



NEWS

naval meteorology and oceanography

Sept. 4, 2013

Commander's Corner

We Will Persist in Evolving, Exploiting Our Ability to Shape and Control the Battlespace

By Rear Adm. Brian Brown

Many of you have heard, either directly or indirectly, about the potential establishment of an Information Dominance (ID) Type Commander (TYCOM) and probably have many questions about what it will mean to Naval Oceanography's current organization and operations. This discussion is in its early phases and there is much more planning to do before such an organization stands up. I do not have any details to share, but, as always, I will keep you informed as the way ahead shapes up.

With this in mind, it's more important now than ever to understand the key role that Naval Oceanography plays within ID. ID is defined as "the operational advantage gained from fully integrating the Navy's information functions, capabilities and resources to optimize decision making and maximize warfighting effects." If that sounds familiar, it's because that's what we have been doing since we aligned to the fleet readiness and warfighting lines of operations and instituted the Battlespace on Demand (BonD) operational concept.



The Navy plans to achieve ID based on three tenets: 1) assuring command and control for our deployed forces regardless of the threat environment; 2) enhancing battlespace awareness to shorten the decision cycle inside that of the adversary and to better understand the maritime operating environment; and, 3) fully integrating traditional kinetic and emerging non-kinetic fires to expand warfighting options to both Navy and joint commanders.

We "own" the physical battlespace awareness from the bottom of the ocean to the farthest expanses of space, from the subatomic level to the breadth of the universe. We characterize and forecast the physical conditions of our fleet's operating environment and provide a foundational framework on which to navigate and fight, temporally and spatially. Along with the intelligence community (including cryptology), we provide the information content that serves as the basis from which nearly all decisions will be made, enabling our forces to effectively maneuver and coordinate actions that target and engage enemy forces.

Every Naval Oceanography line of operation is critical to battlespace awareness, whether it's characterization of the atmosphere, the ocean, or riverine environment. Navigation and precise time and astrometry (PTA) lines of operations anchor our fleet safety lines of operations (aviation, maritime, and fleet operations) and warfighting lines of operations (expeditionary warfare, anti-submarine warfare, mine warfare, and fleet operations). Together, they allow the fleet to operate safely and deliver warfighting capabilities. Additionally, our PTA line of operation provides a foundational piece of assured command and control through time

services, the celestial framework and Earth orientation. Using our BonD construct, we've already successfully shown the warfighter how we translate data into decisions in an operational environment. As ID continues to grow, we will persist in evolving and exploiting our ability to shape and control the battlespace.

It's a great time, especially in our fleet concentration areas and in the Washington, D.C., area, for all of us – officer, enlisted and civilian – to reach out to our fellow members of the IDC to foster awareness of capabilities and grow the ID network. I thank all of you that have shown the initiative to connect the dots across ID.

Please accept my personal thanks for everything each of you does for Naval Oceanography, the IDC and our fleet every day. The quality of your work, your commitment and flexibility will continue to shine as we maximize our ability to support the fight of the future.

From the Deputy/Technical Director

May Tornado Recalls Katrina

By Dr. William H. Burnett

Aug. 29 is the anniversary of Hurricane Katrina. The eye of Katrina went directly over Stennis Space Center and stayed over the site for about 90 minutes. I know this since I was one of the few that sheltered at the site during the storm. Certainly not a situation that I ever want to experience again in my lifetime, but history tells me that hurricanes will hit again as long as I live in hurricane alley.

This summer I drove through Moore, Okla., after an EF5 tornado went through in May. Driving through the area brought back so many memories of Katrina. The blue roofs. The big ugly dump trucks hauling debris out of the area. The vast wasteland that used to be homes and gardens. The picture, below, shows part of the area in Moore that will take years to recover.



My family lives around the area – in Oklahoma City and near Tinker Air Force Base. In fact, I grew up near Moore in a place called Midwest City. Whenever large tornadoes threaten the area, I am always watching the radar and wondering where they are sheltering.

In 1999, a similar tornado went through the Moore area, almost the exact same path. I was working at

the Naval Meteorology and Oceanography Command at the time but was at home around 1900 in the evening. I had the Weather Channel on and saw a huge hook echo headed to Tinker, right toward my parents house. After calling my parents to see what they were doing, Dad was in the bathtub and Mom was in the closet, I waited and waited for news to see if they survived the storm. Somehow Dad called about an hour after the storm passed to tell me that they were okay. The tornado lifted about a block from their house, and they had an enormous amount of debris lying in their yard.

I contrasted the 1999 storm with the 2013 storm. Watching the weather that morning, I knew that a tornado outbreak was about to occur. Sure enough, around 1500 in the afternoon, tornadoes started touching down west of the city, with one large tornado just southwest of Moore. However, this time I could watch the local television station on my phone to see the reports from storm chasers in the area. I also had real-time dual-polarization Doppler radar to see exactly where the tornado was located and where it was going to go. I called

my father to make sure he was sheltered, but I knew he would be okay with all the information I had at hand. Technology certainly has changed within a short period of time.

The question I think about now is how can we apply this technology to support our Naval forces? We bring the knowledge of battlespace awareness to the fleet. It is one of our key tenets within Information Dominance. We should be able to ensure that the forces have the same type of real-time understanding of the environment that I had during the Moore tornado. One of our goals is to leverage our investments to make these possibilities a reality as soon as possible.

News

Okon Relieves Sauer as FNMOC CO



U.S. Rep. Sam Farr looks on as Capt. John Okon relieves Capt. Erika Sauer as commanding officer of Fleet Numerical Meteorology and Oceanography Center (FNMOC) on Aug. 23.

Capt. John Okon relieved Capt. Erika Sauer as commanding officer of the Fleet Numerical Meteorology and Oceanography Center (FNMOC) in a change of command ceremony on Aug. 23 at Monterey, Calif.

Rear Adm. Brian Brown was the guest speaker in a ceremony also attended by U.S. Rep. Sam Farr, Rear Adm. Jan Tighe, Naval Postgraduate School interim president; Rear Adm. Charles "Grunt" Smith, USN (Ret.); Rear Adm. Jerry Ellis, USN (Ret.); Rear Adm. Ken Barbor, USN (Ret.); and Dr. Simon Chang, Superintendent of the Naval Research Lab Marine Meteorology Division.

Okon became the commanding officer after serving as the Senior Oceanography Officer Detailer with the Naval Personnel Command.

Sauer, who was awarded the Legion of Merit, will report to the OPNAV Staff and will assume the duties as the Navy Deputy to NOAA.

Connon Takes Command at USNO

Capt. Brian Connon became the 54th Superintendent of the U.S. Naval Observatory on Aug. 29 when he relieved Capt. Tim Gallaudet.

Rear Adm. Brian Brown, commander of the Naval Meteorology and Oceanography Command, was the guest speaker.

Connon became the Superintendent after serving on the staff of the Oceanographer of the Navy. Gallaudet will join the staff of the Oceanographer of the Navy as the Executive Assistant.



Capt. Tim Gallaudet (r), outgoing U.S. Naval Observatory Superintendent, congratulates Capt. Brian Connon (l) incoming U.S. Naval Observatory Superintendent, during the Change of Command ceremony on Aug. 29. (U.S. Navy photo)

Items of Interest

NMOPDD-LANT Graduates First AFLOAT Class

By Aerographer's Mate First Class (AW/SW) Loren D. Springer

On July 19, Naval Meteorology Oceanography Professional Development Center's Detachment, Atlantic (NMOPDD-LANT) graduated its first Aerographer's First Look Oceanography Accession Training (AFLOAT) class, comprising of 12 Sailors attached to Fleet Weather Center-Norfolk (FWC-N).

AFLOAT is designed to train newly accessed aerographer's mates with the knowledge required to assess and analyze an environmental battle space of the Earth's oceans and forecast environmental changes within the battle space, applying those conditions to operational parameters, and creating informational briefs for decision makers. Their new skills will be put to immediate use by the maritime and aviation watchfloor at FWC-N, as well as the Strike Group Oceanography Team (SGOT) located within FWC-N.

The next AFLOAT course is scheduled to begin in late September 2013.



Pictured at left from left to right: Front, AGC(AW/SW) Asya Andrews; 1st Row, AG1 (AW) Laura Harden, AG1 (AW/EXW/SW) Heather Sampley, AGAA Miranda Bray, AGAA Robbia Garrett; 2nd Row, AG1 Loren Springer, AGAA Zachary Yanez, AG3(AW) Aaron Payne, AGAR David Francisco, AGAR Christopher Schneider, AGAA Nathan Crawford, Capt. Rich Delgado (Commanding Officer, FWC-N); 3rd Row, LCDR David Lewis (Officer in Charge, NMOPDD-LANT), AGAA Cameron Wright, AGAN Michael Huelsing, AGAA Michael Digilio, AG3 Ronney Freeman, AG1(SW) William Herin, AGAA Nicholas Stucko, AGC(sel)(IDW/AW/SW) Fenton Chavez-Santiago

New BOAT Class Tours Stennis



Basic Oceanography Ascension Training (BOAT) students tour Naval Oceanography assets at Stennis Space Center. Pictured are (first row, l-r) Lt. Jason Dawson, Lt. Matthew Smart, Lt.j.g. Anna Salvaggio, Lt. Jason O'Neill (second row, l-r) Lt.j.g. Tyler Sharp, Ensign Lee Swing, Ensign Cathleen Ress, Ensign Jasmine DePompeo, Lt. Curtis Reinking. (U.S. Navy photo)

U.S. Naval Observatory Declares Full Operational Capability for New Clocks

Geoff Chester, USNO Public Affairs Officer

Four Navy Rubidium Fountain Clocks at the U.S. Naval Observatory (USNO) in Washington, D.C., became operational on Aug. 27.

To mark the occasion, Rear Adm. Jonathan White, the Oceanographer and Navigator of the Navy and resource sponsor of the USNO, formally pronounced the new clocks fully operational in a ceremony at the observatory.

The U.S. Naval Observatory Master Clock is used to create a real-time realization of Coordinated Universal Time

(UTC). UTC is published by the *Bureau International des Poids et Mesures* (International Bureau of Weights and Measures, or BIPM) in Sevres, France. USNO is currently the largest single contributor to the definition of UTC; its clocks amount to over 20 percent of the mean weighting of the timescale.

USNO has been keeping time for the Department of the Navy and for the nation since 1845, when Superintendent Matthew F. Maury first put the Washington Time Ball into operation. The USNO Master Clock is the designated timing reference for all DoD precise timing requirements, many of which (including GPS III) demand a precision that exceeds one nanosecond (10^{-9} or one-billionth of a second) per day.



Capt. Tim Gallaudet, USNO Superintendent, reports the successful Full Operational Capability of the Navy Rubidium Fountain Clock system to Dr. Brian Luzum, Acting USNO Scientific Director, and Rear Adm. Jonathan White, Oceanographer/Navigator of the Navy. (U.S. Naval Observatory photograph by Geoff Chester)

September is Navy Suicide Prevention Month



September is Navy Suicide Prevention Month and the launch pad for year-long efforts to build resilience and unit cohesion, navigate stress and promote a culture supportive of seeking help as a sign of strength. Life counts. It takes honor, courage and commitment to prevent suicide and simple acts of kindness make a difference. Seeking help is a sign of strength and by helping others we help ourselves.

Suicide prevention goes beyond training to recognize risk factors, warning signs or what to do in a crisis. While these things are critical elements of readiness, actual prevention happens every day when we do something kind for someone who didn't expect it, or take the time to actively listen and care when asking how others are doing. Small acts make a difference to those around us, and can make a difference in the way we view ourselves. Often when people realize that they have done something—intentionally or unintentionally—to help others, they have a renewed sense of purpose and belonging even when enduring their own personal stress. A sense of community and belonging are what ultimately help Sailors make the decision to seek help during adversity so that they don't succumb to the burdens of stress and hopelessness. Those who are willing to help others are usually more willing to receive help when needed.

For more information: <http://navylive.dodlive.mil/2013/08/31/september-navy-suicide-prevention-month/>

Visitors

DCNO (N2/N6) Visits Stennis



Cmdr. Ron Shaw (l), Fleet Survey Team commanding officer, and Aerographer's Mate Second Class Nathan Glabitz brief Vice. Adm. Ted Branch, Deputy Chief of Naval Operations for Information Dominance, on Fleet Survey Team operations and capabilities during Branch's visit to the Naval Oceanography assets at Stennis Space Center on Aug. 12. (U.S. Navy photo by George Lammons)

Retirements/Promotions

Chief Aerographer's Mate Selections Released

The following aerographer's mates first class were selected for promotion to chief aerographer's mate: Amy Allen, Joseph Becerra, Scott Belt, Kenneth Bishop, Jason Bracken, Fenton Chavez-Santiago, Michael Conklin, Christopher Cross, Michael Demauro, Jeremy Druiett, Brian Georger, Raymond Glass, Minh Khai Ho, Joshua Jackson, Christie King, Lisa McCoy, Rocky McMahan, Jason Price, Joel Seaney, Horace Webster, Ebony Williams, Daniel Zimmerli.

Reserve Chief Aerographer's Mate Selections Released

The following Naval Reserve aerographer's mates first class were selected for promotion to chief aerographer's mate: Casie Cutman, Harvey Nesmith, Richard Cappellino, Amy Kellams, Victoria Edwards, Amber Sullivan, JohnDave Diaz, Jacqueline Knew, Timothy Crowley, William Fontaine.

Two Retire at NMOC After Long Careers



Richard Simmons (left) with Dr. Bill Burnett, deputy/technical director of the Naval Meteorology and Oceanography Command (NMOC), at Simmons' retirement ceremony. (U.S. Navy photo)

Richard Simmons and John Easton retired in July after long careers in Naval Oceanography. Simmons after 44 years, and Easton after 33. Both were employees of the Naval Meteorology and Oceanography Command, but both spent most of their years at the Naval Oceanographic Office.



In photo at right: John Easton with Rear Adm. Brian Brown, commander of the Naval Meteorology and Oceanography Command, at Easton's retirement ceremony. (U.S. Navy photo)

Command Spotlight: JTWC

The Joint Typhoon Warning Center (JTWC), located in Pearl Harbor, Hawaii, is a jointly manned United States Air Force/Navy command that provides tropical cyclone (TC) reconnaissance, forecast, warning, and decision support to U.S. government agencies operating in the Pacific and Indian oceans as directed by Commander, U.S. Pacific Command. Additionally, JTWC provides tsunami decision support to U.S. Navy shore installation



JTWC watchstanders discuss a tropical storm in the WESTPAC.

and fleet assets as directed by Commander, Fleet Forces Command. With 32 military and 15 civilian Air Force/Navy personnel, JTWC maintains a 24/7 operational watch floor with four primary components: the command duty officer (CDO), the geophysical technician (GT), the satellite analyst, and the typhoon duty officer (TDO).

JTWC CDOs are responsible for the command mission but are educated in tropical meteorology, which aids in fielding questions and providing relevant TC product decision support to customers. Additionally, JTWC CDOs qualify as tsunami watch officer (TWO) and are responsible for monitoring the globe through a U.S. Geologic Agency feed for seismic activity or earthquakes that provide the initial proxy notification of potential tsunami.

The GT, who is typically an aerographer's mate, provides the surface-level streamline analysis across the AOR, TC development assessments, and serves as a tsunami initial responder, which requires the GT to create and distribute initial tsunami decision support products to U.S. Navy shore installation and fleet assets quickly.

The Satellite Analyst, who is typically an enlisted active duty Air Force service member, uses the USN FMQ-17 (Navy Satellite Display System-Enhanced (NSDS-E)) hardware and TeraScan software as well as the USAF Mark IVB system to ingest, display, enhance, manipulate and interrogate all source satellite data to provide relevant and accurate position fixes and intensity estimates of any tropical cyclone tracked by JTWC.

The TDO, who is either an active duty Air Force/Navy Officer or civilian, is the lead TC forecaster and is responsible for issuing all tropical cyclone decision support to include: advisory bulletins, formation alerts (TCFA), and warning products. TDOs are responsible for assimilating many different data sources to develop TC products that include: numerical models and model ensembles, satellite imagery, scatterometry data, surface and upper-level streamline analysis, as well as ship and station observations.

Outside the watch floor, the JTWC Techniques Development branch integrates tropical cyclone research, techniques procedures and processes that provide improvement to JTWC tropical cyclone and tsunami decision support. The entire operations team is backed by administrative, finance and information technology support that focuses on ensuring JTWC continues to excel meeting its DoD mission.

Spotlight Employees

Edward Fukada



Edward Fukada serves as the Technical Advisor at the Joint Typhoon Warning Center (JTWC), responsible to the commanding officer and technical director for providing guidance regarding tropical cyclone forecasting policy development, procedures, and product improvement. As technical advisor, he fills two primary roles at JTWC. First, he is head trainer. His 38 years and 3,000 tropical storms with JTWC and the former Naval Pacific Meteorology and Oceanography Center have given him a wealth of expertise and contacts in the tropical cyclone forecasting world that he can leverage to benefit JTWC and the fleet. Secondly, he acts as a representative of the Naval Meteorology and Oceanography Command and JTWC in the tropical cyclone forecasting community worldwide. Fukada has developed working relationships with foreign meteorological agencies by virtue of his in-depth tropical cyclone knowledge

and experience. These relationships are maintained through routine visits and meetings with the Australian Bureau of Meteorology, China Meteorological Administration, Japan Meteorological Agency (JMA), Korea Meteorological Administration (KMA), Meteo France, Taiwan Central Weather Bureau, the U.S. National Weather Service (Guam) as well as the World Meteorological Organization (WMO) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) Typhoon Committee. Most recently he coordinated visits to JTWC by JMA and KMA as well as acted as the liaison to JTWC Decision Support Branch (DSB) product acquisition at JMA for use of the JMA desktop storm surge software at JTWC. Consequently, he is known throughout the command as the “go-to” source for advice regarding difficult tropical cyclone forecasting challenges.

AGAN Bristol Rigby



Aerographer's Mate Airman Bristol A. Rigby joined the Joint Typhoon Warning Center (JTWC) in March 2012. Soon after reporting, she qualified as a geophysical technician (GT), becoming a key member of the JTWC forecasting watch team, providing the surface-level streamline analysis across the AOR and tropical cyclone development assessments while at the same time serving as a tsunami initial responder, providing liaison between tsunami warning centers and impacted fleet assets. Rigby also qualified to stand watch with the base auxiliary security forces (ASF) and qualified as an expert on the M9 service pistol while at the ASF Academy. She is the command volunteer coordinator and dedicates time to MWR, the command diversity committee, CSADD, and Adopt-A-Highway. Rigby was awarded a Flag Letter of Commendation from the Commander, U.S. Pacific Fleet for volunteer support

during the Wounded Warrior Pacific Trials and was named the JTWC First and Third quarter FY13 Junior Sailor of the Quarter. Additionally, Rigby volunteers her free time at the Makalapa Naval Health Clinic working with corpsmen developing her skills as she pursues a future commission as a Nurse Corps Officer.

Social Media

Follow Naval Oceanography on Facebook and @navyoceans on Twitter to keep up with all the latest news and images from the Naval Meteorology and Oceanography community.

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