

Airman Killed in Afghanistan

Maj. Walter D. Gray, 38, of Conyers, Ga., died from injuries suffered during a suicide bomb attack in Kunar province, Afghanistan, Aug. 8, the Pentagon announced.

Gray was assigned to the 13th Air Support Operations Squadron at Fort Carson, Colo., a detached element of the 93rd Air Ground Operations Wing at Moody AFB, Ga.

"Major Gray's ultimate sacrifice is a tragic loss for the 93rd Air Ground Operations Wing," said Col. Samuel Milam, wing commander.

Milam added, "[Gray] was a tremendous officer and leader. Our most heartfelt sympathies are with the Gray family and the airmen of the 13th Air Support Operations Squadron during this difficult time."

Army Maj. Thomas E. Kennedy and Command Sgt. Maj. Kevin J. Griffin also died in the attack.

JASSM-ER Good To Go

The AGM-158B Joint Air-to-Surface Standoff Missile-Extended Range successfully completed operational flight testing, launching from a B-1B bomber Aug. 30.

The final test shot from a 337th Test and Evaluation Squadron B-1B Lancer was a "significant step" toward the stealthy cruise missile's operational employment, according to a Dyess AFB, Tex., spokesperson.

USAF's B-1B will be the lead type to employ the JASSM-ER operationally, starting next year, according to the Air Force.

"As we shift our emphasis from the Middle East to the Pacific, as heavily defended as that region is, the JASSM, combined with the B-1, presents a top choice for combatant commanders," said Capt. Philip Atkinson of the 337th TES.

The B-1B—as well as the B-2, B-52, F-15E, and F-16—are already cleared to carry the baseline JASSM, which is nearly identical, externally, to the ER model. The Lancer is capable of carrying 24 of the missiles in its three internal bays—twice the number carried by the next largest platform, the B-52.

The extended-range JASSM can strike targets from more than 575 miles away, greatly expanding on the baseline JASSM's 230-mile flight radius.

Lackland BMT Commander Fired

The training commander at JBSA-Lackland, Tex., relieved the head of basic military training operations at Lackland in the wake of rampant sexual misconduct by military training instructors under his charge.

Col. Eric Axelbank sacked BMT commander Col. Glenn E. Palmer, citing "lost confidence" in his ability "to maintain a safe and secure training environment for our newest airmen," the *Los Angeles Times* reported, citing a 37th Training Wing spokeswoman Aug. 10. The Air Force appointed Col. Deborah J. Liddick as Palmer's replacement.

Axelbank commands the 37th TRW; Palmer had led the 737th Training Group since July 2011.

Despite the firing, the spokeswoman emphasized, "Palmer did not create the environment that resulted in the misconduct."

The Air Force is investigating 15 former MTIs for alleged sexual misconduct with trainees dating back to fall 2009. As of August, it had convicted and sentenced three of them.

Axelbank also removed the commander of the 331st Training Squadron, which oversaw most of the accused MTIs, in June.

BUFFs To Visit Russia

An Air Force Global Strike Command delegation from Barksdale AFB, La., visited Engels Air Base in Saratov, Russia, in July, paving the way for a long-range bomber exchange program with the Russian Air Force.

"We're going to fly B-52s to Russia and they're going to fly Tu-95 Bears to Barksdale," said 2nd Bomb Wing Commander Col. Andrew J. Gebara, who led the Barksdale group, in an Aug. 8 AFGSC news release.

"It's a tremendous opportunity for our two nations to learn from each other to improve aviation technology and skills in our respective air forces," he added.

The seven-member US delegation, including a US Embassy attaché and interpreter, evaluated Engels airfield's suitability to host B-52H operations.

"One of the big takeaways from our trip is that while we fly different aircraft and are from opposite ends of the globe, our

ANG photo by AIC John D. Pharr III



objective is the same," said Lt. Col. Michael Thompson, 2nd Bomb Wing director of staff, who was with the delegation. "We all want to have a safe and credible deterrent force," he said.

MALD Cleared for Combat

Air Combat Command chief Gen. G. Michael Hostage III has declared the Miniature Air Launched Decoy operational on the F-16 and B-52, ACC revealed in August.

The declaration of initial operational capability means USAF now has enough MALDs in stock for wartime use, and enough pilots and maintainers trained to operate and support it in combat operations.

MALD is a small jet-powered decoy that the B-52H bomber and F-16 fighter can use for self-defense or strike augmentation. After launch, the decoy is designed to fool enemy air defenses by mimicking the flight characteristics of strike aircraft.

An ACC spokesman said Hostage declared the baseline MALD variant operational on July 26.

Raytheon builds the MALD.

So Shall Ye Reap

The first class of remotely piloted aircraft operators trained from scratch to fly the MQ-9 Reaper received their wings at Holloman AFB, N.M., Aug. 16.

Most pilots cross-train to operate RPAs, but the new graduates of the RPA basic



09.05.2012

A California Air National Guard MC-130P Combat Shadow refuels two HH-60G Pave Hawks during a rescue operation for two seriously ill fishermen off the coast of Mexico. Airmen from the 129th Rescue Wing parachuted into the Pacific on Sept. 3, boarded the Ecuadoran fishing vessel, and treated the sick men. The next day, the rescue airmen and the sick fishermen were transferred to a US Coast Guard vessel, where on Sept. 5 they were picked up by 129th crews and transported to a hospital in Cabo San Lucas.

Senior Staff Changes

RETIREMENTS: Gen. Gary L. **North**, Gen. Norton A. **Schwartz**.

PROMOTIONS: To General: Mark A **Welsh III**.

NOMINATIONS: To be Lieutenant General: Christopher C. **Bogdan**. **To be Major General:** Richard M. **Clark**, Andrew M. **Mueller**. **To be ANG Brigadier General:** Edward E. **Metzgar**. **To be AFRC Brigadier General:** Jon A. **Weeks**.

CHANGES: Brig. Gen. Balan R. **Ayyar**, from Cmdr., AF Recruiting Svc., AETC, JBSA-Randolph, Tex., to Rule of Law Dep., US Forces-Afghanistan, CENTCOM, Kabul, Afghanistan ... Lt. Gen. (sel.) Christopher C. **Bogdan**, from Dep. Dir., Jt. Strike Fighter Prgm., OSD, Arlington, Va., to Dir., Jt. Strike Fighter Prgm., OSD, Arlington, Va. ... Brig. Gen. Richard M. **Clark**, from Commandant of Cadets, USAF Academy, Colorado Springs, Colo., to Defense Attaché, DIA, Cairo, Egypt ... Brig. Gen. John L. **Dolan**, from Dep. Dir., LL, OSAF, Pentagon, to Cmdr., 451st AEW, ACC, Kandahar, Afghanistan ... Brig. Gen. John P. **Horner**, from Dir., Intel., Surveillance, & Recon Capabilities, DCS, Intel., Surveillance, & Recon, USAF, Pentagon, to Cmdr., AF Recruiting Svc., AETC, JBSA-Randolph, Tex. ... Lt. Gen. Stanley T. **Kresge**, from Cmdr., 13th AF, PACAF, JB Pearl Harbor-Hickam, Hawaii, to Vice Cmdr., PACAF, JB Pearl Harbor-Hickam, Hawaii ... Lt. Gen. Michael R. **Moeller**, from US Security Coordinator, Israel-Palestinian Authority, Tel Aviv, Israel, to DCS, Strat. Plans & Prgms., USAF, Pentagon ... Maj. Gen. Stephen D. **Schmidt**, from Cmdr., NATO, Airborne Early Warning and Control Force Command, Casteau, Belgium, to Spec. Asst. to the Cmdr., USAFE, Ramstein AB, Germany ... Gen. (sel.) Paul J. **Selva**, from Vice Cmdr., PACAF, JB Pearl Harbor-Hickam, Hawaii, to Cmdr., AMC, Scott AFB, Ill. ... Gen. Mark A. **Welsh III**, from Cmdr., USAFE, Ramstein AB, Germany, to C/S, USAF, Pentagon.

COMMAND CHIEF MASTER SERGEANT CHANGE: CMSgt. Craig A. **Adams**, to Command Chief Master Sergeant, USAFE, Ramstein AB, Germany.

SENIOR EXECUTIVE SERVICE RETIREMENT: Marlin U. **Thomas**.

SES CHANGES: Timothy K. **Bridges**, to Dep. Asst. SECAF, Instl., Office of the Asst. SECAF, Instl., Environment, & Log., Pentagon ... Terry G. **Edwards**, to Dir., Comm., Instl., & Mission Spt., AFMC, Wright-Patterson AFB, Ohio ... Gerald F. **Pease Jr.**, to Dep. Asst. SECAF, Environment, Safety, & Occupational Health, Office of the Asst. SECAF, Instl., Environment, & Log., Pentagon ... Anthony P. **Reardon**, to Dep. Dir., LL, OSAF, Pentagon ... Joe **Sciabica**, to Dir., AF Civil Engineer Ctr., DCS, Log., Instl., & Mission Spt., JBSA-Lackland, Tex. ... Stephen H. **Walker**, to Dir., Tactical Tech. Office, Defense Advanced Research Projects Agency, Arlington, Va. ... Kathy L. **Watern**, to Dep. Dir., Financial Mgmt., AFMC, Wright-Patterson AFB, Ohio. ■

course had no prior experience flying manned aircraft.

"There's extra time built into the syllabus to allow the students to get more practice, because they have to learn techniques they've never used before," said Lt. Col. Nathan Hansen, commander of the 29th Attack Squadron, charged with training operators.

Candidates underwent rudimentary screening in light aircraft at Pueblo, Colo., before progressing to simulators at JBSA-Randolph, Tex., during the six-month basic course.

Because the curriculum trains operators to fly RPAs over the target zone—but not take off or land—the course is significantly shorter than manned undergraduate flight training.

The operators designated under USAF's new 18X specialty code advanced to mission qualification training, where they will integrate with sensor operators for the first time to train for the operational mission.

Vertigo Fatal in F-15E Crash

Air Combat Command investigators determined that spatial disorientation was the principal cause of a fatal F-15E accident during a training exercise in Southwest Asia March 28.

The pilot in the accident lost his bearings on a nighttime descent to the runway at the crew's deployed base. As a result, the pilot executed a series of erratic maneuvers, inverting the aircraft at approximately 1,800 feet altitude, according to the accident investigation board report, Aug. 21.

The aircraft's weapon systems officer perceived the pilot was disoriented and seized control of the aircraft, initiating an 11G leveling maneuver before ejecting both himself and the pilot roughly 88 feet above the desert floor.

The pilot was killed, striking a 377-foot radio tower during ejection, but the WSO suffered only minor injuries.

The Strike Eagle was completely destroyed in its collision with the tower and subsequent impact on the ground, totaling an estimated \$47.1 million in losses on top of damage to foreign infrastructure.

The F-15E was deployed from the 366th Fighter Wing at Mountain Home AFB, Idaho.

Resurgent Russian Air

By 2020, Russia plans to spend \$625 billion to rebuild and modernize its air force, which President Vladimir Putin said had languished since the collapse of the Soviet Union.

Putin aims to re-equip the air force with 600 new fixed wing aircraft, such as the Sukhoi T-50 stealth fighter, and 1,000 new rotary wing platforms, with

USAF photo by Capt. Raymond Geoffrey



You Say Goodbye, I Say Hello: Airmen and soldiers load an Army AH-64 Apache helicopter onto a USAF C-5 at Bagram Airfield, Afghanistan, during a Relief in Place/Transfer of Authority. The 101st Combat Aviation Brigade replaced the 82nd Combat Aviation Brigade.

Neil A. Armstrong, 1930-2012

Neil Alden Armstrong—engineer, Navy fighter pilot, NASA test pilot, and iconic astronaut known for his modesty and public shyness, who was the first human being to set foot on the moon—died Aug. 25 at the age of 82.

Born in Wapakoneta, Ohio, Armstrong caught the flying bug early, receiving his pilot's license at the age of 16.

He attended Purdue University on a Navy scholarship to become an engineer, but the demands of the Korean War caused the service to pull him out of school and into jet fighter training. During the war, Armstrong flew 78 combat missions as part of the squadron author James A. Michener wrote about in his book, *The Bridges at Toko-Ri*. On one bombing mission in his F9F Panther, Armstrong caught a booby-trap wire strung to thwart low-level attacks and was forced to eject. He did so safely.

After Korea, Armstrong finished his engineering degree and soon landed a job with the National Advisory Committee for Aeronautics, the forerunner of NASA. He rapidly progressed from flying "drop" missions supporting rocket-plane testing to becoming a prime test pilot in his own right, flying the hottest jets of the Century Series, as well as big bombers such as the B-47. He then joined the elite group flying research X-planes such as the X-1B and X-5 and ultimately flew the hypersonic X-15.

NASA leaders considered Armstrong a top choice for the second group of astronauts selected in 1962.

He became the first civilian astronaut and was picked to command Gemini 8, which would explore orbital rendezvous with the Agena docking vehicle. During the mission, a stuck thruster caused the docked vehicles to rotate wildly. Armstrong managed to separate the two, then got the Gemini craft—spinning so violently that Armstrong and crewmate David R. Scott nearly blacked out—under control, performed a de-orbit and managed a safe splashdown. Armstrong was credited with saving the mission and his and Scott's lives.

Armstrong then went into the rotation for one of the Apollo missions. He served on the backup crew for Apollo 8, then was assigned to command Apollo 11, to make the first attempt at landing on the moon.

Descending to the lunar surface on July 20, 1969, with crew mate Buzz Aldrin, Armstrong was forced to pass over the planned landing site, strewn with boulders and craters that made it too dangerous to set down. Pressing on, Armstrong located a safe spot and landed the Eagle module with just seconds of fuel remaining.

On the moon, Armstrong uttered two iconic phrases. Upon landing, he radioed, "Houston, Tranquility Base, here. The Eagle has landed." Then, about six hours later, when he stepped off the lunar module's landing pad, he said, "That's one small step for man, one giant leap for mankind." He and Aldrin spent about two hours outside the module on the moon, setting up equipment for experiments. Armstrong took nearly all the photos taken on the lunar surface during Apollo 11; only four actually show him there.



The rest of the mission passed without incident, and after a world goodwill tour, Armstrong returned to NASA duties. NASA wouldn't risk letting Armstrong fly in space again, so he was made head of its aeronautics program. However, he soon left NASA and began teaching at the University of Cincinnati. He divided his time between teaching, a farm he bought in Ohio, and serving on several corporate boards.

He served on several commissions and panels to investigate space shuttle accidents and America's future plans in space. Generally, though, he refrained from public appearances, discouraged autograph-seekers, and declined to cash in on his fame. Armstrong steadfastly credited the hundreds of thousands of engineers and technicians who made Apollo possible as the true heroes of the program.

In 2011, Armstrong uncharacteristically wrote opinion pieces, criticizing the Obama Administration for its plans to rely on commercial entities to launch astronauts to the International Space Station. He also took issue with the Administration's abandonment of plans to return to the moon and to aim instead for a cheaper, deep-space asteroid landing program. He offered congressional testimony urging NASA and Congress to find ways to restore morale and confidence at NASA.

Armstrong died after suffering complications from heart surgery. He was buried at sea Sept. 14.

—John A. Tirpak

deliveries starting this year, according to the Associated Press.

"I'm sure, each of us will feel pride for the country, for the people who build such aircraft and pilot them," said Putin, announcing the plan at the Moscow Air Show Aug. 11.

"I want to thank those who helped our air force survive during a difficult period in the 1990s and the early 2000s ... when the planes were grounded," he added

at the event celebrating the Russian Air Force's 100th anniversary.

F-35's First Free-fall Drop

An F-35B test aircraft released a free-fall weapon for the first time during a flight test over the Atlantic Ocean from NAS Patuxent River, Md., in early August.

"While this weapons separation test is just one event in a series of hundreds of flights and thousands of test points

that we are executing this year, it does represent a significant entry into a new phase of testing for the F-35 program," said Navy F-35 test director Capt. Erik Etz.

The short takeoff and vertical landing model of the F-35, designated BF-3, successfully released a 1,000-pound GBU-32 Joint Direct Attack Munition from an internal weapons bay at an over-water training range near Pax River Aug. 8.

We Brake for Martians

Air Force engineers at Arnold Engineering Development Complex in Tennessee and elsewhere around the US played a crucial role in landing NASA's \$2.5 billion Curiosity rover on Mars Aug. 5. AEDC teams tested the parachute designed to slow the rover's supersonic descent to the Martian surface, as well as the aeroshell and heat shield that protected it upon entering Mars' atmosphere.

"In the first attempts, the parachute was actually destroyed," said David Duesterhaus, an AEDC engineer involved in the tests at the National Full-Scale Aerodynamic Complex at Moffett Field, Calif.

During testing, technicians packed the parachute into a specially designed cartridge which was fired 225 feet back into the wind tunnel's 70-knot (81 mph) slipstream—shredding the chute in initial trials. Technicians estimated it would experience an initial shock of 65,000 pounds and tested at forces upward of 94,000 pounds as a safety margin.

"We learned as we went along," said Duesterhaus, noting that after the first series of tests, they installed lights and cameras farther back in the tunnel.

Over the course of two years, AEDC, NASA, and the Pioneer Aerospace parachute company examined the photographic data and adjusted the packing of the parachute and the composition of the materials.

Engineers realized the parachute would cycle through inflation and deflation jellyfish-style on descent and developed a means of simulating such undulation in testing, he said. Testers physically held the parachute open as it inflated, then cleared the tunnel and turned up the speed. After five rounds of testing, engineers certified the parachute was ready.

"The work we do on the ground paves the way," said Duesterhaus. Engineers at AEDC's facility at Arnold AFB, Tenn., evaluated the heat shield that protected Curiosity from the 3,500 degrees Fahrenheit entry temperatures.

Curiosity's aeroshell underwent aerodynamic testing at AEDC's Hypervelocity Wind Tunnel 9 in White Oak, Md.

Several hours before dawn on Aug. 5, Curiosity punched into Mars' atmosphere at roughly 13,000 mph. Atmospheric friction slowed it to 1,200 mph before its parachute deployed, further decelerating the craft to 200 mph. At that point it shed its protective aeroshell, firing rockets to cushion its landing. In the last seconds, the rover was lowered to the surface on a tether from a rocket-powered "sky crane." Once it set down on its wheels, the tether was cut and the sky crane flew away, to crash at a safe distance from the rover.

Except for slight damage to Curiosity's wind sensor, the vehicle arrived intact after its 352 million mile journey and unprecedented landing method.

—Seth J. Miller

BF-3 released the inert JDAM from an altitude of 4,200 feet, traveling at 400 knots (460 mph) airspeed. The drop was the first step toward validating the F-35's ability to operationally employ precision weapons.

SBSS Up and Running

Air Force Space Command cleared the Space Based Space Surveillance Block 10 satellite for initial operations Aug. 17,

almost two years after it launched from Vandenberg AFB, Calif.

The SBSS spacecraft will now deliver US Strategic Command "timely revisit of high-interest objects and increased capacity to meet current and future" situational awareness needs from space, said AFSPC space superiority chief Robert Davidson.

SBSS' taskable sensor is the only space-based link in the US space-surveil-

lance network. "It's an agile sensor, so it can be tasked to look at high-interest objects on a more frequent basis," he added.

The satellite is capable of monitoring man-made objects from a geostationary perch without disruption from weather or atmospheric disturbances that can hamper ground-based systems.

Boeing and Ball Aerospace Technologies supplied the satellite.

ANG's First F-35 Instructor

Florida Air National Guard pilot Maj. Jay Spohn qualified as the Guard's first F-35 instructor pilot, flying with the 33rd Fighter Wing at Eglin AFB, Fla., this summer.

Spohn concluded the last of his six qualification flights Aug. 3, certifying him to teach pilots to fly the F-35A model, according to Eglin officials. Spohn is serving as assistant director of operations for Eglin's 58th Fighter Squadron and chief of standards and evaluation for the 33rd Operations Group. He was selected to join the initial F-35A pilot cadre to help develop the strike fighter's flight syllabus in November 2009.

The 33rd Fighter Wing began allowing non-test pilots to fly the F-35 at Eglin in May, clearing the way for Spohn to begin qualification flights late this spring.

F-22s Drop SDBs ...

F-22s from JB Elmendorf-Richardson, Alaska, became the first Raptors to operationally employ the GBU-39 Small Diameter Bomb during a Combat Hammer evaluation at Hill AFB, Utah, this summer.

"The Utah Test and Training Range is the only location in the United States where the F-22s can employ SDBs at speeds and altitudes unique to the Raptor," said Maj. Wade Bridges, an Air Force Reserve Command F-22 pilot with the 302nd Fighter Squadron. "The employment of the GBU-39s was very successful," he said.

Active Duty and Reserve pilots and maintainers from Elmendorf were evaluated top-to-bottom on their ability to maintain, load, and launch their weapons in an operational environment in August.

Previously, F-22 pilots had only dropped the SDB in testing. The Elmendorf F-22s deployed to Hill incorporated the new Increment 3.1 software, allowing them to drop the 250-pound precision guided weapons outside the range of many enemy air defenses.

The SDB sharply increases the number of ground targets an F-22 can strike in a stealth configuration. The aircraft can carry just two 1,000-pound Joint Direct Attack Munitions inside its weapon bays, but eight SDBs can be carried internally.

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William W. Momyer, 1916-2012

Gen. William Wallace Momyer, a World War II fighter ace who later commanded much of the air war in Vietnam and served as head of Tactical Air Command, died Aug. 10 at the age of 95.

Gen. John P. McConnell, who was Chief of Staff during Momyer's Vietnam service, once said he was "the greatest tactical air technician" and more knowledgeable about tactical air operations "than anyone the Air Force has ever produced."

Born in Muskogee, Okla., Momyer entered the military in 1938, shortly after receiving a bachelor's degree from the University of Washington. He earned his wings at Kelly Field, Tex., in 1939 and soon thereafter was posted as an air attaché in Cairo, Egypt. When World War II erupted, he provided technical advice to the British Royal Air Force, equipping its Africa forces with American Curtiss P-40 Warhawks.

By 1942, Momyer was commanding the 33rd Fighter Group, operating in North Africa and Italy. He was an aggressive pilot—in one battle singlehandedly engaging 18 Luftwaffe Stukas protected by German and Italian fighters, destroying four of them. He eventually became an ace and scored eight wartime kills. However, his aggressiveness in taking on much larger forces led to heavy losses for the 33rd, which had to be stood down and reconstituted.

Momyer infamously accused one unit attached to his group—the 99th Fighter Squadron—of laziness and cowardice, in spite of the all-black squadron being awarded a Distinguished Unit Citation. He also criticized the 99th for avoiding air combat, even though he'd ordered it to focus on ground attack. Congress investigated and found Momyer's claims baseless. The Tuskegee Airmen went on to build a distinguished war record, despite Momyer's recommendation they be disbanded.

Soon after that incident, Momyer returned to Washington, serving as chief of combined operations on the Army Air Forces Board. While there, he helped build service ground-attack doctrine.

After World War II, Momyer served as assistant chief of staff of the nascent Tactical Air Command and taught at the Air War College. He was then posted to Korea, where he commanded the 8th Fighter-Bomber Wing after the cease-fire, supervising the unit's move to Japan.

In 1955, he commanded all USAF units in Korea, then became head of the 832nd Air Division at what is now Cannon AFB, N.M.

From August 1958 to October 1961, Momyer was director of plans for TAC, then moved back to Washington to serve as head of USAF operational requirements until early 1964, when he became assistant deputy chief of staff for programs and requirements. From August 1964 to July 1966, Momyer headed Air Training Command.

Now a three-star general, he was tapped to go to Vietnam, as the dual-hatted head of 7th Air Force and Military Assistance Command Vietnam's deputy commander for air operations, reporting directly to Army Gen. William C. Westmoreland. In that role he ran the Vietnam air war, coordinating the air activities of the Air Force, Navy, and Marine Corps from a bunker near



Saigon. His forces attacked supply routes, industrial facilities, ammo dumps, and massed enemy forces when they could be found. The effort was gargantuan. Westmoreland called Momyer "nonemotional, logical, and pragmatic."

Within a year, US forces had largely eliminated the air-to-air threat posed by MiG fighters supplied to North Vietnam by Russia. Momyer also prosecuted carpet-bombing campaigns, one of which, code-named Niagara, dropped more than 100,000 tons of bombs on North Vietnamese troops laying siege to Khe Sanh. Momyer wanted to broaden the list of targets to include Hanoi's Haiphong harbor and rail lines into China, but President Lyndon B. Johnson nixed these plans, fearing the war would broaden into a conflict with China and Russia.

Momyer personally flew many combat missions in Vietnam and was dogged in his efforts to find and rescue downed airmen.

Johnson promoted Momyer to four-star rank in late 1967 but asked him to stay on in Vietnam another six months.

After that, Momyer became head of Tactical Air Command, a post he held for five years, until his retirement in 1973. In 1972, Momyer responded to the North Vietnam "Easter Offensive" with a short-notice deployment of 250 aircraft and 7,000 airmen to South Vietnam.

He amassed more than 4,000 hours of flight time over his Air Force career, earning numerous Air Force and Army decorations, including the Distinguished Service Cross, two Distinguished Service Medals, three awards of the Silver Star, and the Distinguished Flying Cross.

In 1978, Momyer authored the book *Airpower in Three Wars* about the progression of airpower development through World War II, Korea, and Vietnam.

—John A. Tirpak

... But Senate Nixes SDB II Funds

Senate appropriators blocked procurement funding for the Small Diameter Bomb II next fiscal year, declaring it "premature" for USAF to begin production since "significant testing" remains in the bomb's development program.

Senate Appropriations Committee members noted that SDB II still needs to clear F-15E and F-35 integration—scheduled for Fiscal 2017—before full-rate production begins. As such, it makes no sense to fund production in Fiscal 2013, lawmakers wrote in a

report accompanying their version of the Fiscal 2013 defense appropriations bill, which the committee approved Aug. 2.

Senate appropriations leaders called on the Air Force to "modify its acquisition strategy to align with F-15E and [F-35] integration and consider an optimal production rate that minimizes individual unit costs."

Lawmakers cut \$40 million from the Air Force's overall funding request by cutting the production funds, but fully funded SDB II research and development next fiscal year.

AEHF-2 Reporting on Station

USAF's second Advanced Extremely High Frequency military communications satellite reached its assigned geostationary orbit Aug. 10, after three months of maneuvering.

Controllers at Schriever AFB, Colo., activated the satellite's payload four days later, beginning a two-month performance validation before joining DOD's combined Milstar and AEHF operational communications constellation.

"During payload activation, the payload wings and antennas were deployed, and



Thar She Blows: SrA. Andrew Leal, a fuels technician with the 100th Logistics Readiness Squadron, shuts off a valve on a fuel truck as liquid spews into the air during a major accident response exercise at RAF Mildenhall, UK. The MARE simulated an accident due to a cracked flange connection during a fuel transfer.

the payload processors were initialized and verified in preparation for on-orbit test,” stated space officials at Los Angeles AFB, Calif.

The AEHF constellation is designed to provide survivable, secure, and jam-resistant communications for the US military and national leadership. These spacecraft will eventually replace the Milstar satellites.

The Air Force and industry partners launched AEHF-2 into space from Cape Canaveral AFS, Fla., May 4.

The service’s first satellite, AEHF-1, completed on-orbit testing earlier this year.

RQ-4 Flies From Grand Forks

The 69th Reconnaissance Group launched its first RQ-4 Global Hawk remotely piloted aircraft sortie from its home base at Grand Forks AFB, N.D., on Aug. 7.

The unit has been remotely operating Global Hawks flying over Southwest Asia, but had not flown a sortie locally since receiving its first Global Hawk Block 40 variant last September.

“Our pilots are already flying daily Afghanistan missions remotely from [Grand Forks] and are well-trained,” said Col. J. Scott Winstead, 69th Reconnaissance Group commander.

At the same time, though, “we need to work on developing and exercising local process and procedure for the local area so the local flying community gets used to our operation.” The unit’s pilots are fully operational, but its Global Hawks have yet to receive their sophisticated MP-RTIP ground-surveillance radar payloads.

As a result, unit sensor operators haven’t yet qualified on the radar. Prime contractor Northrop Grumman is working with the University of North Dakota to develop the training curriculum.

Tale of Two Tankers

A KC-135 and Royal Air Force L-1011 TriStar tanker took off together from RAF Mildenhall, England, practicing formation refueling over the North Sea, address-

ing a training shortfall identified during operations over Libya last year.

“Instead of using three tankers and taking up 9,000 feet, we could ... take up about half that amount of airspace” in future air campaigns, as a result of this combined training, said Capt. Mark Berthelotte of Mildenhall’s 351st Air Refueling Squadron.

By training together, the allied tankers aim to avoid the poorly integrated multinational refueling efforts, during Operation Unified Protector, that consumed vast tracts of airspace, causing congestion for NATO aircraft en route to, or returning from, the target area.

Flying from Mildenhall gave the RAF 216 Squadron crews a taste of coalition operations “from somewhere different than our home base” at RAF Brize Norton, added 216 Squadron Leader Phil McConnell.

The sorties Aug. 16 and 17 were part of Mildenhall’s ongoing cooperation with NATO tankers units from Britain and across Europe.

Mistake Felled CV-22

Pilot error downed a CV-22B Osprey tilt-rotor that crashed during a routine two-ship training mission on the Eglin Range, north of Navarre, Fla., June 13.

The accident investigation board found clear and convincing evidence that “the cause of the mishap was the crew’s failure to keep the aircraft clear of the lead aircraft’s wake,” according to Air Force Special Operations Command.

X-51A Falls Short in Third Flight

The third experimental X-51A Waverider hypersonic vehicle fell into the Pacific Ocean without achieving test goals after a control fin malfunctioned during a test shot off the California coast on Aug. 14.

The malfunction prevented the vehicle’s supersonic combustion ramjet engine from igniting. The vehicle was to have flown for upward of five minutes at speeds of about Mach 6, Air Force Research Laboratory officials said.

“It is unfortunate that a problem with this subsystem caused a termination before we could light the scramjet engine,” said Charlie Brink, the AFRL’s X-51A program manager in a press release following the flight.

The Waverider dropped from the B-52 mothership and successfully boosted through its rocket-propelled first stage. Fifteen seconds after booster separation the X-51 departed controlled flight due to the anomaly and plummeted into the ocean below.

“All our data showed we had created the right conditions for engine ignition and we were very hopeful to meet our test objectives,” said Brink.

The first X-51 shot in May 2010 achieved limited success, flying under its own propulsion for more than three minutes, accelerating to Mach 5 before a malfunctioning engine seal terminated the flight.

After a successful launch atop its rocket booster in June 2011, the second Waverider vehicle’s ramjet failed to ignite, possibly due to a shockwave from excessive boost-speed blocking the engine inlet, AFRL engineers conjectured at the time.

Though engineers built four test vehicles, as of August AFRL officials were uncertain if or when they will test the fourth and final X-51. None of the vehicles were designed to be used for more than one test flight.

“This resulted in an uncommanded roll to the left, rapid loss of altitude, and impact with the terrain,” stated AFSOC’s news release. The AIB released its findings Aug. 30.

The CV-22, assigned to the 1st Special Operations Wing at Hurlburt Field, Fla., was destroyed upon impact, resulting in an estimated \$78 million loss to the service.

All five aircrew members sustained injuries, none life-threatening, according to AFSOC.

The aircraft and crew were assigned to Hurlburt’s 8th Special Operations Squadron at the time of the incident.

Felled by Vibration-Induced Fatigue

Investigators ruled that an engine compressor blade that broke loose in flight caused the crash of an F-16 on a training flight northeast of Kunsan AB, South Korea, in March.

The pilot’s actions to recover the engine were “focused, precise, and appropriate,” but engine performance continued to degrade, according to Pacific Air Forces investigators.

The accident investigation board determined that two of the engine compressor’s fifth-stage blades snapped due to vibration-induced fatigue, according to the report’s executive summary released Aug. 16.

The pilot ejected without injury, but the F-16 was destroyed. The fighter was assigned to the 36th Fighter Squadron at Osan AB, South Korea.

First Nuclear Course Graduates

The first class graduated from Air Force Global Strike Command’s new graduate-level nuclear weapons certification program this summer, command officials announced Aug. 17.

“To determine or define nuclear experts, we have to first get them the education ... so that they understand all the nuances of being a professional in the nuclear enterprise,” said AFGSC Command CMSgt. Brian S. Hornback, who graduated with the initial class of 15.

The program is a distance-learning initiative that consists of three 10-week classes that students have up to two years to complete.

It is designed to provide them with a solid understanding of nuclear weapon effects, nuclear weapon proliferation, and nuclear strategy and policy.

New Flying Enlisted Career Field

The Air Force is merging enlisted special operations fixed and rotary wing flight crews into a single career field, service officials announced Aug. 6.

Rotary wing and tilt-rotor flight engineers and aerial gunners along with AC-130 gunship loadmasters and other

Operation Enduring Freedom

Casualties

By Sept. 14, a total of 2,108 Americans had died in Operation Enduring Freedom. The total includes 2,105 troops and three Department of Defense Civilian. Of these deaths, 1,666 were killed in action with the enemy while 442 died in noncombat incidents.

There have been 17,568 troops wounded in action during OEF.

Bulldogs Deploy to Kandahar

Duluth-based F-16s of the Minnesota Air National Guard’s 148th Fighter Wing deployed in August to Kandahar Airfield, Afghanistan, on a two-month close air support rotation.

The deployment is the unit’s first since completing a two-year conversion from older F-16s to newer F-16 Block 50 airplanes in April, according to wing officials.

In the deployment workup, the wing “completed an intense, focused training program,” said 148th Fighter Wing commander Col. Frank H. Stokes. “The Bulldogs are the most prepared, best equipped, and most highly trained unit I have ever had the privilege to witness.”

Pilots and support personnel rotated to Nellis AFB, Nev., for training three times in 2011 and 2012, flying suppression of enemy air defense sorties at Red Flag there early this year.

The 300-airman contingent left Duluth for Afghanistan between Aug. 5 and Aug. 11.

C-17 Damaged at Bagram

Insurgent rockets damaged a C-17 Globemaster III airlifter on the tarmac at Bagram Airfield, Afghanistan, during an early morning raid Aug. 21, base officials said.

The aircraft, which was on the ground at Bagram supporting Joint Chiefs of Staff Chairman Gen. Martin E. Dempsey’s official visit, sustained damage to its forward fuselage and one engine, according to official reports.

The incident mimicked previous attacks, but officials said Dempsey “was never in any danger” and there was no indication that the insurgents were targeting him.

Two maintainers who were working on the aircraft at the time suffered minor injuries but no one was seriously wounded in the attack.

Halting Green on Blue

Afghan leaders have begun to recognize the seriousness of Afghan troops turning to assault their coalition partners in “green on blue” attacks, said Joint Chiefs Chairman Gen. Martin E. Dempsey.

Afghan soldiers and police attacked coalition troops 32 times during 2012, resulting in 40 coalition deaths and 69 wounded as of August, Pentagon officials said.

These figures are a significant spike from 16 attacks in 2011, which resulted in 28 deaths over the same period last year, they said.

Dempsey said the key to dealing with the Afghans on this issue “might not be to pull back and isolate ourselves, but [to] reach out and embrace them even more.”

nonstandard special operations aircrew will consolidate under the new specialty code: 1A9X1 Special Missions Aviation.

“The new career field was created to balance and sustain the career enlisted aviator force and to create a larger pool of qualified personnel to perform the duties required to meet the needs of current and future Air Force missions,” said CMSgt. Douglas Massingill, career field manager for career enlisted aviators.

In the past, aerial gunner career fields have overflowed with applicants,

while certain loadmaster and flight engineer roles have suffered manning shortages, explained MSgt. Matthew Ardis, enlisted in-service aviation recruiter.

The new specialty code specifically aims to rectify this imbalance and will affect roughly 920 enlisted aviators effective Oct. 31.

Spartans in the Firefight

The Senate is considering legislation that could transfer to the US Forest Service 14 of the C-27J airlifters the Air

Like a Bolt From the Blue: A-10s line the ramp at Namest AB, Czech Republic, in preparation for a close air support mission during a 16-nation NATO partnership-building exercise, Ramstein Rover. The training helps air controllers and pilots establish procedures and share techniques that mitigate collateral damage.



USAF photo by S/A. Natasha Stannard

Force wants to shed, for use as dedicated firefighting assets.

“The Forest Service needs to modernize its entire air tanker fleet,” said Sen. John McCain (R-Ariz.), introducing the Wildfire Suppression Aircraft Transfer Act in a statement at the end of July.

“We have an opportunity to take the C-27J, an aircraft the Pentagon no longer wants, and give it to the Forest Service to enhance aircraft safety and lower existing maintenance costs,” he said.

Pressing the aircraft into service to fill an urgent need is much better than leaving the aircraft to “sit in an airplane boneyard,” McCain said.

Sen. Diane Feinstein (D-Calif.) and Sen. Bill Nelson (D-Fla.) co-sponsored the bill, and local lawmakers in southern California expressed support, California’s Southwest Riverside News Network reported Aug. 7.

The Air Force leadership proposed divesting the C-27J fleet in Fiscal 2013 as part of cost-cutting measures in its budget submission, a move that congressional defense overseers have rejected to date.

McCain presented his bill to the Senate July 25.

Down the Pike

The Colorado space tracking station known as “Pike” this summer ceased frontline operations and transitioned to a backup tracking and test role at Schriever AFB, Colo.

Since opening in 1988, the Air Force Satellite Control Network site tracked more than 300 US military and NASA space launches, including space shuttles, making more than 180,000 contacts with orbiting satellites during its career, according to Schriever officials.

“As we go forward, Pike is going to continue to be important ... for testing, troubleshooting, and contingency opera-

tions,” said Lt. Col. Scott Angerman, 22nd Space Operations Squadron commander, at Pike’s Aug. 3 cessation-of-operations ceremony.

The space telemetry radar station made its final operational contact with a satellite—a GPS spacecraft—on July 9.

The Air Force is removing Pike’s radar for reuse at the Thule tracking station in Greenland.

DFC for B-17 Pilot

The Air Force belatedly awarded 87-year-old Samuel Smith the Distinguished Flying Cross for his heroism landing a crippled B-17 after a bombing mission over Europe during World War II.

On the March 1, 1945, mission, striking targets in Hopston, Germany, then-Army Air Forces second lieutenant Smith’s aircraft was severely damaged by anti-aircraft fire, mangling the bomber’s landing gear.

Despite the damage, Smith managed to turn the aircraft off the runway on landing at RAF Molesworth, England, clearing it so other returning aircraft could land behind him.

His actions were credited with sparing the lives of his crew and the crews of several other returning bombers, according to officials at JBASA-Randolph, Tex.

Air Education and Training Command intelligence director Maj. Gen. Timothy M. Zadalis presented Smith with the cross in a ceremony at Randolph on Aug. 24. According to the *San Antonio Express News*, Smith’s commander “refused to sign off” on the award but later apologized and helped Smith get the medal.

Baghdad Express Debuts at Shaw

An F-111 Aardvark that once served with the 20th Fighter Wing took its place on display at Shaw AFB, S.C., this sum-

mer, following a refurbishment by wing technicians.

Airmen reassembled and painted the F-111E, nicknamed “Baghdad Express,” in the markings it wore during Operation Desert Storm in 1991, according to a wing official.

Maintainers towed the medium bomber to the base airpark for display alongside the 20th Fighter Wing’s four other heritage jets, fixing it in place Aug. 14.

The aircraft flew with the 20th from 1970 to 1993 before the unit moved from RAF Upper Heyford, England, to Shaw in 1994.

The Aardvark was stored at Davis-Monthan AFB, Ariz., prior to its arrival at Shaw in February.

Emblem Officially Recognized

The Air Force has officially recognized the insignia of the 477th Bombardment Group, a Tuskegee Airmen unit that flew B-25 medium bombers during World War II.

“The presentation of this patch is a long overdue recognition of the service and sacrifice of these great men,” said Col. Bryan P. Radliff, Air Force Reserve Command 477th Fighter Group commander, in a release Aug. 2.

During World War II, the Army Air Corps never recognized the emblem because the African-American unit was never declared mission-ready. It was relocated several times during the war, according to 477th officials.

The Air Force added the insignia to its official record of heraldry, recognizing the wartime bomb group’s “rightful place in airpower history,” said Radliff.

Since the 477th Fighter Group traces its heritage to the Second World War bombardment group, Radliff announced the news to veterans gathered for the Tuskegee Airmen Convention that ran July 31 to Aug. 3 in Las Vegas. ■