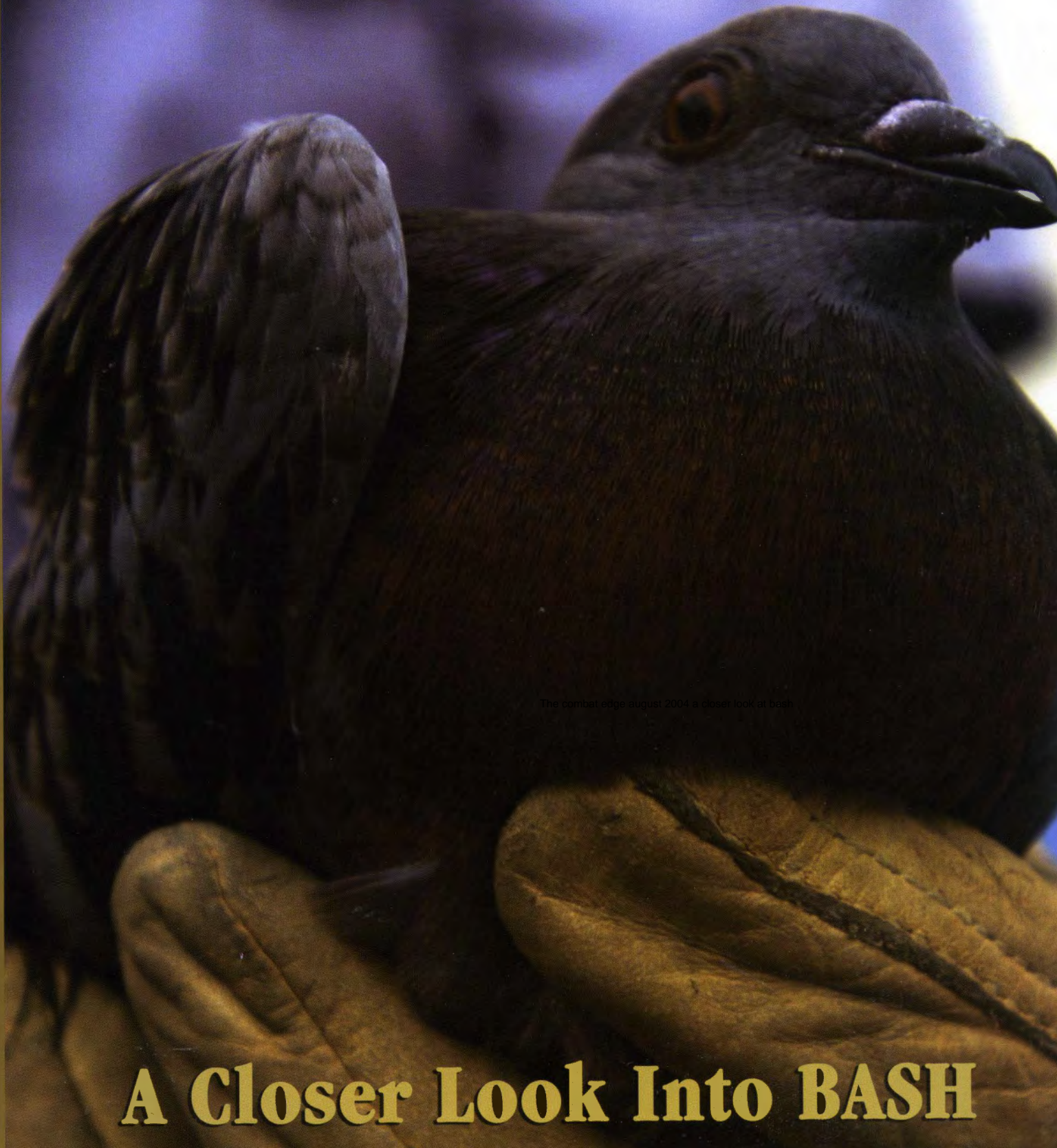


# The Combat EDGE

August 2004



The combat edge august 2004 a closer look at bash

## A Closer Look Into BASH



# The Combat Edge

Volume 13 Issue 3,  
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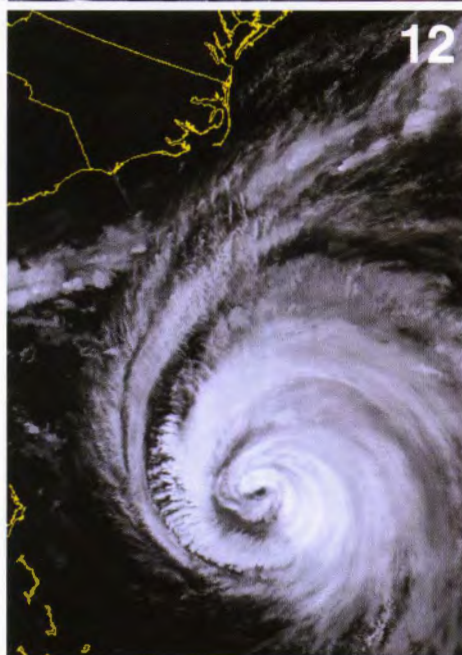


Photo by SSgt Samuel Rogers

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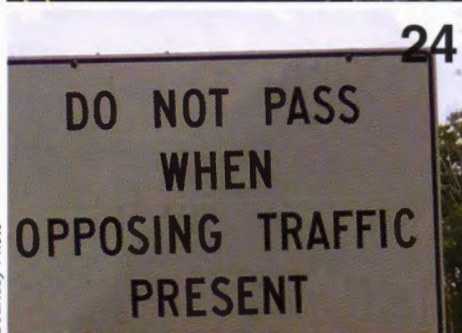
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Front Cover: SSgt Samuel Rogers



## BASH, IT'S NOT JUST FOR THE BIRDS ANYMORE

When you hear "Bash," what comes to mind? If your answer is "Bird Strikes," then you aren't seeing the whole picture, and there's a lot you're missing. BASH (Bird/Wildlife Avoidance and Strike Hazard) programs have grown and are evolving to encompass all wildlife that pose a hazard to aircraft operations. The programs consider not only wildlife within the confines of the airfield but also in the neighboring areas. It includes predatory birds, their prey, the nuisance flocking birds (gulls), migratory geese and ducks, but also beaver, coyotes, deer, moose, rabbits, etc.

The main focus of BASH remains the bird hazard; however, Wildlife Biologists from the Department of Agriculture's Wildlife Services Division in conjunction with the individual bases are beginning to treat each airfield as its own ecosystem to map and design an effective BASH program based on that base's requirements. The first half of this issue of THE COMBAT EDGE focuses on BASH to educate aviators on the changes to the programs and bring attention to the upcoming BASH Conference in Baltimore, Maryland, September 13-16. The agenda and details concerning the conference are on the Bird Strike Committee USA website at <http://www.birdstrike.org/birds.htm>

Many people may not be aware that the Pacific Air Force (PACAF), unlike other commands (USAFE, AMC, and ACC), does not publish its own safety magazine. Since its infancy, THE COMBAT EDGE has served as PACAF's voice on safety, but it has never published an edition dedicated solely to the PACAF Theater of Operations. The second half of this month's issue features articles written by PACAF service members about safety in general and theater-specific safety topics. For future planning, August 2005 is designated as our next PACAF Edition. Between now and June 2005, the challenge to our PACAF readers and Safety Offices is to fill that magazine from cover to cover with PACAF specific Flight, Ground, and Weapons safety articles.

Remember: Keep safety proactive – make it your Combat Edge!

**Colonel Creid K. Johnson,**  
**ACC Director of Safety**



Photos by Mr. Tom Olexa





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“No,





# “duck” my friend, that was a ‘Goose!’”

By Maj Wendy Hamilton, Langley AFB, Va.





Photo by SSgt Samuel Rogers

**W**hile that punch line has been used numerous times in flying "there I was" stories, bird strikes and the hazards posed by birds/wildlife are real and not to be taken lightly. I can hear it now, you're saying to yourself, "another article on BASH (Bird Aircraft Strike Hazard) programs? What can you possibly tell me about "Bird Con-

ditions" that I haven't already heard?" I have to admit, when I set out to write this article, I certainly wasn't expecting anything new, interesting, and certainly not exciting. What I found is that BASH is a whole lot more involved than the issuance of bird conditions, and it is actually pretty interesting when you get to talk to the

folks responsible for putting together an effective program at your base. For example, did you know we have the capability of spotting birds on radar on some bombing ranges, and en route? Some bases actually have full-time personnel from the Department of Agriculture Wildlife Services Division to assist in creating, monitoring, and implementing BASH. It's about mapping animal habitats along with base activity to spot problem areas. Oh yeah, and BASH isn't all about birds, it addresses any wildlife which may impact flying operations. It's about selective hunting seasons, pest control, cutting the grass the right height, bird dogs, falconry, outsmarting coyotes, and tons more.

The following are excerpts from two of the many interviews I conducted about BASH and how to build an effective program. The first is an interview with MSgt Duncan Munro, Superintendent of Flight Safety and ACC's BASH Program Manager.

**TCE:** How did you get involved in BASH?

**Munro:** I got involved in BASH while stationed at NAS Keflavik, Iceland. The country is a bird haven since it's a major migratory destination for hundreds of species, and because it's so sparsely populated. Birds love it. With the Air Force, Navy, and civilian carriers flying a variety of aircraft on one airfield and birds in "Alfred Hitchcock" proportions we had to have an active BASH plan. Shortly after my arrival there, my job quickly became one of facilitating and developing a workable BASH program that all agencies could operate with. When I came to ACC Safety, it was a natural transition for me to pick up the additional duty as BASH Program Manager for the command.

**TCE:** What does your job entail in respect to BASH?

**Munro:** First of all let me say, I'm not the expert. I learn new things every day. What I am is a focal point for information. Each base is different in their needs, and obviously each has a different natural environ-



ment. There are so many sources to get help from and ways to set up an effective BASH program, it's nice to have one person you can go to who can narrow down your call list so you can get answers quickly.

**TCE:** What is a BASH program anyway?

**Munro:** It is simply a base plan to mitigate the effects of wildlife on the base's operational mission, which for ACC translates to flying. It includes everything from setting up working groups, to studying and monitoring hazards, to the most complicated portion, minimizing the number of times wildlife runs into our aircraft or vice versa. The "how" is truly a challenge because it often takes a lot of research to figure out what approach to take for each base. Within the aviation industry, the Air Force probably has the lead in BASH research and mitigation procedures.

Since we mandate strike reporting and we own the airfields we operate from, we have many "lessons learned" to share with other services and civilian counterparts. Yet there is other expertise out there that we also need to tap into to control animal populations non-lethally, legally, environmentally soundly, and cost-effectively. That is part of my job, knowing who can give us the most complete answers to how we can reduce a hazard within all the guidelines.

**TCE:** Who are the experts?

**Munro:** There are many, but three of the most experienced resources are: internally the Air Force BASH team, externally the U.S. Department of Agriculture Wildlife Services Division, and the ornithology team at The Smithsonian National Museum of Natural History. All three

of these resources are capable of either helping a base assess its wildlife hazards and/or recommend solutions. I talk to representatives from these three organizations almost weekly.

**TCE:** Can you give me some examples of programs that are working?

**Munro:** Let me caveat my answer by saying what works at Base X won't always work at Base Y. Keeping controlled aviators and uncontrolled avians out of harms

mains to the safety office for identification. Knowing what species we're attracting helps us determine ways to keep them from returning.

**TCE:** Do you have any other examples, perhaps relating to other types of wildlife?

**Munro:** There are a lot, but two that come to mind that may be effective and demonstrate the importance of coordinating BASH with other agencies including construction projects is selecting perimeter fencing. If you make the fence at least

10 feet high and put a portion of the fence underground at a 45-degree angle outward, you can keep deer from jumping the fence while stopping coyotes from digging under it. The coyotes will dig at the base of the fence and hit the fencing underground but haven't figured out to

backup and dig under. So they'll go down the fence line and try to dig a few more holes, encounter the same problem, and finally give up.

**TCE:** Any final thoughts about BASH?

**Munro:** The upcoming USA/Canada BASH Conference in Baltimore, Maryland, September 13-16. This is a great forum that brings together both the military & civilian aviation industry and the wildlife management experts from all over the world. It would be great for anyone in a Bird Hazard Working Group down to the line flyer to attend. The agenda and details are on the [birdstrike.org](http://birdstrike.org) website. The last point I'd like to make is an effective BASH program requires involvement from everyone. It's not just a military issue; it's an aviator issue regardless of military or



Photo courtesy of Dr. Nicholas B. Carter, Border Collie Rescue, Inc. [birdstrike.bcrecue.org](http://birdstrike.bcrecue.org)

way requires many active and passive control measures. There are many competent programs out there and the ones that actively combine the efforts from Safety, Airfield Management, and Civil Engineering generally achieve the lowest strikes. Propane cannons and other pyrotechnics are great short-term active dispersal methods. Long-term passive methods include fences, maintaining grass height, and adapting the environment to make it less attractive to wildlife. The Avian Hazard Advisory System ([www.usahas.com](http://www.usahas.com)) is another risk mitigation tool for mission planning while some bases now use mobile radar to determine possible hazards on the ranges. Even aircraft maintainers play a vital role by collecting and sending any strike re-





civilian status. The programs take time, research, and creativity. You would be surprised how often we have to change tactics to continue to "outsmart" the wildlife.

This second interview is with Mr. Thomas Olexa, Langley Air Force Base's Wildlife Biologist from the Department of Agriculture's Wildlife Services Division. Mr. Olexa spent 24 years at the West Virginia Department of Natural Resources before answering the advertisement for his position at Langley. He holds a BA in Wildlife Management and is a certified specialist in Wildlife Hazard Management at airports. Many bases now employ a specialist such as Mr. Olexa to help design the best possible BASH program. This interview shows how the wildlife biologists help the Air Force achieve BASH program objectives more efficiently and effectively.

**TCE:** Is your position at Langley unique to ACC or the Air Force?

**Olexa:** No, in fact the program of employing Wildlife Services biologists has been in effect since 1990, but in the last 5 years it has grown. Not only are we employed at military fields but also many civilian airports as well.

**TCE:** What is your role in the BASH program?

**Olexa:** My primary role is to help the 1st Fighter Wing implement and manage its BASH plan which is renewed annually. It's a very dynamic plan and I help keep up with the changes in what the wildlife is doing so we know how to change the plan.

**TCE:** How did your role in BASH here at Langley develop?

**Olexa:** Wildlife Services role at Langley began after a series of site visit BASH consultations beginning in 1995. These visits, which incidentally any base can request, give you the

*Mr. Tom Olexa checks an osprey nest on Langley AFB, Va. The osprey relocation project has begun to translocate osprey young to other states which are trying to reestablish their osprey populations; lowering the number of osprey in the Langley local flying area.*



*Photos by SSgt Samuel Rogers*

basics for a BASH plan. For example, we identify species and their legal status, assess habitat, develop strike trends, and make appropriate wild hazard management recommendations. In 1999, Langley decided to be more proactive with their BASH program, and Wildlife Services were asked to come in and do a wildlife hazard assessment. This is an extremely detailed study, and once it was completed, we realized the existing BASH plan wasn't addressing the correct issues. We helped rewrite the plan completely



and with the hazard assessment established a baseline to start measuring the effectiveness of the individual program elements. That hazard assessment identified the need for a full-time biologist to monitor the program. And that is where I/we are now.

**TCE:** Do you have other responsibilities besides BASH?

**Olexa:** BASH is my primary responsibility, but just by the nature of my expertise, I often help in civil engineering, natural resources, and pest control departments. Anywhere the base needs my wildlife management background I try to assist.

**TCE:** What do you bring to the program that can't be duplicated by the military or other agencies?

**Olexa:** I think there are three characteristics that distinguish us from others in this field. The first is my agency offers individuals, some of whom are highly trained experts, in managing wildlife hazards specifically in an airport environment. Secondly, we are the only agency with standing Memorandums of Understanding with the FAA and military, civilian, and private airports to conduct research. The final characteristic is we are the only organization with the support of a national agency with an embedded research team dedicated to developing methods and technology for wildlife damage management. That team has the ability to do the scientific and environmentally sound research to help us answer questions to our local problems. That research team is the backbone of our contribution to BASH.

**TCE:** I asked MSgt Munro to give me some examples of programs that are working. Do you have any innovative ideas that come to mind?

**Olexa:** There are so many, perhaps what I would rather point out is our most successful program, the osprey relocation project. After two osprey strikes resulting in excess of \$800,000 in aircraft damage, our eyes opened wide to a serious wildlife hazard, and we immediately decided to investigate the situation. Through both on- and off-base monitoring, we found there were over 24 osprey nests in the local flying area

annually. That is a lot of birds resulting in a potentially dangerous flying environment for the pilots. Our project emphasized translocating osprey young to states trying to reintroduce the species back into their state. Osprey young imprint to the area where they are born which means the young that survive migration and reach maturity will be back to Langley to reproduce. The project has shown great success when comparing current data to our initial hazard assessment data. Ultimately, we've reduced osprey airfield activity. This program is a unique example of a non-lethal, long-term management strategy that will likely maintain an acceptable osprey population near Langley while helping establish healthy osprey populations to states where the species once thrived.

**TCE:** Here's the million dollar question, what do you envision as an effective BASH program?

**Olexa:** That's easy; it's a program that has an active monitoring element, has good strike reporting, and one that is proactive in aspects of planning. A program that is involved in planning things like new base or community projects which border the base can help stop a problem before it becomes one. For example, a new building on our base called for wet retention ponds to contain storm water drainage. Had we not been involved in the planning committee we would have created a new habitat for large waterfowl, etc. Instead we were able to recommend dry drainage systems which dry hold water for about 24 hours before slowly releasing it. The method was cost effective and eliminated the potential bird hazards the wet retention pond would bring.

**TCE:** What do you mean by good strike reporting and monitoring?

**Olexa:** Strike reporting is necessary because if you don't know what you're running into, then it's hard to mitigate its impact. On Langley we used strike reporting to figure out we had a problem with predatory birds sitting on our runway mark-

ers then flying into aircraft. We put some anti-perching devices on the markers, and the problem significantly reduced. The Air Force can now send DNA samples to the Smithsonian for testing rather than the feather, feet, and beak we used to try and acquire after a bird strike. Many bases have the kits and they are very simple to use, and it's helping build our database on hazards. That's strike reporting. The number one necessity for an effective BASH program though is monitoring. Monitoring is just that, going out there everyday to see what the birds and animals are doing and then comparing the data to previous data points. You ask yourself questions like, is our grass mowing policy working? Like I mentioned earlier, you can't do this unless you know where you're starting. A hazard assessment or even a site survey will get you started in the right direction.

**TCE:** How can other bases duplicate your services or hire someone like you to help them with BASH?

**Olexa:** It depends on their budget, but there are several options. Most importantly, whomever they get they need to find someone who has a wildlife biology background with special emphasis on wildlife damage management. I say this because there are several fields that are not as compatible with BASH program needs. The AF BASH Team is an excellent source, and they are sometimes able to assist in site surveys or at a minimum a wildlife consultation depending on their schedule. From our agency, you can look up state specific resources on [www.aphis.usda.gov/ws](http://www.aphis.usda.gov/ws).

**TCE:** Any final thoughts about BASH?

**Olexa:** Long-term, proactive involvement is what makes BASH programs work. We must be aware that BASH will only limit the impact of wildlife hazards on our operations. They will never be eliminated. And, the main key to keeping the program viable and proactive is awareness all the way from the Bird Hazard Working Group to the pilot in the plane to the civil engineer putting together a construction project. ►



# "GIS" Birds?

By Ms. Shelley Gray, Seymour Johnson AFB, N.C.

Geographical Information System technology maps offer insight into the seasonal trends of wildlife abundance on the airfield ...

Every Air Force Base has Bird/Wildlife Aircraft Strike Hazards (BASH) in one form or another. Some bases exist in desert-like environments and only experience hazards from vultures or crows. Other bases, however, have a plethora of birds as a result of being located within a migratory flyway. Seymour Johnson AFB is one such place. The base is 57 nautical miles from the Atlantic Coast and lies within the Atlantic Flyway migration corridor in North Carolina. Thousands of birds migrate through the airspace during the spring and fall seasons putting our aircrews at an increased risk for bird strikes. As a result, the base established a comprehensive BASH program.

As with many BASH programs, the monitoring and documentation of wildlife hazards on and surrounding the airfield is essential for reducing the risk of strikes at Seymour Johnson AFB. This in and of itself is effective, but it lacks one major component — the ability to identify and discuss the hazards while using a visual format. To enable Aircrew, Supervisors of Flying, Airfield Management, and Flight Safety personnel to see where and when wildlife hazards on the airfield exist without having to get in a vehicle and drive around the flight line, Geographic Information System (GIS) technology was added to the monitoring and documentation process. BASH observations collected throughout the year were linked to GIS and displayed on maps of the airfield. This allowed everyone to see emerging wildlife patterns and habitats. Some of the maps created included the distribution of all birds on

the airfield, the distribution of mammals on the airfield, and the location on the airfield of groups of birds with similar behavioral attributes (i.e., ducks and geese). These maps have allowed the viewer to easily distinguish which wildlife species pose a significant hazard to human and aircraft safety.

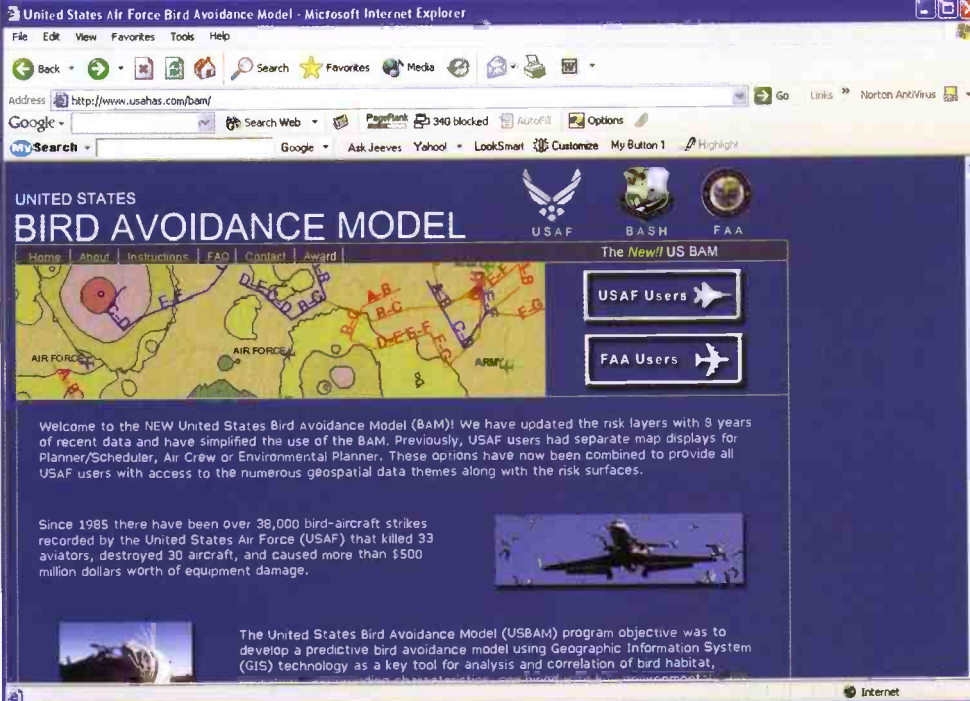
GIS maps offer insight into the seasonal trends of wildlife abundance on the airfield. This, in turn, can assist personnel in defining Phase I and Phase II times of the year. Also, because some behavioral patterns and preferred habitat are displayed on these maps, they have been used to assist with wildlife-related discussions between landowners and base personnel. And since encroachment has become such an important issue at numerous bases, these maps can also be used to assist with understanding the possible risks associated with the increasing pressure to develop land near the airfield.

Monitoring and documentation of wildlife hazards is essential for reducing the risk of strikes

Rapidly increasing wildlife populations and increasing air traffic are just two of the factors that

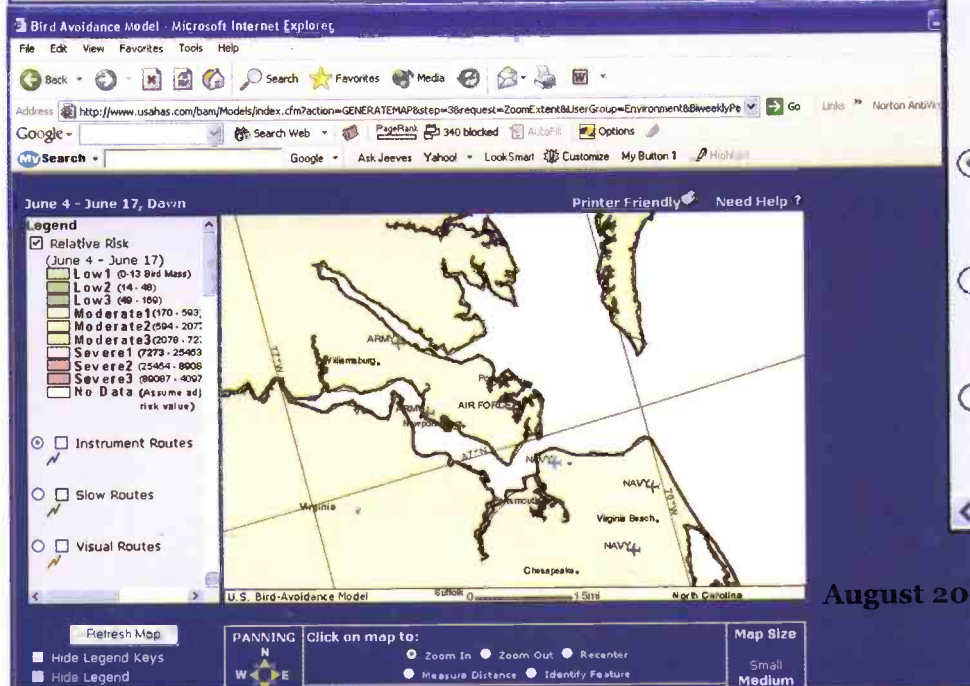
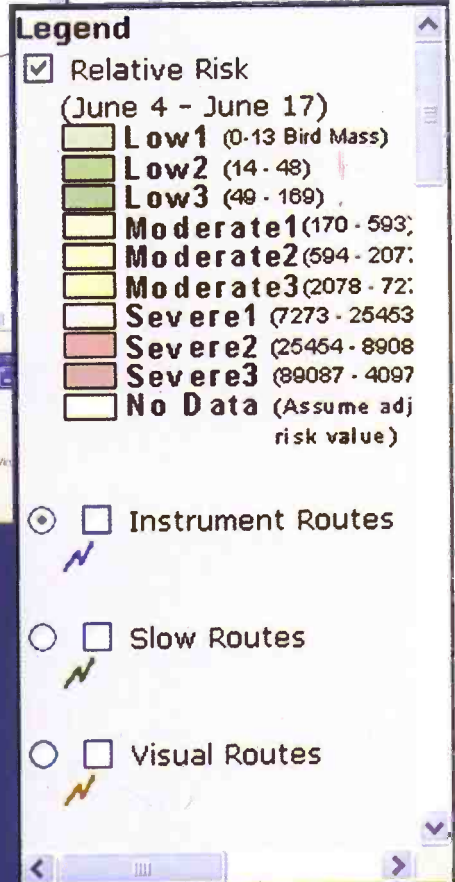
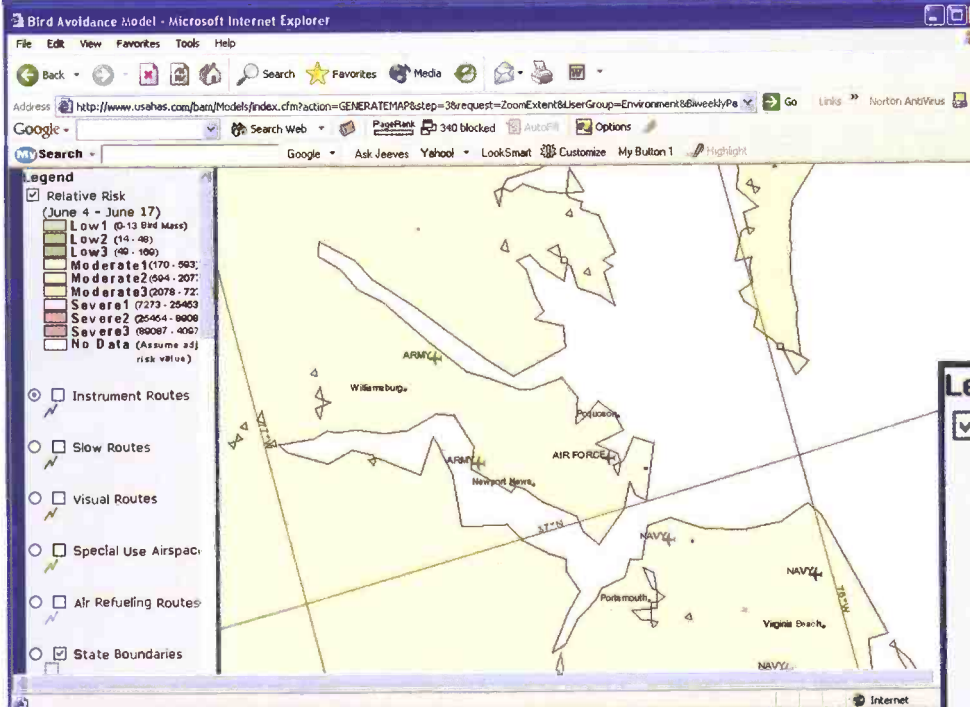
contribute to the realization that the number of wildlife strikes are likely to increase. Despite this, however, damage and loss of life from wildlife strikes can be minimized. Successful reduction of wildlife hazards at airports requires the integration of several management tools to minimize the attractiveness of habitat, modify the behavior of hazardous species, and reduce the populations of some of these species. GIS utilization is the first step to accomplishing these goals. ►





"The United States Bird Avoidance Model (BAM) program objective was to develop a predictive bird avoidance model using Geographic Information System (GIS) technology as a key tool for analysis and correlation of bird habitat, migration, and breeding characteristics, combined with key environmental and man-made geospatial data."

The United States Bird Avoidance Model (BAM), found on the World Wide Web at address: <http://www.usahas.com/bam/> is available to all military and civilian aviators. Simply put, BAM allows USAF aircrews and schedulers to access a historical database of known: bird habitat areas, migration routes, breeding areas, as well as documented aircraft bird strikes. Users can tailor the BAM maps by first selecting the 2 week period which covers the date of their flight activity, the time of day, and the search criteria (military airfield, city, military training route, or latitude and longitude of a specific point). The BAM model will then generate a color coded map with the designated route printed on the map to illustrate where the risk of bird strikes (from Low to Severe) exist relative to the planned route of flight or destination. All published Instrument Routes (IR), Visual Flight Rules (VR) and Slow Routes (SR) can be selected as can military and civilian airfields within the United States. The BAM maps and information show historical trend information to alert aircrews as to what awaits them on fly day, or for schedulers to use when evaluating which training routes to use, and when, to avoid the risk of a bird strike or as the rationale for selecting one training route over another based on a lower risk rating.







# Blown Away

## Hurricane Isabel: B

By Mr. Christopher H. Loftis, Langley AFB, Va.

Mr. Christopher H. Loftis

Hurricane Isabel

*Photo by TSgt Ben Bloker*





# ash Blessing in Disguise?

When someone mentions “hurricane,” people immediately think wind, rain, and devastation. Most people would not think about birds, and those who have weathered such a storm definitely would not think about BASH. Honestly, I wasn’t thinking about BASH the day after Hurricane Isabel rampaged through the area, but I had some suspicions ...



Inclement weather has always drawn birds to the airfield at Langley Air Force Base (LAFB), whether it be for emergent earthworms or a seasonal bug hatch initiated by rainfall. I am always on alert when it rains to disperse birds off the airfield environment, but what happens after a severe weather event such as a hurricane occurs?

In theory a hurricane may be described as a natural disturbance to an ecosystem. This type of disturbance will affect all individuals within that ecosystem from the smallest bacterium in the earth to the bald eagle flying above. Some species will prosper while others suffer: "Feast or Famine." Knowing this, it was assumed that some birds in the area would not survive the storm, or be forced inland. The opposite was also assumed for other species. The effects of the hurricane could make the airfield into a smorgasbord of bird food, attracting a higher than normal amount of birds.

While traversing the Hampton Roads area and admiring the damage Hurricane Isabel caused, my colleague and I received a call from the Chief of Safety. My suspicions were confirmed, "Bird Watch Condition is SEVERE. Can you help us out?" A host of Distinguished Visitors (DV's) were enroute to LAFB: COMACC, Federal Emergency Management Agency Officials, and lastly the Governor of Virginia to assist local authorities assessing storm damage. It was essential that the runway and taxiways be cleared of all bird activity to ensure the safe arrival of all DVs and returning 1 FW aircraft.

Langley AFB is located in southeast Va. in an area known as the Virginia Peninsula. It is approximately 11 feet above sea level and surrounded on two sides by the northwest and southwest branches of the Back River which empty into the Chesapeake Bay. Airfield flooding from hurricane tidal surge was guaranteed, along with a great deposit of organic and inorganic mate-

rial on the airfield when waters receded. Although the airfield has an extensive drainage system, it would take time for the airfield to completely drain. In the meantime though, large expanses of standing water and the deposited material from tidal surge had turned the airfield into a virtual bird summer resort.

Gearing up for bird dispersals, we tried to plan for every contingency and worst case scenario possible. In our minds we thought of groups of gulls and geese scattered throughout the flooded airfield; no problem. Upon entering the airfield the situation far surpassed our initial estimates. There were thousands of gulls present along with geese, ducks, egrets, and crows all loafing or actively feeding on the airfield. Curbing our astonishment we began to methodically harass birds off the airfield and continued aggressive bird dispersals all weekend long while the airfield drained. Equally impor-

Gearing up for bird dispersals,  
we tried to plan for every  
contingency and worst  
case scenario possible

tant was the removal of all debris off the airfield. The main objective of debris removal was to re-open the runway and prevent FOD mishaps, but it also inadvertently removed a highly attractive short-term food source for scavengers. The debris removal team did an exceptional job, and with persistent bird dispersals, bird activity was reduced significantly and quickly.

Effects from natural disturbances can be direct (immediate), such as the event described above; the immediate effects of the hurricane drew numerous birds to the airfield. Disturbances like severe weather can also have indirect (delayed) effects on an eco-

system. To the people of Mount St. Helens in Washington, the devastating eruption of 1980 was the worst possible thing that could have happened, nearly destroying everything in the local area. That was until they discovered that elk, which hadn't been seen in the area for years, had returned to forage on newly emergent vegetation not available before the eruption. Langley AFB has also experienced indirect effects from Hurricane Isabel. Looking at these effects from an ecosystem standpoint some might consider them to be negative, but from a BASH perspective it was a blessing!

In the months following the hurricane, bird activity decreased immensely. The airfield completely drained and all refuse was removed. We still continued to monitor bird activity through surveys and BASH sweeps, but there seemed not be nearly the amount of birds that would normally be seen during this time of the year. Fall migration, although normally not a large event at LAFB, was negligible. Overall bird activity decreased 46 percent, bird dispersals decreased 93 percent, and there

was only one bird strike in the first quarter of fiscal year 2004, compared to 12 bird strikes during the same period the previous year; a notable 92 percent reduction! Gone were flocks of starlings feeding along the runway; no kestrels hawking on the infields for small mammals; egrets, herons, crows, gulls, and geese all but disappeared. What happened to the birds?

The answer to this question did not start to reveal itself to us until we completed our fall small mammal survey. Our results from this survey indicated that large portions of the airfield had lost a great number of small mammals. With the airfield under 2-3 feet of water this was not a big surprise. The survey

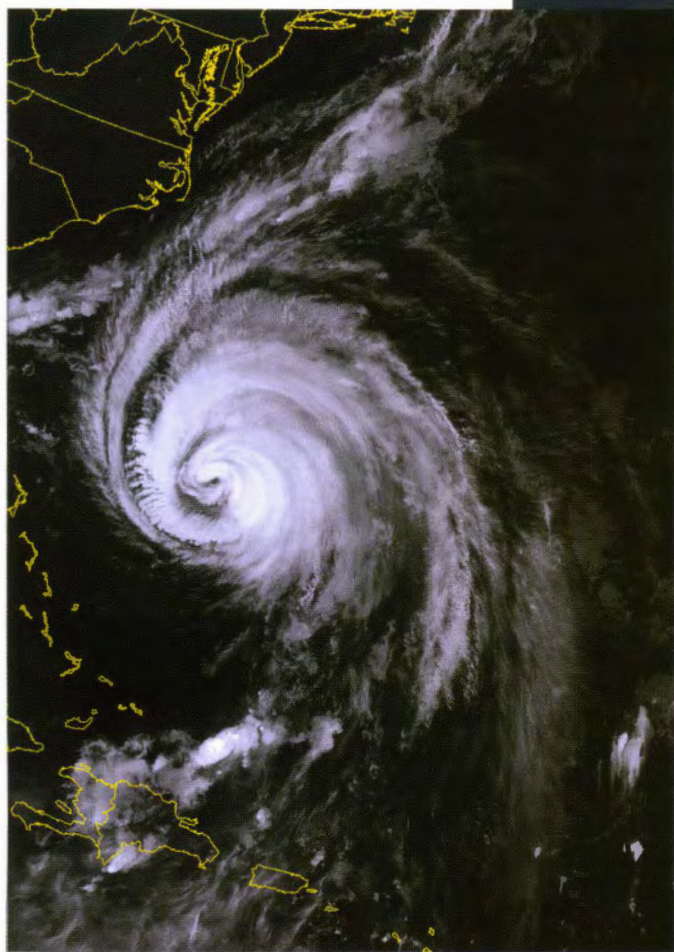


results primarily explained to us why our raptor activity on the airfield had declined; their preferred food source had been removed. No food, no reason to stay.

Post hurricane small mammal distributions allowed us to estimate which parts of the airfield had been submerged. We then speculated upon what other effects the tidal surge had upon the airfield. It was then we realized that the tidal surge had removed/



Photo by SSgt Samuel Roger



Satellite image of Hurricane Isabel off the East Coast on September 17, 2003

destroyed many food sources (plants, seed, earthworms, insects, small mammals, etc.) birds are attracted to. In essence a "cleansing" of the airfield had occurred, making it unattractive for birds to forage upon. Even the geese did not seem to relish the saline tainted grass left after

destroyed several nesting sites in the area, and as a result we may experience one more indirect effect caused by the storm that could be hazardous or beneficial to flight operations. Osprey may choose to nest or gather nesting materials within the airfield environment (hazard), or they might also choose

Isabel came through.

There are still birds around that present a BASH risk, but for the most part the airfield has stayed empty. Although Hurricane Isabel may have been good for BASH, we are well aware that the hurricane's effect will not last forever. A productive growing season this year should return bird and small mammal activity to normal. Osprey will migrate back to the LAFB vicinity to breed this spring. The hurricane

to nest elsewhere decreasing their presence on/around the airfield (benefit). Whatever the outcome, we will monitor the situation and plan accordingly.

Ultimately it is important to remember that a BASH program is not just responding to bird strikes and launching pyrotechnics through the sky. Short-term solutions will not necessarily solve long-term problems. A good understanding of the ecosystem in which your airfield dwells, along with any inherent BASH hazards it contains, are both equally important to know. This understanding will not only assist you in everyday wildlife management on your airfield, but will allow you to predict and plan for contingencies, such as Hurricane Isabel, and incorporate them into your BASH plan. Additionally, encourage BASH Operational Risk Management when briefing pilots to heighten awareness to any situation that has or may occur. Lastly, take a moment and think about where your airfield is located, add a natural disturbance and think about what possible situations could occur. Will a wildfire drive out resident wildlife only to have them return in greater numbers than before, or will excessive rainfall and flooding bring thousands of birds to your airfield? ►



**eye on**

*Safety*



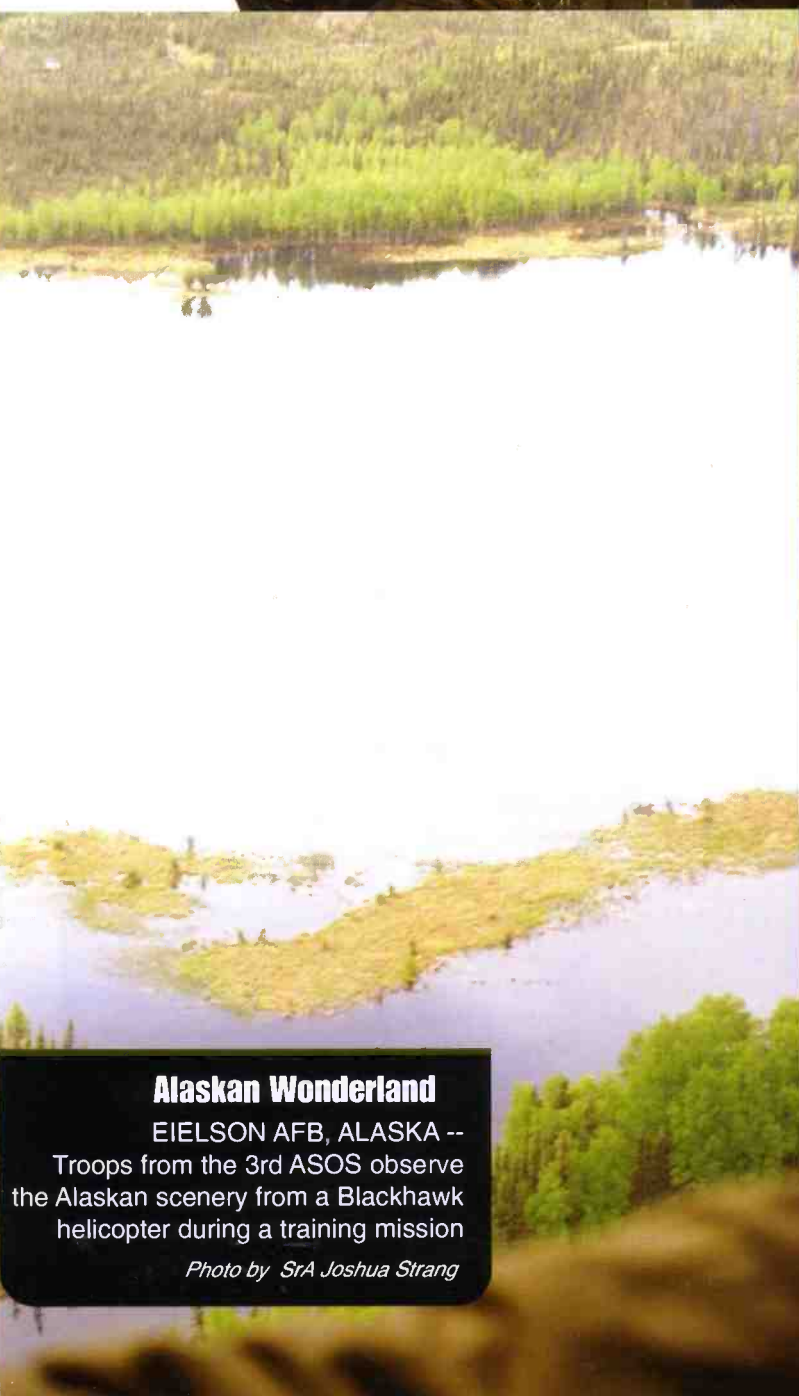




### **Atta Boy A TSO!**

KUNSAN AB, SOUTH KOREA --  
SSgt Jason Harrison, crew chief, reviews his  
Ability To Survive and Operate guide during  
the Korean Peninsula Combat Evaluation  
Readiness Exercise

*Photo by SSgt Michael Holzworth*



### **Alaskan Wonderland**

EIELSON AFB, ALASKA --

Troops from the 3rd ASOS observe  
the Alaskan scenery from a Blackhawk  
helicopter during a training mission

*Photo by SrA Joshua Strang*



### **MK-82**

EIELSON AFB, ALASKA --

A1C Thomas Temple wires the  
ATU-35 drive assembly on the  
MK-82 bomb during the Wing  
Operational Readiness Inspection

*Photo by SrA Joshua Strang*



# MONTHLY AWARD WINNERS

## Aircrew Safety Award of Distinction

**T**he listed crewmembers launched on a 13+ hour combat mission to Afghanistan in support of Operation ENDURING FREEDOM. During their third and final aerial refueling of the mission, they experienced a brute force disconnect with a KC-135. When the tanker crew called, and executed break-away procedures, the boom nozzle failed to unlatch as commanded independently by both the tanker and bomber crew. As a result, damage occurred to both the boom nozzle and the B-1's Universal Aerial Refueling Receptacle Slipway Installation (UARRSI). Because the B-1's fuel receptacle was damaged and the valve failed to close, the crew experienced an unstoppable fuel stream over the cockpit windshield and they were still over an hour from the Forward Operating Location (FOL) with no reasonable emergency field. The B-1

crew's emergency was compounded by an unrelated failure of the primary oxygen system (MSOGS). The crew computed the rate of fuel loss and determined that if they elected to remain at optimum cruise altitude, they could conserve enough fuel to reach the FOL while preserving their limited supply of backup oxygen. While on the approach into the FOL, the crew lost all outside cockpit visibility from the streaming fuel and began to deplete their backup oxygen as fuel vapor entered the cockpit. Beyond the scope of the emergency checklist, they used the alternate windshield anti-icing system to clear a 4 inch field of view (using engine bleed air) at the bottom the windshield. Continued use of the anti-ice system led to a windshield hot caution light, so the crew opted to wait until decision height to use the system. The cleared field of view only allowed them to see the partially-obscured runway while fully configured on a 7 degrees AOA approach. Because the active runway did not have a precision approach, the crew opted to fly an opposite direction approach despite a slight tailwind. Capt Pierce executed a flawless landing on centerline, at which time they lost all visibility prior to braking. Given the crew's extensive systems knowledge, management of crew resources under intense pressure, airmanship and ingenuity, they preserved a \$283 million combat asset, which returned to the fight.

**Cpts Orrin Pierce, James Dykas, Ed Brennan and Brian Pearson,  
37th Bomb Sqdn., 28th Bomb Wing, Ellsworth AFB, South Dakota**

## Pilot Safety Award of Distinction

**C**apt Olivieri was scheduled as number two of a 2-ship F-15C Night Vision Goggle (NVG) upgrade sortie. During take-off roll, Capt Olivieri selected full afterburner, and both engines responded normally. Passing 140 KIAS, and just prior to initiating nose-wheel lift-off, the number two engine let out a deafening "bang." In addition to fire coming out of the front of the intake, engulfing the entire canopy, the aircraft also began a noticeable yaw to the right. It was later determined that Capt Olivieri's engine suffered a catastrophic electronic engine control failure, causing the afterburner to fail which resulted in an instantaneous loss of thrust. With the aircraft still on the runway surface, Capt Olivieri correctly made the decision to abort the take-off. He immediately selected idle power while steer-

ing the aircraft to keep it on the runway, and dropped the tail hook as per Dash-1 guidance. Capt Olivieri then applied maximum braking, bringing the F-15 to taxi speed prior to the departure end cable. He steered the aircraft into the hot brake area, pointed it into the wind, and coordinated with the Supervisor of Flying (SOF) for fire crews to come inspect his brakes. While waiting for the fire crews, both brake-stacks on Capt Olivieri's jet caught fire, requiring him to perform an emergency egress of the aircraft. Fire crews were on the scene moments after the fire initiated; allowing the fire team to control the fire before a dangerous situation developed, and any significant damage being done to the aircraft. Capt Olivieri's quick reactions and skill averted the destruction of a \$38 million combat asset and potential loss of life. Capt Olivieri's superb handling of the high-speed abort and quick coordination for fire crews saved the Air Force a valuable combat asset.

**Capt Damian L. Olivieri, 60th Fighter Sqdn.,  
33rd Fighter Wing, Eglin AFB, Florida**





# Flight Line Safety

Award of Distinction

As the crew reported to their E-3 Airborne Warning and Control aircraft to perform preflight checks for the first Red Flag night sortie, SSgt Lopez noticed the Electronic Command Signals Programmer (ECSP) cabinet was powered up without air cooling. He immediately removed power from the equipment and notified maintenance and the Deployment Commander. After informing maintenance of the situation, he found that the aircraft had been powered up for 25 minutes. He then coordinated with the Operations Superintendent to restore cooling air and perform a ground check of the equipment. The Operations Superintendent then coordinated with maintenance to have the ground check of the equipment performed.

By assisting maintenance with the ground check of the equipment, SSgt Lopez kept the delay caused by the ground check from having an impact on the aircraft's scheduled takeoff time. SSgt Lopez distinguished himself by flawlessly and expeditiously handling a critical incident with quick reactions and superb crew resource management. Through superior airmanship and crew coordination, SSgt Lopez averted a potential mishap. The ECSP is not field repairable and would have required depot level maintenance, and left undetected, would have failed catastrophically with a mishap cost of over \$1.1 million. SSgt Lopez's undivided situational awareness and knowledge of technical orders broke the chain of events to prevent a mishap, and prevented a mission abort of a High Value/Low Density Air Force asset.

**SSgt Eric Lopez, 964th Airborne Air Control Sqdn.,  
552nd Air Control Wing, Tinker AFB, Oklahoma**



# Ground Safety

Award of Distinction

While performing a routine hangar security check, MSgt Klazura smelled smoke in the latrine area of Hangar 201. He immediately instructed TSgt Harken to activate the fire alarm and notify the Fire Department by telephone. Both MSgt Klazura and TSgt Harken then conducted a physical sweep throughout the hangar to notify and evacuate any personnel who were inside the building and to ensure the offices located inside were secured. MSgt Klazura initiated the evacuation of aircraft 91-0393 from the hangar. Both Sgts Klazura and Harken opened hangar doors and moved equipment away to facilitate aircraft extraction. The aircraft was ready to go when the tow team arrived. MSgt Klazura

escorted the on-scene commander and fire fighters to the area where he had first detected the smoke, which was blowing out of the heater vents in the women's bathroom. He then instructed the fire fighters to the area where the boiler was located. The fire department discovered that the boiler unit was glowing red-hot at approximately 1100 degrees Fahrenheit, and was mere minutes from exploding. Afterwards, MSgt Klazura coordinated with civil engineers to get the boiler repaired without negatively impacting mission requirements. MSgt Klazura and TSgt Harken's incredible poise, composure, and training prevented the boiler from exploding and damaging or destroying a historical building valued at over \$1.25 million. Additionally, their immediate and calculated actions during an emergency situation prevented potential injury or death of personnel and the loss of a \$31 million aircraft and support equipment.

**MSgt Anthony W. R. Klazura, 366th Aircraft Maint. Sqdn.,  
366th Fighter Wing, Mt. Home AFB, Idaho**





# MONTHLY AWARD WINNERS

## Weapons Safety Award of Distinction

**A**1C John R. Neild demonstrated outstanding professionalism and technical expertise while stationed at Ellsworth AFB, S.D., supporting the B-1 aircrew escape system. At shift change, while completing the inventory of the serviceable explosives locker, he noticed a slight configuration variance between the stored Type I and Type II AND Gate explosive device bodies. He immediately segregated the questionable component and proceeded to inves-

tigate the discrepancy further. After reviewing Technical Order 11P22-3-7, he revealed the manufacturer had inadvertently mislabeled one of the Type I AND Gates as a Type II AND Gate. This deficiency, if gone undetected, would have resulted in the wrong type of AND Gate being installed on the aircraft. This AND Gate was scheduled to be part of a time change work package within 48 hours. If the discrepancy had gone unnoticed, it would have disrupted the split-second timing of the carriage retract thruster and the emergency hatch jettison sequence, jeopardizing a successful ejection seat operation. These intense inspection actions broke a link in the safety mishap chain, and avoided a potentially hazardous situation. A1C Neild's superb dedication, attention to detail, and support to the Air Force Weapons Safety Program is proven and unmatched!

**A1C John R. Neild, 28th Maintenance Sqdn.,  
28th Bomb Wing, Ellsworth AFB, South Dakota**

## Crew Chief Safety Award of Distinction

**S** Sgt Cowart has consistently displayed superior initiative and the mechanical skills to ensure the wing safely accomplishes its formal training mission. He aggressively responded to a ground emergency for a B-1 aircraft disabled on the runway for a tire failure following landing. During this incident, SSgt Cowart inspected and safed the aircraft, removed and replaced the blown tire, and then

towed the aircraft from the active runway. His tremendous efforts enabled inbound B-1 aircraft to land at home station safely, averting any chance of a costly mishap. He displayed superb attention to detail during daily flight line FOD walks, greatly contributing to the 7 BW being FOD incident-free for 39 days straight. Additionally, SSgt Cowart quickly responded to the end of the runway for an in-flight emergency involving a B-1 aircraft with a fuel jettison valve stuck open. He rapidly assessed and identified the problem, then manually closed the valve. His actions minimized flammable dangers and prevented environmental hazards. SSgt Cowart applied sound operational risk management to get the job done when he safely jacked a B-1 aircraft at a forward deployed location on the open ramp. His actions resulted in the repair of a faulty landing gear, returning the aircraft to mission capable status in support of Operation MOUNTAIN STORM.

**SSgt Daniel C. Cowart, 7th Aircraft Maint. Sqdn.,  
7th Bomb Wing, Dyess AFB, Texas**

## ACC Safety Salutes Superior Performance

**Capt John Bleil, Instructor Pilot  
Lt Paul Wurster, Pilot Upgrade Candidate  
Capt Paige Hoffart, CFIC Candidate  
Maj Chris Castro, Radar Navigator  
Maj Matt Breden, Navigator  
Maj David Ortolani, Electronic Warfare Officer  
5 BW  
Minot AFB, N.D.**

**Maj Gentry W. Boswell,  
Capt Ryan K. Carignan,  
Capt Brian D. Golden,  
1Lt Crystal D. Powers,  
7 OG, 13 BS,  
7 BW  
Dyess AFB, Texas**

**Maj Michael W. Glaccum,  
HQ ACC/DRR,  
Langley AFB, Va.**

**Capt Mitchell Miglori,  
Chief, Squadron Scheduling  
20 FS, 49 FW  
Holloman AFB, N.M.**





## ACC Safety Salutes Superior Performance

**Capt Angel M. Negron,**  
Aircraft Commander  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**1Lt Benjamin J. Laubscher,**  
Copilot  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**1Lt Alexander D. Frisch,**  
Navigator  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**MSgt Kenneth W. Palmer,**  
Flight Engineer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Maj Jonathan M. Williams,**  
Mission Crew Commander  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Maj Matthew R. Webb,**  
Instructor Senior Director  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Capt David F. Hetzler,**  
Instructor Senior Director  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Capt Virgil G. Gibbs,**  
Instructor Air Weapons Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**1Lt Sean W. Thompson,**  
Air Weapons Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**1Lt Jason A. Whitford,**  
Air Weapons Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**1Lt Michael E. Ziska,**  
Air Weapons Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SrA Randy L. Stinnett,**  
Weapons Director  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**MSgt Ricardo Villarreal, Jr.**  
Weapons Director  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Capt Jason D. Goodwell,**  
Electronic Combat Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**Capt Christopher L. Williams,**  
Air Surveillance Officer  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SSgt John F. Prieto,**  
Senior Surveillance Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SrA Joseph S. Lopez,**  
Air Surveillance Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Jessica C. Riesen,**  
Air Surveillance Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Jacob M. Soukup,**  
Air Surveillance Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SSgt Jose M. Galvan,**  
Evaluator Computer Display  
Maint. Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SSgt Eric M. Grunert,**  
Instructor Computer Display  
Maint. Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**SSgt Richard A. Saldivar,**  
Airborne Radar Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Paulino Sotomayor,**  
Airborne Radar Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Aaron J. Blaker,**  
Communication Systems Operator  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Vincent R. Floyd,**  
Communication Systems Operator  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Robert W. Buckner,**  
Communications Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.

**A1C Charlie C. Floyd III,**  
Communications Technician  
963 AACS, 552 ACW  
Tinker AFB, Okla.



Looking back, we all enjoyed bicycling as kids, riding from sun-up to sundown. When service members arrive at Osan AB, Korea, they discover that the country is filled with bicyclists. Bicycles are cheap, clean transportation and everyone from young children to teenagers, college students, businessmen, mothers, and retirees use bicycles as their primary means of transportation. Due to the narrow roads, traffic congestion, lack of parking, and cost of operating a car in Korea, bicycles are the easiest and most popular way to get to work or around the base. When they arrive "in country," many service members haven't ridden a bike since they were a teenager because cars have replaced bicycles as the preferred choice of transportation in the United States. As a result, we have to go through a "relearning" process to get our riding legs back and sharpen our riding skills.

It's easy to get excited and bolt off to have fun, but you need to keep safety in mind. Before you start the ride, always check your tires for wear, your chain for tightness, and your brakes to ensure that they will stop you in a hurry if the need arises. If you've ridden on base for any length of time, you know to always obey the stop signs and go with the flow of traffic. Also, stay off the sidewalks and be mindful of one-way streets. After riding around base awhile, your curiosity will get the best of you, and you'll want to venture out into the local community or ride the abundant trails that are available.

Pay particular attention to your safety gear. Invest in a good quality helmet and a highly visible, reflective vest. A high quality helmet will decrease the chance of sustaining a critical head injury, while a brightly colored reflective vest will make you more visible to pedestrians and vehicle traffic. If you plan to ride very far, away from the base, a camelback filled with cold water is a must. I have been on the trails many times and without water you will dehydrate quickly in the humid summer heat and not last very long. Use sunscreen to avoid sunburn and take a protein bar, fruit or trail mix with you in case you need a quick energy "pick-me-up."

While out on the roads and on the trails, use hand signals. Most of the bikers I've come in contact with do not

use them. You may save your life by simply putting your hand up and signaling your intentions to cars, other bicyclists, and pedestrians.

When you arrive at the trail, there are a few things to keep in mind. Don't follow too closely behind another bicycle; when someone is going up or down a hill, you may not be able to stop in time if they stop suddenly or fall. In densely wooded areas, watch for fallen branches and loose pine needles, especially on steep descents. As you begin to descend, shift your weight to the back of the seat and put equal pressure on your front and rear brake, but watch for pine needles and slick roots; too much pressure on the front brake can make you slide if you aren't careful. Protruding rocks and gravel can make the ride all the more interesting. I've seen quite a few people hit them and tumble over their handle bars, so use a "see and avoid" approach to them if able and keep your center of gravity as low as you can if you do hit them. Avoid mud puddles on the trail because the slippery edges can make you lose your balance and the murky water can hide the depth of the hole, rocks, and other hazards that exist just below the surface.

Sunday is a common day off in Korea, and local Korean families are often seen on the streets or hiking the same trails that the bicyclists use. Families will generally have their kids and a dog with them when hiking, so use caution when they are present. Remember, pedestrians have the right-of-way, so share the trail and be courteous.

Being stationed overseas is a great opportunity to experience another culture and mix with the local populace, and there is no better way to see Korea than by bicycle. Biking is inexpensive, convenient, and allows you to get off the beaten path and see the sights that aren't available by train or by car. Besides the convenience, it's a good source of exercise and can be done easily and safely if you follow a few basic safety guidelines. ▶

**We have to go through a relearning process to sharpen our skills**

## Safe Riding Tips

*Each year, there are about 900 bicycle-related deaths in the United States and another half a million bicycle-related injuries treated in hospital emergency rooms. To reduce injuries, the Consumer Product Safety Commission (CPSC) encourages riders of all ages to use helmets. Studies have shown that using bicycle helmets can reduce head injuries by up to 85 percent.*

*Along with using safety equipment, rider actions and reactions play a major role in contributing to injury-free cycling enjoyment. CPSC offers these additional safety tips to help ensure safe summer cycling.*

- See and be seen ... Wear bright fluorescent colors during the day.
- Avoid biking at night ... If riding at night, equip your bicycle with head and taillights and wear reflective clothing.
- Stay alert ... Keep a lookout for obstacles in your path.
- Go with the flow ... Ride with traffic.
- Check for traffic ... Be aware of traffic around you.
- Learn the rules of the road ... Obey traffic laws.
- Assure bicycle readiness ... Is your bicycle properly adjusted?

# PEDAL





# POINTERS



By TSgt Todd Crockett, Osan AB, ROK



# Not so Common.



**C**ommon sense is not so common when it comes to safety in our offices and work spaces. That's why we all need reminders about how to spot and resolve safety hazards in the workplace.

A clean work center is a safe work center. Organize a cleanup program to remove trash, broken parts, and scrap from work areas, walkways and storerooms. Look for materials stacked improperly, like wood pallets, dock freight, storeroom boxes, construction materials, and even office files. An un-

stable stack could suddenly collapse, endangering anyone nearby.

All work centers should have ample supplies of readily available personal protective equipment. Ear and eye protection, hard hats, gloves, safety shoes or other protective clothing and equipment must be worn, according to the hazard exposure. If you believe your work center requires additional personal protective equipment, do not hesitate to notify your supervisor. Supervisors should take these requests seriously;

verify the need and acquire the items.

Inspect portable ladders to make sure they are stable and don't shake or wiggle. If you detect any weakness in a ladder, mark it defective and notify your supervisor immediately. If it is deemed unsafe, place an unserviceable tag on it to ensure others don't use it and dispose of it.

Fire extinguishers are a must in any work center. Check fire regulations for the type needed in your work area and to determine proper placement. Ensure they are mounted prop-



# Common Sense

By TSgt Aaron Grant, Hill AFB, Utah



erly, readily accessible, and in working order. Test extinguishers monthly, document the date and note the name of the inspector who performed the test.

Exits should be clearly marked with easy-to-read signs placed above the door. Illuminated signs should be kept in working order at all times. Don't

aren't exits (e.g., "This is Not an Exit," "Restroom," "Storeroom" or "Closet"). Safe stairways are also important. Make sure every flight of stairs having four or more risers is fitted with a standard railing on all open sides of the stairway. Handrails are required on at least one side of a closed stairway, preferably on the right hand side of the wall as you would descend the stairs. The stairs themselves should be in good shape with nonskid treads. Repair those that are damaged or chipped.

Regular safety meetings are an important part of a good

safety program. Every worker needs to know the importance of taking every precaution to keep the workplace safe. Safety items can be communicated through posters, handouts and training programs. Both employee and employer safety attitudes can determine the successfulness of a program.

When these safety practices become more common in our work areas, everyone benefits. Injuries are reduced and productivity increases. That makes a lot of sense. ►

**Every worker needs  
to know the importance  
of taking every precaution**

block exits or signs with anything. It's a good idea to mark doors that



It's a well-known piece of advice that one shouldn't stay in a hot tub for very long, but do you know why? Is it because your skin might become too wrinkled? It turns out that the answer is a lot more serious than cosmetic. Staying in a hot tub or hot spring too long may be very hazardous to your health. Believe it or not, people actually die from this practice. Although the most obvious hazard is drowning, which does occur each year, a less recognized danger is the heat itself. In addition, the distance of some natural hot springs from medical care can be disastrous.

Hot tubs are adjustable for temperature, and most manufacturers recommend they be kept no higher than 103 degrees Fahrenheit. Water kept at higher temperatures elevate the body core temperature at much higher rates, and results can be dangerous. Of course, natural hot springs can be even hotter, reaching temperatures in excess of 120 degrees; so exposure time must be kept short to prevent heat-related injuries.

The reason these higher temperatures are so dangerous is related to how the body normally cools itself. The human body is specifically designed to operate within a narrow temperature range. In fact, it goes to great lengths to maintain itself at an acceptable temperature. If the body is too cold, blood flow is directed towards the body core to maintain heat and shivering muscles generate additional heat. If one is getting warm, blood is pushed to the skin to radiate heat into the environment, and sweat takes away excess heat by evaporative cooling. But if these mechanisms are not able to deal with the temperature challenge, the body quickly gets into trouble.

When we enter a hot tub, we are immersed in a volume of heat-laden water that conducts its thermal load directly into our bodies. As mentioned before the body's natural response to cool itself is to open up the cardiovascular system, or dilate, to allow maximal blood flow to be redirected toward the skin. The percentage of cardiac output going to the skin increases from about 5 percent at rest to an

incredible 50 percent in the setting of hyperthermia, excessive body heat load. With the arterioles opening up, blood pressure drops, making one feel lightheaded, and the heart tries to keep the pressure up by beating faster.

In addition, the body sweats to rid itself of this excess thermal load. However, when a person is immersed in hot water, sweating cannot cool the body down.

Despite the fact that sweating is completely ineffective in a hot tub or spring, the body sweats anyway, losing a great deal of water, which leads to dehydration, which increases the risk for a heat injury.

Now add on top of these physiological factors, the consumption of an alcoholic beverage, or two, or three, or four ... Unfortunately, alcohol has a number of negative effects that make an otherwise routine situation dangerous. Alcohol increases the amount of cardiovascular dilation, worsening the already

lowered blood pressure. Alcohol also has an adverse

effect by weakening the body's natural defense mechanisms against heat. Finally, alcohol can weaken the perception of discomfort, making people miss the important cues that the body is in trouble.

So, how do you know when you're approaching being in too long? Experiments demonstrate the most important safety cue is simply the feeling of discomfort. A rapid pulse, feeling faint, and a hot, blushed face, are all signs the body is working hard to maintain itself in the excessively warm environment.

If you want to enjoy some time in a hot tub or hot spring, make sure you observe a few safety basics. Don't stay immersed for prolonged periods of time, don't drink alcohol while soaking in hot water, and make sure you're with at least one other person. Most importantly, at the first sign of discomfort, listen to your body and get out.

How do you know when you're approaching being in too long?

## Hot Tub Safety Tips

- 100 degrees is considered safe for a healthy adult, but keep temperatures lower than 104 degrees Fahrenheit
- Children are even more susceptible to heat injuries and can be burned by the water, even at the recommended maximum of 104 degrees
- Pregnant women beware! Soaking in water above 102 degrees Fahrenheit can cause fetal damage during the first 3 months of pregnancy
- Excessive drinking can lead to drowsiness and drowning
- Check the water temperature with an accurate thermometer; hot tub thermostats may differ in regulating water temperatures by as much as four degrees
- Persons with a medical history of heart disease, circulatory problems, diabetes or blood pressure problems should obtain their physician's advice before using hot tubs
- Persons taking medications which induce drowsiness, such as tranquilizers, anti-histamines or anti-coagulants, should not use hot tubs



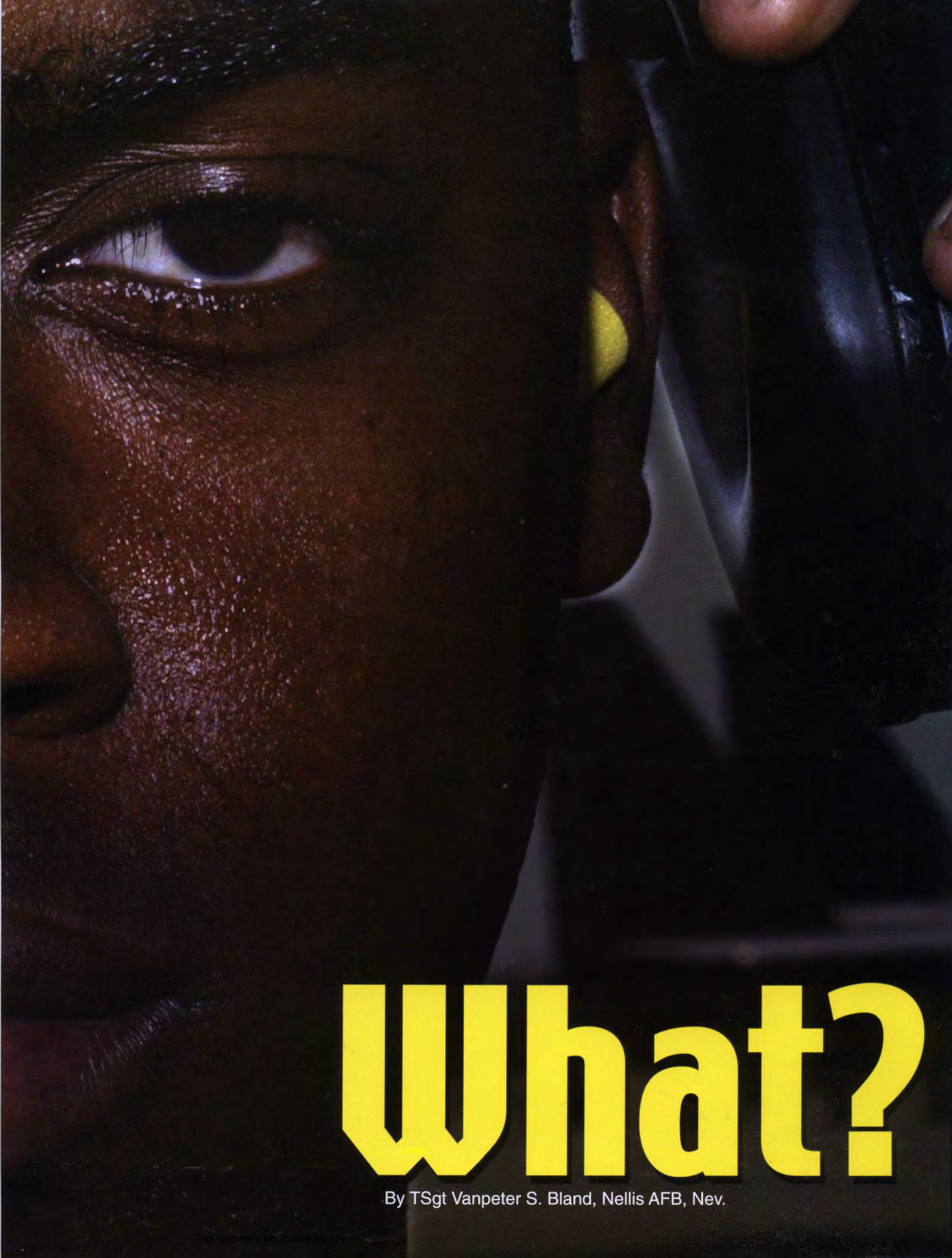
# but it's a Wet Heat!

By Lt Col Dan Torweihe, Eielson AFB, Alaska



It col dan t... the eielson afb alaska





# What?

By TSgt Vanpeter S. Bland, Nellis AFB, Nev.

TSgt vanpeter's bland nellis afb nev



I am an enlisted maintenance troop, a grunt. I work on or near aircraft on a daily basis. In my career, I have worked on the C-130 Hercules, A-10 Warthog, F-4 Phantom and Weasel model, and of course, the F-16 Lawn Dart, I mean Fighting Falcon.

Each of these aircraft has their very own distinctive sound, but most would simply say they were loud. As a grunt, I appreciate the ear splitting, air warping melodies heard on most airbases, and I find that nowadays I just can't sleep without some sort of propeller or fan noisily moving massive amounts of air around.

However, as I stated earlier, some folks just don't like the noise and rightly so. I emphasize loud. Most folks don't carry around devices to aid in the dissipation of extreme volume. As a grunt, I have been issued the latest and greatest of safety wear to include the just-in-time for summer, fashionably chic headset and foamy ensemble. They go with my Battle Dress Uniform just fine, but they always draw negative attention when I go shopping, so I've stopped wearing them whenever I doff my uniform.

Loud noise is a hazard. Exposure to high noise levels can cause hearing loss or impairment, in addition

to physical and psychological stress. Specifically

**Ears are delicate,  
and it's not just aircraft noise  
we should worry about**

designed protection is required, depending on the type of noise encountered and the auditory condition of the employee. AFOSH Standard 48-19, *Hazardous Noise Program* (based on the Occupational Safety & Health Administration (OSHA) Occupational Health Standard 29

CFR 1910.95, *Occupational Noise Exposure*) is the primary Air Force directive on hazardous noise exposure policies, responsibilities, and procedures (including hearing protective device information). According to AFOSHSTD 48-19, when any employee's exposure over an 8-hour time averages 85 decibels or more, the Air Force requires the use of Personal Protective Equipment to reduce noise levels below 85 decibels. Contact your local BioEnvironmental Engineering (BEE) Branch for information on the Air Force Hearing Protection Program.

The Air Force and OSHA safety experts consider relatively safe noise levels around 84 decibels, which is equivalent to an old Chevy honking its horn. A car horn is loud, but its sound is a whisper when compared to an F-16 with afterburners. We've all heard them — the sound of freedom, which I agree with, but the deafening volume and the dizzying vibration of that plane makes my spleen hurt. It can also damage the delicate ear drum, hence, the aforementioned headset and foamy ensemble required when working in and around them.

Ears are delicate, and it's not just aircraft noise we should worry about. Construction sites, which are common around here, use a multitude of devices which devastate our hearing. Loud music in bars, which I wouldn't know about personally (snicker), can easily render an ear helpless for a day or two. Even the portable music devices seen dangling from the waists of "fitness freaks," could cause damage by turning them up too loud.

Now that I think about it, maybe I should just ignore the snickering and wear my headset and foamy ensemble anyway. After all, I may look stupid to some, but in my opinion it's a lot better than having to say, "What?" for the rest of my life. ▶

## Test Yourself to Recognize Hearing Loss

*The following questions will help you determine if you need to have your hearing evaluated by a medical professional: this material is for general information only and is not intended for diagnostic or treatment purposes. A doctor or some other health care professional must be consulted for diagnostic information and advice regarding treatment.*

*Editor's Note: Reprinted Courtesy of the Office of Occupational Safety and Health, Department of Veterans Affairs*

- Do you have a problem hearing over the telephone? [Yes] [No]
- Do you have trouble following the conversation when two or more people are talking at the same time? [Yes] [No]
- Do people complain that you turn the TV volume up too high? [Yes] [No]
- Do you have to strain to understand conversation? [Yes] [No]
- Do you have trouble hearing in a noisy background? [Yes] [No]
- Do you find yourself asking people to repeat themselves? [Yes] [No]
- Do many people you talk to seem to mumble (or not speak clearly)? [Yes] [No]
- Do you misunderstand what others are saying and respond inappropriately? [Yes] [No]
- Do you have trouble understanding the speech of women and children? [Yes] [No]
- Do people get annoyed because you misunderstand what they say? [Yes] [No]

*If you have answered "yes" to three or more of these questions, it is suggested that you consult an otolaryngologist (an ear, nose, and throat specialist) or an audiologist for a hearing evaluation.*
































## FY04 Aircraft

As of June 30, 2004

	Fatal	Aircraft Destroyed	Aircraft Damaged
8 AF			
9 AF			
12 AF			
AWFC		   	
ANG (ACC-gained)		 	 
AFRC (ACC-gained)			

## FY04 Ground

As of June 30, 2004

	Fatal	Class A	Class B
8 AF	 	2	0
9 AF	   	5	2
12 AF	     	9	0
DRU's		1	1

## FY04 Weapons

As of June 30, 2004

	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWFC	0	4

### Aircraft Notes

ACC had three Class A mishaps in June. Fortunately, no aviators were injured. An A-10 diverted due to an engine fire and the fire crew extinguished the fire after landing. A Predator was destroyed on landing and an F-15C pilot successfully ejected after multiple restart attempts on both engines. Be ready for your next EP. When it happens, ask yourself, "Ok, that's bad, but what would be the next worse thing that could happen?" Then prepare for it. Check yourself before you wreck yourself. Fly Safe!

### Ground Notes

ACC has sustained two Class A mishaps during the 101 Critical Days of Summer. Both were PMV4 mishaps that involved speed and situational awareness. Although tragic, these two mishaps represent a 66 percent reduction over the same time period for FY03.

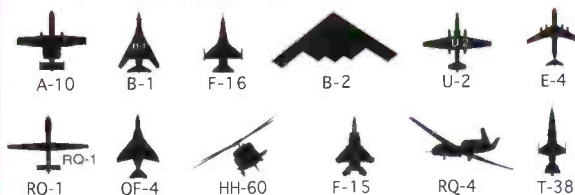
### Weapons Notes

As the heat gets turned up during the summer months, along with the relentless deployment tempo, the probability of having a weapons mishap increases. We must continue to use our tech data and written instructions as well as make good ORM decisions. We can't fight the enemy unless "we" are capable to fight the enemy.

### Legend

Class A - Permanent Total Disability; Property Damage \$1,000,000 or more  
 Class B - Permanent Partial Disability; Property Damage between \$200,000 and \$1,000,000  
 Class C - Lost Workday; Property Damage between \$20,000 and \$200,000  
 \* Non-rate Producing

### Symbols for Mishap Aircraft





# WANTED

BY YOUR LOCAL BASH OFFICE

## FRANKIE "THE BIRD" AVIAN

### DESCRIPTION:

**Date of Birth:** October 2002 **Place of Birth:** Mount Trashmore, Virginia Beach, Va.  
**Feathers:** White/Black/Gray **Height:** 8" at the wing, 13" at the beak **Weight:** 2lbs  
**Feet:** Webbed **Occupation:** garbage collector/public nuisance

### REMARKS:

Frankie has ties to the Langley AFB area and is often seen commuting with his co-conspirator Annette and their many peeps between the Langley AFB runway confines and local beaches and picnic grounds. The suspects are known to congregate without warning in and around the runway during air shows, insect "hatching" festivals, and during all hours and weather conditions.

### CAUTION:

Frankie, Annette, and their peeps are members of a species responsible for causing damage to military aircraft and are a general aviation hazard at Langley and many other ACC bases to the tune of \$54,975,399 dollars in 2003 alone. Bird/Wildlife Avoidance and Strike Hazard (BASH) programs are evolving to counter the threat posed to aviation by wildlife living and transiting ACC bases and surrounding areas. Be aware of the threat posed by wildlife and the BASH programs used to counter that threat whenever you step to the jet.

### REWARDS:

Your base BASH program needs your information and cooperation in reporting bird and wildlife threats on the airfield and your reward is a safer operating environment and more effective BASH programs.

IF YOU HAVE ANY INFORMATION CONCERNING THIS HAZARD, PLEASE  
CONTACT YOUR LOCAL BASH OFFICE



### WARNING:

SUSPECT SHOULD BE REGARDED AS  
"WINGED AND DANGEROUS"  
AND IS CONSIDERED A FLIGHT RISK