

★ screenshot

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*A B-52, flanked by an F-15 and an F-16, flies near Osan Air Base, south of Seoul, South Korea, on a show-of-force mission in response to North Korean nuclear provocations. On the ramp is a USAF F-16 and a Republic of Korea Air Force F-15K.*



### USAF Must Get Bigger, Not Smaller

The Air Force must stop downsizing and instead “modestly upsize” across the Total Force, Secretary of the Air Force Deborah Lee James told airmen Dec. 8. “Enough is enough,” she said. “We have got to stop the downsizing.” James said she has seen undermanning “everywhere I have traveled,” citing specific holes in the maintenance, nuclear, remotely piloted aircraft, and cyber forces.

Additionally, James noted that the two-year bipartisan budget deal is good news, despite the fact that the deal provides the Defense Department \$15 billion less than the Pentagon asked for in Fiscal 2017. The Air Force must invest in readiness, she said, because about half the combat air forces are not ready for a high-end fight. “We’ve got to do better,” James said.

### SpaceX Successfully Lands Booster

SpaceX on Dec. 21 made history in space travel, successfully landing a reusable Falcon 9 booster rocket for the first time after a launch at Cape Canaveral AFS, Fla. The company, led by PayPal co-founder Elon Musk, has

been vying for Air Force contracts and NASA resupply missions, with cost efficiency a large selling point for government work.

The reusable booster is a major push by the company to lower the overall cost of space travel by refurbishing rockets for successive missions as opposed to manufacturing a new rocket for each launch.

At 8:29 p.m., a SpaceX Falcon 9 carrying a commercial payload lifted off from Cape Canaveral. Following separation, the Falcon 9 rocket landed back at the station about 10 minutes after launch, according to a 45th Space Wing news release. The successful launch and landing followed failed attempts to land a Falcon 9 on ships at sea and the disintegration of a Falcon 9 during a NASA resupply mission in June. The Air Force in May certified the Falcon 9 for national security space launches.

### LRS-B Protest Continues

Boeing has filed a 133-page brief with the Government Accountability Office detailing the company’s grievances regarding the Air Force’s selection of Northrop Grumman



USAF photo by SSgt. Benjamin Sutton



**Right in the Snout:** SrA. Rebecca Roberts wears an M50 gas mask during decontamination training at Atlantic City ANGB, N.J., on Jan. 9. Twenty members of a contamination control team played out various scenarios to ensure airmen on the base can successfully operate a decontamination line should they be exposed to hazardous chemicals.

for the Long-Range Strike Bomber contract. The Air Force filed its report with the GAO on Dec. 6, responding to Boeing's complaint. Unsatisfied by USAF's responses, Boeing's Dec. 17 GAO brief represents the next step in the protest sequence.

In a joint press statement, the Boeing and Lockheed Martin team said the Air Force's "selection process was irreparably flawed" and said it was continuing the protest process. Boeing's complaint is that the Air Force didn't take full account of the potential cost savings and allegedly lower risk of its approach to the program.

Under the statutory rules about protests, the GAO must render a ruling on the merits of Boeing's protest by about Feb. 15.

In its own press statement, Northrop Grumman said it had "filed comments with the GAO" in support of USAF's award to that company and said that Boeing's move is a "routine step" and "not in any way indicative of a meritorious protest." Northrop Grumman "remains confident" that it offered "an inherently more affordable solution" for the LRS-B program and looks forward to "getting back to work" on it once the protest is resolved.

### Pentagon Approves JSTARS Recap

The Defense Department has given the Air Force the OK to move forward on recapitalizing the E-8C JSTARS fleet.

Frank Kendall, the Pentagon's undersecretary for acquisition, signed a memorandum approving Milestone A review of the program. This lets the contractor teams conduct system functional reviews, preliminary design reviews, and subsystem prototype demonstrations, Air Force spokesman

Maj. Robert Leese said in a statement. The service also will begin steps to award "up to two radar risk reduction contracts and is on track to release a draft request for proposal for the engineering and manufacturing development phase in early 2016," said Leese.

The Air Force plans to award the contract for the next generation aircraft in 2017. So far, three teams have announced efforts to win the contract: a team of Gulfstream and Northrop Grumman, a joint effort by Bombardier and Lockheed Martin, and Boeing.

"JSTARS remains one of the highest priority warfighting capabilities for the combatant commanders, and the JSTARS recapitalization program will ensure the Air Force continues to support their critical need at an affordable cost," said USAF Secretary Deborah Lee James in a statement. "We are committed to a JSTARS replacement as soon as realistically possible."

### Top Jets From US, UK, and France Train Together

The premier aircraft from the US, UK, and France trained together in the skies over Virginia in December in what officials said is the first high-level exercise involving the three countries and the fighter jets.

The trilateral exercise began in early December at JB Langley-Eustis, Va., with F-22s, Eurofighter Typhoons, and

# The War on Terrorism

## US Central Command Operations: Freedom's Sentinel and Inherent Resolve

### Casualties

As of Jan. 15, 21 Americans had died in Operation Freedom's Sentinel in Afghanistan and 11 Americans had died in Operation Inherent Resolve in Iraq and Syria.

The total includes 31 troops and one Department of Defense civilian. Of these deaths, 12 were killed in action with the enemy while 20 died in noncombat incidents.

There have been 80 troops wounded in action during OFS and five in OIR.

### Six Airmen Killed by Suicide Bomber

The Defense Department on Dec. 22 identified six airmen—four Air Force Office of Special Investigations agents and two security forces members—who were killed by a suicide bomber driving a motorcycle near Bagram AB, Afghanistan.

They were: Maj. Adrianna M. Vorderbruggen, 36, with the 9th Field Investigations Squadron at Eglin AFB, Fla.; SSgt. Michael A. Cinco, 28, with the 11th Field Investigations Squadron at JBSA-Randolph, Texas; SSgt. Peter W. Taub, 30, with AFOSI Det. 816 at Ellsworth AFB, S.D.; SSgt. Chester J. McBride, 30, with AFOSI Det. 405 at Maxwell AFB, Ala.; TSgt. Joseph G. Lemm, 45, with the Air National Guard's 105th Security Forces Squadron at Stewart ANGB, N.Y.; and SSgt. Louis M. Bonacasa, 31, who also was assigned to the 105th SFS.

OSI Commander Brig. Gen. Keith M. Givens said in a Dec. 29 news release, "The OSI family will undoubtedly rise to the occasion yet again and honor these great Americans, but for now, I ask for your thoughts and prayers to go out to the families and loved ones of the fallen."

See "Editorial: Six Airmen in a Forgotten War," p. 4.

### Afghan Pilots Graduate at Moody

The first class of A-29 Super Tucano pilots from Afghanistan graduated from training Dec. 18 at Moody AFB, Ga., while two maintenance trainees went missing. The eight pilots "will help establish a secure, stable, and unified country," said Col. John J. Nichols, commander of the 14th Flying Training Wing, at the graduation ceremony, according to a news release.

"They are enabling the future of Afghanistan, a future that will be decided by the Afghans themselves." The pilots began classroom training last February and flew their first A-29 training sorties in March. They will be the first of 30 trained by the 81st Fighter Squadron over the next three years. The Afghan air force's current light air support aircraft, the Mi-35 attack helicopter, reaches the end of its service life in January.

"Today does not mark the end, but the beginning, of our continued friendship," said Lt. Col. Jeffrey Hogan, com-

mander of the 81st Fighter Squadron. "Please know that we are shoulder-to-shoulder with you, and we look forward to many years of working together."

The two maintenance trainees had been missing since Dec. 7. A press release from the base stated that they had been at the base since February 2015 and were screened before they arrived in the US.

### F-15s Depart Incirlik

The 12 F-15s that deployed to Incirlik AB, Turkey, in November returned to their home base of RAF Lakenheath, UK, in December after a brief deployment, US European Command announced.

Six F-15Es arrived at Incirlik on Nov. 12 to replace F-16s that had rotated through the base. The Strike Eagles conducted operations against ISIS in Iraq and Syria alongside 12 A-10s that were already deployed to the base. Six additional F-15Cs from Lakenheath had arrived at the base earlier in November to conduct combat air patrols and help Turkey protect its airspace.

Pentagon spokesman Navy Capt. Jeff Davis told reporters the deployment was not supposed to be "open-ended." The coalition will not lose any capability in the fight against ISIS, he said, because the Navy is deploying USS *Harry S. Truman* to the region, where it will join the French carrier *Charles de Gaulle*. Additionally, the Royal Air Force will continue conducting strikes from Cyprus, and the German Luftwaffe deployed Tornados to Incirlik. The US consulted with the Turkish government on the decision to remove the F-15s, Davis said.

### Long-Range Reaper Goes to War

The MQ-9 extended-range Reaper remotely piloted aircraft debuted in combat over Afghanistan, launching from Kandahar Airfield on Dec. 1, officials announced. Maintainers and General Atomics Aeronautical Systems contractors retrofitted roughly half the 62nd Expeditionary Reconnaissance Squadron's MQ-9s at Kandahar a month after receiving the kits.

"One of the things that, at our level, we are really proud of here is that we did it on top of completing our regular flying schedule," a 62nd ERS maintenance operations officer said, according to a news release.

The Reaper-ER upgrade package includes an additional 1,350 pounds of fuel in two external tanks, a new four-bladed propeller, heavyweight undercarriage, and performance upgrades, according to a company release. Depending on the configuration, upgraded aircraft can stay aloft up to 40 percent longer than the standard MQ-9.

The Air Force ordered an initial 38 of the ER variants under a quick-reaction requirement last year and declared the RPA initially operational in September.

Dassault Rafales flying several missions daily against Red Air Aggressors made up of USAF T-38 Talons and F-15E Strike Eagles. The exercise is "all about integration" between the aircraft, said Col. Larry Broadwell, commander of the 1st Operations Group at Langley.

The aircraft on Dec. 15 were flying an air dominance scenario, with the three countries protecting a 100-square-mile area from the Talons and Strike Eagles. The exercise is a

way for the pilots to practice communicating and operating together in the aircraft, and integrate fourth and fifth generation systems, officials said.

The US and allies have been operating in a counterinsurgency environment in the past 10 years, rather than being focused on anti-access, area-denial threats, the leaders of the three countries' air forces told reporters during the exercise. The event is a "fantastic opportunity to get back into

USAF photo by A1C Nick Emerick



high-end” training, said Royal Air Force Chief of Staff Air Chief Marshal Andrew Pulford.

**McCain Calls For Freeze on ULA Payments**

Sen. John McCain (R-Ariz.) is calling for a freeze on launch subsidy payments to the United Launch Alliance, in part because he does not believe the explanations the Lockheed Martin and Boeing consortium gave for not competing in the first competitive national security space launch.

In a letter to Defense Secretary Ashton B. Carter, McCain asked the Pentagon to audit ULA’s business systems and provide the results to the Senate Armed Services Committee, which he chairs. According to McCain, ULA said

**Take a Breather:** A1C Justin Wanke helps conduct a cabin pressure test on an F-15E at Kadena AB, Japan. Such tests aim to prevent hypoxia—a lack of oxygen reaching the pilot’s muscles. Hypoxia can cause spatial disorientation, delayed reaction times, and death. See “What It Takes,” p. 52.

it does not have any Atlas rockets available for the bid, because of sanctions in the National Defense Authorization Act against the use of Russian-made RD-180 engines that power the Atlas.

However, McCain said ULA has five engines that are not limited by the sanctions already in hand but “rushed to assign them to non-national security launches,” not restricted by sanctions, in a bid to force Congress to allow ULA to buy more Russian-made engines. “I feel strongly that these tactics are inappropriate and intended to support an effort in the Congress to subvert the authorization process,” McCain wrote.

**By the Numbers**

**45**

F-35s delivered in 2015, the second year in a row the program office hit its mark. The total represents

a 25 percent increase in one year. The 45 jets delivered in 2015 included 26 F-35As for the Air Force; eight F-35Bs for the Marine Corps; eight F-35Cs for the Navy-Marine Corps; the first two F-35As for the Royal Norwegian Air Force; and one F-35A for the Italian Air Force.

**Potential RD-180 Replacement Passes Initial Review**

Aerojet Rocketdyne’s developmental AR1 rocket engine, designed to replace the Russian-built RD-180 to launch military satellites, passed its first major design review in mid-December, the company announced.

“We have achieved every milestone in our AR1 schedule to be ready” to deliver a flight-ready engine for certification in 2019, the company president and chief executive officer, Eileen Drake, said in a Dec. 17 release.

The Air Force Space and Missile Systems Center issued a request for proposals in June to develop space launch solutions that aren’t reliant on the RD-180 to ensure military access to space in the face of heightened tensions with Russia. The Air Force plans to invest in as many as four promising industry efforts to develop either a new launch platform or a replacement engine for the current platform. ✪