

SSC PACIFIC SPOTLIGHT

August 2015 NEWSLETTER

HEROES AMONG US

Wounded Warriors find renewed hope and purpose at SSC Pacific

Gunnery Sergeant Anthony St. Dennis, or Tony as he prefers to be called, always wanted to be a Marine. So the thought of leaving the Marine Corps before completing a career never entered his mind.

Over 13 years, the highly decorated combat veteran exemplified the courage, commitment and faithfulness of America's renowned military service. He did everything asked of him, and more.

He had a chest full of medals and combat awards to prove it - a Navy and Marine Corps Commendation medal with a Combat "V," three Purple Hearts, numerous unit, campaign and service ribbons.

So when doctors determined his body could no longer endure the rigors of combat, and that he was to be medically discharged, Tony wasn't ready for the news.

Accepting an early separation and leaving the Corps was the hardest thing anyone could have ever asked him to do. It was an abrupt and unexpected end to a lifelong dream. But he wasn't given a choice.

"My family has always had someone serving our nation in every war America has fought since the French and Indian War of 1754," said Tony. "I expected to continue that legacy by serving a full career in the Marine Corps."

No one in Tony's family ever doubted his tenacity and perseverance in pursuing his dream. No one was surprised when he spent most of his sixteenth birthday at a local United States Marine Corps recruiting office. And when he graduated early from high school at the age of 17, he had already convinced his parents to sign a waiver giving their permission so he could immediately head off to boot camp.

After initial training, Tony was sent to infantry school to learn the basics skills all Marines must master. It wasn't long before he found those warfighting skills put to the ultimate test! Tony quickly learned about the personal sacrifices made by all those who go into harm's way to protect the freedoms we enjoy.

By his third combat tour of duty in Afghanistan, Tony had already sustained multiple life-threatening combat wounds from previous tours in Iraq.

His first injuries came during a direct fire fight in Fallujah in 2004. Tony was hit by opposing gunfire that ripped through his left forearm and shredded his left shoulder. The damage to his muscle tissue was extensive. But less than a year later, Tony found his way back to his unit, and back to the fight.

His next wounds were far more serious and far more widespread.

While serving as gunner in a lead vehicle assigned to support an Explosive Ordnance Disposal (EOD) team, Tony's convoy hit a land mine. The explosion destroyed his vehicle and sent searing hot shrapnel into his lower extremities and mid-region.

This time it was as if he had been sprayed with multiple rounds. His recovery was much slower than the first time, and it involved a much larger area of his body.

Even so, while in the hospital, all Tony could think about was getting back to his unit so he could do his part. Not knowing how his fellow Marines were doing was the toughest part of his journey.

Through all the pain, Tony's commitment to the United States Marine Corps and to his brothers-at-arms never waned. The connection he felt to his unit, although momentarily severed, served to motivate him to recover, to recuperate and to return to combat.

It was also during this time in the hospital that Tony met a Navy EOD technician who was undergoing extensive rehabilitation for injuries he had suffered while working on a roadside bomb.

As the two talked about their shared combat experiences, Tony grew to admire the man's courage, his extraordinary sense of purpose, and rare demeanor.

"I was uniquely impressed with how well this Navy EOD tech conducted himself," said Tony. "He had this commanding presence in any situation. I don't think I'd ever met anyone so intelligent. I especially liked how he and his fellow EOD techs always used first names, no matter what rank anyone held. There was a special comradery and respect they shared. I'd never seen anything like it, and I decided right then I wanted to be a part of this elite group of professionals."

The change from infantry to EOD came fast and Tony soon found himself called to a third combat tour of duty in 2011. It would be his last.

The injuries he sustained from an Improvised Explosive Device that resulted in life-changing wounds that are still with him today.

"By all rights I know I probably shouldn't be here," Tony shared. "All I can say is someone in my family must have prayed that God would give me a guardian angel, and He did."

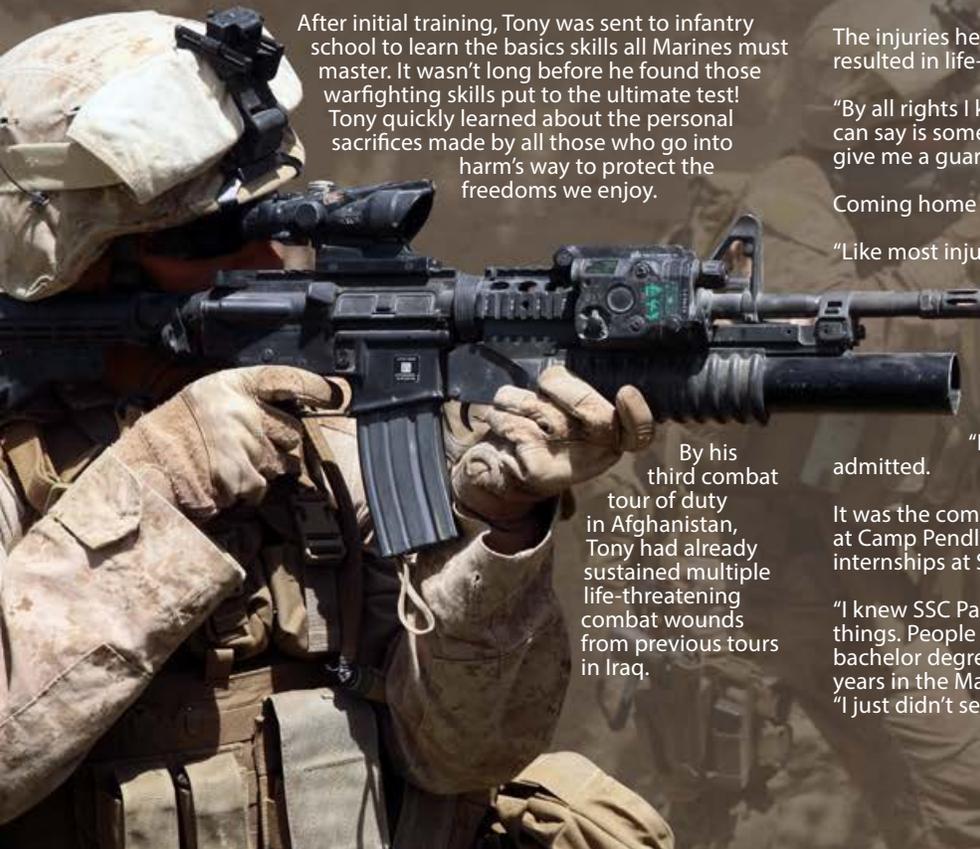
Coming home had its own challenges.

"Like most injured Marines, and really any wounded warrior, I had a hard time figuring out where I fit in society after leaving the Corps," said Tony. "When I was discharged, it was more than a change in careers, it was a complete change in lifestyle. I knew I had to change my mindset. I really had no idea what I was going to do."

"For the first time in my life, I was intimidated," Tony admitted.

It was the commanding officer of the Wounded Warrior Battalion at Camp Pendleton who first mentioned the opportunity for internships at SSC Pacific. Tony dismissed the idea immediately.

"I knew SSC Pacific has crazy smart people, doing crazy smart things. People with PhDs, double PhDs, triple PhDs, master degrees, bachelor degrees, and all I have is a high school diploma and 13 years in the Marine Corps," Tony told his mentor at Camp Pendleton. "I just didn't see how I could ever fit into that environment."



HEROES AMONG US continued...

All those feelings changed after Tony accepted a one-year internship and entered a Wounded Warriors program established by Michael Anderson, a former Marine, engineer and program lead for the Center's Collaborative Innovation Lab (CoIL) - a dedicated space where staff can investigate and potentially integrate next generation technologies within their projects such as cloud computing and Internet of Things (IoT) devices.

"I was blown away by how smart everyone is," Tony said. "But I was equally taken by how willing everyone was to sharing information and to working together. I began to realize that people are people, and everyone has something to offer, including me."

That renewed confidence and hope soon translated to a job as an information technology specialist.

For Tony, his search for a new beginning and a sense of purpose was finally over.

"I'm thrilled to be where there is so much work going on to ensure our Marines and Sailors have the best science and technology have to offer," said Tony. "As a former infantryman, I know the countless times I relied on my equipment and the many cutting-edge warfighting capabilities that were provided to me. If I can't be with my Marines, I want to make sure they have everything needed to maintain an advantage and win!"

Tony's new supervisor can't say enough about him and about the hiring program that enabled Tony to join his team so quickly.

"Having a program in place so that Tony and other wounded warriors can continue to serve our country is a tremendous plus," said Mike Sisko, head of Information Technology Operations for SSC Pacific's Information Technologies and Business Systems Division. "As a former Marine, I appreciate seeing the growing number of veterans and wounded warriors joining our ranks. They are a perfect match!"

According to the most recent OCHR data, there have been 59 Wounded Warriors hired in the San Diego region over the last three years. Of that number, 12 hires made by SSC Pacific, nine by Navy Facilities Command or NAVFAC, and six by Navy Supply Command or NAVSUP. Eight of SSC Pacific's 12 hires have been in the last 12 months. That represents a more than a fourfold increase over the previous two years combined.

The jobs are career positions. Three were IT specialists, two were electronics technicians, one was a business finance manager and one was a financial analyst. The eighth job was for an executive assistant's position.

"Beyond those numbers, SSC Pacific has been aggressively ramping up our outreach efforts to outside organizations," said Mimi Farrell, SSC Pacific's director of Workforce Management. "We're working on establishing career days for veterans this fall at the University of California San Diego (UCSD). We're also supporting San Diego State University's "Sailors to Engineers" program, and attending job fairs at Marine Corps Base Camp Pendleton."

The Center has also begun working with staff at the San Diego Naval Medical Center to establish a match-making process with Wounded Warriors receiving care and treatment, and is now aligned with the Wounded Warriors National Foundation.

"My hope is that with greater awareness and involvement by SSC Pacific's technical codes, we will continue to build upon the numbers we saw last year," Farrell concluded.

"We've always placed a strong emphasis and high premium on building and attracting a highly diverse, highly skilled, highly educated, and highly experienced workforce," said Carmela Keeney, SSC Pacific's executive director. "Expanding our ongoing efforts and focusing on veterans and Wounded Warriors is a logical extension of our long-held belief that there is a significant benefit to be gained by having experienced warfighters working alongside our technical staff at the Center."



Gunnery Sergeant Anthony St. Dennis in theater.

Secretary of the Air Force visits SSC Pacific

Secretary of the Air Force Deborah Lee James visited SSC Pacific August 4, 2015.

During her visit she received an overview of the U.S. Navy's strategic plan for space operations in a contested environment. The overview highlighted critical joint partnerships for space operations. Secretary James received briefings on the Mobile User Objective System (MUOS) project and the Nanosatellites project. U.S. Army Maj. Bryan Juntunen demonstrated the Mobile User Objective System (MUOS) during the secretary's visit.



(r-l) Maj. Bryan Juntunen, U.S. Army, gives a demonstration to Ms. Deborah James, secretary of the Air Force, of the Mobile User Objective System (MUOS).

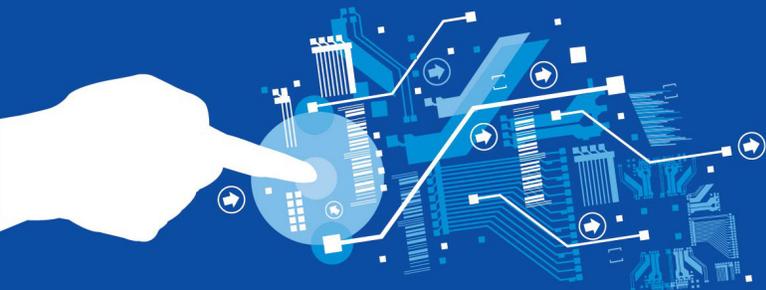
The demonstration enabled a point-to-net (P2N) call setup with Secretary James and the commanding officer of USCGC Healy (WAGB 20) while simultaneously streaming video from the Healy's bridge-mounted camera.

Secretary James spoke on the radio for about 7-8 minutes with general questions of weather, location, the crew's use of MUOS, and also wishing the CO and crew a happy birthday to celebrate 223rd birthday of the United States Coast Guard!

The demonstration also included a point-to-point (P2P) voice-call setup with the Joint-Communications Engineering, Development and Integration (JEDI) lab on the hood of a HUMVEE for discussion of some of the antenna variants and multi-service participation in bringing MUOS to the warfighter.



F-16 Fighting Falcons prepare for take-off at Shaw Air Force Base, S.C. (U.S. Air Force photo by Senior Airman Tabatha Zarrella/Released)



Revolutionary technology

A team of SSC Pacific scientists and engineers were presented with the 2015 Federal Laboratory Consortium (FLC) Far West Region Award in the Outstanding Technology Development category for their technology on Nonvolatile and Cryogenic Compatible Quantum Memory Device Aug.26 at the San Diego Hilton hotel.

Quantum computing will revolutionize computational capability bringing computing devices to market that are potentially millions of times faster than conventional computers. SSC Pacific is on the cutting edge of research and development in this exciting field. A major need in quantum computing is a solid-state memory device that can provide fast operation, low voltage, and cryogenic compatibility.

SSC Pacific is developing a cryogenic-compatible Quantum Memory Device capable of performing writing, reading, and erasing operations via fast (pico-seconds), low voltage (millivolts) electrical pulses generated by on-chip computational devices. This device pushes the envelope on speed, voltage, and temperature compatibility required for quantum computing, and is foundational for making super-fast, low-power, sub-nano-scale computer chips a reality.

LOGISTICS EXCELLENCE

The Office of the Chief of Naval Operations has selected SSC Pacific's Dwayne Lloyd as the 2014 Admiral Stan Arthur Civilian Award winner for Logistics Excellence. The award recognizes individuals who epitomize logistics professionalism and excellence in all phases of Navy logistics.



Dwayne Lloyd, head of the Fleet Modernization and Installation Division and Installations Competency.

Lloyd expertly led a combined civilian and military team of 133 personnel to manage more than 800 installations in 2014, including several first-of-kind network, satellite communications and signal intelligence systems. Lloyd implemented many innovative approaches that maximized enterprise resources and improved the overall execution and management of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems deliveries.



STEM Education & Diversity Champion of the Year

Dr. James Rohr, SSC Pacific's Science, Technology, Engineering and Mathematics (STEM) Outreach team lead, received the prestigious 2014 Vice Adm. Samuel L. Gravely, Jr., STEM Education & Diversity Champion of the Year Award Aug. 26 at the ONR Bobby Junker Executive Conference Center in Arlington, Virginia.

The award is sponsored by the Office of Naval Research (ONR) and recognized Rohr for orchestrating nearly 325 Center volunteer-supported events for San Diego K-12 communities.



Dr. James Rohr (left) at a STEM outreach event.

With funding from the National Defense Education Program, coupled with focused Navy leadership support, SSC Pacific's K-12 Outreach program has grown from a single event in 2007 to more than 300 K-12 outreach activities this past year.

Rohr and his team inspired more than 375 STEM employees to donate nearly 13,000 hours to teaching and shaping the future of their community.

As one example, his team developed a three-year program to create and distribute STEM curricula through a partnership with the San Diego County Board of Education. The program provides the prerequisite training in the Next Generation Science Standards to local teachers so that they can effectively teach them to their students and fellow faculty.

Another indicator of the team's positive impact is a notable rise in graduation rates of mentored students participating in the Hawaiian National Guard Youth Challenge Academy. In addition, the STEM Outreach team joined with East Los Angeles and Southwestern Community Colleges and will mentor 10 to 15 of their students annually.

Cyber

Technical Exchange Meeting

Almost 450 members of the Navy's cyber community met to discuss the challenges facing the Department of Defense's newest warfighting platform and what can be done to provide collaborative solutions to heighten cyber security capabilities across the board during the four-day Cyber TEM Conference, Aug. 24-28, 2015, at SSC Pacific's Topside facilities.

Professional Development Day

SSC Pacific hosted a Project Manager Professional Development Day, Aug. 12, 2015, at the Admiral Kidd Conference Center. Project managers from San Diego and Hawaii attended to learn how to work and lead more efficiently.



Honorary Awards

Executive Officer Capt. Gisele Bonitz and Executive Director Carmela Keeney hosted the 2015 Honorary Awards ceremony Aug. 20 in Building A33's auditorium. A total of 174 Honorary Awards were presented including 126 Exemplary Achievement Awards, 42 Navy Meritorious Civilian Service Awards, 3 Lauritsen-Bennett Awards and the Michael A. Kagan Invention of the Year Award.



(l-r) Executive Director Carmela Keeney, Tammy L. Sanchez, Dr. Stephen M. Hammel, Claude A. Norton, III, and Executive Officer Capt. Gisele Bonitz.

The Lauritsen-Bennett Award, the Center's highest honorary award, was presented to Tammy L. Sanchez for excellence in staff support; Dr. Stephen M. Hammel for excellence in science; and Claude A. Norton, III, for excellence in engineering. Additionally, the Michael A. Kagan Invention of the Year Award was presented to Aaron B. Burmeister, Narek Pezeshkian and Hoa G. Nguyen for their invention, the Wireless Self Contained Relay Device.

MIXED REALITY LAB

develops technology, expertise for the fleet

SSC Pacific's Battlespace Exploitation of Mixed Reality (BEMR) lab showcases and demonstrates cutting-edge, low-cost, commercial off-the-shelf, mixed reality technology (virtual reality and augmented reality). The lab provides a facility for effective collaboration among researchers, government, and industry. Since the lab first opened at SSC Pacific in December 2014, it remains at the forefront in developing this technology for the fleet.



Arne Odland, SSC Pacific scientist, works in the BEMR lab.

The technology behind the BEMR lab replicates scenarios and places so Sailors can gain a real-world understanding of how to repair equipment or familiarize themselves with a new ship. A concept called the virtual bridge allows commanders to experience a new ship and the layout of the bridge prior to their actual arrival on board. The cost of BEMR lab equipment is low, and this technology could possibly be transitioned directly to the ship in the future.



Arne Odland, SSC Pacific scientist, works in the BEMR lab.

Implementing this technology into the fleet could potentially increase readiness, time, and money. Chief of Naval Operations (CNO) Adm. Jonathan Greenert supports virtual reality and spoke about it at the 2015 Sea-Air-Space Expo.

"The fidelity of virtual reality today is such that our folks can use touch screens to immerse in anything from starting a diesel engine to launching a torpedo to working on an aircraft," said Greenert.

The CNO said the Navy should move training closer to the waterfront so units can access the immersive trainers as they need them, saving money over the traditional schoolhouse and lab learning model.