

### **DoD Combats Counterfeit Parts Threat**

AMERICAN FORCES PRESS SERVICE (MAY 23, 2012)

Jim Garamone

WASHINGTON—The Defense Department is resolute in its fight against counterfeit parts and has implemented steps to stop them from entering the supply chain and eliminating those already in, Pentagon Press Secretary George Little told reporters yesterday.

DoD has been combating counterfeit parts for years, Little said.

“We have stepped up, over time, our aggressive action to address this problem,” he said, “and we’ve stepped it up on many fronts.”

Earlier this year, Frank Kendall, the acting undersecretary of defense for acquisition, technology and logistics, issued a memorandum to stand up an aggressive and comprehensive anti-counterfeiting program. The memo calls for a program to prevent and detect electronic counterfeit parts and other mission-critical and critical safety parts.

“We’re unaware to date of any loss of life or catastrophic mission failure that has occurred because of counterfeit parts,” Little said. “That doesn’t mean we should stop addressing the issue. We will not stop until we strengthen our efforts to identify, prevent, and detect these pieces of equipment from entering our supply chain.”

DoD officials do not believe there has been a demonstrable mission impact because of counterfeit parts in the supply chain, Little said.

“We take it seriously,” he said. “I’m not sure that I can say for sure that there’s never been any impact whatsoever, but ... we’re continuing to work the issue.”

DoD officials are also working closely with the White House’s intellectual property coordinator to strengthen reporting requirements and contracting clauses through changes in the Federal Acquisition Regulation. This establishes the guidelines for suppliers of goods and services to the U.S. government, not just to the Department of Defense. Officials at the Office of Management and Budget have these changes now. Once counterfeiting is identified, DoD also works closely with law enforcement agencies to investigate the situation and prosecute those convicted. The department also debars those companies that supply counterfeit parts.

The department also constantly monitors parts already in the supply chain, Little said.

“We work closely with industry to try to attack this problem, and we’ll continue to do so,” he said. “So we are working very hard to try to sort this issue out and to take steps that will further strengthen our supply chain and ensure that this kind of problem does not occur in the future.”

### **Reduction Focus Shifts From Nukes to Bio Threats**

AMERICAN FORCES PRESS SERVICE (JUNE 13, 2012)

Cheryl Pellerin

WASHINGTON—The 21-year-old program to reduce weapons of mass destruction in the former Soviet Union is shifting focus from nuclear to biological threats and from Russia to Southeast Asia and Africa, the assistant secretary of defense for global strategic affairs told a Senate panel yesterday.

Madelyn R. Creedon said the Cooperative Threat Reduction Program, established in 1991, is gradually shifting to more of a biological threat reduction effort as the program adapts to take on emerging weapons of mass destruction, or WMD, threats in other regions.

“With all the work that’s gone on in Russia over the better part of the last 20 years,” she added, “a tremendous amount has been accomplished” in reducing the threat from legacy WMD programs of the former Soviet Union.

Creedon testified before the Senate Armed Services subcommittee on emerging threats and capabilities, which met to review President Barack Obama’s fiscal year 2013 \$3 billion budget request for programs at the departments of Defense and Energy that seek to stem the flow of nuclear, biological, and chemical weapons.

“We do continue to do a variety of work with Russia, and in time that will phase down a bit,” Creedon said. “But we also value the relationship with Russia and in that context are seeking an extension of the umbrella agreement that allows for the work in Russia.”

An extension of the agreement, which expires in 2013, would allow work to continue “in some of the areas of sustainment, chemical weapons, and some small amount of additional destruction work,” she added.

“We also continue to work in the states of the former Soviet Union,” said Creedon, adding that large biological security programs are ongoing in Kazakhstan, with similar programs in Ukraine.

During the Cold War, the Soviet Union military industrial complex transformed viruses and bacteria to weapons of war, and industrial-scale biological weapons facilities were

built to win the germ war arms race, according to the Defense Threat Reduction Agency website.

With the collapse of the Soviet Union, newly independent republics faced the challenge of dealing with deadly pathogens at sites left unprotected and vulnerable to theft.

Now, Creedon said, "we are beginning to shift focus in the biological program to Africa and the Middle East, so in time we will transition over to those areas of the world as well."

During 2011, Creedon testified, the CTR program built new nonproliferation partnerships in Africa, the Middle East, and South Asia. Each country's agreement will be based on its needs and requirements.

For countries like Kazakhstan that are more advanced in such biological work, Creedon added, "you look at things like, how many collections of dangerous pathogens do they have? How are they secured? Should they be consolidated? Should you combine veterinary pathogens and human health pathogens, or does it make more sense to keep them apart?"

In accordance with the CTR's historical focus, DoD tries to consolidate such biological sites according to a country's requirements, and monitors each site's security.

In countries with more advanced facilities, Creedon said, including Kazakhstan and Ukraine, DoD checks the biological safety level of the facilities and determines whether they meet international health regulations and standards.

"We also look at the overall disease surveillance capabilities of the country, because ... it's a national security requirement to make sure that our troops in the area, our families in the area, are protected," she added.

"We want to make sure, particularly in countries that have a naturally occurring incidence of diseases that could be weaponized, that we know whether or not an outbreak is manmade or ... natural, Creedon said.

As the biological program expands, Creedon said, "these are the things that we're going to look at with respect to each country, each agreement."

In the United States, such programs are vetted across federal agencies through a process led by the White House staff, she added. International agencies as well as the U.S. Centers for Disease Control and Prevention and the Department of Health and Human Services are included.

Testifying at the same hearing was Kenneth Myers III, director of the Defense Threat Reduction Agency and the U.S. Strategic Command Center for Combating Weapons of Mass Destruction.

He told lawmakers CTR and other nonproliferation programs "are based upon a cooperative relationship with a country, based upon a nonviolent environment where those programs can be carried out." Myers is also associated with the Joint Forces Headquarters for Elimination, established this year by Stratcom.

"The standing Joint Force Headquarters is designed to be able to provide the same type of capability in a nonpermissive environment," he said, "or one in which we are not permitted a cooperative opportunity to reduce weapons of mass destruction."

### **DoD Will Meet 'Aggressive' Efficiency Goals, Spokesman Says**

*AMERICAN FORCES PRESS SERVICE (JUNE 19, 2012)*

*Karen Parrish*

WASHINGTON—The Defense Department "is on target to meet the aggressive efficiency goals set in the fiscal year 2012 budget," Pentagon Press Secretary George Little said today.

In a regularly scheduled press briefing he conducted with defense spokesman Navy Capt. John Kirby, Little said fiscal 2012 savings will total just under \$20 billion. The fiscal 2012 budget outlines \$150 billion in overall savings from "efficiencies"—improved business practices and reduced overhead—spread over fiscal years 2012 through 2016, Little noted.

"Earlier this year the [Defense Secretary Leon E. Panetta] announced an additional \$60 billion in efficiencies between fiscal year '13 and '17," he said. "The department is currently developing implementation plans to reach those goals, and we are confident they can be realized."

Defense components have developed implementation plans for the fiscal 2012 savings goals, the press secretary said, and have reported to Panetta that they are meeting their monetary targets.

"The secretary is personally involved in the efficiencies effort. This is consistent with his focus on more discipline in business operations, to include audit readiness and improved internal controls," Little said.

There are more than 300 separate efficiency initiatives, which Little said "add up to a lot of money in this department."



Pentagon Press Secretary George E. Little, left, and Navy Capt. John F. Kirby, Pentagon spokesman, brief reporters at the Pentagon, June 19, 2012. DoD photo by Glenn Fawcett

Eliminating redundant financial reporting and reducing service support contracts will net an estimated \$17 million in savings in fiscal 2012 for the Office of the Secretary of Defense, Little reported.

The Air Force is using commercial flight-planning software to make real-time flight adjustments, saving an estimated \$45 million over the fiscal year, he said. The Navy is consolidating wireless contracts, for a projected \$10 million cost cut during the fiscal year, he added.

The Army is streamlining installation management and decreasing the number of regional headquarters from six to four, Little said, for an estimated fiscal 2012 savings of \$9 million.

"And lastly, we ... completed elimination of Joint Forces Command last September, for an estimated FY '12 savings of \$292 million," he concluded.

### **Air Force Officials Announce Milestone Atlas V Launch**

*AMERICAN FORCES PRESS SERVICE (JUNE 20, 2012)*

*Amaani Lyle*

WASHINGTON—As part of the Defense Department's ongoing efforts to maintain assured, affordable access to space through 2030, the Atlas V rocket lifted off from Space Launch Complex 41 at Florida's Cape Canaveral today, Air Force officials said.

"This is an exciting time for the U.S. space launch community," said Scott Correll, the program's executive officer. "From today's successful launch of the 50th EELV to the recent success of Space X's support to NASA with their Falcon 9, it's clear the commercial space transportation industry is making notable strides."

The EELV program replaced the previous fleet of launch systems with two families of launch vehicles—the Boeing Delta IV and Lockheed Martin Atlas V—built and operated by the

Defense Department's prime contractor, United Launch Alliance, Correll said.

An official from the Space and Missile Systems Center at Los Angeles Air Force Base, Calif., explained that the Atlas V is a critical part of a spectrum of government missions.

"Atlas V launches space-based infrared systems, ... the defense meteorological satellite program, and the advanced extremely high-frequency system satellites," said Air Force Col. Bob Hodgkiss, director of the launch systems directorate. "I'm pleased to report that this year we have also already launched the Wideband Global Satcom IV aboard a Delta IV, and the Navy's Mobile User Objective System Satellite 1 aboard Atlas V."

Because of considerable program costs, which can run as high as several million dollars per launch, quality assurance and the development of a competitive market are paramount, Air Force officials said.

"Since the Air Force must, by law, self-indemnify, we do a very rigorous evaluation of the physical, electrical, and radio frequency interfaces between the rocket, the satellite, and the ground systems," Hodgkiss said of the process to determine flight readiness. "My team is the government's insurance policy, so we need to be sure we have the highest probability of success in one of the riskiest activities the Air Force does."

On the business side of the program, Hodgkiss said, the program's primary users—the Air Force, NASA, and the National Reconnaissance Office—are developing strategies to infuse competition into space launch as a cost-reduction measure.

"We are balancing the commitment we will make to ULA with the potential to reintroduce competition to the program when one or more commercial launch companies have demonstrated to the Air Force they are reliable launch providers," the colonel said.

Correll asserted that certifying new entrants potentially enables competition, lowering costs and creating innovation in government payloads such as communications, navigation, weather satellites, and science and national security missions.

"The framework offers multiple paths to on-ramp potential new entrants, and part of this strategy requires an entrant to demonstrate at least one launch of a vehicle configured as an EELV-class national security space launch," he said.

ULA's next launch and the NRO's next mission, the Delta IV NROL-15, is scheduled for June 28.

"Our soldiers, sailors, Marines, airmen, Coast Guardsmen, and intelligence community are dependent upon the war-fighting capabilities we enable," Correll said. "Our priority and focus remain mission success first, while controlling costs in this constrained fiduciary environment."

### **Logistics Director Lauds Workforce, Notes Challenges**

*AMERICAN FORCES PRESS SERVICE (JUNE 27, 2012)*

*Karen Parrish*

WASHINGTON—The military's logistics enterprise has done "miraculous things" in supplying two wars over the last decade, and in tackling the challenge of reversing the flow of equipment into Afghanistan, a senior leader said today.

Navy Vice Adm. Mark D. Harnitchek, Defense Logistics Agency director, told the Defense Writers Group here his workforce confronts two central challenges: carrying on the enormous task of recovering equipment from Afghanistan as U.S. troops finish their combat role there by the end of 2014, while also cutting costs and adding efficiency to meet a tighter defense budget.

According to NATO International Security Assistance Force officials, 90,000 U.S. troops remained in Afghanistan as of May 15. By the end of September, 23,000 of those service-members will withdraw. While it's not yet clear what size the U.S. force will be during the ongoing security transition to Afghan forces, or how many will remain beyond 2014, it's clear U.S. troop strength will shrink significantly.

Harnitchek noted his agency isn't responsible for managing returning unit equipment or items that will be transferred to Afghan forces. The Services will take care of those stocks, but DLA is tasked with disposing of worn-out property—from vehicles to computers—and moving inventory stocks out of Afghanistan.

The agency has shredders as big as houses, and machines that can cut a mine-resistant vehicle into 18-inch squares, he said.

"We're doing that in probably three to four places," he said. "We can cut several hundred vehicles up a month." The agency then sells the scrap, Harnitchek added.

Recovering military equipment is a bigger challenge in Afghanistan than it was in Iraq, he noted. "Afghanistan is a much tougher logistical nut to crack," the admiral said.

With ground routes through Pakistan still closed to NATO forces, airlift and the ground-based northern distribution network are the only options for getting supplies in or out of Afghanistan, Harnitchek said. U.S. Transportation Command has the lead in managing that network, but DLA relies on it, he added.

“Frankly, I think commanders on the ground would tell you we haven’t missed a beat,” since Pakistan closed its routes in November, he said. “And on the logistics side, and the big commodities I manage, I’ve never had more fuel or more food in Afghanistan than I have right now.”

The network is made up of ports, rail, and road routes winding like “a spider web,” Harnitchek said, through countries including Latvia, Estonia, Lithuania, Russia, Kazakhstan, Uzbekistan, Georgia, Azerbaijan, Kyrgyzstan, and Tajikistan.

Responding to a question about the network’s possible vulnerabilities—Russian political differences with the United States, for example—Harnitchek said all partner nations have been “remarkably cooperative.”

Because the network is designed to provide an array of transport options, the admiral said, no one route is essential.

“When you think about supporting operations in a place like Afghanistan—that’s landlocked—what you want to do is build a network that is so robust that everybody is an integral part of it, but nobody is absolutely vital,” he said. “You don’t want [to be] leveraged by your network partners.”

The routes are long, arduous, and expensive, he acknowledged, but said he’s confident the network and the military’s airlift capabilities will manage the return of U.S. equipment from Afghanistan if Pakistan’s roads remain closed.

Turning to his agency’s budget goals, Harnitchek said he has challenged his workforce to cut their own operating costs, independent of demand, by 10 percent over the next five years. His strategy to achieve that goal requires better needs forecasting and keeping inventories smaller, he said.

“We need to do a much better job buying inventory,” the director said. “We buy way too much inventory that we don’t use, and then we keep it too long.”

DLA contracts to buy and deliver nearly all of the U.S. military’s consumable items: food, fuel, uniforms, medical supplies, and construction and barrier equipment. The agency also supplies more than 84 percent of the military’s spare

parts. The agency already uses commercial supply lines for products such as food and pharmaceuticals, he said.

“We’re out of that business now,” Harnitchek noted. “We rely on commercial industry and their ... supply chains to do that for us,” which means DLA saves storage and warehouse costs, he said. He’s pursuing similar goals with supplies such as light bulbs, nuts, bolts, and lumber.

“Why would I want to spend \$11 managing a bag of nuts that costs 75 cents? I don’t want to do that,” the admiral said. His staff is also working with private industries that are big fuel consumers to gain a better understanding of market knowledge and when prices are likely to be best, he said. The Defense Department uses 130 million barrels of fuel a year, he said, and price fluctuations drive “a big budget problem.” Unlike industries such as aviation, “We have a lot of storage infrastructure,” he noted. “We could buy and store fuel when the price is right. ... That’s something we’re taking a very hard look at.”

### **Africom Builds Logistics Capability in African Partners**

*AMERICAN FORCES PRESS SERVICE (JULY 3, 2012)*

*Donna Miles*

STUTTGART—Several robust programs at U.S. Africa Command are helping to ensure that when African partners pull together to support shared security interests, they have the logistical capabilities they need to deploy and sustain their operations.

Building the capacity of individual African states and regional organizations has been a cornerstone principle at Africom since its inception. “The shorthand for that is, ‘African solutions to African problems,’” Army Gen. Carter F. Ham, Africom’s commander, told American Forces Press Service.

Ham said he’s been encouraged to see Africans increasingly rising to the challenge, particularly in support of counterterrorism and peacekeeping operations.

But Melissa Jordan, program manager for the command’s theater logistics engagement program, recognizes that willing forces aren’t sufficient if they don’t have the logistical underpinning to back them up.

“You cannot deploy or employ your resources in the deployed environment if you don’t have a strong logistics structure at your home station,” she said. “If your vehicles are dilapidated, if your aircraft aren’t maintained well, if your equipment that supports major end items is not maintained and accounted for, if you don’t have a strong home-station

logistics structure in garrison, then you simply aren't able to sustain a deployment."

In short, logistics ultimately can be a valuable force enabler or a critical failure point. "We want to help our partners achieve the former, so we develop, implement and deliver training activities to bridge that gap and help them get there," Jordan said. "Everything we are doing is to help that African partner."

The training focuses on three primary logistics skill sets: how to deploy, how to sustain—which in military terms is called "employment"—and how to optimize major resources, she explained.

Africom's African Deployment Assistance Partnership Team program, called ADAPT, has been helping to prepare partners for deployments since 2009.

Conducted through four two-week engagements over a two-year period, the program focuses on air cargo loading and deployment. The instructors teach partners, among other skills, how to palletize their cargo, design a load plan, and prepare vehicles and rolling stock, Jordan said.

With this capability, the Africans have more control about how their equipment is loaded when United Nations aircrews arrive to transport them to operations, Jordan said.

"That is important, because when they get off the aircraft at the deployed environment—whether it is Somalia or Sudan or Sierra Leone or wherever they are going—it is really important for them to know what is coming off first, and be able to directly start using it," she explained. "So we are helping those partners manage their own deployments much better from the beginning."

U.S. Army Africa soldiers initially taught the ADAPT program, but U.S. Air Forces Africa airmen have taken over the air cargo and air deployment training instruction. This, Jordan said, enables U.S. Army Africa to teach new courses related to ground deployments using surface platforms, Jordan said.

"That's really important to our partner nations conducting counterterrorism operations," she said. Partners who may not always use aircraft to deploy need to be able to conduct their own security at borders or over the road, she added.

Jordan noted, for example, that the Ghanaians opted to deploy by ground to support U.N. peacekeeping operations in Côte d'Ivoire, because it offered more flexibility than air deployment.

Regardless of how partners deploy, another Africom program, called PILOT, or Partnership for Integrated Logistics Operations and Tactics, is teaching the integrated logistics operations and tactics African forces need to sustain their operations. "Sustaining logistics operations in a deployed environment is no small task," Jordan said. "There are so many elements involved, and you have to think about them all before you go."

The three-week PILOT program, taught by U.S. Marine Forces Africa, focuses on what happens after forces arrive at a deployment site.

"Once they get to the deployed environment, it's how to offload the aircraft, stage the equipment, and move it forward to sustain military operations while they are deployed," Jordan said. The training also focuses on maintenance, supply-chain, and equipment accountability capabilities.

One problem for many African nations is that, although they may have plenty of vehicles, they may lack the logistics and maintenance organizations to support them. So Africom introduced two additional programs to fill the void.

The newest, Vehicle and Equipment Maintenance Team, or VEMAT, is helping partner militaries build vehicle and equipment maintenance capabilities. The training goes beyond direct maintenance and includes instruction on setting up a maintenance or repair-parts shop, planning oil filter and fuel filter changes, and devising a system to resupply tires, engines, and other major parts.

"VEMAT builds a culture of [preventive] maintenance and resource accountability," Jordan said. "And that is really important when we are talking about maintenance scheduling. We help them with the supply-chain solution so they can manage their end items."

U.S. Marine Forces Africa personnel administer the training over five phases through what Jordan called "experience-based learning."

"We don't spend a lot of time in the classroom doing PowerPoint," she said. "We spend a lot of time doing hands on." This type of training, she explained, has proven effective despite language barriers and other traditional education challenges.

U.S. Air Force Africa conducts another program called LOGMAT, or Logistics Management Assistance Team training, which concentrates on aircraft maintenance and the logistics systems required to support it.



Army Maj. Tony Miller of the Tennessee National Guard explains shipping labels on outbound cargo during a training event. Africa Deployment Assistance Partnership Teams traveled to Uganda from Feb. 20 to Feb. 24, 2012, to train Ugandan soldiers in logistics requirements for deployments. Courtesy photo

“We are talking about experienced peacekeepers, experienced officers who are highly educated in logistics. And they are the people we are transferring ownership of these courses too,” Jordan said.

“And that is our end goal: to help them become self-sufficient and for this training to last beyond our presence,” she said. “That way, our investment lasts beyond our contribution. And that self-sufficiency is exactly what the Africans want as well.”

### Hypersonics—The New Stealth

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY (JULY 6, 2012)

The Defense Advanced Research Projects Agency (DARPA)’s research and development in stealth technology during the 1970s and 1980s led to the world’s most advanced radar-evading aircraft, providing strategic national security advantage to the United States. Today, that strategic advantage is threatened as other nations’ abilities in stealth and counter-stealth improve. Restoring that battle space advantage requires advanced speed, reach, and range. Hypersonic technologies have the potential to provide the dominance once afforded by stealth to support a range of varied future national security missions.

In addition to strengthening individual partner nations’ logistical capabilities, these programs are fostering regional cooperation among militaries so they are able to work together once deployed. “That’s important, because the Africans don’t typically deploy by themselves. They deploy regionally,” Jordan said. “So bringing them together for courses like LOGMAT gives them an opportunity to dialog in how they conduct their logistical operations.”

“We are building capability, one logistician at a time,” she said. “But that regular interoperability is compounded every time we bring them together.”

As the training progresses, Jordan said, she’s also encouraged to see the best African partner-nation students emerging as instructors. One student-turned-instructor, from Nigeria, believed so deeply in the logistics program that he gave up his scheduled rest and recuperation leave during his deployment to Somalia to return to the schoolhouse to teach.

These African instructors will be the ones to lead the logistics program forward as they increasingly outnumber U.S. instructors, she said.

Extreme hypersonic flight at Mach 20 (i.e., 20 times the speed of sound)—which would enable DoD to get anywhere in the world in under an hour—is an area of research where significant scientific advancements have eluded researchers for decades. Thanks to programs by DARPA, the Army, and the Air Force in recent years, however, more information has been obtained about this challenging subject.

“DoD’s hypersonic technology efforts have made significant advancements in our technical understanding of several critical areas including aerodynamics; aerothermal effects; and guidance, navigation, and control,” said acting DARPA director Kaigham J. Gabriel. “But additional unknowns exist.” Tackling remaining unknowns for DoD hypersonics efforts is the focus of the new DARPA Integrated Hypersonics (IH)

program. "History is rife with examples of different designs for 'flying vehicles' and approaches to the traditional commercial flight we all take for granted today," explained Gabriel. "For an entirely new type of flight—extreme hypersonic—diverse solutions, approaches, and perspectives informed by the knowledge gained from DoD's previous efforts are critical to achieving our goals."

To encourage this diversity, DARPA will host a Proposers' Day on August 14, 2012, to detail the technical areas for which proposals are sought through an upcoming competitive broad agency announcement.

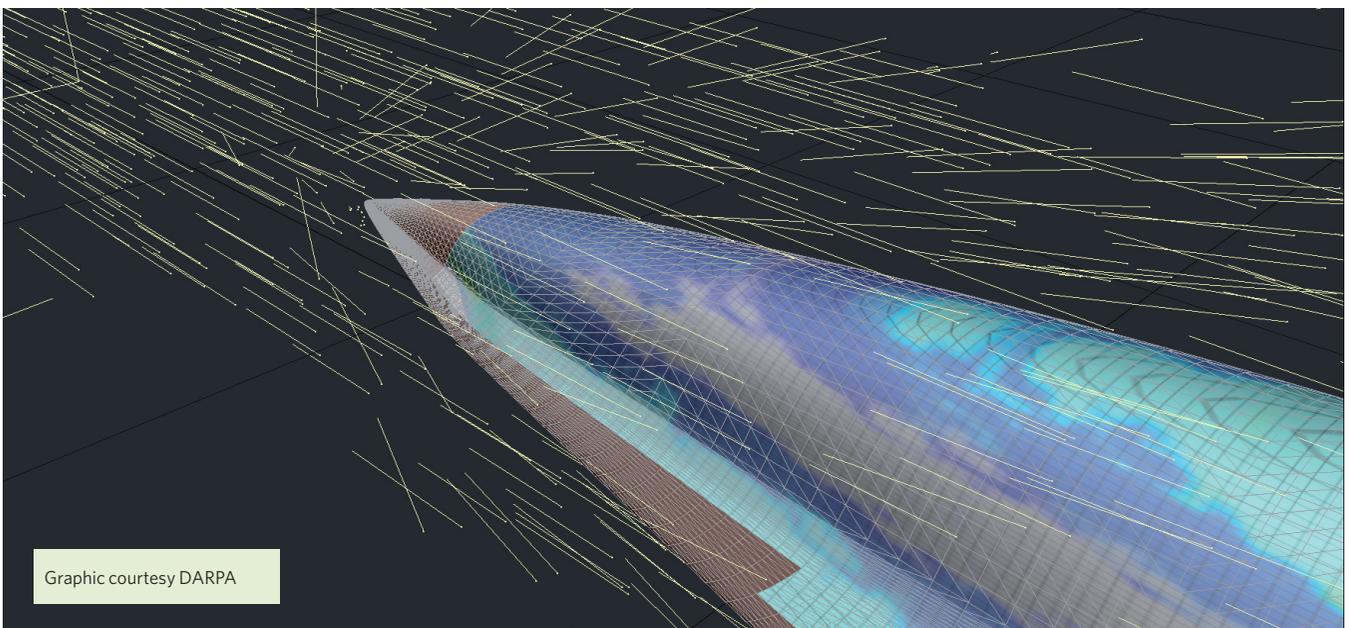
"We do not yet have a complete hypersonic system solution," said Gregory Hulcher, director of Strategic Warfare, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics. "Programs like Integrated Hypersonics will leverage previous investments in this field and continue to reduce risk, inform development, and advance capabilities."

The IH program expands hypersonic technology research to include five primary technical areas: thermal protection system and hot structures; aerodynamics; guidance, navigation, and control (GNC); range/instrumentation; and propulsion. At Mach 20, vehicles flying inside the atmosphere experience intense heat, exceeding 3,500 degrees Fahrenheit, which is hotter than a blast furnace capable of melting steel, as well as extreme pressure on the aeroshell. The thermal protection materials and hot structures technology area aims to advance understanding of high-temperature material characteristics to withstand both high thermal and struc-

tural loads. Another goal is to optimize structural designs and manufacturing processes to enable faster production of high-mach aeroshells.

The aerodynamics technology area focuses on future vehicle designs for different missions and addresses the effects of adding vertical and horizontal stabilizers or other control surfaces for enhanced aero-control of the vehicle. Aerodynamics seeks technology solutions to ensure the vehicle effectively manages energy to be able to glide to its destination. Desired technical advances in the GNC technology area include advances in software to enable the vehicle to make real-time, in-flight adjustments to changing parameters, such as high-altitude wind gusts, to stay on an optimal flight trajectory.

The range/instrumentation area seeks advanced technologies to embed data measurement sensors into the structure that can withstand the thermal and structural loads to provide real-time thermal and structural parameters, such as temperature, heat transfer, and how the aeroshell skin recedes due to heat. Embedding instrumentation that can provide real-time air data measurements on the vehicle during flight is also desired. Unlike subsonic aircraft that have external probes measuring air density, temperature, and pressure of surrounding air, vehicles traveling Mach 20 can't take external probe measurements. Vehicle concepts that make use of new collection and measurement assets are also being sought.



The propulsion technology area is developing a single, integrated launch vehicle designed to precisely insert a hypersonic glide vehicle into its desired trajectory, rather than adapting a booster designed for space missions. The propulsion area also addresses integrated rocket propulsion technology onboard vehicles to enable a vehicle to give itself an in-flight rocket boost to extend its glide range.

“By broadening the scope of research and engaging a larger community in our efforts, we have the opportunity to usher in a new area of flight more rapidly and, in doing so, develop a new national security capability far beyond previous initiatives,” explained Air Force Maj. Christopher Schulz, DARPA program manager, who holds a doctorate in aerospace engineering.

The IH program is designed to address technical challenges and improve understanding of long-range hypersonic flight through an initial full-scale baseline test of an existing hypersonic test vehicle, followed by a series of subscale flight tests, innovative ground-based testing, expanded modeling and simulation, and advanced analytic methods, culminating in a test flight of a full-scale hypersonic X-plane (HX) in 2016. HX is envisioned as a recoverable next-generation configuration augmented with a rocket-based propulsion capability that will enable and reduce risk for highly maneuverable, long-range hypersonic platforms.

More information regarding the August 14 Proposers’ Day is available at [https://www.fbo.gov/index?s=opportunity&mode=form&id=cbbf59999572be69e2146fae96a9c281&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=cbbf59999572be69e2146fae96a9c281&tab=core&_cview=0).

### **Nuclear Deterrence Vital in Complex World, General Says**

AMERICAN FORCES PRESS SERVICE (JULY 12, 2012)

Amaani Lyle

WASHINGTON—Deterrence planning and forces must fit today’s unique global security environment, the commander of U.S. Strategic Command said today.

Air Force Gen. C. Robert “Bob” Kehler said a “safe, secure and effective” nuclear deterrent is vital in a “complex and uncertain world” that includes nuclear weapons and nuclear-armed states, and where several of those states are modernizing their weapons and systems.

“While nuclear weapons represent a unique, relevant, and powerful deterrent capability, this is not your father’s nuclear force,” Kehler told the Reserve Officers Association here. “We’ve witnessed an impressive 67-year period with neither nuclear use nor major-power war. During that time,

we regularly adjusted our nuclear capabilities to match the global environment.”

The general recalled deterrence and assurance have been part of the national lexicon for well more than half a century. “For many of those decades strategic deterrence really meant nuclear deterrence ... because strategic attack really meant nuclear attack on the U.S. or our allies,” Kehler said. “In those days, our predecessors envisioned that a nuclear attack could be a sudden surprise or could arise in the course of a large conventional conflict.”

In either case, Kehler explained, a nuclear attack would typically be met with a “one-size-fits-all” deterrence strategy. That era, he said, passed with the end of the Cold War. “Strategic deterrence and assurance remain relevant concepts today, but [now] we are shaping these concepts for a broader array of individual actors—each with their own unique context,” the general said.

Perhaps most dramatically is the development of tailored deterrence, which according to the general requires a “deeper and more comprehensive understanding of these actors and their decision processes.”

“[Tailored deterrence] requires a robust understanding of the threats [adversaries] pose and more flexibility and speed in our strategy development and ... planning,” Kehler said. Such flexibility involves an adjustment in assets as dictated by mission requirements, he said.

At the height of the nuclear build-up, Kehler said, the U.S. had more than 30,000 nuclear weapons of all kinds, and the Soviet Union had comparable numbers. In total, the U.S. nuclear stockpile has been reduced by more than 75 percent since the Berlin Wall fell in November 1989, he added.

The U.S. also withdrew numerous weapons from abroad, deactivating whole classes of weapons such as ground and sea-launched cruise missiles and the Pershing II ballistic missile, he explained.

“These are significant ... very positive changes [and] at each decision point along the way, the United States carefully accounted for potential impacts on deterrent capability and strategic stability,” he added.

The end result is a substantially smaller nuclear force that can still deter adversaries, assure allies, and maintain strategic stability in future crises, Kehler said.

"The triad of ballistic missile submarines, ICBMs, and nuclear heavy bombers with their associated tankers continue to serve us well."

The general said he and others in Stratcom are mindful of the capabilities that may still inflict enormous damage on the U.S. and its allies.

"Today's world ... includes the threat of the proliferation of nuclear weapons and delivery systems, a growing potential for disruption or destructive attack through cyberspace and the danger of weapons of mass destruction in the hands of violent extremists."

And as long as those threats exist "it's Stratcom's job to offer the president a safe, secure, effective nuclear deterrent force as a vital component of the multi-faceted strategic deterrent the country needs to meet the challenges of the 21st century," he said.

### **New Acquisition Chief Describes Goals, Challenges**

*AMERICAN FORCES PRESS SERVICE (JULY 16, 2012)*

*Jim Garamone*

WASHINGTON—Frank Kendall describes his new job as all about supporting the new defense strategy and the budget that puts that strategy in place.

"My job on the acquisition, technology and logistics side of the house is to execute in support of that strategy," the new undersecretary of defense for the same portfolio told reporters at the Pentagon today.

Kendall said there are important, long-term strategic ideas and goals that must be considered for the long-term health of national security. The department's mission, he said, is to recruit the armed forces of the United States, to have technological superiority, and to maintain a force that is not hollow. His emphasis remains on the still unfinished wars —Afghanistan and the broader war on terror. "The department needs ... to make sure that the programs we start are actually affordable and get them into production and fielding," he said. "That's by setting some constraints at the beginning of the program so they meet that criteria."

Making defense acquisition more efficient is a key to the strategy. The department's Better Buying Power initiative "is really just a label for continuous improvement," he said. "Somebody asked me the other day if I am a transformational person or evolutionary person—I'm evolutionary. I believe in continuous incremental improvement across the board and just looking for ways to do that."

To Kendall, that's what Better Buying Power is all about. "It's not a specific set of rules, it's a philosophy for continuous improvement."

The undersecretary wants to maintain a viable defense industrial base during a time of contraction. "We need to keep it healthy, and that means keeping it profitable, and it also means keeping it lean and productive." The department, he added, also must work to discover better incentives for the defense industry.

All these goals, he said, depend on the acquisition workforce. "At the end of the day our success depends on the quality and capacity of our people," Kendall said. "Building that capacity is high on my list."

But the most important goal is protecting America's future, Kendall said. His organization, he added, must work to develop the technology needed to stay ahead of any potential enemy, maintain the capability to build these technologies, and ensure the department attracts the best people for the jobs.

### **Robots Revolutionize Army Aviation Maintenance at Depot**

*ARMY MATERIEL COMMAND (JULY 16, 2012)*

*Jaclyn Nix*

CORPUS CHRISTI ARMY DEPOT, Texas—Corpus Christi Army Depot introduced its sixth robotic metal spray unit to coat helicopter components better, faster, and cost efficiently.

The robotic metal spray booth mechanically bonds plasma spray to coat aircraft components. Instead of Corpus Christi Army Depot, at CCAD, artisans machining metal onto a part, existing components can be restored and put back into service.

The plasma consists of a high heat source, gas, and a metallic powder, which can be anything from aluminum to tungsten. The powder adheres and coats the component without harming the bare metal.

"Instead of throwing away the part, we prep it and do the thermal spray so you won't lose the bare metal, which costs the most," said Juan Medrano, senior project manager from Solzer Metco, a coating solutions center.

"This is actually going to have a return on investment of \$2.6 million from an initial investment of \$1.1 million over a life span of 20 years," said Lupe Lara, mechanical engineer.

Robotics have become a beneficial part of CCAD life since it reduces gun set-up time and rework while improving employing.

Darrell McIntyre, metal operator, says that the switch to robots has made the job go by faster and with more consistency.

About ten years ago, metal operators sprayed components by hand. They exposed themselves to hazardous conditions such as UV lighting and fumes from the plasma that required safety equipment from gloves to a full jacket, mask, safety glasses, and ear plugs.

The operator would spray the components with multiple coats throughout the day, increasing the likelihood of human error with every coat.

"In the past we had to go in there manually to adjust all the positions every time we set up for a new part," said McIntyre. "Now we just punch a button, tell the system what part we got, and the robot does the rest."

The robotic metal spray unit can spray up to two and a half feet per second, making the job more accurate and faster than ever before.

"It's speeding up the process because guys were having to work late, but now that we have five booths we will be able to push through equipment and make deadlines," said Lara.

A better product that uses fewer resources and still comes out faster is business as usual for CCAD as they continually look for ways to improve the world of helicopter support.

*Nix is with Army Materiel Command.*

### **Kendall: Afghan Drawdown Logistics to be 'Huge' Undertaking**

AMERICAN FORCES PRESS SERVICE (JULY 17, 2012)

*Jim Garamone*

WASHINGTON—The man who oversaw the logistics of the military withdrawal from Iraq sees a greater challenge coming in the Afghan drawdown, describing it as "huge".

Frank Kendall, the undersecretary of defense for acquisition, technology and logistics, told reporters logistics is a much bigger part of his job than he thought it would be.

"The aphorism that amateurs worry about tactics and professionals worry about logistics is very true," Kendall said.

"We have a huge logistics challenge getting out of Afghanistan." That challenge, he said is different than the one involved in the withdrawal from Iraq.

Kendall oversaw the Iraq effort as the principal deputy undersecretary for acquisition, technology and logistics. "That was a piece of cake compared to what we have to do in Afghanistan. This is a much more difficult job."

Afghanistan is a land-locked country, and the United States, NATO countries, and coalition partners have sent mountains of equipment and supplies there since operations began in 2001. Now the coalition effort is drawing down as Afghan forces increasingly take over security. By the end of the summer, 23,000 additional American servicemembers will leave, as well as those from many coalition nations. Combat operations are to wind down next year, and all coalition combat operations are set to conclude at the end of 2014.

The recent reopening of supply lines through Pakistan has helped, Kendall said. "Hopefully they will stay open and we will be able to use them," he said. "We've gone a long way towards negotiating agreements to help in the Northern Distribution Network. There's still some work to be done there. But that also will help."

The U.S. military has been planning the maneuver for months, and an exercise is underway.

There are things that make the Afghan operation more difficult than the effort in Iraq and some that make it easier, Kendall said. "One of the things that made the Iraq situation easier was, of course, you could just drive in to Kuwait, park things in Kuwait, and then ship them wherever you had to," he said.

"It's not quite as easy to get out of Afghanistan, but on the other hand, we expect to have a more enduring presence in Afghanistan," he said. "So we will be able to move material out at a pace, which is perhaps more reasonable."

Materiel may be shipped out past the December 2014 deadline, Kendall said. "I think because of the physical constraints, we will probably do that," he said.

"One of the reasons we are going to need overseas contingency funds beyond 2014 is that we're going to have to do the logistics job—not just in getting the equipment we want out—but in refurbishing it when we get it back," he added.

## Transportation Corps Looks to Technology, Soldiers to Move Army Forward

ARMY NEWS SERVICE (JULY 19, 2012)

Amy Perry

FORT LEE, Va.—Planning for future operations is a big part of the Chief of Transportation's job, and it's a role that Brig. Gen. Stephen E. Farmen relishes.

Keeping the Transportation Corps workforce, which numbers well over 70,000 today, and its capabilities stronger than ever while moving deeper into the 21st century is an important part of his vision, he said.

"The vision for our corps is to be integrators of deployment and distribution in all we do—from the people we produce, to the equipment we modernize, to the concepts, doctrine, and force structure we develop," said Farmen. "We must be a bastion of transportation innovation with emphasis on adaptive training and expertise-producing leaders. All our efforts are designed to hinge around this vision as we shape the future."

To help shape that future, Farmen's team is releasing a plan called "Strategic Blueprint 3.0" at the annual Transportation Symposium next week. It lays out the lines of effort to get to 2020 and beyond.

"Our goal is for this to be an adaptive blueprint providing a road map to develop leaders and develop as a leader, enable deployment and distribution, and do it in a joint environment," he said. "If all our lines of effort and energy are not driving toward promulgating our intent to connect, integrate and deliver the transportation capabilities and capacity for movement and distribution excellence on all fronts, and at all levels, and produce transporter logisticians who are functional experts and savvy supply chain integrators—then it is not worth doing."

Also in looking toward the future, Farmen said the newest crop of Transportation Soldiers—enlisted and officer alike—shows remarkable potential.

"I have the unique privilege and opportunity to talk to all our new soldiers—officers, warrant officers, and enlisted—and each time I am blown away by the character and spirit to serve their country," he said. "All our young soldiers these days are smart and tech savvy. They are energized and want to get their hands on the best technology and equipment the Army has to offer, and they want to make a difference."

That interest in technology bodes well for the future of the corps, especially with the many modernization efforts under way, said Farmen.

"What's really exciting when you think of the Transportation Corps in the future is how technology will integrate into our capabilities to change how we conduct surface distribution operations," he said. "For example, unmanned vehicles, robotics, interactive dashboard—these will be the game changers. A key acquisition project on the horizon right now is the Joint Light Tactical Vehicle, which is not only the top modernization effort of our Tactical Wheeled Vehicle fleet but one of the top three 'big Army' acquisition programs."

Another way the Transportation Corps is looking ahead is using technology to engage the entire community, said Farmen.

"We have just published a distribution White Paper to help us frame the art of the possible, and you can see and read more about what we're talking about on our Path to 2028," he said. "Anyone can access this document at our interactive website and engage in conversation with our community on how to leverage this document and get us smartly into the future."

The White Paper is available at [www.discoveringdistribution.org](http://www.discoveringdistribution.org).

"We live in a participatory world," Farmen emphasized, "and it will take all of us working together to ensure we evolve smartly and effectively into the 21st century."

"It's important to keep the corps effectively communicating across distance as well as its campuses, [which] include Fort Lee, Fort Leonard Wood, Missouri, and Fort Eustis [Va.]. Although several courses moved to Fort Lee during the BRAC transition, the motor transport operator from Fort Leonard Wood and the stevedoring, rail, and watercraft specialties at Fort Eustis couldn't be physically moved here, said Farmen. Thus, keeping the corps "together" although physically located far apart is a top priority for him.

"Our mission command approach hinges on tending to spheres of influence in all locations, and I am blessed with a top-notch assistant commandant in Col. Andy Peters who is adept at leveraging multiple forums, the latest technology, and a battle rhythm framework between our schools at all locations to keep the dots connected and us all rowing in the right direction," said Farmen. "It is definitely not easy and requires a relentless, collaborative team approach from across all our leadership teams and entities."



The Army Logistics Support Vessel CW5 Harold C. Clinger conducted an operation with the Canadian Navy during the Rim of the Pacific Navy exercise near Hawaii recently. The RIMPAC is the world's largest international maritime warfare exercise.

Courtesy photo

An initiative of Farmen's includes moving the 2nd Transportation Brigade to Fort Lee. It's an Army Reserve organization, but Farmen is interested in making it a multi-component brigade for the Transportation Corps here. Currently, transportation soldiers on Lee do not belong to a transportation brigade for training.

"This will fix that gap and, more importantly, allows us to bring the One Army School System to life for our [Transportation Corps] at Fort Lee, since it allows for integrated mission command of our Reserve Component training and active component training, while being co-located with our Transportation School here," said Farmen.

The corps' focus on the future and technology also drove this year's theme—"Spearheading 70 Years of Excellence"—for its milestone symposium.

"We want our [Transportation Corps] to remain visionary, and I think this theme does just that," said Farmen. "To spearhead is to lead, and those who came before us did a great job leading change and keeping us ready and relevant moving forward. We need to revel in their accomplishments to date and, more importantly, use this time as an opportunity—or as Churchill would say, to 'look back to look forward.'"

"This theme reinforces our purpose. It reflects the strength, resilience, and confidence in our ability to relentlessly persevere into the 21st century—and do it together with a higher purpose in mind," he concluded. "The Transportation Corps is bigger than all of us. It is just entrusted to our care for a brief period, and we have the responsibility and obligation to evolve forward."

### DoD Unveils New Strategy to Mitigate System Threats

AMERICAN FORCES PRESS SERVICE (JULY 19, 2012)

Amaani Lyle

WASHINGTON—The Defense Department has taken on a holistic, risk-based methodology to safeguard system and network security as part of a new strategy, a senior Pentagon official said recently.

The DoD Trusted Defense Systems Strategy provides an overarching framework for design and delivery of trusted systems with a focus on supply chain threats and minimizing risk exposure, said Principal Deputy Kristen Baldwin, office of the deputy assistant Secretary of Defense for systems engineering.

"In 2009, we received direction from Congress to develop the department's strategy to ... understand the vulnerabili-

ties in our systems and how we go about mitigating them," Baldwin said.

The strategy, Baldwin explained, breaks down into four major areas: prioritization of security requirements, comprehensive program protection planning to identify critical components, partnership with industry, and capability enhancement through research and development.

Each of these tenets, Baldwin said, is designed to protect the department's secure software, hardware, and the full complement of systems that rely on networks.

Baldwin also described the associated risks due to the shift from stand-alone to networked systems and the burgeoning number of suppliers and critical components.

The strategy's crosshairs, she said, lie on nation-state, terrorists, criminal, or rogue developers who may exploit vulnerabilities remotely or attempt control of systems through supply chain opportunities.

"We must protect not only technologies we hold sacred, but also protect the abilities of that system to function as intended and not be compromised," Baldwin said, adding that stakeholder integration among acquisition, intelligence, engineering, industry, and research communities is key to success and implementation of the strategy.

### **Carter Addresses Joint Strike Fighter Program**

*AMERICAN FORCES PRESS SERVICE (JULY 21, 2012)*

*Karen Parrish*

TOKYO—Many countries that are partnering with the United States in the F-35 joint strike fighter program will have a role to play in the aircraft's assembly, but the U.S. government will not decide which country does what, Deputy Defense Secretary Ashton B. Carter said here today.

During a press conference with Japanese media representatives, Carter explained that the supersonic stealth fighter's prime contractor, Lockheed Martin Corp., will decide where the fighter's various manufacturing processes will be located, based on two factors: the partner nation's desire to participate in the aircraft's production, and economic efficiency.

Carter arrived in Japan on the first international stop of an Asia-Pacific tour that has already taken him to Hawaii and Guam, and will continue to Thailand, India, and South Korea. He discussed the F-35 program while responding to a reporter's question on whether Japan will be the site of the aircraft's final assembly and check out.

Lockheed Martin officials have explained that process, known in the industry as FACO (Final Assembly and Check-out), which involves putting together the four major structural components of the airplane, installing the engines and electronics systems, and coding and test-flying the aircraft. "The F-35 program is obviously very important to us," Carter said. "It's the linchpin of tactical aircraft inventories for the United States for decades to come, so we're completely committed to it."

The deputy secretary noted that in his previous position as the department's undersecretary for acquisition, technology and logistics, managing the JSF program was one of his central responsibilities.

"I wouldn't have told you this three years ago, but I can tell you now: I think it's getting on the path to finishing its development [and] ramping up to full-rate production," Carter said.

Nations currently partnering with the United States on the aircraft's development include the United Kingdom, Italy, the Netherlands, Turkey, Canada, Denmark, Norway, and Australia.

Many of those partners will participate in building the airplane, Carter noted.

"We can't all do everything; we can't all build all parts of the JSF," he said. "Otherwise, that will be economically inefficient, and we'll be wasting our taxpayers' money, and that's not fair."

What makes sense, the deputy secretary said, is for each country involved in producing the fighter to make some of the parts for all of the other partner nations.

"So it's a very complicated matter of apportioning, in an economically efficient way, all of these technical tasks," Carter said. "And that's what Lockheed Martin ... does in discussions with all the partners."

Defense Department leaders care about the outcome of manufacturing decisions "because we want an affordable airplane, as does the Japanese government," he said.

Carter added, "I'm sure that that will be done in a way that is satisfactory to Japan, just like it has to be satisfactory to the United States, has to be satisfactory to Turkey, to the U.K. ... That's the way international programs work today."

**Carter: U.S. to Work with Japan on Osprey Analysis**

AMERICAN FORCES PRESS SERVICE (JULY 21, 2012)

Karen Parrish

TOKYO—Deputy Defense Secretary Ashton B. Carter answered a barrage of questions on the V-22 Osprey during a press conference with Japanese media representatives here today.

U.S. defense leaders plan to introduce the Osprey, a tilt-rotor aircraft, into service supporting Japan-based Marine Corps operations later this year. Full operational capability is currently set for October, but several Japanese leaders have notified the central government of their reservations about the aircraft's safety.

Reporters cited two recent crashes—one in Morocco in April, which killed two people, and another in June that happened in Florida and injured five people—as cause to delay operating the aircraft in Japan.

The first 12 Ospreys intended for use in Japan are now loaded on cargo ships and heading for Iwakuni, a Japanese port city that is also the site of a U.S. Marine station.

Reporters' questions today focused on whether the United States will stick to the October timeline, despite the concerns of several Japanese leaders and some residents of Iwakuni and Okinawa.

"The Osprey is an important capability; it's going to make an important new contribution to deterrence and to the deterrent capabilities of the alliance," Carter said. "And it's an aircraft that we are flying ... the world over."

The deputy secretary added that as DoD's chief management officer, "The safety of aircraft is a great concern to me, and a great responsibility of mine."

He said he understands that aircraft safety is also extremely important to the government and people of Japan.

"I think that's entirely appropriate," Carter said. "And we are committed to providing your airworthiness experts with all of the data and all of the information about the entire flight history of the V-22, including the two recent incidents, and allowing them to analyze that data and take every step they need to make to reconfirm the airworthiness of that airplane."

The U.S. and Japanese governments have agreed that flight operations will not begin until that reconfirmation has taken place, Carter said.

"This is a process, a technical process of assessing airworthiness," he said. "I think you have to let the experts do their work, have their access to their data, and so forth."

The two governments routinely work together to address airworthiness issues, the deputy secretary noted.

"It's a normal part of the process of confirming flight safety of aircraft of all types," Carter said. "So it's something that is totally understood by Japanese experts as it is by our experts."

Carter said addressing Japanese concerns over the Osprey's safety is an issue the two governments will solve together.

"That's what longstanding, trusting allies that are democracies—this is how they work things through," the deputy secretary said. He added, "And, you know, we're going to resolve it. That's the whole point."

**Readout of Secretary Panetta's Meeting with CEOs and Leaders from the Defense Industry**

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 23, 2012)

Secretary Panetta and senior members of his acquisition and budget team met today with leaders of the defense industrial base task force, organized by the Aerospace Industries Association, the Professional Services Council, and the National Defense Industrial Association.

The meeting continues a regular dialogue Panetta and departmental leaders conduct with defense industry. For this meeting, the devastating impact of sequestration on the defense industrial base and key domestic sectors was the top item on the agenda.

Panetta told industry representatives that his focus continues to be on preventing sequestration by urging Congress to achieve responsible deficit reduction. He emphasized the impossibility of planning for a sequester in a way that avoids its harmful impacts. There was agreement between the secretary and the CEOs that sequestration will do tremendous harm to domestic and national security programs across the board.

Panetta further emphasized the department will remain focused on implementing the strategy-driven budget it has developed. He said that maintaining a strong, vibrant and innovative defense industrial base is one of his top long-term strategic priorities as secretary of defense.