A 186th Air Refueling Wing KC-135, deployed to the 379th Air Expeditionary Wing, refuels a Navy F/A-18 over Iraq in May.

By **Brian W. Everstine,** Pentagon Editor

Fuel From the Desert

USAF's tankers make the air war possible.

SOUTHWEST ASIA

About 30,000 feet over northern Iraq, an Air Force KC-135 Stratotanker—call sign Python 25—is "dragging" two F/A-18C Hornets up the airborne "avenue" toward Mosul, topping off the fuel tanks of the Navy jets, so they can provide airborne fire support in the operation to rid the country of ISIS. The Python 25 mission, flown by an aircrew from Fairchild AFB, Wash., and operated out of Al Udeid AB, Qatar, is one of dozens of such daily missions in Operation Inherent Resolve (OIR).

The two Hornets stick to Python on their way north. The airspace is crowded: A few thousand feet below, a KC-10 Extender from another base in Southwest Asia crosses Python's path. Two French Dassault Rafale fighters closely follow, with another two on their way.

This is a small snapshot of the constant need for fuel in the skies over Iraq and Syria, where USAF tankers flew 13,064 sorties in 2016 and are as busy in 2017. Last year, Air Force tankers flew 45 percent of the total sorties as part of Operation Inherent Resolve. Meanwhile, the need to refuel aircraft over Afghanistan continues.

"We enable everyone to do their job," said Capt. Casey Lynn of the 340th Expeditionary Air Refueling Squadron. He was copilot of Python 25 when *Air Force Magazine* flew along. "If they don't have gas, they don't fly, and bombs don't get dropped. We are ... the linchpin here."

On this particular May afternoon, as ambient temperatures nudged 100 degrees Fahrenheit, a line of USAF tankers waited their turn to take off at Al Udeid. Some were headed north to Iraq and Syria for Inherent Resolve. Others would go south to support the Saudi Arabian-led fight in Yemen. Still others were on standby to support President Trump's visit to Saudi Arabia.

In addition, C-17s loaded with cargo sat patiently in line, waiting to go east to Afghanistan.

The massive US Central Command (CENTCOM) tanker and airlift effort all needs to be balanced by USAF officials both at home and in the nerve center of the combined air operations center (CAOC) at Al Udeid.

"When you look at being expeditionary, there's really nobody else who does this business the way we do it," said Brig. Gen. John Williams, the director of mobility forces at the CAOC, in a recent interview here. "If you don't have refueling support, you just can't do the offensive operations. ... If you don't have that, you aren't supporting the troops in contact."

Williams is in charge of maintaining the current force of mobility aircraft and crews, especially the tanker fleet providing support for OIR from three bases in the region.

Airlifters, including C-17s and C-130s operating from this base in Southwest Asia, flew 46,900 passengers in 2016 and airlifted 72,800 short tons of cargo as part of the war against ISIS. Tankers and airlifters are both on pace to at least meet, if not surpass, those totals for 2017, all while the pace of operations in Afghanistan looks to increase.

The plans to address this need are "changing all the time" and are hampered by short-term strains, such as the May presidential visit or surges in operations, Williams said.

It is "one of the games we play. Is there going to be a future requirement coming, and are we going to have forces ready for that?" he said.

Officials at the CAOC work with the 618th Air Operations Center at Scott AFB, Ill., and the CENTCOM Deployment and Distribution Operations Center to validate the lift requirement, and then work with US Transportation Command and Air Mobility Command to plan the number of tails and aircrews. In May, dozens of KC-135s lined the flight line at the 379th Air Expeditionary Wing, representing several bases across the US. At times, that number might not be enough and more must be requested.

"Obviously you've got your plan, and no plan survives contact with the enemy," Williams said. "When something comes up, you have to deal with it."

At the 380th Air Expeditionary Wing at another base in a nearby country, about a fourth of the 59-strong KC-10 Extender fleet is deployed and operating daily, so "you can tell how important this mission is," Wing Commander Brig. Gen. Charles S. Corcoran said in an interview.

Seven partner nations have provided refueling assets for OIR, bringing "tremendous flexibility" when needed, Corcoran said. There is a "small effort" among foreign partners for airlift, an effort that US officials would like to see grow to help address surges.

The airlift provided at the 379th AEW and other bases in the region has been integral to US and allied operations and has been available on demand.

"It's a lifeblood of what happens around here," Williams said. Air refueling underwrites offensive and defensive air operations alike. Without it, "you don't have air. It's all a part of that system. It's gotta happen, or you're sunk. And it takes a lot of adjustments, and it takes a lot of planning," he said.

AIRLIFT SUPPORT

Al Udeid is a sprawling base that sees a steady diversity of airlift aircraft rotate through. The cargo mission requires a

Photo: Brian W. Everstine/Staff

Giving Gas: Refueling All Comers

These Operation Inherent Resolve photos—taken between May and July from KC-135 and KC-10 tankers—hint at the interservice, international variety of aircraft that USAF aerial refuelers must handle.

USMC EA-6B Prowler

USMC F-18 Hornet

French air force Rafale

Royal Australian Air Force E-7A Wedgetail

USAF B-52 Stratofortress

USAF F-15E Strike Eagle

USAF E-3 Sentry

USAF MC-130J Commando II

large and reliable port operation to move critical materiel.

The airmen who get cargo where it's supposed to go are a vital connection to forward locations throughout CENTCOM. Increasingly in the anti-ISIS fight, the pallets go to remote airfields undisclosed by the military and directly serving special operations forces and US-backed fighters.

Air Force contingency response airmen have in the past two years built multiple, remote airfields in places like Qayyarah West in Iraq and Kobani in Syria. Within weeks, those airfields were able to receive C-130s and C-17s regularly to resupply frontline forces.

At Al Udeid, airmen with the 8th Expeditionary Air Mobility Squadron were vital to the initial push by Iraqi forces toward ISIS-held Mosul.

"A lot of airlift support came from Al Udeid," said Lt. Col. Aaron Lane, the operations officer for the squadron. "They were pushing a lot of blood downrange, a lot of ammo, a lot of weapons."

The airmen at Al Udeid handle the most critical cargo that must flow into CENTCOM. Airlift is almost instant, and there are only so many aircraft, so leadership determines what is urgent and tasks airmen with the 8th EAMS to get it ready.

"If it goes by air, it's probably the top priority in the AOR [area of responsibility]," Lane said. "It's the most crucial, most time-sensitive. The folks at CENTCOM have the theater view of what's most important. … [If] this needs to get downrange now, we can't send it by boat. We can't send it by landlines of communication."

On that May afternoon, airmen with the 8th EAMS were finalizing cargo to be loaded on a C-17 headed for Kandahar, Afghanistan. Teams of airmen used heavy equipment and their own hands to quickly load the aircraft on the Al Udeid flight line. The pallets included human blood and ammunition. In a matter of hours, the load was airworthy and on its way. For the Iraq and Syria mission, Lane said the most critical and most requested cargo is ammunition to continue the fight against ISIS.

ENABLING AIR COVERAGE

Python 25 refueled the two F/A-18Cs —assigned to the VFA-37 "Ragin' Bulls" on USS *George H. W. Bush*—twice on their way to support US-backed Iraqi forces near Mosul. The KC-135 was outfitted with a hose and an "iron maiden" basket so a Hornet's probe could receive fuel.

"We enable American air coverage in the sky for 24 hours, seven days a week," the aircraft's Command Pilot Capt. Timothy Black said.

The day starts with an intel brief, where the crew learns about potential threats en route: anti-aircraft missiles in the region, noted by other aircraft in the area. Sometimes, the crews get to see strike videos from aircraft they had refueled.

"Knowing that you supported that, they couldn't do it if you were not there, that's a pretty cool thing," said Lynn, the copilot of Python 25.

At the same time, maintainers are out on the flight line as the mercury rises. The Al Udeid flight line is packed full of KC-135s, all of them old and needing TLC and attention to make sure they are ready for the mission. "As tankers, that's our job—to be reliable," Lynn said.

The flights last more than eight hours, hitting designated sections of airspace where combat aircraft nearby can come for a top-off. Aircrews talk over the radio, usually to hear updates on how the battle is going. In the case of the Python 25 aircrew, they sometimes bring Trivial Pursuit cards to quiz the receiving pilot as a way to kill some time.

The pilots fly north through the airspace of several countries, checking in with each along the way. The KC-135 regularly flies with three airmen: two pilots and the boom operator.

On this recent mission, 340th EARS boom operator A1C Megan Hatch refueled the Hornets, passively monitoring the "basket." She prefers using the KC-135's hydraulic-operated boom, which requires that she use a joystick to expertly ma-

A C-17 undergoes engine maintenance on a flight line in Southwest Asia in May. In the war against ISIS, airlifters like this one transported nearly 73,000 tons of cargo last year.

Photos: SSgt. Michael Battles; SSgt. Trevor McBride; Brian Everstine/Staff

The Raptor: Unseen and Integral

SOUTHWEST ASIA

America's most advanced air superiority fighter has been at war for almost three years now, flying over Syria, escorting and directing air packages, and monitoring that country's air force and Russian-made air defense systems.

For almost all of those combat sorties, the F-22 Raptor has only been seen when the pilot wants to be seen.

Although "we're not invisible, we are oftentimes unobserved," said the commander of the 27th Expeditionary Fighter Squadron, who goes by the call sign Shell. (For security reasons, the Air Force does not release the full name of pilots flying in hostile airspace.) "If they know we're there, most of the time it's because we allowed them to know we're there."

In August 2016, two Syrian Su-24 Fencers flew close to US special operations troops near the city of Hasakah. USAF F-22s flew within a mile of the Syrian aircraft and "encouraged" them to leave, the Pentagon said at the time.

Raptors stationed at an undisclosed base here are flying daily missions to support the US-led fight against ISIS in Iraq and Syria. The F-22's operating pace has increased steadily since the operation began in August 2014, and deployed Raptors are now flying at their "full capacity," Shell said. The F-22s don't train in the area and are operating solely in support of Operation Inherent Resolve.

The aircraft is a "quarterback" in the fight, then-Air Combat Command chief Gen. Herbert J. "Hawk" Carlisle said in 2015, adding that he wouldn't send a strike package into Syria without a Raptor escort.

While the Raptor relies on command and control assets, such as the USAF E-3 AWACS or the Royal Australian Air Force E-7 Wedgetail, the jet uses its sensor fusion to fine-tune the strike package. The Raptor's unique sensor package helps deconflict multiple aircraft. They track non-coalition aircraft and urge them to move along. The F-22's sensors are packaged into one screen with a fused picture, whereas other aircraft such as F-15Es have individual displays for each type of information. The Raptor pilot thus has the best situational awareness of any element of the air armada.

"The pilot can put it together and make a mental 3-D picture," Shell said. "We have more information at our fingertips than other aircraft. We have an easier time making big decisions."

An F-22 receives fuel over the Middle East from a KC-135.

F-22 pilots are usually the mission commanders, directing other aircraft— F-15Es and B-52s, for example—as to when to attack and where, Shell said.

Raptors have encountered Russian aircraft in the theater and have at times had to reach out through an internationally used military distress radio frequency to deconflict, Shell said. Every time, the Russian pilots have been "professional."

While the F-22's main mission is air superiority, the only air-to-air incidents so far have not involved Raptors. In June, a Navy F/A-18E Super Hornet shot down a Syrian Su-22 Fitter as it threatened US special operators and allied fighters at Ja'Din, southwest of Raqqa. Moreover, F-15Es twice shot down large Iranian-made drones that were flying in southern Syria. For these three air-to-air kills, fourth generation fighters took the lead while the F-22 was retained for other missions or was simply not flying in the region.

Because F-22 pilots spend most of their time at home training, to then hand the close air support mission over to aircraft such as A-10s and F-15Es, they often need CAS refreshers before they deploy for OIR. In this battle, "ISIS doesn't have an air force," so the F-22 is providing two of the Air Force's core missions: air superiority and precision strike.

When the 27th Fighter Squadron deployed from its home base at JB Langley-Eustis, Va., for this mission, just two pilots had combat experience, Shell said. They "train and train and train," Shell explained, but flying combat, often 10 hours or more, and with multiple air refuelings, helps "tie them to their work a little more." Now, the squadron is "getting to execute the mission, real world, in combat, against the nation's enemies," Shell said.

neuver the boom into the receiving aircraft.

From her perspective, lying flat in the back of the massive, four-engine tanker and looking out through a small plexiglass window, she can watch the war unfold.

"The fuel is there for the fighters," she said. "There's troops on the ground who are needing that."

Black, the Python aircraft commander, said the role of the tanker is possibly the least-known and least-understood aspect of the war against ISIS. While social media sites show videos of bombs exploding, the enablers don't get much play.

"People understand there's something happening over here, but I'm not sure that people really grasp the extent," Black said. "There's not a lot of coverage. ... Maybe because it's predominantly an air war. We do have troops on the ground, but not as many as we did in Iraqi Freedom or the opening days of Enduring Freedom. But 24/7, "there's a tanker in the air. You do hear about the strikes, but you don't hear about us much. ... I think we like it that way. We give them the gas; we're not the ones dropping bombs."

The slogan NKAWTG—or "No Kick-Ass Without Tanker Gas"—is true, Lynn said. "Other people can't do their job if we're not there. We're a support platform. We try to provide the best in-air gas station possible to extend those guys, keep them on target, so they can drop the bombs." ✪

Photos: SSgt. Michael Battles