

DELIVERING THE GOODS

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FEATURE ARTICLE

Stratton Sails into Baltimore

Greeted with Great Fanfare

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Acquisition
Directorate

The Coast Guard's Newest National Security Cutter, the Stratton, Sails into Baltimore

By Linda M. Johnson

The U.S. Coast Guard's newest National Security Cutter (NSC), the Stratton, sailed up the Chesapeake Bay and into Baltimore's Fell's Point Nov. 1. The visit provided an opportunity for federal lawmakers and senior administration officials to get a firsthand look at the NSC's capabilities.

With the two leaders looking on, the Stratton's flight control officer was able to use the NSC's automated flight control system to direct the MH-60T's takeoff from the safety of a glass-enclosed room above the cutter's flight deck.

They watched as the Stratton's crew demonstrated the recovery of



Chairman of the Joint Chiefs of Staff, Army Gen. Martin E. Dempsey, and Coast Guard Commandant Adm. Bob Papp arrive aboard the Stratton via an MH-60T helicopter. U.S. Coast Guard photo by Petty Officer 2nd Class Patrick Kelley.

The Chairman of the Joint Chiefs of Staff, Army Gen. Martin E. Dempsey, joined Coast Guard Commandant Adm. Bob Papp for a tour of the 418-foot-long cutter as it sailed into Annapolis, Md., on its way to Baltimore. Dempsey and Papp arrived aboard the NSC via an MH-60T helicopter that landed on the Stratton's large flight deck.

a small boat via the NSC's newly designed stern ramp, which allows the cutter to launch and recover fully loaded small boats in heavy sea conditions—a feat that is impossible on the aging cutters the NSCs are replacing. These small, maneuverable boats are used by law enforcement boarding parties and search and rescue teams and can operate independently of the host cutter for up to 10 hours.

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The two leaders also toured the Stratton's command and control center, which features advanced information sharing capabilities that allow the Coast Guard to work closely with its homeland security, military and law enforcement partners. Designed to be the centerpiece of the Coast Guard's recapitalized fleet, the NSC is capable of meeting the mission requirements of joint U.S. combatant commanders.

U.S. Department of Homeland Security Secretary Janet Napolitano toured the Stratton Nov. 3 while it was moored at Fell's Point.

The Stratton—whose primary missions will include law enforcement, especially counter-narcotics efforts and fisheries protection; search and rescue; and defense and homeland security operations—will patrol the Pacific Ocean.

Features

The NSCs, named for Coast Guard legends, have a 60-day endurance and a range of 12,000 nautical miles. The 418-foot vessels replace the 378-foot High Endurance Cutters built in the late 1960s.

“The centerpiece of our recapitalized fleet, the Legend-class National Security Cutter is the largest and most technically advanced class of cutter in the Coast Guard,” Papp explained. “The NSCs are more capable, more efficient and their return on investment will far exceed their cost.”



The Stratton, the third National Security Cutter, moored at Baltimore's Fell's Point in early November. U.S. Coast Guard photo by Brian Olexy.

The Stratton has two 9,655 horsepower diesel engines—which the crew nicknamed Tanya 1 and Tanya 2—and a 30,565 brake horsepower gas turbine and generator—dubbed Bonnie and Clyde—that allow the cutter to reach a speed of 28 knots and maneuver adroitly in rough seas.

The NSC is fitted with an electronic communications suite that has advanced radar, sensor and thermal-imaging capabilities that can help it track down narco-terrorists. Once a target is in sight, the NSC's automated weapons systems—including an Mk 110 57mm machine gun, a 20mm close-in weapon system and an Mk 53 NULKA expendable decoy system—along with the firepower from its armed helicopter can be used to disable the engines of go-fast boats operated by drug smugglers.

“With their unmatched combination of range, speed and ability to operate in extreme weather conditions, the case for the National Security Cutter is simple—we are a safer and more secure nation when they are patrolling the high seas,” noted Rear Adm. John Korn, the Coast Guard's Assistant Commandant for Acquisition.

As the third cutter in the Legend class, the Stratton also includes some new features that weren't included on the first and second NSCs, Bertholf and Waesche respectively. For example, the Stratton features a new passageway near its boat crane that makes it much easier for the crew to cross over from the boat deck to the other side of the ship during refueling at sea and other exercises.

The NSCs feature modern detection and defense capabilities against chemical, biological or radiological weapons, including a decontamination station where the crew can be washed down.

The Stratton also has modern berthing areas that house its 110-person crew in state rooms that are designed to accommodate two, four or six people and have their own bathrooms. The NSCs have berthing space for a total of up to 148 passengers to accommodate boarding teams and other temporary personnel.

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Stratton's Journey

The cutter's keel was laid in July 2009 and in July 2010, the Stratton was christened by its sponsor, first lady Michelle Obama. This marked the first time in the service's 221-year history that a first lady has sponsored a Coast Guard cutter.

The Stratton is named for Capt. Dorothy Stratton, the founder and first director of the Coast Guard's women's reserve, known as the SPARs, during World War II. The cutter's motto is "We can't afford not to," a statement made by Stratton upon leaving her position as dean of women at Purdue University to join the military.

The Coast Guard took ownership of the Stratton Sept. 2 following successful builder's and acceptance trials. The Stratton sailed away from the Huntington Ingalls Industries shipyard in Pascagoula, Miss., on Oct. 7.

On its way up to Baltimore, the third NSC made a brief stop in Pensacola, Fla., and the crew began learning the new systems during two weeks of training exercises held off the coast of Charleston, S.C. The Stratton left Maryland's shores on Nov. 5 and is expected to transit the Panama Canal on its way to Alameda, Calif., where the first two NSCs are also homeported.

The Stratton is expected to arrive home in time for Christmas and formally join the Coast Guard's operational fleet when it is commissioned next spring in a ceremony on Coast Guard Island in Alameda.

NSC Mission Success

While the Stratton was sailing up the Chesapeake Bay, the Waesche returned to Alameda on Halloween after a three-month deployment in the Pacific. During this patrol, the second NSC interdicted two separate drug smuggling vessels within a 48-hour period.

"It's an honor returning home after our inaugural and successful counter-narcotics patrol. We prevented \$25 million dollars worth of illegal narcotics from reaching



Capt. Charles Cashin (left), the Stratton's prospective commanding officer, describes the ship's high-tech features to Department of Homeland Security Secretary Janet Napolitano and Coast Guard Commandant Adm. Bob Papp. U.S. Coast Guard photo by Petty Officer 2nd Class Patrick Kelley.

U.S. shores," said Capt. Kelly Hatfield, the Waesche's commanding officer. "The capability of this ship coupled with the best crew I have ever served with exceed my expectations on a daily basis. With over 10 years of sea time, I have never experienced a ship that could do so much, so efficiently and so reliably."

The Bertholf demonstrated superior sea-keeping abilities during its first Alaska patrol earlier this year, conducting more than 40 fishery boardings in the treacherous Bering Sea.

Meanwhile, the service continues to make significant progress on NSCs 4 and 5. The fourth NSC, the Hamilton, began fabrication in August and a firm, fixed-price contract for production of the fifth NSC, the James, was awarded in September. The production contract for NSC 5 was awarded for nearly the same price as NSC 4, despite significant increases in material costs.

"This demonstrates that the NSC program has turned a learning curve and has tremendous positive momentum—momentum that must be sustained," Papp said.

The Coast Guard plans to acquire three more NSCs for a total of eight.

MH-60T Outfitted with RNP Prototype

The most visible—and certainly the most sizable—presence for Coast Guard acquisition at the service's annual Innovation Expo in Tampa, Fla., from Oct. 24 to 27 was arguably the MH-60T Medium Range Recovery helicopter showcased on the exhibit hall floor.

The MH-60T at the expo featured the prototype for the new Required Navigation Performance (RNP) capability that will be added to the fleet via a hardware and software upgrade. RNP is a benchmark of navigation performance for a flight phase or segment that incorporates on-board performance monitoring and alerting features to notify a pilot when the RNP for that flight phase or segment is not being met.

The aircraft completed RNP developmental testing conducted at the Coast Guard's Aviation Logistics Center in Elizabeth City, N.C., and stopped at the expo before heading to the Coast Guard's Aviation Training Center in Mobile, Ala., to undergo additional developmental testing and then be used for training. The service began converting its 42 in-service HH-60J helicopters to MH-60Ts in 2007 to boost mission readiness and enhance capabilities.

Coast Guard Air Station Clearwater, Fla., played a pivotal role in moving the MH-60T—which is 65 feet long, 17 feet tall and has a rotor diameter of 54 feet—into the exhibit hall at the Tampa Convention Center. A tractor towed the aircraft up a loading dock



The MH-60T attracts attention while on display at the Innovation Expo. U.S. Coast Guard photo by Rebekah Gordon.

ramp, and the helicopter's rotor blades were manually folded, braced and secured to the tail boom to fit through the door. Power adapters converted the convention center's power supply into a form compatible with the helicopter.

The Coast Guard has piggybacked on the U.S. Army's early RNP development work in its own helicopter fleet, and expo goers drawn to the helicopter could see "how we're capitalizing on what other agencies are doing in order to bring capability into our aircraft at a fraction of the cost," said Lt. Cmdr. Jared King, the MH-60T deputy project manager in the Coast Guard Acquisition Directorate. "Because something was there to bring people in, we were really able to convey our message."

For more information on the MH-60T, please visit <http://www.uscg.mil/acquisition/mrr>.

Future of Unmanned Aircraft Systems Highlighted

Unmanned aircraft systems (UAS) that can stay on scene, extend situational awareness and disseminate actionable intelligence about maritime hazards and threats can provide significant capability for the Coast Guard to leverage in the future.

The service's plans for UAS were discussed Oct. 26 at the Coast Guard Innovation Expo in Tampa, Fla., by panelists who offered operational, research, acquisition and liaison perspectives. The service aims to augment its aviation fleet with land-based UAS to provide strategic, wide-area surveillance and cutter-based UAS to provide tactical, on-demand capability for National Security Cutters (NSC) and Offshore Patrol Cutters. A third small UAS—dubbed sUAS, which could provide an interim capability for NSCs until a robust cutter-based solution can be proven and acquired—is also under consideration.

The Coast Guard's Research and Development Center (RDC) in New London, Conn., plans to partner with the U.S. Navy's Naval Surface Warfare Center, Dahl-

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gren, Va., in mid-2012 to conduct an sUAS demonstration with Insitu's ScanEagle to assess its capabilities and compatibility with Coast Guard concepts of operations.

Both land- and cutter-based UAS are still in the pre-acquisition phase, with mission needs statements and concepts of operations in development. In 2008, U.S. Customs and Border Protection (CBP) and the Coast Guard established a Joint Program Office to coordinate maritime land-based UAS policy and operations. In 2009, CBP acquired its first of two maritime-variant Predator UASs, called Guardians. CBP and Coast Guard flight crews conduct joint maritime Guardian operations from Cape Canaveral, Fla., and Corpus Christi, Texas. CBP is expecting to receive their third Guardian next summer.

"I firmly believe that unmanned aerial systems have a future in the Coast Guard and we're being very deliberate about this," said Capt. Austin Gould, the chief of the Coast Guard's Research, Development Test and Evaluation (RDT&E) Program and the panel's moderator. "We're doing an awful lot of up-front research and development, and we're partnering with agencies that have had extensive lessons learned in how to operate unmanned systems."

For more information on UAS, please visit <http://www.uscg.mil/acquisition/uas>.

Technology Assessment Program Wins Award

On Oct. 27, the Coast Guard's RDT&E Program and the RDC formally received the 2011 Commander Joel Magnussen Innovation Award for Management for the joint Interagency Alternative Technology Assessment Program (IATAP) established last year in response to the Deepwater Horizon oil spill. The award was presented by Commandant Adm. Bob Papp and Master Chief Petty Officer of the Coast Guard Michael Leavitt during a ceremony at the annual Coast Guard Innovation Expo in Tampa, Fla.

In the early days of the oil spill, it became apparent that the government needed to institute a fair and

systematic method to collect, acknowledge, assess and respond to the influx of innovative spill response technologies submitted by government, academia, industry and the public at large. In response, the National Incident Commander stood up the IATAP effort, the first time that a program like this had been established. Based on its success, this program will be executed during future Incidents of National Significance where rapid, fair and systematic technology assessment is required.

The award is part of the Coast Guard's annual Captain Niels P. Thomsen Innovation Awards program, which bestows awards in four categories. "Innovation is the ability to see challenges as opportunities and not threats," Capt. Joseph Re, the chairman of the Commandant's Innovational Council, said at the ceremony. "The Capt. Niels P. Thomsen Innovation Award program recognizes exemplary efforts of individuals or teams who create and implement innovative solutions to Coast Guard challenges."

For more information on the IATAP effort, please visit <http://www.uscg.mil/acquisition/business/deep-waterhorizon.asp>.

did you know?

The Coast Guard held acceptance ceremonies for Rescue 21, its advanced search and rescue communications system, in Sector Detroit, Sector Boston and Sector Southeastern New England this fall. The Rescue 21 system is now standing watch over more than 38,000 miles of U.S. coastline.

Acquisition Profile: Giao Phan

Deputy PEO and Deputy Director of Acquisition Programs

By Rebekah Gordon

Many people affiliated with the world of Coast Guard acquisition know Giao Phan as the Deputy Program Executive Officer (PEO) and Deputy Director of Acquisition Programs for the service's Acquisition Directorate, but few know the unique story of how she arrived at the post.

In 1975, when she was 15 years old, Phan fled Saigon, Vietnam, with her mother and seven siblings as the war was ending. Her mother had been a teacher and assistant principal at a South Vietnamese elementary school, and her father was a general in the Army of the Republic of Vietnam. They settled in northern Virginia, where her father later joined them after being airlifted to a U.S. Navy ship.

The path to success from there wasn't easy, but her parents emphasized education and hard work. "As fortunate as we were to have the opportunity to come to America, my parents had to start back at the beginning all over again and build a new life," Phan said. "Through our family hardship, we shared a common dream that perseverance and the willingness to work hard could lead to opportunities for success, regardless of nationality." Today, eight of the nine Phan siblings are engineers.

Since 2007, Phan has supported the Coast Guard's PEO, currently Rear Adm. Bruce Baffer, in

overseeing the service's portfolio of more than 20 acquisition programs and projects. With a bachelor's degree in civil engineering from Virginia Tech and a master's degree in management from the Florida Institute of Technology, Phan spent most of her federal government career working for the Navy as an engineer and acquisition professional.

Now a member of the Senior Executive Service, Phan is passionate about developing and mentoring aspiring leaders in her field, particularly female engineers and Asian-Americans. Earlier this year she began hosting informal brown bag lunches for female military and civilian employees, with senior military and civilian staff members participating to offer insight. Phan hopes the lunches will build a strong network to share experiences, discuss issues, enhance professional relationships, and prepare, promote and mentor women for senior leadership positions in the Coast Guard.

While a panelist for the "Women in Innovation" panel last month at the Coast Guard Innovation Expo in Tampa, Fla., Phan shared that the meaning behind her work in acquisition became much clearer when she was selected for the Department of Defense's (DoD) Executive Leadership Development Program some 15 years ago.



Giao Phan, Deputy PEO and Deputy Director of Acquisition Programs. U.S. Coast Guard photo.

"The program took DoD civilians to different military installations to better understand the training and jobs of military personnel, because, at the end of the day, we were supporting them," Phan said. "The program really clarified for me that we're here in the office to develop tools or capabilities to deliver to users for performing their jobs, and that they can help users to operate more effectively or maybe even save their lives."

Phan applies that same philosophy to her work today.

"Yes, it's hard to address, align and balance operational needs, organizational priorities and funding," she said. "But there is an overwhelming sense of patriotism, pride and satisfaction in knowing you contributed in some way to deliver assets to the front lines."



*Master Chief
Petty Officer Brett Ayer*

ASK THE MASTER CHIEF

Q. I was looking at the stern doors on the Stratton, the third National Security Cutter (NSC), and noticed that they were different than the ones I remember on the Bertholf, the first NSC. I thought all the NSCs were going to be the same, why the difference?

A. You have good eyes! But the question should read, “the doors that used to be on the Bertholf.” I’ll explain that later. However, your memory is correct, and configuration management is a major goal for all our assets.

In the case of the stern doors, the Bertholf’s original design had some issues. Although our goal is always to get things right the first time, when you move a design from concept to reality, not everything works out as well as originally planned.

One thing we do to mitigate these issues is conduct trials. The first underway tests for a ship are called builder’s trials. This series of trials is conducted by the shipbuilder with Coast Guard representatives aboard to witness tests and inspections and to determine if the cutter has met all of its specifications.



The Bertholf’s original stern doors, left, were modified to match the Stratton’s stern door configuration, right. U.S. Coast Guard photos.

The stern doors were identified as a major discrepancy during builder’s trials for the Bertholf back in February 2008. The engineers went back to the drawing board and came up with a solution that was integrated into the production of the follow-on cutters, which is why NSC 3 was delivered with different doors than NSC 1.

Now let’s go back to configuration management. After we identified the stern door problem on the Bertholf and added the new door design into production, we went back and modified the doors on the Bertholf so that they match the doors on the newest NSC. So, your memory is correct, but that is not true anymore. The second NSC, the Waesche, already has the new stern doors.

Because these ships are not being built side-by-side at the exact same time, they will never be delivered exactly alike. But that does not mean that configuration management is not important. It is, in fact, vital to our long-term success. As we implement changes into production, we document them and then, if necessary and at the appropriate time, go back and update the previous cutters to make them all the same configuration.

To submit a question for an upcoming Acquisition Directorate newsletter, please e-mail Master Chief Petty Officer Brett F. Ayer directly at Brett.F.Ayer@uscg.mil.

Please send any feedback or story ideas to acquisitionweb@uscg.mil.

Front cover: U.S. Coast Guard photo by Rebekah Gordon.