Air Education and Training Command's

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January/February 2006

Force to be eckoned with A

Commander says when it comes to caring for our people, 'We're the envy of the industry' Page 8

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A Pain in the Back How medics relieve aches at home and in war Page 10

New Year's Resolutions Airman loses 53 pounds; getting fit without getting injured Page 14

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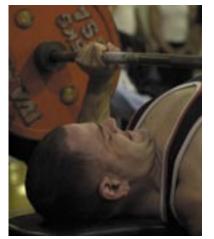
TORCH

8 A Force to Be Reckoned With

Air Education and Training Command Commander Gen. William R. Looney III says when it comes to caring for our people, "We're the envy of the industry." But he says that he needs you to make it even better.

10 A Pain in the Back

Find out what medics at Balad Air Base, Iraq, already know: What nagging injuries are causing deployed troops aches and pains and why. Then find out what you can do to help prevent the same thing from happening to you and your unit.



14 New Year's Resolutions

It's that time of year again when many well-intentioned people around the globe make commitments to improve themselves, only to fall short. Meet one Airman who did meet one of his goals last year: He lost a whopping 53 pounds! Then read how you can meet your fitness goals while reducing the potential for resolutions "killers" ... injuries.

18 A Wall of Storms

A thunderstorm wall 50 miles long and 45,000 feet high lay between two C-130s and their final destination. With a radar screen operating at only 25 percent and most of it covered with black holes, the crews brave the extreme weather to get their aircraft, their passengers and themselves home safely.



A C-130 engine run mishap leaves a safety officer "scratching his head" to figure out why the accident happened and whether or not it was preventable.

TORCH TALK 2

Readers discuss a day off for hurricane relief efforts, sheltering during a storm, suicide, stress, aerial images, the 2006 Torch Calendar, Torch E-zine, and more.

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General issues January Challenge ... Tyndall Airman pulls woman from car crash ... New "shipment" of students at Keeler largest in two years ... Airmen get in shape with boot camp aerobics.

TALES OF THE STRANGE

A snowball's chance in hell Playing chicken with an avalanche ... Timber!



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THE ALERT CONSUMER

New data shows rising safety belt use rates in most states.

HANGAR FLYING 22

Trimming the Fat: Laughlin streamlines T-38 inspection process ... The plan's three major goals.



CLEAR THE RUNWAY

Raptor declared "ready for combat" ... C-130J tests combat capabilities ... Airmen receive panoramic night vision goggles. **TORCH** – the official safety magazine of Air Education and Training Command

> January/February 2006 Volume 13, Number 1

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Ringing in the New Year

Another New Year? Where does the time go? With the New Year, Torch talks to Gen. William R. Looney III, commander of Air Education and Training Command, to get his thoughts on our AETC mission and specifically his views on safety.

General Looney has already established mission and vision statements for us.

VISION: "Deliver unrivaled air and space education and training." As we move forth in executing this vision, safety as always, is integral to success. We have made great strides in fusing a safety mindset into our day-to-day mission accomplishment. This achievement is due in large part to the driven efforts of our commanders and supervisors, but it also comes through each

individual keeping safety at the forefront.

To deliver *"unrivaled air and space education and training,"* we will be looking for ways to bring safety education into our formal courses. We have already had some success with this by introducing Operational Risk Management concepts into our many levels of formal training and education. We low

"Communicating the message is everyone's responsibility, but it especially falls on our commanders and supervisors..."

formal training and education. We look to you in the field for new ideas on ways to expand our efforts – please help!

MISSION: "Develop America's Airmen Today...For Tomorrow." Given our Air and Space Expeditionary Force world, thinking safety will have to be a second nature character trait of tomorrow's Airmen. The only way to make it second nature is through perseverance in getting the message across, today, so our future Airmen can be the seeds that cultivate thinking safety first in all we do, tomorrow and beyond. Communicating the message is everyone's responsibility, but it especially falls on our commanders and supervisors to be proactive, aggressive and engaged.

Yes, it is sometimes difficult and challenging, and on occasion it even sounds like a broken record (assuming you know what a broken record sounds like). The key is to be creative and get others involved to keep things interesting.

On a different subject, this issue of Torch also takes a look at New Year's resolutions, specifically as they pertain to safe dieting and exercise.

I look forward to working with you in 2006. I wish you success with all of your New Year's resolutions!

Frank Q. Lalundo



HOW DOES THAT BENEFIT?

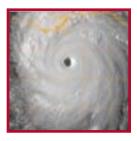
It's great that General Looney gave everyone in the command a day off for their efforts in Hurricanes Katrina and Rita ("Thanks for Coming to the Rescue: Commander Gives Everyone the Day Off," November/ December 2005 issue, page 11), but how does that benefit civilians? We still have to take leave to take the day off, so it's really no benefit at all, except to the military members.

L. Davis Via e-mail

After Torch had already gone to press with the original story, the following additional information came in: "Gen. William R. Looney III, commander of Air Education and Training Command, has approved an 8-hour AETC Civilian Team Time-Off Award for all civilian employees in recognition of their superior support of Hurricanes Katrina and Rita. 'Although the time off can be used anytime, I'd like to encourage our civilian team members to use this award day during one of the scheduled family days before the end of the year to maximize family time and avoid the need to take personal leave,' General Looney said." The general was referring to the family days scheduled for Nov. 14 and 25, and Dec. 23 and 30. If you have questions, contact your local civilian personnel office.

HELTER-SHELTER

The story "Helter-Shelter" in the November/December 2005 issue of Torch (cover story, page 8) was an awesome insight into what the folks at Keesler Air Force Base, Miss., had to go through during the early days of Hurricane Katrina. What's even more amazing is that even though so many of them suffered personal devastation from the storm, their focus afterward was on helping to get the base and the local community back on their feet. They are all



T. "Duncan" McCloud Via e-mail

SUICIDE NOT AN OPTION

I also had a family member commit suicide ("My Dad Committed Suicide," November/December 2005 issue, page 12). It's devastating to those left behind. Thanks to 2nd Lt. Shannon Collins for sharing her story. I know it probably

wasn't easy to tell, but hopefully, the message will reach someone in need. Whatever your problems are, suicide should never be an option.

Cherie Decker Via e-mail

PROUDTOSERVE

Reading the Torch stories and looking at the pictures still makes me feel proud of my 22 years of active duty Air Force service and continued service as a Department of the Air Force civilian. I am also very proud of all of our troops who are fighting the difficult war on terrorism.

Gerry Burkhalter Randolph Air Force Base, Texas

LETTERS TO TORCH

heroes in my book.

Have a comment or complaint? Letters to Torch may be sent via e-mail to: torch.magazine@ randolph.af.mil. Or mail to Torch Editor, HQ AETC/SEM, 244 F Street East, Suite 1, Randolph AFB TX, 78150-4328. or fax to DSN 487-6982 or commercially to (210) 652-6982. For customer service, call DSN 487-5818, or commercially at (210) 652-5818. Please include your name, address and phone number.



TORCH CALENDAR 2006

I have received your fantastic calendar for two years and still am impressed. There's a lot of interesting information.

Brian Kreie Enid, Okla.

I just want you to know how much we appreciate having your calendars. They are good for keeping up with our groups.

> Julian W. Hunter Keesler Air Force Base, Miss.

You have sent me calendars for the last two or three years. I enjoy your calendar, I like the neat-looking and colorful aircraft photos, and it has lots of interesting facts, figures and information one can assimilate.

Richard Ray Garcia San Antonio

I have received the calendar for two years and am very happy with the layout, pictures and facts. Thanks!

John Rowland Colorado Springs, Colo.

Your awesome Torch calendars are displayed prominently in our student and staff areas. The information and aerial images on your calendar are an inspiration and serve as a launching point for interaction with our students here at the 345th Training Squadron, Detachment 1, Vehicle Maintenance School.

> Senior Master Sgt. Francisco J. Nava Port Hueneme, Calif.

The Julian date on a calendar is hard to come by these days. So thanks from the readiness section at Wilford Hall Medical Center.

Master Sgt. Anthony W. Givens Lackland Air Force Base, Texas Thanks for your time in providing a great magazine and calendar.

Col. Mike McKenna Edwards Air Force Base, Calif.

Our compliments on the beautiful 2005 Torch Calendar! The helmet and mask depicted in the photograph used for the cover are both GENTEX Corporation products (of which I am affiliated). We can't wait to see the 2006 version.

> Brenda K. von Kleist Via e-mail

Once again your calendars are a big hit around the office!

John H. Forslund Tulsa, Okla.

I'm a recruiter in a small town in Texas, and I have received your calendar for the past two years. It looks great in my office and helps me do my job of recruiting the fine young men and women of America. Thanks!

Tech. Sgt. Michael J. DeLuzio Early, Texas

We are a contractor (LSI) working on site and have been here (at Randolph AFB) for some time. We use Torch magazine in our safety talks and briefings to our workers. We really enjoy your features. We also like your calendars. Everybody wants them.

> Jeff Martin Randolph Air Force Base, Texas

I really enjoy your magazine and calendar. I use some of the articles for safety meetings. Thank you and happy holidays.

Tom O'Sullivan Randolph Air Force Base, Texas

GENERAL ISSUES



RANDOLPH AIR FORCE BASE, Texas — Returning to duty after the holiday break, our ability to conduct operations safely will be tested. January is historically one of the worst months for

Air Force mishaps, and unfortunately Air Education and Training Command suffered a Class A (costing \$1 million or more) flight mishap in January 2005. That's why I'm designating Jan. 3 (or the first duty day at your location) as the kick-off date for AETC's January Safety Challenge 2006. I hope an aggressive kick-off will help prevent avoidable tragedies — not just in January, but throughout the year.

I want to start 2006 off right by renewing our commitment to operational and personal safety, and I want to build on this momentum throughout the year. That means commanders and supervisors must take an active role in preventing mishaps by continually emphasizing personal risk mitigation and good wingmanship, both on- and off-duty. We each have a responsibility to plan ahead, apply the tools of risk management, and "know our limits" — whether we're at the controls of an aircraft or behind the wheel on a weekend trip. In 2006, let's promote an attitude of "safety always" . . . In everything we do.

> — Gen. William R. Looney III AETC Commander

KEESLER NURSE EARNS BRONZE STAR FOR SAVING LIFE

KEESLER AIR FORCE BASE, Miss. (AETCNS) — Sept. 11 has evolved into a somber observance for Americans since the terrorist attacks in 2001. But the date took on special significance last year for Keesler's newest recipient of the Bronze Star.

Sept. 11, 2004, Capt. Kevin Polk risked his life to save an injured Airman while deployed in support of Operation Iraqi Freedom as a critical care air transport team nurse with the 379th Expeditionary Aeromedical Evacuation Squadron at AI Udeid Air Base, Qatar.

His medal was presented Nov. 17 by Brig. Gen. James Dougherty, 81st Medical Group commander, at Keesler Medical Center, where the captain has been an emergency services nurse for the past six months. "I was deployed from the end of August 2004 until the end of January 2005," Polk said. "I had spend only two or three days in Iraq when the situation occured."

While forward-deployed to Balad AB, Iraq, the base came under direct mortar attack from enemy insurgents. Polk was exposed to enemy fire while searching the living quarters for potential victims, where he found an Airman with many life-threatening injuries.

He stabilized the Airman's condition as he continued to assist with the medical transport of the Airman to a hospital for emergency surgery.

> — Susan Griggs 81st Training Wing Public Affairs

TYNDALL AIRMAN PULLS WOMAN FROM CAR CRASH

TYNDALL AIR FORCE BASE, Fla. (AETCNS) – Could you pull an injured stranger from a smoke-filled car with gasoline fumes rising into the air around you?

Second Lt. Shannon Bancroft knows her answer when it comes to rendering aid.

"I have done it before, and it is something I would do again ... it is no big deal," she said.

Bancroft is an adjutant and unit deployment manager for the 2nd Fighter Squadron and is no stranger to this scenario. This is the fourth accident she has come across in her lifetime, and she has risen to the challenge every time. While traveling home from work Nov. 7 on Highway 231, Bancroft saw a four-car accident at the intersection of County Road 2301. After scanning the scene, she pulled onto the median, jumped out of the vehicle and assessed the situation.

All of the victims were safe and out of the vehicles, except for one woman. This woman was trapped in her smokefilled car, and the gas tank was ruptured.

"The trunk was in the front seat, and the engine was in the dash(board)," she said. "It was a four-door, but it looked like a two-door car when I got there." Bancroft immediately established contact with the woman, assessed her injuries and abilities, and calmed her down.

Then the lieutenant assisted the on-scene police officer with getting everyone away from the car in case the gasoline caught fire. She tried to figure out how to extract the woman from the car. The driver-side door was jammed, but Bancroft was able to pry open the passenger-side door.

"I hated to pull her from the car with a possible back injury, but with gasoline pouring over my feet ... I didn't have a choice," Bancroft said.

Once the paramedics ar-

rived, they asked Bancroft to continue assisting the woman while they assessed the other accident victims.

The Cedar Grove police department lauded the lieutenant for her efforts stating that it was a "brave" act pulling someone from a gas and smoke-filled car.

"A lot of times people won't get involved," said Lt. Bern Snell, a Cedar Grove police officer who worked the accident. "We appreciate what she [did]; I know the girl [she saved] appreciated it."

> — 1st Lt. J. Elaine Hunnicutt 325th Fighter Wing Public Affairs

NEW 'SHIPMENT' LARGEST IN TWO YEARS

KEESLER AIR FORCE BASE, MISS. (AETCNS) — A caravan of buses wound its way to Keesler Oct. 31, a sure sign that the 81st Training Group is rebounding from Hurricane Katrina and that the base is safely returning to normal operations.

The arrival of the 314 basic training graduates for in-processing at the Levitow Training Support Facility was the largest "shipment" of students Keesler has seen in at least two years, not just since the storm, said Lt. Col. Shane Courville, 81st TRG deputy commander.

The nonprior service student load topped 1,700 as of Nov. 1, about 200 more than immediately before Katrina, along with about 150 Marine Corps and Navy students. Preparations for another 1,200 activeduty, Air National Guard and Reserve students are under way to accommodate students in temporary duty status.

Courville, who commanded

the 81st Training Support Squadron before moving to the 81st TRG command section, recalled that immediately after the hurricane, officials expected Keesler's training mission to be suspended until March 2006. But by Sept. 19, 400 students were back in the base's classrooms, and the number has risen steadily ever since. He credits Keesler's long-term facility modernization program with the resurgence of technical training.

"Even though our dormitories and training facilities are on the south side of the base nearer the coastline, most of the structures are new and well-built and survived the winds and flooding quite well," Courville said.

Col. Deborah Van De Ven, who assumed command of the 81st TRG Sept. 30, said that a tiger team comprised of representatives from Air Staff, the Air Force Personnel Center,



Following a bus trip from Lackland Air Force Base, Texas, Airman Basic Dustin Walls from Milton, Pa., retrieves his bag after arriving at Keesler AFB Oct. 31. He's assigned to the 332nd Training Squadron.

Air Education and Training Command, 2nd Air Force and all technical training bases is guiding the reconstitution of Keesler's training mission. As of Nov. 1, 27 enlisted initial skills courses prioritized by Air Staff in Hurricane Katrina's aftermath have resumed.

"Sometimes I have to slow things down a little — the need

for training is growing faster than I can ensure capabilities," Van De Ven said. "It's amazing the way our instructors have been able to set aside their personal losses to get the job done. Half of our people lost everything, [but] everyone's pulling together."

> — Susan Griggs 81st Training Wing

AIRMEN GET IN SHAPE WITH BOOT CAMP AEROBICS



During a boot camp aerobics class at Wright-Patterson AFB, Ohio, Chief Master Sgt. Clint Allen (front) and Airman 1st Class Shawn Bishop carry a litter loaded with sandbags. The exercise helps Airmen get physically fit while doing tasks they may face during a deployment. This exercise simulated carrying an injured comrade to a helicopter in a war zone.

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFMCNS) — Boot camp aerobics can be a pain when participants are doing it, but it could one day save their life.

The boot camp aerobics class, which has been offered here for about five years, adds a new emphasis to workouts, incorporating scenarios Airmen could face while deployed.

While the main idea is still to get participants in good shape, these workouts do more. The class uses several exercises to test endurance and resistance, similar to what Airmen would experience at boot camp.

Since implementing a mandatory fitness program in 2003, many units here lined up to take the class. Kirk Links, the boot camp instructor, recently decided the class could do more.

The 40-minute class begins with participants putting on 14pound flak vests, similar to what they would wear if deployed. The class starts with a 10-minute warm-up, which includes push-ups, jumping jacks and aerobic stepping. This is followed by elbow and knee strikes with pads.

In a recent class, Links led the 18 participants outside for more in-depth exercises.

The first exercise was a sprint with two Airmen carrying a litter filled with sand bags about 100 yards to simulate carrying an injured comrade to a helicopter.

The next was carrying 90- to 120-pound pipes the same distance. Links encouraged those not doing their sets to stay active between sets, working out with 18- to 24-pound rods. The rods simulate rifles and weigh about twice as much as an M-16 rifle.

The final outdoor exercise was running about a third of a mile with the rods. He said this was one of the newest additions and was designed to have the class move as a unit. The class ended with some stretching. Like real boot camp, no shortcuts are allowed.

> — Brett Turner 88th Air Base Wing Public Affairs



Two toll collectors from Michigan were involved in a friendly snowball fight when one reached out to scoop some snow from a passing tractortrailer rig. Manning a tollbooth is not the most interesting job, so it's only natural that collectors would engage in some freestyle entertainment. But scooping snow from a moving vehicle is not the safest of sports. The toll collector's hand caught in the rig, and he was pulled from his booth and dragged to his death.

PLAYING CHICKEN WITH AN

Ordinarily a man killed by an avalanche is suffering from bad luck. But the circumstances surrounding the death of a 43-year-old Fairbanks, Alaska, man are unusual enough to warrant an exception. He was killed not by a natural disaster, but his own blatant stupidity.

The man was in the Summit Lake area for the annual Artic Man Ski & Sno Go Classic, which combines skis and snow machines with pristine ice. To celebrate the event, he was high marking the mountains with his new snow machine. This stunt involves driving as far as possible up the side of a mountain and, just before the machine bogs down from the ascent, turning and driving back down. The U-shaped furrow on the hill marks your best shot until a buddy takes a charge up the hill and betters it.

High-markers like to do it above tree level so everybody can see their display of testosterone.

Using heavy and noisy machines to undermine the snow pack in an avalanche-prone area is not a sport for the meek. The warm spring weather had destabilized the snow and caused several avalanches, and event organizers urged recreational snow-machiners to stay off the steep slopes. The mishap victim himself had been buried waist-deep in an avalanche that day, and had been warned by rescuing State Troopers to stay off the mountains, or at least carry an avalanche beacon.

But their warnings and the man's own substantial experience with snow machines was not enough to save him. The avalanche that ended his life was an unstable slab of wind-deposited snow resting on a layer of temperature-weakened snow.

An avalanche expert pinpointed likely search locations, and rescue dogs located the frozen victim lying face-up, under 4 feet of snow.

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A Pennsylvania man clearing timber from his lot failed to notice that the tree he was working on had other trees leaning against it. When the weight of its neighbors pushed the tree over in his direction, the erstwhile lumberjack ran for his life, but slipped in the icy snow and fell directly in the path of the looming trunk

The tree landed on him with the expected result.

IT AND RISING SAFETY BELT USE IN DATA SHOW, RATES IN MOST STATES

More Americans than ever are wearing their safety belts with usage rates climbing in 34 states this year, according to U.S. Transportation Secretary Norman Y. Mineta.

In 2005, safety belt use ranged from 60.8 percent in Mississippi to 95.3 percent in Hawaii. Others breaking the 90 percent belt use barrier included Washington, Nevada, Arizona, Oregon, Michigan, California, Puerto Rico and Maryland.

Mississippi registered the lowest safety belt use in the nation followed by Massachusetts, Kentucky, Arkansas, South Dakota and Kansas. New Hampshire and Wyoming were the only states not to report statistically reliable estimates of belt use rate for 2005.

"Safety belts are useless unless people make the effort to wear them," Mineta said. "It's good to see more people taking their safety seriously, but we'll save the celebration for the day when everyone buckles up," he added.

Earlier this year, Secretary Mineta announced that the nationwide survey conducted by the National Highway Traffic Safety Administration showed belt use rates have hit the milestone of 82 percent — the highest level in the nation's history. Secretary Mineta also announced earlier that fatalities had hit a historic low: 1.46 deaths per 100 million vehicle miles traveled.

At a rate of 82 percent, NHTSA estimates that safety belts are preventing 15,700 fatalities, 350,000 serious injuries, and \$67 billion in economic costs associated with traffic injuries and deaths every year.

In addition to the life-saving benefits of increased belt use, Congress created additional incentives for states. Under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) enacted Aug. 10, an added \$498 million will be available to states over the next four years. States must either adopt a primary law or achieve 85 percent belt use for two years in order to be eligible for the grants.

The state-by-state statistics were derived from data collected by the states' own surveys, conducted in accord with criteria established by NHTSA.

In your browser's location bar type in www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/ RNotes/2005/809970.pdf to view and download state-by-state safety belt use rate data on the Internet.

> — National Highway Traffic Safety Administration

Safety Belt Use in States, U.S. Territories, and Nationwide 1998-2005

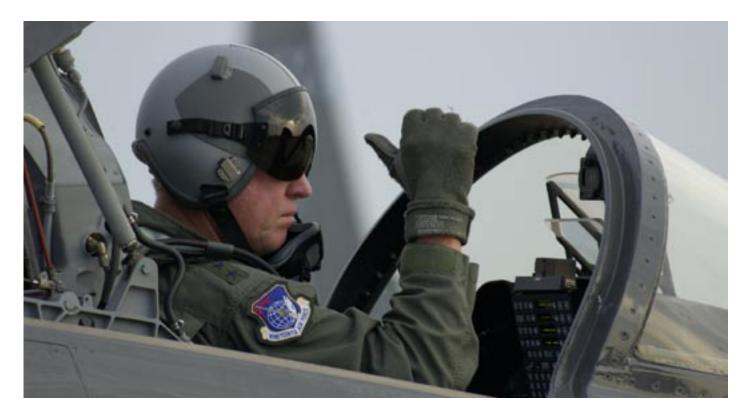
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State or U.S. Territory 1	1998	1999	2000	2001	2002	2003	2004	2005	Reduc- tion in Nonuse 2004- 2005
Alabama	\$2.0%	57.9%	70.6%	29.4%	78.7%	77,4%	80.0%	81.8%	9%
Alaska	\$7.0%	63.6%	61.0%	62.6%	65.8%	78.9%	76.7%	78.4%	7%
a second s	10000								-23%
Arizona	61.5%	71.1%	75.2%	74,4%	73.7%	86.2%	95.3%	94.2%	and the second
Arkansas	52.6%	57.2%	52,4%	54.5%	63.7%	62.8%	64.2%	68.3%	11%
California	88.6%	89.3%	88.9%	91.1%	91.1%	91.2%	90.4%	92.5%	22%
Colorado	66.0%	65.2%	65.1%	72.1%	73.2%	77.7%	79.3%	79.2%	0%
Connecticut	70.1%	72.9%	76.3%	78.0%	78.0%	78.0%	#2.9%	81.6%	-8%
Delaware	62.3%	64.4%	66.1%	67.3%	71.2%	74.9%	82.3%	83.8%	8%
Dist. Of Columbia	79.6%	77.9%	82.6%	83.6%	84.6%	84.9%	87.1%	88.8%	13%
Florida	\$7.2%	59.0%	64.8%	69.5%	75.1%	72.6%	76.3%	73.9%	-10%
Georgia	73.6%	74.2%	73.6%	79.0%	77.0%	84.5%	85.7%	81.6%	-38%
Havai	80.5%	80.3%	80.4%	82.5%	90.4%	91.8%	95.1%	95.3%	4%
Idaho	\$7.3%	\$7.9%	58.6%	60.4%	62.9%	71.7%	74.0%	75.0%	8%
Illnos	64.5%	65.9%	70.2%	71.4%	73.8%	80.1%	83.0%	86.0%	18%
Indiana	61.8%	\$7.3%	62.1%	67.4%	72.2%	82.3%	83.4%	81.2%	-13%
lowa	76.9%	78.0%	78.0%	80.9%	82.4%	86.5%	85.4%	85.9%	-4%
Kansin	58.7%	62.6%	51.5%	60.8%	61.3%	63.6%	68.3%	69.0%	2%
Kentucky	54.3%	58.0%	60.0%	61.9%	62.0%	65.5%	66.0%	66.7%	2%
Louisiana	65.6%	67.0%	68.2%	68.1%	68.6%	73.8%	75.0%	77.7%	11%
Mane	61.3%	NA	NA.	NA	NA	NA	72.3%	75.8%	13%
Maryland	82.6%	82.7%	85.0%	82.9%	85.8%	87.9%	89.0%	91.1%	19%
And the second se	51.0%	COLUMN TWO IS NOT		Children of the					4%
Massachusetts	and the second se	\$2.0%	50.0%	56.0%	51.0%	61.7%	63.3%	64.8%	1.000
Michigan	69.9%	70.1%	83.5%	82.3%	82.9%	84.9%	90.5%	92.9%	25%
Minnesota	64.2%	71.5%	73.4%	73.9%	80.1%	79.4%	82.1%	82.6%	3%
Mashsippi	58.0%	54.5%	50.4%	61.6%	62.0%	62.2%	63.2%	60.8%	-7%
Missouri	60.4%	63.8%	67.7%	67.9%	89.4%	72.9%	75.9%	77.4%	6%
Montana	73.1%	74.0%	75.6%	76.3%	78.4%	79.5%	80.9%	80.0%	-5%
Nebraska	65.1%	67.9%	70.5%	70.2%	69.7%	76.1%	79.2%	79.2%	0%
Nevada	76.2%	79.8%	78.5%	74.5%	74.9%	78.7%	86.6%	94.8%	61%
New Hampshire	NA	NA	SAR.	NA	54	49.5%	NA.	TAA.	
New Jersey	63.0%	63.3%	74.2%	77.6%	80.5%	81.2%	82.0%	85.0%	22%
New Mexico	82.6%	88.4%	86.6%	87.8%	87.6%	87.2%	89.7%	89.5%	-2%
New York	75.3%	76.1%	77.3%	80.3%	82.8%	84.6%	85.0%	85.0%	0%
North Carolina	76.7%	78.1%	80.5%	82.7%	84.1%	86.1%	85.1%	85.7%	4%
North Dakota	40.0%	45.7%	47.7%	\$7.9%	63.4%	63.7%	67.4%	76.3%	27%
Oho	60.0%	64.8%	65.3%	66.9%	70.3%	74.7%	74.1%	78.7%	19%
Oktahoma	56.0%	60.7%	67.5%	67.9%	70.1%	76.7%	80.3%	83.1%	14%
Dregon	82.6%	82.7%	83.6%	87.5%	88.2%	90.4%	92.6%	93.3%	10%
Pennoyhvania	67.8%	69.7%	70.7%	70.5%	75.7%	79.0%	81.8%	83.3%	876
Rhode Island	58.5%	67.3%	54.4%	63.2%	70.8%	74.2%	76.2%	74.7%	-0%
South Carolina	64.8%	65.2%	73.9%	69.6%	66.3%	72.8%	65.7%	69.7%	12%
South Dakota	10000								-2%
Energy Constants	45.7%	NA AT ON	\$3,4%	63.3%	54.0%	69.9%	69.4%	68.8%	
Tennessee	56.7%	61.0%	59.0%	66.3%	56.7%	66.5%	72.0%	74,4%	2%
Texis	74.4%	74.0%	76.6%	76.1%	81.1%	84.3%	83.2%	89.9%	47%
Utah	66.7%	67.4%	75.7%	77.8%	80.1%	85.2%	85.7%	85.9%	-
Vermont	62.7%	69.8%	61.6%	67.4%	84.9%	82.4%	79.9%	84.7%	24%
Wrginia	73.6%	68.9%	69.9%	72.3%	72.4%	74.6%	79.9%	80.4%	2%
Washington	79.1%	81.1%	81.6%	82.6%	92.6%	94.8%	94.2%	95.2%	17%
West Virginia	56.5%	51.9%	49.8%	\$2.3%	71.6%	73.6%	75.8%	84.9%	38%
Wiscomin	61.9%	65.1%	65.4%	68.7%	66.1%	69.8%	72,4%	73.3%	3%
Wyoming	50.1%	NA	66.8%	NA.	\$5.6%	NA	70.1%	NA	
Puerto Rico	78.3%	77.8%	87.0%	83.1%	90.5%	87.1%	90.1%	92.5%	24%
Nationwide	62% - 70%	67%	71%	73%	75%	79%	82%	82%	10%
Source: Rates in Status an	S Tormanies are	Ensets surveys.	conducted in a	constance will	Bentune 187.	Time 23, U.S. C	own. The name	small figures are	PROPERTY ADDRESS

Secret Rates in States and Territories are from somety conducted in accordance with Section 187. The 23, U.S. Code. The satural Agents are from WH2A's Rational Occupant Protection like Survey.

survey was conducted. NA: The State or Territory did not report a rate compliant with Section 157 to NMTSA.

² The 2003 rate for New Hampshire was not reported by the State. It was obtained by Processer Research Group using contrade compliant with Section 157.



A FORCE to be Reckoned with

Commander says when it comes to caring for our people, 'We're the envy of the industry'

By TIM BARELA Photos by Tech. Sgt. JEFFREY ALLEN

en. William R. Looney III is no stranger to accidents caused by human error. He remembers vividly the day a wheel fell off of his F-15 Eagle while doing touch and go landings in Europe. "I was a major at the time assigned to Bitburg Air Base, Germany," said the general, who now serves as the commander of Air Education and Training Command. "I was in a two-seat F-15 doing a familiarization training mission at an airfield in England. In one of the touch and go landings, a wheel came off our aircraft."

They went from three wheels to two in the blink of an eye. The front wheel remained, as well as one on the main rear landing gear. According to the general, this had never happened before in an F-15.

"We got lots of guidance and instruction and used our train-

ing and skills to recover the airplane," he said. "Unfortunately, because of the drag on the wing that did not have a wheel, the nose gear collapsed upon landing, causing the aircraft to tilt over and damage the wing."

On the plus side, that was the only damage to the aircraft, and both pilots walked away from the crash unscathed.

Why did the wheel fall off in the first place? An investigation revealed that maintenance had not followed the technical orders and checklist, which resulted in their installing the wheel assembly incorrectly.

Today, as the leader of a major command, General Looney wants to ensure "the wheels don't come off" in any on-duty or off-duty activities for the 100,000 employees and 400,000 students in AETC because of human error.

"Commanders and supervisors do a great job with promoting

safety," the general said. "As a matter of fact, I believe we are the envy of industry and any organization as far as caring for our people, putting them first, and being involved and engaged in their activities. But we can always do better. Developing a culture of safety is not easy to do, but it has to be a constant throughout the spectrum of human activity." an injury or death to an individual. That is unacceptable."

From the flight perspective, the general said he has seen a number of instances where a complete lack of professionalism and a breakdown of discipline occur. On a whim, some aviators go thrill seeking and ignore all the rules, he said.

"By and large, the people involved in these incidents had

General Looney's philosophy of striving to do better is why he didn't shy away from the Secretary of Defense's challenge to reduce preventable mishaps by 50 percent by 2005, then another 25 percent by 2008.

"Sure it might be a stretch goal [one that's difficult or even unlikely attainable], but it's not impossible," the general said. "We should be trying with every ounce of our being to get to zero accidents and fatalities."

The general said he understands why some roll their eyes when such lofty goals are set. How do you make such drastic improvement when you already set the industry standard for safety and mishap prevention?

"Certainly, we have come so far from the height of accident rates," General Looney said. "I grew up in the military. My father was a fighter pilot. In 1951, he was a lieutenant flying F-86s in Japan. In those days, his squadron had a major aircraft accident every month – and it usually involved the loss of life. That was because the culture accepted that then.

"Nowadays, we have established a culture where squadrons have gone years without a major aircraft accident, and we are telling them we want them to cut those numbers by half or more. It's a daunting task, but no matter the result, the effort will be worth it. It will reinforce our goal of trying to protect the precious treasures our nation gives us, which first and foremost are our sons and daughters."

General Looney calls upon each and every person in the command to continue to nurture this culture of taking only the right risks. He says it starts with common sense.

"On the ground side, it's very difficult to understand why people would ever operate a motor vehicle without a safety belt or a motorcycle without a helmet," he said. "A highway is probably the most dangerous environment

that anyone operates in, short of perhaps downtown Baghdad. Why wouldn't you take the two seconds it takes to put on a seat belt or helmet to protect yourself? It's frustrating to lose an individual like that.

"On the job, it's hard to fathom why some people fail to follow tech orders and checklists that tell them exactly what they should do and how they should do it. When they opt to ignore these valuable tools, the next thing you know we have some sort of an accident that causes damage to vital equipment, or worse,



"Nowadays, we have established a culture where squadrons have gone years without a major aircraft accident. And we are telling them we want them to cut those numbers by half or more. It's a daunting task, but no matter the result, the effort will be worth it. It will reinforce our goal of trying to protect the precious treasures our nation gives us, which first and foremost are our sons and daughters."

- Gen. William R. Looney III

done very well in their careers up to that point and had a great future in front of them," General Looney said. "But, on that particular day, they allowed themselves to fall victim to the temptation of a thrill; and by doing so, they lost everything ... in some cases even their lives.

"People make mistakes. And those who make honest mistakes I back up 100 percent. But in cases where you have had a significant breakdown in discipline and professionalism, I give you no quarter. You violated our trust and confidence, and that can't be tolerated. Those who break that faith are no longer allowed to operate our aircraft, nor be part of our team."

On an organizational level, these breakdowns in discipline and professionalism can have long lasting negative affects as well.

"It forces leadership at the institutional level of the Air Force to determine if we now need to make a rule that further constrains our ability to train," the general said. "Because someone breaks our trust and we can't let it happen again, we're forced to put in a rule that restricts the envelope of training, which affects our wartime preparations. So you have a personal loss on one side that is tragic, but then there is a significant impact to the institution that is also tragic.

"A large percentage of the rules and regulations that we have in place right now are because someone who has gone before us has made a significant error in judgment that has either caused great loss of material or great loss of life. We would have so much more freedom to be able to train and operate than we have today if we hadn't had all these incidences of lack of discipline and a lack of professionalism."

General Looney emphasized that everyone needs to think about the consequences of their actions and always

weigh the risks against the potential gains.

"What are the impacts to your family, to your friends, to your coworkers, to your organization? These are all considerations when taking risks that can have tragic results," the general said. "Think about all those who are close to you and all the pain and suffering they will go through if you are suddenly no longer here."

In other words, use a common sense analysis to prevent "the wheels from coming off" in your life. \clubsuit



PANNE IN THE BACK

How medics relieve aches at home and in war

By Senior Airman CATHERINE SCHMIDT Photo by Staff Sgt. AARON D. ALLMON II

As servicemembers continue to fight the war on terrorism, a small group of Airmen at Balad Air Base, Iraq, is ensuring that each warfighter is fit to fight. At the same time they are gaining valuable experience to bring home.



y Senior Airman Jason P. Robertson

he physical and occupational therapy clinic at the Air Force Theater Hospital in Balad is the only one of its kind in the U.S. Central Command area of responsibility. The clinic has two physical therapists, an occupational therapist and three physical medicine technicians.

Since the war on terrorism began, servicemembers are experiencing medical ailments many have never endured, from backaches caused by body armor to sprained ankles caused by an unfamiliar terrain.

"The clinic sees a lot of ankle, knee, back and neck injuries, many of which are related to the weight of the body armor," said Lt. Col. Mark Pape, 332nd Expeditionary Medical Group physical therapist at Balad. "The frontline troops are running, jumping and dodging bullets in this [gear]. Along with the body armor, all of the extra equipment and ammo adds up to a lot of wear and tear on the body. Many of the ankle and knee injuries stem from the rough terrain. All of the forward-operating bases have lots of gravel, and that is really hard on the knees and ankles."

For many troops, the body armor and austere environment are something new for them, and the daily grind can be difficult to endure.

"One patient we worked with [at Balad] was an elementary school teacher back home, and was now armor plating Humvees," said Maj. Brian Young, a senior physical therapist at Wilford Hall Medical Center at Lackland Air Force Base, **At Balad Air Base, Iraq,** Staff Sgt. Johnathan Gamer (left) and Tech. Sgt. Bianca Pulley help an Iraqi patient into bed after a therapy session at the Air Force Theater Hospital Aug. 25. The patient's leg was amputated from injuries received by an improvised explosive device. The Airmen are physical medicine technicians with the 332nd Expeditionary Medical Group's physical and occupational therapy clinic.

Texas, who returned from Balad in January. "Working with elementary school kids did not prepare her to lift heavy armor plating and weld. That's a big difference. It's going to cause problems."

These medics ensure troops are back to duty and try to eliminate sending them back home.

"We return troops to the fight as soon as possible," said Master Sgt. Timothy Gustafson, noncommissioned officer in charge of the physical medicine flight at Balad, who is deployed from Dover AFB, Del. "We directly impact the mission by keeping the troop levels where they need to be. Instead of sending them to Germany or the United States for evaluation or treatment, we are able to treat them in theater and allow for quicker return to duty."

Not only are they keeping servicemembers in the fight, they also are allowing surgeons to focus on saving lives.

"The surgeons can focus on surgery and care for those with traumatic injury – we're able to free them up for that," said

Capt. Jeremiah Samson, a staff physical therapist at Wilford Hall, who returned from his deployment to Iraq in May. "We also did a lot of other things to help providers there – assisting with wound care and removing sutures and staples."

Like many Airmen who are seeing a combat environment for the first time, these medics are seeing the traumatic effects even if they are not directly involved.

"The exposure to trauma is constant," said Pape, a reservist from Goodfellow AFB, Texas. "You see things here that you [may] never see anywhere else. I am not directly involved with the intensive care unit or the emergency room, but whenever we lose someone – insurgent, civilian or military – the whole hospital seems to suffer."

Along with servicemembers seeking physical therapy, medics also provide care to civilians and Iraqis. Wherever they are and whoever they are caring for at the time, Tech. Sgt. Bianca Pulley said she has learned that people are all the same.

"I don't have to face some of the dangers the people who have to go outside the wire do," said the physical medicine technician from Wilford Hall. "So once the Iraqis are released from our facility, you hope that impression will remain with them, and they will deter someone from attacking our troops."

As they continue to treat patients, the medics are gaining valuable experience in their career field.

"[There are] therapists and technicians from different bases giving us a greater exposure to different techniques and treatment," Pulley said. "You can gain exposure by watching, but you gain experience by actually participating. We follow doctors during rounds, we can observe surgeries and get the handson experience by treating patients."

"In any medical field, practice makes perfect," Pape said. "Everyone here in the clinic will be a better care provider after their deployment is over."

As the medics deal with the incoming patients, they also are enduring the harsh deployed environment with everyone else.

"I went from working five days a week [at home] to seven days a week in Iraq," Young said. "We were in the clinic about 10 hours a day, and we were on call for mass casualty situations that may have occurred anytime – day or night."

It may not be the clinic they are used to at home, but they are making the most of it.

"The working environment here is quite good," Gustafson said. "We have a fully functioning hospital. The only difference is that we have canvas walls instead of concrete. We may not have many of the [nicities], but we are fully capable of operating a physical medicine clinic in this austere environment."

For Airmen who will be deploying, the medics offer some advice to deal with the new environment physically.

■ Ensure you implement a stretching program in addition to your normal fitness routine. People tend to overlook the importance of stretching for overall good health.

■ Develop some conditioning program before you are actually deployed. You'll have stressors, so it's best to be physically prepared as well as mentally prepared.

■ Get fit before you deploy, and stay fit while you are in country.

No matter where they are treating patients, the medics' goal is the same.

"I believe the core value of our mission in Iraq is basically the same as it is back home," Gustafson said. "We treat patients to the best of our ability. Our primary objective is to relieve pain and restore function."

Airman Schmidt is a staff writer with Air Force Print News, Air Force News Agency, San Antonio.

DEPLOYMENT WEAR & TEAR

Two Injury Hazards in Theater

1. Carrying heavy armor, ammo and other equipment 2. The rough terrain

Four Body Parts Most Affected

1. Back 2. Neck 3. Ankles 4. Knees

Three Prevention Tips

1. Ensure you implement a stretching program in addition to your normal fitness routine. People tend to overlook the importance of stretching for overall good health.

2. Develop some conditioning program before you are actually deployed. You'll have stressors, so it's best to be physically prepared as well as mentally prepared.

3. Get fit before you deploy, and stay fit while you are in theater.



Deployed troops are discovering that carrying heavy body armor, weapons and other equipment, combined with traversing rough terrain, leads to a variety of aches and pains – primarily in the back, neck, ankles and knees.



New Year's Resolutions

It's that time of year again when a lot of well-intentioned people around the globe make New Year's resolutions to improve themselves in some way. At the top of a lot of people's lists are losing weight and getting fit. Maybe you can take your cue from one Little Rock Air Force Base, Ark., Airman who didn't wait until the New Year to get fit. He shed 53 pounds on a deployment. Also, learn how to lose weight and improve fitness without injuring yourself in the process.

Lean & Mean

Little Rock Airman gets 'fit to fight' after losing 53 pounds in Southwest Asia

Story and photo by Staff Sgt. CARLOS DIAZ

f you're fat, get leaner; if you're slow, get faster; if you're weak, get stronger." This is a powerful statement senior leaders belt out every time new Airmen set foot at forward-deployed locations.

After hearing that resonant quote, Staff Sgt. Dan Foster became a walking, talking example of it. He let the quote beat his eardrum to the tune of a 53pound weight loss.

The noncommissioned officer in



Getting in shape at a forward-deployed location in Southwest Asia, Staff Sgt. Dan Foster performs a set of incline sit-ups at the fitness center at a forward-deployed location. Foster does at least 100 sit-ups every day as part of his new physical fitness routine. Since June 7, he has lost 53 pounds by altering his eating habits and adhering to a strict exercise regimen. He is assigned to the 386th Expeditionary Communications Squadron and is deployed from Little Rock Air Force Base, Ark. charge of the system administration section of the 386th Expeditionary Communications Squadron in Southwest Asia began his dramatic weight loss the day he turned 30 on June 7.

"This was something I knew I needed to do, and I've done it several times before; however, this time I really wanted to do it right," said Foster, who is deployed from Little Rock Air Force Base, Ark.

In full uniform, he tipped the scales at 291 pounds on the day he left for his deployment.

"To be liberal, I deducted my weight in boots and uniform as a guesstimate of 6 pounds," he said. "I called my starting weight at 285 pounds on May 2."

Once that number stared back at his freckled face, the 6-foot-5-inch man realized he needed to make a change.

As a student in the school of weight loss, he was well prepared for the homework that lay ahead.

"I try to do everything from the position of knowledge, so I've studied fitness and weight loss in many forms for many years, and I've actually established quite a good list of techniques," said the 12year Air Force veteran.

Some of those techniques include a formula that he extracted from a weight loss Web site that involves using simple mathematic skills.

Foster annotated his personal stats: gender, height, current weight, age and normal exercise habits. These stats calculate daily caloric intake to maintain current weight.

His newfound diet consisted of chicken, salads and water, with a diet Coke on Sundays, his cheat day. On his cheat day, he would also snack on plenty of beef jerky.

Coupled with a healthy diet, he implemented a disciplined workout regimen to his day-to-day routine.

He rode a stationary bike every night for 40 minutes. To keep his mind off of the workload, he would bring a healthy diversion.

"I have to read a book to keep my attention away from how long I'm on there," Foster said. He also performed memory games and brain teasers to put his mind at ease during his intense workouts.

After his cardio session, he would do a minimum of 100 sit-ups. Twice a week, he would perform squadron physical training. He played racquetball once a week. The results began to pay off when he shaved four minutes off his 1.5-mile timed run.

Foster said his weight loss has been a collaborated effort with a strong support structure pushing him forward.

"I've had a number of people [who] have kept a really close watch of my progress," he said.

He said his co-workers, squadron leaders and senior wing leaders have been a big key in helping him reach his goals.

"Sergeant Foster has shown the Airmen that it's possible to make changes to your lifestyle if you have the right attitude and are willing to work hard," said Master Sgt. David Richard, 386th ECS



first sergeant. "As first sergeant, when I have an Airman struggling with meeting the fitness standards, I'll have a success story to tell."

"Sergeant Foster continues to inspire everyone with his determination, dedication and self-discipline," said Chief Master Sgt. Timothy Lee, 386th ECS superintendent. "It's truly refreshing to see troops of all ranks rally around him and support his endeavor; he's shown that goals and dedication are a powerful combination."

"He's a complete Airman," said Maj. Brett Scarborough, 386th ECS commander. "He's taken his physical fitness and professional image seriously.

"He's also set the standard on and off duty, and he's a great example [for others to follow]," Scarborough said. "He's definitely 'fit to fight.'"

"That type of leadership support has been incredible; it really fortified me during the days when I would rather have been hit with a hammer than eat another salad," Foster confessed.

Although Foster has not taken drastic measures like that, he has not smoked since May 1, and he no longer makes excuses for himself.

His weight gain was gradual. Foster said he used to eat until the plate was wiped clean instead of eating until he was full. Also, a shoulder surgery sidelined him for a year and a bad case of shin splints added to his burden. Lightening his load has paid off in more ways than one.

"I don't hurt as much anymore when I do physical things," Foster said. "I attribute plenty of that to my age, but I think it was the weight. I can run, play racquetball and partake in other things now and not get winded."

Foster's determination was evident. "I always had a positive attitude, and I stuck with it," he said.

The base fitness center staff sponsored

a weight loss contest called "The Biggest Loser," which began June 11 and ended Aug. 23.

During that time period, Foster refrained from eating his favorite treat – oatmeal cream pies. Before the contest ended, he taped his treat on his desk calendar.

After winning the contest, he treated himself to that pastry.

"It tasted like gold," he said.

However, the real treasure for Foster has been the ability to play his beloved sports again, and as he stated, "Being able to breathe."

"My biggest focus now is keeping the weight off," he said. "I'm very proud of this accomplishment, but more importantly, if my experience might help other people reach their own weight loss goals, then I'm glad to have gone through with it."

Sergeant Diaz is with the 386th Air Expeditionary Wing Public Affairs in Southwest Asia. (AFPN)

Do It Injury-free

Simple exercise steps keep force fit and mission-ready

EGLIN AIR FORCE BASE, FIa. (AFMCNS) – With the inception of the Air Force Fit to Fight program, Airmen had to adjust to a regular regimen of running, sit-ups, push-ups and other physical activities.

Some Airmen experienced injuries while adjusting to the new standards, resulting in a need to see a physical therapist.

"We saw a lot of knee, back and shoulder injuries at first," said Capt. Bryan Bonzo, a 96th Surgical Operations Squadron physical therapist at Eglin Air Force Base, Fla., who was stationed at Shaw Air Force Base, S.C., when the fitness program was introduced about two years ago.

Those injuries, he said, resulted mainly from the running portion of the new fitness program. The captain attributed the injuries to Airmen's age and lack of physical fitness.

"The majority of the people who came in for treatment were in the 35- to 45-year-old age bracket," Bonzo said. "As people mature, their joints get stiffer, and many people suffered inflammation due to the impact of their feet against the ground. And younger folks just heal more quickly, so we don't see them as often."

In addition, the captain said the fitness level for

Physical therapists advise Airmen to stretch before and after exercise to prevent injuries caused by running and other activity. Above, Sean Capik demonstrates the proper form for a quadriceps stretch. many was not high because Airmen were not running as much when the program began.

The good news is these types of injuries can be easily prevented, Bonzo said. All it takes is a few simple steps.

First, he said, a warm-up should be performed before beginning an exercise. Simple things such as a five-minute brisk walk, running in place or jumping jacks will allow the muscles to warm slowly, decreasing the chance for an injury.

"Warm muscles perform better than cold ones," he said. Next, people should work on their flexibility by stretching the muscles. This loosens the muscles slightly and takes the pressure off the joints.

"This allows the joints to move properly," he said.

Regular stretching also changes tissue, making muscles longer and stronger over time.

"Sometimes it's not about flexibility, just weak muscles," he said.

It is important to note that the warm-up exercise should be performed before stretching, he said, because it does not help to stretch a cold muscle.

A cool-down should take place after the exercise, which lowers the intensity of the exercise to allow the heart to slow down and the muscles to calm.

The last part of injury prevention is to stretch afterward. "People should stretch at least once a day, even if not exercising, to maintain their flexibility," Bonzo said.

— Senior Airman Lucelia Nagel 96th Air Base Wing Public Affairs

A Wall of Returning crews brave extreme

weather to land safely

t's the stuff from which movies are made: A thunderstorm wall as high as 45,000 feet and two aircraft — one with limited radar coverage — 100 miles from their intended course.

After unloading 70 passengers and their cargo at El-Fashir airstrip in Darfur on Sept. 30 as part of the African Union Missions in Sudan, Maj. Mike Miller, the pilot, took off from the sunny airport with a crew of 10 as the lead in a two-ship formation bound for Kigali International Airport in Rwanda. More than 150 Air-

men from Ramstein Air Base, Germany, set up operations as the 86th Air Expeditionary Group at the airport to move about 550 peacekeepers to help mitigate the humanitarian crisis in Darfur, said 1st Lt. Elizabeth Culbertson, an 86th AEG spokeswoman.

Two-and-a-half hours later, Capt. Bill Roelker, aircrew navigator, noticed a massive line of thunderclouds on his radar and alerted the pilot.

"The wall of storms was as long as 50 miles," he said. "The screen was covered in black holes; I've never seen anything like it."

With his radar screen functioning at only 25 percent, the main concern was being able to see around the clouds to safely avoid them.

"Thunderstorms build up in front of you, and as you evade them they build up behind you," he said. "So you have to get out of the way."

The only way to fly when there are thunderstorms around is through holes in the clouds, said Capt. Matt Lockwood, aircraft commander.

"The walls on these storms ranged from 18,000 feet to 45,000 feet, and our radar wasn't capable of letting us see what's on the other side of them," Lockwood said.

The captain radioed the other C-130 to spot the storms and provide him vectors to relay to Roelker and Miller, who were devising the best flying options for co-pilot, Capt. James Hudson, who was negotiating the storm.

"At the end of the flight, [the Global Positioning System] showed 50 different turns in what normally would have been a straight shot," Roelker said.

While the aircraft snaked its way through the jumble of dark holes, Master Sgt. John Smith, aircraft engineer, monitored aircraft performance and ensured ice from the moisture in the storm did not build on the aircraft.

"I've been flying with Major Miller since he was a lieutenant in the Pacific, and this was the most unnerving," said Smith, who has been in the Air Force 24 years. "Ice buildup causes deterioration of aircraft performance. The changes in aerodynamics could prove to be catastrophic. Several times, I had to de-ice the leading edges of the wings and the tail, which pulls heat from the engines

and slows the aircraft." In the back of the aircraft, Staff Sgt. Sean McCormick, loadmaster, monitored mechanical performance and cared for passenger comfort.

"A couple of times it was pretty bumpy," he said. "I scanned

"The wall of storms was as long as 50 miles. The [radar] screen was covered in black holes; I've never seen anything like it."

times it was pretty bumpy," he said. "I scanned the aircraft systems to notify the flight deck if there were any mechanical problems, and I ensured everyone was seated with their seat belts on so we could get through without injury."

By Capt. JENNIFER LOVETT Photo by Tech. Sgt. JUSTIN D. PYLE

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After more than five hours of dodging thunderclouds, they finally broke clear. But although the airport was in sight, a commercial DC-10 aircraft was not.

"We knew generally where he was but not exactly, since we were flying visual," Lockwood said.

They knew the DC-10's location exactly when they pulled through the clouds and were nose to nose with him at slightly different altitudes, Smith said.

To avoid collision, the crew implemented evasive techniques. "We went down and left; it went straight over us to land first," Hudson said.

The Hercules landed one hour later than scheduled.

"I've been flying for eight years and that was the worst I've ever seen," Lockwood said. "Nevertheless, we had a great crew, and all's well that ends well."

Captain Lovett is with the 86th Airlift Wing Public Affairs at Ramstein Air Base, Germany. (USAFENS)



The walls on the storms ranged from 18,000 feet to 45,000 feet, and the C-130 crew's radar wasn't capable of letting them see what was on the other side of them.



Frame 1: These still frames taken from surveillance video show what happened. Above, the matting just begins to lift.



Frame 3: Eight seconds in, the matting has shifted back and knocks over a light pole behind the aircraft.



Frame 2: Only five seconds in, the airfoil matting reaches its peak height.



Frame 4: Twelve seconds in, the matting airfoil has collapsed with large sections blowing aft.

INCONCEIVABLE! C-130 engine run mishap leaves safety officer 'scratching his head'

By Lt. Col. DOUGLAS T. WEITZEL

s I watched the security surveillance video of the mishap for the fifth time, I could only think of one thing: The image of actor Wallace Shawn who played Vizzini in "The Princess Bride" shouting the word "Inconceivable!" As I viewed the video of the full power C-130 engine run mishap for the sixth time, I still couldn't believe what I saw. I couldn't believe it was even possible. It was inconceivable!

Let me set the stage first. A C-130 Hercules maintenance team prepared for a normal full power engine run at a deployed location. Because of recent ramp construction, this was the first time an engine run had been accomplished in this position with the aircraft oriented north-south (first flag). Now technically, this was not an official engine run location; however, it was located next to one. I would have had no problem signing off on the request had it been sent to my office.

Second, this takes place at an air expeditionary wing. This ramp was constructed of AM 2 airfield matting. This is metal matting about 2 feet by 8 feet linked together and has been used at the location for years to form a parking ramp and taxiway.

To provide additional space behind the aircraft, some M19 matting was positioned on opposite sides of the ramp. This 4 feet by 4 feet matting weighed 80 pounds per piece and was linked 12-feet deep and 400 feet along the length of the ramp. The area right behind the four aircraft parking locations was extended another 16 feet to help aircraft loading operations. The M19 matting was not connected in any way to the AM 2 of the main ramp, leaving about a 2- to 3-inch gap between the two surfaces (second flag).

About 90 seconds into the engine run, the inconceivable happened. Propwash over the top of the matting at the tail of the

aircraft reaches about 140 knots, according to the C-130 Dash-One. High velocity over the top of the surface compared to almost zero underneath and presto – you have an airfoil! Only this one is 14-feet long and 400-feet wide.

The video continued on, showing the matting acting just like a wing, fluttering up and down behind the aircraft. For about eight seconds the matting stayed together, and then it broke apart. The liberated matting was about 12 feet by 300 feet and weighed about 18,000 pounds. It flew up into the beavertail of the C-130, then continued flying aft, away from the aircraft, and subsequently contacted a light pole. Contact with the light pole initiated catastrophic failure of the matting, causing it to break into its smaller pieces and tumble back to the earth.

Despite hitting the "beaver tail" of the C-130 and damage to the light pole and security sensors, total damage was under \$35,000. We were very lucky that we did not damage some costly systems on this aircraft.

In the aftermath of this mishap, I started to investigate. Was I the only one who didn't see this risk? Had something like this happened before? Should we have known better?

My first step was the Air Force Safety Automated System. I limited the search to just C-130s, but could not find an instance of anything like this happening before. I remember my instructor at safety school teaching that there are no new accidents. Have I found an exception?

As the notification of the mishap was distributed to major command and theater safety channels, everyone seemed to be amazed. While there have been mishaps with matting before, I could not find an instance of matting forming a giant wing.

So was this a preventable accident? Was it truly "inconceivable?" Unfortunately, because of two reasons, I have to say yes.

Soon after this incident, a Category 4 hurricane approached the Gulf Coast. I thought I should compare the propwash velocities to hurricane categories. Now winds in excess of 135 knots (not mph) are actually a Category 5, so the area behind the aircraft experienced up to a Category 5 hurricane.

Before this incident, while looking at the engine run area, I thought the propwash would be fine. But then I asked myself, "What if a Category 5 hurricane were to hit this engine-run area?" I knew I would have immediately been concerned with the matting. So translating numbers from the book into a natural phenomenon would have put it into better perspective and probably prevented the mishap.

The second reason I think this was preventable came in the form of an e-mail. Our base civil engineer forwarded informa-



Maintenance personnel assess the damage. The edge of the ramp matting shows the gap area where it started to erode. Notice near the nose of the truck how all the matting was originally next to the ramp, but was dragged to the left.

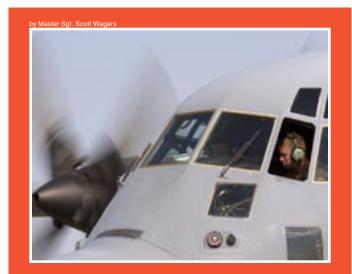
tion from A7 including a matrix for every aircraft and conditions to operate on airfield matting. The matrix clearly recommended that we should not have been doing engine runs on this matting. No one seemed to know this beforehand.

When the request to have an engine run on the nearby location was requested, civil engineering, maintenance, airfield management, safety and operations all approved the location. Everyone thought it was safe, even though this bit of information showed it clearly was not.

So it wasn't inconceivable after all. While the limited number of people at our base didn't know, years of experience had been captured in the airfield matting matrix. This would have told us not to approve this area for engine runs.

So keep your eyes open, continue "what-if'ing" and maybe you will be the one person with the information to prevent the "inconceivable" mishap.

Colonel Weitzel is the chief of safety for the 58th Special Operations Wing at Kirtland Air Force Base, N.M.



LESSONS LEARNED

► The "what if" tool is one method of identifying hazards in an operational risk analysis. Obviously you can't include things you can't even conceive of happening, but if you shift the way you look at it, like comparing to a hurricane versus just a wind velocity number, it may open your mind to additional risks. It's also important to use more than just one tool to identify your hazards.

► Despite something being approved and operating for months or years, you might be the one person who has the vital piece of information to prevent a mishap. This is also why it's important when you form operational risk management groups to include a wide variety of skill sets. If you are dealing with a flight line issue, the input of just operations and maintenance can severely limit your analysis. Civil engineering, airfield management, logistics or security forces might all provide a critical piece to the puzzle, which will identify a hazard you didn't think possible.

- Lt. Col. Douglas P. Weitzel

TRIMMING THE

LAUGHLIN STREAMLINES T-38 INSPECTION PROCESS

By ANTHONY HILL Photo by STEVE WHITE

team of nearly 20 maintenance experts gathered at Laughlin Air Force Base, Texas, this summer in an effort to streamline the base's periodic inspection process.

Representatives from various Air Education and Training Command bases, Headquarters AETC logistics and the Ogden Air Logistics Center at Hill AFB, Utah, joined members of Laughlin's maintenance directorate for a value stream analysis, the first stage of what's referred to as the Lean process.

The primary objective of the analysis was to create a plan to reduce waste, or extra steps, from the T-38 periodic inspection process. Lean, primarily a commercial manufacturing process developed by Toyota, is being used by the Air Force to improve processes in a variety of areas that support the overall mission.

Laughlin is one of only three Lean events in AETC funded last year by Headquarters Air Force Installations and Logistics. The other two include MH-53 helicopter phase inspection at Kirtland AFB, N.M., and Headquarters AETC course development for technical training.

This is Laughlin's first Lean event and the first time it has been conducted on training aircraft, according to Philip Pulliam, Laughlin's T-38 aircraft maintenance division chief and team chief for the value stream analysis.

A value stream analysis consists of everything that goes into creating and delivering the "value" to the end customer ... in this case, a fully inspected and operational T-38 to the flight line.

Laughlin has three inspection phase docks where each holds one aircraft at a time. The plan's major goals include reducing the inspection turn-around time by 30 percent in 12 months, maintaining a 225-hour average time per month until the next periodic inspection, and reducing the amount of time aircraft wait for repairs by 10 percent. The group also identified 15 initiatives that will assist in achieving the goals.

The team conducted brainstorming sessions, broke the phase process down into work areas to get a better handle on the inspection phases, viewed lessons learned at other bases, looked at participant's expectations, planned their current state and charted what their future state would look like.

"During the analysis, we created a future state process that has the potential of reducing steps by about 40 percent," Pulliam said. "Based on our analysis, we [found ways to reduce] the number of days it takes to do a T-38 inspection by 21 percent."

Currently it takes 27.5 days to complete a T-38 periodic inspection at Laughlin. As a result of the analysis, the team set a goal to reduce it to 21.75 days.

"We really had to think of ways to reduce waste," the team chief said. "If it doesn't add value to the product, it's waste. [We learned that] in most traditional processes, about 80 percent of the steps done by people and machines can be considered waste."



Pulliam emphasized the goal of this process is not to make people work faster.

"It's simply to organize [the process] in such a way to eliminate that non-value-added time," he said. "And, a lot of it is just waste."

A spaghetti chart the group analyzed also revealed how efficient Laughlin is when aircraft are moved to different areas and the points where parts came off the aircraft during the process.

"It's one item mentioned as one of the most efficient ever seen," Pulliam said.

The entire team returned in late summer for the next stage of the Lean process — the rapid improvement event.

"[The first stage] was a macro view of the process and everything in it," Pulliam said. "[In the rapid improvement event), we go down to the micro view to see how long it takes us to do things and if there's any way we can reorganize the flow of how we do things."



Digital manipulation by David Stack

THE PLAN'S THREE MAJOR GOALS

Reduce the inspection turn-around time by 30 percent in 12 months.
Maintain a 225-hour average time per month until the next periodic inspection.
Reduce the amount of time aircraft wait for repairs by 10 percent.

He added they are conducting a review of technical requirements. th "We're looking at the way we do business," he said. "But, at the same time our counterparts from Ogden Air Logistics Center are

taking a hard look at how often we inspect the various components. The other AETC bases are also seeing what we're doing so they can improve their processes too."

A follow up visit took place in September to determine how well

the action plan was implemented and what else was revealed during the rapid improvement event.

"We will always be checking what we're doing now and what we're going to do later," Pulliam said. "It's a continuous process."

Sergeant Hill is with the 47th Flying Training Wing Public Affairs at Laughlin AFB, Texas. (AETCNS)

RAPTOR DECLARED 'READY FOR COMBAT'

LANGLEY AIR FORCE BASE, VA (ACCNS) — The Air Force's most advanced weapon system is ready for combat, Air Force officials here announced Dec. 15.

In reaching initial operational capability, the F-22A Raptor has been certified ready for employment. Declaring the transformational fighter IOC means the Raptor's proven capabilities are now available for use in combat around the globe and are supported by a properly trained and equipped force. It also means the aircraft is gualified to perform homeland defense missions when required. In the words of Gen. Ronald E. Keys, Air Combat Command commander, "If we go to war tomorrow, the Raptor will go with us."

"F-22A IOC means our war fighters now have an unprecedented lethal mix

of air-to-air and air-to-ground capabilities at their disposal," General Keys said. "The Raptor's cutting edge technology brings us continued joint air dominance despite advancing enemy threats."

Reaching the IOC milestone culminates a collaborative effort between various Air Force organizations and the service's industry partners during the past 25 years. The road to IOC included the F-22A System Program Office turning Air Force requirements into a successful acquisition program; developmental flight test and evaluation, simulation and ground testing at Edwards AFB, Calif., and Eglin AFB, Fla.; engine testing at Arnold AFB, Tenn.; missile testing at Holloman AFB, N.M., and over the Pacific Test Range; tactics development at Nellis AFB, Nev.; pilot and maintenance training at Tyndall AFB, Fla.; and deployability here.

"The F-22A fulfills a long quest to bring fifth generation capabilities of stealth, supercruise and precision to the warfighter



The F-22A has been declared ready for war. It is the leading edge for fifth generation aircraft.

today and 30 years from today," General Keys said. "Now that we have met our first promised milestone of a fully capable, multi-mission platform ready for combat, we are already focused on furthering our integrated tactics development, refining our deployability, and growing and training our force.

"To add to what we learned on our successful first operational deployment to the Utah Test and Training Range to drop JDAMs, fly against double-digit SAMs at Nellis, and work [close air support] with F-16 FAC-As, we will conduct our first routine peacetime exercise deployment by taking 12 Raptors to Alaska in June for Northern Edge."

Designed to ensure America's air dominance for years to come, the F-22A will ensure U.S. Joint Forces' freedom from attack and freedom to attack, even as our adversaries continue to advance their weapons and technologies. "As I told [Air Force Chief of Staff] Gen. [T. Michael] Moseley, he and I have spent our lifetime executing, instructing and providing Air Dominance for the Joint Force. Lamentably, we have never been privileged to hold a weapon like this in our hands. After reviewing our test results, seeing our operational deployment performance, and talking to the pilots that will go to war with it, I am confident that the F-22A joins the combat force at a far more mature and capable level than any of our previous great aircraft, and will take its rightful place in a long line of U.S. Air Force legends of the air," General Keys said.

The first combat-ready Raptors currently are assigned to the 27th Fighter Squadron, one of three squadrons assigned to the 1st Fighter Wing here.

The current 27th FS combat deployment capability with the F-22A is a 12-ship deployable package designed to execute airto-air and air-to-ground missions.

C-130J TESTS COMBAT CAPABILITIES

LITTLE ROCK AIR FORCE BASE, Ark. (AETCNS) — Active duty, Reserve and Air National Guard C-130Js converged at Little Rock Air Force Base Nov. 12-19 to put the aircraft through its wartime paces during a joint training exercise with the Army at the Joint Readiness Training Center in Fort Polk, La.

While Airmen from the 48th Airlift Squadron and 34th Combat Training Squadron conducted the joint training, evaluators from the Air Force



During a joint training exercise, evaluators critiqued the wartime capabilities of the C-130J.

Operational Test and Evaluation Center, Edwards AFB, Calif., evaluated the performance of the C-130Js while they flew at a high operations tempo.

"The test evaluation team looked at the JRTC as an excellent platform to put the J model through its paces," said Maj. Pat Halligan, 34th CTS, JRTC mobility forces director. "[AFOTEC] will then prepare a report to continue the evaluation process for the J's tactical employment."

The testing is vital to mark the official release of the C-130J's capabilities for the warfighter, but the joint training was also vital for the Airmen who work with the airframe every day.

"We know the airplane really well, but we learned a lot about the specifics on how the plane interfaces in a joint environment," said Tech. Sgt. Jason Kunkel, 48th AS loadmaster. The Airmen and Soldiers learned a lot from each other during the exercise, the sergeant said.

The main mission of the C-130Js during the JRTC was

resupplying Army combat operations on the ground, Halligan said.

"[The Army] goes in with a limited amount of supplies, and then it is our job to bring in what they need to sustain themselves," he said.

Resupply operations were performed with C-130Js conducting combat offloads, engine running offloads, cargo air drops and dirt strip landings.

An Air Force Contingency Response Group deployed from

Travis Air Force Base, Calif., also was integrated with the Army in the field during the exercise, according to JRTC planners.

Aircrews flew 15 sorties a day while engaged in a combat training environment. C-130Js on the ground in Fort Polk also were attacked by simulated mortar shells during one cargo offload.

"The JRTC exercise is the graduation exercise for the airplane – high-mobility ops, 24-hour surge operations, and interoperability with the Army equipment and personnel generated from Little Rock," said Lt. Col. Mike Brignola, global mobility test division chief at AFOTEC.

The evaluation of the C-130J, which began Oct. 25, has moved to the final phase that included a December deployment to Eielson AFB, Alaska, for cold weather testing.

The 34th CTS prepares Airmen for C-130 joint training. The squadron conducts more than 10 joint exercises a year focusing on complex warfighting scenarios with the Army and Air Force.

— 1st Lt. Jon Quinlan 314th Airlift Wing Public Affairs

AIRMEN RECEIVE PANORAMIC NIGHT-VISION GOGGLES

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFPN)

 Nighttime missions are about to get a whole lot clearer, and that is only the beginning of a much-anticipated acquisition program here.

Air Force special operations aircrews received their first shipment of 20 panoramic night-vision goggles.

The current contract calls for 400 goggles, and officials plan to deliver about 20 goggles a month to the field, said Todd Depoy, PNVG system program manager with the combat systems squadron here.

The squadron is responsible for the system development, demonstration, production, A pilot with the 422nd Test and Evaluation Squadron at Edwards AFB, Calif., tests panoramic nightvision goggles on an A-10.

fielding and sustainment of cross-platform programs.

The panoramic goggles provide pilots a 95-degree field of view compared to the standard goggles 40 degrees. It does this by using four smaller (16 mm) image intensifier tubes rather than the two traditional (18 mm) ones.

An auto-gating feature that works independently on each of the tubes also protects pilots from visual degradation if and when they encounter bright lights such as flares. The tube



exposed to the high light source automatically reduces gain, which blocks out the light, while allowing the other tubes to retain visual acuity and situational awareness for the pilot. "The [PNVGs] are an evolutionary growth in night combat capability," said Lt. Col. Terrence Leary, squadron commander. "They improve the aircrew's overall situational awareness and safety by more than doubling the current field of view. This will allow the aircrew to perform near-daytime tactics at night, reducing their time in the threat envelope and improving their targeting and tracking capabilities."

The first special operations Airmen to receive the PNVGs are the AC-130 gunship and MC-130 Combat Talon aircrews.

> — 1st Lt. David Cromwell Aeronautical Systems Center Public Affairs

