

## ■ CV-22 Airmen Awarded Distinguished Flying Cross

Maj. William J. Mendel, a CV-22 pilot assigned to the 20th Special Operations Squadron at Cannon AFB, N.M., and TSgt. James M. McKay of the 7th SOS at RAF Mildenhall, UK, each recently received a Distinguished Flying Cross.

Mendel's ceremony took place May 15, McKay's on June 2.

On Dec. 21, 2013, then-Captain Mendel and McKay, then a staff sergeant, were deployed with the 8th Expeditionary Special Operations Squadron to Djibouti. On a mission to evacuate American citizens from a United Nations compound, their aircraft came under heavy fire and "sustained severe damage, including ruptured fuel tanks, complete loss of the largest hydraulic system, and an inoperable emergency lubrication system," according to an Air Force Special Operations Command press release.

They conducted an emergency refueling that involved manual extension of the damaged refueling probe, to allow their aircraft to land outside the conflict zone. Mendel coordinated with a pararescue team to arrange medical treatment for four critically wounded personnel on the lead aircraft in his formation.

That team initiated a blood bank to give life-saving transfusions to the wounded on their emergency landing in Uganda. Mendel and McKay were responsible for safely recovering four crew members, nine passengers, and their aircraft, according to their award citations.



Maj. William Mendel at his Distinguished Flying Cross ceremony. The DFC recognizes heroism or extraordinary achievement in an aerial flight.



The actions and knowledge of TSgt. James McKay—shown here at his medal ceremony—allowed the crew to focus on arranging support for the wounded.

## ■ First F-35 Block Buy Contract

The Defense Department awarded Lockheed Martin a \$1.38 billion contract to start the process of the so-called block buy program, expected to save \$2 billion over three lots of production.

The contract buys "long lead time materials, parts, components, and effort" for 130 US and foreign F-35s in Lot 12, and 110 foreign F-35s in Lots 13 and 14, the Pentagon said.

The US can't participate in the block buy—akin to a US multiyear procurement—as such because a program must be in full-rate production to qualify, and the F-35 is still in a low-rate phase. However, the US can obtain cost benefits from F-35 partners purchasing economic order quantities—materials in large volume—and from improvements in the learning curve stemming from the higher rate of production.

Most of the contract is for foreign-F-35 materials. The rest is long-lead purchasing for US aircraft.



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## ■ Not Enough People To Solve the Cyber Threat

Human personnel alone cannot adequately respond to the cyber threats facing the US military today, Deputy Secretary of Defense Robert O. Work told Congress. "This is an area where we will not be able to solve it with people," he told the Senate defense appropriations



A cyber protection team member participates in the Air Force's Exercise Black Demon in May at Scott AFB, Ill. The exercise validated an ability to protect and defend critical missions and assets.

subcommittee. As directed by the 2017 National Defense Authorization Act, the Pentagon is "elevating Cyber Command to a full combatant command," Work said, and "we're on track to have all of our cyber mission teams fully operationally capable by September 2018."

The refocused command will have defensive and offensive components.

"We're putting together the structure to be able to watch our networks and also to prepare tools that our national command authority can use if necessary," Work said. But he emphasized the need to develop "artificial intelligence and learning machines to push back" against cyber threats because "there just are not enough people to defend our networks against all of the attack surfaces that we have."



A KC-135 sits in a hangar at McConnell AFB, Kan., built for its follow-on, the KC-46 Pegasus tanker. The White House requested funds for 15 of the new refuelers.

### ■ Trump Proposes \$574 Billion in Military Spending

President Donald Trump is requesting \$574 billion in base funding for the Department of Defense and \$65 billion in overseas contingency operations (OCO) funding for Fiscal Year 2018. The base budget requests a three percent increase over the Obama administration's final 2018 projection.

The budget includes money for 70 new F-35 strike fighters and 15 KC-46 tankers. The Army would also buy 61 new Apache helicopters, 48 Black Hawks, and 2,775 Joint Light Tactical Vehicles. The Navy would get 14 F/A-18 fighter aircraft, two Virginia-class submarines, two destroyers, a Littoral Combat Ship, and a carrier.

Members of Congress who had hoped Trump would lead a major rebuilding of the military immediately criticized the re-

quest. Sen. John McCain (R-Ariz.), chairman of the Senate Armed Services Committee, released a statement May 23, saying the proposal "fails to provide the necessary resources to restore military readiness" and would be "dead on arrival in Congress."

Rep. Mac Thornberry (R-Texas), chairman of the House Armed Services Committee, said in a statement, "The administration's budget proposal for defense is not enough to do what the President said he wants to do." Both McCain and Thornberry have supported a DOD budget that begins with a \$640 billion topline and adds OCO funding on top of that.



An MQ-9 Reaper remotely piloted aircraft prepares to land at Holloman AFB, N.M., last December.

### ■ Holloman MQ-9 Crashes During Training Mission

An MQ-9 remotely piloted aircraft assigned to Holloman AFB, N.M., crashed around 11:30 a.m. on May 2, "seven miles south of Highway 70," according to a base press release. A spokesperson told the

*Alamogordo Daily News* that the Reaper was on its way back to base after a routine training mission. An Air Force spokesman declined to say if any property was damaged or if anyone was injured when the RPA crashed, saying only that the incident was "still under investigation."

### ■ Pentagon Begins Nuclear Defense Review

The Defense Department began its Ballistic Missile Defense Review, an



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in-depth study of ways to strengthen homeland defense. The review comes at a time when North Korea is repeatedly testing ballistic missiles and challenging US interests in the Pacific. It will focus on strengthening missile defense capabilities and providing policy framework.

Like the recently announced Nuclear Posture Review, the Ballistic Missile Defense Review will be led by Vice Chairman of the Joint Chiefs of Staff USAF Gen. Paul J. Selva and Deputy Defense Secretary Robert O. Work. A final report is expected by the end of the year.

# The War on Terrorism

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

### ■ Casualties

As of June 12, a total of 40 Americans had died in Operation Freedom's Sentinel in Afghanistan, and 43 Americans had died in Operation Inherent Resolve in Iraq and Syria.

The total includes 80 troops and three Department of Defense civilians. Of these deaths, 38 were killed in action with the enemy, while 45 died in noncombat incidents.

There have been 183 troops wounded in action during OFS and 42 troops in OIR.

### ■ Yemen Raid Kills Seven Militants

US special operations forces conducted a raid in the Marib governorate of Yemen on May 23 that killed seven militants and wounded several American personnel, Pentagon spokesperson Navy Capt. Jeff Davis told reporters. The raid was a "counterterrorism operation" against a "base of operations" for al Qaeda in the Arabian Peninsula.

The special operators engaged in a firefight and called in "precision air strikes" from an AC-130 gunship. The raid was conducted with the cooperation of the Yemeni government. It was also the "furthest inland" ground operation US forces have conducted in Yemen to date, Davis told reporters.

### ■ NATO Considering More Troops to Afghanistan

NATO is considering sending more alliance troops to Afghanistan, Secretary General Jens Stoltenberg said. "We have received a request from our military authorities to increase our military presence in Afghanistan with a few thousand troops,"

he said after a meeting with British Prime Minister Theresa May in London on May 10.

The troops would serve in the "train, assist, and advise" mission, helping Afghan forces as they fight to defeat the Taliban and other extremist forces. Stoltenberg said NATO would decide "on the scale and scope of the mission within weeks."

US Army Gen. John W. Nicholson, commander of US Forces Afghanistan, told Congress in February that the NATO mission there had a "shortfall of a few thousand troops." NATO currently has 13,000 troops stationed in the country, and the US has 8,400.

The Pentagon in May was expected to present a plan to the White House to increase the US troop presence in Afghanistan by as many as 5,000 troops.

### ■ New Counter-ISIS Strategy Is All About Speed

Speed is the focus of the Department of Defense's new counter-ISIS strategy. "No longer will we have slowed decision cycles because Washington, D.C., has to authorize tactical movements on the ground," Secretary of Defense James N. Mattis told reporters while briefing the new strategy.

Mattis claimed that speed already made a difference in the last stages of the battle for Mosul in Iraq and the lead up to the fight for Raqqa in Syria. The impact of the new strategy has "shown up clearly in our tactical reports," he said, without elaborating. The goal of this faster war is the "annihilation" of ISIS.

Two factors drive the new approach. First, Mattis said, President Donald Trump has "delegated authority to the right level to aggressively and in a timely manner move against enemy vulnerabilities." Mattis insisted that empowering commanders on the ground in this way would involve "no change to our rules of engagement" and "no change to our continued extraordinary efforts to avoid innocent civilian casualties."

Second, Mattis said, Trump has "directed a tactical shift" that emphasizes "surrounding the enemy in their strongholds so that we can annihilate ISIS." He said previous approaches have involved "simply shoving [ISIS fighters] from one [place] to another and actually reinforcing them as they fall back." This has allowed defeated fighters to escape to another area where they can fight another day.

380th Air Expeditionary Wing airmen salute the US flag June 2 during a ceremony in Southwest Asia. The commander of US forces in Afghanistan told Congress that the NATO mission there was short "a few thousand troops." The US has 8,400 stationed in Afghanistan.



Photo: SrA, Preston Webb

### ■ Distracted Pilot Caused MQ-9 Crash

Preoccupation with checklist procedures and a failure to correctly respond to stall warnings led to the crash of an MQ-9A Reaper during a training flight at the Nevada Test and Training Range on June 7, 2016.

Just before the accident, a crew from the 26th Weapons Squadron at Nellis AFB, Nev., had received control of the RPA from the Launch and Recovery Element, 432nd Wing, Creech AFB, Nev. The pilot taking control mistook the Reaper's climb to a preprogrammed altitude as a system malfunction. He switched to landing configuration—which disables stall protection—to turn off the autopilot and take manual control of the aircraft. The pilot was "preoccupied with the handover checklist" when the aircraft stalled a moment later. He failed to recognize the display warnings, the accident investigation board report said.



An MQ-9 Reaper awaits maintenance at Creech AFB, Nev.

When his sensor operator alerted him to the stall, he increased power, causing the aircraft to spiral toward the ground and crash.

The MQ-9A was destroyed at a cost of \$11 million. The pilot had 767 MQ-9A flight hours and 451 hours of MQ-9A instructor flying time, according to the report.



SrA. Joseph Fletcher and A1C Christopher Kelly of the 71st Expeditionary Air Control Squadron prepare to inspect a TPS-75 radar. 3DELRR is a follow-on to this radar.

### ■ Raytheon Wins 3DELRR Contract, Again

The Air Force awarded a \$52.7 million engineering and manufacturing development (EMD) contract to Raytheon for the 3-D Expeditionary Long-Range Radar (3DELRR) system. The radar is a C-band follow-on system for the AN/TPS-75, and it can track aircraft, missiles, and remotely piloted aircraft.

Raytheon originally won a \$19.5 million EMD contract for the program in 2014, but Northrop Grumman and Lockheed Martin filed protests with the Government Accountability Office over the decision. When the Air Force reopened the competition, a Raytheon appeal of that decision was denied in federal claims court in 2015.

The Air Force now plans to buy 35 of the new radars with an anticipated initial operational capability of 2023, Air Force Life Cycle Management Center spokeswoman Patty Welsh told *Air Force Magazine*. Under the May 11 contract, Raytheon "will provide EMD of three 3DELRR production representative units."

### ■ USAF Lifts Weight Restrictions for F-35 Pilots

The Air Force has lifted the weight restrictions governing F-35 pilots. In 2015 the Air Force announced that pilots weighing less than 136 pounds could not fly the jet due to risks during ejections. Since then, the Air Force has installed a switch on the seat that delays parachute deployment at high speeds and decreases the opening force for lighter weight pilots, according to an Air Force news release.

The seat is now certified for any pilot weighing between 103 pounds and 245 pounds. The Air Force also installed a head support panel on the risers of the

parachute to prevent the pilot's head from snapping backward during an ejection, and it decreased the weight of the helmet to reduce risk.

USAF completed extensive testing of the changes before removing the restriction. F-35 Integration Office Director Brig. Gen. Scott L. Pleus said he personally briefed every USAF F-35 pilot about the changes. "I'm confident our pilots are no longer concerned with the safety of the F-35 ejection system," he said in the press release.

The new ejection seats are being retrofitted into the fleet, and lightweight helmets are in preproduction, according to the Air Force.



F-35 pilot Lt. Col. Dave DeAngelis prepares for a flight in May at Hill AFB, Utah. Ejection seat and other modifications were to improve safety for the airplane's pilots.

**■ US Successfully Tests Ballistic Missile Interceptor**

The United States tested its Ground-based Midcourse Defense (GMD) system on May 30 by intercepting a mock ICBM target for the first time. The test ICBM was fired from the Ronald Reagan Ballistic Missile Defense Test Site on Kwajalein Atoll in the Marshall Islands, and the interceptor launched from Vandenberg AFB, Calif.

"This system is vitally important to the defense of our homeland, and this test demonstrates that we have a capable, credible deterrent against a very real threat," said Missile Defense Agency (MDA) Director Vice Adm. James D. Syring.

In 2014, the US successfully tested the GMD against a long-range missile after a number of failed attempts between 2010 and 2013. The GMD is designed to destroy intermediate- and long-range ballistic missiles threatening the homeland.

Following the test validation of the system, the agency is "on track" to increase the number of ground-based interceptors from



The 341st Missile Wing, 576th Flight Test Squadron, and 30th Space Wing conducted the launch.

36 to 44 by the end of 2017, said J. Gary Pennett, MDA director of operations. Syring said the threat scenario was specifically designed with North Korean and Iranian capabilities in mind.

After the successful test, Syring said he is confident the GMD program will be able to address current and developing threats through the year 2020, based on US intelligence reports about global ballistic missile capabilities.



An artist's concept illustrates Boeing's Phantom Express autonomous Experimental Spaceplane.

**■ DARPA Picks Boeing for XS-1 Spaceplane Project**

The Defense Advanced Research Projects Agency has chosen Boeing to be its collaborator in a public/private partnership to develop the Experimental Spaceplane, or XS-1.

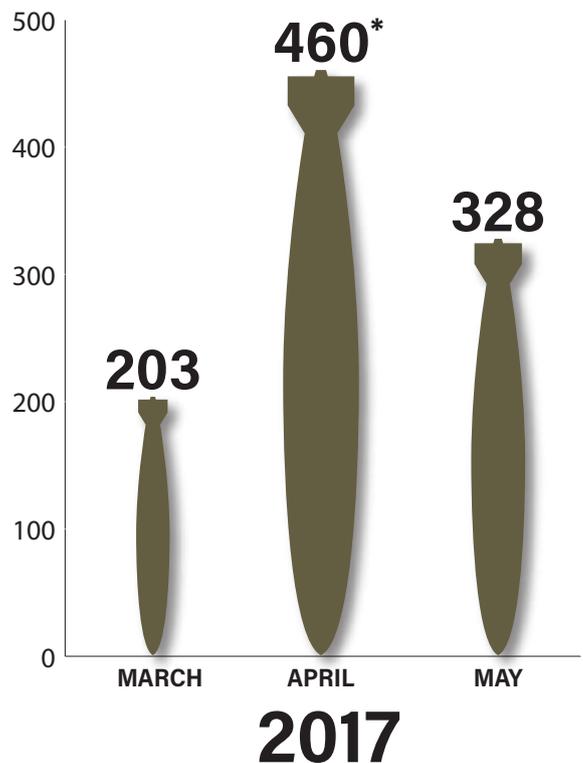
The winning concept—dubbed by Boeing as the Phantom Express, after its Phantom Works advanced projects organization—is a reusable winged launch vehicle that carries its payload with a booster rocket piggyback at hypersonic speed to high altitude. After releasing the payload and booster to continue their journey to orbit, the XS-1 will return to Earth, landing on a runway like an airplane.

Fabrication will take place through 2019, with flight evaluations projected for 2020. Both DARPA and Boeing are investing money in the concept; DARPA's share is about \$146 million.

Aimed at "short notice, low-cost access to space," according to a DARPA press release, the project calls for operating the engines on the ground 10 times in 10 days, followed by 12 to 15 actual flight tests without a payload, at speeds up to Mach 5. All this would culminate in 10 actual suborbital missions flown in 10 days, with one further flight to loft and deploy a 3,000-pound satellite. The overall idea is to achieve an "aircraft-like" operations tempo, DARPA said.

**By the Numbers**

**NUMBER OF BOMBS DROPPED BY COALITION FORCES IN AFGHANISTAN**



\*Highest monthly total since August 2012

Source: US Air Forces Central Command Combined Air Operations Center