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SHADOW OVER IRAQ HELPS V CORPS BRIGADE COMBAT TEAM KEEP AN EYE ON OPERATIONS

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FORWARD OPERATING BASE WARHORSE, BA'QUBAH, Iraq — Gathered in the tactical operations center, all eyes were glued to a video screen.

SGT KIMBERLY SNOW
An RQ-7A "Shadow" Unmanned Aerial Vehicle lands at the airstrip at FOB Warhorse following a reconnaissance flight.

Soldiers of the 3rd Brigade Combat Team of V Corps' 1st Infantry Division watched as four 500-pound bombs dropped on carefully chosen targets, via a live video feed provided by Soldiers of Alpha Company of the division's 101st Military Intelligence Battalion and the RQ-7A "Shadow" Unmanned Aerial Vehicles they operate and maintain.

Literally the "eye in the sky" for the 3rd BCT, Soldiers of the 101st MI stationed here help the brigade commander keep "eyes on" the surrounding area for at least 10 hours every day.

The UAV is a reconnaissance drone used primarily for improvised explosive device sweeps and reconnaissance for the Ba'qubah Task Force, said instructor-operator Staff Sgt. Lucas Johnson. Alpha Company keeps four of them here, three used as primary flyers and one in reserve, which can also be used for parts.

The team normally schedules two 5.1-hour flights per day, keeping only one “bird” in the air at a time. But when needed, they can launch the UAV within an hour. They can also fly more than one aircraft at a time when continuous coverage is needed.

“On the 24th of June, we had about 12 hours’ worth of coverage on one area. We just kept sending bird up after bird,” said Johnson. “We were able to pick up a sniper, report his location, and they were able to shoot a 203 round (40mm grenade) into the window and kill him. We also monitored the insurgent’s movement through the city of Behritz.”

While RQ-7A has a “textbook” range of up to 50 kilometers, the team has tested and flown the aircraft to almost 80 kilometers out, said Johnson. GPS systems on the aircraft and on the ground antennas “talk to each other,” triangulating the UAV’s position, and allowing the operator to control the UAV from the ground.

The aircraft is launched using a system that combines a hydraulic launcher with nitrogen gas. A compression chamber builds up pressure and shoots the UAV into the air from the launcher’s 30-foot rail at about 70 knots -- approximately 130 miles per hour.

The UAV is brought back down to the landing strip using a Tactical Automated Landing System.

“It’s basically a remote control,” said Johnson. “You hit a button and a little ray dome takes control of the plane. It tells it to go up, down, left, right and it brings it in.”

The entire operation, consisting of an Air Vehicle Transporter -- which houses three aircraft, spare parts, tool boxes, the landing system and fuel -- the launcher and ground control station, is designed to fit inside a C-130 airplane for rapid deployment, said Sgt. Francisco Huereque, the maintenance chief. It was also designed to be set up quickly once they’re on the ground.

“The whole system is basically designed so even the operators are able to set things up,” said Heureque. “We don’t fly, of course, but we need to know the basic stuff to be able to test the payload and things like that.”

While the crew performs the majority of the maintenance, they also get help from field service representatives who deploy with them. Because of their in-depth knowledge of the system, many times they act as trainers and help with troubleshooting, he said.

Together they have had their hands full working out the bugs. They have had four UAVs go down because of mechanical problems and equipment malfunctions. Although cleared of responsibility, they take the accidents personally.

“It’s heart-wrenching for us,” said Huereque. “They’re like your children sometimes, and when something happens you feel real bad about it. And when it’s first launched, you’re all nervous, like when your kid rides a bike for the first time. So we take it pretty serious.”

A former military police officer, Huereque said he foresees a great future for the system, including civilian applications such as police and search and rescue work. And he enjoys helping to work the bugs out of the system.

“I feel like we’re kind of like in on the ground floor, we’re like the beta testers here,” he said. “Because every time we discover something, in a week or even sometimes a day or two later, a new bulletin will come out saying, ‘Do this or do that.’ So we’re helping build the system.”