Aim High

U of L student wins scholarship from base chiefs

An eighteen-year-old freshman from the University of Louisville has been selected as the recipient of the 2006 Kentucky Air Guard Chiefs’ Council Scholarship.

The $500 award was presented to Steven McDonald in August, said Chief Master Sgt. Jim Smith, chairman of the council’s scholarship committee.

Steven, a psychology major, is the son of Huie McDonald, the first sergeant in the 123rd Aircraft Maintenance Squadron.

The annual scholarship is open to all dependents of current, retired or deceased enlisted personnel. Applicants must be high school graduates or college freshmen during the year the scholarship is bestowed.

The winner is selected by a committee composed of five chief master sergeants who evaluate applicants based on academic achievement and community involvement. Funding is supplied by the Chiefs’ Council Treasury, which is supported almost entirely with membership dues, Chief Smith said.

“Our goal is to find additional funding and increase the amount of the award or be able to award it to more than one dependant annually,” he added.

MILESTONES

Wing completes historic Red Flag exercise

First Guard unit to lead group ops hails from Kentucky

By Capt. Dale Greer
Wing Public Affairs Officer

The Kentucky Air National Guard made history this summer when 31 of its members deployed to Elmendorf Air Force Base, Alaska, to provide the expeditionary group command for a multinational training exercise called Cooperative Cope Thunder 06-63.

The exercise, also known as Red Flag Alaska, marked the first time that a Guard unit had taken such a lead role, said Col. Greg Nelson, Kentucky’s executive support staff officer and the commander of Elmendorf’s 35th Air Expeditionary Group during Red Flag.

“As the group command element, the Kentucky Air National Guard provided everything from personnel reception and bed down to maintenance supervision, airlift planning, intel support and first sergeant functions,” Colonel Nelson said.

About 250 troops fell under his command during the exercise, including active-duty personnel from Germany, Japan, the Republic of Korea and The Netherlands.

Colonel Nelson described Red Flag Alaska, which ran from July 24 to Aug. 4, as one of the largest coalition-based air-combat exercises in the Pacific theater.

The event centered around a scenario in which multinational expeditionary forces based at Elmendorf and Eielson Air Force Base, Alaska, enter combat to defend a neutral neighbor from a simulated aggressor.

Colonel Nelson said Red Flag Alaska offered a superior environment in which to train for the scope and complexity real-
COMMANDER’S CALL

Your nation demands no less than whole-hearted respect for all Airmen

Today’s Air Force is composed of America’s finest men and women. From all walks of life — rural farms, inner cities, and every place in between — young Americans are drawn to the call of Integrity, Service and Excellence. We celebrate this diversity, recognizing that such a mix of experiences leads to a breadth of perspective and broader horizons, and ultimately innovative new ways to maximize our combat capabilities for the Joint Team.

Harnessing such magnificent differences into an effective, coherent team takes solid leadership, quality training and a conscious effort toward mutual respect on all our parts.

Tolerating harassment of any type is no different than committing the offense.

As we become a leaner, more lethal force, we simply have no place for such criminal or divisive behavior.

We are all Airmen, and under enemy fire, the race, religion, sex or geographic origin of the Airman fighting next to us is irrelevant.

We expect you to exhibit a similar, whole-hearted respect toward your fellow Airmen — your Wingmen — wherever you work today.

The United States’ first national motto, “E pluribus unum,” means “out of many, one.”

Initially, the motto referred to the formation of our great nation from the 13 colonies.

It subsequently took on new meaning as people from all over the globe immigrated here, making America as a multicultural “melting pot.”

Today, that phrase reminds us that we’re in this fight together. Let’s make sure the efforts and innovations of all Airmen are welcomed and appreciated.

Your nation demands no less.

Michael W. Wynne
Secretary of the Air Force

Gen. T. Michael Moseley
USAF Chief of Staff

Cyberwarrior

Continued from Page 6

in cyberspace as well, because cyberspace superiority is now a prerequisite to effective operations in all other warfighting domains — there remain challenges to working in the new domain.

“For the Air Force and its sister services, continued dominance in their respective domains means establishing cross-domain dominance across air, space, land, sea and cyber.

“Cross-domain dominance means being able to deliver effects in all domains at the same time, at the speed of sound and at the speed of light,” Dr. Kass said.

“We cannot afford to allow an enemy to achieve cross-domain dominance before us. This is the nature of the transformational mission the chief and the secretary gave us.”

While the Air Force develops mastery of the cyber domain, America’s enemies are quickly becoming more adept at their own use of the domain, in part, because of the low cost of fighting there.

“Enemies who cannot match us on land, at sea, in the air, or in space, are exploiting the fact that in cyberspace you have a very low entry cost,” Dr. Kass said.

“Low cost is what makes that domain extremely attractive to nations, criminal and terrorist organizations who could not possibly attack the United States symmetrically.

All you need to do is buy a laptop or a cell phone.

“As a matter of fact, you can just go to an Internet café and not even buy that stuff. You can buy yourself a phone card and you can cause high-impact effects.”

Until recently, the Air Force had not named cyberspace as a separate warfighting domain or said it would fly and fight there. But now that the Air Force has recognized cyberspace as a warfighting domain, it will begin specific planning on how it can conduct both defensive and offensive actions there.

“What I see in the future is true cross-domain integration, to deliver effects, like we deliver in air and space, where the commander has at his disposal, truly sovereign options, as stated in our mission, which is the ability to do whatever we want, wherever we want, whenever we want, and however we want — kinetically, and nonkinetically and at the speed of sound and at the speed of light,” Dr. Kass said.

Air Force is still working on exactly what it means to fight in the cyber domain.

While the Air Force knows some of what it wants to accomplish — things similar to what it is doing already in air and space, for instance — there remain challenges to working in the new domain.

“One of the most important things we do, in and for cyberspace, is enable the kill chain,” Dr. Kass said.

“It allows us to help find, fix and finish the targets we are after. The problem is finding the target. Most of the enemies are hiding in plain sight.”

Finding an enemy in the cyber domain means sifting through the huge amount of data that flow between the United States, or above a battle space, there are thousands of signals, and most of those are “friendly.”

The challenge is identifying the signal of someone that means to do harm.

“If you could use the cyber domain, this river of zeroes and ones, to pinpoint where the bad guy is and he who is talking to, so you can get not only the small fish but get all his best friends and maybe his boss, then you are using cyber to its full capacity,” Dr. Kass said.

“That is a lot of data there, and the trick is to find him in that huge flow of information, that one piece that will allow you to find him, fix him in place, or track him if he moves.”

Being able to discern what is a friendly signal and what is an enemy signal is one of the challenges the Air Force faces as it moves into the cyber domain.

While the Air Force works on that challenge, it is also working to define which Airmen will be the ones to conduct cyber operations, what kind of training they will need, and exactly what their job will be.

“One of the issues we are going to be discussing is who is the cyberwarrior,” Dr. Kass said.

“What will he or she need to be able to do? What kind of educational skills, what kind of technical skills, what kind of training, and what kind of career path do we need to offer to those kids who are coming into our Air Force and wanting to fly and fight not only in air and space, but also in cyberspace.”

Dr. Kass said the Air Force doesn’t believe it will have trouble finding Airmen to fill the role of cyberwarrior, however.

“Kids today live on the Internet, they establish an alternative reality there,” she said.

“Getting those kids interested in doing something amazing in our Air Force across the electromagnetic spectrum should be easy. This is new and exciting — where people who love to interact in the high-tech arena, for example, can generate significant effects for the defense of the United States.”

Like in other domains, the Air Force will probably conduct more than just defensive operations.

Fighting in cyberspace also means conducting offensive operations. It is unclear now exactly what will constitute an offensive cyber operation, but it is likely the effects the Air Force will eventually bring to bear upon America’s enemies will look just like the effects America’s enemies bring to bear upon America.

“Imagine, hypothetically, if I could substitute — instead of the picture of a beheading on a terrorist Web site, a picture of Captain Kangaroo or an MTV show,” Dr. Kass theorized.

“Maybe I could break that cycle of recruiting more guys that want to come to our home and kill us.”

The Cargo Courier
Oct. 21, 2006
USAFA leaders to discuss new ‘cyber command’

Computer landscape now an official Air Force battlefield, leaders say

By Staff Sgt. C. Todd Lopez

Air Force Print News

WASHINGTON — Air Force leaders are gathering in early November to discuss plans for the creation of a new command, one chartered with flying and fighting in cyberspace.

Cyberspace became an official Air Force domain, like air and space, on Dec. 7, 2005, when Secretary of the Air Force Michael W. Wynne and Chief of Staff of the Air Force Gen. T. Michael Moseley introduced a new mission statement.

In a letter to Airmen, they said the new mission was to “deliver sovereign options for the defense of the United States of America and its global interests — to fly and fight in air, space and cyberspace.”

Now, Air Force leaders are planning to stand up a new “cyber command,” to be responsible for fighting in that domain, said General Moseley.

“Air Force leaders begin planning for the new ‘cyber command,’” he said. “We will foster a force of 21st century war fighters, capable of delivering the full spectrum of effects — to detect, deter, deceive, disrupt, and from an X-ray machine through bone and energy transmission.

The electron, which is part of the atom, can travel from one atom to the next. This concept is key to electronic communication and energy transmission.

An electron may travel from a cell phone to a cell tower, for instance. The path the electron takes, the shape of its path, the speed it travels, and the direction it travels are all critical to ensuring the cell phone works and that a usable signal is received.

As part of a signal, an electron can travel from a handheld computer to a reception tower, over a wire to a telephone, to a television through an antenna, from a radio transmitter to radio and from computer to computer as part of a network.

The electron can also travel, as part of electromagnetic transmission, from a microwave oven to popcorn seeds to make them pop, from generators over a wire to a light bulb, and from an X-ray machine through bone to a detection plate to make an image for a doctor to review.

The places where the electron travels is the cyber domain, or cyberspace. And the ability to deliver a full range of cyber effects — to detect, deter, deceive, defend, deny, and defeat any signal or electromagnetic transmission — is the essence of fighting in cyberspace.

In the United States, Americans depend on the cyber domain for nearly everything they do.

“The chief of staff of the Air Force is going to gather his senior officers and talk about the new domain, in which, according to Dr. Kass, cyberspace is neither a mission nor an operation. Instead, cyberspace is a strategic, operational and tactical warfighting domain in which the Air Force or other services can fight.

“The domain is defined by the electromagnetic spectrum,” Dr. Kass said. “It’s a domain just like air, space, and land. It is a domain in and through which we deliver effects — fly and fight, attack and defend — and conduct operations to obtain our national interests.”

The cyber domain includes all the places an electron travels.

“The electron, which is part of the atom, can travel from one atom to the next,” Dr. Kass said. “An enemy who wanted to inflict damage on the United States could use the cyber domain to penetrate any number of online systems. Once they have gained access, they might be able to delete or manipulate information to create an effect.

“No picture for a second or you are trying to fix an aircraft and all the information in your computerized manuals has been corrupted. You have to begin to put things together backwards,” Dr. Kass said.

“The attacks of 9/11 illustrate another kind of effect that can be inflicted through the use of the cyber domain. The terrorists responsible for the attacks used global positioning system receivers to guide planes into the towers in New York.

“They trained on aircraft simulators, they used the Internet to recruit participants, and they transferred money to fund their activities electronically.

“In Iraq today, America’s enemies are using the cyber domain and improvised explosive devices to inflict damage on American Soldiers, Marines, Sailors and Airmen.

“We just commemorated the 10th anniversary of Khobar Towers,” Dr. Kass said. “What the enemy used for that occasion and what the enemy is using in Iraq every single day, is the radio frequency spectrum for remotely detonated devices.”

The Air Force now dominates both air and space above a theater of operations, so it has “cross-domain dominance” there.

But the Air Force must gain dominance

See CYBERWARRIOR, Page 7

Ky. Air Guard chief of staff promoted to brigadier general

Hunt also named new deputy adjutant general

Staff report

Howard P. Hunt III received the silver stars of the rank of brigadier general from his wife, April, and Maj. Gen. Donald C. Storm, adjutant general for Kentucky, during ceremonies held at the Kentucky Air National Guard base on Sept. 13.

General Hunt was once again called to active duty for Operation Iraqi Freedom, during which he commanded the 456th Expeditionary Maintenance Group and the 379th Expeditionary Maintenance Group at two different locations in South- west Asia.

General Hunt’s awards include the Legion of Merit; the Bronze Star; the Meritorious Service Medal with Oak Leaf; the Kentucky and Tennessee Distinguished Service Medals; and several federal and state awards.

He received his commission in 1974 through the ROTC program at Texas Christian University and went on to earn a master’s degree in public administration from Ken tucky State University in 1977.
Red Flag

Continued from Front Page

world missions.

“The airspace up there — the Pacific-Alaska Range Complex, or PARC — is the largest open airspace anywhere in the world,” he said. “It gives the flyer a tremendous opportunity to fly and fight in a huge atmosphere.

“Red Flag Alaska also provides one of the only exercise opportunities in which aircrews get to incorporate inputs outside their normal area of operations.

“For example, it’s not just fighters going against fighters. Instead, the fighters launch, take on fuel, escort airlift, work with ground controllers and coordinate through AWACS. It’s a true, complete aerospace exercise.”

And this year, for the first time, the Kentucky Air Guard’s command role added another unique element.

“The guys from NATO and Korea and Japan got to see a Reserve Component of the United States Air Force take command of active-duty U.S. and multinational forces,” Colonel Nelson said.

If they had any reservations going in, they certainly didn’t have them once the exercise got underway.

“Everybody was extremely pleased with the operation,” Colonel Nelson said. Capt. Jaekyong Soo, an F-16 pilot from the Republic of Korea, agreed, calling Red Flag Alaska “an excellent training opportunity to work with the Americans and the other countries to plan and execute a wartime mission.”

The Kentucky element was responsible for a broad range of aircraft, including four active-duty U.S. Air Force C-130s from Yokota Air Base, Japan; a Korean Air Force Special Operations C-130; two German C-160s; and a NATO E-3 AWACS from The Hague.

“Thankfully, the floodwaters receded, and our help was not required,” Colonel Kraus said. “But our response showed that we were ready to go, and I couldn’t be more proud of our Airmen’s response to others in need. Helping to protect and serve the citizens of Kentucky when disasters threaten is one of the great benefits to being a member of the National Guard. Nobody does it better.”
Red Flag

Continued from Front Page

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Overall, the entire exercise employed about 1,300 participants from such varied countries as Australia, Sweden, Bangladesh, Sri Lanka, Russia, Mexico and Mongolia, said Lt. Col. Reggie Smith, operations officer for Red Flag Alaska at Elmendorf.

Information for this article also was contributed by Master Sgt. Debra Clayton, Red Flag Alaska public affairs.
By Staff Sgt. C. Todd Lopez

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Now, Air Force leaders are planning to stand up a new “cyber command,” to be responsible for fighting in that domain, said General Moseley.

“To deliver the full spectrum of effects we will evolve a coherent enterprise, with warfighting ethos, ready to execute any mission in any domain,” the general said.

“We will foster a force of 21st century warfighters, capable of functioning in all three domains. This is our national interest.”

Defending, denying and delivering effects — to detect, deter, deceive, disrupt, deny and deliver — is the essence of fighting in cyberspace.

The domain to penetrate any number of online systems. Once they have gained access, they might be able to delete or manipulate information to create an effect.

Cyberspace is a strategic, operational and tactical domain just like air, space, land and sea.

It is not only for how we fight, but also for our way of life.

Failure to control and dominate the cyberspace domain could be catastrophic, both at home and on the battlefield, Dr. Kass said.

An enemy who wanted to inflict damage on the United States could use the cyberspace domain to penetrate any number of online systems. Once they have gained access, they might be able to delete or manipulate information to create an effect.

The council will establish joint Force Air Component commander and chief of staff for the Kentucky Air National Guard effective July 1, 2006.

Under his command, the unit provided aircraft maintenance and flight support functions for the 123rd Airlift Wing during Operation Iraqi Freedom and peacetime missions. During his 32-year military career, General Hunt also has served as the state’s Executive Support Staff Officer at Headquarters, Ken-

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General Hunt, who was appointed the Joint Forces Air Component commander and chief of staff for the Kentucky Air National Guard effective July 1, 2006, takes on the additional duties of Deputy Adjutant General for Air as part of his new responsibilities.

Prior to his selection as brigadier gen-

eral, General Hunt served as commander of the Kentucky Air National Guard’s 123rd Maintenance Group.

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Cyberwarrior

Continued from Page 6

in cyberspace as well, because cyberspace superiority is now a prerequisite to effective operations in all other warfighting domains — including air warfare, sea warfare, land warfare, and space warfare.

The U.S. military’s control of air, land, sea, and space depends entirely on communication and transmission of energy in its various forms.

For the Air Force and its sister services, continued dominance in their respective domains means establishing cross-domain dominance across air, space, land, sea and now cyberspace.

"Cross-domain dominance means being able to deliver effects in all domains at the same time, at the speed of sound and at the speed of light," Dr. Kass said.

"We cannot afford to allow an enemy to achieve cross-domain dominance before us. This is the nature of the transformational mission of the Air Force and the secretary gave us." Dr. Kass said.

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"Low cost is what makes that domain extremely attractive to nations, criminal and terrorist organizations who could not possibly attack the United States symmetrically. All you need to do is buy a laptop or a cell phone."

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