Small Units Need Unmanned Aircraft

I’m not normally associated with Army aviation. I’ve only had brief correspondence with respective leaders and DOD civilians within the unmanned aircraft systems sector. I have no input as to the acquisition of UAS or contracts.

I serve as an Infantryman, and I can express my frustration when we did not have the assets that we needed with regard to UAS platforms. I have 15 years in active-duty Army service. I have been deployed to Iraq twice. While conducting combat patrols, I very much appreciated the use of helicopter and UAS air support. The Army has attempted to field platoon-level UAS aircraft, yet most platoons still operate without internal UAS.

We have the Raven, but when I was deployed, I could not sign for one. Commanders do not want to be responsible for loss of any platform even though it was designed to be a “throwaway” system.

Change will need to happen on two fronts: First, the military needs to loosen up a bit with regard to losing an unmanned aerial vehicle. If we are given a tactical advantage over the enemy, loss of a UAV should be acceptable.

There are concerns about sensitive electronic hardware falling into enemy hands. This is one of the biggest concerns for most in the military, so to that end, some sort of self-destruct device needs to be incorporated.

UAS systems for the platoon and squad need to be simple. Full collective helicopters, radio-controlled and otherwise, require flight control manipulation to correct the angular difference between retreating and advancing blades when maneuvering from a hover into lateral flight, i.e., cyclic left, increase collective pitch, increase throttle, and, finally, increase tail rotor pitch to maintain yaw and heading. That’s a lot for just “moving left.” Controls need to be simplified. I need to take the least knowledgeable private with the least experience and put a UAS system in his hands, teach him the operation, and stand back to watch him successfully employ the system to the advantage of his platoon.

Second, respective industries need to fabricate systems in a less expensive manner: durable, simple, but cost-effective to produce. It can be done. Sadly, a number of those in the industry are looking for the big slice of “government pie,” which results in platforms that commanders end up not wanting to issue out because they’re expensive.

I know for a fact that I can go into a hobby shop that carries a large inventory of radio-controlled helicopter parts, and I can build a cheaper, yet reliable, UAS system. The UAS industry needs to band together, just as the helicopter industry did in 2010 with the Vertical Lift Consortium.

We are a Nation that has been involved in continuous conflict and operations since 2001. Enough time has passed for UAS platforms to be designed, tested, fielded, and implemented down to the lowest level. Fear of losing a UAS should never outweigh the tactical advantage over any insurgency or the preservation of life. Cost should never be a consideration when those lives include our Soldiers.

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Community Must Review Information Sharing

Your article titled “When One Software Language Doesn't Fit All, Translator Technology Provides a Solution” (April-June 2011 Army AL&T Magazine) raises an important issue for the acquisition community. Tools provided from the top are desperately needed to enable open collaboration of complete program goals throughout all phases of an acquisition program—tools that are secure but have a short learning curve, maintain auditable records, and track communication, crucial information, goals, assignments, and accomplishments of all stakeholders, but specifically the Integrated Product Team.

The solution described in the article, Semantic Mediation for Army Reasoning and Teamwork (SMART), allows systems to share more information faster and reduces the cost compared with custom translation. Product Director Common Software, assigned to Project Manager Battle Command in the Army’s Program Executive Office Command, Control, and Communications-Tactical, has adopted the SMART architecture as its software mediation and interoperability infrastructure.

The Army AL&T community is pledged to “work with our partners to develop, acquire, deliver, and sustain weapons systems and capabilities to our Soldiers. We must collaborate to ensure the Soldier is equipped quickly with the right product. Strategy, planning, execution, and reporting of each consists of overwhelming responsibilities of many people in many places. Libraries could be filled with documentation, assignments, deliverables, and accomplishments even if everything went according to the initial plan. (It never does.)

I see a top-down system like MilBook being recognized as a whiteboard that all stakeholders can use to access, update, and input valuable information one time to all, instead of the few. That information would then be redistributed within the email system. Some standards could be input, and individuality could be fostered where needed. This system would then be a repository for recording auditable records and required deliverable documentation.

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