

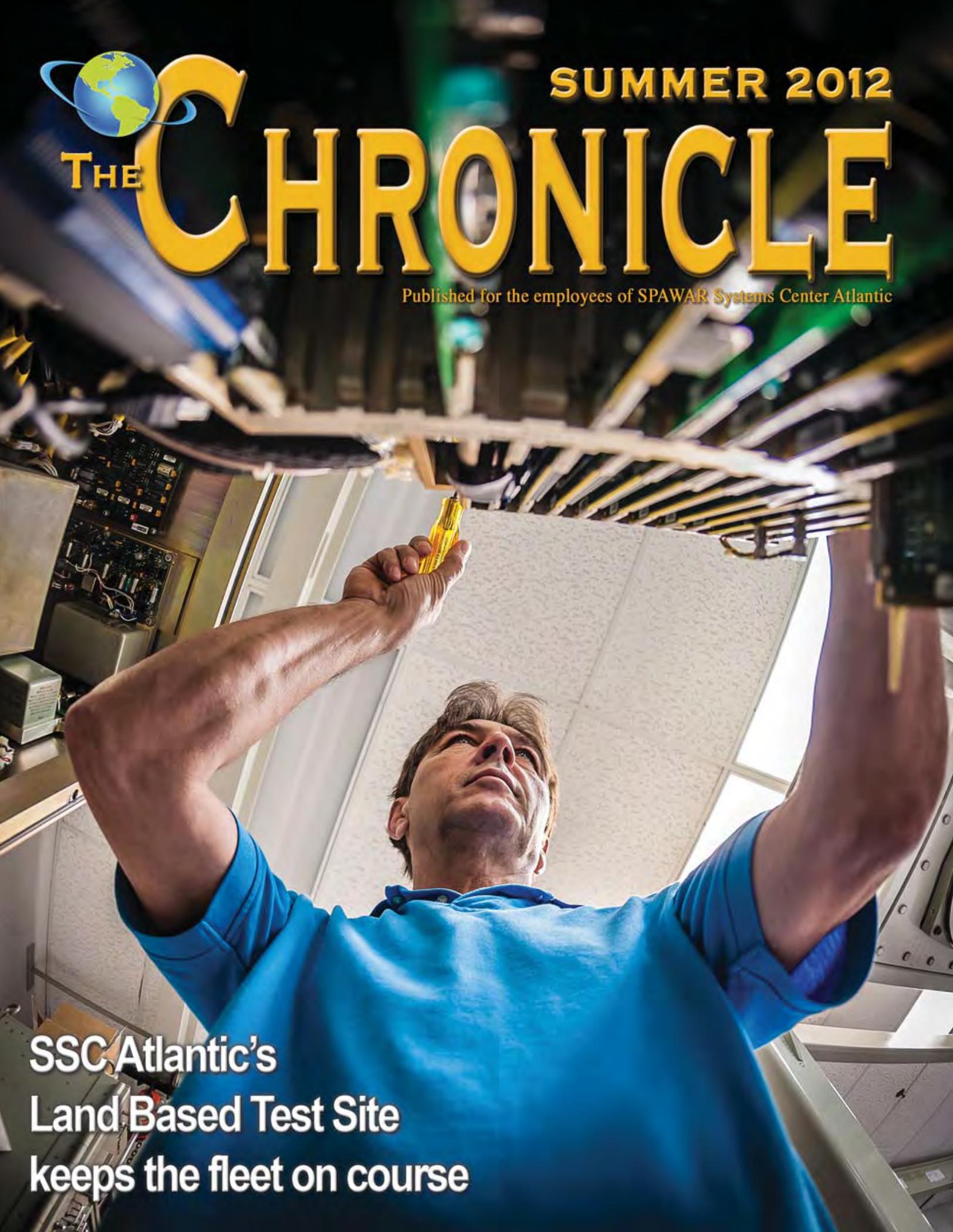


SUMMER 2012

THE

CHRONICLE

Published for the employees of SPAWAR Systems Center Atlantic



SSC Atlantic's
Land Based Test Site
keeps the fleet on course

From right, U.S. Senator from South Carolina Lindsey Graham, Deputy Secretary of Defense Dr. Ashton Carter and SSC Atlantic Commanding Officer Capt. Mark Glover lead the way as Congressional and government visitors enter the ATC building for a tour June 18. See page 4. Photo by Joe Bullinger.



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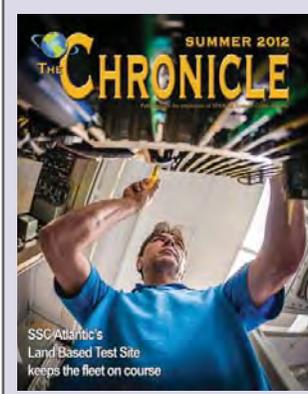
SSC Atlantic's Land Based Test Site (LBTS) tests and evaluates navigation systems prior to shipboard installation.



Photo by Joe Bullinger

Members of the Adande African Drum and Dance Company display the high level of energy and rhythm that is distinctive of their art form during an event celebrating "Harmony in a World of Diversity" May 9. See page 36.

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On the cover
Mike Masching works on the AN/WSN-7 in SSC Atlantic's LBTS at Little Creek, Va. Complex navigation systems are not installed on Navy ships until the LBTS team performs engineering and testing. See story on page 6. Photo by Joe Bullinger.




**Systems Center
ATLANTIC**

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Commanding Officer.....Capt. Mark Glover
Executive DirectorChristopher Miller

SSC Atlantic
Mission, Vision and Values

Mission: To rapidly deliver and support solutions that enable information dominance for our Naval, Joint, National and Coalition Warfighters.
Vision: Make IT Count for the Warfighter and the Nation.
Values: Service to our country, Excellence and Credibility, Transparency in the way we conduct our business, Responsiveness and Accountability, Diversity and Teaming.



Goals

Strategic effects that provide innovative solutions for today, tomorrow and beyond.
Operations management that delivers solutions with quality, speed, agility and value.
Organizational development that empowers each individual to make a difference.

The Chronicle is a quarterly publication designed for SSC Atlantic employees. Its purpose is to inform, educate, entertain and generate new ideas.
Contents of *The Chronicle* are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, the U.S. Navy or SSC Atlantic.

EditorSusan Piedfort

Command PhotographerJoe Bullinger



CAPTAIN'S CALL

CAPTAIN MARK GLOVER, USN
SSC ATLANTIC COMMANDING OFFICER

WHAT A YEAR IT HAS BEEN!

It's hard to believe it was a little less than one year ago that I stood before you at the change of command and said how truly excited I was about the opportunities ahead. In my first few months here I often commented that it was a lot like drinking water from a fire hose. Now, after a year as your commanding officer, and with my family well settled, we are convinced there's no place we'd rather be.

There has not been a day in the last year that I have not been impressed with the incredible scope and importance of your work to make IT count for the warfighter, help the Navy with business such as pay and benefits, and deliver cyberspace and cyber warfare solutions. From the day-to-day activities at our sites stateside and around the world, to going to schools to talk to students, to playing wheelchair basketball with the North Charleston Hurricanes, I have enjoyed it all. In my travels this past year to Hampton Roads, New Orleans, Washington, Tampa and European Command (EUCOM,) I never cease to be amazed at the accomplishments and dedication of our world class team. Here are just a few of the things I'm proud of:

Data Center Consolidation. Since it opened in October 2011 our new data center is playing a vital role in consolidating Navy data centers to increase effectiveness and efficiency. This facility provides the Navy a state-of-the-art platform that allows us to support significantly more work without sacrificing service or capability to the warfighter. Our New Orleans data center also reduces cost by consolidating heterogeneous hardware, software, network, admin, engineering and information security services into single, integrated service provider.

Vehicle integration. After more than five years, 30,000+ vehicles integrated and countless warfighter lives saved, we are winding down our integration efforts for Mine Resistant, Ambush Protected (MRAP), MRAP All-Terrain Vehicle (MATV) and the family of MRAP vehicles. Our award-winning integration team prototyped and installed a full complement of C4ISR systems in each vehicle, collaborating with other military agencies to ship them to warfighters from all U.S. military services to give them information dominance over their enemies.

WAP. This past year we, along with SSC Pacific, reviewed each center's work acceptance processes. Our new Work Acceptance Process (WAP) ensures rigor and formality between the time of customer interaction on new/changed work and acceptance of that work. The WAP ensures that our command remains focused on work aligned to our vision, mission and information dominance goals and that we continue to provide world class IT solutions to the warfighter.

FRD stand up. We aligned our fleet support and maintenance efforts under the SPAWAR Fleet Readiness Directorate (FRD), which stood up late last year to provide a flag focal point for sustainment and installation issues. The FRD seamlessly delivers superior capabilities to the fleet and provides a single systems command (SYSCOM) point access for C4I maintenance/repair/sustainment issues. Bottom line, it helps us support the fleet (N43 and N6) and our other stakeholders better.

Officer-in-Charge assignments. I assigned Cmdr. Tim Rafferty as Officer-in-Charge (OiC) at SSC Atlantic's New Orleans site to act as the primary interface with stakeholders on issues there and to work closely with our competency leads and portfolio managers. I'll also establish OiCs at our National Capital Region and Hampton Roads locations to help strengthen our alignment with Commander 10th Fleet and the FRD, respectively.

Veterans Affairs. Our Chapter 33 Post-9/11 GI Bill Long-Term Solution team delivered an automated IT capability to the Department of Veterans Affairs that has assisted more than 726,665 veterans and warfighters in realizing their educational goals and receiving \$18.3 billion in education benefits. This has enabled the VA to efficiently process, administer and manage the delivery of educational benefits to service members, veterans and their beneficiaries attending college under the Post-9/11 Veterans Educational Assistance Act of 2008.

There are many other things we are doing for warfighters ... fleet installs, Internet cafes, Common Submarine Radio Room (CSRR), Containerized Air Surveillance Radar (CASR) systems (seven of them) installed in hostile loca-

Continued on page 21

Rafferty assumes charge in NOLA

Cmdr. Tim Rafferty became Officer-in-Charge of SSC Atlantic's New Orleans site during an assumption of charge ceremony June 28.

As Officer-in-Charge Rafferty reports directly to SSC Atlantic Commanding Officer Capt. Mark Glover as he works closely with competency leads and portfolio managers to deliver effective, affordable capabilities to the warfighter. He also ensures command policies and regulations are carried out and serves as the primary interface with stakeholders on New Orleans issues.

"Establishing an Officer-in-Charge in New Orleans enables us to work together seamlessly on our shared priorities to keep the fleet ready to fight and build information dominance technical authority," Glover said.

Rafferty comes to New Orleans after serving as SSC Atlantic's Logistics and Fleet Support Competency Lead (4.0) in Norfolk, Va. There, he and his team provided the fleet all the day-to-day support needed to enable information dominance.

A Latrobe, Penn., native and 1992 graduate of The Ohio State University, Rafferty also holds a master's degree in acquisition and contract management. His sea assignments have been on **USS Milwaukee (AOR 2)**, **USS Caron (DD 970)**, **USS Monterey (CG 61)**, **USS Mitscher (DDG 57)** and **USS Briscoe (DD 977)**. He completed several deployments in support of Operations Iraqi Freedom, Enduring Freedom and the Global War on Terrorism.

He has also served as Intermediate Maintenance Project Officer for Commander-in-Chief, U.S. Atlantic Fleet Maintenance Directorate Staff, Assistant Surface Operation and

Scheduling Officer for Carrier Group Four, Executive Officer for Mobile Security Squadron 6 and Operations Officer for Combined Task Force 53 in Manama, Bahrain.

"There's no doubt we will encounter challenges along the way that will require all of us to apply our unique skills. However, if we work together, we can create something that is special. We will succeed because we have good people... and I have confidence that we will answer every challenge, continue to develop and improve the technology we deploy that supports and protects our warfighters," Rafferty told the assembled workforce as he assumed charge.

The SSC Atlantic New Orleans site has evolved greatly in support of the Navy since 1986 when it was the Information Systems Office for Commander, Naval Reserve Force, supporting only Naval Reserve manpower, personnel and supply applications. The New Orleans team continues its focus in the major mission areas of manpower, personnel, training and education for the Navy and Navy Reserve in programs such as the Navy Standard Integrated Personnel System, which is the Navy's primary business solution for human resources management; the Medical Readiness Reporting System; and Career Management System/Interactive Detailing.

They engineered and maintain NAVFIT98A -- the application Sailors use to prepare Enlisted Evaluations and Officer Fitness Reports. The New Orleans team also delivered a major enhancement to automate the Navy's enlisted promotion process, which affects some 42,000 active and reserve Sailors annually for enlisted selection boards.

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Photos by Joe Bullinger

Above, more than 150 guests gathered June 28 for the assumption of charge ceremony which established Cmdr. Tim Rafferty as Officer-in-Charge of SSC Atlantic's New Orleans team. At right, Rafferty salutes SSC Atlantic Commanding Officer Mark Glover after reading his orders during the traditional naval ceremony.





Congressional, Pentagon visitors

SSC Atlantic hosts VIPs

SSC Atlantic hosted South Carolina's senior U.S. Senator Lindsey Graham; U.S. Representative for the First District of South Carolina Tim Scott; Deputy Secretary of Defense Dr. Ashton Carter, and Secretary Sean Stackley, Assistant Secretary of the Navy for Research, Development and Acquisition, June 18.

During briefs and tours of the MRAP/M-ATV integration facility, the Common Submarine Radio Room and Air Traffic Control





facility, the SSC Atlantic team demonstrated how the center makes information technology count for the warfighter. The visitors also received a brief on backup mobile communications capabilities provided to the fleet, and SSC Atlantic's support to the VA, including the Post 9/11 GI Bill and Veterans Benefit Management System.

Before departing, Graham and Carter addressed the workforce, with Graham noting how SSC Atlantic helps save warfighter lives by integrating technology into MRAP vehicles, and improves warfighters' quality of life by connecting them with their families through the fielding and support of Internet cafes.

Carter discussed the importance of being agile to enable speedy technology changes, the need to constantly seek the best value for every dollar spent, and the value of using employees' skills to make the transition from addressing current security threats to overcoming future threats.

While in Charleston, Stackley took the opportunity to present the Assistant Secretary of the Navy (Financial Management and Comptroller) Trainee Award to Virginia Allen, a Business Financial Manager in the Business/Resource and Financial Management (1.2) Competency, pictured at right, second from top.



Photos by Joe Bullinger



LBTS Lab Lead Brad Sheffer takes readings on the AN/WRN-6 receiver.

Photos by Joe Bullinger

Nav lab keeps ships on course

More than 4,000 years ago the first Western civilization known to have developed the art of navigation at sea, the Phoenicians, used primitive charts and observations of the sun and stars to determine directions.

Today, sophisticated inertial navigation systems, such as the AN/WSN-7/7A Ring Laser Gyro Navigator (RLGN) and the AN/WSN-7B Ring Laser Gyrocompass (RLG), automatically and continuously calculate and indicate a ship's position, attitude, heading and velocity data to ship navigation and combat systems.

After these complex systems are fabricated and assembled by the manufacturer, they aren't installed on Navy ships until an SSC Atlantic team performs system of systems engineering, data analysis, in-service engineering and final acceptance testing to ensure the navigation systems meet all the needs of the warfighters.

Since 1996, SSC Atlantic's Land Based Test Site (LBTS), located on Joint Expeditionary Base Little Creek-Fort Story, Virginia Beach, Va., in the Tidewater region, has tested and delivered for installation every AN/WSN-7/7A and AN/WSN-7B provided as Government Furnished Equipment (GFE) to the U.S. Navy fleet, Foreign Military Sales (FMS) vessels and shore facilities.

The LBTS is part of SSC Atlantic's Platform, Installation and In-Service Engineering Agent (ISEA) (PII) portfolio. Tim Walker of Code 525B0 is the Tier 4 competency lead for the LBTS and provides resources to Navigation and Geospatial Information and Services (NGIS) IPT Lead Robert

Greer of 62200. On a daily basis the LBTS is utilized by 525B0, 52570, and 41130 personnel in support of the NGIS IPT as the Navigation In-Service Engineering Agent (ISEA) and Technical Design Agent (TDA) for Program Executive Office Integrated Warfare Systems (PEO IWS) 6.0.

Though only six members strong, the LBTS team provides immense capability to the fleet. Rob Zickau, Code 525B0, manages the lab and directly coordinates all activities, providing expert technical knowledge and direction to the team.

Project Manager Joe Lenzini manages lab personnel and is the direct liaison with the SPAWAR customer. He works closely with Zickau to establish LBTS testing schedules and to ensure all fleet requirements are met.

Lab Lead Brad Sheffer provides daily direction in getting the systems set up and installed at LBTS, and coordinates the testing plans. He also maintains the production schedule, provides LBTS status reports and analysis test data, and interfaces with outside contractors. He is instrumental in identifying the proper operation of the RLGN Inertial Measuring Units (IMUs) by reviewing the IMU performance graphs that are collected on every IMU cycled through LBTS.

Mike Masching is the lab's main technician, ensuring the systems are electrically sound and operating in accordance with LBTS test procedures. Masching performs system testing and repair, and special testing as needed, and he provides support to other labs via telephone or onsite visits.

"Both Mike and Brad are very proficient in all types of

cabling and connectors,” said Walker. “Both are capable of performing any and all testing with the RLGN and RLG.”

Donald Andrus provides full logistics support for LBTS, including the continuous updating of the AN/WSN-7 Information Tracking System for all components in the RLGN/RLG, including component revisions. Andrus also ensures all Virginia class RLGN systems are bar-coded prior to delivery of the systems to the Electric Boat Command-and-Control Off-Hull Assembly and Test Site (COATS) facility. He coordinates shipping and receiving, appropriates repair parts and supplies, and provides configuration data to field service technicians.

To date, the team at this all-encompassing Navigation facility has received, tested and delivered for installation more than 342 RLGN and RLG systems (510 individual cabinets) for U.S. surface ships and submarines, foreign ships and shore facilities. For each system, they perform a thorough physical inspection and inventory of all components, then conduct an intensive battery of tests to ensure each unit meets its full performance specification. Each unit is powered up and subjected to a battery of tests that include initial performance testing, and 14-day inertial performance runs for



The lab's 3-axis Scorsby motion table can simulate all possible at-sea conditions and supports the dynamic testing of the systems in the full design range of roll, pitch and heading.

the RLGN. The lab's 3-axis Scorsby motion table can simulate all possible at-sea conditions and supports the dynamic testing of the systems in the full design range of roll, pitch and heading. All these tests are made before the units are installed aboard ship.

In the LBTS they also test all unit interfaces as well as proper interface operation by using the actual shipboard peripheral equipment that is present in the fleet, including a speed reference (Electromagnetic) Log, Digital Electromagnetic Log, or Digital Hybrid Speed Log, GPS, alarm panels and the Control Display Unit.

A complete test cycle for the RLGN -- from arrival of equipment to shipping out the door to the installing activity -- is 30 days. For the less complex AN/WSN-7B RLG, a complete cycle through LBTS tests takes about two weeks.

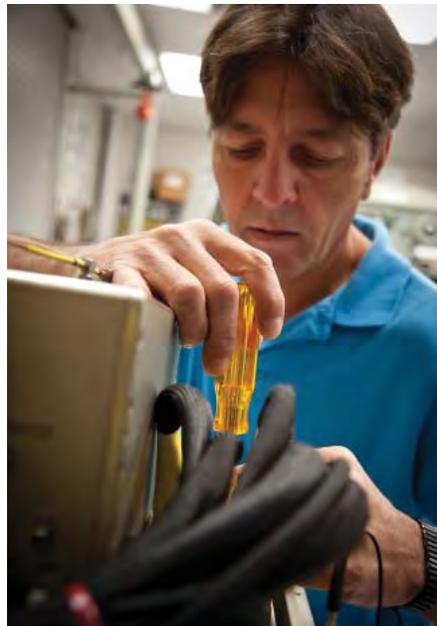
LBTS also tests other shipboard navigation systems, including the AN/WSN-2 Gyrocompass, the AN/SSN-6 Navigation Sensor System Interface

(NAVSSI), the OU-174 WSN5 Data Converter Group, the AN/SRC-40 Digital Data Transmitter Terminal, the MK-27F Gyrocompass, and the AN/WSN-9 Digital Hybrid Speed Log (DHYSL).

A second major way the LBTS crew supports the *Continued on next page*



Brad Sheffer crimps a connector pin for a new wiring harness.



Mike Masching installs a wiring harness on the AN/WSN-7B Ring Laser Gyrocompass.



Brad Sheffer and Rob Zickau refer to the technical manual while troubleshooting a Ring Laser Gyrocompass Navigator Inertial Measuring Unit.



Rob Zickau inspects a newly constructed connector pin for defects.

LBTS

Continued from previous page

warfighter is by modeling anomalies and troubleshooting the root cause of other problems found in the fleet. Working in the laboratory environment, the LBTS team works closely with shipboard technical personnel and Regional Maintenance Centers to determine the causes of anomalies and corrective actions.

The LBTS technical staff also works closely with several advanced research laboratories, including Johns Hopkins University's Applied Physics Laboratory, Pennsylvania State University's Applied Research Laboratory, University of Texas Applied Research Laboratory and Old Dominion University's Virginia Modeling, Analysis and Simulation Center to evaluate the latest technical advances in navigation sensors, systems and equipment.

LBTS also conducts performance evaluation and repairs on IMUs with suspected failures from the fleet. "Our technical personnel can troubleshoot the IMU to the component level and repair most faults found," Walker said. Those few IMUs with faults that cannot be repaired are sent back to the original manufacturer for repair. LBTS also receives problem circuit cards from the fleet and reproduces the failures in the lab for evaluation and repair. They also receive AN/WSN-7/7A/7B units from decommissioning ships to evaluate and test them for future use.

Over the years the LBTS has grown greatly in capability to meet the changing needs of warfighters. At first supporting one AN/WSN-3 ESGN and one Ships Inertial Navigation System (SINS), it can now to test four AN/WSN-2/5 systems, three AN/WSN-7A RLGN submarine systems, four AN/WSN-7 surface systems and four AN/WSN-7B RLG systems simultaneously. The lab's 3-axis Scorsby motion table is used for dynamic testing of the systems in roll, pitch and heading. "Once we brought the Scorsby motion table into the lab, we were able to conduct testing that simulated ship's motion rather than just static testing," Walker explained.

Renovations are being planned to allow the LBTS to support the development and testing of the next generation inertial navigation systems replacement (INS-R), a new start RDT&E program for the NGIS IPT in FY 12.

In 1996, LBTS began primarily testing the AN/WSN-7 and ANWSN-7A, since they were the planned replacements for aircraft carrier, surface ship and submarine navigation systems. The lab expanded to test the AN/WSN-7B when it was introduced, and it also tests navigation systems to support FMS navies in Australia, Japan, Spain, Korea, Taiwan and Egypt.

The work is rewarding but does not come without challenges. Sometimes unexpected failures occur right before a required delivery, and must be resolved quickly to meet shipboard installation and underway schedules.

The rewards come from knowing that the LBTS team provides the fleet with navigation systems that are 100 percent tested and evaluated to production specifications and system operational design specifications, and that all issues are corrected prior to shipboard installation. As an example of the lab's success, Walker notes the submission of 837 System Trouble Reports (STRs) documenting problems found -- and corrected -- at LBTS prior to shipboard installation since the inception of the program in 1996.

"We feel a great sense of satisfaction just knowing the LBTS team plays a large role in supporting the fleet, both directly and indirectly, by ensuring they receive a high quality product for installation and by providing subject matter experts who are available on a daily basis to help warfighters resolve problems," Walker said.

"That is a huge reward in and of itself."

- Susan Piedfort, Chronicle Editor



Mike Masching replaces a faulty circuit card on the AN/WSN-7.

LBTS:

A 'one-stop' shop

Q. What is a routine day like in the LBTS lab?

A. Seldom routine!

"LBTS welcomes the fast-paced challenges that can happen daily, and still continues with routine testing on the AN/WSN-7/7A/7B systems," said Timothy Walker, adding that the team considers themselves to be the ubiquitous "one-stop shop."

A typical day in the LBTS might include requests from the type commanders or the fleet, like one of the following they've successfully answered in the last few years:

- **USS Columbus (SSN 762)** needs an IMU Connector Plate cable to replace a damaged one, but the cable assembly is not available in the supply system. Providing the cable assembly on moment's notice allowed minimal down time to the ship's schedule.

- **COMSUBLANT** asks the LBTS team to attempt to simulate and determine the root cause of a complete shutdown of the RLG system on submarines during PMS prior to underway. Analysis determines a combination of a bad battery assembly and a loss of the 25 volt sense from the transformer rectifier causes this critical failure. LBTS SMEs develop a quick check the sub crew can make prior to beginning the PMS to prevent the shutdowns from occurring.

- The LBTS provides an onsite SME onboard **USS Barry (DDG 52)** to collect and analyze raw RLG IMU data to determine if reprogramming the IMU EPROMS would correct an indexing problem or if the IMU had to be replaced. Data analysis determines that reprogramming the EPROMS would correct the issue. The new EPROMS reduce the indexing from seven minutes peak-to-peak to one minute peak-to-peak and avoided the cost of a new \$156,000 IMU.

- **USS Russell (DDG 59)** needs urgent technical and logistics support to troubleshoot and correct IMU heading divergences errors on the AN/WSN-7 RLG system that are greatly impacting its ability to perform its mission. On short notice over the 4th of July weekend, the LBTS sends a SME to Yokosuka, Japan to troubleshoot and isolate the cause of the problem. To repair the system and meet the ship's underway schedule for a mission vital to national defense, a logistician flies from Norfolk, Va., hand carries new EPROMs to the SME on the ship, and flies home. The SME installs the new EPROMs and conducts system startup and groom in time to support the underway schedule. This extraordinary effort receives a big Bravo Zulu from the Naval Surface Warfare Center (NSWC) Port Hueneme Division (PHD) Ballistic Missile Defense (BMD) Project Manager, Capt. Pete Nardi PEO IWS6, and former SSC Atlantic CO Capt. Red Hoover, now assigned to PEO IWS.

- **USS Springfield (SSN 761)** needs distance support to

identify a possible AN/WSN-7B faulty indexer issue causing the system to shut down. Ships force had replaced various components which did not correct the problem. The LBTS SME investigates and determines in less than an hour that the system has a faulty connection at the system card cage back plane. Corrections are made to the cable and all faults clear. This rapid response saves the ship more than 12 man-hours and avoids the cost of a new indexer.

- **USS Toledo (SSN 769)** needs to get underway for post-shipyard availability sea trials and needs urgent SME technical support and logistics support to identify and replace a faulty IMU. The LBTS team has only six hours from the time they are notified of the problem to troubleshoot, locate a replacement IMU, verify it ready for operation, package it for shipping, and provide it to the shipyard for installation. They also support the installation and initial startup checks.

- On a daily basis LBTS SMEs provide technical support to field service personnel and other technical support personnel throughout the fleet via an RLG hotline call desk.



Brad Sheffer uses a forklift to bring in an Inertial Measuring Unit (IMU) for testing at the LBTS.



Mike Masching uses a torque wrench to install an IMU in the AN/WSN-7A system.

SSC Atlantic dominates SPAWAR field

Innovation projects win awards

SSC Atlantic personnel dominated this year's SPAWAR Systems Command (SPAWARSYSCOM) Innovation Award competition, receiving five of six awards in two categories of the competition. They were recognized by Rear Adm. Patrick Brady, Commander, SPAWARSYSCOM, during a May 22 all hands ceremony.

"Several SSC Atlantic employees and teams have been selected as Team SPAWAR Innovation Award winners and runners-up in previous years," said SSC Atlantic Commanding Officer Capt. Mark Glover, "but in 2012 center personnel clearly dominated as they received five of six awards in two categories. Congratulations to the winners on this phenomenal success!"

In the category of Science and Technology Product, Process, or Service Award, the winner was SSC Atlantic's Anthony LeClerc (Code 59330), principal investigator on a project on Measuring/Improving Navy Cyber Resiliency Using Novel Fault Model Classes.

In the Science and Technology Product, Process, or Service Award category, the first Runner Up was Michael McBeth (Code 71000) for Vector Potential Detector.

SSC Atlantic's Dr. John Xu (Code 71000) was named winner in the Operational Process Award category for his project Tactical Fourth Generation (TG4) Networking Waveform.

First and second runners up in the Operational Process Award category were also from SSC Atlantic: Robert Thomas (Code 55810) was first runner up with his project, Trusted Software Update Distribution via Content-Centric Network; and Jeffrey Scaparra (Code 58170) was second runner up for a project involving Reusable Malware Components for Timely Cyber Weapon Development.

"Those that are recognized are a reflection of the creative and ingenious workforce who are all engaged daily in producing superb results."

- Rod Smith,
Deputy Commander
SPAWARSYSCOM



Anthony LeClerc is congratulated by SSC Atlantic Commanding Officer Capt. Mark Glover as LeClerc's project to measure and improve Navy cyber resiliency won in the Science and Technology Product, Process or Service category.

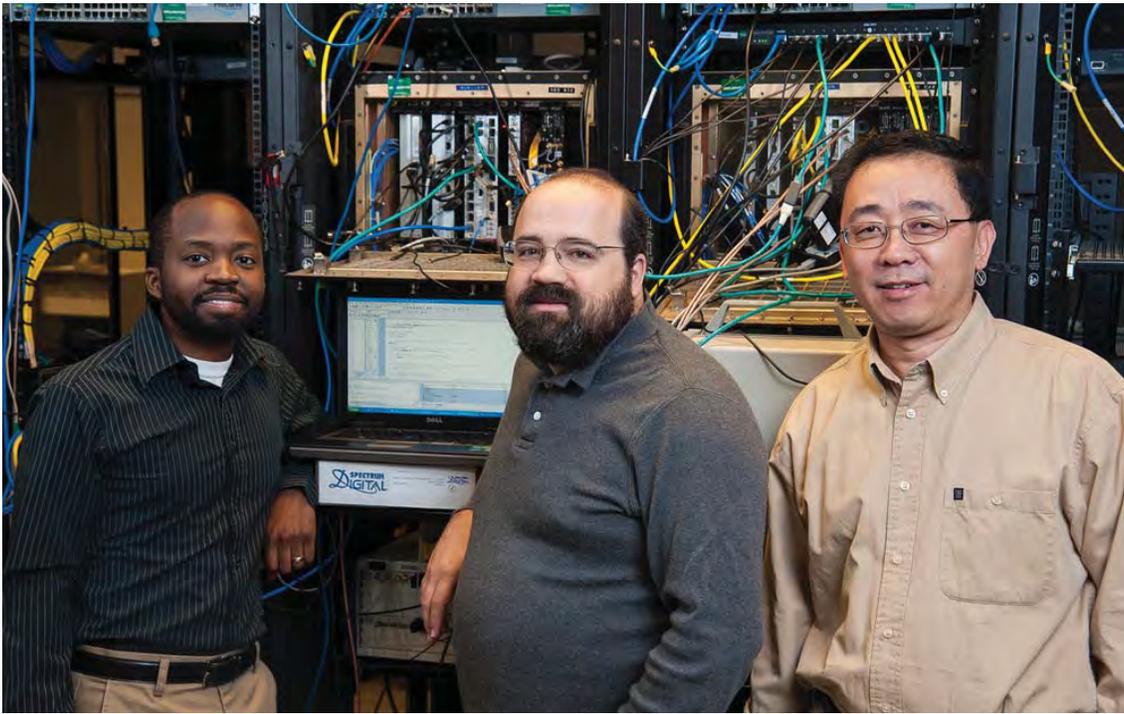
Measuring/Improving Navy Cyber Resiliency Using Novel Fault Model Classes

LeClerc's project, with team member Kevin Bush, proposes the development of new fault model classes in addition to "Benign" and "Malicious" that express distinctive sets of fault model assumptions. These assumptions can be mapped to system component specifications and subsequently used to measure and improve cyber resiliency. Adopting a fault-centric perspective of cyber resiliency allows a novel characterization and exploration of the relationship between system components and their faults and the consequent service degradation of the cyber system itself. Specifying additional models between Malicious and Benign could further measure resiliency by mapping component systems to a more interesting set of fault models.

The next avenue would be to explore the potential to shift system component specifications among collaborating system components in such a way to reclassify individual components into fault models that have different fault assumptions.

Tactical Fourth Generation (TG4) Networking Waveform

Working with Xu on developing the T4G Networking Waveform project were SSC Atlantic's Richard Anderson and Randy Sharo. They focused on developing a power-efficient, resource-conservative, multinational-capable Software Defined Radio Waveform. The project offers a



Team members, from left, Marcus McDonald and Randall Sharo pose in the lab with Dr. John Xu, principal investigator on the TG4 Networking Waveform project, winner in the Operational Process Award category.

Photos by Joe Bullinger

solution for IP connectivity between multi-national forces by developing a smaller, lightweight waveform suitable for use on smaller handheld type devices.

The project answers the need of future naval warfighters for nearly-ubiquitous communications as well as dynamic, scalable tactical communications networks, especially in austere environments. This will enhance information exchange during coalition exercises, particularly disaster relief missions, and will improve situational awareness, coordination/usage of resources and response times.

McBeth's Vector Potential Detector project investigates using the extremely high carrier mobility of pyrolytic graph-

ite to create a new type of electromagnetic detector that responds to the magnetic vector potential or momentum carrying part of the electromagnetic field. The project, which included team members Bruce Billian, Mary Blaschke and Phil Reed, pioneers a far-reaching new way to use a fundamental aspect of electromagnetics for communication and sensing capabilities. It also gave engineers hands-on experience learning how to set up and conduct radio frequency measurements at L-band frequencies, while working with materials related to carbon nanoelectronics at a low cost.

Thomas' Trusted S/W Update Distribution via Content-Centric Network project, included team members Vinh Doan and James Ruff of SSC Atlantic. Their project researched three examples of how software updates are currently distributed to fielded systems: Linux automated package manager; automated server for Windows® Server Update Services (WSUS); and manual distribution via posting to a website. They proposed a new method for an automated distribution mechanism based on the Content-Centric Networking Protocol (CCNx) developed by Palo Alto Research Center to provide a secure method for distributing software updates independent of the operating system. Using a threat model of common attack types on software update methods, security risks for each of the four methods were quantified and compared. The CCNx software distribution method promises to improve security without increasing human dependencies. Additionally, it has implications for better interoperability between systems and a standardized process for secure patch delivery.

Scaparra's project, with team members Jeffrey Bullock and Christopher Plummer, focused on Reusable Malware

Continued on next page



Team members Bruce Billian and Phil Reed are congratulated by SSC Atlantic Commanding Officer Capt. Mark Glover for the Vector Potential Detector project. Not pictured is Principal Investigator Michael McBeth and team member Mary Blaschke.



Photo provided

Christopher Rynearson is congratulated on stage as his award is projected on the big screen at the Salute to the Military.

Rynearson is chamber's Civilian of the Year

SSC Atlantic's Christopher J. Rynearson, an information technology specialist in 5.4, was honored as Outstanding Civilian Employee of the Year by the Metro Charleston Chamber of Commerce during a May 23 Salute to the Military awards ceremony at the Charleston Area Convention Center.

Rynearson serves as an IT specialist for Global Data Systems Integration, with a focus on the Internet, application software and project management. He has worked on multi-million dollar programs for agencies around the world, including the United



Rynearson

States Institute for Peace, NATO, EUCOM, AFRICOM, DARPA, U.S. Secret Service and Department of State.

Rynearson has volunteered more than 460 hours in the past year, much of it engaging students in STEM (Science, Technology, Engineering and Math) learning. He volunteers as technical mentor in the FIRST Lego robotics programs at Oakbrook Elementary School and Rollings Middle School of the Arts. He led his Rollings "RoboKnights" team to a second place finish at the state competition and was invited to the national competition in Florida.

Innovation awards

Continued from the previous page

Components for Timely Cyber Weapon Development proposed a new methodology for creating cyber weapons in hours or days instead of months or years. His project created a library of reusable malware components that incorporates currently-found-in-the-wild malware techniques and looks specifically at advancing stealth malware techniques. Combining different technologies for malware development will help build a large repository of reusable methods that can be updated and augmented over time. This library of current and state-of-the-art malware technology allows for efficiencies and decreases the manpower needed to develop cyber weapons.

Other SSC Atlantic nominations that were considered in the Science and Technology Product, Process or Service Category were Janice Alster (Code 54250), for Electromagnetic Propagation Visualization in the Time Domain;

and Scott Buscemi (Code 71000) for Digital Battlespace Environment Simulator Validation Study. Xu was also considered in the Operational Process Category for a project on Integrated Smartphones with Joint Tactical Radio.

Since 2007 Team SPAWAR Innovation Awards have recognized employees in the systems centers, headquarters and Program Executive Offices. Each year, a panel of SSC Atlantic science and technology leads reviews work that has been funded under the center's Innovation Program and Tiki BAR (Basic and Applied Research) Program and submits the top contenders to compete for Team SPAWAR Innovation Awards.

"Congratulations to the winners and runners-up! And KUDOS to all of the candidates who were considered for recognition," said Rod Smith, SPAWAR SYSCOM Deputy Commander. "Those that are recognized above are a reflection of the creative and ingenious workforce who are all engaged daily in producing superb results," he added.



Thomas Suggs was presented the Lightning Bolt Award for Spectral Warrior.



Jason Jurand was recognized as SPAWARRIOR of the Quarter.

SSC Atlantic employees reap SPAWAR awards

SSC Atlantic employees were recognized at the SPAWAR All Hands May 22.

Thomas Suggs of 5.7 was presented the Lightning Bolt Award for leading the Spectral Warrior Demonstration Support Team during a highly successful demonstration during Exercise Bold Alligator 2012. Spectral Warrior systems were installed on **USS Enterprise** and **USS Iwo Jima** and ashore at the Naval SATCOM Facility Northwest to demonstrate the systems' capability to detect, characterize, identify and auto-report SATCOM Electromagnetic Interference (EMI) to Fleet Cyber Command/10th Fleet (FLTCYBERCOM/C10F).

Jason Jurand (Code 58200) was named SPAWARRIOR of the Quarter in recognition of his achievements while serving as the sub-IPT lead of the SSC Atlantic Computer Network Defense Service Provider (CND SP). In February the CND SP was successfully reaccredited by DISA inspectors as a Level III CND SP. When first accredited less than two years ago, it was one of only 24 in the Department of Defense. The CND SP voluntarily underwent this reaccreditation inspection earlier than scheduled and was the first to be inspected using the newly revamped DISA 8.0 ESM checklist. The CND SP team achieved a perfect score with no negative findings, only the third time in the history of the CND SP program.

The 2011 Military Logistician of the Year award was presented to SSC Atlantic's Cmdr. Timothy B. Rafferty (then-Fleet Support Officer, now Officer-in-Charge of the New Orleans team) in Norfolk, Va. As his award citation noted, Rafferty's dedicated support and leadership resulted in the establishment of the Fleet Support Services (FSS) Integrated Product Team (IPT) as the single customer contact point to replace the decentralized and overly complex handling of fleet support services that previously existed.

This and other initiatives under his leadership resulted in cost reductions of \$750,000 in FY11 alone, improved monitoring of execution costs, enhanced fleet response and ultimately higher fleet readiness.

The 2011 SPAWAR Logistics Team of the Year went to the SPAWAR Help Desk and Remedy Support Consolidation Team, which includes SSC Atlantic's Debra Wilbanks, Jennifer Shauger, Jamie Passaro and Jack Walbridge. The award was submitted by SSC Pacific. Other team members were Tim Green, Chris Anderson, Duane Phillips, Ron Meyers and Clinton Post.

In a SPAWAR claimancy-wide collaborative effort, SPAWAR 4.0 stood up a SPAWAR Help Desk Consolidation Team and directed a Business Case Analysis to research reducing the footprint of help desks and support infrastructure and provide recommendations to SPAWAR leadership. Following approval, the SPAWAR Help Desk Consolidation team developed a comprehensive Plan of Action and Milestones, and executed the consolidation of SPAWAR's Corporate and Regional Remedy distance support applications to SSC Atlantic's New Orleans data center. This has greatly improved customer support functions across the organization, provided a single process and contact control point in support of the warfighter, and produced significant Return on Investment by reducing the personnel and IT equipment footprint and saving more than \$250,000 for FY12.

Others SSC Atlantic nominations that were considered included a Lightning Bolt Award for the Computer Network Defense Service Provider (CND SP) Team, led by Charles "Cal" Stephens (Code 633); Harry Bowser (Code 4325) for SPAWAR Civilian Logistician of the Year; and the Supply Chain Management Process Improvement Team for the SPAWAR Logistics Team of the Year.

Tidewater Sailors honored by chamber



Photo by Holly Quick

SSC Atlantic's ATCS Raymond Fisher, IT2 Kimberly Cook, IT1 Edward Lee, YNI Tamiko Golf and LSCS Terrance Bordley pose during the Military Recognition Reception.

SSC Atlantic's FY11 Sailor of the Year YN1 Tamiko Golf, FY 11 Junior Sailor of the Year IT2 Kimberly Cook and Military of the Quarter for FY12 Q2 IT1 Edward Lee were recognized at a Hampton Roads Chamber of Commerce Military Recognition Reception earlier this year in Norfolk, Va.

Golf was recognized for professional achievement while serving as Military Administration Leading Petty Officer. Cook was honored for professional achievement while serving as Network Engineering Support Technician. Lee was recognized for sustained superior professional performance while serving as Network Support Leading Petty Office and Networks Systems Analyst.

SSC Atlantic employees give from the heart to boost CFC fund drive

SSC Atlantic Executive Director Christopher Miller, second from left, poses with Charleston Combined Federal Campaign (CFC) coordinators, from left, Terry Parsons and Jean Linker, both of Code 893; Linda Morris of 1254, chairperson of the CFC selection committee for local charities; and Loaned Executive Mark Durham of 50B00 after they were presented the 2011 Per Capita Achievement Award for highest per capita giving in the category of 500 or more employees. Not pictured is Charleston campaign coordinator Antoinette Montgomery, Code 894.

This year's campaign netted more than \$300,000 across all SSC Atlantic sites. New Orleans employees, led by Brenda Vincent of Code 89N00, contributed nearly \$20,000, surpassing their goal by 198 percent. IT1 Tuladus Hennings of Code 54421 led the Tidewater drive and surpassed their



Photo by Joe Bullinger

CFC goal by 142 percent. Tampa employees, led by Michael McCormick of Code 54130, collected 140 percent of their goal. Sue Morgan of Code 83W00 and CTT1 Justin Brown led the Washington, D.C., office's campaign, and collected almost \$4,000 for the annual campaign, which benefits more than 18,000 charities.

Stewart, Alea and CENTCOM team honored by FEA

SSC Atlantic's own Stephanie Stewart of the 8.0 competency was winner in the clerical/administrative category of the annual Greater Charleston Area Federal Executive Association (FEA) annual Employee of the Year award competition. She was recognized May 8 at a luncheon at the Naval Weapons Station Redbank Club.

Stewart, the senior administrator for Corporate Operations, provides executive assistance to the Tier 1 Competency Lead and supports more than 250 personnel. "Energetic and hard charging, she is the go-to person in Corporate Operations," her award nomination noted, as she builds effective partnerships and adroitly handles sensitive actions.

Vickie Alea of 52150, was second runner up in the supervisor category, and SSC Atlantic's USCENTCOM team was second runner up in the team category. The team consists of Danielle Holmes, Robert Hudson, Scott Houghton, Team Leader Donovan Lusk, Kristen Kerr, Harriet Bechtol, Mike Bernard, Lee Boaman, Stephanie Falter, Lisa Gesling, Michael Kozma, Benjamin Maiden, Mike Ryan, Jessica Tew and Pete Walker.

Stewart, Alea and the USCENTCOM team were selected from 46 individuals and five teams nominated in nine categories of the competition. Also nominated from SSC Atlantic were James Christman in the Scientific/Professional category, Jessica Ann Reno in the Technician/Assistant category and Kristy Lynn Torres in the Safety/Security category.

"The FEA honorees represent the best of the best of more than 22,000 civilian and military employees throughout the Charleston area, and as always, SSC Atlantic had a strong showing," said SSC Atlantic Commanding Officer Capt. Mark Glover in an email announcing the honorees.

The annual Charleston Area FEA Employee of the Year



Photos by Joe Bullinger

Stewart

awards luncheon gathers all area federal organizations together to honor their most deserving employees. Nominees and team members must be either full-time civilian employees of the federal government or uniformed military personnel.

Since 1967 the Greater Charleston FEA has sponsored the Employee of the Year program to draw attention to the high caliber of civilian and military employees of the federal service.

- Susan Piedfort
Chronicle Editor



Alea



Members of SSC Atlantic's USCENTCOM team, named second runner up in the team category, pictured at left, are Danielle Holmes, Robert Hudson, Scott Houghton, Team Leader Donovan Lusk and Kristen Kerr. Team members not pictured are Harriet Bechtol, Mike Bernard, Lee Boaman, Stephanie Falter, Lisa Gesling, Michael Kozma, Benjamin Maiden, Mike Ryan, Jessica Tew and Pete Walker.

AABIS IPT first to earn CMMI®-SVC Gold

By Sarah Ingram and Tiffany Alexander

In January 2012, the Afghanistan Automated Biometrics Identification System (AABIS) IPT accomplished a milestone that no other IPT within the command had yet achieved.

It was the first at SSC Atlantic to be awarded a Gold Level Capability Maturity Model Integration (CMMI®) Process Excellence award for successfully implementing the CMMI® for Services (CMMI®-SVC) model. The AABIS program decided to use CMMI®-SVC as a framework for streamlining processes in support of biometrics identity management and training services.

Biometrics identity management is a key enabler to achieving enhanced security through improved vetting processes. The ability to achieve identity superiority and implement biometric technologies to identify potential adversaries ultimately depends on the way biometric and identity information is collected, identified, analyzed, shared and stored. Equally important is the capability to protect, manage and dominate identity information using biometric technologies to facilitate positive identification, enhance security and support criminal prosecution.

The purpose of the AABIS Program is to develop a biometrics capability for the Afghan government that can be self-sustained by the Afghanistan National Security Forces (ANSF) as a long-term solution. The biometrics capability is a commercial-off-the-shelf biometrics system, which was procured and built to meet the specific needs of the ANSF. The integrated architecture for the AABIS Program encompasses planning, budgeting, managing, surveying, designing, procuring, installing, researching, developing, testing, training and maintaining.

Upon program initiation, the team immediately implemented SSC Atlantic project management, monitoring and control processes to provide a sound foundation for follow-on efforts. Industry partners from Booz Allen Hamilton

spearheaded process improvement initiatives resulting in unprecedented, back-to-back internal CMMI®-SVC Silver and Gold Level appraisals, achieving the command's first CMMI®-SVC Process Excellence Awards in May 2011 and January 2012.

The AABIS IPT began the internal CMMI® assessment process by focusing on nine Silver Level process areas, including project planning, project monitoring and control, configuration management, requirements management, service delivery, risk management, process and product quality assurance, measurement and analysis, and supplier agreement management. In May 2011, the IPT successfully completed an internal Silver Level appraisal and received

a Silver Level Process Excellence Award for CMMI®-SVC.

IPT Lead Adolphus (JR) Burrow supported the IPT moving forward with Gold Level implementation building upon sound Silver Level process areas. The team began to develop and implement processes to support the eight additional process areas including capacity and

availability, incident resolution and prevention, service continuity, service system development, service system transition, strategic service management, integrated project management, and decision analysis and resolution. An internal data collection form was compiled, and throughout the data collection and mapping efforts, approximately 500 artifacts were collected and reviewed. Several AABIS activities were highlighted as strengths and best practices by the internal appraiser.

The AABIS Service Management Plan (SMP) Template is the first to be submitted to the SSC Atlantic Process Asset Library (PAL), supporting CMMI®-SVC artifacts. Additional template submissions include a service delivery log, document review matrix, requirements traceability matrix, threat analysis and response plan, and call history log for tracking service incidents and reusable solutions. These ar-

Continued on next page



Photo provided

The Afghanistan Automated Biometrics Identification System IPT members posing above are, from left, Apryl Akery, Tiffany Alexander, Adolphus (JR) Burrow, Sarah Ingram, Andrew Osti and Karen Sorenson.

Hawkins' ONR work exemplifies value of in-house engineering talent

The Assistant Secretary of the Navy, Research, Development and Acquisition (ASN/RDA) issued a directive in February 2012 emphasizing the importance and value of using in-house engineering and technical resources within the Department of Navy (DoN). From an acquisition perspective, during these times of austere budget constraints, the DoN requires highly technical and acquisition-savvy personnel to understand the many complex systems it utilizes, while also realizing the importance of acquiring and maintaining those systems in the most fiscally responsible fashion possible.

SSC Atlantic continually demonstrates the value of exceptional in-house engineering talent, most recently acknowledged by an Office of Naval Research (ONR) initiative.

SSC Atlantic provides enterprise software integration and systems engineering technical expertise to ONR, Code 31, Command and Control (C2) department. Over the last two years, SSC Atlantic has been the technical engineering lead on several joint and DoN Limited Technology Experiments (LTEs) developing, examining and assessing emerging technologies designed to bridge current capability gaps internal to and between Navy, Army, Marine Corps and Air Force Programs of Record (POR) in a multiservice warfighting environment.

The experiments document best patterns and practices, and expose new technologies to enable rapid, fully integrated, and cross-platform warfare capabilities. The focus is on transparency of data and information services across disparate enclaves to support force-level integrated planning and execution. For FY12, ONR was tasked by OSD to integrate, evaluate and construct a blueprint for the Bi-Directional Remote Video Terminal (BDRVT) using the STANAG 4586 compliant UAS Control Segment (UCS) 2.1/ Common Control Services (CCS) for universal UxV tasking

and control services.

The ability to effectively communicate and share mission critical data in a multiservice warfighting environment will result in an increased decision making capability for the warfighter.

SSC Atlantic's Duane Hawkins, a government computer scientist, was recently recognized

for his superior engineering contributions and overall leadership abilities supporting the ONR FY12 Prototyping and Experimentation LTE. Wayne Perras, head of Prototyping and Experimentation for ONR Code 31, cited Hawkins for pulling together many disparate communities into a single enterprise solution for the LTE.

"Duane has been key and essential to ONR's success in LTEs over the past two years because he has the technical skills, operational vision and social graces to address difficult architectural and technical issues and develop a clear and cost effective plan that ONR can execute on behalf of PEO sponsors," Perras noted.

Hawkins has led an SSC Atlantic-contracted software development team to develop a Force Federation and Discovery Service (FFDS) that assists in enabling the fleet to achieve the transparency of data and services required for rapid and automated force integration in challenging anti-access, area denial-disconnected, intermittent, low bandwidth scenarios. Hawkins' engineering and acquisition expertise directly contributed to ONR's goal of providing seamless, transparent, integrated and netted C2 capabilities to the fleet in the most cost effective manner possible.

His efforts made achieving information dominance a reality despite current budgetary challenges; a reality that gives warfighters the ability to perform both informed and rapid decision making in high pressure, C2 scenarios, Perras noted.

Hawkins' work in support of the warfighter exemplifies the value of ASN/RDA's directive on using in-house engineering talent.



Duane Hawkins

AABIS IPT's CMMI®-SVC Gold

Continued from previous page

tifacts were contributed by the IPT for use by others who are considering implementing the CMMI®-SVC model. The internal appraiser noted that the response time for receiving updated artifacts was the fastest she had ever encountered and that the project assessment was one of

the smoothest she ever conducted. As a result, the AABIS IPT was the first SSC Atlantic project to be awarded Gold Level for successful implementation of the 17 prescribed CMMI®-SVC process areas.

AABIS continues to operate as a CMMI®-SVC Maturity Level 3 compliant program in hopes of participating as a focus project in upcoming SSC Atlantic SCAMPI appraisals.

SSC Atlantic's Harper earns Navy's Superior Civilian Service award

SSC Atlantic's own Dr. Mike Harper of 7.2 was recently presented the Navy's Superior Civilian Service Award for his service as science advisor to the U.S. Naval Forces Central Command and Commander, U.S. Fifth Fleet from June 2009 to June 2012.

The award was presented to Harper by Vice Adm. John Miller, Commander, U.S. Naval Forces Central Command (NAVCENT)/Fifth Fleet (C5F)/Combined Maritime Forces (CMF).

The award citation noted Harper's superior service as Office of Naval Research science advisor for NAVCENT/C5F/CMF in support of Partnership-Strength Presence, Maritime Security Operations, the Struggle Against Violent Extremism, and Operations Iraqi Freedom, Enduring Freedom and New Dawn.

"Dr. Harper distinguished himself by directing the intellectual capital of the staff and focused it on the development and sustainment of cutting edge operational capability across an extensive span of warfare areas. His expertise led to bridging a science and technology capability gap which resulted in saving \$21.5 million in technology transition capabilities," the award citation noted.

He was lauded for his exceptional leadership and technical aptitude, and for developing two joint capability technology demonstrations through the office of the Secretary of Defense to combat piracy and anti-submarine warfare.



Photo provided

Vice Adm. John Miller congratulates SSC Atlantic's Dr. Mike Harper of 7.2 as he presented Harper the Navy's Superior Civilian Service Award.

He also championed an international conference with more than 100 military leaders, general and flag officers and technologists. This helped lay the groundwork for a partnership directed at ensuring maritime security within the Fifth Fleet area of operations and security for U.S. Central Command base of operations, according to the citation.

The Navy Superior Civilian Service Award is the highest honorary award the Chief of Naval Operations or the Commandant of the Marine Corps may bestow on a civilian employee in the Department of the Navy and the highest award granted at the major claimant level. This is the second highest honorary award under the Department of the Navy Civilian Awards program.

Citadel grad Alex Morgan presented Miller Sword



Photo provided

During a recent awards convocation Citadel graduate Ens. Alex Morgan was presented an award which honors the father of an SSC Atlantic employee.

The award honors Robert "Robbie" George Miller, an Army veteran who served as commander of the Palisades Power Squadron in New Jersey and taught public boating classes until his death in 1996. He and his wife Dorothy raised four children in Teaneck, N.J.

As a memorial to their father, Bob Miller of Code 7.2 and his three siblings established the Robert G. Miller Memorial Sword award, presented annually to The Citadel NROTC Sea services candidate who embodies Miller's leadership skills, dedication to serve and love of the sea.

At left, the Miller family congratulates Morgan. From left are Maddie Miller, Gerry Mooney, Dorothy Mooney (the award namesake's widow), Ens. Alex Morgan, Morgan's mom Donna, his dad Craig, Sherri Miller, Robert T. "Robbie" Miller and SSC Atlantic's Bob Miller, Code 72000.

Program tailored to SSC Atlantic needs

18 earn SoSE engineering certificates

By Diane Owens
Chronicle Lite Editor

A group of 18 committed SSC Atlantic employees (eight from the Tidewater area, one from the Washington, D.C., area and nine from Charleston) recently completed the second session of four eight-week classroom courses and an eight-week capstone study leading to a System of Systems (SoS) Engineering (SoSE) certificate. (The first session took place in 2009-2010 and involved only Tidewater-area employees.) SoSE is a methodology to look at geographically dispersed IT systems as a whole and enable systems to work together.

The students also briefed their study recommendations March 28 at Naval Station, Norfolk to SPAWAR Logistics (4.0) Competency Lead Marty Brown, Chief of Naval Operations N4 (Logistics) leads and U.S. Fleet Forces N4 officials.

Four unique eight-week courses developed specifically for SSC Atlantic by Old Dominion University and its research center, the National Centers for System of Systems Engineering, were held for four hours each Friday from April through December 2011. Two instructors team-taught weekly class material – one from Charleston, the other from Tidewater – and students and instructors in both locations connected via video teleconference to hear presentations and participate in classroom discussions.

Although the classes were held during working hours, enrolled employees completed the training on their own time, making up work hours at other times during the week. Course attendance requirements stipulated that students could not miss class sessions, and they were also required to do additional hours of research and classroom assignments on their own time.

Participants included a number of employees in the Enterprise System Engineering/Netcentric Engineering and Integration (5.2) competency – due to the competency's focus on system of systems engineering – many Engineering (5.0) Tier 2 Competency Leads and employees in the Logistics and Fleet Support (4.0) and Program and Project Management (6.0) competencies. Class participants had a wide range of educational backgrounds and included technicians, engineers and logisticians.

Since the program was limited to SSC Atlantic government employees, classroom discussions were focused on real-life issues related to the center's work; the exchange of relevant information related to ongoing projects proved to be beneficial to students. Completing the real-life case study was also valuable since it allowed students to apply concepts learned during the course as well as information gained from on-the-job experience.

In addition to the weekly class video teleconference, stu-



Photo by Holly Quick

Front row, from left Debra Wilbanks, Pat McHale, Dennis Warren, Paul Walter, Eric Zink, Scott Bell, Karen Lehman, Alysia Boes, Lonnie Cole, instructor Dr. Kevin Adams; back row, from left Martin Brown (SPAWAR 4.0 Logistics and Fleet Support Competency Lead), Cmdr. Tim Rafferty, John Lillard, Bill Clayton, Michael Lewis, John Weed, Justin Jackson, instructor Joseph Bradley. Not pictured are Blayne Cannon, Phil Leonard and James Roseboro.

dents used other technology to communicate and collaborate: wikis to post documents and share information, and Defense Connect Online conferencing and chats to converse. Most Tidewater and Charleston students never met each other during the 11 months of the program; the first time many participants had an opportunity to meet face-to-face was at the presentation of capstone study recommendations March 28.

After the four required courses were completed in December, students spent eight hours in class each Friday for eight weeks from January through March working on a complex, real-world capstone study regarding logistics SoS. Their recommendations were compiled in a 300-page document titled Data Management for a Navy Logistics System of Systems: Recommendations to Improve Efficiency and Effectiveness of Data Management in a Navy Logistics System of Systems.

Students decided on the study subject early in the program primarily because there are currently more than 280 Navy logistics systems in use today, and it's critical to reduce the number of systems to manage data more effectively. A lack of system interoperability among IT systems Navywide and throughout the Department of Defense is a continuing problem, and resolving this problem is a high priority.

Completing the SoSE Certificate program allows participants to approach complex problems from a standard methodology and use common language – which is especially important with today's complex systems and complex problems. SPAWAR Chief Engineer Adm. James Rodman Jr. has emphasized SoSE as a strategy to solve Navy IT problems – and employees who complete this program will be recognized as leaders in the field.

CTO Corner

Dr. Al Emondi
SSC Atlantic
Chief Technology Officer



Vision to Reality Series: A Gut Check

Here we are, in the fourth quarter of the fiscal year already, with STRL self assessments completed and budget planning for FY13 underway. Since I have the job of making sure we are driving S&T in this command toward solutions that are relevant to the warfighter, this is the time of year I like to pause for a few moments and reflect on our progress toward that goal.

While these words are simple enough, the underlying research and groundwork on which we base many of our S&T strategic decisions are complex and very subjective. Although you can do all your homework upfront, often you don't know if you got it right until many years later. As a result, it's natural to try to identify data points in the interim that can serve as indicators to help ascertain if we are on the right track.

I recall in a recent meeting with Dr. John Zangardi (DASN C4I/IO and Space), we discussed the difficulty we all face identifying the point at which to stop investments on a particular research program or in a given area of technology. The "promise" in promising research needs to be realized at some point, but you are never quite sure if or when it will appear. We agreed that while we didn't have a great answer for that dilemma, understanding the environment and making predictions on technology trends give us the best foundation on which we can base our decisions.

In FY12, we awarded more than 70 projects targeting challenges in data analytics, cyber security, mobile computing, high density computing, advanced communications, networks, SIGINT, space technologies and unmanned systems. These investments aligned to our own S&T Strategic Vision as well as the Secretary of Defense FY 13-FY17 S&T priorities in data to decision, cyber science and technology, electronic protection, autonomy and human systems. These various research thrusts also support PEO C4I S&T capability gaps. Specifically our flash memory project, as well as our many projects in mobile computing, have implications in future storage designs that align well with PMW 160's requirements in computing hardware tactical edge core services. Other synergies occur in our advanced communications investments where new waveform designs, next generation programmable platforms and co-site mitigation technologies could offer future solutions to PMW 750/760

in SATCOM denial mitigation, or to PMW 170 for improved antenna gain throughput.

While many of our investments are on research projects, some of our investments focus on our workforce and laboratory capabilities. Our Naval Networks university specifically builds a curriculum for our scientists and engineers to gain formal, in-house training specific to Naval Networks. Additionally, we have investigations ongoing in various command and control and information assurance areas that address challenges with data analytics, human interfaces and data security in mobile and cloud-based structures.

Before our organization's increased focus on S&T, we held only one patent. Over the past three years, thanks to our investments in innovation and research, we have been awarded two additional patents, four are being prepared for submission to the Patent and Trademark Office, and another 10 are being prepared internally. Additionally, the recent first place awards of two of our research teams -- and first and second runner up awards for another three of our research teams -- in the HQ Innovation program is positive feedback that we are pointed in the right direction. (See story on page 10.)

Comparing our investments to S&T capability gaps from the COCOMs and PEOs, in FY13 we will continue to make investments in cloud, mobility and security-related research; however, we need to increase our research base in areas such as asymmetric and ad-hoc networks and core services at the tactical edge. Industry is predicting significant needs and advancement in mobile centric applications and interfaces that will continue to augment and improve the human experience. Trends in the public sector are showing a shift from the use of search engines to the use of apps that provide answers not search results. There is no reason to think the warfighter will not require and expect similar functionality. Challenges in "big data" will be in the forefront as computational and mobility solutions are realized. The need to deal with volume, variety and complexity of data will be of paramount importance -- coining the term in IT circles as "extreme information management." This is where a significant portion of our attention needs to be focused as we continue to build our research base within SSC Atlantic.



Photos by Joe Bullinger



Powered up discussion

SSC Atlantic Executive Director Christopher Miller was featured as a panelist at a June 7 Community Power Breakfast that focused on the impact of the defense industry in the Charleston area and the future landscape. At left, Col. Richard McComb, 628th Air Base Wing commander, and S.C. Comptroller General Richard Eckstrom listen as Miller makes a point about opportunities for small businesses to partner with SSC Atlantic. The breakfast was sponsored by the Charleston Regional Business Journal.

Captain's call

Continued from page 2

tions, our Marine Corps support; there is not enough room to mention everything.

What is as impressive as what we do is how we do it -- in innovative ways. The SSC Atlantic innovation program, which has been active since 2006, has seen more than 108 projects funded, with more than 300 employees participating, many of them innovation program "regulars." It has created a culture of innovating and seeing things differently at our center, as evidenced by our strong showing in the recent SPAWARSYSCOM innovation award competition (*See story on page 10.*)

Besides what we do for the warfighter and how we do it, I'm also proud of how we are connecting in our communities. Whether it's through Adopt-a-Highway in Charleston, Clean the Bay Day in Norfolk, or Habitat for Humanity in New Orleans, we are living our core values and showing the power of caring, responsible citizenship. Through our Sci-

ence, Technology, Engineering and Math (STEM) outreach we are engaging and attracting the future naval scientists and engineers at all our sites to fill the pipeline for tomorrow's high-tech jobs. I attended several of the For Inspiration and Recognition of Science and Technology (FIRST) robotics competitions, and I can attest to the energy and excitement generated among the youth teams. We also invest in youth in our communities through shadow days, lunch buddy programs, summer employment programs for youth, tours, lab visits and career day visits to schools.

From where I sit, this is all very inspiring. The fact that we've continued to move forward while adjusting to significant organizational change the last several years is even more impressive. Change can be difficult, but when decisions are made, SSC Atlantic does what it has always done -- succeed in supporting the warfighter. As we stay focused on enabling information dominance, I know our success will continue. So keep charging. The future holds more opportunities.

Lighten Up, Atlantic!

By Diane Owens, Chronicle Lite Editor

Workplace fitness opportunities abound at SSC Atlantic

Florida fitness

Tampa employees moved to an office located downtown; because there weren't any nearby gyms or walking trails, creative employees came up with their own exercise plan: they run up and down the staircase before work in the mornings!



Fitness in the nation's capital

Military, civilian and contractor employees at the Washington Navy Yard can use the Morale, Welfare and Recreation (MWR) Navy Fitness and Wellness gym located in building 22. The gym is equipped with a large weight room, aerobic equipment, two racquetball courts, men's and women's locker

rooms and showers. Before using the facility, all gym patrons are required to complete a form and have it signed by a doctor verifying they are fit to exercise. Contractors pay a fee to use the facilities unless they are retired military.

An indoor basketball court and a tennis court are located across the road behind the building and can be used by signing in at the gym. Outdoor tennis courts are also available.

Fitness European style

SSC Atlantic employees in Stuttgart, Germany, are located on a military post which has gym facilities they can use. Stuttgart Sports and Fitness, an Army MWR site, offers a variety of fitness classes, sponsors sports teams, and has cardio rooms, weight rooms, basketball courts, saunas and locker rooms. In addition, there are many hiking and jogging trails just off post.

Fitness in the Big Easy

A seldom-used conference room on the first floor of Bldg. 4 was converted to a fitness center for government employees and active duty military members in 2011; it contains gym equipment and is located adjacent to men's and women's locker rooms.

All employees, including contractors, are eligible to pay the staff rate to use the state-of-the-art gym at the University of New Orleans (UNO), which is within walking distance of work.

*How do YOU stay fit, eat healthy, and reduce stress?
Share your tips with coworkers!*



Diane Owens, Charleston
I've done some kind of aerobics for about an hour three times a week for more than 30 years. It's a great stress reliever and it makes me feel good.



Rob Kemp, Charleston
I have been using the P90X/P90X2 exercise program to keep in shape over the past year. It's easy — just put the DVD in and do what Tony tells ya!



Sue Torke, Charleston
I am a triathlete, so I swim, bike, and/or run daily to prepare for races of all kinds and distances — everything from swim meets to Ironman triathlons.



Linda Wise, Tidewater
I exercise every day in my home gym, riding a spinning bike and lifting weights, and also do indoor/outdoor fast walking seven days a week.

Fitness in the Hampton Roads area

By Holly Quick, SSC Atlantic Public Affairs

Hampton Roads area employees have many options when it comes to places to burn off calories.

Naval Station Norfolk boasts four fitness centers, each with a combination of workout options.

The Q-80 Waterfront Athletic Complex on Decatur Avenue by the carrier piers offers an indoor track, basketball court, two racquetball courts and swimming pool, as well as cardio machines and free weights. A number of classes including aqua jog, yoga and spin-cycle, are held at various times throughout the week.

The McCormick Sports Center in CEP-58 on B Avenue. (just inside Gate 5) has two basketball courts and a fitness center with traditional cardio and weight training equipment.

The N-24 Gymnasium on Gilbert Street features two basketball courts and a group exercise room as well as weight training and cardio equipment. Racquetball courts are also located directly behind the gym.

The MB-43 Gymnasium, located on Piersey Street, is set up for CrossFit workouts. It includes pull-up bars, bumper plates, kettlebells and a rope.

Joint Expeditionary Base Little Creek-Fort Story offers two fitness centers -- the Pierside Gym and Aquatic Center in Bldg. 1556 on Midway Street and the Rockwell Hall Gymnasium in Bldg. 3147 on Niver Boulevard and 5th Street. Both contain cardio equipment as well as weight-lifting areas. Fitness classes are held several times weekly in Rockwell Hall.

All fitness centers at Naval Station Norfolk and Joint Expeditionary Base Little Creek-Fort Story require CAC identification.

Employees at St. Juliens Creek have access to a two-mile trail, complete with workout stations placed at regular intervals.

For more information on hours and location, visit <http://www.discovermwr.com/navyfitness/fitnesscenters.html#navalstationnorfolk>.

Charleston

Employees on Joint Base Charleston-Weapons Station can get fit in a number of ways. A walking trail, just under a mile in length, surrounding Bldg. 3147 is a traffic-free location for burning calories and de-stressing. Employees can also walk along a low-traffic road to Hooker Lake, located about half a mile from the building.

A 1.5 mile jogging trail loops around Tank Road and 3rd Street, a few blocks from Bldg. 3147.

A small gym for civil service and military personnel is located on the first floor of Bldg. 3147, and it contains treadmills, an exercise bike, elliptical trainers and weight machines. Scales and a blood pressure machine are located in an alcove near men's and women's locker rooms and showers.

Behind Bldg. 3147, a combination tennis and basketball court is available for use on a first-come, first-served basis.

An outdoor fitness area with pull-up bars and sit-up stations is located along the walking trail just past the tennis

court.

Civil service, military and permanent, full-time contractor employees can use Joint Base Charleston-Weapons Station's MWR facilities. Sam's Fitness Center has strength and cardio equipment, saunas, a basketball gym and racquetball courts at no charge. Daily exercise classes there are free for military members and \$2 for others. A golf course, bowling alley and outdoor swimming pool (open seasonally) are available, and the Outdoor Adventure Center has a climbing wall and rents backpacks, camping gear, canoes, kayaks, etc. Intramural sports (volleyball, basketball, soccer, softball and flag football) are also available. Details are available at www.jbcharleston.com.

SSC Atlantic wellness programs initiated

A number of pilot wellness programs have been initiated in 2012 as part of the center's new Quality of Work-Life (QOWL) program. QOWL Coordinator Jessica Malcolm reported that participation has been high and employees' interest in the programs is awesome.

It all started with an eight-week Biggest Loser contest, which began Jan. 23 at all sites with initial weigh-ins for 126 participants. By the time the winners (those who lost the highest percent of their original weight) were announced in March, the group had lost a combined total of 749.5 pounds!

A follow-on, eight-week weight-loss accountability program is currently underway; 36 participants in New Orleans, National Capital Region and Charleston weigh themselves weekly and report their weight to Malcolm, who cheers them on and tracks their continued progress.

New Orleans participants in particular have displayed extreme enthusiasm for both programs, working together to encourage each other to exercise and persevere.

A group of employees ran and walked in Charleston's Cooper River Bridge Run during April (see next page), and a once-a-week circuit training boot camp began in Charleston and New Orleans April 18, with additional camps planned for other sites.

Lace up your athletic shoes and join with coworkers to get fit and improve your health today!

We're looking for employees' stories about how athletic activities improve their lives. Do you play on a golf league? Enjoy stand-up paddleboarding? Love to Zumba? Tell us what you enjoy doing and how it enhances your life and makes you healthier. Send your information to Diane Owens, diane.owens@navy.mil (843-218-5888) or SSC Atlantic Quality of Work-Life Coordinator Jessica Malcolm, jessica.malcolm@navy.mil (843-218-2440).





Smith crosses the finish line at the Boston Marathon, and poses for a post-race photo.

Photos provided

‘It was a great experience!!’

Michele Smith of Code 12530 joined almost 27,000 runners for the 116th running of the prestigious Boston Marathon April 16.

SSC Atlantic’s Joe Whiteley of 2.0 also ran the race, finishing with a very respectable 3:27.

The mercury reached 89 degrees on race day in the notoriously humid Boston, and the temperature on the pavement was estimated at well above 100 degrees, making it one of the warmest Boston Marathons in the history of the event. Race officials were offering deferments to runners, and more than 4,000 runners opted out, but SSC Atlantic’s Smith and Whiteley pressed on in the 26.2-mile race.

In an e-mail to fellow SSC Atlantic runners, Smith said her finishing time was 4:13 hours on the hilly course, adding that the “super brutally hot” weather actually beat her up more than the hills. She estimated the heat, and a lingering ear infection probably added 20 minutes to her time.

“Mike [Smith’s boyfriend] and I decided to take it easy and stopped at every water break and had some fluids, then

walked 50 to 100 meters,” she said, adding, “I think I managed to somehow over-hydrated myself...and definitely had heat exhaustion.”

Smith was bolstered during the race by the crowd participation, which she described as amazing. More than 500,000 spectators gathered to cheer on the participants.

“You basically run straight the entire time (no turns until the last few miles). There were people on the side of the road the entire way. I would definitely call all these people fans...they were cheering and so excited for us,” she said.

“They were handing out pulled oranges, ice, candy, paper towels, vaseline, spraying you with a water hose, and blowing you with a fan,” she added. “It was a great experience!!”

Boston ranks as one of the world’s best-known events and is one of the few races requiring a qualifying time to compete. Because of the heat this year, inexperienced runners and those with medical conditions were advised to sit out the race.

Cooper River Bridge Run brings out Warrior spirit

An estimated 23 SPAWARRIOR runners and walkers took part in the 35th annual Cooper River Bridge Run in Charleston. They showed their true colors by wearing SSC Atlantic “Bridge Warrior” T-shirts.

Nearly 40 SSC Atlantic employees joined the Bridge Warrior team, many of them training for eight weeks before the race. They met on Tuesdays and Thursdays at the SSC Atlantic campus, and Saturday mornings on the bridge.

A record 36,652 runners and walkers crossed the finish line on Meeting Street in Charleston this year, bettering the previous record of 34,789 set last year in the Bridge Run, which is the sixth-largest 10K race in the U.S.

Bridge runners pictured at right, from left, included Shameika Williams, Candy Gray, Betty Collins, Shanda



Photo by Joe Bullinger

Johnson, Jessica Malcolm, Nina Carnright, Steve Schaefer, Maureen Cobb and Beth Schaefer.



Promoting pedal power

SSC Atlantic's bicycle commuters in Charleston celebrated the unique power of the bicycle on National Bike to Work day by riding through the Joint Base Charleston-Naval Weapons Station gate together. SSC Atlantic Commanding Officer Capt. Mark Glover led the ride from the gate to Bldg. 3147 May 18, and gave a big thumbs up (at right) on bicycling's benefits to our health, economy and environment.

The SPAWAR Green Committee provides bicycles and helmets from the command's Bike Share Program to anyone who wants to use pedal power to get around the Charleston campus. To learn more, visit the Green Blog at <https://blog.spawar.navy.mil/green/>. To join the growing community of SPAWAR bicycle commuters, visit the SPAWAR Sprockets blog, <https://blog.spawar.navy.mil/spawarsprockets/>.



Photos by Joe Bullinger

SSC ATLANTIC MARKS EARTH DAY 2012

SSC Atlantic marked Earth Day 2012 April 20 in Charleston with an observance broadcast via VTC to Hampton Roads, New Orleans, Washington, Tampa and Stuttgart. The program offered tips on reducing our energy footprint at SSC Atlantic and in our homes.

In addition to guest speakers, displays and an

Earth Day quiz, information about telework, recycling, efficient lighting, carpooling, bicycle share programs and Adopt-a-Highway was available.





Photos by Joe Bullinger

Forty-seven teams from eight states took part in the FIRST Robotics Competition at the North Charleston Coliseum.

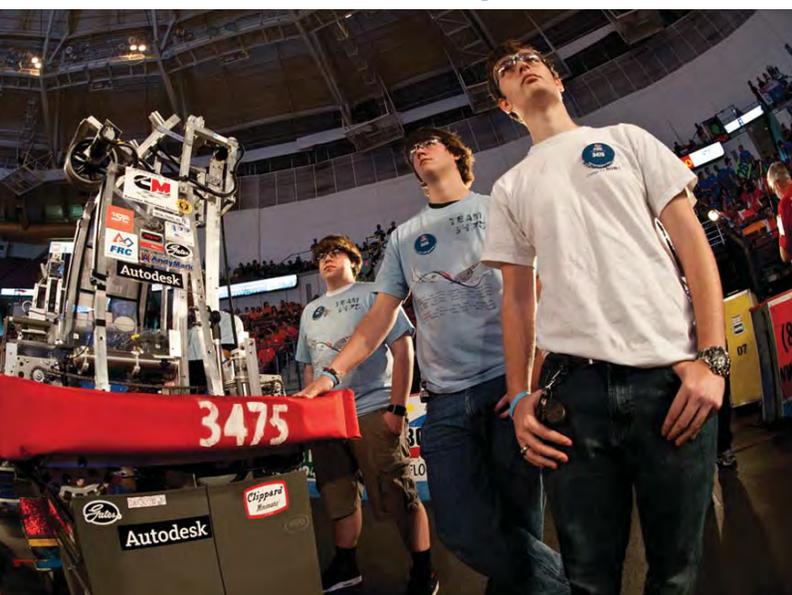
FIRST competition more than just robots

SSC Atlantic-coached teams made their mark during the 2012 FIRST Robotics Palmetto Regional Competition, held March 22 through 24 at the North Charleston Coliseum. Employees were on hand as coaches and judges for FIRST Robotics, which combines the excitement of sport with science and technology to create a unique varsity Sport for the Mind™.

In this ninth annual competition, 47 teams from eight states vied for qualification for the FIRST Robotics Competition (FRC) Championship in St. Louis, Mo.

SSC Atlantic is one of the sponsors for FRC Team 3489

from Ashley Ridge High School and FRC Team 3475 from West Ashley High School, and employees mentor teams at each school. Competition allows students to apply math and science concepts to design, build, test and compete with



At left, Team 3475 from West Ashley High School awaits their turn in the ring. Above, Dan Yohman, of SSC Atlantic's 41150, watches the action.



robots; gain hands-on experience solving real-world problems; and discover the excitement and rewards of science and technology careers. FRC stages short games played by 120-pound robots, each designed and built in six weeks by high-school-aged students and their mentor.

The students learn about teamwork, innovation and strategizing. At any given moment, the robot driver must decide to try to score points or help their alliance in defense. Drivers must also consider how much time it takes to perform an action. Which will result in a higher score? If they go to hang a shape, will there be enough time to deploy the minibot? All the action takes place during a two-minute, 15-second match.

One of 48 FRC regional events, the Palmetto Regional featured teams from New Hampshire, New Jersey, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida.

SSC Atlantic volunteers support FIRST programs as committee members, partners, team mentors, coaches and team parents as part of the center's educational outreach program.

Clockwise from top left, the 'Grand Master' cues the next team, FRC Team 3489 from Ashley Ridge High School poses with their robots; a display of robots from popular culture, and the Ashley Ridge High School team puts their robot through the paces.



From left, SSC Atlantic Hampton Roads STEM Outreach Coordinator Justin Langley, SSC Atlantic NTCSS Lead Test Engineer Gerald Aytes and a student look on as an Explosive Ordnance Disposal Technician from EOD Mobile Unit 12 maneuvers the Talon Robot to pick up SSC Atlantic's SPYKEE Spy Robot during the Portsmouth Public Schools STEM Day Expo, March 31.



Promoting STEM in Hampton Roads

By Holly Quick, SSC Atlantic Public Affairs

SSC Atlantic participated in Portsmouth Public Schools Science, Technology, Engineering and Mathematics (STEM) Day Expo at Wilson High School March 31.

More than 500 teachers and students in grades four through 12 took part in the expo.

When students and parents arrived for STEM Day, they received a passport and embarked on a journey along STEM

Avenue, Information Highway, DNA Drive and Robotics Ring, receiving stamps at each destination. Some of the excursions included an underwater remotely operated vehicle station, rocket launch station and a geocache scavenger hunt.

The SSC Atlantic booth was the last stop on STEM Avenue and scientists and engineers were available to answer questions and encourage students to pursue STEM careers.

The SSC Atlantic Hampton Roads STEM Outreach Coordinators Justin Langley and Bill LaBelle showcased the drone technology including the AR Drone Quadricopter and SPYKEE the Spy Robot.

“Events like STEM Day could change students’ lives,” said Cmdr. Mike Trovato, Executive Officer, SSC Atlantic. “It gives students exposure to careers such as engineering and computer programming that they don’t normally see on TV or in the movies.”

The most popular destination was Robotics Ring, which featured ROVOBASE bristlebot art, NXT Lego robotics maze activities, FIRST Lego activities, VEX robotics competitions and a WeDo Lego chrome center – all designed to inspire the students’ interest in technology.

“The world is about robotics,” said Dr. Dave Stuckwisch, superintendent of Portsmouth Public Schools, to parents during his opening remarks. “If your child is interested in robotics, that is not a hobby, that is not playtime, they can find a job doing it.”

Other exhibitors at the STEM Day Expo included: U.S. Fleet Forces Command, Naval Network Warfare Command, Navy Expeditionary Combat Command, Explosive



SSC Atlantic Hampton Roads STEM Outreach Co-coordinator Bill LaBelle talks to a student at the SSC Atlantic booth during the STEM Day Expo.



Photos by Holly Quick

SSC Atlantic Naval Tactical Command Support System (NTCSS) Lead Test Engineer Gerald Aytes demonstrates the AR Drone Quadricopter to a student at the Portsmouth Public Schools STEM Day Expo.

Ordnance Disposal Mobile Unit 12, William & Mary STEM Education Alliance and local colleges and universities.

STEM Day is one of various outreach activities designed to inspire, develop and attract the science, technology, engineering and math talent needed to deliver innovative solutions for the nation's and SSC Atlantic's current and future challenges.

SSC Atlantic employees recently volunteered at the FIRST Robotics Competition Virginia Regional, March 16 and 17, mentoring four teams as they participated in Rebound Rumble, a competition that used robots to play a modified version of basketball.

In the ensuing months, SSC Atlantic participated in the Victory Elementary School Career Day in Portsmouth and the USA Festival, in collaboration with Department of Defense (DoD) STEM programs nationwide, in Washington, D.C.

SSC Atlantic also participated in the second Annual Hampton Roads STEM Summer Academy July 16 through 20 at Norview High School in Norfolk. The summer academy gives middle school students from the Virginia Beach, Portsmouth and Norfolk school districts the opportunity to compete in various challenges in the fields of robotics, engineering, rocketry, ballistics, electronics, biology and chemistry.



Photo by Joe Bullinger

Asher Khader makes a point during the evaluation of a student's project.

Employees volunteer as science fair judges

SSC Atlantic employees answered the call for science, technology, engineering and math (STEM) professionals to serve as judges for the Lowcountry Science and Engineering Fair (LSF) held March 28 at Trident Technical College in North Charleston. The LSF was open to students from Berkeley, Charleston, Colleton, Dorchester and Georgetown counties.

As judges, Asher Khader of 613, Eddie Bath of 585 and Michelle Rehr-Matash of 851 worked in teams interviewing students and evaluating projects in three divisions that covered grades 5 through 12. Student projects covered behavioral and social sciences, biology, chemistry, biochemistry, engineering, geology, environmental sciences, math, computer science, medicine and health, physics and astronomy.



Michelle Rehr-Matash listens to a student's presentation.



SSC Atlantic's Cedrick Collins of Code 5424, right, surveys the action as teams from Tri-County area middle schools participate in a DimensionU competition at SSC Atlantic March 29. DimensionU is part of SSC Atlantic's science, technology, engineering and math (STEM) outreach program.

Avatars, challenges and rewards

A new dimension of learning



Students focus on answering questions to navigate through the levels during the DimensionU competition.

SSC Atlantic's conference center was the site of a March 29 Tri-County DimensionU competition which pitted 40 students from six local middle schools who tested their math and science skills in online, multi-player educational video games.

Students from Gregg Middle, Haute Gap Middle, Oakbrook Middle, River Oaks Middle, St. Stephens Middle and Westview Middle schools took part in the competition, all under the watchful eyes of SSC Atlantic volunteers and mentors.

DimensionU games cover K-12 subjects, with game content aligned to state and national educational standards. The games engage students in a series of first-person action adventure missions with three-dimensional graphics, sound and animation comparable to those in popular video games. Students customize their avatars and can go online to

play individually or in teams, with classmates or with other students anywhere in the world. By effectively navigating the myriad of embedded lessons covering math, science, language or history, students can master concepts previously discussed in the classroom.

DimensionU is funded by the National Defense Education Program (NDEP). This event was part of SSC Atlantic's educational outreach program aimed at developing science, technology, engineering and math (STEM) talent in K-12 schools and at universities.

SSC Atlantic deploys volunteers from its technical workforce to serve as role models, mentors, content experts, competition judges and in other roles that show students the value of a STEM career. Their mission is to inspire, develop and attract the STEM talent that is essential to deliver innovative solutions for the nations' and SSC Atlantic's current and future challenges.

As far as results, Team 1 and Team 2 from Haute Gap Middle took first and second place honors respectively. One of the 2 teams from St. Stephens Middle came in third. However, it was clear from the engagement that all participants were winners.

- Susan Piedfort, Chronicle Editor



Photos by Joe Bullinger

Above, parents and mentors watch as the competition progresses. Below, students from Haute Gap Middle School stack their hands in a huddle before the competition.



Ronny Hill ends 37-year federal career

Teammates, family and friends of Ronny Hill, SSC Atlantic's 1.0 competency lead, gathered in Bldg. 3112 to send him off properly as he retired with 37 years of federal civilian service March 16.

Hill started out in 1974 as a warehouseman at Charleston Naval Shipyard. He progressed throughout his career as an accountant, branch supervisor, comptroller, financial competency lead. "In his years here at SSC Atlantic, Ronny has become somewhat of an institution," said SSC Atlantic Executive Director Christopher Miller. "He has steadfastly dedicated himself to ensuring the financial integrity of SSC Atlantic, to aligning our resources with the Navy's priorities, to giving the financial guidance and oversight we needed, and to making sure SSC Atlantic has an expert financial management workforce."

During the retirement luncheon festivities, Hill's former and present coworkers poked a little fun at Hill's love of barbeque, coupons and travel, while praising his dedication, expertise and leadership.

Clockwise from top, Ronny Hill takes the podium to say farewell; Hill is flanked by his mother at left and wife at right during the presentations; Ken Johnson breaks in his new "Blues Brother;" and 1.0's choral group, The Mismatched Disbursements, serenades Hill.



Photos by Joe Bullinger



Legal's Yohn retires April 25

Jim Yohn, a fixture in SSC Atlantic's Office of Counsel since 2000, ended a 24-year civil service career as he retired in April.

Beginning with personnel law matters, his specialties grew to include contract law, fiscal law, ethics law, and the regulatory side of the customer agreements process.

In 2004 Yohn was tasked with writing and initially managing then-SSC Charleston's deployment instruction. The process that originated in that instruction was subsequently institutionalized within the command.

"I count it a great honor and privilege to have been part of the SSC Atlantic team, working side-by-side assisting the warfighter to win the battle and the war," Yohn said.

To sum it all up, he added, "I got hired, I worked hard and I left."



Photo by Susan Piedfort

Mike Roys, 3.0 Competency Lead, presents a retirement letter from SSC Atlantic Commanding Officer Capt. Mark Glover to Jim Yohn, right, during an April 25 retirement luncheon.

Eimers' retirement is a family affair

SSC Atlantic Deputy Chief Engineer Cmdr. Karl Eimers retired during an April 16 ceremony in the atrium of Bldg. 3147 in Charleston.

A 1992 graduate of the U.S. Military Academy at West Point, Eimers transferred to the Navy upon graduation. His sea assignments were on **USS John Paul Jones** (DDG 53) and **USS Mount Whitney** (LCC 20). His shore assignments included Surface Warfare Officer School, the AEGIS Training & Readiness Center, Naval Postgraduate School, SSC Charleston, PMW 150 Command & Control Program Office and Engineering Duty Officer School. He earned a master's degree in electrical engineering from the Naval Post Graduate School.

Eimers has served as deputy chief engineer for SSC Atlantic since 2012. SSC Atlantic Chief Engineer Bruce Carter was guest speaker during Eimers' retirement ceremony.

Special guests at the ceremony included Eimer's wife, their three children, his mother, father and mother-in-law.



Photo by Susan Piedfort

Cmdr. Karl Eimers renders his last hand salute as an active duty naval officer to his father, a retired Army colonel, as SSC Atlantic Commanding Officer Capt. Mark Glover looks on.

Need Satellite/Gateway Access?

What is a SAR?

The Satellite Access Request (SAR) is a formal request, submitted in preformatted message form, to the Regional SATCOM Support Center (RSSC)/Global SATCOM Support Center (GSSC) communications planning office by a using unit through the chain of command. The SAR requests MILSATCOM or DoD-sponsored commercial satellite services and resources to support valid SATCOM mission requirements.

What is a GAR?

The Gateway Access Request (GAR) provides the detailed information necessary to request, schedule and configure SATCOM gateway access. The GAR, submitted the same way as a SAR, is used to request GIG Gateway/STEP Facility/Interim Teleport accesses worldwide for Defense Information Systems Network (DISN) Services.

Where do you send a SAR?

The SAR must be sent via SIPRNET email to: *USFF_NFLT_FORCE_COMMUNICATIONS@navy.smil.mil* or *USSTRATCOM.gssc@afspc.af.smil.mil* (For UHF SAR only.) This is COMUSFLTFORCOM FORCE Communications (COMUSFFC Norfolk VA; 757-836-9404).

Rules to follow when submitting a SAR:

- Must answer who, when, what, where and how.
- Must include unit and mission, date/time, data rate, terminal types and location, network configuration and priority.
- Must be submitted at a minimum 50-day lead time; otherwise a detailed justification must be included.
- Must be properly formatted and accurate.
- Must be properly classified.
- Do not include insufficient or inaccurate PIM data.
- Avoid conflicts in data fields like data rates and access time.
- Use the remarks section of the SAR to communicate your RF usage and testing intentions in detail.

Templates for SAR:

Templates for UHF, SHF, EHF, SAR messages are located at SIPR address: <http://www.uar.cas.navy.smil.mil/>

[fleet/USFF/site.nsf/main.html?openpage](http://fleet.USFF/site.nsf/main.html?openpage). (This site requires Collaboration At Sea (CAS) login). Other info may be found at <https://scie.stratcom.smil.mil>.

Upon receipt of the SAR RSSC/GSSC will:

- Coordinate with DISA for resources to support the SAR.
- Perform network planning with parameters given by DISA if the SAR can be supported.
- Develop Satellite Access Authorization (SAA) with the satellite, look angles, power, frequency and controller.

SAA Created:

The formal SAA assignment message assigns specific resources to a unit for a specific period of time. The SAA is issued by the RSSC. It is sent to the requesting unit and the NCTAMS for controller configuring and system monitoring.

The requesting unit's SAR verification/usage:

- The requesting unit confirms receipt of SAR request 1 to 2 days after submission, via USFF site to insure it is recorded in its database.
- Review the USFF website, 3 to 4 days after submission, for access authorization and content upon receipt to ensure it meets the unit's operational requirements and needs. Contact USFF if an authorization has not been posted within 96 hours of a requested date.
- Ensure all personnel comply with content of authorized access.
- Requesting unit is responsible for the proper operation of its radio terminal.
- Contact USFF Force Communications personnel for any identified discrepancies or conflicts within the access authorization.
- Requesting Unit must comply with all USFF directions and rules or risk preemption of access.
- Activate mission or RF test at the time slot approved.
- End mission or RF testing early or at assigned access expiration.

For more information or assistance call SSC Atlantic Spectrum Manager Zaid Yacu at (843) 218-4562.

Find SSC Atlantic on Flickr, Facebook, Twitter, YouTube

Check out SSC Atlantic, SSC Pacific and SPAWAR headquarters news on Facebook, Twitter, Flickr and YouTube.

If you wish to become a SPAWAR Facebook fan, visit <http://www.facebook.com/spaceandnavalwarfaressystemcommand>.

To follow us on Twitter, see <http://twitter.com/SPAWAR->

HQ. To view the SPAWAR You Tube Channel, visit www.youtube.com/teamsparwar. To view SPAWAR photos on Flickr, see: www.flickr.com/teamsparwar.

SPAWAR's official U.S. Navy website is at <http://www.public.navy.mil/spawar/Pages/default.aspx>. SSC Atlantic's public website is also accessible at this site (<http://www.public.navy.mil/spawar/Atlantic/Pages/Home.aspx>).

If you have a news or success story you'd like to share via social media or any other medium, leave a message at SSC Atlantic's InfoLine at (843) 218-3390, or email your idea to SSCLANT_CH_PAO@navy.mil.



Photos by Joe Bullinger

SSC Atlantic's Lane Melton of 8.7 talks to an attendee at the job fair aboard Yorktown May 17. SSC Atlantic was one of 85 employers taking part in the event.



SSC Atlantic reaches out to veterans at job fair

SSC Atlantic participated in a job fair that was part of a Ralph H. Johnson Veterans Affairs (VA) Medical Center-sponsored event for veterans, active duty service members and their families May 17.

Held on board decommissioned aircraft carrier Yorktown at Patriots Point in Charleston, the job fair featured more than 85 prospective employers in addition to SSC Atlantic, including Google, defense contractors, federal, state and local organizations.

The VA center's Welcome Home event also included free tours of the Yorktown for veterans and their families, infor-

mation about enrollment, eligibility and benefits; readjustment services; health screenings; women's health services; and health and education benefits

The job fair aimed at recruiting veterans helps augment SSC Atlantic's Disabled Veterans Affirmative Action Program (DVAAP), which supports the recruitment and hiring of disabled veterans. SSC Atlantic also uses the Wounded Warrior initiative to hire disabled veterans. The center employs more than 1,180 veterans, and about 5.5 percent of the SSC Atlantic workforce are vets with disabilities of 30 percent or more.

New Orleans OiC

Continued from page 3

They deployed E-Leave, an automated leave capability that makes traditional paper leave chits obsolete, saving man-hours and processing time. The New Orleans team updated the Force Management system that helps match nuclear enlisted Sailors with most challenging billets, and promotes their career longevity and helping the Navy retain the brightest and best senior nuclear operators.

They team designed and fielded an automated IT capability to the Department of Veterans Affairs that has assisted more than 730,000 Active and Reserve service members and veterans and enabled warfighters to receive more than \$18.3 billion in educational benefits.

As home to one of SPAWAR's three data centers, New Orleans plays a vital role in data center consolidation, reducing cost by consolidating hardware, software, network, admin, engineering and information security services into

one single, integrated service provider. The New Orleans Data Center team gives customers leading-edge, secure hosting of their information systems and applications, ensuring continuous availability so they can execute their missions.

The New Orleans team has reduced the footprint of help desks and the support infrastructure across the SPAWAR enterprise and consolidates corporate and regional distance support applications and services to a centralized NOLA location, greatly improving customer support functions across the organization.

"This touches on only a few of the successes of our New Orleans team," said Glover during the ceremony. "SSC Atlantic employees in New Orleans come from a variety of parishes in the area. One thing about this place is the resiliency and dedication of those who live here. When that dedication is combined with innovative efforts in support of the warfighter, we have a winning combination," he added.

SSC Atlantic celebrates diversity

A Harmony in a World of Diversity event was held at SSC Atlantic May 9, featuring educational information about women's history, African-American culture and history and Asian-Pacific heritage. Events were streamed to all SSC Atlantic sites via videoteleconference. Clockwise from left, this page, leadership and women's issues consultant Jane Perdue speaks at the Women's observance; a mystery team is one of nine competing in the first-ever live team trivia contest; Jackie Ham performs traditional

Asian-Pacific dances; and SSC Atlantic Executive Director Christopher Miller speaks. Opposite, members of the Adande African Drum and Dance Company display the high level of energy and rhythm that is distinctive of their art form; and employees enjoy sampling teas May 18 during an event that highlighted the heritage, culture and contributions of Asian-Pacific Islanders in the United States.



*Photos by
Joe Bullinger*





Boeing officials see SSC Atlantic projects and capabilities

SSC Atlantic Commanding Officer Capt. Mark Glover, above left, makes a point during a briefing given to visiting leaders from Boeing South Carolina April 20. Pictured in the background is Jack Jones, Boeing South Carolina Vice President and General Manager, who was among the eight key leaders from the aerospace company visiting the Charleston campus. Also visiting



Photos by Joe Bullinger

from Boeing were Marco Cavazzoni, Bryan Palma, Geoff Schuler, Mark Fava, John Moloney, Ashley Holbrook, Cecil Bradley and David Huempfer. The team leads a work force of more than 6,000 at Boeing Company's 240-acre jetliner assembly campus in North Charleston. Above right, SSC Atlantic Executive Director Christopher Miller briefs the visitors.

Titley visit includes Air Traffic Control building tour

N2/N6B Assistant Deputy Chief of Naval Operations Rear Adm. David W. Titley, second from left, receives a brief from Master Chief Air Controlman Gregory Muffley, left, in the Air Traffic Control building during a visit to SSC Atlantic March 5. Looking on at right are SSC Atlantic Executive Director Christopher Miller and Phil Braswell, head of Aviation Platform Engineering & Integration. While at the center, Titley was given a command brief and discussed high-performance computing capabilities and data center consolidation.



Photo by Joe Bullinger

Marine visitors view vehicle integration operations

Pete Ward, Vehicular Integrated Solutions Sub-Portfolio Leader, Code 63300, leads Marine Corps visitors on a tour of the MRAP/M-ATV integration facility during a visit to SSC Atlantic in February. The visitors, Marine Corps Brig. Gen. William "Rock" Collins, Deputy Commanding General, II Marine Expeditionary Force (Mobilization), and Col. John



Photo by Joe Bullinger

Parker, Branch Head for International Affairs Branch (PLU), Strategy and Plans Division/PP&O HQMC, were in Charleston for a site visit and to get a closer look at integration operations at the MRAP facility.



Photo by Joe Bullinger

Chamber's Leadership Charleston Class

Members of the Charleston Metro Chamber of Commerce's 2012 Leadership Charleston class pose in the quarterdeck of the engineering center in Charleston after a command brief and visits to various SSC Atlantic

sites. The 10-month program for professionals offers an up-close look at various issues impacting our region and examines leadership roles in political, social and economic affairs.



Photo by Joe Bullinger

Getting ready for his close-up

Television reporter Tess Spencer, right, from Charleston's ABC affiliate WCIV, and videographer Felicia Allyn prepare to interview SSC Atlantic's Rich Hooks of 811, Civilian Workforce Competency Lead, May 16. Spencer, cohost of Good Morning Charleston, was at the center to ask Hooks about SSC Atlantic's participation

in a career fair held onboard decommissioned aircraft carrier Yorktown at Patriot's Point (see page 35). Hooks answered questions about SSC Atlantic's participation in the career fair, why it is important to hire veterans, types of jobs available to veterans at SSC Atlantic and how to apply for them.

Association of Old Crows discusses air/sea battlespace ops

SSC Atlantic was the site for a portion of the third annual conference of the Palmetto Roost Chapter of the Association of Old Crows (AOC) June 5 and 6.

Entitled "EW, IO & Cyber Capabilities for Air, Sea Battlespace Operations," the conference was attended by approximately 150 military members, government employees and industry partners. Discussions focused on how technology will drive integration across target sets common to electronic warfare (EW), information operations (IO), and cyber warfare, how to prepare for future combined arms conflicts, and capabilities within the SPAWAR/industry team.

Conference Chair Austin Branch, senior advisor for IO Strategy & Plans, Office of the Under Secretary of Defense for Policy, facilitated sessions classifying the operational concept of air, sea battlespace, and identified the key enabling capabilities needed to meet rising threats. On the first day's agenda at The Citadel, interoperability with coalition

partners was discussed. Day 1 sessions included perspectives from U.S. Strategic Command, Joint Electromagnetic Spectrum Control Center, Joint Staff, industry and service members on the implications for EW/Cyber capabilities. Representatives of the Office of the Secretary of Defense and Under Secretary of Defense for Acquisition, Technology & Logistics (AT&L) presented EW policy updates.

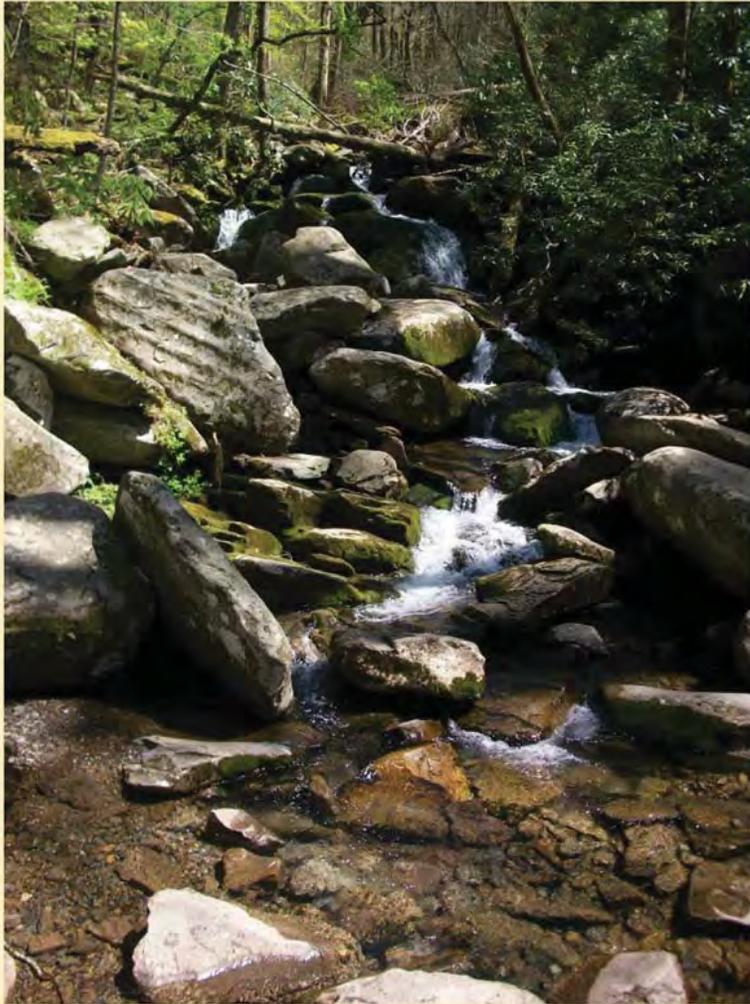
The second day at SSC Atlantic's conference center included the Assistant Secretary of Defense for Research & Engineering, U.S. Central Command and Defense Advanced Research Project Agency advising on the current status of EW, IO and cyber integration and technological advancements. Joint EW/IO/Cyber Range environments for testing, training and education were also explored.

For more information on the Palmetto Roost Chapter of the AOC, visit <http://www.palmettoroost.org/>.

THE CHRONICLE PHOTO CONTEST

Thank you to all who submitted!

And the winner is...



Smokey Mountains
April 2012

Jessica Lopez
Code 50000

Hit us with *your* best shot

We are now soliciting submissions from
SSC Atlantic employees for next issue's contest.

The Employee Services Association will offer the winner a choice of a command coin, thermal mug, cookbook (if available) or \$5 credit on another logo item.

MWR will offer a certificate for a free lunch in the Cooper River Cafe to the winner.

Send your best shot to susan.piedfort@navy.mil or joseph.bullinger@navy.mil.



SSC Atlantic's Rob Zickau and Brad Sheffer inspect a Ring Laser Gyrocompass Navigator Inertial Measuring Unit at the Land Based Test Site located on Joint Expeditionary Base Little Creek-Fort Story in Virginia. See story on page 6. Photo by Joe Bullinger.