



Acquisition in the Fast Lane — The Small Unmanned Aerial Vehicle (SUAV) Product Office

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The Raven (RQ-11B) SUAV offers a compelling story of rapid response to urgent combat theater needs. The SUAV Product Office (PO) moved from an initial capability, demonstrated through a Rapid Fielding Initiative, to Full Rate Production (FRP) in less than 15 months. Included in that short time span were full and open competition for source selection, a Milestone C Low-Rate Initial Production (LRIP) decision, Initial Operational Test and Evaluation (IOT&E) and, finally, an FRP decision. The culminating event was First Unit Equipped in 15 months! Although accomplished in a relatively short time span for an acquisition Program of Record (POR), there were numerous obstacles that had to be overcome to achieve this aggressive schedule.

SPC Joe Raymond Pizarro, 1st BCT, 341D, Minnesota National Guard, recovers his Raven after an operational flight. (U.S. Army photo by Tarah Hollingsworth.)

Overcoming Obstacles

The SUAV was widely accepted as essential to the commander's needs in the global war on terrorism (GWOT), which provided the impetus for rapid acquisition. Over the course of 15 months, the SUAV team achieved important objectives and overcame major obstacles as follows:

- Stood up the SUAV PO.
- Supported development and staffing requirements.
- Completed source selection.
- Established program elements (PE) for research, development, test and evaluation (RDT&E) funding and Operations and Maintenance, Army (OMA) funding.
- Planned and executed an IOT&E, including replacing the scheduled test unit with less than 60 days before test start date.
- Lost 50 percent of FY07 funding and 25 percent of FY10 funding.

The SUAV PO simultaneously supported the SUAV Rapid Equipping Force Initiative systems in *Operations Enduring* and *Iraqi Freedom (OEF/OIF)*; integrated requirements from the U.S. Army Special Operations Command (SOCOM) and the U.S. Marine Corps (USMC); and became a program of Joint interest and funding.

The Right People

In June 2005, the Unmanned Aircraft Systems (UAS) Project Manager decided to break the SUAV POR out of the Ground Maneuver (GM) PO and create a separate SUAV PO. Three personnel from GM transferred to SUAV. A non-board-selected product manager

(PM) and a deputy were hired to execute the program and constitute the office. Their first act was to assemble

the necessary personnel to staff the new PO. Experience and maturity were key qualifiers for individual team members. A hybrid organization was created and staffed with personnel from within the U.S. Army Aviation and Missile Command (AMCOM). The organization consisted of the PM and deputy, a small core of matrix personnel from

the AMCOM functional elements, business management from the parent UAS Project Office and supporting contractor personnel.

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Two Raven-Bs sit on the hood of a High-Mobility Multipurpose Wheeled Vehicle reflecting the moonlight in Iraq. The versatile systems sit ready for the next operational reconnaissance mission. (U.S. Army photo by Tarah Hollingsworth.)



The goal was to keep the organization as small as possible while allowing all the program management, engineering, logistics and business functional areas to be covered. Eight months into program execution, the staff numbered 30 people. The team members shared several key traits: a desire and focus to support Soldiers; an ability to multitask; a mature demeanor; 10-plus years experience in their functional areas; and a willingness to work long hours and travel. The SUAV PO paid a premium price to recruit the necessary staff. By focusing on the most highly qualified people, the PO was able to perform at a high level right from the start. Everyone in the PO was expected to work outside his or her normal functional areas to support the entire team.

Source Selection

The SUAV Source Selection Board began June 5, 2005. Seven vendors provided proposals for evaluation. Source selection consisted of six phases: solicitation and receipt of proposals; questions and answers; paper down-selection to two vendors; fly-off of the two competitors; best and final proposal; and vendor selection.

An immediate challenge arose because most competitors were small businesses and needed additional time to develop proposals. After the down-select to two contractors, Hurricane Katrina hit the Gulf Coast. One vendor requested and received a delay in accomplishing the fly-off because of their participation in relief assistance to New Orleans. This situation, combined with delays in source selection, slipped Milestone C and contract award for LRIP until October 2005. LRIP system funding was thus jeopardized, having originated from FY04 Comanche RDT&E and would expire at the end of September 2005. To prevent further schedule



SFC Darren Atterbery, 4th Battalion, 42nd Field Artillery Regiment, launches an RQ-11B Raven SUAV at dawn last year near Taji, Iraq. The Raven's nose camera will relay critical real-time video back to the operator for his unit, which is tracking insurgent movement in the local vicinity. (U.S. Navy photo by PH1 Michael Larson, Fleet Combat Camera Group Pacific.)

slippage, PM UAS internally reprogrammed funding from SUAV to other UAS programs. The SUAV program received replacement RDT&E funding from reprogramming of FY05 and FY06 UAS programs. Most importantly, while the SUAV overall program slipped, the IOT&E scheduled for June 2006 did not.

Programmatics

The SUAV program was established with a single PE budget line for procurement. The PM SUAV took action to establish PEs for both RDT&E and OMA. This required close cooperation with Army G-8 and the Army Budget Office (ABO). The Army established the necessary budget lines for FY08 and beyond. This action was time-consuming with repeated trips to Washington, DC, to brief the G-8 and ABO personnel. The time spent with these offices secured champions for the SUAV program during Program Objective Memorandum (POM) development activity. The key to a positive outcome for the SUAV PO was daily contact with primary personnel and offices within the Pentagon.

Test and Evaluation

Originally, the SUAV IOT&E was scheduled for June 2006. In late November 2005, the designated test unit was alerted that it would deploy early and not be available for IOT&E. This was a devastating blow to the SUAV program. Because of GWOT and unit rotations, no replacement unit would become available until March 2007 at the earliest. This caused Army G-8 and G-3 to redirect SUAV funding to cover other Army requirements by decrementing the FY07 SUAV budget by 50 percent and the FY10 SUAV budget by 25 percent. To maintain program schedule for production and fielding, the SUAV PM began directly contacting units to provide the necessary forces to accomplish the IOT&E. Three possible courses of action (COAs) arose:

- Units from the 2nd Infantry Division (2ID) in Korea agreed to support IOT&E. Logistical considerations to make this happen, although staggering, were not impossible to meet. Additional funding over the original planned cost for the IOT&E was required. A critical hurdle appeared when the Korean frequency manager disapproved the downlink frequency, which would require a costly hardware reconfiguration. However, the Army Test and Evaluation Command (ATEC) objected because the new configuration would not be production representative. Another possibility was to move the test unit to a location where SUAV frequencies were approved for use. All of the objections for the 2ID were surmountable but were not the best solution due to additional funding and the logistical implications.
- The USMC was considered as a potential test unit. However, their tactics, techniques and procedures were not the same as Army infantry units. The PM decided to continue to

pursue this COA while giving the Army one last chance to provide the unit for IOT&E.

- The PO contacted Army units that had used the previous SUAV version, Raven-A, in the GWOT. Because the Raven-B had won the competition for the SUAV, these units were generally familiar with the system's capabilities. The 1st Cavalry (CAV) Division, Fort Hood, TX, was very receptive to supporting

IOT&E if the unit under test would become the first equipped. All parties, including the test community, eventually agreed to this COA.

The 4th Brigade Combat Team (BCT), 1st CAV, Fort Bliss, TX, would support the IOT&E test using the combined facilities of Fort Bliss and White Sands Missile Range. This allowed the program schedule to remain unchanged for IOT&E in June 2006. The 4th BCT's commander, staff and Soldiers gave a collective Herculean effort to ensure success. They accomplished the task

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concurrent with new unit staffing, equipping, training and preparation for a rotation to the National Training Center and deployment to theater within 2 months of the IOT&E's scheduled end. In many ways, they were the critical "nail in the horseshoe" leading to the eventual fielding of Raven-B to the Army.

Success

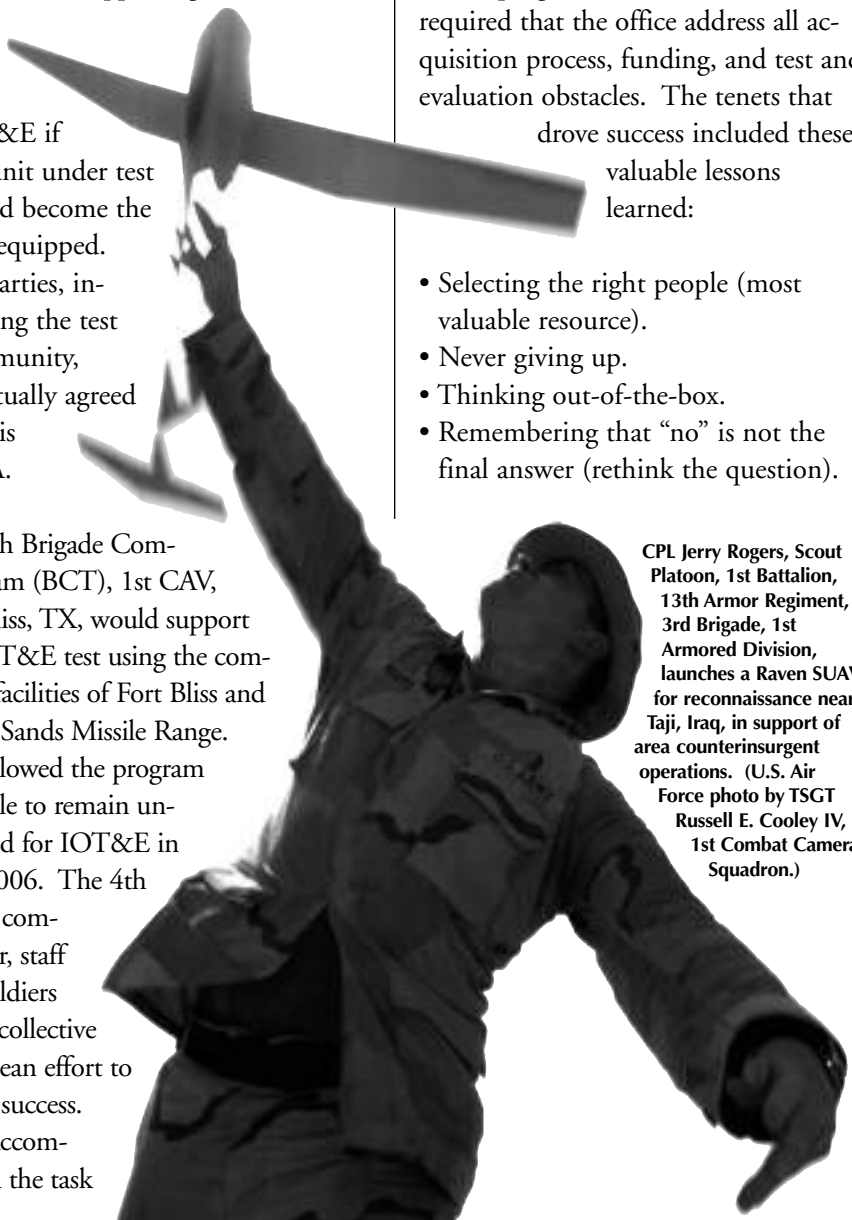
There were many challenges for the SUAV program to overcome. Success required that the office address all acquisition process, funding, and test and evaluation obstacles. The tenets that drove success included these valuable lessons learned:

- Selecting the right people (most valuable resource).
- Never giving up.
- Thinking out-of-the-box.
- Remembering that "no" is not the final answer (rethink the question).

- Soliciting senior leaders to become program champions (information flow).
- Working with and helping organizations (ABO, G-8, G-3, etc.) understand your system's validity.
- Making reasonable demands (don't ask for the moon).
- Linking the program to other services (powerful stakeholders).
- If it is someone else's lane and they can't do it, do it yourself.

These tenets are not new. However, by being aggressive in their application, the SUAV program was able to overcome many challenges. A successful IOT&E maintained the original timeline and resulted in a positive report from both ATEC and the Director, Operational Test and Evaluation. This led to plus-ups in the SUAV program's budget. Fortunately, all lost funds were recovered in the POM-build process.

In short, the SUAV PO has been able to react to early demands for fielding and training of units for the Raven-B SUAV. SOCOM and the USMC were fielded Raven-B ahead of schedule. UAS requirements from commanders in the field are growing exponentially, and the PO continues to exceed the demands placed on it for SUAV systems by meeting Soldiers' needs Armywide.



CPL Jerry Rogers, Scout Platoon, 1st Battalion, 13th Armor Regiment, 3rd Brigade, 1st Armored Division, launches a Raven SUAV for reconnaissance near Taji, Iraq, in support of area counterinsurgent operations. (U.S. Air Force photo by TSGT Russell E. Cooley IV, 1st Combat Camera Squadron.)

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