



Delivering the Goods

News from the U.S. Coast Guard Acquisition Directorate

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U.S. Coast Guard's HC-144A Supports Haitian Relief Operations, Service Plans to Purchase Additional Aircraft

By Linda M. Johnson

WASHINGTON – The U.S. Coast Guard's HC-144A Medium Range Surveillance Aircraft, also known as the Ocean Sentry, performed extremely well in supporting Haitian relief operations after January's disastrous earthquake in Port-au-Prince.

A total of three HC-144As from the Aviation Training Center (ATC) in Mobile, Ala., were deployed to Haiti, where the aircraft acted as "a mobile communications command center. The aircraft's modern sensor systems collected intelligence about what was going on and conducted critical infrastructure surveys. It captured near real-time imagery and real-time data and provided that information to on-scene and off-scene operational commanders," explained Lt. Cmdr. Te-Ali Coley, HC-144A Platform Manager with the Office of Aviation Forces in the Coast Guard's Capabilities Directorate.

"The modular nature of its Mission Systems Pallets (MSP) made it possible for the aircraft to conduct several different missions simultaneously. It also helped with search and rescue, law enforcement, migrant interdiction and identifying debris in the water," Coley noted.

CBS News anchor Katie Couric flew with an HC-144A crew as they gathered real-time video data, complete with GPS coordinates, that was used by relief workers to coordinate disaster recovery efforts on the ground in Haiti.

"The HC-144A is an extremely successful program. Less than two



A relief worker holds a Haitian-American baby before boarding a U.S. Coast Guard aircraft evacuation flight from Port-au-Prince to the United States on Jan. 20, 2010. U.S. Coast Guard photo by Petty Officer 3rd Class Brandon Blackwell

years after developmental testing, the aircraft was able to assist with one of the world's most tragic natural disasters in history," Coley said. "To be able to field state-of-the-art capability in that amount of time is a model for any acquisition. The consolidated effort and synergies achieved between the field units and the headquarters units have allowed this acquisition to be such a success."

"The HC-144A is a significant improvement capability-wise in the maritime patrol area over the HU-25 Falcon. It has the right capability we need—the ability to get on a scene, stay on a scene and communicate. It can quickly flex to support different missions. Also, it is easier to work

on and maintain, and operates at a considerable fuel savings when compared to legacy aircraft. The HC-144A is uniquely suited to perform everyday grocery-run missions," Coley explained. "However, we need an adequate number of aircraft and platform systems, as well as adequate spares and training, to

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Two HC-144A Ocean Sentry pilots from Aviation Training Center Mobile, Ala., fly toward Haiti on Jan. 15, 2010. The pilots and their crew conducted damage-assessment flights after a 7.0-magnitude earthquake struck near Port-au-Prince.

U.S. Coast Guard photo by Petty Officer 3rd Class Nick Ameen



The HC-144A is the first all-new aircraft delivered to the Coast Guard as part of the service's recapitalization of aging assets. The HC-144A's design allows it to be reconfigured for a variety of missions and includes a rear ramp that allows for easy roll-on and roll-off of provisions. *U.S. Coast Guard photo by Dave Silva*

support the missions that the U.S. people expect of us."

Acquisition Strategy

The Coast Guard Acquisition Directorate has delivered eight HC-144As and three MSPs to date and is almost finished constructing a building that is expected to house a full-motion flight simulator for HC-144A pilot training at ATC Mobile.

"ATC Mobile, which has been at full operational capability since September 2009, has four airplanes. Three of them are dedicated to doing missions and the fourth one is a trainer aircraft. So they're doing pilot training and they're also doing the missions simultaneously," said Ronald McIntire, the Acquisition Directorate's HC-144A Project Manager.

"I believe this asset [the HC-144A] is the right asset for the Coast Guard and that this acquisition has been a success. When you consider how technologically advanced this asset is, how far we've come and how quickly we've gotten there, it's a real tribute to the team," McIntire said.

The Coast Guard is currently awaiting approval from the U.S. Department of Homeland Security on its acquisition strategy for additional HC-144As. The Ocean Sentry is a derivative of EADS CASA's CN-235 aircraft. A standard rear cargo ramp makes the HC-144A capable of being configured for cargo and transport operations.

Three more Ocean Sentries and nine more MSPs will be delivered by the end of 2010, bringing the fleet size to 11 aircraft and 12 MSPs. The Acquisition Directorate expects to put out a request for proposals in March and award a contract for the additional HC-144As sometime this summer. ■

Second NSC, Waesche, Achieves Authority to Operate C4ISR Systems Ahead of Schedule, Thanks to Lessons Learned

By Linda M. Johnson

The U.S. Coast Guard's second National Security Cutter (NSC), Waesche, was recently granted authority to operate (ATO) its command, control, communications, computers, intelligence and surveillance (C4ISR) systems. Waesche achieved ATO just over two months after preliminary acceptance, thanks to lessons learned from the first NSC, Bertholf.

"ATO is a major milestone and in simple terms, gives the cutter the authority to operate its classified and unclassified IT (information technology) systems to store, process and forward information. It authorizes the cutter to be able to use all of its C4ISR systems, which are basically its eyes and ears and essential to completing its missions," said Lt. Cmdr. Patrick M. Thompson, the Coast Guard's C4ISR Information Assurance Manager. ATO also enables Waesche to share communications and data with other Coast Guard assets as well as with federal, state and local law enforcement partner agencies, including the U.S. Department of Defense.

Waesche achieving ATO ahead of schedule "was made possible through the improved relationships and synergy between industry, the Coast Guard's Acquisition Directorate, the Coast Guard's C4IT Technical Authority and the U.S. Navy's Space and Naval Warfare Systems Command," Thompson said. "The same rigorous information assurance process required for the Bertholf became seamlessly implemented on the Waesche, as lessons learned were incorporated into the contract to resolve potential discrepancies."

Information assurance (IA) is the practice of managing information-related risks across multiple disciplines and fields. IA is closely related to IT security and is sometimes used interchangeably. However, it involves



Waesche, the U.S. Coast Guard's second National Security Cutter, recently received authority to operate its C4ISR systems, thanks to lessons learned from the first NSC, Bertholf.

Photo courtesy of Northrop Grumman Shipbuilding

many other areas which are evaluated through a series of requirement areas called security controls. Before being granted ATO, Waesche had to complete a robust series of inspections to ensure compliance with all policies related to information security, communications security, operational security, physical security and personnel security.

TEMPEST

One of the key information assurance challenges essential to the successful achievement of ATO is a testing field known as TEMPEST—a U.S. government term that refers to the detection and prevention of compromising emanations, which are unintentional intelligence-bearing signals emanating from information-processing systems. TEMPEST inspection and testing ensures that systems for processing classified information have been installed correctly, thus reducing the risk of compromising emanations.

The visual TEMPEST inspection, which was conducted while Waesche was still under construction, included

an inch-by-inch physical inspection of the cutter's electronic systems, cabinets, connections, grounding straps, bonds, wiring and circuits that will carry classified and unclassified information throughout the ship. The last step in obtaining TEMPEST certification is a successful Instrumented TEMPEST Survey (ITS), which examines a cutter's information technology systems while transmitting and receiving simulated classified information signals.

The Coast Guard and industry were very proactive about ensuring that the lessons learned from the TEMPEST "test-fix-test" process utilized during Bertholf's construction were incorporated during the production of Waesche. "Reducing the 'test-fix-test' cycle time, through the use of an industry TEMPEST professional certified by the U.S. government TEMPEST certification program, was critical to obtaining ATO in a timely fashion," Thompson said.

Waesche benefited from these lessons being incorporated earlier in the construction process, resulting in

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a much improved TEMPEST posture. Thanks to vigorous government oversight and an aggressive quality assurance program, Waesche completed its final ITS prior to preliminary acceptance, whereas Bertholf's final ITS occurred a year after delivery.

With Bertholf, "we did an extremely thorough job, going through everything in detail, to make sure the TEMPEST portion was done very accurately. Part of the reason is if you're building eight ships, you want to make sure you get it right the first time," Thompson noted.

Lessons Learned

"Hopefully if you're able to incorporate those lessons learned into the

second ship, you should achieve ATO much faster, which we accomplished. We made a lot of modifications so that when NSC2 was delivered from the shipyard, those changes were already incorporated vice us having to go do it afterwards, which could involve very challenging work in tight spaces, cutting holes in steel walls and welding. So when the ship was delivered, it was already compliant," he explained.

Like Bertholf, Waesche is scheduled for future C4ISR system upgrades, including the installation of a Sensitive Compartmented Information Facility (SCIF) system. Bertholf's SCIF recently received temporary accreditation, or "interim authority to test." A SCIF will be installed on-board Waesche later this year, after commissioning.

A SCIF installation and any other improvements that affect a cutter's information assurance systems may require additional TEMPEST testing and recertification. "Any time you make any engineering change that could affect the cutter's classified systems, whether it's a SCIF, an antenna system or cabling, you need to go back and evaluate the TEMPEST posture," Thompson said.

Scheduled to be commissioned in May in her homeport of Alameda, Calif., Waesche will be the second of the 418-foot, Legend-class of cutters designed to be the flagships of the Coast Guard's fleet. A total of eight NSCs are planned. The third NSC, Stratton, is expected to be christened later this summer by Stratton's sponsor, first lady Michelle Obama. ■

MASTER CHIEF AYER,

Q. Why are we rebuilding and upgrading our current aircraft instead of replacing them with new ones? The airframes, are in some cases, older than some of our cutters.

A. That is absolutely true, some of our aircraft airframes are older than some of our cutters, but we don't replace stuff just because it is old. We replace stuff because either it does not meet the needs of its assigned mission or it has reached the end of its useful service life. Neither of these applies to many of our aircraft, with exception of the HU-25. The reality is, in most cases, our airframes are in very good shape.

In an ideal world, it would be great to replace all our aircraft with new ones. Just like the car in your driveway, everyone likes the new car smell, but not everyone loves the new car price. The same is true for our aircraft. If you were to go out today and go shopping for a replacement aircraft to do the mission the C-130 is currently doing, I bet you would find that you would come home with something very similar. What you may not come home with is the same number of C-130s that we already have. The same is true for the HH-60s and MH-65s.

Now having said that, there are some good things that our new aircraft have that our old ones do not. The good news is we don't always need to buy a new aircraft to get all the cool new stuff. That is where our current projects come in. We are repairing what we need to repair and upgrading what we need to upgrade. The result is we end up with aircraft that will meet our needs well into the future, and for the most part, we are able to afford to keep the same number we currently have. I do not have the space here to go into all the upgrades we are doing, but for the rest of the story, just visit our web site at: <http://www.uscg.mil/acquisition/programs/acquisitionprograms.asp>

We do have one regret. We have yet to develop a spec to replace the new aircraft smell :) However, if that is a "must have," go check out one of our new HC-144As.

— MCPO Brett F. Ayer, Command Master Chief, Coast Guard Acquisition Directorate

[To submit a question for an upcoming Acquisition Directorate newsletter, please e-mail Master Chief Brett F. Ayer directly at: Brett.F.Ayer@uscg.mil or acquisitionwebsite@uscg.mil.]

