USAF's joint terminal attack controllers have helped transform counterinsurgency operations.

n a recent foot patrol in Khost province, Task Force Duke soldiers fanned out, weapons at the ready. The patrol passed through a

landscape of striking beauty, picking its way through freshly plowed fields and adobe villages in a valley ringed by towering mountains.

The aroma of burning goat dung and hay—the mixture used for cooking fires by local tribes—hung in the air.

Hard by the mountainous border with Pakistan, Khost province also held out the possibility of considerable menace. Only a half-day march away was the Pakistani city of Miranshah, home to the Haqqani network, the most indiscriminately ruthless of the insurgent groups that fight under the Taliban banner. The Haqqanis have roving "death squads" in the area that are responsible for at least 35 assassinations and public executions in the province since last summer. Victims have included government officials, tribal leaders, and villagers suspected of collaborating with US or Afghan forces.

By James Kitfield

Recently, video in the possession of a captured insurgent showed 10 beheaded bodies laid along a road.

Enemy IED attacks also are at an all-time high in this area of NATO's Regional Command-East. However, US troops discover 70 percent of the IEDs before they explode, thanks in large part to intelligence gathered from residents by patrols like this one.

As the patrol approached a village of adobe buildings and rutted, dirt streets, battery commander Capt. Luke Hudspeth, of the 1st Infantry Division's 1st Battalion, 6th Field Artillery, called out to one of the troops.

"Hey, I want you to stay close to me," Hudspeth told SrA. Brian Walters, an airman with joint terminal attack controller qualification.

With his standard issue camouflage uniform and M4 rifle, Walters was indistinguishable from the other troops. On closer inspection, however, Walters carried a different equipment load, including a multiband radio; binoculars with built-in laser designators; a "small wearable computer" optimized for digitally coordinating close air support; a handheld GPS receiver; and a Rover (Remotely Operated Video Enhanced Receiver) to transmit full-motion video from aircraft to the troops on the ground.

Hudspeth wanted his Air Force JTAC close for one simple reason: Walters was his direct conduit to a level of air and

Army Capt. Luke Hudspeth (I) speaks with SrA. Brian Walters, the JTAC (with patch), during a foot patrol in Khost province, Afghanistan. Hudspeth said the intelligence-surveillance-reconnaissance capabilities Air Force JTACs bring are crucial to successful ground operations.



space support that until a few years ago would have only been accessible to a major headquarters. If the unit felt threatened, Walters might call in a B-1 bomber to do a supersonic flyby at 5,000 feet—an intimidation tactic he had already used to good effect on an earlier mission in Afghanistan.

Walters could also download fullmotion video from an MQ-1 Predator aircraft flying overhead, literally allowing the Army commander to see around the corners of the village up ahead.

If the patrol was attacked, Walters would direct close air support, deconflict various aircraft such as Army helicopter gunships and Air Force F-16s and F-15s, and even choose the munitions to be delivered that best matched the situation on the ground and the classified rules of engagement. All of these capabilities make Air Force JTACs very popular among Army infantrymen.

"No ground force commander will ever say 'no' to having a JTAC come with him into the field, because they absolutely change how we can operate," explained Hudspeth. "And it's not just the firepower they can call on. The ISR capabilities they bring are crucial, as is the potential intimidation factor. If I ask a JTAC to bring a helicopter or aircraft on station, then I know nobody's going to shoot at me, because the enemy is very aware of our airpower capabilities. It definitely sends a powerful message to anyone in the area with bad intent that you better think twice before messing with us."

At dusk the patrol walked down a narrow side street in the village, and Hudspeth knocked on the door of a nondescript house. Through an interpreter, he asked to speak with the owner, a senior commander in the Afghan border police. Night gathered and fog pooled in the foothills as Hudspeth, Walters, and a few other soldiers sat with a handful of Afghan men, talking about the Taliban's evolving tactics in the region.

At one point one of the Afghans noticed Walters' handheld GPS. After its purpose was explained, the man asked for the coordinates of the spot where they were all sitting. Hudspeth was immediately suspicious.

"Why would he want to know that?" Hudspeth asked, before quietly in-

structing Walters to give the wrong coordinates. It was one more reminder of the power of technology in modern counterinsurgency warfare, where something as innocuous as a GPS coordinate can prove a lifeline or a death sentence.

Airpower and Counterinsurgency

Though most people could not pick them out of an Army lineup, JTACs are one of the most visible manifestations of an unprecedented fusion of airpower and ground forces that has fundamentally transformed how the US military conducts counterinsurgency (COIN) operations.

Despite the conventional wisdom that COIN operations in Afghanistan are an infantryman's war, the nature of a conflict where even identifying the enemy is a constant challenge has actually driven closer coordination between the Air Force and Army. So much so, on certain high-risk missions Army commanders would hesitate to proceed without the kinds of capabilities JTACs represent.

"One of the transformations that has occurred over the past decade of conflict is that to an unprecedented degree the Air Force has tailored our forces specifically to meet the needs of ground force commanders, and to adopt their metrics of success rather than our own measures of efficiency," said Maj. Gen. Tod D. Wolters, commander, 9th Air and Space Expeditionary Task Force-Afghanistan and deputy commander-air, US Forces-



Maj. Gen. Tod Wolters (r), deputy commander for air, US Forces-Afghanistan, greets Capt. Jared Eros at the Transit Center at Manas, Kyrgyzstan. Wolters said JTACs increase the ground commanders' familiarity with air and space capabilities.



Walters (I) and USAF SSgt. Patrick Harrower (r) in Khost province. There are currently 160 JTACs in Afghanistan.

Afghanistan. "One of the major ways we've increased ground commanders' familiarity with air and space forces is through the work of our JTACs."

The Air Force has 160 of its roughly 600 JTACs deployed to Afghanistan, Wolters noted, and was committed to increasing the total number in Air Force ranks to 1,000 JTACs by 2014, he said at Bagram AB, Afghanistan. This has a significant cost in training and equipment.

A JTAC will spend at least two years in training to become fluent in the intricacies of close air support, ISR, and infantry tactics. They are in such high demand, the Air Force has offered \$70,000 reenlistment bonuses to keep JTACs in uniform.

"We're doing that specifically because the ground force commanders told us they need JTACs to be successful in this counterinsurgency battlespace," said Wolters. "So we've focused like a laser on giving them that capability."

Wolters noted that counterinsurgency operations put a premium on the kinds of capabilities that only the Air Force can deliver, often with the help of JTACs. Just identifying the enemy in a conflict where guerillas wear no uniform and seek to blend in with the populace requires persistent surveillance of the type revolutionized by remotely piloted aircraft such as the Predator and MQ-9 Reaper.

Persistent surveillance is also critical for clearing routes of IEDs by catching the enemy in the act of placing the devices.

The US must limit collateral damage and civilian casualties to deny insurgents the support of the public. JTACs help here, too, by calling in precision strikes and tailoring munitions to the situation.

"Zero fratricide is the standard," said Capt. Don Huggins, air liaison officer for Task Force Duke. "Because my JTACs are trained in munitions effects, they can choose the bomb that gets the job done with the least amount of collateral damage."

Understanding the Pattern

The nightly raids and manhunts for insurgent leaders and high-value terrorists also involve a host of Air Force ISR platforms, from RPAs, MC-12 Liberty turboprops, and RC-135 Rivet Joint electronic intercept aircraft, to U-2 highaltitude reconnaissance aircraft. Such missions often require the expertise of JTACs or their Air Force Special Operations Command counterparts, combat controllers.

"ISR is just critical in this kind of fight, where so much effort goes into tracking the bad guys, making sure they are indeed the bad guys, understanding their 'pattern of life,'" said Wolters. When necessary, the JTACs will coordinate an attack "with maximum precision and minimum collateral damage."

For so many years the missing element in being able to do that effectively was full-motion video. "Having that unblinking 'eye in the sky' often gives us 100 percent certainty that the target is indeed an enemy," Wolters said. It also gives soldiers the ability to see over the next hill, "which is why there is now a tremendous appetite on the part of ground commanders for the full-motion aerial video that JTACs can access." In the operations center at Forward Operating Base Salerno in Khost province, that tight integration of airpower and ground operations was on vivid display. Flat-panel screens streamed real-time video from drones to Huggins, an F-16 pilot who commands a team of JTACs attached to Task Force Duke.

Recently, Huggins and his JTAC team coordinated air assets in support of the task force's Operation Knife Edge, a major offensive aimed directly at the Haqqani network.

After higher NATO headquarters flooded RC-East with "intelligence assets"—a preponderance of them Air Force ISR platforms—Task Force Duke was able to determine that the Haqqani network planned to rotate its commanders inside Afghanistan at the end of last year's fighting season.

When the Haqqani insurgent commanders prepared to return across the border to Pakistan, Task Force Duke was ready with Knife Edge. Launched in October, the operation deployed roughly 37,000 US, coalition, and Afghan forces along the border to block insurgent exfiltration routes, establish checkpoints, and conduct house-to-house searches.

"Operation Knife Edge was definitely the most complex operation I've been involved in, because over four days we ended up coordinating more than 1,000 air sorties," said Huggins at FOB Salerno.

"The airspace was really saturated," he said. "And my JTACs were the guys on the ground acting as air traffic controllers, deconflicting all those aircraft by altitude, timing, and geography, even as [soldiers] were yelling for bombs on target."

Deploying JTACs with ground units also allows the Air Force to react much quicker to "troops in contact" calls. "A JTAC can relay situational awareness directly to the pilots in the air in Air Force shorthand they can quickly understand, which really speeds up the decision-making cycle," Huggins explained. "That's not bad for JTACs [who] are often senior airmen who are too young to legally drink."

Task Force Duke's operations center displayed the results of that close airground coordination. Video screens showed the photos of captured Haqqani leaders and their links to the network of insurgents. Knife Edge killed or captured roughly 200 insurgents.

Army Col. Christopher R. Toner, the commander of Task Force Duke, argued that the increase in intelligence assets and resources and close coordination



An F-16 from the New Jersey Air National Guard over Afghanistan. JTACs can call in F-15s, F-16s, Army helicopters, and other air assets to support ground forces during missions in Afghanistan.

between air and ground forces proved decisive in Knife Edge.

"The surge in intelligence assets during Knife Edge came at a time when senior Haqqani leaders were moving across my battlespace and trying to cross the border back into Pakistan at the end of the fighting season," he said in an interview. "Our agility allowed us to really take advantage of that opportunity."

Tactical Patience

Indeed, as the close air-ground coordination epitomized by JTACs increasingly becomes the "new normal," it is fundamentally changing the US military's concepts of operation in counterinsurgency. Ground commanders who once instinctively reached for their own indirect fire support from artillery and mortar batteries, for instance, are increasingly comfortable calling on USAF precision strike capabilities.

"On my last deployment to Afghani-

stan we were being attacked every day by insurgents in Kandahar, and for the first month or so the ground commander instinctively shot back with mortars and rockets," said USAF MSgt. Wesley Bloechle, a JTAC attached to Task Force Duke. "After I carefully explained the capabilities I had in terms of calling in precision guided munitions, and he saw the results in taking out insurgents, I ended up dropping 172,000 pounds of munitions in just six months. That really made an impression on the Army guys."

Hudspeth speaks with civilians in Khost province. JTACs help US forces gain the support of locals by putting bombs exactly where they are needed. The integration of advanced ISR has had an equally dramatic effect on the ground. "Having eyes in the sky is no longer just a phrase, it's a reality with our full-motion video downlinks like Rover, and every Army company commander in the field now both wants and expects it," said TSgt. Nate Pugh, an Air Force ISR liaison officer at RC-East. "That capability alone has probably increased situational awareness on the ground tenfold, and it has contributed to saving the lives of US soldiers. What ground force commander wouldn't want that kind of force multiplier?"

On their current deployment, a number of JTACs who have deployed to Afghanistan on earlier rotations have noticed a further evolution as intelligence-driven, targeted operations increasingly become the norm.

"I've been coming to Afghanistan for 10 years, and on my first deployment I spent a lot of time just driving around a



lot of unchartered territory in this country pretty aimlessly," Pugh said. "Now it's nice to see that our operations have become much more mission-oriented, deliberate, and focused."

SSgt. Steven Tamburo, another JTAC attached to Task Force Duke, is on his fifth deployment to Afghanistan. "Early on, our ground operations were much more linear, and the attitude was almost that we were taking this area by brute force," he said. Partly because of the importance now placed on avoiding civilian casualties, the mindset has changed. "Every mission now is preplanned and focused on going after certain groups or individuals, and there's a lot more tactical patience."

When a unit with a JTAC gets into contact, he said, the instinct is no longer to immediately try and flank the enemy at considerable risk. "Rather, the standard is now to pin the enemy down with suppression fire and call in airpower to destroy him, which is pretty effective," said Tamburo. "These days if a JTAC is not available to coordinate close air support for a major operation, there's also a good chance the Army will wait until one is available."

As the conflict in Afghanistan winds down toward a 2014 deadline to transition combat operations to Afghan security forces, the challenge will be to capture and institutionalize those hard lessons from a decade of counterinsurgency warfare. "Our airmen, soldiers, sailors, and marines have in many cases been joined at the hip in this fight and understand now that they are much more effective and lethal when they work together," said Wolters.

"Coupled with advances in technology, that's made them the best force I've ever seen. It really is a game changer," he said.

The military today "is much smarter [about] pausing for a millisecond to reach for the most effective arrow as opposed to just grabbing the one you are most comfortable with," Wolters noted. When operations in Afghanistan do wrap up, the Air Force and Army seek to leverage this generation of operators who have made joint air-ground operations second nature, and not let the integrated skills fall by the wayside.

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