

242ND NAVY BIRTHDAY

SEAPOWERS TO PROTECT AND PROMOTE

NAVAL MEDICAL

R&D

NEWS

October 2017

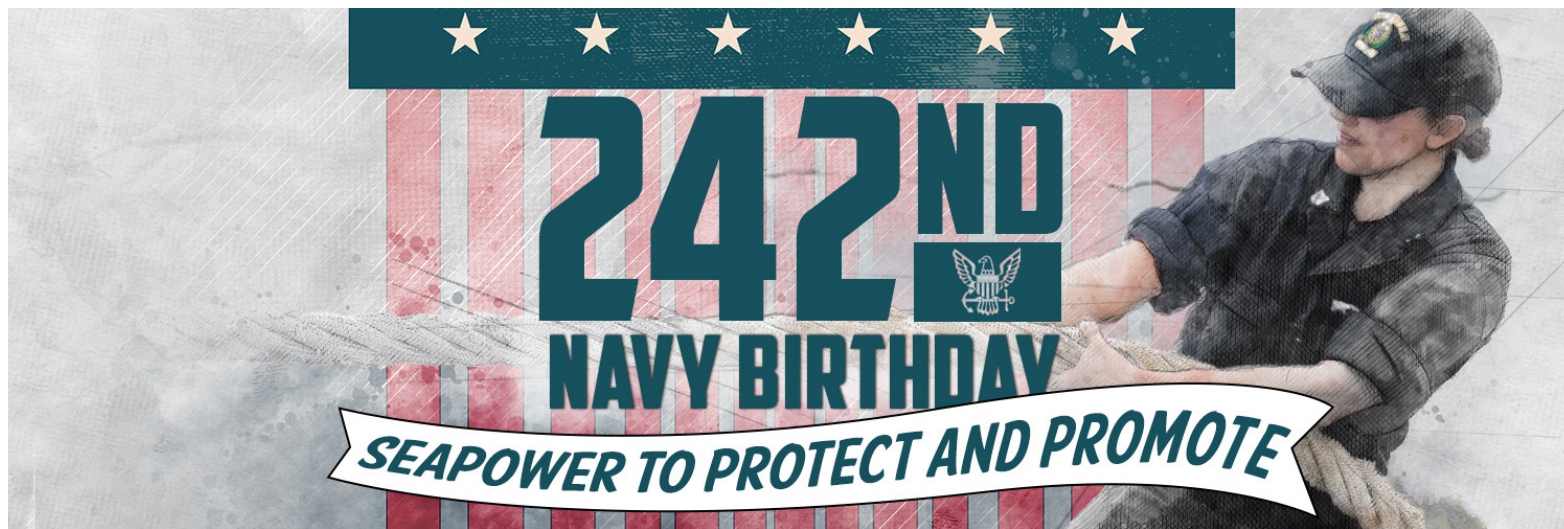
Volume IX

Issue 10



USNS COMFORT IN
PUERTO RICO

U.S. NAVY CELEBRATES 242ND BIRTHDAY (COVER)



U.S. Navy Birthday Graphics Made Courtesy of the Naval History and Heritage Command



The Naval Medical Research Unit- Dayton (NAMRU-D) wardroom, 711th Human Performance Wing Commander, and Air Force Research Laboratory - AFRL Vice Commander celebrate the 242nd Navy birthday during the NAMRU-D Dining Out, October 12.

The Naval Medical Research Center (NMRC) celebrates the 242nd U.S. Navy Birthday with a special cake cutting. Capt. Adam Armstrong, commanding officer, NMRC (right), cuts the cake with Hospital Corpsman 2nd Class, Alison Heads.

(Photo by HM3 Justin Heads, NMRC, Released)

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ABOUT THE U.S. NAVY 242ND
BIRTHDAY**

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USNS COMFORT DEPARTS FOR PUERTO RICO (FEATURE)

From Military Sealift Command Public Affairs



NORFOLK (NNS) -- The Military Sealift Command hospital ship, USNS Comfort (T-AH 20), departed Naval Station Norfolk to support relief efforts in the aftermath of Hurricane Maria in Puerto Rico.

“The medical capability the ship can deliver was done underway, in port, and at anchor. Between the helicopter capability we have and the boats we have, all of those things together give us the ability to be flexible in our mission,” said Capt. Kevin Robinson, commander, forward command element aboard USNS Comfort.

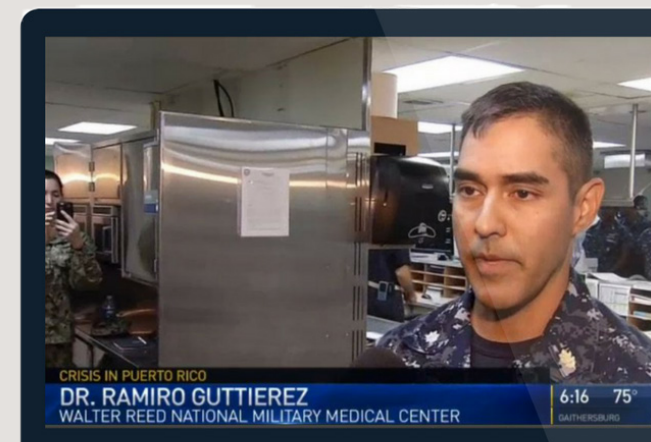
USNS Comfort departed Naval Station Norfolk with over 800 Navy medical personnel and support staff with the medical treatment facility (MTF), and over 70 civil service mariners. The medical personnel will

provide a full spectrum of medical care to include general practice, family medicine, nephrology and pediatrics. The civil service mariners operate and navigate the ship, load and off-load mission cargo, assist with repairs to mission equipment and provide essential services to keep the MTF up and running.

When not deployed, USNS Comfort is kept in a reduced operating status but can transition to full operating status in five days.

Comfort’s MTF is an embarked crew of medical personnel from the Navy’s Bureau of Medicine and Surgery responsible for operating and maintaining one of the largest trauma facilities in the United States....(cont.)

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Cmdr. Ramiro Gutierrez from the Infectious Disease Directorate at NMRC is one of two deployed NMRC researchers aboard the USNS Comfort.

The USNS Comfort arrived in Puerto Rico to assist in humanitarian relief efforts, Oct. 3. Comfort is part of the whole-of-government response effort and is assisting the Federal Emergency Management (FEMA), the lead federal agency, in helping those affected by Hurricane Maria.

CLICK IMAGE TO WATCH

DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR WESTERN HEMISPHERE AFFAIRS VISITS NAMRU-6

From U.S. Naval Medical Research Unit No. 6 - Peru



Lt. Cmdr. Wes Campbell, Deputy Head, Virology and Emerging Infections Department (VEID), NAMRU-6, (far left), joined by Dr. Chris Mores PhD, MPH (Center), Head, VEID, describe the department and research portfolio to Mr. Sergio de la Peña, Deputy Assistant Secretary of Defense for Western Hemisphere Affairs (Right). VEID conducts acute febrile and respiratory illness surveillance to provide knowledge on epidemiology and ecology of infectious diseases throughout USSOUTHCOM.

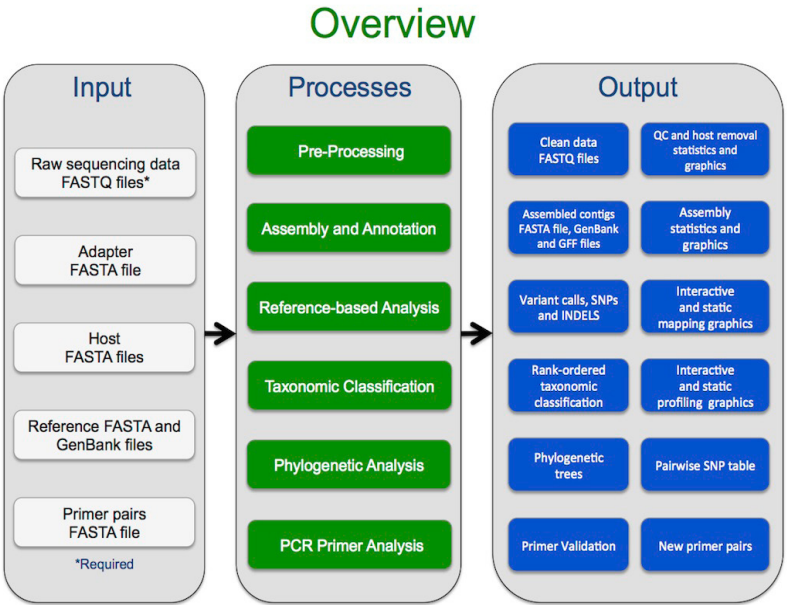
LIMA, Peru -- As part of his visit to Peru, Mr. Sergio de la Peña, Deputy Assistant Secretary of Defense for Western Hemisphere Affairs (DASD-WHA) spent a day meeting with researchers at the U.S. Naval Medical Research Unit No. 6 - Peru (NAMRU-6) to learn more about Navy Medicine research and development efforts within USSOUTHCOM. Among the topics discussed was a NAMRU6-led surveillance efforts covering arboviruses, malaria, and antimicrobial resistant bacterial pathogens, as well as new antimalarial therapeutic development and bacteriophage-based antimicrobials.

NAMRU-6, as the only Department of Defense command within the USSOUTHCOM area of responsibility, has an extensive portfolio of products from early discovery to advanced development. The research portfolio focuses on the epidemiology, pathogenesis and prevention of viral, parasitic and bacterial diseases. Activities include applied research to evaluate and test new vaccines, prevention strategies, treatment modalities, diagnostics, and novel insect control measures. Additional efforts are concentrated on disease detection, epidemiologic descriptions, and assistance to regional partners in developing surveillance systems, with a strong focus on viral pathogens, especially influenza, dengue, chikungunya and recently Zika virus.

The mission of NAMRU-6 is to conduct biomedical research in the field of infectious diseases and global health that is responsive to U.S. Navy requirements and delivers life saving products including knowledge, technology, and medical material that sustain the effectiveness of uniformed service members, through respectful cooperation with our collaborators.

NMRC EDGE WINS NOTABLE TECHNOLOGY DEV. AWARD, SELECTED AS R&D 100 FINALIST

From Naval Medical Research Center Public Affairs



Results gathered on EDGE are available real-time as both static and interactive graphics, effectively bringing bioinformatics into the hands of researchers around the world.

“These nominations and selections represent formal recognition by the scientific community that EDGE is a notable technology development,” said Lt. Cmdr. Theron Hamilton, Department Head, Genomics and Bioinformatics. “Because of this technology, research can begin to be translated into sometimes immediate solutions to support the warfighter. We’re constantly striving to better the health, wellness and readiness of our Sailors and Marines.”

“EDGE is a user-friendly platform providing point-and-click workflows so researchers who don’t have extensive bioinformatics or computer science expertise can analyze large volumes of high-throughput Next Generation Sequence (NGS) data. Not only has data output increased, but sample preparation time and cost per nucleic acid base have decreased, EDGE helps even untrained users capitalize on these expanding NGS tools and opportunities ,” said Hamilton.

According to Hamilton, EDGE has a small footprint and can be run locally without internet, and enables the user to perform quality control of sequence data, host removal, genome assembly and annotation, comparisons to reference genomes, taxonomic profiling, phylogenetic analyses, as well as primer design.

“Having this technology is a game changer for both poorly and well-resourced research labs everywhere,” said Hamilton.

Laboratories across the world, including clinical and university laboratories, have started to adopt high-throughput sequencing with this advanced technology because of the decreasing cost per base and laboratory footprint associated with high-throughput sequencing.

NAMRU-SA RESEARCHER SERVES AS OFFICIAL ARCHERY JUDGE AT VALOR GAMES SOUTHWEST

From Naval Medical Research Unit - San Antonio Public Affairs



SAN ANTONIO – An electronics technician at the Naval Medical Research Unit – San Antonio (NAMRU-SA) served as the official USA Archery Judge for the Valor Games Southwest, San Antonio, Texas, September 25 – 27. Through the power of sport, competition, and camaraderie, the Valor Games provide an opportunity for disabled veterans and active duty service members to challenge their personal limits in a spirited competition in seven sports, including archery. San Antonio Sports hosted the event, for the fifth consecutive year, in partnership with the U.S. Department of Veterans Affairs; U.S. Paralympics, a division of the United States Olympic Committee; and community and corporate partners.

“Archery is an individual sport, but in the Valor

Games service members build strength and confidence in their ability with the bow while experiencing genuine military camaraderie,” said Duane Cox, electronics technician, NAMRU-SA.

The Valor Games Southwest is a multi-sport event with the goal to provide an adaptive sports competition opportunity to veterans and active duty service members to overcome a variety of disabilities. Archery, one of seven adaptive sports competitions held during the Valor Games, requires no previous experience or specific skill set to participate.

“Regardless of your age, gender, or disability, anyone can learn archery,” said Jeremy Velez, head coach for the Warrior Transition Battalion (WTB) Adaptive Archery Program, Fort Sam Houston, Texas. Valez is also head coach for the Texas Regional Paralympic Sports Adaptive Archery Program for Veterans.

Cox and Velez were proud to have seven members from their Adaptive Archery Program win medals including gold and silver at this year’s games.

As a member of the biomedical engineering research team at NAMRU-SA, Cox brings dedication and expertise to his projects. Cox applied that same commitment to archery to achieve the USA Archery Level 3 Coach, certified judge and is also a competitive archer. Within the past three years he seized every opportunity for training to reach the judge level, and his expertise as an archery judge placed him right in the middle of the Valor Games Southwest.

As the official USA Archery Judge, Cox wore the red judges’ shirt and performed the official duties of checking equipment to make sure everything was within regulations, maintained the line for safety, distance, and conducted arrow calls...(cont.)

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R&D CHRONICLES: THE STORY OF DR. RIVERS AND THE ORIGIN OF NAMRU-2, PART II

By André B. Sobocinski, Historian, BUMED



“[The] U.S. Naval Medical Research Unit No.2 will shortly sail for its designated bases, and I am solicitous that the enterprise, it being a trail-blazer and possibly the forerunner of other similar units, have every opportunity to demonstrate its usefulness.”

~Vice Adm. Ross McIntire, Surgeon General of the Navy to Capt. Thomas Anderson, MC, USN, Staff Surgeon, CINCPAC, Oct. 30, 1944

By the end of January 1944, Dr. Tom Rivers stood at the helm of an organization that had yet to be realized. As the Officer in Charge of U.S. Naval Medical Research Unit No.2 (NAMRU-2), Rivers would have the sizeable task of adapting concept into reality—i.e., recruiting personnel, acquiring the requisite equipment and supplies, and standing up the command.

To address his staffing needs, Rivers turned to his colleagues at the Rockefeller Naval Hospital Research Unit. NAMRU-2’s staff would not only be comprised of a who’s who of Rockefeller’s finest, but some of most preeminent physicians and scientists in the world—each acting in the capacity as naval reservists.

Rivers tapped Dr. Francis Schwentker (1904-1954) as his second-in-command. Schwentker, one of the foremost clinical investigators in the nation, had worked with Rivers at the Rockefeller Institute since the 1930s. He would oversee the planning and ensure the NAMRU-2’s construction remained on schedule. Others on the roster would be no less distinguished...

- Richard Shope (1901-1966), a virologist whose accomplishments included discovering the Shope Papilloma virus, a condition that caused the formation of horny protrusions in cottontail rabbits (and possibly serving as the root of the jack-a-lope legend). His work on Rift Valley Fever and equine encephalitis would later prove seminal to the Navy.
- Norman Stoll (1893-1977) was a parasitologist and one of the nation’s foremost experts on hookworm.
- Marion Sulzberger (1895-1983) was a dermatologist and leading expert on dermatologic immunology and contact allergies (e.g., poison ivy, etc).
- Harry Zimmerman (1901-1995) was a neuropathologist and pioneer in the study of diseases of the nervous system. He would later co-found Albert Einstein College of Medicine....(cont.)

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SAN ANTONIO SAILORS HELPING CHANGE THE WORLD THROUGH STEM

By. Burrell Parmer, Navy Recruiting District San Antonio Public Affairs

EDINBURG, Texas. -- *Changing the World Through STEM* was the theme of the 2017 Hispanic Engineering, Science, and Technology (HESTEC) Week held on the campus of the University of Texas-Rio Grande Valley Oct. 2-7.

HESTEC Week is an educational conference that features events geared toward promoting science, technology, engineering, and mathematics, or STEM, education to people of all ages and backgrounds.

This initiative began with a STEM Literacy Panel discussion comprised of distinguished speakers focused on increases in STEM-related degrees and employment during Educators Day.



Navy Capt. Thomas Herzog, commanding officer, Naval Medical Research Unit- San Antonio (NAMRU-SA), participated in the panel along with executives from University of Texas-Rio Grande Valley, Shell and others.

A native of Houston, Herzog shared how the Navy prepared him for success and how his educational experiences prepared him for his journey as a Naval officer.

“I see STEM as the equivalent of an opportunity,” Herzog said. “One must keep an open mind and be willing to take on the risks and challenges that may be presented. And you must have a consistent willingness to learn.” ...(cont.)

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NAVY MEDICINE R&D ENTERPRISE COMMAND



Capt. Adam Armstrong
Commanding Officer
Medical Corps, USN



Capt. William Deniston
Executive Officer
Medical Service Corps, USN

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