

Program exempted from some DOD certifications

Air Force Required To Allocate \$12 Billion For KC-46 In New Five-Year Plan

The Air Force must set aside \$12 billion in its new five-year investment plan for the KC-46A development program -- a down payment on a \$51.7 billion program to acquire 179 aircraft -- and prime contractor Boeing has a 12-month window to achieve each of the major schedule milestones set forth in the new acquisition program baseline, according to a Pentagon report.

The Selected Acquisition Report for the KC-46A program, dated Sept. 30 and sent to lawmakers this month, discloses new details behind the Air Force's acquisition plan for the aerial refueling tanker program. They stem from an acquisition program baseline approved on Aug. 24 by the Pentagon's acquisition executive following six months of

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Not part of SDD phase

USAF Committed To Giving F-35A Nuclear Capability, After Fiscal Year 2017

The Air Force still plans to integrate nuclear weapons onto the Joint Strike Fighter, but doing so is not part of the F-35's developmental stage, meaning that the aircraft will not become dual-capable until after fiscal year 2017, according to Air Force officials.

The service is working to complete its program objective memorandum (POM) for the period between FY-13 and FY-17, and the integration of nuclear weapons onto the F-35 will occur after that time period because of delays to the program over the last two years, according to Maj. Gen. William Chambers, the Air Force's deputy chief of staff for strategic deterrence and nuclear integration. Chambers told reporters on Oct. 28 that the dual-capable aircraft (DCA)

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Service holds two lean process events

Air Force: Global Hawk Program May Taper Back Number Of Test Flights

The Air Force is considering reducing the number of test flights for the Global Hawk program as a way to cut costs and will discuss that possibility this month during one of two meetings designed to examine an array of options for shaving down the cost of the program.

Global Hawk builder Northrop Grumman and the service agreed during an Oct. 5 affordability workshop at Wright-Patterson Air Force Base in Dayton, OH, to hold two process improvement "lean events" that focus on developing ways to improve efficiency and trim costs in the process, according to Global Hawk program manager Col. Karl Rozelsky.

During the workshop, Northrop Grumman and the Air Force also agreed to hold joint lean process events for the

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Many changes link up with appropriators' marks

Senate Authorizers' Updated Mark Cuts AF Procurement By \$1.1 Billion

The Senate Armed Services Committee's second mark-up of the fiscal year 2012 defense authorization bill, revised to comply with this summer's Budget Control Act, includes many changes that mirror cuts recommended by Senate appropriators earlier this fall.

If enacted into law, the new authorization bill would recommend \$1.1 billion less for Air Force procurement than the committee's first bill, and the changes stand to simplify issues to be discussed by a House-Senate conference committee.

Senators originally filed their mark-up of the bill in June, months before debt-limit negotiations produced the

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Airlifters Amendment

During its deliberations on the fiscal year 2012 defense authorization bill on Nov. 17, the Senate unanimously adopted an amendment from Sen. Kelly Ayotte (R-NH) that would allow the Air Force to retire 15 C-5 cargo aircraft and generate \$1.2 billion in savings. The amendment would repeal an existing statute requiring the Air Force to maintain no fewer than 316 active C-5 and C-17 cargo haulers. Senior service officials have testified that they can perform their mission with as few as 300 such planes. At press time, the authorization bill had not yet been passed by the chamber.

Still working out procedural methods

Kehler Received Authority To Begin SSA Sharing With Allies Last Week

The commander of U.S. Strategic Command said he has been given the authority to negotiate space situational awareness arrangements with allies for the first time last week.

STRATCOM officials are putting together the last of the procedural methods they will use to develop increased cooperation with other countries, according to Gen. Robert Kehler. He received the authority on Nov. 10, Rodney Ellison, the chief of STRATCOM media operations, wrote in a Nov. 16 email.

Kehler will first negotiate with a specific country before requesting the authority to formally conclude that agreement with the Office of the Secretary of Defense and the State Department, according to a Defense Department spokeswoman.

“We will not be working on these alone but we will have the authority to sit down, for example, with other country’s militaries and begin negotiating how will we share situational awareness agreement data when it comes to space,” Kehler said during a Nov. 16 press briefing held as part of a space and cyber conference in Omaha, NE. Out-of-town reporters were allowed to phone in to the briefing.

Kehler said that he was notified verbally last week that he had the authority. STRATCOM officials will begin having conversations with U.S. allies very soon about the possibility of moving from a Joint Space Operations Center to a future Combined Space Operations Center.

The authority to enter into these agreements has resided with the defense secretary, but the release of the National Security Space Strategy helped officials to delegate that responsibility to the commander of STRATCOM, according to the DOD spokeswoman.

STRATCOM officials will help allies through the arrangements for activities that include launch support, maneuver planning, support for on-orbit anomaly resolution, electromagnetic interference reporting and on-orbit conjunction assessments, according to the DOD spokeswoman.

The space strategy, which was released in January, contains elements of both the National Security Strategy and the National Space Policy, according to an unclassified summary. Co-signed by then-Defense Secretary Robert Gates and Director of National Intelligence James Clapper, the strategy was developed during the Space Posture Review that was conducted last year with the help of other agencies and U.S. allies.

The strategy emphasizes that commercial firms and U.S. allies should become stronger partners to enhance space capability. The department should adjust its strategic approach to space due to recent changes within the domain that have made it more contested, congested and competitive, according to the summary.

The strategic objectives outlined in the policy include strengthening security in space, building on the strategic national security advantages the U.S. holds in space and energizing the space industrial base, according to a summary of the strategy. The report’s strategic approaches include partnering with other nations, preparing to defeat attacks in space and promoting safe use of space. -- *Titus Ledbetter III*

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Facing budget uncertainty

Air Force Puts Advanced Pilot Training Program IOC On Hold

The Air Force has indefinitely delayed the initial operational capability date for the Advanced Pilot Training Family of Systems program, a replacement to the service's long-time fighter/bomber pilot training system, due to budgetary constraints, according to a service official.

Air Force spokeswoman Jennifer Cassidy said the Advanced Pilot Training (APT) Family of Systems (FoS) program IOC will be in limbo until the outcome of the congressional supercommittee that is working to find billions in government budget cuts is known. The 12-member supercommittee has until Nov. 23 to produce a bill that would find at least \$1.2 trillion in savings over the next 10 years. If the supercommittee fails to reach an agreement, a sequestration mechanism would take effect that would automatically take half of those savings from the Pentagon's budget. That move could force the Defense Department to terminate several top weapons programs, including the Joint Strike Fighter, the Littoral Combat Ship and the Air Force's new bomber, according to a Nov. 14 letter that Defense Secretary Leon Panetta sent to Senate Armed Services Committee Ranking Member John McCain (R-AZ) and Sen. Lindsey Graham (R-SC).

Cassidy explained the delay in a Nov. 16 email to *Inside the Air Force* but did not specify when the delay would end. The program was initially on track to reach IOC on or about fiscal year 2017, according to a Nov. 9 *Federal Business Opportunities* notice.

"The APT program has been temporarily delayed pending the outcome of programmatic and budget deliberations . . . resulting from the Budget Control Act and establishment of the Joint Select Committee on Deficit Reduction," Cassidy said.

According to a sources sought synopsis issued by the Air Force, the APT FoS is expected to supply an advanced trainer, known as the T-X aircraft, for the fighter/bomber APT track as soon as 2017. It will serve as a replacement for T-38 training. The Air Force conducted market research to identify potential sources for the APT FoS in 2008, the synopsis said.

In addition, the APT FoS was to "perform preliminary activities to acquire a replacement for the T-38 advanced trainer aircraft and Ground Based Training Systems (GBTS)," according to a budget justification document the service sent Congress along with its FY-12 budget request. Congress appropriated \$3 million in FY-11 to conduct studies and analysis of the T-X concepts. The program requested \$15.9 million for FY-12, the budget justification document shows. Program plans for FY-12 include completing studies and analysis of T-X aircraft concepts and initiating the technology development phase to include actions necessary for a competitive prototyping source selection.

"The T-38 was first introduced in 1961 and is currently projected to begin phase out in 2017," the Air Force told Congress.

Cassidy said training on the T-38 will continue and that that training will not be affected by the delay.

"The USAF does not expect any impact to T-38 training, although the T-38 cannot provided the same level of fifth generation fighter training that is anticipated from ATP," she said. -- *Maggie Ybarra*

Includes eight Air Force bases

Eleven DOD Sites Visited By Russian Inspectors Under New START

Russian officials have conducted formal inspections of American nuclear facilities at the home base of all of the Air Force's bomber wings and nearly all of the service's intercontinental ballistic missile wings as part of compliance with the New START treaty.

As of Nov. 10, Russia has conducted inspections at 11 locations that have some role in the nuclear enterprise across the continental United States since the New START treaty entered into force last December, according to Lt. Col. Melinda Morgan, a spokeswoman for the Office of the Secretary of Defense. Morgan told *Inside the Air Force* in a Nov. 15 email that eight of the 11 sites are Air Force bases.

According to Morgan, Russian officials have visited every base associated with the 20th Air Force, which operates the Minuteman III ICBM, save for one -- Offutt Air Force Base, NE, the site of U.S. Strategic Command headquarters. The bases inspected thus far include F.E. Warren AFB, WY, Minot Air Force Base, ND, and Malmstrom Air Force Base, MT. In a Nov. 8 interview with *ITAF*, Maj. Gen. Donald Alston, the 20th Air Force commander, said treaty inspectors had completed their visit of F.E. Warren AFB earlier that week.

Russia has also inspected several of the wings associated with the 8th Air Force, the service's bomber presence. Those wings are based at Whiteman Air Force Base, MO, which houses the B-2 fleet; Barksdale Air Force Base, LA, the headquarters of Air Force Global Strike Command; and Minot AFB, which is home to a fleet of B-52s. Russian officials have visited all three sites, but in the same Nov. 8 interview, Maj. Gen. Stephen Wilson, the 8th Air Force commander, said the bomber aircraft at Minot AFB had not yet been inspected. A scheduled New START verification visit to the 5th

Bomb Wing earlier this summer was postponed because of flooding in North Dakota and will be rescheduled, Wilson said.

To comply with the New START treaty, American officials have also hosted Russian inspectors at Camp Navajo and Davis-Monthan Air Force Base, AZ; Hill Air Force Base and the Oasis Complex, UT; the Strategic Weapons Facility Pacific in Silverdale, WA; and Vandenberg Air Force Base, CA. Morgan declined to provide the dates of each visit.

Each site plays a different role in nuclear enterprise. For instance, Camp Navajo is used to store ICBM rocket motors, Hill AFB is the site of logistics and management support for the Minuteman III and Vandenberg AFB serves as a launch facility for the ICBM leg of the nuclear triad.

The Defense Department refused to release information related to American visits of Russian sites because “that information is treated as ‘classified’ by mutual agreement of both nation parties,” according to Richard Cole, a spokesman for the Defense Threat Reduction Agency. Cole additionally declined to comment on decisions made at a recent meeting of Russian and American officials, called the Bilateral Consultative Commission, in Geneva, Switzerland.

At a Nov. 2 hearing of the House Armed Services strategic forces subcommittee, James Miller, DOD’s principal deputy under secretary of defense for policy, told lawmakers that the two sides had performed two data exchanges and that the bilateral commission has met twice. He added that he believed the United States had conducted 13 inspections of Russian Federation sites while Russia had conducted 12 on American soil. Morgan confirmed that Malmstrom AFB has been visited twice, meaning that Russian officials have in fact conducted 12 inspections.

An Air Force official explained to *ITAF* that there are some limits on the type and frequency of inspections allowed under New START, but those restrictions do not prevent Russian or American officials from visiting the same facility twice to perform the same kind of inspection. There is no limit on the timing of inspections, he said. -- *Gabe Starosta*

Signals satellite is fully operational

AFSPC ORS-1 Acceptance Scheduled To Take Place Later This Month

The first Operationally Responsive Space satellite is scheduled for Air Force Space Command acceptance by the end of the month, according to a service spokesman.

ORS-1 will be a fully operational satellite system after satellite acceptance until the end-of-life procedures are completed, according to an AFSPC spokesman. The satellite was designed for a minimum operational life of one year with a goal of a two-year operational life, the spokesman wrote in a Nov. 14 email.

AFSPC provided ORS-1 for early combatant command acceptance and entry into a trial period on Sept. 29, according to a service statement. The milestone signified the beginning of the satellite’s year-long mission under the direction of the 1st Space Operations Squadron and U.S. Strategic Command, which will operate the satellite in support of U.S. Central Command (CENTCOM).

“ORS-1 is working well and currently providing operational data to USCENTCOM users,” the spokesman wrote. “There should be no difference in today’s operations compared to operations upon exit from the trial period.”

ORS-1 mission data was only used for system characterization and calibration before the trial period, according to the spokesman. Data for the mission is considered operational during the trial period but it is marked to let officials know that the data is coming from a satellite that is still in testing, according to the spokesman. The trial period also signifies the first time all of the satellite’s components are able to work together in an operational environment.

Combatant commander acceptance does not usually take place until after the conclusion of the trial period, according to the spokesman. However, the combatant commander acceptance can be accelerated if it is considered necessary to increase the commander’s military utility. This acceptance was accelerated for the ORS-1 program, according to the spokesman.

The control of the satellite was transferred from the Space and Missile Systems Center to the 50th Space Wing on Sept. 16, according to service officials.

Air Force officials launched the satellite from the NASA Wallops Flight Facility at the Mid-Atlantic Regional Spaceport, VA, on June 29. The Goodrich Corporation is the prime contractor for the satellite.

The ORS-1 spacecraft bus is built by ATK Space Systems and includes an integrated propulsion system along with other critical subsystems, according to a Goodrich statement. The satellite will provide multispectral imaging capabilities in support of CENTCOM’s intelligence, surveillance and reconnaissance missions, according to a Goodrich statement.

One of the goals of the ORS program is to activate low-cost search satellites that can augment existing capability for the warfighter, according to an Air Force statement. Officials are also focusing on creating small satellites and diminutive boosters for the program.

The ORS office is a joint effort between the Army, Navy, NASA, the Defense Advanced Research Projects Agency, the Missile Defense Agency and the National Reconnaissance Office, according to an Air Force statement. The Air Force is the ORS office’s launch provider. -- *Titus Ledbetter III*

Boeing updated proposal twice

Air Force, Boeing Dispute Cause of C-17 Upgrade Contract Slip

The Air Force had to delay the contract award for a C-17 upgrade program because Boeing submitted an incomplete proposal for the work and several of its suppliers did not provide needed information on time, according to an Air Force spokeswoman.

The service had planned to award a contract in May for the C-17 Extended Range/On-Board Inert Gas Generating System II kits. *Inside the Air Force* reported on Nov. 10 that the contract award date slipped to January 2012, according to a Sept. 16 letter sent from Air Force Secretary Michael Donley to Senate Armed Services Committee Chairman Sen. Carl Levin (D-MI). The letter said that in order to move forward, the Air Force needed the Senate to obligate fiscal year 2011 aircraft procurement modification funds to award a definitized contract for the work kits (*ITAF*, Nov. 10, p. 6).

Air Force spokeswoman Jennifer Cassidy told *ITAF* via a Nov. 16 email that Boeing's C-17 division "believed that they had submitted a complete proposal in [October 2010]." During the Air Force's initial review of the proposal, "it was determined that the proposal was inadequate in part due to missing or incomplete Cost Analysis Reports (CARs), Price Analysis Reports (PARs) and Commercial Item Determinations (CIDs)," Cassidy said. "Since submission of the original proposal, Boeing has submitted two updates and incremental inputs to bring the proposal to a qualified condition."

The Defense Contract Audit Agency (DCAA) began to review Boeing's initial submittal in November 2010. But a number of factors, such as Boeing's original incomplete proposal and the lack of responsiveness by Boeing suppliers, pushed back the audit from a planned completion date of January 2011 to May, according to Donley's letter.

As to why the suppliers did not provide information to the Air Force and DCAA, Cassidy said, "This is projected to be the last United States Air Force (USAF) requirement for C-17 [aircraft]. Suppliers are less willing to submit to additional requests for information as the financial rewards for potential additional work become smaller."

Boeing's C-17 program manager, Bob Ciesla, said in a Nov. 17 statement to *ITAF* that the proposal Boeing submitted to the Air Force was sufficient enough for DCAA to begin its review.

"As is typical with large and complex military proposals, the initial submittal may be provided and deemed acceptable along with a schedule for subsequent submittal of additional requirements for supplier data," he said. "This proposal was deemed acceptable by the USAF to start the Defense Contract Audit Agency audit process. Boeing then worked with its suppliers to complete the required documentation according to an agreed upon schedule. Boeing continues to work diligently with the U.S. Air Force to complete the contract."

Ciesla asserted to *ITAF* in a Nov. 9 email that Boeing did not submit an incomplete proposal.

"Boeing submitted a complete and fully compliant proposal on time for 10 C-17 Globemaster III aircraft with an option for 10 additional airlifters to the U.S. Air Force, and we are working diligently to complete the contract," Ciesla said.

The Boeing proposal was supposed to supply the Air Force and lawmakers with a firm-fixed-price cost and a pricing proposal that included full technical and cost volumes for the purchase of 10 C-17 aircraft and the option for up to 10 additional C-17 aircraft, according to Cassidy. Congress had requested that the proposal follow all applicable provisions of the Federal Acquisition Regulations (FAR), including submitting cost or pricing data and supporting documents, she said. Not all of that was accomplished, which became evident during an initial review, Cassidy said. -- *Maggie Ybarra*

According to commander

8th AF Combating Experience Gap Among Crew Chiefs, Weapons Loaders

The Air Force's lack of focus on the nuclear enterprise after the Cold War has had the long-term effect of creating a shortage of experience in the service's nuclear bomber wings as well as its missile wings, according to a numbered air force commander.

In a Nov. 8 interview with *Inside the Air Force*, Maj. Gen. Donald Alston, the commander of the Air Force's intercontinental ballistic missile wings, said that the service's "benign neglect" of nuclear operations had left him without adequate experience in some mission areas, such as the ICBM maintenance career field. And that challenge has also affected the bomber wings of the 8th Air Force, according to Maj. Gen. Stephen Wilson, the numbered air force commander. Wilson participated in the same Nov. 8 interview and provided more information on the difficulty of gaining experience in the nuclear bomber enterprise through an Air Force Global Strike Command spokeswoman on Nov. 10.

"Just like the missile community, the bomber community has also struggled to optimize experience levels within nuclear enterprise operations," Wilson said in a Nov. 10 statement. "Every wing has its own unique challenges regarding experience levels and it's hard to generalize across the board. However, we are systematically looking for solutions to build up nuclear experience levels and two specific areas we are currently focused on are weapons loaders and crew chiefs."

The 8th Air Force, commanded by Wilson, and the 20th Air Force, commanded by Alston, are the only two numbered air forces aligned with Air Force Global Strike Command. Wilson's command includes a B-52 bomber wing at Minot Air

Force Base, ND; a B-2 wing at Whiteman Air Force Base, MO; and two mixed bomber wings at Barksdale Air Force Base, LA.

To combat the lack of experience among weapons loaders and crew chiefs, Wilson said the Air Force has emphasized the nuclear career fields to young airmen choosing a specialty, as well as moving more experienced crew chiefs, such as those working on cargo or fighter aircraft, into the nuclear enterprise. Both Wilson and Alston stressed that gaining experience, no matter how efficiently done, is a slow process that requires time to perfect.

According to Alston, one underlying reason for the experience gap among nuclear operators is that, in the 1990s and 2000s, the Air Force urged younger officers to enter the growing career fields in space and satellite operations. That strengthened those sectors, but has left nuclear mission areas without enough experienced colonels and lieutenant colonels in middle management positions (*Inside the Air Force*, Nov. 11, p.1). -- *Gabe Starosta*

Testing moves forward

TacSat-4 Enters Early Test Period, Air Force Receiving Experimental Data

The fourth Tactical Microsatellite entered into its early test period last month and the Air Force has been receiving experimental data from the satellite for weeks, according to a Defense Department official.

Work has progressed well during launch and early orbit operations testing that involved the TacSat-4 spacecraft bus and payload, according to Peter Wegner, the director of the Operationally Responsive Space (ORS) office. The early test period began on Oct. 11, an ORS spokeswoman wrote in a Nov. 17 email. The Air Force will be not be able to receive operational data until officials begin an operational transition period this April, Wegner said during a Nov. 16 telephone interview.

The experimental satellite is smaller and costs less than a traditional one, according to an Office of Naval Research (ONR) statement. It will carry an ONR-sponsored payload and the ORS office funded the Sept. 27 launch from the Kodiak Launch Complex on Kodiak Island, AK, according to the statement. The satellite was boosted by an Orbital Sciences Corporation four-stage Minotaur-IV rocket.

TacSat-4 is designed to augment traditional satellite communications by providing two hours of coverage up to three times each day. TacSat-4 is a Navy-led joint mission that will augment current satellite communications capabilities and advance ORS systems, according to a Navy statement.

The Air Force has been involved in developing the requirements for TacSat-4 for months along with the Army, Navy and Marines, and each service will bring unique requirements for the satellite, according to Wegner. The ORS office has not yet determined which service will eventually be responsible for the long-term operation of the satellite. TacSat-4 is expected to remain on orbit for a minimum of three years, according to Wegner.

The TacSat-4 launch could not take place until officials investigated the results of the failure to reach orbit of the NASA Glory spacecraft carried by a Taurus XL rocket from Vandenberg Air Force Base, CA, in March. The TacSat-4 team conducted a review of both rocket systems before the launch of the first Operationally Responsive Space satellite, which was boosted by a Minotaur-1 rocket in June 2011, according to the spokeswoman.

TacSat-4 allows warfighters to use a "regular handheld radio" for communications-on-the-move and traditional satellite systems do not provide support for that, according to the ONR statement. The satellite costs less money to operate than other satellites because the high-quality components are designed to last at least six months to one year, according to the statement.

The ORS office is a joint effort between the Army, Navy, NASA, Defense Advanced Research Projects Agency, the Missile Defense Agency and the National Reconnaissance Office, according to an Air Force statement. The Air Force is the ORS office's launch provider. -- *Titus Ledbetter III*

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Plans to increase aircraft rotation to Australia

Air Force Will Use ISR To Develop A Better Relationship With Australia

Air Force officials will use intelligence, surveillance and reconnaissance capabilities as the the basis for improving ties with Australia as the Pentagon works to increase the deployment of military personnel to the country, according to a service official.

The service plans to better meld ISR capabilities with Australia as the use of surface-to-air systems has emerged and limited the service's ability to access the battlespace, according to Maj. Gen. Michael Keltz, the director of strategic planning and policy for Pacific Air Forces. The White House announced on Nov. 16 that an initial deployment of 250 Marines will be sent to Australia next year. Military officials from the Air Force and the Royal Australian Air Force will work toward greater cooperation that will result in an increased number of rotations of U.S. aircraft through northern Australia, according to the Nov. 16 statement.

Keltz declined to provide a goal for the number of aircraft the service plans to increase the rotation of in northern Australia.

"The specifics right now are starting to emerge," Keltz said during a Nov. 16 media teleconference. "This is just the beginning."

The Marines will be deployed in Darwin and northern Australia for six months at a time to conduct training exercises with the Australian Defence Force, according to the statement. The goal is to eventually develop a rotational establishment of a 2,500-person Marine Air Ground Task Force, according to the statement.

The rotation of U.S. aircraft through northern Australia will improve collaboration and offer more opportunity for combined training, according to the statement. The joint initiatives will take place in Australian facilities to improve the military presence in the region. It will also enhance the ability of the two countries to provide humanitarian assistance and disaster relief, according to the statement.

Keltz said that he hopes working with the Royal Australian Air Force can help to eventually lead to a combined air forces effort that will include the contributions of Singapore, Thailand and Malaysia.

The deployment of the Marines to Australia will help the service be able to react very quickly to trouble in the region, according to Keltz. The United States has increased its capabilities in the Pacific region over the last 10 years, he said. Three of the service's six F-22 squadrons are located in the region, and there are C-17 squadrons in both Alaska and Hawaii, according to Keltz.

The majority of the Marine training in Australia will involve combined forces but there will be some unilateral training, according to Keltz. -- *Titus Ledbetter III*

Receiving multiple contracts

Lockheed Martin Completes PDR For Radar Modernization Effort

Lockheed Martin recently completed a preliminary design review for the modernization of 29 AN/FPS-117 long-range radars that provide advanced warning and air traffic control surveillance of North America's airspace, according to a company executive.

The review took place three weeks ago for the Essential Parts Replacement Program (EPRP), according to Frank Mekker, the EPRP program manager for Lockheed Martin's mission systems and sensors business. The Air Force awarded a \$16.6 million EPRP contract to Lockheed Martin on June 20 and another \$30 million contract on Aug. 8. Those two contracts were awarded as part of the initial options for the EPRP contract, which could eventually total about \$90 million, Mekker said during a Nov. 8 telephone interview.

The review looked at the program's requirements and the approach to the requirements for the modernization of the EPRP program, according to Mekker. The next major milestone will be system integration testing for the first upgraded radar, which is located at Hill Air Force Base, UT, according to Chip Eschenfelder, a Lockheed Martin spokesman. That testing will begin next summer and wrap up next fall, Eschenfelder said during a Nov. 17 telephone interview.

The contracts are broken up into a series of individual awards because the Air Force does not have the funding for the whole upgrade in the first year of the modification process, Mekker said. Lockheed Martin expects to receive future contracts for the effort over the next three to four years, he said.

The FPS-117 radars were installed for the first time back in the early 1980s, according to a Lockheed Martin statement. The company has a fleet of 175 radars around the world and has provided a series of upgrades over the years.

Lockheed Martin will upgrade 15 radars in Alaska, 11 in Canada, and one each in Hawaii, Puerto Rico and Utah by 2014 under the EPRP contract, according to a company statement. The Ogden Air Logistics Center for Air Force Materiel Command at Hill AFB is leading the EPRP effort, according to the statement. The latest upgrades are expected to extend the lives of the radar until 2025.

NATO has certified AN/APS-117 as the most widely used three-dimensional solid-state laser in the world, according to the Lockheed Martin statement. The L-band radar provides high-quality surveillance on air targets that range out to 250 miles, and the radar's advanced pencil beam architecture provides exceptional detection, according to the statement. -- *Titus Ledbetter III*

List includes Joint Strike Fighter, bomber program

Panetta Details Massive Cuts That Would Result From Sequestration

Sequestration cuts would hammer the Defense Department's top weapons programs, including the Joint Strike Fighter, the Littoral Combat Ship and the Air Force's new bomber, Defense Secretary Leon Panetta told lawmakers Nov. 14.

In a letter to Senate Armed Services Committee Ranking Member John McCain (R-AZ) and Sen. Lindsey Graham (R-SC), Panetta delivered the Pentagon's most detailed response yet to the question of what would happen to the DOD budget should sequestration result from a congressional supercommittee's inability to meet the terms of a budget-cutting agreement with the president.

Panetta said the Joint Strike Fighter program would receive minimal life extensions and upgrades, saving DOD \$80 billion, while the Air Force's nascent bomber program would be shelved until the mid-2020s, saving \$18 billion. LCS, along with its associated mission modules, would be cut, saving the Pentagon \$22 billion.

Under maximum sequestration, Panetta wrote, the reduction in defense spending could soar up to 23 percent beginning in fiscal year 2013, with the exact percentage dependent on whether President Obama chooses to exercise his authority to exempt military personnel from cuts.

"A cut of this magnitude would be devastation in itself, but it gets worse," Panetta wrote. "Under current law, that 23 percent reduction would have to be applied equally to each major investment and construction program. Such a large cut, applied in this indiscriminate manner, would render most of our ship and construction projects unexecutable -- you cannot buy three quarters of a ship or a building -- and seriously damage other modernization efforts."

Panetta wrote the letter in response to questions he received from McCain and Graham on Nov. 3. The two lawmakers asked Panetta to describe the specific options and types of actions DOD would be required to take should a sequester result from the supercommittee's inability to reach an agreement by Nov. 23. McCain and Graham wrote in their letter to Panetta that it was imperative that Congress "be fully informed of the effects of a sequester on our military" -- stating "concrete information" was necessary for Congress to do its job.

Also included on the Pentagon's termination list are all ground combat vehicle modernization programs, allowing for minimal life extensions and upgrades to existing forces -- a savings to the Pentagon of \$17 billion. The Army's helicopter modernization programs would be cut to salvage \$11 billion, once again leaving room for only minimal life extensions and upgrades. Plans for missile-defense systems in Europe, as well as the ICBM leg of the nuclear triad, would also be cut to the tune of a combined \$10 billion, according to Panetta.

Two other areas that could be hit are unmanned intelligence, surveillance, and reconnaissance systems, which would save the Pentagon an additional \$8 billion; and major space initiatives, including space protection and communications satellites, which could save \$27 billion, Panetta said.

One program that could be delayed rather than cut is the Navy's next-generation ballistic missile submarine. Panetta said the Pentagon would be forced to reduce the program to only 10 subs in exchange for \$10 billion in savings. DOD would also have to re-size the military should a 23 percent cut in defense spending be instituted, according to Panetta.

"Facing such large reductions, we would have to reduce the size of the military sharply," he said. "Rough estimates suggest after 10 years of these cuts, we would have the smallest ground force since 1940, the smallest number of ships since 1915, and the smallest Air Force in its history."

Panetta asked lawmakers to remember that cuts to DOD's budget would increase risk to national security. "As a result, we would have to formulate a new security strategy that accepted substantial risk of not meeting our defense needs," he said. "A sequestration budget is not one that I would recommend." -- *Maggie Ybarra*

Retired Air Force Officials Urge Recapitalization Of 'Geriatric' Aircraft

A group of retired Air Force generals is urging Congress to recapitalize the service's "geriatric" fleet of bombers, tankers, fighter jets and trainer aircraft even in a constrained budget environment, according to a letter sent to senior members of the House Armed Services Committee.

The letter -- written by the Air Force Association, dated Nov. 17 and signed by nine retired Air Force generals, the service's former chief scientist and a military historian -- argues that deferring the acquisition of new systems to replace or augment the capabilities of B-52 bombers, T-38 trainers, KC-135 tankers and other aircraft should be a priority for Congress and the Defense Department. The alternative, they suggest, is a fleet with structural problems that requires constant investment to maintain minimum levels of capability.

"We find ourselves spending more money to sustain a fleet whose combat utility is degrading -- that is a bad trend as far as the nation's security interests are concerned," the letter states, adding: "Investing in capable systems will make the difference between success and failure in future wars and between life and death for those who answer the call to serve our nation. When viewed in those terms, failing to adequately invest in the Air Force would be the decision that proves

'too expensive' for our nation."

The letter is addressed to Rep. Randy Forbes (R-VA), a member of the House Armed Services Committee and the chairman of the subcommittee on readiness. A copy of the letter was also sent to Committee Chairman Rep. Buck McKeon (R-CA), Ranking Member Rep. Adam Smith, and Del. Madeleine Bordallo (D-GU), the ranking member on the readiness subcommittee. McKeon, Forbes and Rep. Todd Akin (R-VA), the chairman of the House Armed Services seapower and projection forces subcommittee, have held hearings this fall stressing the need to avoid further Pentagon budget cuts.

One of the letter's signees, retired Gen. John Jumper -- a former Air Force chief of staff -- testified last month before the House Armed Services Committee about the state of national security 10 years after Sept. 11, 2001, and warned against rapid budget cuts. "As we draw down, it's going to have to be with a strategic goal in mind," Jumper said. "It's going to have to be with the idea that our relationships around the world will be modified of necessity and we very quickly get to dangerous levels that will keep us out of critical parts of the world scene that we've always been a part of."

The letter's other signees include the former commanders of Air Force Materiel Command and two retired commanders of Air Combat Command. -- *Gabe Starosta*

Report issued

Pentagon Estimates Boeing Will Exceed KC-46 Cost Ceiling By \$500 Million

The Pentagon projects Boeing will exceed its cost ceiling to develop KC-46 aerial-refueling tankers by as much as \$500 million, or 10 percent, according to a new Defense Department report.

Boeing is required to soak up the additional costs under the terms of its contract with DOD, the report states.

Air Force Brig. Gen. Christopher Bogdan, program manager for the KC-46 program, calculates the "most likely estimated price at completion for engineering, manufacturing and development is \$5.3 billion," according to a new selected acquisition report to Congress on the KC-46 program. The contract ceiling price is \$4.8 billion.

Boeing, according to the report, estimates the cost to design and develop a fleet of four prototype aircraft will be \$5.1 billion.

"The government estimate is higher than the contractor's estimate due to the inclusion of schedule risk associated with the remainder of the development effort," the report states. "Although the contractor and program manager estimate costs that exceed the contract ceiling price, the government liability is limited to the contract ceiling price of \$4.8 billion."

Sen. John McCain (R-AZ), the ranking member on the Senate Armed Services Committee who blocked a 2002 deal with Boeing to lease aerial refueling tankers, has raised questions about the Pentagon's contract for the KC-46. In particular, McCain has expressed concern about costs to the government beyond the \$3.6 billion target price for engineering and manufacturing development. In July, he called Boeing's KC-46 bid a "lowball" offer. The deal requires the government to pay 60 percent of any cost overruns up to \$1 billion, or \$600 million.

Bogdan's \$5.3 billion estimate is 47 percent higher than the \$3.6 billion target price.

The terms of Boeing's fixed-price contract for the KC-46A provide that the government must share any cost overruns with the contractor between the target costs and ceiling price on a 60/40 basis. Boeing is responsible for all costs beyond the ceiling price of \$4.8 billion, according to the report.

The Pentagon estimates that the total cost, including inflation, to develop and acquire a new fleet of KC-46 aerial refueling tankers over 23 years will be \$51.7 billion, including \$7.1 billion to develop four prototype aircraft and \$40 billion to procure a fleet of 175 operational aircraft, according to the Selected Acquisition Report, which was sent to lawmakers Nov. 14. The highly detailed report goes well beyond the SAR statement issued by the Pentagon the same day and is not typically released to the public.

The Pentagon assumes support costs of \$6.4 billion and military construction costs of \$4.3 billion to develop and procure the KC-46 tanker fleet, the SAR adds.

Total Air Force outlays are forecast at \$8.9 billion between fiscal year 2011 and FY-16, according to the report.

Once research and development costs are factored into the price tag, the Pentagon estimates each KC-46 will cost \$243 million; the price tag excluding development costs is estimated to be \$188 million a copy, according to the report.

While recent cost projections for the KC-46 program have focused on a potential value to prime contractor Boeing of \$35 billion, the new Pentagon cost estimate details the total anticipated cost to the taxpayers. The larger sum includes additional government personnel costs and funds needed for military construction as well as testing.

SARs summarize key elements of major acquisition programs and provide cost estimates that include research and development, military construction and acquisition-related operation and maintenance costs. The reports sum up actual costs to date and anticipated expenses; they are used to monitor Nunn-McCurdy thresholds established in 1983 to flag cost growth in major military programs. -- *Jason Sherman*

Air Force To Develop After-Action Review For Cyber Training Events

The Air Force will begin taking submissions for the development of an after-action-review tool suite to capture lessons learned from cyber training events.

In a Small Business Innovative Research notice issued last week, the Air Force announced plans to accept open proposals for the effort beginning Dec. 12.

“The suite of tools will facilitate improved training performance, decision making and knowledge sharing across the cyberspace career field,” the proposal states, noting cyberspace operations “are the virtual front line in the way the Air Force currently does and will fight wars for generations to come.”

For this “vital” warfighting domain, the military must develop “robust training capabilities like those in place in other air and space platforms,” the proposal adds. “Training capabilities are needed for briefing, debriefing and providing [after-action reviews] in the cyberspace domain.”

The service is seeking proposals on how to develop a “tailorable brief, debrief an [after action review] tool suite that captures team and individual performance from cyber training events.”

The first phase of the proposal will define the preliminary design specifications for the major components of the suite; the second phase will “fully develop, apply, test, refine and validate the suite tools” based on the assessment from the first phase. It will also identify two more cyber mission areas.

“The common approach, methods and metrics will be fully documented to show how the tool suite could be modified and applies to remaining cyber teams,” the pre-release proposal states of the second phase.

The third phase will seek to deploy the suite throughout the Defense Department and commercially.

“Cyber warfare training is not service specific; an objective performance measurement tool for cyber warfare training could be deployed throughout the Department of Defense,” the Air Force writes. Further, the proposal states, “The banking, utility and telecom industries suffer from a lack of cyber warfare expertise. An objective performance measurement tool for cyberwarfare training could be used to prepare a workforce to protect commercial networks.” -- *Amanda Palleschi*

Kehler: New Cyberwarfare Policy Report Leaves ‘Open Questions’

A new cyberwarfare policy report submitted to Congress by the Pentagon this week “does a good job” describing the department’s offensive authorities in cyberspace but leaves “open questions” about the military’s civil authorities in cyberspace and definitions of concepts like active defense, according to U.S. Strategic Command chief Gen. Robert Kehler.

The long-awaited cyberspace policy report, required by Section 934 of the Fiscal Year 2011 National Defense Authorization Act, goes further than the department’s strategy released this summer in defining the Pentagon’s offensive capabilities and responsibilities in cyberspace.

The report stipulates that offensive actions in cyberspace not accompanied by military personnel and kinetic actions do not trigger the War Powers Act, which requires that the president notify Congress within 48 hours of committing armed forces to action. However, the report notes, the president would be the decider on counterattacks and what constitutes the “use of force” in cyberspace.

“We have rules of engagement today that cover cyberspace activities, but they are pretty narrowly defined,” Kehler said in response to the report, which was originally due to congressional defense committees March 1, 2011.

“What about when we start to get broader than that? And we’re still working our way through that,” Kehler told reporters Wednesday from a Cyber and Space Symposium sponsored by U.S. Strategic Command and held in Omaha, NE.

Among the things the report does not clearly explain are the roles and responsibilities for dealing with cyber threats that originate inside the United States, and what constitutes “active defense” -- a concept that Kehler touted last month, describing it as the type of action a Navy captain might take to protect a ship at sea. The report mentions active defense only in passing.

The new report “doesn’t mention it directly,” Kehler said, noting the report “suggests there are other areas where we are still evolving, and I would put active defense in that kind of a category.”

“Do we yet have a crisp definition of what active defense is? How do we apply these kinds of concepts? Conceptually, as a military concept, it’s a good concept,” Kehler said, adding that “passive defense” and “active defense” were clearly defined and available capabilities in the kinetic realm.

The department’s initial cyberspace strategy released this summer mentioned active defense as an element of its strategy, defining it as “synchronized, real-time capability to discover, detect, analyze and mitigate threats and vulnerabilities,” DOD writes.

“It operates at network speed by using sensors, software and intelligence to detect and stop malicious activity before it can affect DOD networks and systems,” the report adds.

“The question is, again, how do those concepts apply? Those are good questions we continue to work our way

through,” Kehler said. “I wish we could go faster. We need to learn and experience more before we can answer all of these questions.”

Kehler praised the new report for providing explanations of “explicit authorities” for the president and how the law of armed conflict and other laws. But, he said, the government still lacks a strategy for dealing with cyber threats that originate in the United States.

“For our entire military history, we have a very clear idea about what it means to provide defensive support for civil authorities -- we do that under a certain set of responsibilities and roles and authorities,” he said. In cyber, those are not in place yet, he said, adding that DOD has started working on that with Justice and Homeland Security departments.

“These are tough issues and normally, in the other domains, this took us years and years and years to sort through,” Kehler said. “The pace of the information age has placed us in a position of urgency that we did not see in these other domains.” -- *Amanda Palleschi*

Quantity changes also eyed

Bad Estimates, Poor Management Top Trends Undermining Weapons

Bad assumptions and poor management are leading contributors to problems in major acquisition programs, according to assessments by a nascent Pentagon office charged with preventing more cost growth.

Changes in procurement quantities due to outside factors also pose a “significant” hurdle, “but not as often as claimed,” David Nicholls, the senior adviser for root cause analyses in the Defense Department’s Performance Assessment and Root Cause Analyses (PARCA) shop, noted in a recent closed-door briefing.

Nicholls described observations from the assessments at an invitation-only conference at Defense Acquisition University, according to a copy of his Nov. 2 presentation. Related issues are also discussed in PARCA’s latest annual report to Congress, which is stamped “for official use only.” *Inside the Pentagon* obtained a copy of the March report through the Freedom of Information Act.

PARCA’s role in the Nunn-McCurdy process is to help identify program root causes so that DOD does not have more cost growth. The office groups the causes into two categories: errors at inception and errors in execution. The primary inception issue “stems from invalid framing assumptions which lead to bad estimates,” Nicholls’ briefing states. The primary execution issue is poor management performance, which is tied to systems engineering and contractual incentives as well as situational awareness and organizational response, he notes.

“Exogenous quantity changes are also significant factor,” the briefing states, adding, “Not as often as claimed. How a quantity change is implemented is also important.”

Unrealistic estimates are caused by the invalidity of major cost-estimating assumptions, not methodological errors, according to Nicholls’ briefing. PARCA deems an estimate to be unrealistic if it is based on an uncertain assumption. Such assumptions might concern technical issues, related programs, organizational relationships, threats, policy matters or the industrial base.

“The flawed assumptions at F-35 [Joint Strike Fighter] program inception included underestimation of airframe weights and a very aggressive and concurrent development schedule,” the annual report states. Invalid assumptions are bound to cause cost growth and schedule delays, but the sooner the department recognizes the mistakes the better it can mitigate the problems, Nicholls’ presentation notes.

The briefing’s section on bad management notes that management performance “is the lens through which all program issues are addressed.” PARCA has found issues in three broad areas: systems engineering; incentive strategies; and situational awareness and organizational response.

Systems engineering has a “high potential” as a root cause because it is “critical” for complex systems -- but early recognition of problems in this area is challenging, the briefing states. Problems have been found in requirements management; interface and environment management; holistic performance attributes like reliability and weight; and risk assessment.

Incentive strategies need to be aligned with program goals and challenges, demanding yet achievable, and sufficient to motivate without having harmful effects, the briefing states. Situational awareness is key because merely executing a contract does not ensure good program performance, the presentation adds.

Some programs have failed to fix identified problems, the briefing states, citing the need for better management and systems engineering processes, improved efforts to tap experts within program teams and reduced concurrency in programs.

To consider a quantity change to be a root cause, PARCA has defined two conditions. First, the reason for the change must be outside the control of the acquisition community -- it could be due to a doctrinal or threat change, or “pure” fiscal constraints, but not because of escalating unit costs or schedule slips. The second condition is that other cost growth would not have caused a breach without the quantity change.

The DDG-1000 destroyer program was curtailed when the Navy decided to satisfy the destroyer mission with more of the relatively inexpensive DDG-51s. The Excalibur program was impacted when the Army changed the precision

munitions mix. And for the Wideband Global Satellite, “the exogenous factors were the Air Force decision to buy more satellites -- beyond the coverage of favorable fixed-price contract terms -- combined with a radically diminishing commercial market for the types of satellites in question,” the annual report notes.

But in other programs -- and about 50 percent of the time -- PARCA has found quantity changes are not beyond the control of the acquisition programs involved. “To date, PARCA has observed that quantity changes were due to factors within the control of the acquisition community in about half of the cases,” Nicholls’ presentation states. The annual report describes three cases -- the Advanced Threat Infrared Countermeasure/Common Missile Warning System, the Remote Minehunting System and the Longbow Apache Block III -- “where the services cited quantity changes as a major cause of cost growth, [but] PARCA found other major root causes.”

Quantity changes in isolation mainly impact the program acquisition unit cost, Nicholls’ briefing states, noting that development costs are amortized over fewer units and there are “modest learning effects” on average production unit cost. But separate decisions to cut an annual buy, curtail an overall program or change the mix of systems can also impact unit costs, the presentation notes. -- *Christopher J. Castelli*

F-35 Nuclear Integration To Come After SDD . . . begins on page one

issue has been moved to the right, and an Air Force official confirmed that comment in a statement provided to *Inside the Air Force* on Nov. 16 by service spokeswoman Maj. Tracy Bunko.

The reason for delaying nuclear capability on the Air Force’s conventional-takeoff-and-landing F-35 variant is that the capability is not a required part of the aircraft’s developmental process. The JSF program is building aircraft as part of low-rate initial production while concurrently performing testing and development activities in a period known as System Development and Demonstration.

“DCA is not a part of the System Development and Demonstration (SDD) phase of the F-35 program, but rather is identified in the Operational Requirements Document (ORD) for inclusion post-SDD,” the official said in the statement. “As we move forward with Follow-On Development over the next several years, the USAF will determine follow-on capability priorities, the timing of DCA integration in the JSF, and manage risk to the overall JSF program.” SDD has been ongoing since October 2001, when the Defense Department decided to formally acquire the F-35.

The official stressed that the Air Force remains committed to making the F-35 dual-capable but declined to speculate on the new time line for nuclear integration until the program’s re-baselined schedule “solidifies.” The JSF program’s developmental schedule was extended and provided more funding last year after the completion of a technical baseline review.

Joe DellaVedova, a spokesman for the F-35 program office, said that SDD is projected to end in 2016, but that date depends on many factors and could change. Because delivering nuclear munitions is an Air Force mission, only the F-35A will be nuclear-capable, Bunko said.

Both Bunko and DellaVedova told *ITAF* that decisions on nuclear integration will be made by the Air Force, not the program office, because they deal with requirements definition.

Making the aircraft dual-capable is important both to the Defense Department and to American allies, especially in Europe, according to Chambers. Several members of the North Atlantic Treaty Organization (NATO) -- the United Kingdom, Norway, Denmark, Italy and Canada, in addition to the United States -- are also partners on the F-35 program, and Chambers said the United States intends to continue providing nuclear deterrence options to NATO. -- *Gabe Starosta*

Senate Re-Files Authorization Bill To Comply With BCA . . . begins on page one

Budget Control Act that sets limits on spending in FY-12. And to comply with the law, the committee’s updated mark calls for an additional \$21 billion in cuts, some of which could directly affect Air Force programs in what remains of this fiscal year, according to a copy of the bill filed by the committee on Nov. 15.

A committee spokeswoman told *Inside the Air Force* the committee made its revisions based on several sources. “First of all, we had input from the services, who were very cooperative,” she said. “We also were informed by both the SAC(D) and HAC(D) marks,” referring to the House and Senate Appropriations Committee’s defense subcommittees.

Senate Armed Services Committee documents outline several reductions aimed at the Air Force’s aircraft procurement budget, including a cut of \$145 million for the A-10 Thunderbolt aircraft’s wing replacement program. The Senate Appropriations Committee singled out the A-10 wing replacement program’s lack of progress as a reason for cutting its budget by \$145 million in its own mark-up submitted in September, and authorizers opted to mimic that cut in their updated mark-up. The two committees have now also agreed on a \$14 million subtraction for F-15 friend-or-foe technology and a \$17 million cutback on KC-10 tanker avionics upgrades that are early to need; a \$29 million reduction on FY-12 spending for the MQ-9 Reaper’s Airborne Signals Intelligence Payload 2C sensor, which is also early to need; reductions to the C-32A, C-37A and C-130 avionics modernization program budgets; a \$103 million cut in funding for initial spares and repair parts; and a \$108 million cut for post-production activities on the C-17.

The two committees also recommended identical funding for portions of the non-aircraft procurement budget, such

as the Joint Tactical Radio System, the Air Force Network information technology initiative, the Family of Advanced Beyond-Line-of-Sight Terminals and night-vision goggles. In each case, the Senate Armed Services Committee revised its budget recommendation downward to meet a lower funding number suggested by appropriators.

If the cuts become law, the service's classified programs would take a major hit in FY-12. The mark-up recommends a boost of \$170 million in classified spending on "other procurement" but a \$412 million reduction in classified missile procurement, which would leave classified programs facing a \$242 million cut. Those numbers are similar, but not identical, to line items offered by the Senate Appropriations Committee.

Authorizers also recommended a \$101 million reduction in spending on the Advanced Medium-Range Air-to-Air Missile because of a "production backlog," according to committee documents. Appropriators had recommended cutting the AMRAAM budget by \$69 million for the same reason.

The committee's mark also includes language that would move some funding from the base budget to the overseas contingency operations budget, just as appropriators recommended in September. That includes the transfer of \$783 million in MQ-9 Reaper procurement funding to OCO accounts, as well as \$87 million for war consumables closely linked to combat operations in Afghanistan and Iraq.

According to a document summarizing the changes in the new authorization mark-up provided by the committee, the recommendation for Air Force research, development, test and evaluation funding has been cut by more than \$600 million from the original authorization bill.

Separate from funding issues, the new authorization bill retained language that would move the C-12 Liberty intelligence program from the Air Force to the Army despite opposition from both services. In October, Air Force Secretary Michael Donley and Army Secretary John McHugh co-wrote a letter to Sen. Carl Levin (D-MI), the chairman of the Senate Armed Services Committee, opposing the move. The pair urged Congress to allow the Air Force to retain authority for the program. -- *Gabe Starosta*

Global Hawk Team Establishes Working Group . . . begins on page one

proposal process and acceptance test procedures, according to industry sources familiar with the Global Hawk program. Rozelsky confirmed that information to *ITAF* during a Nov. 16 interview.

"On Oct. 5 both sides decided that those were the two lean events we would tackle right now and once we're done with those, we will attack other events," he said.

Northrop's Global Hawk program has been restructured, separating it into three subprograms -- the Block 10/Block 20 Global Hawk baseline, Global Hawk Block 30 and Global Hawk Block 40. A fourth subprogram for the Ground Segment Re-Architecture and Communication Systems Re-Architecture (GSRA/CSRA) was also to be established by the Air Force, according to a June 14 acquisition decision memorandum that then-Pentagon acquisition chief Ashton Carter sent to Air Force Secretary Michael Donley. The "for official use only" memo, obtained by *Inside the Air Force*, instructs

Global Hawk Senior-Level Team Met For First Time Last Week

A senior-level Air Force review team tasked with making assessments and recommendations for reliability and sustainability improvements for the Global Hawk program met for the first time last week.

The team was established by Air Force Secretary Michael Donley in response to a directive issued by then-Pentagon acquisition chief Ashton Carter. In a June 14 acquisition decision memorandum, Carter asked Donley to establish a senior-level Air Force Reliability and Maintainability subject matter expert review team within 60 days. The team was supposed to have a kick-off meeting on Sept. 25, an Air Force official told *Inside the Air Force* in a Sept. 13 email.

Global Hawk program manager Col. Karl Rozelsky said the team's first meeting took place on Nov. 8 and Nov. 9. The team is set to meet again in December and mull over how to make reliability and maintainability improvements, Rozelsky said. The team consists of 10 or 11 members -- primarily subject matter experts in reliability and maintainability -- and is chaired by an engineer who works under Air Force Service acquisition chief David Van Buren, he said.

Rozelsky said the team will work closely with his office to establish guidelines for how to lower costs in reliability and sustainability activities.

"Most of the bulk of the work is done by our program office and other experts in the Aeronautical Systems Center for reliability and maintainability," he said. "So what that team was [tasked] with is . . . one of the fundamental cost-saving actions -- the reliability and sustainability improvements -- because, as I mentioned, we get that correct and we're going to really save money in the long term for O&S, operations and support."

Rozelsky said the team will provide him with details on its progress as it moves forward.

"They're going to provide us with updates so that I can brief . . . the overarching team when I go back for my . . . [full-rate production] milestone C decision in the March time frame," he said. -- *Maggie Ybarra*

Donley to fully fund the Global Hawk program in the fiscal year 2013 to FY-17 program objective memorandum to match the Cost Assessment and Program Evaluation office's cost estimate, which exceeded the FY-12 president's budget request by more than \$140 million.

The first lean process event was held in Palmdale, CA, in early November, according to an industry source familiar with the Global Hawk program. It identified initiatives in the implementation phase that would reduce the cost of the program -- particularly in the testing phase, Rozelsky said.

"In the air vehicle acceptance procedure -- that first lean event -- one of the things [we discovered] is maybe we don't need to have as many test flights," he said. "Well, that will save us time on the schedule. As you know, it costs a lot to do a test flight."

The second lean process event took place in Dayton, OH, this week -- between Nov. 15 and Nov. 17, according to the source. It focused on the amount of time needed to get a proposal from the contractor, Rozelsky said.

"As you know, to engage in the actual contracting action with a major corporation is a tedious process and it takes up a certain amount of days for us to provide them with a request for proposals and for them to come back with a proposal for us to work a clearance of our chain of events to make sure that our senior leadership understands what kind of contractor we're involved with," he said.

According to Rozelsky, the Air Force is interested in minimizing the time needed for the proposal process and also the negotiation period.

"We're looking to shrink that time frame down as well," he said.

Another agreement that Northrop and the Air Force struck during the affordability workshop was to establish a working group and charter it to help drum up ideas to drive down the cost of the Global Hawk program, according to the source. The working group meets on a quarterly basis, the source said. Northrop and the Air Force also agreed to invite major subcontractors of the Global Hawk program and the Navy's sister system, the Broad Area Maritime Surveillance (BAMS) program, to those meetings. That invitation extends to Warner Robins Air Logistics Center, GA, and other international customers.

Prior to the Oct. 5 affordability workshop, Northrop was in the process of evaluating 243 potential cost-saving initiatives that include buying spare parts in bulk and buying them early on. Now, Northrop has moved forward with its cost-saving plans and is currently working several codified initiatives to drive further cost reductions for the Global Hawk program. Those initiatives include developing joint cost-improvement curves to lower unit cost prices for sensors and the aircraft as well as developing joint cost-improvement curves to drive reductions for development and production of sustaining infrastructures, the industry source said. -- *Maggie Ybarra*

Idea emulates Air Force initiative

Official Proposes Cyber Reserve Network Fleet To Boost DOD Resiliency

A Pentagon information operations official made a pitch this week to boost the department's resiliency in cyberspace by emulating an Air Force program that quickly mobilizes commercial aircraft and personnel into combat zones.

Speaking on a panel this week about cyberspace and the electromagnetic spectrum, Col. Nanette Gallant, the chief of the cyberspace and information operations division of the U.S. Army's Information Operations directorate, proposed creating a cyber Reserve fleet.

Gallant said she came up with the idea recently and it represented her personal views, not those of the Army or the Defense Department.

A "cyber Reserve network fleet," she said, could be modeled after the Civil Reserve Air Fleet -- an Air Force program designed to enable commercial airlines to support DOD in emergencies when needed.

The airlines contract for the program, and the government, in exchange "makes peacetime airlift business available to civilian airlines that offer aircraft" to the program, according to an Air Force description of the program.

"Let's think about that -- that's some resiliency there," Gallant said. "Let us say a lot of our transportation aircraft was shut down, like in World War II, with a lot of our fleets. . . . I thought, that's an interesting idea."

Under the program, the government "could conceptually make cyber business available to a civilian cyber network, or networks, and let them work a way to provide emergency bandwidth, possibly emergency equipment," Gallant said.

"Let's say, a few years from now, a hacker gets in some sort of probe that can bring down a computer. This would be a way that the U.S. government could quickly reroute to another system," she said. "The thing that's best about this cyber Reserve network fleet is that it would extend to the defense industrial base."

The Reserve fleet could also work with U.S. Cyber Command and participate in national level exercises to test their systems, Gallant said. She also proposed using the National Guard and Reserve to help staff the potential fleet, arguing that this would benefit both private sector employers with employees in the Reserve as well as DOD.

Gallant noted DOD needs more resiliency to combat threats in cyberspace. She also recommended discussing the threat openly in the press, conducting more national-level exercises and coordination and using "defense implemented as

deterrence.”

Gallant also told *Inside the Pentagon* that cyber threats posed by countries such as China and Russia are best viewed through “Cold War glasses,” noting DOD needs to focus on countering espionage and intrusions, developing resilient systems and implementing efficient, effective mitigation in the event of attacks.

“However, in my opinion, it would be detrimental for China to attack or destroy major U.S. activities through cyberspace,” she said. “Any effort by China to harm the U.S. through cyberspace could result in harm to her own political posture, economy and communications of defense.”

The same idea applies to North Korea, India and Pakistan, she said, comparing the reasoning to the nuclear arms race. “India, Pakistan, have nuclear weapons -- they haven’t used them on anyone,” she said. “Possession does not mean application.” -- *Amanda Palleschi*

Kendall Waived Some Certifications On KC-46A . . . begins on page one

negotiations between the Defense Department and Boeing.

Next month, the Air Force plans to establish a “firm configuration” for the KC-46A aircraft, which will set the stage for a preliminary design review in March 2012, according to the report, which is not publicly available.

The agreement was hammered out between Feb. 24, when Boeing was selected over EADS North America to build a new tanker fleet, and Aug. 23, as part of an “integrated baseline review” involving the KC-46 program office and Boeing. The six-month effort, according to the Pentagon report, “resulted in a mutual understanding . . . of all the program’s elements.” Specifically, the review was held to ensure that Boeing and its suppliers understood the aircraft’s requirements; and to establish an “integrated master schedule,” a “comprehensive risk assessment identifying all program risks and mitigation plans” and a common understanding of contract budget and payment plan.

“The IBR resulted in a well-understood and approved contract technical, cost, and schedule baseline from which the government will measure and closely manage Boeing’s progress during contract execution,” states the plan.

Despite approving an acquisition program baseline for the KC-46A, the Pentagon’s acquisition executive has yet to make three statutory certifications for the tanker program that were waived earlier this year.

On April 13, Frank Kendall -- the Pentagon’s acting acquisition executive, who at the time was the principal deputy acquisition executive -- exempted the KC-46A program from fulfilling certifications required for all big-ticket procurement efforts proceeding into engineering and manufacturing development. Kendall temporarily set aside the requirements that the Defense Department certify it had resources over the next five years to fund the program; that a business-case analysis had been conducted to ensure unit costs and total acquisition costs are affordable in the context of the future years defense plan; and that a preliminary design review was held before source selection.

“At this time, a determination has not yet been made for any of the three waived provisions,” states the Selected Acquisition Report.

In February, the Air Force was directed by the Pentagon acquisition executive to fully fund the KC-46A program in its FY-13 budget proposal, according to the Air Force cost position. The new report says this will require that the service dedicate at least \$12 billion between FY-13 and FY-17.

As of September, according to the report, the Air Force’s plan is to allocate \$694.3 million to the KC-46A in FY-11, \$877.1 million in FY-12, \$2.5 billion in FY-13, \$1.9 billion in FY-14, \$2.9 billion in FY-15, \$3.4 billion in FY-16 and \$3.8 billion in FY-17.

The acquisition report also details the program’s schedule goals. The target date for a milestone C decision is August 2015, but it should be held no later than August 2016; initial operational test and evaluation is to commence in May 2016, but no later than May 2017; and a full-rate production decision is slated for June 2017 with an outside date of June 2018.

The 18 production aircraft that will constitute an initial operational capability are due -- along with all relevant support and sustainment equipment -- by August 2017 and no later than August 2018, according to the plan. Beyond the four aircraft being built under the development contract, the production plan calls for seven aircraft to be built in FY-15, 12 aircraft in FY-16, and then 15 tankers annually for a decade, according to the Pentagon report.

The report estimates the cost to develop the fleet of tankers will total \$7.1 billion, with another \$40.2 billion needed to procure the aircraft through 2027. The balance of the costs are required for support, military construction and acquisition-related operation and maintenance expenses.

Once research and development costs are factored into the price tag, the Pentagon estimates each KC-46 will cost \$243 million; the price tag excluding development costs is estimated to be \$188 million a copy, according to the report. -- *Jason Sherman*

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