DECISION SUPERIORITY through BATTLESPACE ON DEMAND

naval meteorology and oceanography NEWS

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Commander's Corner

We See Four Areas That Give Us Opportunity for Growth

By Rear Adm. Brian Brown

As Naval Oceanography moves forward in these fiscally challenging times, I've been asked several times about Naval Oceanography's strategic focus. Simply put, we will remain focused on our established lines of operations yet be vigilant and agile to support emerging warfighting areas, while maintaining the business and operational excellence for which we've become known.

Naval Oceanography is acknowledged as the Navy's physical maritime battlespace authority: a critical partner across the full range of DoD operations, delivering decision superiority, operational effectiveness and safety to our operational forces.

This is the vision I see for the Navy's Operational Oceanography Program that we all execute, one that anchors our strategic plan that will be released this summer and underpins our work. While current fiscal realities impact our ability to undertake significant new initiatives, there are some opportunities for growth and optimization that I have the community focusing on. I will highlight four areas below:

The first current focus area is in our mine warfare line of operation involving Naval Oceanography's operation of the Mark 18 (MK18) family of unmanned underwater vehicle (UUV) systems as part of the fleet's mine countermeasures kill chain. Based on Naval Oceanography Mine Warfare Center's proven capability with the Mark 18 MOD 1 "Swordfish" (REMUS 100), they have been selected to be the Navy's sole operators of the next-generation vehicle, the Mark 18 MOD 2 "Kingfish" (REMUS 600) when it transitions to military operations in FY15. Our responsibility to man, train and equip these operational platoons for all Navy mine countermeasures (MCM) operations will call for an increase by as many as 100 active duty and 100 reserve military personnel to support six active duty platoons and supporting reserve force augmentation units operating the entire suite of MK 18 vehicles to support MCM find and fix operations. Capacity will be sufficient for a wartime reserve of two additional platoons. This is not just a priority for Naval Oceanography – the Secretary of Defense and Chief of Naval Operations (CNO) have fast-tracked this capability to the Central Command Area of Operations and OPNAV N95 is programming for resources beginning FY15 to support our execution of this mission. The "Kingfish" UUV offers several additional capabilities over the Mk 18 MOD 1 "Swordfish," including extended mission duration and the ability to produce higher resolution imagery than traditional side-scan SONAR.

A second current focus area is to continue our work to develop and operate the most effective and efficient high performance computing (HPC) capability for Naval Oceanography we can within our relatively austere budget. As Navy, DoD and the federal government begin mandating consolidation of data centers, we will get ahead of the curve to ensure we position ourselves for improved future operational capabilities. Our Technical Director, Dr. Bill Burnett, has signed a charter for a tiger team comprised of subject matter experts across our community to explore our best courses of action to maintain HPC superiority while meeting consolidation requirements. Some of the key operational considerations of HPC include: smart coupling of atmosphere and ocean modeling to support operational missions, advancement of ensembles in probabilistic forecasting, and enabling a national Earth Systems Prediction Capability (ESPC).

My third current focus area is ensuring total workforce optimization and validation. One example already underway is ensuring the Aerographer's Mate (AG) rating evolves smartly along with our operational capabilities and requirements. I want to define the necessary skill sets and appropriate training paths to ensure the AG of the future is equipped to meet emerging operational requirements, such as UUV employment. The second phase of our Enlisted Community Health Charter addresses this need through a Human Performance Requirements Review and development of a human capital strategy for the enlisted workforce; AGCM Ken Walker is leading this effort. We must account for continued and rapid technological advances, as well as enhance the critical thinking skills required of an AG to function independently in a multi-disciplinary environment.

Finally, if you've been following the CNO's writings in both publications and blogs, you will have picked up on his urgency to advance the Navy's capabilities for warfighting in the electromagnetic (EM) spectrum. Additionally, directed energy weapons like the shipboard laser weapon system operating in the electro-optical (EO) spectrum are being introduced to the fleet in the near future. We must have the same urgency to advance our predictive physical battlespace capabilities to better support warfighting in the EM and EO spectrums, and answer warfare commanders' questions that they haven't yet even thought to ask. This will be a challenge, but one the NMOC staff is already engaging with stakeholders outside Navy and IDC. I believe we will be a critical part of the overall Navy solution in this area.

I encourage you to ask questions of your chain of command if you want to know more about these initiatives, or any other areas. If you have good ideas, I want to hear them too! Regardless of the role you play, you each contribute to Naval Oceanography's current and future success. Thank you again for making me proud to be part of this team!

From the Deputy/Technical Director

METOC *Moneyball* Can Prove Our Value

By Dr. William H. Burnett
Someone challenged me to write an article that mentions Brad Pitt. That person said that they might actually read it if I did. So, here it goes.

I watched the movie, *Moneyball,* about a year ago – featuring Hollywood heart-throb Brad Pitt. The movie is based on the book, *Moneyball: The Art of Winning an Unfair Game,* written by Michael Lewis, and it describes how the Oakland Athletics used analytical, evidence-based sabermetrics to manage their 2002 Major League Baseball team. Using this new, quantitative approach to drafting and selecting baseball players, the Oakland A's fielded a playoff team with one of the lowest team salaries in Major League Baseball (compare the A's $40 million to the Yankee's $120 million team salary).

So, what is sabermetrics? It is a specialized analysis of baseball through objective evidence. For years, baseball professionals and amateurs have used statistics like batting average as a way to objectively measure the productivity and skill of a baseball team. However, Bill James – one of the pioneers of SABRmetrics (Society for American Baseball Research) – discovered that quantitative measures like value of replacement player (VORP) could be more informative in assessing skill. VORP is a measure that demonstrates how much a hitter contributes in comparison to a fictitious replacement player who is an average fielder and a below average hitter. Since baseball hobbyists and professionals collect an amazing amount of statistics throughout a game and season, an almost infinite amount of metrics can be developed and analyzed. Some of the metrics actually turn out to be useful when making draft decisions – and thus the success of the Oakland A's in 2002.

Well, why not a METOC *Moneyball*? One thing that characterizes our meteorological and oceanographic community is the ability to collect a large amount of information. We have a number of databases that store objectively collected observations of the environment – just waiting for a professional or hobbyist to access and understand. We have years of post-deployment reports that can indicate our environmental predictability's success or failure, which is similar to how baseball scouts try to predict the success or failure of a baseball player. Finally, we ask our officers and Sailors to collect rudimentary metrics during their deployments. Certainly we can challenge our deployers to collect better and more informative metrics for our community.

The goal in all this effort is to understand, measure, and track how we are doing as a community – and how we can improve. Hopefully, we can begin to address and answer questions such as, "Are the new underwater gliders collecting observations that improve our tactical assessment of the environment?" We need new post-deployment reports that have value and can set in motion a METOC *Moneyball* initiative that the admiral and I can take to the Pentagon and quantitatively argue how our small operating budget provides huge dividends for the fleet.

Oh yeah, and Brad Pitt did a good job playing general manager Billy Beane in the movie. I give his performance two thumbs up.

From the Command Master Chief

'Covenant Leadership' is about Commitment

By Master Chief Aerographer's Mate (IDW/AW/SW) Ken Walker

If you listened closely to Rear Adm. Brian Brown's description of his leadership philosophy, you will hear references to "Covenant Leadership." Through discussions with several groups, I found that many people were not aware of the meaning of "Covenant Leadership," so I thought I would take some time today to attempt to define it more clearly.

Although the principles inherent in Covenant Leadership have held many names over the years, the Navy's first champion of the term was Adm. Vern Clark, former CNO.

"What I believe more than anything else," Clark said, "is that we make commitments to one another. Leaders promise and commit things to subordinates, and subordinates promise and commit things to the bosses. In our case, our people promise to support and defend the Constitution of the United States. They commit to serve. The people that make up our military decide that they are going to give of themselves. Every human being who puts on the uniform makes tremendous sacrifices. There should be a commitment from the leadership for the promise Sailors make to us. I believe that promise has to be kept by people like me — to make sure

people have the tools that they need to succeed. We've got to offer to them a chance to make a difference. They want us to give them a chance to show what they can contribute. They want a chance to grow and develop. A young person in the Navy can get more experience in leadership than they can get anyplace else in the world."

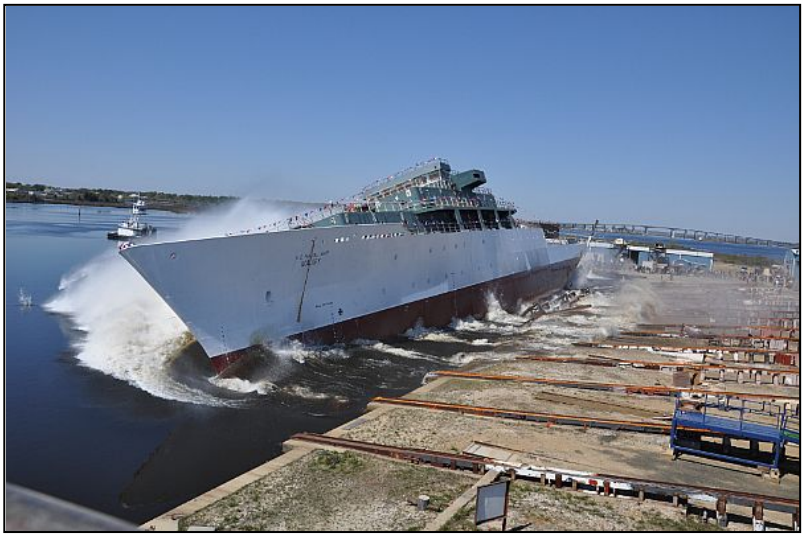
Although those words were written over 10 years ago, those underlying principles hold true today, especially in the Navy Operational Oceanography community. In our capacity as the Navy's operational scientists, we continually challenge the people in our organization to think critically, challenge assumptions and apply analytical reasoning to develop recommendations and solutions to some of the Navy's most complex problems. I expect the Sailors in this organization to remain committed to command leadership, the mission of the Naval Meteorology and Oceanography Command, the Navy and the nation. In order for them to meet those expectations, leaders must provide them with the tools, training, leadership and work environment that enable them to succeed. That investment and genuine concern for the development of our people is the core of Covenant Leadership. As we focus on that investment, we need to work together to develop and maintain personal and professional goals for all of our personnel, in addition to the continued focus on organizational goals. The alignment of those goals can best be realized through open and honest communication up and down the chain of command. Rear Adm. Brown is also a strong proponent in the belief that the best ideas in process improvement come from the people that are actually doing the work and that if we invest in our people and give them opportunities to succeed – they will.

Quality of life --- Quality of work --- Quality of service

Top News

Navy Christens, Launches New Oceanographic Survey Ship

Accompanied by azure blue skies and a stiff breeze, the Navy christened and launched its newest oceanographic survey ship, *USNS Maury* (T-AGS 66), the last of its class, at VT Halter Marine's shipyard in Moss Point, Miss., in a traditional Navy ceremony on March 27.



The 350-foot ship is named for Cmdr. Matthew F. Maury, considered to be the father of oceanography, nicknamed the "Pathfinder of the Seas" and the first superintendent of the U.S. Naval Observatory. Maury is 24 feet longer than its six sister ships to accommodate a 300 square-foot moon pool for easier deployment and retrieval of unmanned underwater vehicles.

Rear Adm. Jonathan White, Oceanographer and Navigator of the Navy and the principal speaker at the launch and christening, said the T-AGS ships are a reflection of Matthew Maury, who he said, "led a transformation in our Navy."

The ship will be operated by the U.S. Military Sealift Command (MSC) for the Naval Meteorology and Oceanography Command (NMOC).

"If Matthew Fontaine Maury was here today to see this ship and to see the character of the people who built it, there is no doubt he would say, 'all's well,'" White said.

Items of Interest

NAVO, FST Breaks New Ground in Panama Survey

Patrick Bourne displays a bottom sediment grab sample. (U.S. Navy photo by Lee Kormandy.)

In February and March, Naval Oceanographic Office (NAVO) and Fleet Survey Team (FST) personnel conducted two new operations in conjunction with surveys of the north and south entrances to the Panama Canal.

The NAVO crew tested its new Core Deployment System, thanks to water depth of more than 4,000 meters during the transit to Florida at the conclusion of the survey operation.

In addition, the survey crew deployed and recovered a tide buoy, an operation many onboard had yet seen conducted.

"This hydrographic survey was unique in that the two commands worked jointly to complete the mission, making this a 'full approach survey,'" said Lee Kormondy, Senior NAVO Representative. He said that his team aboard *USNS Pathfinder* (T-AGS 60) was able to survey deeper areas while FST's team, led by Jessica Burt and Misty Savell, were able to survey the shallow and congested areas in their nine-meter hydrographic survey vessels. The *Pathfinder* team was also able to download and evaluate data from a tide gauge that had been installed on the Pearl Islands in January.

Kormondy describes his survey crew as a "nice cross-cut throughout NAVO," and the survey operation itself as both a successfully completed top priority for the office and a great learning opportunity for the survey crew.

USNS Pathfinder (T-AGS 60) heads into port in Balboa, Panama, to conduct a hydrographic survey of the entrances to the Panama Canal. (U.S. Navy photo by Lee Kormandy.)

March PG School Grads Announced

Six oceanography officers earned their master's degrees at the Naval Postgraduate School in March. Graduating officers earned a Master of Science, Meteorology and Physical Oceanography degree. Graduating U.S. Navy officers also earned their 6401P METOC Operational Sciences subspecialty code. Pictured (left to right): Lt. Cmdr. Angela Lefler; Lt. Cmdr. Casey Gon; Lt. Cmdr. Paul Kutia; Lt. Cmdr. Stephen McIntyre; Lt. j.g. Emre Gulher, Turkish Navy. Lt. Kaitlyn Longley is not pictured.

Fleet Weather Center - Norfolk kicks off Sexual Assault Awareness and Prevention Month

In support of the ever increasing awareness of sexual assault, Sexual Assault Prevention and Response (SAPR) Victim Advocates at Fleet Weather Center-Norfolk, Va., (FWC-N), strive to do their part in eliminating the debilitating crime from our Navy.

Fleet Weather Center Norfolk personnel display "Courage" in support of Sexual Assault Awareness and Prevention Month. Pictured from left to right: AGCM Justin Fisk (CMC), AG3 Bailey Stewart (VA), AG2 Taylor Stawny, AGAN Nicole Sheridan, AG1 Gina Hegg (VA), AGAN Greg Wagoner, and LT Gordon Jones (VA).

Victim Advocate (VA) Lt. Gordon Jones, Royal Navy, delivered training to the command highlighting this year's central theme: courage.

"Sexual assault is a devastating crime not only for those victimized but for their family, friends and co-workers, as well" he said. "I will continue to stand up here and discuss the issues surrounding sexual assault until we prevent every single case."

The training focused on the importance of continuing to learn about the factors surrounding sexual assault, how to properly and safely intervene, the value of supporting our affected personnel, and most importantly, preventing assaults.

"It is imperative that we work together to eliminate sexual assault from our Navy. We need to be able to trust each other," said Capt. Rich Delgado, FWC-N commanding officer.

At the very forefront of Fleet Weather Center Norfolk's program are VAs, such as Jones, who have helped to implement new SAPR General Military Training - Khaki for all E-7 and above and provided additional tailored training in coordination with Naval Station Norfolk Sexual Assault Response Coordinators. They emphasize the personal and professional courage required to both live with the consequences of being the victim of an assault as well as coming forward to make a report.

"Overall, the training provided the opportunity to discuss potential methods of interaction with the victims of sexual assault and how not all victims can be readily identified," Jones said. "It's important that people treat all Sailors and shipmates with respect."

Holocaust Remembrance Held at Stennis in March

Rear Adm. Brian Brown, commander of the Naval Meteorology and Oceanography Command, presents Dr. Edward Hafer, associate professor of Music History at the University of Southern Mississippi, with a commemorative plaque for his presentation at the Stennis Space Center annual Holocaust Remembrance Program. The program, sponsored by the Navy, is held each year in April. It features speakers who are Holocaust survivors, who were Holocaust refugees or who were somehow touched by the event. Hafer's presentation was about Jewish cabaret performers at the Concentration Camp Westerbork in Holland.

Naval Oceanographers Win International Humanitarian Award

By Jenni Ervin
A modeling capability developed by Naval oceanographers at Stennis that predicts the likelihood of pirate attacks has received an international humanitarian award from Computerworld magazine.

IDG's Computerworld Honors Program selected the Naval Meteorology and Oceanography Command (NMOC) as a 2013 Laureate in the field of Safety and Security for its development of the Pirate Attack Risk Surface (PARS). The Honors Program, founded in 1988, recognizes organizations and individuals who have used information technology to advance public welfare, benefit society and business, and change the world for the better.

"The men and women of Naval Operational Oceanography take great pride in this honor," said Rear Adm. Brian Brown, NMOC commander. "Naval Operational Oceanography is a critical partner across the range of Department of Defense operations, and the development of PARS is one more way that we use our knowledge of the environment to ensure the safety and security of our operational forces and freedom of navigation on the high seas."

The PARS model produces a forecast of shipping vulnerability due to piracy at a certain latitude, longitude, and time.

A few months before Somali pirates hijacked the U.S.-flagged *MV Maersk Alabama* in 2009, NMOC operators were asked to assist in the fight against piracy, which had been on the rise in the Somali Basin due to government instability in the region. Pirate attacks are a threat to the United States' national security and foreign policy, and they impact maritime safety, disrupt shipping and ultimately cost the world's economy billions of dollars annually.

Within two weeks, the command had developed the framework of the first-generation Piracy Performance Surface (PPS) model, which produced maps of probability of attack based on how environmental conditions influenced pirate small boat operations.

The success of the PPS model led to development of a more advanced anti-piracy model, the award-winning Pirate Attack Risk Surface (PARS). While the first-generation PPS primarily focused on environmental factors, PARS combines shipping information, environmental data, pirate locations, pirate operating procedures, and predicted pirate behaviors into a cohesive forecasting environment.

"PARS is groundbreaking," Brown said. "This is the only known Navy product that, instead of treating environmental data separately, fuses it with multidisciplinary information within a single model."

Computerworld judges evaluated the humanitarian benefits and measurable results of applying technology to meet a specific social or business need. NMOC's case study was selected from more than 700 nominations to become one of 268 Laureates from 29 countries.

Founded by International Data Group (IDG) in 1988, The Computerworld Honors Program is governed by the not-for-profit Computerworld Information Technology Awards Foundation. Computerworld Honors is the longest running global program to honor individuals and organizations that use information technology to promote positive social, economic and educational change. Additional information about the program and a Global Archive of past Laureate case studies, as well as oral histories of Leadership Award recipients can be found at the Computerworld Honors website.

Visitors

Adm. Gortney visits Stennis

Adm. William Gortney, commander of U.S. Fleet Forces Command, visited the Naval Meteorology and Oceanography Command and its subordinates at Stennis Space Center on March 22.

In photo at right, Cmdr. Ron Shaw, Fleet Survey Team (FST) commanding officer, briefs Adm. Gortney on FST operations and capabilities during the visit.

Personnel

O-6 Selections Released

Three oceanography officers were selected for promotion to captain in FY 14, Cmdr. Angie Walker, Cmdr. Ron Shaw and Cmdr. Keith Williams

Anderson, Payne Retire

Bill Anderson and Steve Payne, both members of the NMOC staff retired in March. Payne who was on the technical director's staff retired after 34 years. Anderson, the command admin officer, had more than 40 years of federal service, including his time on active duty.

Top photo: Steve Payne (l) and Dr. Bill Burnett, NMOC Deputy and Technical Director, at Payne's retirement lunch.
At left: Bill Anderson and Rear Adm. Brian Brown at Anderson's award ceremony. (U.S. Navy photos)

Command Spotlight: NOAC Stennis

Naval Oceanography Antisubmarine Warfare Center, Stennis (NOAC SSC), located on NASA's John C. Stennis Space Center in Mississippi, is dedicated to providing the asymmetric warfighting advantage to ASW forces through the application of oceanographic sciences.

The command accomplishes this mission through three components, 1) certified, deployable Naval Oceanography ASW Teams (NOAT) providing tactical METOC services in direct support of theater and strike group ASW commanders, 2**)** six detachments supporting ASW expertise to maritime patrol and reconnaissance aircraft (MPRA) wings and the Naval Mine and Antisubmarine Warfare Command (NMAWC), and 3) a 24/7 ASW reachback cell.

During the last year, NOAC Stennis has been recognized by fleet ASW commanders as a critical component to their planning and operations, resulting in a continued high demand for both RBC and NOAT services. Jointly manned by NOAC military and Naval Oceanographic Office subject matter experts, the RBC is the community ASW "Anchor Desk" providing in-depth operational oceanographic and acoustic analysis. In 2012, the RBC supported 133-plus events, generating 2,300-plus environmental ASW products in direct support to theater, strike group, and independent deployer ASW operations.

NOAC SSC's 10 NOATs are available on a moment's notice to serve as on-scene environmental ASW experts to fleet and theater ASW commanders to characterize the physical battlespace and optimize available sensor performance and placement, maximizing detection opportunity. Last year, NOATs supported six CSG deployments, 21 exercises, and multiple real-world operations. NOAC Stennis has six NOATs deployed.

In addition, NOAC Stennis has six geographically dispersed Naval Oceanography Anti-submarine Detachments (NOAD) located in Jacksonville, Fla.; Norfolk, Va.; San Diego, Calif.; Whidbey Island, Wash.; Kaneohe Bay, Hawaii; and Naples, Italy. The NOADs in Jacksonville, Whidbey Island, and Kaneohe Bay are embedded with local MPRA Wings to provide direct support to tactical operations centers and MPRA CTFs. NOADs in San Diego and Norfolk embed with NMAWC to provide mentoring and assessment for fleet exercises and CSG/CTF assessment events. NOAD Naples Italy, co-located with CTF-69, supports ASW operations and exercises in the 6th Fleet Area of Responsibility.

NOAC Stennis Spotlight Employees

AG2 Matthew A. Williams

Since reporting from Aerographer's Mate A-School in August 2011, Aerographer's Mate Second Class Matthew A. Williams has been an invaluable asset to the Naval Oceanography ASW Detachment at Kaneohe Bay, Hawaii. A qualified Oceanographic ASW Technician, AG2 Williams applies his acumen to providing tactical briefs for Commander, Patrol and Reconnaissance Wing 2 (CPRW-2) and Helicopter Antisubmarine Squadron Light 37 (HSL-37) during ASW exercises and operations. He recently volunteered for deployed assignment to *USS Hopper* (DDG 70) and at 3rd Fleet's Antisubmarine Warfare Commander Task Force 34 (CTF-34) where he provided environmental information at the highest levels in support of tactical recommendations and battlespace exploitation. In addition to performing superbly in an operational environment, Williams diligently pursued, and quickly achieved, qualification as an Enlisted Information Dominance Warfare Specialist. His consistent attention to detail and mature reliability inspire the trust required to manage the detachment's $12,000 supply inventory with zero discrepancies. His demonstrated dedication to his community, his shipmates and the Navy were instrumental in his recent selection as Naval Oceanography Antisubmarine Warfare Center's Junior Shore Sailor of the Quarter for the Second Quarter of FY 2013. Williams is a rising star, and we expect great things!

AG3 James C. Beard

Aerographer's Mate Third Class James C. Beard reported to the Naval Oceanography Antisubmarine Warfare Center's (NOAC) Sea Component in May 2012 from Aerographer's Mate A-school, where he was an Honor Graduate with the highest GPA in his class. Soon after arriving at NOAC Stennis, Beard qualified as an Oceanographic ASW Technician for his role as a member of a Naval Oceanography ASW Team (NOAT). Continuing his forward momentum, Beard qualified as an Enlisted Information Dominance Warfare Specialist in record time, and quickly became a sought after mentor for those seeking qualification. Eager to learn more, AG3 applied his technological skills towards the advancement of NOAC's utilization of Collector – Environmental Intelligence Preparation of the Battlespace (C-EIPB), a geographic information system-based (GIS) based software with specially developed toolkits and extensions for ASW applications. AG3 Beard has been instrumental in developing the local training required for mastery of the software, and has since applied his extensive knowledge of the new system to developing tactical ASW courses of action for engagement in 7th Fleet, as well as directly supporting his deployed team by utilizing Multi-Criteria Analysis to create acoustic path availability products for a combined fleet exercise on the east coast of the U.S. Beard is a stellar Sailor, and a true asset to NOAC.

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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