TACTICAL EMPLOYMENT OF THE RAVEN SUAS

CPT CHRISTOPHER J. COLYER

The RQ-11 Raven is an extremely useful collection asset for an infantry company. This small unmanned aerial system (SUAS) provides company commanders with an organic capability that delivers real-time video. This capability is enhanced further by configuring the Raven for mounted operations, which includes launching and recovering the Raven from a moving vehicle. Charlie "Rock" Company, 5th Battalion, 20th Infantry Regiment — a Stryker rifle company in the 3-2 Stryker Brigade Combat Team — experimented with this concept while preparing for and executing National Training Center (NTC) Rotation 15-08.5 at Fort Irwin, Calif. This article will explore the use of the Raven through the lens of the Army's warfighting functions.

Mission Command. C/5-20 IN placed the Raven operator in the executive officer's (XO) Stryker. This placed the Raven operator a sufficient distance from likely enemy contact to conduct short halts for pre-flight inspections. Further, co-locating the Raven operator with the XO expedited submission of enemy sighting reports to the battalion and allowed the XO to inform the company's common operating picture (COP) while the commander maneuvers platoons. Joint Capabilities Release (JCR) competence within the XO's crew and across the formation also helps ensure the company COP retains shared understanding and communicates operations and intelligence information through another medium.

Intelligence. A tactic C/5-20 IN employed during NTC 15-08.5 involved launching the Raven from a moving Stryker. This gave the company real-time intelligence from the Raven, enabling more expeditious use of the information gathered. This allows the unit to retain situational awareness and make informed decisions with over-the-horizon line of sight after crossing the line of departure. For instance, when the Raven is flown while maneuvering in an attack, the commander can make immediate adjustments to his plan and take more effective action against the enemy.

Movement and Maneuver. Experimentation with employing Ravens to identify threats in front of the formation began at Joint Base Lewis-McChord (JBLM), Wash., on 18-19 May 2015. The goal was to use the Raven during offensive operations without halting the attack. This testing resulted in more than five successful launches of the Raven from a moving Stryker. Using the Raven in this manner allowed the Stryker formation to move in traveling overwatch until the SUAS detected the enemy. The formation then transitioned to bounding overwatch. Since traveling overwatch is much faster than bounding overwatch, a forward Raven dramatically increases the tempo of a Stryker company, allowing it increased freedom of action to seize positions of relative advantage. Due to its light armor, the Stryker has to be more cautious than tanks or Bradleys. This normally means dismounting infantry



A Soldier from C/5-20 IN launches a RQ-11 Raven UAS from a Stryker. (Photo courtesy of author)

and clearing every intervisibility (IV) line or every area with restricted terrain. However, by using the Raven while moving, the Stryker formation can continue to move without dismounting infantry. The Raven is therefore able to extend the commander's visibility past the maximum engagement line of most anti-tank weapons, thereby reducing the company's vulnerability.

Protection. Employing the Raven from a mobile platform significantly increases mobility and survivability because the system remains mobile, not in a static position susceptible to small arms fire. A static launch site takes time to setup and break down due to the tripod mounted line-of-sight antenna, which is only designed for ground mounting. During NTC Rotation 15-08.5, C/5-20 IN launched the Raven from the Stryker during the battalion defense and piloted it from the Stryker while displacing from one battle position to another. The company employed a Stryker mounted antenna system developed during the train-up to NTC.

During the movement in the defense, C/5-20 IN received a report from the battalion S2 of a chemical attack to the east of their position that posed a risk for contamination. Since the Raven was launched while on the move, Strykers immediately closed all hatches while still maintaining situational awareness with the Raven. During this incident, the Raven proved useful, allowing the company to visually clear routes until they left the suspected contamination area. This employment technique provided tactical flexibility that could save lives in a combat situation.

Restricted Operating Zone (ROZ). ROZ request challenges can be reduced significantly if brigade planners assume that companies will employ their Ravens whenever possible. Early in the planning process, planners must deconflict airspace coordination measures by time, space, or altitude for all assets operating in the area. Brigade planners who understand how companies use Ravens on-the-move could execute ROZs more like air corridors to provide the companies flexibility while reducing the frequency of ROZ cancellation inherent within a dynamic operating environment.

Employing the Raven from a moving Stryker is very effective and should be pursued by companies in the future. Regrettably, the current ROZ planning timeline does not allow companies to use the Raven as a responsive collection platform. To provide companies better flexibility, 5-20 IN staff developed a reconnaissance and surveillance plan during the planning process and collaborated early with the brigade aviation element (BAE) to plan additional ROZs. This allowed C/5-20 IN to make timely adjustments to the ROZ requests to avoid air space conflicts with pre-established ROZs or air corridors. Raven employment during training events does take more planning and coordination to accomplish, but it must be done in order to maintain proficiency.

CPT Christopher J. Colyer currently commands C Company, 5th Battalion, 20th Infantry Regiment, 3-2 Stryker Brigade Combat Team, Joint Base Lewis-McChord (JBLM), Wash. His previous assignments include serving as a rifle platoon leader, company executive officer, mortar platoon leader, and battalion S4 with the 1st Battalion, 501st Infantry Regiment (Airborne), Joint Base Elmendorf-Richardson, Alaska; and assistant operations officer for the 4th Brigade Combat Team, 2nd Infantry Division, JBLM. He was commissioned from Officer Candidate School at Fort Benning, Ga.