

FEBRUARY 07, 2013

A Space & Missile Defense NewsWire

# THE EAGLE

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## Learning from the top



*Photo by Jason B. Cutshaw*

**Mark Ray, general engineer, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command Technical Center, Space Division, discusses how the command is testing the use of military radios to connect Soldiers on the ground with nanosatellites in orbit with retired Gen. Gordon R. Sullivan, 32nd chief of staff of the Army and current Association of the U.S. Army president, during Sullivan's visit to USASMDC/ARSTRAT's command headquarters in Huntsville, Ala., Jan. 30. Sullivan said he came to SMDC to "see today's state of the art and see how this command has evolved over time, and I am just absolutely blown away. This command is doing a lot of things without mega-bucks and enhancing the morale of the Soldiers on the ground. I am very proud of everyone here at SMDC, they are carrying on a very proud tradition."**



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## Up, up and away



Photo by Sgt. Benjamin Crane

**A crowd watches at the Ronald Reagan viewing site at Vandenberg Air Force Base in California as the Missile Defense Agency launches their Control Test Vehicle-01 Jan. 26. The Exoatmospheric Kill Vehicle, used by Soldiers of the 100th Missile Defense Brigade, is a component that uses the kinetic energy from a direct hit to destroy incoming targets.**

## Softball announcement

Several SMDC employees would like to establish a softball team in Huntsville with command employees and their families to compete in games in the local area. If interested, e-mail either Jason.E.Bradshaw2.civ@mail.mil or Jason.C.Thompson60.ctr@mail.mil.

# U.S. pursues better missile defense

By Donna Miles

Armed Forces Press Service

PETERSON AIR FORCE BASE, Colo. – While refining the systems that protect the homeland against long-range ballistic missile attacks, the United States is advancing technologies to counter the growing threat of short- and medium-range missiles launched by rogue states or terrorists, a top U.S. Northern Command officer told American Forces Press Service.

North Korea's successful long-range missile launch last month in violation of U.N. resolutions, and Iran's reported testing of a new, mid-range surface-to-air missile last week represent two ends of the spectrum that U.S. missile defenses must be prepared to address, said Air Force Brig. Gen. Kenneth E. Todorov, NORTHCOM's deputy operations director.

Toward that end, Todorov said he envisions an integrated system capable of detecting and intercepting the full range of ballistic missile threats, conceivably within the decade. And ideally, he said it will dovetail with NATO's European Phased Adaptive Approach Missile Defense System being phased in to counter short-, medium- and long-range missiles, primarily from the Middle East.

Almost since its inception more than a half-century ago, North American Aerospace Defense Command has focused primarily on long-range ballistic missile threats. However, in light of proliferation, and the willingness of bad actors to deliver sophisticated missile technology to countries or organizations hostile to the United States, it also recognizes the threat posed by shorter-range missiles, Todorov said.

NORAD commander Army Gen. Charles H. Jacoby Jr. and his staff monitor the half-dozen space launches that take place around the globe every day and assess if any pose a threat to the U.S. or Canada. But because NORAD's mission is missile warning – not



Photo by Ralph Scott

*Technicians prepare a ground based Interceptor for emplacement into Missile Field 2 at the Missile Defense Complex at Fort Greely, Alaska. U.S. Northern Command is collaborating closely with the Missile Defense Agency to improve the capability of systems designed to counter threats to the homeland.*

missile defense – Jacoby would act in his capacity as NORTHCOM commander to authorize an engagement, Todorov explained.

“General Jacoby refers to this mission as part of the

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# Archangels continue satellite control legacy

## Staff reports

FORT DETRICK, Md. – Alpha Company at Fort Detrick began its existence as the first Satellite Operation Center in 1982. Since then, the Archangels (Alpha) have led the 53rd Signal Battalion (Satellite Control) in several technological advancements to better serve the United States Military in the ever-increasing need for satellite communications.

With the launch of the Wideband Global Satellite 5, Alpha Company is now preparing to make the next move in advancing satellite communications to Soldiers, sailors, airmen and Marines around the world. WGS is the latest military communication satellite, with the first launching in 2007.

The WGS constellation continues to mature and Alpha Company will be taking on the newest mission. Although this is not the first WGS in orbit, it will be a first for the 59 Soldiers, one Department of Army civilian and 11 contractors who make up the Archangels.

“We continually endeavor to provide seamless communications to our users, and Alpha has created a yearlong training plan to ensure mission accomplishment with WGS,” said Capt. Mark Anderson, company commander. “The Archangels have worked with a legacy satellite constellation known as the Defense Satellite Communication System for more than 30 years, and the move to WGS requires training on new equipment and most importantly -- experience. Alpha Company has drawn from multiple resources to ensure our satellite controllers



*U.S. Army photo*

*Two terminal dishes assist Army space Soldiers of Alpha Company, 53rd Signal Battalion (SATCON) at the Wideband Satellite Communications Operations Center, Fort Detrick, Md. The green antenna is called a replacement terminal and is temporarily supporting A Company's Auxiliary Site Control Terminal mission, while the white Modernized Enterprise Terminal is going through testing in preparation to fill a Wideband Global Satellite and ASCT role. The MET is the latest antenna to be fielded with several upgraded capabilities. This facility provides Alpha Company controllers increased capabilities to control the communications payloads and communications transmissions of the Defense Satellite Communication System and WGS constellations.*

are prepared for this mission.

“We have the benefit of five geographically dispersed sister companies and other agencies to support our train-up,” He added. “Our sister companies around the world are able to share a wealth of knowledge about this new system, but we are fortunate to have one of our sister companies, Bravo Company, located an hour down the road at Fort Meade, Md.”

According to Anderson their location allows Alpha Company to conduct new mission training by bringing WGS experienced Soldiers here, as well as sending Soldiers to the Bravo location. In addition to this new mission training, he said, the

ability to learn from subject matter experts on new equipment and positions has proved invaluable.

“All of our satellite control equipment training is conducted on site, and takes up to six months for Soldiers to achieve their initial certification,” he said. “This type of mission has no room for error, so training is a constant at Alpha Company.”

In addition to new mission training, Alpha Company has been able to work with multiple organizations to change their site configuration to utilize a WGS.

“This has created the ability for our satellite controllers to experi-

**See WGS on page 10**

# ***SMDC mission assures right tools for Warfighter***

**By Kari Hawkins**  
*Redstone Arsenal Public Affairs*

REDSTONE ARSENAL, Ala. -- Even in the midst of budget constraints, Lt. Gen. Richard P. Formica, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, believes the space and missile defense work of his organization will remain a vital and robust part of the Army strategic plan.

The value of the space and missile defense work performed at USASMDC/ARSTRAT at Redstone and throughout the Army is highly valued because of the capabilities it brings to combatant commanders and land operations.

Speaking at the 18th annual membership luncheon of the Air, Space and Missile Defense Association at the U.S. Space & Rocket Center's Davidson Center on Jan. 25, Formica said the “command of dedicated public servants will continue to face challenges ahead to provide the right capabilities to the war fighter. I believe that with the (Army campaign) guidance we will continue to provide capabilities that will continue to be more critical to the Army and our forces.”

Even so, Army leaders at all levels are now preparing “for what could be a worst case scenario with our fiscal situation,” Formica said, referring to the possibility of deep cuts throughout the Department of Defense in the next few months. “Our approach, frankly, is going to be to assess what capabilities we could provide and what we couldn’t provide, and what’s the risk that’s associated with that so the right decisions are made.”

Until those deep cuts are announced, SMDC is taking “prudent means” of internal budget reductions by reducing spending, cutting out travel, following an Armywide hiring freeze and following other guidance that has been provided by the Department of Defense.

“We will do our part while maintaining funding for mission critical areas,” Formica said, that include supporting the war fighter and the war effort, and defending the homeland.



*Photo by Kari Hawkins*

*Lt. Gen. Richard P. Formica, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command speaks at the 18th annual membership luncheon of the Air, Space and Missile Defense Association at the U.S. Space & Rocket Center's Davidson Center on Jan. 25.*

But an efficient and effective Army cannot conduct high-tempo operations without the communication networks provided by cyberspace and space, and the strategic space and missile defense capabilities used by land operations. Referring to the Army Capstone Concept published at the end of 2012, Formica said the SMDC mission fits well with the document’s description of the Army vision for the future environment and the strategy that will drive Army investment.

“I still remain optimistic that this is a good time to be in the space and missile defense business ... We are regionally aligned in support of the Army's effort to provide support to combatant commands,” Formica said.

The Army Capstone Concept, which is the lead document of the Army Concept Framework and further emphasizes the Army Campaign Support Plan for transformation, describes the vision of the future operational environment, the role of the Army in the joint force and the broad capabilities required by future



*Courtesy photo*

**Staff Sgt. Justin Hamic, A Company, 53rd Signal Battalion, from Fort Detrick, Md., talks with 8th-grade science students at Monocacy Middle School Jan. 17. Hamic and other Soldiers spoke to the students on the fundamentals of radio waves.**

## Soldiers, students make waves

### Staff reports

FREDERICK, Md. – Soldiers from A Company, 53rd Signal Battalion, Fort Detrick, Md., traveled to Monocacy Middle School Jan. 17 as part of an invitation to be guest speakers.

The event was part of a community outreach program organized by the local chapter of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command Sergeant Audie Murphy Club. The goal of the community visit was to provide a presentation to Kathe Decarlo's 8th-grade science classes – three of them.

The presentation consisted of an introduction on Alpha Company and its important mission as a Wideband Satellite Communications Operations Center, followed by a class on the fundamentals of radio waves with a practical exercise.

Students were able to identify the characteristics of radio waves and their uses today by using a signal generator, spectrum analyzer, and oscilloscope provided by Alpha Company instructors.

Alpha Company Soldiers who participated in the event were: Capt. Mark Anderson, company commander; Staff Sgt. Justin Hamic; Staff Sgt. Anthony Wright; Staff Sgt. Ruben Martell; and Sgt. John Mitchell.

### Upward and onward



*Photo by Carrie E. David*

**Belinda Walker, program analyst, U.S. Army Kwajalein Atoll/Reagan Test Site, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, and her family greet well-wishers following her retirement ceremony Jan. 23 at USAKA/RTS Huntsville office. Walker retires with 30 years of service.**

### FEW nominations needed

In celebration of the upcoming Women's History Month in March, The North Alabama Chapter of Federally Employed Women is soliciting nominations for the FEW Local Outreach Awards. Three awards – Outstanding Management, Outstanding Career Achievement (Civilian), and Military Meritorious Service – will be awarded to individuals who show exemplary service in their workplace. The nominations deadline is Feb. 25. Award recipients will be honored at the FEW Awards Luncheon Plenary March 20. To obtain a nomination package, e-mail [northalabamafew@gmail.com](mailto:northalabamafew@gmail.com).

# RMI president visits Kwajalein schools

By Sheila C. Gideon  
USASMDC/ARSTRAT

U.S. ARMY KWAJALEIN ATOLL, Marshall Islands – Christopher Loeak was the president of his class in high school. In that role, he visited Kwajalein many years ago. On Wednesday, Loeak returned to Kwajalein, this time as the president of the Republic of the Marshall Islands.

Loeak visited Kwajalein Schools Jan. 16 with Lt. Gen. Richard Formica, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, and the U.S. Army Kwajalein Atoll command. During Loeak's first visit, it is doubtful that many knew his name; however, this time, many Marshallese children who attend the Ri'katak program at Kwajalein Schools not only knew his name, but knew he is the RMI president, and could point him out in the room.

Kwajalein Schools Superintendent



Photo by Sheila Gideon

*Lt. Gen. Richard P. Formica, back center, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, asks fifth-grade students questions about living on Kwajalein when he toured Kwajalein schools Jan. 16.*

Al Robinson toured the command group around the two campuses to give them an idea of what Kwajalein schools offer, and provided a look into the Ri'katak program. There are 52 Ri'katak students at Kwajalein Schools. Every year, three students are integrated and work their way up through the system.

There are 250 students at Kwajalein Schools, so Ri'katak students make up about 20 percent of the student population. Robinson boasted about the past successful Ri'katak students who have graduated and moved on to distinguished colleges

See SCHOOL on page 13

## Honoring King's 'Dream' and his legacy

By Carrie E. David  
USASMDC/ARSTRAT

REDSTONE ARSENAL, Ala. – Employees of the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command's Redstone Arsenal headquarters gathered Jan. 22 to honor the life of Dr. Martin Luther King Jr.

The guest speaker at the ceremony was the Rev. Earla S. Lockhart, associate minister of First Missionary Baptist Church in Huntsville.

The ceremony also included remarks by Lt. Gen. Richard P. Formica, USASMDC/ARSTRAT commanding general; Melvin Kelley, director, SMDC Equal Employment Opportunity Office; and Mary Peoples, EEO program manager; a trivia game, and a cake cutting.



Photo by Carrie E. David

*Rev. Earla Lockhart, associate minister, First Missionary Baptist Church in Huntsville, Ala., speaks to U.S. Army Space and Missile Defense Command/Army Forces Strategic Command employees gathered to honor Dr. Martin Luther King Jr. during an observance Jan. 22 at the command's Redstone Arsenal headquarters.*

# Local legend, pioneer passes on

By Sharon Watkins Lang  
SMDC Historical Office

Dr. Julian Davidson, an early leader in the Army's ballistic missile defense program, passed away Jan. 31 at the University of Alabama-Birmingham Medical Center. He is survived by his wife Dorothy, four children and grandchildren.

Born in Oakman, Ala., Sept. 2, 1927, Julian Davidson served in the Navy during World War II. Returning from the war, he attended Howard College and the University of Alabama before transferring to Auburn University. He graduated in 1950 with a bachelor's degree in electrical engineering. In 1981, he received an honorary doctor of sciences degree from Southeastern Institute of Technology.

Davidson began his career with the Army in 1957 with the Army Ballistic Missile Agency and worked on the rocket systems that launched Explorer I, the first American satellite. Davidson joined this command, known then as the NIKE-ZEUS Project Office, in April 1960 initially working in missile development and later serving as the chief of the Threat Analysis and Systems Effectiveness Branch at the NIKE-X Project Office between 1963 and 1966 and the Systems Analysis Division, 1966-1967.

Applying systems engineering principles, Davidson helped develop the requirements for the



*U.S. Army photo*

*Dr. Julian Davidson, second from right, NIKE-X Development Office director, with from left to right, Lt. Col. Johnie Spruiell, NIKE-X Development Office commanding officer and assistant director, Norman Bucholz, NIKE-X Development Office deputy director, and Brig. Gen. Ivey O. Drewry, commander, Sentinel Systems Command.*

radar and missile components of the Army's Sentinel and Safeguard Anti-Ballistic Missile systems. He is also credited with developing the Minuteman defense plan that made missile defense a cost-effective alternative and the shoot-fail-shoot doctrine, still in use today.

In 1966, Davidson became the director of America's newly established Advanced Ballistic Missile Defense Agency. The ABMDA was established to pursue advanced research and development to counter the Soviet threat and to address next generation ballistic missile defense concepts. He held this position for five years. In April

1971, Davidson became the special assistant for Site Defense, the next generation of missile defense development, at the Safeguard System Office in Washington.

In 1973, he returned to the command and served as the first deputy ballistic missile defense program manager from 1973 until his retirement in November 1976.

In these 16 years, he saw the missile defense program grow from a concept to a deployed system. During his career, Davidson's contributions were recognized with two Exceptional Civilian

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Deadline for comments and submissions for the Feb. 21 issue is Feb. 15.  
Please submit to Jason B. Cutshaw at [Jason.B.Cutshaw.civ@mail.mil](mailto:Jason.B.Cutshaw.civ@mail.mil).

## SMDC Soldier hailed as CFC hero



Photo by Fort Carson Public Affairs

**Spc. Andrew Baldwin, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command at Peterson Air Force Base, Colo., second from left, earns a Combined Federal Campaign Hero Award for being a top performer in the 2012 CFC-Pikes Peak Region. Along with Baldwin are, from left: Senior Master Sgt. Mary McEwan, who also received recognition; Col. Jeffrey Flewelling, deputy commander, 21st Space Wing, Air Force Space Command; and 1st Lt. Susan Guinane, who represented Elisha Olivas-Stewart, a finance officer assigned to the 21st Space Wing. The ceremony was hosted by Maj. Gen. Joseph Anderson, commanding general, 4th Infantry Division, Jan. 15 at Fort Carson, Colo.**

### ASMDA from Page 5

Army forces.

The ACC provides a guide to how the Army will apply available resources to overcome the challenges of an unpredictable and complex operational environment; a campaign of learning that will evaluate and refine the Army's major ideas and required capabilities; and a roadmap for development of a comprehensive investment strategy that will rebalance the Army's force structure, readiness and modernization efforts in support of national strategy.

The ACC supports the Army's need to maintain a credible capacity to win decisively and support combatant commanders across a wide range of military operations at home and abroad.

SMDC/ARSTRAT will soon publish a campaign support plan in support of the Army Capstone Concept and the Army Campaign Support Plan.

"We will align our three lines of effort – operations, capability development and materiel

development – with these two important strategic documents," Formica said. "The intent of (the SMDC/ARSTRAT) campaign support plan is to link everything we do that we do back to either a STRATCOM (Strategic Command) or HQDA (Headquarters, Department of the Army) campaign objective. This is going to be a pivotal document for us in the next month or two."

While 2012 was busy for providing capability to the war

fighter and fulfilling operational requirements, Formica said 2013 will be even busier as SMDC continues to provide missile, space and defense capabilities and new technologies.

During the luncheon, ASMDA presented the following 2012 awards:

- \* Technical Achievement-Government: Terry Koelbl, Marshall Space Flight Center; Alexander Marsaw, Missile and Space Intelligence Center; and Dennis Miller, Missile Defense Agency

- \* Technical Achievement-Contractor: James Otten, Parsons (Missile Defense Agency)

- \* Technical Achievement-Team: Mission Management and Test Execution Team FTI-01, Test Directorate, Missile Defense Agency; and Alex Priskos, Marshall Space Flight Center, and Dr. Jamie Neider, Aviation and Missile Research, Development and Engineering Center

- \* Service Excellence-Government: Deborah Daniel, Aviation and Missile Command and Program Executive Office for Missiles and Space; Bryon Manley, Space and Missile Defense Command; and Michael Finamore, Missile Defense Agency.

- \* Service Excellence-Contractor: Donna Hutto, Parsons (Missile Defense Agency)

- \* Service Excellence-Team: Missile Defense Space Development Center Team, Missile Defense Agency.

# SMDC History: Origins of ARPA

**Sharon Watkins Lang**  
SMDC Command Historian

In October 1957, the Soviet Union launched Sputnik, the first man-made satellite. One month later they launched Sputnik II.

In the United States, initiatives were immediately set forth to advance the American satellite program.

Throughout the nation, however, there was concern that the United States was losing its technological and scientific advantage to the Soviets.

As President Dwight Eisenhower noted in a November 1957 radio-TV address, “The world will witness future discoveries even more startling than that of nuclear fission. The question is: Will we be the ones to make them?”

Eisenhower proceeded to increase the attention given to science and technology. He created the National Science Advisor at the executive level in November 1957.

Eisenhower also requested and received funding from Congress for a new research and development organization.

On this date, Feb. 7, 1958, the Department of Defense issued DoD



Directive 5105.15 which established the Advanced Research Projects Agency.

Assigned to the Office of the Secretary of Defense, ARPA was responsible for the direction or performance of Research and Development projects as designated by the SecDef.

Given the environment in which it was created the top priorities were space and missile programs.

There were five key initial program assignments – outer space, ballistic missile defense, solid propellant chemistry, materials science, and nuclear test detection.

Each of these were of interest to the White House and three – space, BMD and nuclear test detection – were deemed “Presidential Issues.”

By virtue of these assignments, ARPA was closely affiliated with the early programs of this command. As they both used sensors, the two organizations shared in the research of phased array radars.

In addition, the ALTAIR and ALCOR radars on Roi-Namur were first constructed by ARPA and later transferred to the command.

The SPRINT missile, deployed as part of the Safeguard ABM system, began its life in ARPA.

And, for a brief period, ARPA even addressed the NIKE-ZEUS program itself.

ARPA became the Defense Advanced Research Projects Agency in March 1972.

The agency was renamed ARPA in February 1993, as part of an initiative by President Bill Clinton that looked to technology as a means to improve economic growth and strength.

Three years later however, the 1996 Defense Authorization Act directed that the agency return to the DARPA designation.

Regardless of the name, the body of work is impressive, as ARPA/DARPA continues to provide cutting-edge research and development technology in a variety of scientific fields.

## WGS from Page 4

ence a ‘crawl, walk, run’ training plan,” Anderson said. “This is the first time this site re-configuration has ever been attempted, and has proven to be a success. The ability to look at a different WGS before taking on our new mission has created a real world WGS operating environment at the Alpha Company site.”

This opportunity allows the company to test and validate new standard operating procedures, as well as give the satellite controllers real world experience, while having another operations center sit in the “back-up”

seat to coach Alpha Company along.

The 53rd Signal Bn.’s goal of providing the best customer support possible does not stop, no matter what systems they use.

“Alpha Company’s new WGS mission is no exception making our long range planning and execution so important,” Anderson said. “This train-up utilizing organizations and agencies around the world will ultimately ensure the Warfighter has all the satellite resources needed to fulfill their mission for years to come.”

# How not to catch a cold or the flu

By Donna Miles  
A.F. Press Service

That scratchy throat, the sneeze, and snuffle -- you've caught another cold or the flu. It's not the first in your life and it won't be the last. Unfortunately, you're in for a few days or even a couple of weeks of discomfort and inconvenience.

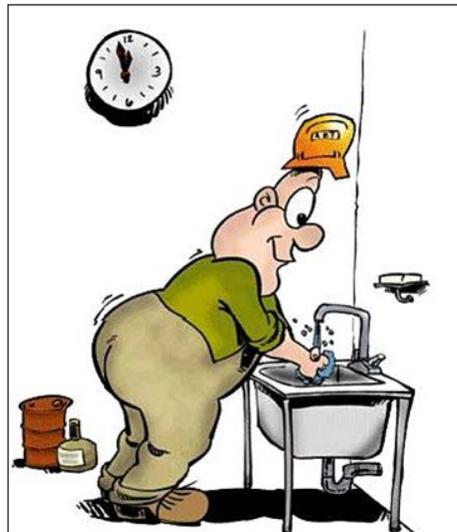
Here are some tips for avoiding these contagious illnesses:

- Wash your hands often. The viruses that spread colds can be transmitted

by contact such as shaking hands or touching a surface that an infected person has touched – such as a doorknob or a telephone.

- Keep your hands away from your face. Without realizing it, you probably touch your eyes, nose, and mouth many times a day with your hands. This is how the virus can get from your hands into your respiratory tract.

- Maintain your health to keep your immune system in good shape. Eat a variety of fruits and vegetables, exercise regularly, get plenty of rest, and drink at least eight glasses of



water a day.

- Talk to your doctor about a flu shot. Flu shots are recommended if you are over 60, have a chronic illness, or just want to decrease your chances of getting the flu.

- Cover your mouth and nose when you cough or sneeze to keep from spreading the infection to others. Dispose of tissues where others will not contact them, and wash your hands frequently when you have a cold or the flu. If you're really sick and contagious, consider staying home so as not to spread the disease to others.

What's the difference between a cold and the flu? If you just have

the runny nose and sneezing, you probably have a cold. If you also have a fever, headache, muscle aches, and fatigue, you probably have the flu. You can usually care for yourself until you get over a cold or the flu. Drink plenty of fluids, get plenty of rest, and eat nutritious foods. However, persons who are very young or old, pregnant or suffering from allergies may need medical help.

You should call a doctor if you have one or more of these symptoms:

- If you are sick for more than a week.

- If you have a high fever.

- If you are coughing up mucous that is not clear.

- If you have a sore throat that hurts when you swallow and have white patches on the tongue.

- If you have chest pains, shortness of breath, wheezing, a bad earache or headache for more than a couple of days.

Finally, if you take over-the-counter remedies to relieve cold or flu symptoms, be aware many of them can cause drowsiness, making it unsafe to drive or operate machinery. Also, many can affect other medications that you may be already taking.

Perhaps one day medical science will come up with a way to cure the common colds and flu. In the meantime, a healthy lifestyle will decrease your chances of becoming infected and will speed your recovery.

*From U.S. Army Combat Readiness/Safety Center.*



**DEFENSE from Page 3**

sacred trust he has with the American people,” Todorov said. “He, and we as a command, are responsible for defending the U.S. homeland against ballistic missile threats.”

That capability is delivered through the Ballistic Missile Defense System. Todorov described it as a “system of systems architecture” of networked space-based and terrestrial sensors able to detect and track missile threats to North America.

Currently arrayed toward both the Atlantic and Pacific, the deployed sensors are postured to identify inbound threats from either theater, he said.

Based on well-rehearsed protocols, the system is designed to destroy threat missiles in space before they reach their intended targets.

Members of the Alaska National Guard’s 49th Missile Defense Battalion stand on 24/7 alert at Fort Greely, Alaska, ready to launch the 26 ground-based interceptors there at a moment’s notice. Other members of the Colorado National Guard’s 100th Missile Defense Brigade maintain and man four additional interceptors at Vandenberg Air Force Base, Calif.

“These are 300 National Guardsmen defending 300 million citizens of the United States, Todorov said. “They are the no-kidding, 24/7 watch, watching for threats and waiting for them to come. And if they come, they are going to shoot them down.”

Jacoby said he’s confident in Northcom’s ability to leverage existing capabilities to defend the United States against limited long-range ballistic missile threats.

But as these threats evolve, he said ballistic missile defenses must evolve, too.

That, Todorov said, requires building on existing ballistic missile defenses to keep a step ahead of potential adversaries.

Much of the United States’ missile defense focus has been on the NATO system that will offer broad protection to Europe once it is fully deployed in 2020 -- and by extension, to the United States and Canada.

Meanwhile, Northcom is collaborating closely with the Missile Defense Agency to improve the capability of the Ground-based Midcourse Defense System, which is designed to defeat long-range ballistic missiles.

“We have focused very hard on improving GMD system capabilities since it became operational in 2006,” Todorov said. “But as we go forward as a command, one thing that we will change will be our emphasis and focus on short- and medium-range missile defense of the homeland.”

Instead of developing new independent systems to address these threats, Todorov said the better approach is to build on existing defense capabilities.

“Rather than looking at these systems independently -- the GMD system to fight the long-range threat and another system that might fight the medium-range one and another that might fight the short range -- let’s try to build them into an interconnecting group of systems that we can refer to as an integrated air and missile defense,” he said.

“The same sensors won’t be able to do it all,” he acknowledged. “But hopefully there will be some connects and shared data, with shared information and shared

situational awareness between the sensors. Each of those will help us tie the picture together.”

With work on this integrated system already under way, Todorov anticipates “cylinders of capability” that will be fielded as they are developed, probably within the next few years.

“Then as it develops and matures, I think we will start to knit the capabilities together to strengthen the numbers, if you will, and overlapping sensors from the short-range to the medium-range to the long-range,” he said.

Within the next 10 years, Todorov said he hopes to have an interconnected and overlapping system of systems that provides stronger, more reliable defenses than any individual systems could. “With the synergy among all of it, one plus one will equal three,” he said.

The success of that endeavor will be vital to the United States’ long-term security, he said.

“We can’t take anything for granted,” Todorov said. “There are adversaries out there and groups of people and nation states that would like to do us harm.”

The 9/11 Memorial outside the NORAD and Northcom headquarters, built of rubble from the World Trade Center in New York and the Pentagon and soil from the Shanksville, Pa., crash site, offers a daily reminder to workers here of the gravity of their homeland defense mission.

“I think it is our job, every day, to walk past that 9/11 Memorial as we come in here and think, ‘We are not going to let anybody do harm to us like they did on that day,’” Todorov said.

## Changing command



*Courtesy photo*

**Lt. Col. Karen J. Roe, 53rd Battalion (SATCON) commander, left, charges Capt. Michelle Hamilton with the B Company guidon in a ceremony Jan. 25 at Fort Meade, Md. Hamilton takes over for Capt. Matthew Mills. The 53rd is a strategic signal battalion that provides communication transmissions and satellite payload control.**

## Honoring 36 years of service



*Photo by Carrie E. David*

**Lt. Gen. Richard P. Formica, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, pins the Meritorious Civilian Service Medal on Janie W. Montgomery, G-8 budget analyst, during her retirement at SMDC's Redstone Arsenal headquarters Jan. 25. Montgomery retires from federal service with a combined 36 years of service.**

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or entered into the military.

At George Seitz Elementary School, they visited Jennifer Cossey's kindergarten class, Cher Kirk's third-grade class and Anne Jahnke's fifth-grade class. They then toured the high school campus and talked to teen students there. At the third-grade class, Ri'katak student Verlene Lorok knew the RMI president's name, but not what he looked like. She was surprised when he was standing right behind her.

At the fifth-grade class, Ri'katak student David Kabua knew Leoak's name and was even able to point him out in the room. At the kindergarten class, Ri'katak student Kevin Drebon got to shake Leoak's hand. Afterwards, Leoak addressed the students.

"American and Marshallese students studying together is very valuable and a good experience," he said. "To the students from Ebeye, I'm very proud of you."

He told them they are lucky and very fortunate to go to school on Kwajalein.

"I wish I had the opportunity when I was growing up on Ebeye. Be good students and be good neighbors to your fellow students," he said. "I will be thinking of

you. I am proud of what you are doing here."

Formica asked the students several questions about what they liked best about living on Kwajalein and what some of the challenges are.

"Like the (RMI) president, I'm very proud of the relationship we have at this school to educate American and Marshallese students side-by-side and together," Formica said. He told the students that one day they'll look back at their time here and appreciate the opportunity to learn with students from a different country. "This is a big deal to have president Leoak here to come and see you."

When they are older, Formica said they will remember meeting a president of a country; not a lot of kids get that experience.

U.S. Ambassador to the RMI, Thomas Armbruster, asked the kids what they want to be when they grow up. Fifth-grade answers included a lawyer, paleontologist, marine photographer, football players, soldier and teacher.

"You've got great teachers and you're off to a great start. Good luck," said Armbruster.

## Space officer promoted to major



Photo by Spc. Sharmain Burch

Retired Col. John Luke straightens the rank on his grandson, Maj. John B. Robertson, U.S. Army Central Command Space Support Element, during Robertson's promotion ceremony Jan. 11. On the left is Robertson's father, Bruce Robertson. In the same ceremony his mother, Ellen Robertson, pinned on his Senior Space Badge.

## Dr. Swinson accepts new job



Photo by Carrie E. David

Lt. Gen. Richard P. Formica, commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command, presents Dr. Mark Swinson, director, Space and Cyberspace Technology Directorate, a Meritorious Civilian Service Award during a ceremony at USASMDC/ARSTRAT's Redstone Arsenal headquarters Jan. 24. Swinson also received his 40-year length of service award during the ceremony. Swinson is leaving the command for a new position as deputy director for Rapid Acquisition and Technology, Joint Improvised Explosive Device Defeat Organization in Washington, DC.

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Service Awards and an Air Force Meritorious Civilian Service Award. As the command marked its 30th anniversary in 1987, Davidson was among the first inductees into the U.S. Army Strategic Defense Command Civilian Employees Hall of Fame.

He was also a recipient of the National Defense Industrial Association's Medaris Award, presented to individuals who have demonstrated technical excellence in promoting defense preparedness.

In retirement, Davidson worked both as a strategic planner for SAIC and a vice president and general manager of eastern operations for Systems Development Corporation, before joining Booz, Allen, Hamilton as a senior vice president and manager of the Electronic Systems Division.

Davidson continued to guide the

nation's missile defense programs as a member of the Defense Science Board, the Army Science Board and the National Research Council. In 1983, he served on the Fletcher Committee.

Their report developed a blueprint for the development of the Strategic Defense Initiative Organization and its research areas, and subsequently the next phase in this command's history as the U.S. Army Strategic Defense Command.

In 1996, Davidson retired from Booz, Allen, Hamilton to establish his own company – Davidson Technologies.

Specializing in research and development, Davidson Technologies grew from a one-person office into a respected small business with 230 employees in locations across the country and an income of \$37 million in 2008.

Initially focusing on missile defense, the company has recently been expanding to address other issues of national interest – information assurance and logistics.

In 2007, Davidson was recognized for his decades of service to rocket science and missile defense with the Technology Pioneer Award from the Missile Defense Agency.

In that year he was also inducted into the State of Alabama Engineering Hall of Fame. Two years later, in 2009, he and his company were again recognized, this time as the Small Business of Year Award for technology services by the Huntsville/Madison County Chamber of Commerce.

In a recent interview with Auburn University, Davidson noted "I consider being a pioneer in missile defense my most important professional contribution."