

**Partners Essential in Strategic Transition, Carter Says**

AMERICAN FORCES PRESS SERVICE (FEB. 2, 2013)

Cheryl Pellerin

MUNICH—The United States is embarked on a strategic transition fueled by the end of a decade of war and by new fiscal and security challenges, but it won't have to make the journey alone, Deputy Defense Secretary Ashton B. Carter said here today.

Speaking as part of an expert panel at the 49th Annual Munich Security Conference, Carter explored for an audience of international foreign and defense ministers and security policy officials the tenets of a defense strategy for the 21st century.

"We don't see this as something we do alone," Carter told participants from around the world.

"Our principal security allies, many of whom have been involved at least in Afghanistan, are making the same kind of transition," he said. "You're all challenged by that transition."

The panel, whose discussion focused on the future of European defense, included Netherlands Defense Minister Jeanine-Antoinette Hennis-Plasschaert, Russian Federation Deputy Defense Minister Anatoly Antonov, European Union Commissioner for Internal Market and Services Michel Barnier, NATO Supreme Allied Commander for Transformation Gen. Jean-Paul Paloméros, and others.

The United States prefers alignment with its friends, Carter added, including "all of the countries represented up here on this stage and many more. It helps us to know where they're headed and [it helps] them to know where we're headed." Emerging from a necessary preoccupation with wars in Iraq and Afghanistan, the deputy secretary said, the Defense Department is addressing security challenges that will define its future.

In that effort, Carter added, "there are opportunities to do that together with our security partners."

Principles embodied in the January 2012 Defense Strategic Guidance include taking lessons from the conflicts in Iraq and Afghanistan to make fighting forces leaner and more agile, using approaches related to and aligned with the NATO Response Force concept of a highly ready and technologically advanced multinational force made up of land, air, maritime, and special operations forces components that can quickly deploy.

Another tenet of the new defense strategy is a rebalance to the Asia-Pacific region, which, Carter noted, "is not a rebalancing away from Europe because our interests are enduring here."

Europe is a source and not a consumer of security in today's world, the deputy secretary said, "and we look ... to rebalance with Europe, not away from Europe."

Unlike Europe, he added, "Asia has no NATO ... has had no way of knitting together countries and healing the wounds of the Second World War" and earlier conflicts. And yet the region has enjoyed peace, stability, and therefore prosperity for 70 years.

"That's good, but it's not automatic," Carter said. "And I think a central reason for that peace and prosperity has been the pivotal role of American military power in that part of the world."

Another important tenet of the defense strategy is to pursue the very newest in technology and operational art, he said, adding that President Barack Obama was insistent on this focus. Investments in this area target special operations forces, capabilities in space and in intelligence, surveillance and reconnaissance, and cyberspace.

"In all those areas, our direction was that we were to not only protect, but enhance those [capabilities] and our strategy and investments," Carter added. "And we're doing that."

For DoD, he noted, the desire to work with partners extends both to nations and to defense companies at home.

"Our partnership with industry is central," Carter said, "second only to our people in uniform. It is the systems provided by the defense industry that make our military great."

Defense industry companies are DoD partners in protecting the country, the deputy secretary observed, "so as we make this strategic transition, we must do it in a way that ensures industry remains strong, technologically vibrant, and financially successful."

Defense leaders and managers must always work to deliver better buying power for the defense dollar, Euro, or pound, Carter added, "both to deliver more capability for the funding we receive and to sustain the taxpayers' faith in us and their willingness to give us funds."

**Clean Energy Tied to National Security, Official Says**

AMERICAN FORCES PRESS SERVICE (FEB. 7, 2013)

Claudette Roulo

WASHINGTON—The changing U.S. and international energy pictures have a profound effect on security, a senior Pentagon official said here yesterday.

Sharon E. Burke, the assistant secretary of defense for Operational Energy Plans and Programs, told industry partners and congressional leaders at the American Council on Renewable Energy's National Renewable Energy Policy Forum that the motivation for seeking out clean energy sources is strongly rooted in national security interests.

The International Energy Agency's world energy outlook, released in November, is "the shot heard 'round the world," Burke said. According to the report, she said, the world will need \$37 trillion dollars in new investment in the energy supply system from now to 2035.

Even as mature economies increase their energy efficiency, switch fuels, and reduce their petroleum demand, the thirst for oil among the world's economies—particularly developing economies—will continue to grow apace, Burke said.

"China will account for something like 50 percent of that [growth]," she told the audience. "When you add in India and the Middle East, you're talking about 60 percent."

The United States is affecting the most change on the world energy picture, she said. The IEA estimates that by 2020, the United States is going to outstrip Saudi Arabia as an oil producer. Another report predicts that the U.S. will succeed Russia as a natural gas producer, she added.

This means the possibility exists that North America could be energy self-sufficient by 2035, Burke said. "Even as everyone else in the world has growing demand and contracting supply, we're bucking the trend," she said.

This possibility has generated a lot of justifiable excitement, and for a variety of reasons, Burke said. There are positive consequences for the U.S. economy, for jobs, and for the manufacturing sector, she said. But the Defense Department is most interested in the second-order geostrategic effects, Burke noted.

A danger in all this enthusiasm, she said, is that it overlooks the fact that the United States will still be part of a highly volatile global energy market, "and the world's supply and demand trends are going to continue to shape our own prosperity here at home."

The energy security variables have implications that aren't yet understood, Burke said. For example, she asked, what will happen if Saudi Arabia—already the largest single consumer of petroleum in the Middle East—becomes a net importer? Last month, Iran conducted naval exercises in the Strait of Hormuz, which it has repeatedly threatened to close, she said.

"I know a lot of people who think those are empty threats, because such a closure would certainly hurt the Iranian people most of all, but this is 20 percent of the global oil market," Burke said. "It would cripple the global economy, so certainly at DoD we take those threats seriously."

Territorial disputes pose a different kind of threat, she said. Tensions flared recently between China and Japan over the Senkaku Islands, due in part to the expected presence of oil there, Burke said. In the Arctic, global climate change has made more oil and gas accessible, driving bordering nations to stake claims on formerly ice-bound geologic provinces.

The Defense Department has a history of looking at how the effects of climate change—droughts, floods, population migration, sea level rise and shifts in arable land—are an accelerant to instability, she said. In May, Defense Secretary Leon E. Panetta called climate change a threat to national security, Burke added.

The need for clean energy and energy efficiency has an enduring security angle, she said, adding that it's the only way to break out of the paradigm of foreign energy dependence and its associated instability.

The Defense Department's changing mission also has energy security implications, Burke said. In January 2012, Panetta and President Barack Obama released new strategic guidance that called for a rebalance of focus to the Asia-Pacific region.

Considering that the Defense Department already is the single largest consumer of fuel in the country, if not the world, she said, it's "sobering" to think about what the rebalance means for fuel consumption. Last year, the department used 4.3 billion gallons of petroleum, and spent about \$20 billion on fuel, Burke said.

Beyond the rebalance and the long supply lines that it implies, the strategy articulates a changing security environment, Burke said, including rising powers, weapons of mass destruction, anti-access/area-denial, and violent extremism.

"We are organizing to meet these challenges," she said, but the ability to do so hinges on maintaining energy security. Everything from cyber to special operations to large-scale humanitarian assistance efforts requires a lot of energy, Burke noted.

"Consider this ability to disperse, to maneuver, to operate over long distances in remote locations, and to be aware that people are going to try to interdict your movements, try to prevent you," she said. "That's a fuel challenge, and it's a fuel logistics challenge, and we have to get our arms around it."

The department has to apply the lessons it learned over the past decade of war, Burke said. An average of 45 million gallons of fuel is consumed each month in Afghanistan, she said.

"Delivering all that fuel takes a toll on a lot of different things," Burke said. "It takes a toll on helicopters, aircraft [and] trucks that are moving the fuel, and that's a bill that's going to come due, because we need all those things for other missions in the future, and their life has been shortened."

The Army and Marine Corps have documented thousands of casualties related to fuel movements in Afghanistan and Iraq, Burke said. U.S. forces can protect those lines, she added, but the cost in people and resources is higher than it needs to be.

Maintaining a military that's ready for missions everywhere means it's vital to use energy better and use better energy, Burke said, noting that the Defense Department is looking at a variety of energy efficiencies and renewable energy sources for military systems.

The conflicts of the last decade have made it clear that individuals are themselves a military system, Burke said. "Because they carry so much electronic gear now, it gives them great capabilities, ... but it all requires power. It requires batteries," she explained.

According to one Army estimate, soldiers walking a three-day foot patrol in Afghanistan may be carrying anywhere from 10 to 18 pounds of batteries, Burke told the audience. "We want to look at how we can power that particular system—the human system—better," she said.

Other systems that require large amounts of energy are combat outposts and forward operating bases, Burke said. These bases serve as hubs for troops when they operate—they project power from there, fight from there, live there, get intelligence from there, and communicate from there. These activities are all powered by diesel generators, she

said. Fuel for those generators is delivered by truck convoys, helicopters, airdrops, and even by donkey, Burke said. "Whatever it takes to get it there," she said.

"The next system ... is what I would call 'big movers,'" she said. "The individual on the base may be very critical to the operation, but the big volume is in ships and vehicles and aircraft. They go through an enormous amount of fuel." They also provide the U.S. military with one of its biggest advantages—the ability to move people and things anywhere at any time, Burke said.

The final system, "game-changers," is a bit different from the others, she said.

"For example," Burke said, "we're seeing a lot of unmanned systems come into the force in all domains—underwater, on the ground, in the air—and those radically change how much energy you consume and they also give you a lot of flexibility for the kind of energy you consume."

For each of those systems, the department is investing in new, more efficient technologies, she said, including the technology of efficiency itself.

"I recognize efficiency isn't a technology, it's a suite of technologies, but for us, it's an extremely important investment, Burke said.

For example, she said, power management and distribution for forward operating bases is critical to reducing fuel use, but generators at those bases are often oversized and underloaded. The department is working to use generators more efficiently, including by stringing together several to create a microgrid, Burke said.

Those oversized generators burn a lot of fuel heating and cooling non-insulated structures, she said, so the department is looking at more efficient tents and other shelters.

"Heating and air conditioning is one of the biggest power users on the battlefield," she added. "We've put a lot of money into research and development lately for how to get more innovative in heating and cooling for these environments."

A second technology area of interest is energy storage, Burke said. "We're interested in a whole range of battery technologies," she said, "from Nano batteries for sensing, to more efficient lightweight batteries, to power equipment for the troops to large scale energy storage."

Solar energy is being put to some promising uses, Burke said. At the troop level, she said, flexible solar rechargers are already out on the battlefield.

"We're also interested in ruggedized solar that can generate power at forward bases ... [and] we've tested unmanned aerial systems using solar [power]," Burke said. In one such test, she said, the aircraft was aloft for two straight weeks without refueling.

Other technological developments the department is looking into, Burke said, include waste-to-energy and fuel cells for troops on the move and for unmanned systems.

The department is investing in alternative energy technologies because it makes strategic sense, Burke said.

"These are technologies that we think are going to help the troops do their missions better," she said. "At the end of the day, in some respects we're technology agnostic. This is not an exhaustive list. We want anything that's going to help our troops meet the mission and to do their jobs better."

### **Cannon Debuts Latest In Moving Target Technology**

27TH SPECIAL OPERATIONS WING PUBLIC AFFAIRS (FEB. 8, 2013)

*Airman 1st Class Ericka Engblom*

CANNON AIR FORCE BASE, N.M.—Explosions shook the air as the white truck, almost invisible through the dust and smoke, weaved its way across a training range towing a target being shot at by 40mm rounds from aircraft patrolling the sky.

Special operations airmen from here tested the remote-controlled truck, the latest in unmanned vehicle technology, at Melrose Air Force Range, N.M., Feb. 4.

The newly-acquired \$180,000 truck is guided by a Global Positioning System. Airmen from the 27th Special Operations Wing are using the truck to train aerial and ground crews in combat operations.

"This moving target will provide a much more realistic training environment for our [airmen]," said Col. Buck Elton, 27th SOW commander. "It is the first of its kind to be used in Air Force Special Operations Command."



An unmanned vehicle pulls a target while an AC-130W Stinger II shoots from above at Melrose Air Force Range, N.M., Feb. 4, 2013. The unmanned vehicle is a new piece of equipment recently acquired by Cannon Air Force Base, N.M. Its remote-control capabilities allow the squadrons to practice shooting at a moving target without putting any human life in danger.

U.S. Air Force photo/Airman 1st Class Ericka Engblom

The GPS-controlled Ford F-250, is able to start, stop, drive in various patterns, and tow a target without a human presence in the cab.

This capability not only allows aircrews to practice shooting at a moving target, but will also be used by ground crews to simulate multiple aggressive hostile situations.

“The truck can be used to aggress an area and provide a persistent threat up to a point,” said Maj. Ian Frady, 27th Special Operations Air Operations Squadron deputy range manager. “However, 98 percent of what it will be used for is aerial moving target practice.”

Though in its initial testing phase, members who control the range training program are optimistic about the training potential the truck will provide in the future.

“This is an unparalleled tool,” Frady said. “We cannot wait to bring teams from other wings in AFSOC out to Cannon so they can train with the vehicle. It opens up a new and unique training opportunity for us. We really cannot express how excited we are about this.”

### **Aegis Missile Defense System Intercepts Target in Test**

AMERICAN FORCES PRESS SERVICE (FEB. 13, 2013)  
WASHINGTON—The Missile Defense Agency and sailors aboard the *USS Lake Erie* conducted a successful flight test of the Aegis Ballistic Missile Defense system today, resulting in the intercept of a medium-range ballistic missile target over the Pacific Ocean by a Standard Missile-3 Block IA guided missile.

At 4:10 a.m. EST, a unitary medium-range ballistic missile target was launched from the Pacific Missile Range Facility in Kauai, Hawaii. The target flew northwest toward a broad area of the Pacific Ocean.

The in-orbit Space Tracking and Surveillance System-Demonstrators, or STSS-D, detected and tracked the target, and forwarded track data to the *USS Lake Erie*. The ship, equipped with the second-generation Aegis Ballistic Missile Defense weapon system, used “Launch on Remote” doctrine to engage the target.

The ship developed a fire control solution from the STSS-D track and launched the SM-3 Block IA guided missile about five minutes after target launch. The SM-3 maneuvered to a point in space and released its kinetic warhead. The warhead acquired the target re-entry vehicle, diverted into its path,

and, using only the force of a direct impact, engaged and destroyed the target.

Initial indications are that all components performed as designed, officials said. Program officials will assess and evaluate system performance based upon telemetry and other data obtained during the test, they added.

Today’s event, designated Flight Test Standard Missile-20, or FTM-20, was a demonstration of the ability of space-based assets to provide mid-course fire control quality data to an Aegis Ballistic Missile Defense ship, extending the battle space, providing the ability for longer-range intercepts and defense of larger areas, officials said.

FTM-20 is the 24th successful intercept in 30 flight test attempts for the Aegis BMD program since flight testing began in 2002. Across all Ballistic Missile Defense System programs, this is the 58th successful hit-to-kill intercept in 73 flight tests since 2001.

Aegis Ballistic Missile Defense is the sea-based component of the Missile Defense Agency’s Ballistic Missile Defense System. The Aegis BMD engagement capability defeats short- to intermediate-range, unitary and separating, mid-course-phase ballistic missile threats with the SM-3, as well as short-range ballistic missiles in the terminal phase with the SM-2 Block IV missile.

The MDA and the Navy cooperatively manage the Aegis BMD program.

### **Pentagon Revamps Approach to Industrial Base, Official Says**

AMERICAN FORCES PRESS SERVICE (FEB. 20, 2013)  
*Army Sgt. 1st Class Tyrone C. Marshall Jr.*

WASHINGTON—The Defense Department has revamped its approach to communicating and interacting with the defense industrial base after applying lessons learned from previous economic downturns, a senior defense official said here today.

Brett B. Lambert, deputy assistant secretary of defense for manufacturing and industrial base, spoke during an Atlantic Council panel session.

Lambert said he was asked in 2009 to figure out a perception that DoD’s communication with the defense industry was lacking.

A lot of people thought it was political, he said, but that proved not to be the case.

"It became obvious to me very, very quickly it had nothing to do with politics or parties," he said. "It had everything to do with 10 years of double-digit, year-over-year growth. There was no need to talk to each other. Everyone was happy. When we had a program that was bleeding, we cauterized the wound with money, because we had it. Expediency was the most important thing."

Lambert said the defense industry delivered what was asked of it, but that over time, the interaction between DoD and the industrial base broke down.

"So we came in with strategic guidance to try to re-establish, if you will, communications—specifically with industry," he said. "But I came in with another specific task."

The deputy assistant secretary said then-Defense Secretary Robert M. Gates was aware of the coming downturn.

"He knew well the times of double digit growth were over," Lambert said. "And so we knew we were entering a time of downturn."

With that in mind, Lambert said, officials reviewed the four previous downturns' effects on the industrial base.

"Basically we were 0-4," he said. "We got it wrong in every case. We got it wrong for a variety of different reasons, so we went back to look at what we could do better."

That effort made clear the need to engage industry up front, Lambert said. "And we needed to understand how dramatically the industry has changed since the last downturn—the post-Cold War downturn," he added.

Lambert said the department reviewed lessons learned and crafted a plan, agreed to by Deputy Defense Secretary Ashton B. Carter, and Frank Kendall, undersecretary of defense for acquisition, technology and logistics, to act on those lessons.

"One: better communications," he said. "We're doing that through outreach—through working with organizations like the Atlantic Council to communicate, to get our ideas out, and to get feedback."

The Defense Department received more than 500 inputs from industry from the "Better Buying Power 1.0" initiative, Lambert said.

"Many were implemented," he added. "We have even more industry inputs for Better Buying Power 2.0. And they are

being reviewed, and many of our changes you'll see coming out in the final document will reflect the industry's comments."

The second element, he said, places more emphasis on internal mechanisms and what the Defense Department could do better in working with industry partners, such as educating the DoD workforce on what those partners are all about.

"The third thing I was asked to take on was policies that were both enduring and flexible," Lambert said, noting that a new Defense Department acquisition instruction will be issued in the coming weeks. Lambert said the new instruction represents a new way to look at industrial base analysis and policy, and that every major program will be affected.

"Instead of thinking about industrial base as an afterthought once program decisions are made," he added, "industrial base will now be ... part of major decisions."

Lambert said he believes the department now is well prepared, despite changes in the defense industrial base over the past decade.

"Moving forward, I feel comfortable that we have the tools to deal with some of the more complicated industrial base issues, including the transaction issues we're going to see," Lambert said.

"At the same time," he added, "cuts are coming across the board, or likely to come across the board to the whole department," referring to a mechanism in budget law that will take effect March 1 unless Congress comes up with an alternative plan.

"Those cuts will also come to the very institutions we're trying to set up to mitigate the effects of those cuts," Lambert said, "so on that regard, I'm not terribly optimistic right now."

### **Pentagon Acquisition Chief Assesses Priorities**

*AMERICAN FORCES PRESS SERVICE (MARCH 12, 2013)*

*Claudette Roulo*

WASHINGTON—Noting that he'd returned to government service almost three years ago to the day, the Pentagon's acquisition chief today reviewed the five priorities he set in 2010.

Speaking at the McAleese/Credit Suisse Defense Programs Conference at the Newseum, Frank Kendall, undersecretary of defense for acquisition, technology and logistics, said he's added another priority since then, but they otherwise have remained relatively unchanged.

His original priorities—support to operations, having affordable programs, improving the acquisition process, strengthening the industrial base, and strengthening the acquisition workforce—now include the goal of protecting the future, something he said he added about a year ago when he was named to his current position.

Given the budget climate, he said, he believed it was a rising need to pay attention to the future of the department, its workforce, and the industrial base.

“We’re still at war. ... Astonishingly to me, given what’s happening to us in the budget, we are still at war,” Kendall said. Funding for operational support is out of balance, he added, but efforts are under way to correct some of the greatest imbalances and some of the readiness problems created by the current budget environment.

Until those issues are fixed, Kendall said, there isn’t much left in the coffers for future operations.

“We’re essentially in a position today where we can take care of the people in combat, we can do some things to get the people getting ready right now to go to combat—to prepare them—and then people after that are really in deep trouble.”

The department continues to support forces in Afghanistan, he said, “but, increasingly, we’re worried about getting out.” Withdrawal from Iraq was an “intense challenge,” Kendall said, “but it was nothing compared to the problem we’re going to have getting out of Afghanistan.”

Pakistan’s ground lines of communication are opening, he said, which has helped to speed the movement of material, but the International Security Assistance Force still relies heavily on the Northern Distribution Network. “We’ve got a lot to do in the next couple of years to get everything out,” Kendall said.

Sequestration is on the minds of acquisition, technology and logistics employees in the Defense Department, and he will continue to be outspoken about its impacts on the workforce, Kendall said.

During a recent trip to Afghanistan, he said, he spoke with civilian personnel deployed in logistical support roles. “I was asked a question by one of our DoD civilians,” he said. “The question was, ‘Will I be furloughed?’ This is a person who is working for the Department of Defense, serving in a war zone, supporting our combat troops. ... That’s not the sort of [worry] you want to have in an operational context. That is not what that person should be worrying about.”

A report today by the Government Accountability Office called into question the affordability of the F-35 Lightning II joint strike fighter, Kendall said. “[The] F-35 is our No. 1 program. It is our highest priority,” he told the audience at the conference. While it does absorb a significant fraction of defense investment accounts, and going forward it will absorb a similar fraction of support accounts, he said, “it is a transforming aircraft.”

“It will give us dominance in the air—probably our single most important conventional warfighting capability,” he added.

Even with the far-reaching effects of sequestration, the budget is adequate to support ongoing development and deployment of the F-35, Kendall said, particularly given its importance. For now, he added, the key to getting the cost down is to get the production rate up. To make the aircraft affordable in the future, he said, the department is working to reduce the sustainability costs—the costs of supporting the aircraft once it is in use.

Affordability is a theme throughout the acquisition community, Kendall said. “When I talk about affordability, I’m really not talking about cost-control, per se. ... I’m talking about not starting programs that we can’t afford.”

This means avoiding costly programs like the Marine Corps’ expeditionary fighting vehicle, he said, because the department can’t afford programs that will spend 10 to 15 years in development only to be cancelled. “That, to me, is ... almost entirely waste, even if we get some technology out of the program,” he added.

The Defense Department is examining its long-term capital planning to determine whether programs are affordable and establishing cost caps by designing programs to meet fiscal requirements, rather than vice versa, he said.

The F-35 was inherited from a previous administration, Kendall said, and as such is so far along in its development that making it affordable is now about finding efficiencies to control production and support costs, rather than changing or eliminating requirements. “We’ve had great success there,” he said, “but I think we have a long way to go.”

Efficiencies are about getting greater productivity and streamlining the acquisition process, he explained. Research and development costs get all the attention, Kendall said, but acquisition also includes all of the money spent outside the Defense Department. More than half of those dollars historically have gone to service and support contracts, he

said. "If you want to manage efficiently, you have to look where the money is," he noted.

Improving the acquisition process also means changing the way contracting is done, Kendall said. The department arms itself with historical cost data when it conducts negotiations, he said, which means there's a better understanding of what things should cost. In addition, the undersecretary said, more thought is going into performance incentives and into selecting the type of contract used on projects. Fixed-price contracts are being used where it makes sense, he said, to share risk with industry.

Kendall said he wants the acquisition community to take the time it needs to get the best business deals. "There's a perverse incentive to obligate our money," Kendall said. "We're measured on how fast we obligate money, and if we don't obligate it, there's a risk that someone will take it away—either the Congress or the comptroller in DoD, or the comptroller in the Service. ... You should not feel that it's a failure if you have a good reason for not obligating your money."

These moves toward better business practices will help the department's industrial partners, he said. The Pentagon's "Better Buying Power 2.0" initiative reflects a number of inputs from industry, Kendall noted, including better definitions of acceptable outcomes in contracting. In addition to more accurate applications of technically acceptable contracts, he said, the acquisition community is trying to better define value. "We have to define value from our perspective as the customer," he said.

Sometimes this will mean spending more for more capability, Kendall said—a win for both industry and the department, because it rewards innovation and gives DoD a higher performing, perhaps much more effective product.

Meanwhile, Kendall said, the industrial base is waiting to see what happens with the budget. "[Industry] is nervous—there are a lot of people at risk out there," he said. "The key to strengthening industry from the point of view of a leaner, more productive industry is the incentives that we provide."

Defense Department officials want industry to be strong and profitable, he added, but they want to tie profit to performance.

The department is reworking its incentive structure to reward good performance, he said. "One of the things we will be doing is providing a superior suppliers program, which identifies some of our better performers and rewards them for what they're doing," he explained. "We can't do that di-

rectly financially, necessarily, but there are other ways we can do that."

The department is concerned about the implications of the budget changes, Kendall said, particularly for small companies. "As we go through the downturn, ... small companies are going to have the greatest difficulty absorbing some of the cuts," he said. "We are looking at the structure. We are prepared to step in, in certain cases."

In the case of key technologies, Kendall said, the department should find ways to keep those companies alive in the marketplace, Kendall said.

"We don't have a lot of resources to do this, so it's going to be selective," he added. "And we're trying to find efficient ways to step in. ... We shouldn't be buying entire weapons systems to save small manufacturers who happen to be building components on those weapons systems."

Kendall noted he has seen several cycles of acquisition reform. Through all of those changes, he said, the most important aspect of the process has been good leadership.

"We live in a very complicated, difficult world. It takes true professionals to do this well," he said. "These aren't easy jobs. They are very, very difficult, complex jobs that require decades of preparation before you can do them and be successful at them. So we've got to strengthen that, we've got to build that, we've got to manage our talent pool and grow our people so they're as effective as they can be."

This leads into Kendall's final priority: protecting the future. "Every program we do has risk," he said. The job of the acquisitions corps is to deliver programs and control costs. The careful decision-making that went into the defense strategy and the acquisitions planning that supports it is threatened by sequestration, Kendall said.

"I am nervous about our ability to the research and development that we really need to do to keep a healthy department long term in the climate that we're in," the undersecretary said. "There is risk now with sequestration levels — even levels that are not that deep — that we will get out of balance. If we have to take significant cuts, we've got to go back to the drawing board, rethink the strategy, rethink the force structure and try to get back in balance."

Therefore, he said, he is thinking seriously about the idea of some prototyping programs designed to be a hedge against the risk of being out of balance. These programs might not get off the drawing board in the current budget environment, Kendall said, but they would keep technology moving forward and guarantee the technological superiority of the United States is intact once the budget crisis ends.

They also would foster critical design and technological skills and hedge against an uncertain future, he told the audience. "If we go into another round of cuts, I think we're going to have to balance and preserve [research and development]," Kendall said. "For the last three years, I've been in the mode of 'Don't start things we can't afford.' An increasing fraction of our R&D budgets is going into upgrading existing systems. We need to design things so we can keep them for a long period of time."

Despite these challenges, Kendall said, the Defense Department will get through them.

"The department will come out of this, hopefully at a reasonable level of funding," he said. "But nobody should think that there's not damage being done out there."

### **Carter Reassures Defense Industry Amid Budget Uncertainty**

AMERICAN FORCES PRESS SERVICE (MARCH 12, 2013)

Nick Simeone

WASHINGTON—Deputy Defense Secretary Ashton Carter pledged today that the Pentagon will not allow a \$46 billion cut in spending and uncertainty over future funding to keep it from focusing on challenges facing the nation even though the current fiscal situation will lead to "perverse, unsafe and wasteful consequences."

While calling the current budget sequester and the continuing lack of a defense appropriations bill harmful to the entire defense industry, Carter sought to reassure defense industry representatives attending a conference here that the department intends to "think and act ahead of today's turmoil" by making strategic budget decisions for the future.

"We must continue to look above and beyond this year to the future, to the great strategic transition that is before us and to providing the country the defense it needs for the amount of money that it has to spend," he said.

That transition comprises ending more than a decade of conflict and shifting focus toward the Asia-Pacific region, "where America will continue to play its seven-decade-old pivotal stabilizing role in the future," he said.

At the same time, Carter said, "threats to the United States have not been sequestered," mentioning North Korea, Iran, cyber threats, and al-Qaida.

Carter acknowledged the ongoing budget uncertainty likely will create "second-order effects" that will last for years, with one of them perhaps being a pivot of the defense industry itself.

"The act of sequestration and longer term budget cuts and the prolongation of uncertainty could limit capital market confidence in the defense industry," he said, adding that "companies may be less willing to make internal investments in their defense portfolios. "Some of them have certainly told me that," he added.



Deputy Defense Secretary Ashton Carter delivers remarks during the McAleese/Credit Suisse Defense Programs Conference at the Newseum in Washington, D.C., March 12, 2013. Carter discussed the budgetary impact sequestration will have on defense programs and national security.

DoD photo by Glenn Fawcett

A \$46 billion across-the-board cut in defense spending through the Sept. 30 end of the fiscal year took effect March 1 after Congress failed to reach an agreement on how to reduce the federal budget deficit. As he has in the past, Carter predicted the impact the cuts will have on everything from military readiness across the force to furloughs for the department's 800,000 civilian employees.

"[Defense] Secretary [Chuck] Hagel and I, and the entire DoD leadership are committed to doing everything in our power under this deliberately restrictive law to mitigate its harmful effects on national security," the deputy secretary said. But he called the sequester and the ongoing continuing resolution now funding government operations in the absence of a federal budget a "double absurdity."

### **F-35 Production on Track, Program Chief Says**

AMERICAN FORCES PRESS SERVICE (MARCH 13, 2013)

*Claudette Roulo*

WASHINGTON—The F-35 Lightning II joint strike fighter program is a different program than it was four years ago, the F-35 program executive officer said here yesterday.

In a speech at the McAleese/Credit Suisse Defense Programs Conference at the Newseum, Air Force Lt. Gen. Christopher C. Bogdan told attendees that he and his predecessor, Navy Vice Adm. Dave Venlet, worked with Lockheed-Martin and Pratt & Whitney to reform the problem-plagued development program.

"Lockheed-Martin and Pratt & Whitney have been doing a pretty good job over the last few years of stepping up and making those kinds of changes that the government needs for this program to succeed," the general said.

The aircraft's development has been rocky, Bogdan acknowledged. A redesign of the short takeoff and vertical landing system in 2004 led to delays and added \$6 billion to the cost of the development program, he said.

"Then, in 2009, we somehow managed to drive the train off the tracks on this program," Bogdan said. The program breached the Nunn-McCurdy Act, which requires that programs exceeding certain parameters in costs and scheduling appeal to Congress to avoid cancellation.

Venlet led the program through the appeal process, the general said, and "basically gave us a great gift." The appeal led to an extra 30 months being tacked onto the development schedule and provided \$6 billion in additional development funds. "Anybody that gets three more years and \$6 billion

better be able to get a program across the finish line," Bogdan said.

Since then, he said, the program has been making slow and steady progress and is on track, particularly for two significant deadlines—2015, when the Marine Corps is scheduled to have combat-ready aircraft; and 2017, when development is scheduled to end.

"Those two dates are extremely important," Bogdan said, "because if I don't get to those two dates or I don't reach the finish line there, then we will continue to produce airplanes that don't have the capability that the warfighter needs."

Some of the program changes have been painful, the general said, but were necessary. For example, until 2010 the program was operating without an integrated master schedule, so it was difficult to track the system-wide effects of a change in any part of the program. The schedule has been built, and now tracks about 16,000 items, he said. It's a small thing that makes a big difference in how a program is managed, he noted.

"We can actually track each of those events and see how they affect the end timeline," Bogdan said.

His predecessor introduced a more radical change in the engineering process, the general said. Previously, design reviews were conducted by the program office, he said. "Well, I have a good program office, but I don't have the resources, nor do I have the expertise that the entire Department of Defense has when it comes to building airplanes," Bogdan said. Design review boards are now chaired by government executives from throughout the Defense Department who are seasoned engineers with experience developing successful aircraft programs, he said.

"And they draw on the expertise of all the people underneath them at those organizations to help us decide, technically, 'Are we ready to move forward?'" he added, noting that the change has paid great dividends.

The general said the program's affordability is his leading concern. The development program ends in 2017, he said, and is about 90 percent complete, with about \$6 billion left in the budget. "That last 10 percent is the real hard 10 percent," Bogdan said. "So, what I have told the enterprise is, relative to development, we have no more time, and we have no more money."

This requires a change in mindset, the general said. Additional expenses have to be offset by a reduction elsewhere, and that, he said, may mean a reduction in end capability.

"That has profound implications for the warfighter. I can honestly tell you that the warfighter does not like me standing up saying that," Bogdan said.

"There will come a point in time when the enterprise and the warfighters will come back to me and say, 'Oh no, General Bogdan, that is not what we want you to do. That is too painful for us,'" he said. "Maybe they'll give me more money and more time, but I will not take the first step in asking for more money and more time. I will try and finish what I've promised to finish, given the resources I have."

F-35 production is "the shining star" of the program, the general said. About 30 aircraft are being built each year, he said, and the cost per unit has come down with each successive low-rate initial production, or LRIP, lot. Between LRIP 4 and LRIP 5, there was a 4 percent decrease in build costs, Bogdan said, a trend he said he believes will continue until per-unit costs approach the original 2001 estimate of \$69 million.

"I think we can get there," he said. "Lockheed-Martin and Pratt & Whitney are doing a pretty good job of coming down that cost curve. They're getting more efficient in their production line [and] their quality is going up, ... and that is a good thing, because I promise you the one thing that our partners care most about is how much this airplane's going to cost."

Eight nations have committed to participate in the development program, and another three may buy F-35s, with nearly 3,000 aircraft expected to be produced. With such a large order and so many partners invested in the aircraft, it's essential to keep costs down to avoid what Bogdan called the "death spiral," something he said he's seen kill off many programs.

The death spiral is when increasing costs lead to a reduction in the number of units purchased, which in turn leads to further per-unit cost increases, and so on.

"I don't think that's the fate of this program," Bogdan said, "but the proof is in the pudding, and we have to continue to see Lockheed-Martin and Pratt & Whitney investing in making the production line more efficient, squeezing the costs out, and getting the unit cost of this airplane down. I think they can do it, but we have to wait and see."

Production costs are only part of the puzzle, however. About 70 to 80 percent of any program's costs are in the long-term

operation and sustainment phase, the general said. What's unique about the F-35 is that the Defense Department has never had to estimate the costs of a 50-year aircraft life cycle, he said. Adding to the complications of producing such a cost estimate is that the department hasn't had an aircraft program this large since World War II, Bogdan said.

"So, lots of airplanes over a very long period of time, with inflation added in, you can understand how the [Office of the Secretary of Defense] guys come up with a number like \$1.1 trillion," he said. "That's an astronomical number; it's based on a lot of assumptions. I'm not saying that that's a bad number; I'm just saying we need to take that number with a grain of salt."

What he does know, he said, is that action must be taken soon to reduce the F-35's long-term sustainment costs. Without it, the general said, a time will come when the Services decide that the aircraft is no longer affordable.

"So we have to start doing things today," Bogdan said. He said there is already interest from industry in a competitive bidding process to produce, deliver, and operate support equipment and pilot and maintenance training centers, administer the logistics and information technology systems, and manage the global supply chain.

"The other thing is we've got to work on the reliability and the maintainability of the airplane," he said—a process he described as "Whack-a-Mole."

"You'll take care of those first 10 or 20 cost drivers in reliability and maintainability, and then the next 20 will show up," he explained. "You keep doing that until you get to a point where the reliability and maintainability of the airplane is up where you expected it to be, and in the long term, you can reduce the costs on the airplane."

Bogdan said recent criticisms about technical issues and allegations of limited aft visibility are ill-informed. "I don't lose sleep at night over the technical issues on this program," he said. There are known solutions for all of the known issues with the aircraft, he added.

"We have yet to fly a single air-to-air engagement with another F-35 or another airplane," he said. "The airplane's not ready to do that. We're still doing basic training on the airplane, [and] we're still doing basic testing on the airplane. So for someone to assess that the visibility behind the airplane is such that it will 'get gunned down every time,' [is] a little premature."



Maj. Gen. Jeffery Lofgren, U.S. Air Force Warfare Center commander, provides remarks during the F-35A Lightning II arrival ceremony March 19, 2013, in the Thunderbird Hangar on Nellis Air Force Base, Nev. The 422nd Test and Evaluation Squadron will design the tactics for the F-35A. The squadron will also determine how to integrate the F-35A with other aircraft in the Air Force inventory.

U.S. Air Force photo by Lawrence Crespo

Bogdan summarized his expectations. “We are trying to instill a level of discipline in this program such that there are no surprises, we have predictable outcomes, [and] when we have problems, we have ways of solving those problems,” he said. “[This is] very hard to do on a very big, complex program that has lots and lots of decision-makers [and] lots and lots of pots of money, but I think that’s an absolute necessity to get the program moving in the right direction.”

### Hagel: U.S. Bolstering Missile Defense

AMERICAN FORCES PRESS SERVICE (MARCH 15, 2013)

Amaani Lyle

WASHINGTON—The United States will add more ground-based ballistic missile interceptors to its arsenal to guard against increased threats from North Korea and Iran, Defense Secretary Chuck Hagel announced today.

North Korean and Iranian missile capabilities have increased, and the United States must stay ahead of that threat, Hagel said. Both have developed longer range ballistic missiles,

and North Korea has now conducted three nuclear tests, followed by stepped up threats against the United States and South Korea.

The Pentagon will deploy 14 more ground-based interceptors in locations at Fort Greely, Alaska, and Vandenberg Air Force Base, Calif, Hagel said, boosting the total number from 30 to 44. The added interceptors will provide a nearly 50 percent increase in U.S. missile defense capability, Hagel said.

“The United States has missile defense systems in place to protect us from limited ICBM attacks, but North Korea in particular has recently made advances in its capabilities and is engaged in a series of irresponsible and reckless provocations,” Hagel said.

Last month, North Korea conducted its third nuclear test. In December 2012, the North launched a satellite into orbit, demonstrating an intercontinental ballistic missile capabil-

ity. In April 2012, Pyongyang also displayed what appeared to be a mobile intercontinental ballistic missile capability.

Hagel also said the United States will team with Japan to deploy an additional advanced radar there. The radar will provide improved early warning and tracking of any missile launched in North Korea at the United States or Japan.

Hagel said DoD is also conducting environmental impact studies for a potential additional interceptor site in the United States. Officials are looking for two sites on the East Coast and one on the West. While the administration has not made a decision on whether to proceed, conducting environmental impact studies will shorten the timeline of construction should a decision be made, he explained. Hagel also announced plans to restructure the SM3-2B program, a land-based standard missile, with plans to deploy it as part of the European phase-adapted approach. "The purpose was to add protection of the U.S. homeland already provided by our current GBIs [ground based interceptors] against missile threats in the Middle East," Hagel said.

The secretary said shifting resources from the "lagging program" to fund the additional interceptors and kill vehicle technology that will improve performance of the GBI and other versions of the SM3 interceptor allows the U.S. to add protection against missiles from Iran and North Korea sooner.

Hagel reemphasized the United States' "iron-clad" commitment to missile defense. "The missile deployments the United States is making in phases 1 through 3 of the European phase-adaptive approach, including sites in Poland and Romania, will still be able to provide coverage of all European NATO territory as planned by 2018," he said.

The overall result will improve the U.S. ability to counter future missile threats from Iran and North Korea while being good stewards of taxpayers' resources, Hagel said.

"The American people expect us to take every necessary step to protect our security at home and U.S. strategic interests abroad," he said. "But they expect us to do so in the most efficient and effective manner possible."

### **Director of Navy Staff Talks LCS With Industry Partners**

*DEFENSE MEDIA ACTIVITY-NAVY (MARCH 15, 2013)*

WASHINGTON—The director of the Navy staff talked at the most recent Navy Now Forum March 14 in Washington, D.C., about the future of the program for the littoral combat ship (LCS), one of the Navy's newest warship platforms.

Vice Adm. Richard Hunt took advantage of the session intended to enhance the relationship between the Navy and industry partners by discussing the progress the Navy's LCS Council has made in furthering the development of integrating LCS ships into fleet operations.

"I want to make sure that we keep the avenue for experimentation, innovation going into the future prominently in place with the ship. I think that's really important. When you think about the modularity, when you think about the adaptability we've built into this hull and the capabilities they have at the margin out there across the board on space and power and all the kind of stuff that gets wrapped up in that. I think this is the future," Hunt said.

Hunt highlighted how the LCS Council focused on four lines of operation when war gaming. The first was USS Freedom's (LCS 1) deployment, the second was fleet introduction and sustainability, third was capability evolution, and finally was concept of operations, doctrine, and policy for the platform. One of the take-aways from looking at the platform this way according to Hunt was the importance of staying close to the flexibility the platform was designed to provide.

Future testing of other weapons systems is ideal for the modularity of an LCS ship according to Hunt.

"I think you can bring energy weapons on there, I think you can put a smaller rail gun. It could do lasers. Together work some power issues. There are things that we have to do," Hunt explained. "But as we take the Navy into the next generation, this can be one of those experimental platforms because we can slap stuff on and take it off, and that can really lead the way for how the rest of the surface community and Navy do stuff in the future.

"One word for LCS that I use over and over again is opportunity. We've got to be smart enough to embrace the future. It's going to be terrific," Hunt exclaimed.

For more information, visit [www.navy.mil](http://www.navy.mil), [www.facebook.com/usnavy](http://www.facebook.com/usnavy), or [www.twitter.com/usnavy](http://www.twitter.com/usnavy).

### **General Discusses Parameters of Quadrennial Defense Review**

*AMERICAN FORCES PRESS SERVICE (MARCH 15, 2013)*

*Jim Garamone*

WASHINGTON—Work has begun on the Quadrennial Defense Review, and Air Force Maj. Gen. Steven L. Kwast believes the review can help leaders understand the security environment and tailor forces to best operate in a new world.



The littoral combat ship *USS Freedom* (LCS 1) passes by the Missing Man Formation monument at Joint Base Pearl Harbor-Hickam for a scheduled port visit during a deployment to the Asia-Pacific region. LCS platforms are designed to employ modular mission packages that can be configured for three separate purposes: surface warfare, anti-submarine warfare, or mine countermeasures.

U.S. Navy photo by Mass Communications Specialist 2nd Class Nardel Gervacio

Kwast heads the Air Force QDR office at the Pentagon and says this is a unique time for the review. He spoke to the Defense Writers Group today.

“We’re coming out of Afghanistan and Iraq, we have a new strategic guidance that shifts the balance towards Asia, and we have a global fiscal reality that is unique,” he said. “Those things all come together in a way ... that makes this an opportunity to have a significant discussion about strategy for the next 20 years and whether this is one of those inflection points ... to adjust that strategy.”

Congress requires the report, and it is due in 2014. Leaders in both the executive and legislative branches of government use the review to assess risks, make budgeting decisions, and look at resources.

“Whenever we have uncertainty in budget, whenever we have uncertainty in the strategic environment, there is nothing more important than stepping back and thinking strategically,” Kwast said. “What is it that we’re trying to do here,

and how can we ensure that we are formed for the purpose that we are created for?”

Kwast said DoD is in a “crazy place” right now in regards to finances and resources. But even with this uncertainty, “as long as we build things that have the attributes—flexibility, adaptability, and resilience—then you can fuse and form and swarm your way to fit the problem that emerges.”

The military also can adjust capabilities and capacities for the budget topline. “The real genius of this work ... is that we articulate a strategic vision for how we approach the defense of this nation that is consistent regardless of political party and regardless of topline,” he

said. “We can adjust and still maintain our core purpose.”

The QDR expresses “the theology” behind defense strategy, Kwast said. “We are still on this journey from a Cold War structure ... and shaping it into a structure that has more agility, flexibility, and resilience,” he said.

The review seeks to understand the entire battlespace—land, sea, air, space, and cyber. All these realms are interconnected and leaders must understand these connections as they approach national security, he said.

The other Services are working with the Air Force, Joint Staff, and Defense leaders to formulate strategy and capitalize on savings by building a joint force.

“We must be more integrated in a fuller way,” Kwast said. “If we continue clinging to our tribalism in a way that does not provide solutions to the nation, that truly have the efficiencies and agilities that come with the cross-domain capability,

then we will be insufficient for the tasks that appear in our future.

"If we do that, then we're going to fail the nation," he continued. "We have to do this jointly. There's no other option."

### **DoD Asks Congress to Aid Efficiency Efforts**

AMERICAN FORCES PRESS SERVICE (MARCH 19, 2013)

*Jim Garamone*

WASHINGTON—The Defense Department continues to work to be a good steward of the American people's money, the Pentagon's top financial official told Congress today.

The department continues to look for better and cheaper ways to do assigned missions, Robert F. Hale, the DoD comptroller and chief financial officer told the House Oversight and Government Reform Committee.

For years, DoD has included "steps to curtail or eliminate programs where we felt we had met our procurement needs, or where programs were seriously troubled or provided capabilities that were judged too narrow to justify their expense," Hale said.

"While these proposals are often referred to as efficiencies, they are better described as efforts to make more disciplined use of resources," he added.

The department has worked to end weapons programs, eliminate lower priority organizations, and improve business processes, Hale noted. The department has restructured or eliminated 20 different systems, he added. For example, he said, DoD eliminated the VH-71 presidential helicopter, the Navy's DDG-1000 ship program, and the second engine program for the joint strike fighter.

DoD also ended the Army's Future Combat System and the Marine Corps' Expeditionary Fighting Vehicle, he said, which will be replaced by a more focused ground combat vehicle and amphibious combat vehicle development. In the Air Force, the department ended the F-22 and C-17 aircraft programs, both of which had met their inventory objectives, Hale said.

These initiatives and many others led to planned savings in the president's budget for fiscal year 2012 of about \$150 billion between 2012 and 2016. Another \$60 billion was reported in the fiscal 2013 budget, which has not been passed. The department also is working to slow the growth of military compensation, Hale said.

"Military pay and benefits have grown sharply in recent years, outstripping both end-strength growth and wage growth in the private sector," he said. "DoD has proposed initiatives to raise by modest amounts the fees that military retirees pay for health care and to modify pharmacy co-pays in a manner that promotes use of cheaper alternatives, including generic-brand pharmaceuticals and mail order delivery."

DoD tried to slow the growth in military basic pay in 2015 and beyond. This would have saved the government about \$29 billion over five years. "More recently, we announced a plan to slow the growth in military basic pay for 2014," Hale said. "Finally, in its [fiscal] 2013 budget, DoD proposed to eliminate some lower priority military units. Our proposals would have disestablished certain Army units, cut back on selected Air Force aircraft, and retired nine Navy ships early." And the department hopes to continue finding and acting on these efficiencies, Hale said.

"DoD can propose, but Congress must dispose," Hale told the House panel. "We need the support of Congress in our efficiency efforts. In recent years, Congress has denied a number of our proposals, including elimination of lower priority weapons programs and elimination of lower priority military units."

Congress also rejected DoD proposals to slow the growth in military compensation, he noted.

"Together, these congressional actions, if sustained, will add billions to our costs over the next five years," Hale said. "We hope that, in view of the serious economic problems facing our nation, the Congress will allow us to implement these and other important changes."