Panel Discussion for C-UAS Symposium

Theme:

How can DoD and Industry facilitate a more accelerated pace to development and T&E?

Current C-UAS T&E methods are primarily split into two categories: engineering tests and operational experimentation and evaluation. Both are critical to fielding C-UAS capability and is analogous to advancing through the Technology Readiness Levels (TRL). Once a C-UAS capability has been validated at TRL 6/7 it moves to the next level of operational test and evaluation with an end user assessment for TRL 8/9. However, at the DoD level, progressing from TRL 6 to 9 is woefully slow when compared the rapid pace of commercial small UAS innovation. By the time a C-UAS capability is fielded, there is a significant chance that the capability will be obsolete. Naturally, the C-UAS problem will continue to be a cat-and-mouse game, but the pace is dictated by the multibillion-dollar commercial industry and blurs the line between commercial and militarily effective technology.

A common design requirement for any future C-UAS system should be some level of modularity that facilitates rapid changes in hardware and software to keep pace with an evolving threat.

It has been decades since US forces have actively encountered viable airborne threats. A trend observed in operational testing and evaluation shows a warfighter that, unless previously exposed, does not understand capability at the disposal of an asymmetric small UAS operator and the urgency of the detect-id-defeat process. It is critical that higher TRL operational testing and evaluation exercises incorporate scenarios that promote "free game" and clearly define tangible performance metrics for both friendly and threat forces. How does a unit train or experiment with tactics, techniques, and procedures (TTPs) against a threat that does not adapt or vary its own TTPs? Accurate threat network intelligence is also critical to developing robust countermeasures and training programs.

Finally, the concept of "free game" introduces a slew of operational and policy barriers that restrict critical training of units against realistic threats—from procurement of threat equipment, to flight operations on installations. The DoD and C-UAS community should not only focus on technological innovation, but also on addressing outdated policy with respect to *small* C-UAS operational test and evaluation.