



The Eagle

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Carr's crew ready for Roving Sands '99

by LuAnne Fantasia
Huntsville, Ala.

Colonel Herb Carr and his project office crew took the JLENS on a test drive around the block recently, kicked the tires, and liked how it performed. In a March exercise in Savannah, Ga., the JLENS proved ready for the big race—Roving Sands '99...New Mexico's McGregor Range...next month.

JLENS is the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, that provides over-the-horizon surveillance and tracking. It's a sensor attached to the underbelly of a 71-meter aerostat and when it speaks, other air defense weapon systems listen.

"JLENS passes target tracks and data to defense systems on the ground, at sea, or in the air, so cruise missile or airborne threats can be countered," Carr said, "and it does this before other ground based systems would detect that threat." Carr, a 27-year Army veteran and Air Defense Artillery officer, is the JLENS project manager.

He explained how the sensor system provides joint services the ability to share over-the-horizon radar data across a series of communication networks and defense platforms.

This is something that can't be achieved by ground-based radar systems such as the Patriot and the Navy Aegis," Carr said, "but elevated sensors, like the JLENS, give the capability to pick up lower flying threats normally blocked by the terrain or vegetation."

During the March exercise in Georgia with the U.S. Atlantic Command, Carr said the smaller JLENS surrogate aerostat, hovering at about 1,000 feet, provided a radar data relay between the Navy's Aegis cruiser, and the land-based Patriot air defense system at Fort Stewart, to support the first live real time data exchange between the two services.

"This was the first time we used the JLENS prototype processing station and it worked 100 percent," Carr said. Processing, correlation and display of the Patriot, Aegis and a tethered aerostat radar system at Horse Shoe Beach, Fla., data and air track sources provided a first generation single integrated air picture.

"We participated in the exercise in Georgia to test the processing station, which correlates the different radars into a single track," he added. "Control is then turned over to the system with best track quality." He said the processing station prototype—designed and built as a reception station for multiple data links—proved out all connectivity and was fully operational during the exercise. It is scheduled to be fielded in 2010 as part of the JLENS.

Although the relatively small, 15-meter aerostat was used for the East Coast exercise, Carr said the 71-meter model would play during Roving Sands '99 next month, when JLENS goes to the start line as a blue force player. Radar tracks from other aerostats located in Deming, N.M., and Marfa, Texas, will network into JLENS' processing station where data will contribute to the generation of a single integrated air picture.

(See JLENS, page 2)



(Courtesy photos by Raytheon)

The 15-meter aerostat with attached antennas (seen underneath) hovers over the prototype processing station at Hunter Army Air Field, in Savannah, Ga. The new station processes and correlates data from multiple links and air track sources to provide a first generation single integrated air picture.

SMDC has new executive director

by Gerda Sherrill
Huntsville, Ala.

During a recent ceremony here, Lt. Gen. John Costello announced the selection of Jess F. Granone as new executive director of the command's largest element, the Huntsville based Missile Defense and Space Technology Center, or MDSTC. That position was vacated in January when Dr. J. Richard Fisher retired from government service.

As MDSTC director, Granone is responsible for managing the day-to-day research and development activities for the Army's space and missile defense technology program. He ensures that the command's efforts in this arena are balanced and integrated to support the Army, Ballistic Missile Defense Organization, and Program Executive Office for Air and Missile Defense.

Prior to this, Granone was the director of the Sensors Directorate, one of MDSTC's five technology directorates. There he managed SMDC's radar, laser radar, microelectronics, discrimination and kill assessment algorithms, sensor test laboratories, sensor field test platforms, and sensor phenomenology testing programs.

Granone has over 32 years of professional

experience in science, engineering, and test and evaluations. His background also includes system engineering and management, covering a broad spectrum of activities in range instrumentation and data collection. Other experience includes electro-optical guided weapon systems, laser technology, radar, laser radar, air and ballistic missile interceptor system design and evaluation, and lethality, as well as battle management/command, control, communications, computers and intelligence and signal processing.

His current interests are broadly based in technology development and acquisition, with particular emphasis on the systems approach to planning and managing technology development for advanced sensors, weapons, and information processing to meet performance objectives of today's systems and technology for future weapon systems to protect the warfighter and our homeland.

Granone received his bachelor of science degree in electrical engineering from the University of New Mexico and attended graduate school at the same institution.

He has been honored with the Meritorious Civilian Service Award in 1994 and the Superior Civilian Service Award in 1995.



Jess F. Granone

■ Carr's crew will demonstrate key communications data relay between several sensor systems

JLENS

Continued from page 1



The JLENS prototype processing station is ready for serious action at Roving Sands '99, next month, at McGregor Range, N.M. The station will network data from the JLENS 71-meter aerostat test bed and other aerostats located in Deming, N.M., and Marfa, Texas, to provide a single integrated air picture.



Inside the JLENS processing station are the operators' consoles for the aerostat flight director, the mission operations (air track management and defense planning), and the mission support (communications and data link control) stations.

The Eagle ...

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NDIA conference offers exchange of ideas, requirements update

by Bob Darnall
Raytheon Systems Company
Huntsville, Ala.

Mark your calendars now to attend the 2nd Annual Space and Missile Defense Conference, here, Aug. 23-26.

This opportunity for the space and missile defense community—supported by the US Army Space and Missile Defense Command—is organized by the US Army Space and Missile Defense Association, the National Defense Industrial Association-Tennessee Valley Chapter, and the Air Defense

Artillery Association-Huntsville Chapter.

The conference continues the exchange of thoughts and ideas between industry, government developers, and users to ensure that future space and missile defense systems are feasible, affordable, and effective against the evolving threat.

The conference will present an update on the requirements generation process and a status on present development programs, as well as an opportunity for technologists to present innovative technology approaches and concepts.

These technologies and concepts should define how the services can jointly participate on the postulated battlefield of 2010. A projection of

performance against both a sophisticated threat and a highly proliferated simple threat will be discussed.

The conference will conclude with an interactive panel discussion of different viewpoints of space and missile defense issues.

The latest conference information can be found at <http://asmda.sparta.com>. For additional information, contact the following: Administrative Coordinator Jodi Weiner, jweiner@aol.com; Exhibit Coordinator Bob Wilkie, bwilkie@schafercorp.com; Golf Coordinator Terrell Downs, downst@bellsouth.net; Program Coordinator Bob Darnall, robert_e_darnall@Res.raytheon.com.



A 3rd Army communications specialist checks the connectivity between multiple systems in the tactical operations center during Lucky Warrior '99. The Space and Missile Defense Battle Lab's simulation support to 3rd Army in March helped those warfighters meet training objectives during command post exercise Lucky Warrior '99, Fort McPherson, Ga. The CPX was a 48-hour event, and its success was a stepping stone for Lucky Sentinel '99—training the Combined Task Force-Kuwait, which took place last month.



Sgt. Fredrico DeLeon, a 3rd Army simulations NCO, tests the connectivity of the tactical work stations in the tactical operations center. The TOC, suitably named Lucky Main, will soon be fielded as the primary operational C4I [command, control, communications, computers and intelligence] facility for ARCENT—U.S. Army Forces Central Command.

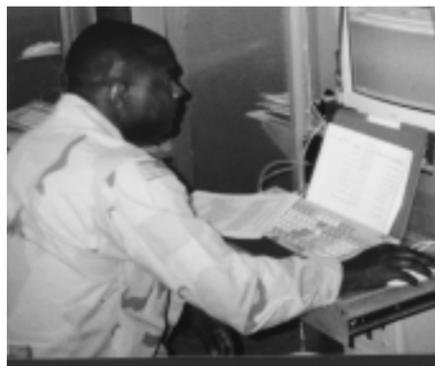
No luck to it

Photo story by Capt. Derrick Hayes
Huntsville, Ala.

Battle Lab's hard work in simulation support for Lucky Warrior '99 helped warfighters meet training objectives



3rd Army's Operations NCO, Staff Sgt. Keith Green, inputs data during Lucky Warrior '99. All of the Battle Lab's simulation support during the CPX was provided as totally leave-behind capability. ARCENT purchased the suite of computers for future training for their staff. Several of the Battle Lab's simulations softwares were purchased, including the EADSIM 1 & 2 [extended air defense simulation], as well as the TSIU [tactical simulation interface unit]. The TSIU bridges the gap between the simulation environment and command and control systems.



3rd Army's Capt. Ricky Emerson is an intelligence officer in the TOC's deep operations coordination cell. He is nominating targets during the Lucky Warrior '99 CPX at Fort McPherson, Ga. The Space and Missile Defense Battle Lab provided the entire suite of simulations and associated architecture for the ARCENT exercise.



(NASA photo)

Renovation of the Union representatives' office space in the Huntsville building boasts extra space, soundproof walls for counseling privacy and upgraded office furniture. Jim Brothers (left), president of Local Union 1858, and Brig. Gen. Steven Flohr, SMDC's deputy commanding general, officially reopened the office earlier this month.

Union's new digs represent successful Partnership Council

by LuAnne Fantasia
Huntsville, Ala.

The fact that the command's Local Union 1858 representatives just moved back into their newly renovated and upgraded space is not as important as the employee issues they negotiate as part of the Partnership Council on a day-to-day basis.

But still...the new digs are nice.

"The ribbon-cutting ceremony was symbolic of the successes we enjoy in our partnership council," said Col. Garth Bloxham, SMDC's deputy chief of staff for resource management, and management co-chair for the partnership council.

Thea Stewart—union vice president for SMDC's non-professional employees—said whereas most union negotiation changes are transparent to most employees, this office space renovation is a symbol of out with the old...in with the new.

"We really have come a long way from the old perceptions of management and labor working together," Stewart said. "Our partnership council focuses on a working partnership, where we all give and take until we come to an agreement."

Bloxham added that Contracting gave up six feet toward additional space for the Union office, office walls were made soundproof for employee privacy, and office furniture was refurbished and adjusted for a better work environment.

"I'm not boasting, but our management and Union [employee] relationship embodies all of the requirements

set by the proclamation signed several years ago," Bloxham said, which are: information sharing, mutual respect, a positive and proactive attitude, responsibility, timeliness, receptiveness and consideration, openness and trust.

What's new?

As invigorating as the revamped Union office is, the partnership council's current agenda promises to be a vigorous one with some serious issues to negotiate in the near future, according to Bloxham.

"First there is the acquisition pay band demonstration program, which the council spent a lot of energy working last fall, and which we plan to revisit," he said. "The Union officially recognized the value of this program, but because we are linked to the vote of the entire local union, we lost in SMDC because the whole local voted it out."

Deputy Commanding General Steven Flohr agrees. "I support the demonstration very strongly because Huntsville is largely an Acquisition Corps workforce, yet we voted the demonstration project down."

But Flohr feels there's still a window of opportunity. "I attended meetings where the Army is implementing the demonstration in other locations, and I am going to watch the success of the demonstration in those Army units," Flohr said. "We may have missed an opportunity last year, but I don't think that door is completely closed to us."

Two other changes on the horizon, Bloxham said, is senior reviewers being eliminated from civilian performance evaluations, and random urinalysis for

civilian employees in jobs with certain security clearances.

"How we implement both of these is subject to negotiation with the Union," Bloxham said.

Another weathervane of things to come is the recent establishment of the new Deputy Chief of Staff, Strategic Planning and Analysis, with the majority of its staff members scattered throughout the Huntsville building.

"For efficiency, those people need to be more closely located, so in the next 18-24 months, we will adjust office space and move people to accommodate everyone," Bloxham said, stressing that all of these changes will be negotiated with union representatives through the partnership council.

"Some people in the Huntsville building have too much space, and others don't have enough. It will have a domino effect once we start rearranging people," he said. "The Union's concern is that people still have proper space, safety, access, equipment and an overall healthy and comfortable work environment."

Bloxham said partnership council meetings are intense, with hard topics worthy of attention and issues with long-term impact.

He feels none of them are too hard to work, due to a positive partnership atmosphere among council members.

But he did stress that Union representatives are not pushovers, to be sure.

"The topics we're dealing with are important to many people for many reasons," he said, "and union reps take their role seriously. I always make sure I'm well prepared for council meetings,

and that I clearly understand the issues because I know the union reps will absolutely be prepared."

...and the prez sez...

"We have a situation here where I have a lot of confidence in Col. Bloxham, and I have more respect for [SMDC lawyer] John Cady than any lawyer," said Jim Brothers.

Brothers is the union president of the AFGE Local 1858, Huntsville, Ala.

"Old [accusatory] ways are easier, and in fact, sometimes we employees could do our jobs better, and sometimes management could do their jobs better," Brothers said.

"Management can—and has the right to—assign work but also has the responsibility to be fair and reasonable to people who are going to accomplish that task," he added.

Brothers said that means asking: *Am I willing to apply the Golden Rule? Is my request fair and reasonable? If I looked through a different set of eyes, would I see the situation differently?*

"We're learning how to partner," he added, citing examples of agreements being made and partnerships signed in less and less time.

"Several years ago, the SMDC agreement took three years to negotiate and sign. Signing an agreement with the PEO-AMD took about a year. And last year, an agreement with USAKA took about 90 days.

"Many of our accomplishments may not seem significant to some, but to us [employees], I hope people at least realize that we make things better little by little," Brothers said.

U.S. Army Space Command



Soldiers and sailors of the JTAGS detachment worked to put the satellite dishes up while being filmed for a news story on the exercise that went out over Soldiers Radio and TV to reach military personnel all over the world.



Rolling, rolling, rolling... keep that JTAGS rolling...

JTAGS goes to JPOW!!!

Story and photos by Ed White
Colorado Springs, Colo.

While freezing rain and blustery February winds sweep across the flat, river strewn landscape of the Netherlands, the Army Space Command's Joint Tactical Ground Station arrived quietly and its crew quickly set it up for participation in the 4th annual exercise Joint Project Optic Windmill.

The exercise included military members from five nations: the U.S., Netherlands, Great Britain, Germany, and Sweden. JPOW is a coalition air defense exercise that concentrates on the combined response to the theater ballistic missile threat. And JTAGS is a lynchpin to the exercise.

"We could not have the same results without JTAGS," said Royal Netherlands Air Force 1st Lieutenant Bart van der Graaff, one of the original designers of the exercise. "JTAGS has become such a key player that it will probably be a permanent part of the exercise."



Part of every JTAGS system is its power source, a generator. If the local grid goes down, the JTAGS can continue to operate on generated power. This backup capability ensures that JTAGS can continue to operate under the worst of conditions.



The satellite dishes are key to receiving the missile launch information directly into theater. The advantage is that early warning of soldiers, sailors, airmen or marines in the predicted impact zone is indeed "early" warning.



Emplacing the system is not always as simple as it seems. Here the JTAGS is parked in a tight spot between two buildings.

the backbone of the Army ...

Soldier, not the
has given us
the press.

Soldier, not the
has given us
speech.

Soldier, not the
organizer, who has
freedom to

Soldier (who
tag, who

with the flag,
coffin is draped
who allows the
turn the flag.”

United States Marine Corps
Sergeant Denis Edward O'Brien



Command senior NCOs met in Alexandria, Va. recently for a conference, during which the sergeants major held the annual soldier and NCO of the year board. Pictured in the front row is (left to right) Command Sgt. Maj. Ray Hrynko, 1st SATCON Bn; Spec. Kipp Wilson, newly selected Soldier of the Year; Lt. Gen. John Costello, Commanding General; Command Sgt. Maj. Frank Mantia; Staff Sgt. James Doss, newly selected NCO of the Year; and Sgt. Maj. Leon McGraw, Army Space Command.

All soldiers and NCOs competing at the command level are already winners in their individual units. This year's other candidates were: Sgt. Brant Smith, Sgt. Cassandra Shigley, Sgt. Patrick Trombley, and Spec. Andre Reed. All of the soldiers and NCO candidates, with the exception of Shigley, are 1st SATCON Bn. soldiers. Shigley is assigned to the Army Space Command, Colorado, Springs, Colo.

For their accomplishment, Wilson and Doss received savings bonds, new uniforms, association memberships, and other gifts from: GEICO, AUSM, NCOA, AUSA, USAA, AAFES, and the US Army Community and Family Support Center.



1999 Soldier and NCO of the year, (left) Spec. Kipp Wilson and Staff Sgt. James Doss. Both men are 1st SATCON Bn. soldiers.



Lt. Gen. Costello (second from left) told candidates for the Soldier and NCO of the year they are all winners. Pictured (l to r) are Sgt. Patrick Trombley, Costello, Sgt. Cassandra Shigley, Spec. Andre Reed, and Sgt. Brant Smith.



Welcome ...

Lt. Col. **James Bentley** ,
Maj. **Claudia Wigglesworth**

Awards ...

Dr. Ronald Green, Distinguished
Engineering Fellow, University of
Alabama College of Engineering

Promotions ...

The following Army Space Command
soldiers were promoted to Master Ser-
geant: **Jeffery Baker, Richard King,**
Darrell Ramey, Daniel Russell,
*** and **Carla Shaw.**



ICBM Testing --Eight reentry vehicles from Glory Trip 28 streak to splash down near Kwajalein after launch from Vandenberg Air Force Base, Calif.



'99 busy year for Kwajalein Missile Range

Story & photos by Preston Lockridge
Kwajalein Atoll

This year will be both challenging and rewarding for U.S. Army Kwajalein Atoll/Kwajalein Missile Range. A series of important missions on this year's schedule support the SMDC goal of providing the world's best space and missile defense capabilities to the warfighter and providing for the protection of our homeland and the worldwide interests of the United State.

From a "hit to kill" intercept of an intercontinental ballistic missile in flight, to the Range's first commercial satellite launch, to a project measuring tropical rainfall, KMR has a challenging and rewarding calendar of events coming up. Minuteman III and Peacekeeper operational test missions and many thousands of space tracks add to a very busy and eventful year.

Integrated Flight Test Program, or IFT-3

The Integrated Flight Test Program, sponsored by the National Missile Defense Joint Program Office, will proceed to the next level this year with two KMR tests designed to hit and destroy an incoming ICBM target missile launched from Vandenberg AFB, Calif. with an exoatmospheric kill vehicle launched from Meck Island. Previous IFT tests at the KMR have demonstrated the capabilities of sensor designs and technology in "fly bys" rather than intercepts.

"The missions will also provide an opportunity for developmental test and evaluation of the Ground Based Radar-Prototype, or GBR-P, and Battle Management, Command, Control, and Communi-

cations, two elements of the NMD system," according to Maj. David Latham, KMR test director for the program.

Other elements of the NMD/JPO mission include both ground-and space-based early-warning sensors. All of these elements will undergo developmental and operational tests in the NMD test program at KMR, Latham said.

Almost every organization at USAKA/KMR is involved in support of the mission, including telemetry at Roi-Namur, Gagan, and Ennylabegan; Kwajalein MPS-36 radars; and KREMS radars, TRADEX, ALCOR, ALTAIR, and MMW. In addition, RADOTS and Super RADOTS at Roi-Namur, Gagan, Legan, and Kwajalein track the payload launch vehicle. Other support organizations include range safety, photo lab, marine and aviation, weather, and police departments.

Tropical rainfall measurements

This summer the Kwajalein Missile Range will support the Tropical Rainfall Measuring Mission, a U.S cooperative program with Japan that will elicit worldwide attention and interest. A group of as many as 140 scientists, meteorologists, and support personnel from seven countries or more will arrive on Kwajalein this summer to gather special meteorological data. The mission involves NASA, a joint U.S. and Japanese satellite, ground-based sensors, an NOAA ship, and research aircraft.

The contribution of tropical rainfall to the atmosphere's energy budget is important, but it has not been well mea-

Kwajalein Missile Range Kwajalein Missile Range Kwajalein



Operators at the Range's Mission Control Center (KMCC) provide centralized command, control and communications for Range assets during missions.

sured. Surface measurements are difficult because of the high variability of tropical rainfall and the scarcity of observations over the vast ocean and jungle regions of the tropics. Advances in technology now make it possible to obtain high fidelity and more representative measurements from space.

The Tropical Rainfall Measuring Mission satellite was launched in 1997 carrying aloft the world's first space-borne precipitation radar in addition to other instruments. It conducts systematic measurements of tropical rainfall required to more accurately quantify its role in the global energy budget. This will lead to an improved understanding and capability to predict global climate changes.

Kwajalein's polarized Doppler weather radar and the automated rain gauges around the atoll have been providing support for the program for several years, correlating ground-based information with that of the TRMM satellite. The summer experiment will provide a dataset of complementary intensive observations from other atmospheric sensors to further refine the accuracy and utility of the satellite data. According to Elliott Moseley, KMR test director for the project, Kwajalein is the only site used to collect data over the open ocean in the tropics.

TMD Critical Measurements Program, or TCMP

Theater Missile Defense also has a mission scheduled for KMR in 1999. TCMP-3A follows a campaign of highly

successful flight tests in 1996 and 1997. According to Les Jones, KMR test director for TMD, a missile will be launched from Wake Island, about 865 miles north of Kwajalein, toward an impact point in the ocean northeast of Meck Island.

KMR will collect metric and signature data on a reentry vehicle, fuel venting and dumping experiments, and debris resulting from the segmentation of an exoatmospheric vehicle. The data collected from the launch and tracking of TCMP-3 will increase the signature database on threat-like theater ballistic missile targets. Jones said the information is critical to development and improvement of each service's TMD elements.

All mission capabilities of USAKA/KMR will participate, including technical operations at Wake Island and the KMR Mobile Range Safety System *Worthy*.

Commercial satellite launch

KMR's first commercial customer, Orbital Sciences Corporation, plans to place eight ORBCOM-4 Satellites in orbit this fall, using their Pegasus spacecraft fitted under an L-1011 aircraft. The L-1011 will fly from KMR to an altitude of about 38,000 feet in an area near the equator, where it will launch the Pegasus.

KMR will provide safety coverage and collect telemetry data.

According to Maj. Robert James, KMR test director for the mission, this is the first scheduled OSC-KMR missions in 1999 with the possibility of a second later in the year. "This could be the start of a long association," James said.



KREMS radar complex (L-R) ALCOR, TRADEX, MMW, and ALTAIR support most of KMR test programs.

ICBM testing

The Air Force plans five intercontinental ballistic missile missions in 1999 (one Peacekeeper and five Minuteman III tests) according to James, who is also KMR's test director for ICBM testing.

KMR will use radars from Kwajalein and the KREMS suite at Roi-Namur to track reentry vehicles and will collect telemetry from both reentry vehicles and launch vehicles. KMR optics resources will gather additional data on the reentry vehicles to aid in the assessment of system accuracy and reliability and evaluate various subsystems.

The missions are part of the Air Force's force development evaluation effort to keep the U.S. strategic missile inventory up-to-current and ready, James said.

Space tracking

ALTAIR, KMR's highly sophisticated deep-space and near-Earth tracking radar, supports NASA and U.S. Space Command with tracks of domestic and cooperative launch programs, as well as launches of missiles from most Asian countries. ALTAIR provides data on virtually all activity in space with more than 40,000 space tracks each year.

Family member read her way to England, Wales

by LuAnne Fantasia
Huntsville, Ala.



(Courtesy photos)

Ashley Smith earned an adventure of a lifetime when her winning essay about the importance of newspapers took her to England and Wales in April. She is pictured here in front of the Cardiff Castle in Wales.



Ashley met Lord Mayor Councillor Marion Drake at the Cardiff Castle. The portrait in the background is one of the late Princess Diana.

Ashley Smith said reading newspapers is even more interesting to her now.

Ashley is the 14-year-old daughter of Roz Smith, a civilian employee in the Ballistic Missile Targets Joint Project Office here.

She's a cheerleader and an honor student who doesn't have a lot of time for television, but made the time to read 200 newspaper articles and to write an essay about the importance of newspapers in a community.

For that winning essay, Ashley earned a week's all-expenses paid trip to England and Wales last month.

"I was nervous at first, but once we started getting to know each other, it was a wonderful trip," she said.

Ashley was one of 100 young people from across the U.S. who won in the Young Columbus essay contest, sponsored by their local newspapers, and *Parade* and *React* magazines.

"We did so much together, and in different groups, that we all got to know each other," she said.

"I met a dude from Michigan who liked my Southern accent. They all laughed at

how I say y'all. But, that's okay, because all of us spoke in our own way."

The second day after arriving in London, Ashley and her new friends went to Cardiff, Wales, where they met Lord Mayor Councillor Marion Drake at the Cardiff Castle.

"She told us all about the city and what we would see on the tour that day," Ashley said. "She congratulated us for earning our way there. Everywhere we went the people were great...and very kind."

Ashley's trip included dinner with a Welsh choir, a banquet at the Cardiff Castle, a tour of Oxford University, a visit to both St. Paul's Cathedral and the Tower of London, watching the changing of the guard at Buckingham Palace, and of course...a shopping spree at the world-famous Harrods.

The American teenagers experienced everything the brochure promised, including different cuisines.

"The food was...well, awful," Ashley said, "and I was so happy to get home to pizza and hamburgers!"

Furr plans and incorporates space requirements

Story and photo by Melva Tillar
Colorado Springs, Colo.

"He's an icon around here," said Lt. Col. Bob Simmons, chief of the operations division here. He speaks of William "Bill" Furr, who is chief of the space requirements and policies branch, in the plans division. Simmons is Furr's former boss.

Max Delgado of the plans division echoes Furr's credibility. "Bill is consistent in taking care of troops. He bends over backwards to help most anyone in their efforts," Delgado said. "He will stop and roll up his sleeves to assist anyone in need, and is *family first* with peers and subordinates.

Furr was commissioned in the Army from the University of Colorado into the Military Intelligence career field in May '82. Following eight years of active duty, he went to the 19th Special Forces Group with the Colorado National Guard, as a detachment commander. Furr is currently a reserve officer with U.S. Space Command.

As a supervisory military analyst for space systems, Furr coordinates Army issues and positions with the U.S. Space Command staff, to make sure Army needs and requirements are incorporated into joint plans and policy. He also coordinates with his major command—the U.S. Army Space and Missile

Defense Command—to develop Army Space participation into the U.S. Army Training and Doctrine Command's *Army After Next* sequence of wargames.

"Given the current and future explosion of space and space exploration by commercial and Department of Defense systems," Furr said, "I believe the Space and Missile Defense Command and Army Space need to be on the forefront in ensuring Army needs and requirements are identified and incorporated into future satellite design."

He said the Army is a major user of space-related products and services such as weather, position and navigation, intelligence, earth resource monitoring, and warning.

"Therefore, we should play a significant and active role in ensuring the Army ground components receive accurate and timely support as they prosecute the battle," he said.

Looking ahead, Furr says that, within the next decade, governments and private firms plan to launch an additional 1800 satellites to the already 525 functioning satellites in orbit today.

"We need to take an active approach towards ensuring the protection of these vital space investments," he added.

And to accomplish that mission, Furr said that tak-

ing an active role in the Space Control mission will ensure our ability to exploit space, while limiting our adversary's ability to do the same.

He is an active community volunteer for his church and the Park and Recreational Youth Center, who enjoys

participating in outdoors sports. He and his wife, Juanita, have two daughters. As the son of German parents, he is fluent in the [Deutsch] language.

"Bill comes across as rather gruff and hard charging, but he inspires lots of loyalty from his troops in Plans," said Miller Belmont in the Plans Division.

The chief of that division, Lt. Col. Bill Tanner, said, "Bill is a professional. He is dedicated, intelligent and disciplined, and his leadership style encourages his people to be the best."



William Furr

Former historical office wins two awards

by Sharon Watkins-Lang
Huntsville, Ala.

Two products of the command's Research Branch recently won awards in their particular fields.

The command's exhibit at the U.S. Space and Rocket Center here received a Citation of Excellence from the Tennessee Valley Awards Advertising Federation, or TVAF. A second product, the video, *The High Ground of Freedom*, produced for the 40th Anniversary of the Space and Strategic Defense Command, was awarded a Silver Telly Award.

Britt Communications, the design and support contractor for the command exhibit earned a Certificate of Excellence at the TVAF's mid-March Addy Encounters meeting. District winners are forwarded to the national competition sponsored by the American Advertising Federation. The TVAF is a not-for-profit organization, established 26 years ago. Their objectives are: striving for the betterment of advertising in all fields; establishing excellence in advertising; and assisting and promoting public service causes.

Representatives of NASA's Marshall Space Flight Center Audio and Video

Operations group submitted the film *The High Ground of Freedom – SSDC's 40th Anniversary* to the 1998 Telly Awards. The Silver Telly was awarded in the category of Anniversary and Commemorative Productions to Michael Arrington, Writer; Anthony Orton, Producer; and James Walker, Historical Advisor. Created in 1980, the Telly Awards seek to showcase and give recognition to non-network and cable commercials, film and video productions. In 1998, there were over 10,300 entries. A panel of judges evaluated each entry and assessed them on a 10-point scale, therefore entries do not compete against each other but rather

a quality standard. The Silver Telly is awarded to those productions earning nine or 10 points.

The Telly Awards are affiliated with the Center for Creativity, an organization that sponsors seminars and publications for those in the fields of creative communications. Included among the previous year's winners are the History Channel, the Learning Channel, the Discovery Channel, the U.S. Air Force, and the U.S. Navy.

(Sharon Watkins-Lang is a historian in the Research Branch [formerly the Historical Office], Deputy Chief of Staff for Strategic Planning and Analysis.)



The command's safety team works hard to educate soldiers and employees about the risks involved in their jobs and daily lives. Pictured here are (front and center, then counterclockwise) Joe Klevorn, Marilyn Williams, Max Tomlin, Stephanie Lorge, Stephanie Wacenske, and Tom DeLong. Other team members not pictured are Ken Messerich, Patricia Vittatow, Ed Krupko and Bryan Wheelock.

Command nabs Army's highest safety award

Army Chief of Staff recognizes SMDC's reduction in injury, accident rates

Story and photo by LuAnne Fantasia
Huntsville, Ala.

Whether it's taking care when moving boxes and furniture, walking across the parking lot after an ice storm, driving our cars, testing insensitive munitions or analyzing missile system design for potential failure modes, it's a safety issue for Max Tomlin's group here.

Tomlin wears two hats: He is chief of the command's Safety Office, as well as chief of the Safety Engineering Division of the Missile Defense and Space Technology Center. Tomlin's staff of safety engineers make a lot of things their business and they do it to keep the rest of the command as safe and healthy as possible. In part due to their dedication, the command recently earned the Army Chief of Staff's Major Command Safety Award for a notable reduction in injuries and accidents in the command for three consecutive years.

Tomlin attributes that record not only to his staff's education efforts of soldiers and employees, but gives much of the credit to supervisors.

"I think it can be attributed to a raised level of consciousness and caring by leadership and supervisors," Tomlin said.

"One pair of eyes cannot see all potential problems, so when supervisors everywhere become more aware of their employees' actions, the number of incidents decline and safety records improve."

But there are some risks that must be accepted as part of doing business, Tomlin said. "We want informed leaders making risk decisions at the appropriate authority level. We strive to identify hazards, assess their risk in terms of probability and severity and determine what controls can be done to eliminate, control or accept the risk if the cost to remedy outweighs the benefit."

The SMDC safety team gives the

same attention to everyday potential accidents—such as automobile accident prevention—as they do to hazards tracking in the command's national and theater missile defense programs.

Safety Engineer Tom DeLong said, "Among enlisted soldiers, privately owned vehicle accidents are the leading cause of death."

He said that commanders have started preventing some POV accidents via the timing of their soldiers' leave, which sometimes forces soldiers to get a night's sleep after long exercises or maneuvers before they drive out on pass or leave the next morning.

"More often fatigue is the cause of a soldier's automobile accident," DeLong said.

He added that commanders are also identifying their high-risk soldiers, and units sometimes provide complimentary vehicle inspections in the motor pool before soldiers set out on long trips, especially holiday weekends.

Other initiatives Tomlin's group has pursued to reduce incident figures are established safety policies, safety training for supervisors, ergonomics analysis and working closely with the command's labor and management partnership council, a combined hazard classification and insensitive munitions program, and system safety engineering support.

"We work directly for the program managers to aid in identifying all hazards associated with their systems," Tomlin said, "and our combined hazard classification and insensitive munitions program saves program managers money on test article assets and testing costs."

Tomlin said his team hopes that recognizing risks at the work site carries over into soldiers' and employees' personal lives; that safety awareness becomes a mindset... a way of life.

"The well-being of our people is our priority," Tomlin said.

Quality Research Inc., named region's prime contractor of the year

by Christine Smith
Huntsville, Ala.

The U.S. Small Business Administration selected Quality Research Inc., of Huntsville, Ala., as the Southeast Region's 1999 Small Business Prime Contractor of the Year.

Quality Research Inc., was nominated for the 1999 SBA award by the U.S. Army Space and Missile Defense Command.

"We nominated Quality Research for this award based on our knowledge of the company's growth and performance over the last several years," said John H. Ralls, Jr., associate director for the command's Small and Disadvantaged Business Utilization, or SADBU.

Quality Research was selected over 22 other nominees from Region IV which includes Alabama, Tennessee, Kentucky, Mississippi, North Carolina, South Carolina, Georgia, and Florida. The nominees are both com-

mercial and government sources and the nominated firms are involved in many different types of businesses.

Each year the SBA honors small business firms nominated to be Small Business Prime Contractor of the Year and Small Business Subcontractor of the Year. Since 1967, awards commemorating this honor have been presented to the selected small business firms as a joint government and industry project.

Quality Research received its SBA 8(a) certification in 1992, which has fostered the company's exceptional growth. The company's expertise is in high-tech information technology, modeling and simulation, independent verification validation and accreditation, lifecycle software engineering support, and system engineering and analysis. Quality Research currently has several 8(a) contracts at SMDC.

The company has gained an outstanding reputation for technical excellence and customer service in the community. Last August, Quality Research won its

first major competitive award, with the command's Information Management System contract for a total of \$75 million.

"To win a competitive small business set-aside contract of that magnitude was a significant achievement for an 8(a) firm," Ralls said. "The recognition in receiving this prestigious SBA award will make Quality Research even more competitive."

The SBA uses the following criteria for the award: management, financial stamina and controls, labor relations, customer interface, technical capabilities, resource utilization, cost performance, delivery performance, quality performance, and special achievements.

The company now competes with seven other U.S. regional winners for the national award. That award will be presented by SBA's administrator, Aida Alvarez, during the 32nd Annual Joint Industry and SBA Small Business Procurement Conference and Awards Banquet next month in Washington, D.C.

Gentle: dedicated, professional manager



Dr. Linda Gentle sat at the controls of a NASA space shuttle during a visit earlier this year to the Johnson Space Center in Houston, Texas. Gentle is the deputy director of the U.S. Army Space and Missile Defense Command's Acquisition Center, which includes two test facilities, two project offices, and one program office.

Story and photo by LuAnne Fantasia
Huntsville, Ala.

Space and missile defense is a tough industry to delve into, and the Defense Leadership and Management Program is a tough venture to get accepted into. Dr. Linda Gentle is succeeding in both.

"I'm excited about being part of the Army's role in space and missile defense and about associating in a work environment with leaders who are focused on these roles for the Army After Next," Gentle said. Last November, she became the deputy director of the Space and Missile Defense Command's Acquisition Center in Huntsville. Gentle is the only Huntsville member of the first DLAMP class, fiscal year '98. (See DLAMP related article below.)

"My professional career has been in the acquisition arena," Gentle said, explaining that, with 27 years in civil service, her specialty has been contracting and program management. She's certified Level III in both fields by the Army Acquisition Corps. She also has an earned doctorate in business administration.

In the DLAMP, Gentle's development program required her to broaden her perspective by seeking an assignment outside her occupational specialties.

"I interviewed with several military organizations. SMDC offered an opportunity my mentor and I considered to be the best and most exciting in the position of deputy director to the Acquisition Center," she said.

Gentle reports directly to Brig. Gen. Steven Flohr, the command's deputy commanding general, and director of the Space and Missile Defense Acquisition Center.

Although the center's hub is here, it encompasses two test facilities, two project offices, and one program office across the command.

Gentle explained the acquisition center implements the command, Army, and Joint Visions 2010, as well as DoD's acquisition streamlining objectives, with its transition to a new flexible and adaptable way of doing business.

"The command's major subordinate elements work much closer than project executive offices I've been associated with, probably because we have more commonalities," Gentle said.

"There is opportunity here for more program synergism, and I appreciate the command focus in pushing us [the MSEs] to work toward that goal. We can all be better together."

Gentle urges SMDC employees to take advantage of the rotation opportunities provided by the Army Acquisition Center.

"Professional rotations lead to challenging, diverse assignments that offer growth, and broaden

one's perspective while enhancing the goals and objectives of the command, the Army, and DoD," she said.

A people person

Gentle advocates mentoring, and was one of the first official mentors for the graduate interns in the DoD and Army Acquisition Corps Graduate Program.

"When I previously worked for General Flohr, he spoke of his mentor, which was of particular interest to me," Gentle said. "The military does an excellent job of mentoring."

Not many civilian employees, and particularly women, have availed themselves to opportunities of mentoring. A step toward mentoring is networking. We need to reach out to others via networking and mentoring."

Mentoring is a trust relationship, she said. It offers people the opportunity to discuss career goals, wishes, and desires with a senior person who may be able to provide insight and guidance into career potential and alternatives.

She believes in cohesiveness and team building. "My job as deputy director is to make the staff look good, to mentor, coach, and groom them. I share knowledge and experience so they can do their job better. I delegate tasks, then let them do them. I don't micromanage," she said. "In turn, they will then make me look better and also make my job easier."

Personally speaking

On a more personal note, Gentle's cousin recently discovered that their great-grandmother was a suffragette who marched for the right to vote in Washington, D.C., in the early 1900s.

When questioned why no one knew this, an aunt replied, "Mother would not have discussed this with the family because she would have been embarrassed. Women were not supposed to do things like that."

Gentle said her best role model has been her mother, an entrepreneur of her local family accounting office for more than 30 years.

"She increased the business after my father's death, long before woman-owned-business was in vogue," Gentle said. Her mother, Mildred Moorehead, who is beyond typical retirement age, still works every day.

Gentle, a third-generation Huntsvillian, is currently remodeling an historic Huntsville house, where (when historically correct with 1990's conveniences) four generations of her family will live: Moorehead, Gentle and her husband, one of her three children, and a seven-year-old grandchild she is raising.

Program prepares civilians for bright future

by Douglas J. Gillert
American Forces Press Service

WASHINGTON — The Pentagon is shining a light on its brightest civilian prospects, growing future leaders through a comprehensive program of training, education and development.

In 1996, DoD established the Defense Leadership and Management Program, or DLAMP, in response to recommendations by the Commission on Roles and Missions. Initially aimed at GS/GM-14s and 15s, DLAMP enrolled 297 employees in May 1997 and 343 last year. For fiscal 1998, DLAMP expanded to allow GS-13 participants and will eventually include high achievers at the GS-12 level.

Two classes will be admitted this year, including 350 for the Class of 1999 (this month) and a similar number for the Class of 2000 when the starting date is moved to December.

"DLAMP is an extremely creative venture," said Diane Disney, deputy assistant secretary of defense for civilian personnel policy. "It's designed to develop civilians for the top 3,000 leadership positions within the department. Essentially, it applies developmental principles in the Goldwater-Nichols Act to the civilian workforce for the first time."

Those 3,000 positions represent roughly one-tenth of civilians in grades 14 and above, responsible for people, policy, programs and other resources of broad significance. Many of the positions support joint warfighting strategy, policy, plans and operational management. Graduates of the DLAMP will become the primary source for filling these positions, Disney said.

Generally at the GS-13 level, DLAMP participants receive a rotational assignment of one year or longer outside their occupation or component. "This is

designed to broaden their perspective while they are still fairly young in their career," Disney said.

Those in grades 14 and 15 take part in professional military education. This is done either through 90-day professional

Military education courses at the National Defense University or through 10-month programs at one of the senior service schools. Seventy-four DLAMP students are currently enrolled in 10-month programs to graduate next month. A similar number will start the 10-month program in August. Both groups of participants are required to complete advanced level graduate courses.

Since February 1998, 291 participants have completed at least one of the 14 DLAMP courses. Upcoming classes range from economics to human resource management, finance and accounting, management information systems, quantitative tools, public policy and electives.

Disney said the program takes an average of six to seven years to complete. Enrollees must complete at least 10 graduate courses and may need as many as 20 courses, depending on their previous schooling, she said. In order to continue in the program, participants must be recertified annually.

Applicants for DLAMP must submit a package containing their resume and educational history. They must describe how they meet DLAMP evaluation criteria, including Office of Personnel Management executive core qualifications and criteria. Details of the program and application process are available on the Internet at www.cpms.osd.mil/dlamp.

A council chaired by the assistant secretary of defense for force management policy oversees DLAMP. Disney serves as the Council's executive secretary. DLAMP's office is located in the Civilian Personnel Management Service.