

Due tφ overwhelming demand, Defence IQ is proud to announce the return of the UAS Training and Simulation Conference, in ground-breaking order support the pioneers using to RPA training platforms and simulators for the training of service personnel. Ahead of the conference, Defence IQ has spoken with two of the speakers for an exclusive interview on the future of UAS training and simulation ...



Lt. Col. Mark "Cliff" Andrews, Chief, AGS Operations Branch SHAPE J3 AGS-SEIO

What are your 3 key challenges when thinking about UAS training platforms and simulators? And how might you address these in the future?

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UNMANNED AERIAL SYSTEMS TRAINING & SIMULATION

1) Interoperable: NATO is a nation of nations and each brings its own unique insight and experiences to bear. In order to be effective, we have to collaborate not just within the NATO construct but also amongst the individual nations. To do so, we need to ensure that while our internal processes may differ, the deliverables must be interoperable in accordance with established STANAGs. SHAPE has begun the lengthy process of codifying the formalised training into NATO STANAG 2555.

2) Sustainable: Training opportunities must be provided on a reliable basis and they must be easily communicated to the various stakeholders. SHAPE has partnered with NATO Allied Command for Transformation (ACT) to communicate all Joint ISR training opportunities to the Allied nations in a centralised location. 3) Relevant: It is incumbent upon training staff to ensure that we make the most of our students time. To do so, we must ensure that the training provided meets operational requirements. While many training opportunities may be interesting, few are compelling.

The answer is, "it depends". Based on what we know right now, yes, we have adequate training to meet NATO AGS' needs for the foreseeable future. As we continue to implement the systems and refine operational employment, it will become necessary to incorporate the latest tactics, techniques, and procedures into our training programmes. This will be done in collaboration with the NATO nations, international UAS communities and user groups, as well as amongst the NAGSF itself.

Working with other allies for UAS training is vital to the success of the AGS programme. In accordance with NATO policy, while it is industry's responsibility to provide NATO AGS-specific training for our NATO AGS Force (NAGSF) initial cadre, it is a national responsibility to send personnel who meet the minimum qualification requirements as listed in the various Job Descriptions. Unfortunately, several NATO nations do not possess organic capabilities to train their people to meet the stringent requirements common with operating and maintaining UAS platforms or to conduct advanced intelligence processes. In conjunction with the Joint ISR initiative, NATO partnered with several Allied nations to provide cost-effective foundational training to the sending nations such as Imagery Analysis training as well as Moving Target Indicator fundamentals.

> From my national perspective this is still a long way in the future. I don't see any rapid growth before the mid 2020ies. For other nations this situation is quite different and civil applications will increase considerably as well. I see the urgent need for the standardization and training of civil operators of small to medium UAS.

Lt. Col. Roland Runge, Chief RPA & ISR Section German Air Force Forces Command

> What are your current requirements for UAS training

Currently, our initial training is provided by the company that produces the aircraft. The training platform is the same RPA that is being used operationally. The number of personnel trained on RPA is currently too small to have a dedicated UAS training programme, starting with the aeronautical basics and then progressing to the operational environment. Therefore, we are only using experienced pilots, who have as an absolute minimum already finished their basic and advanced flying training programmes. Continuation training is split between the use of simulators at home and predominantly live flying in the operational theatre. An interesting idea might be the establishment of a dedicated and centralised UAS flight training programme provided by NATO or NATO allies.

Are there enough training programmes to satisfy the growing demand for UAS platforms in the future?

How important and/or necessary is it to work with other allies for UAS training and what benefits does it offer?

programmes ar platforms?

Our main concern is the training of aircrew for MALE RPAS. The main challenge is the current unavailability of a MALE RPA certified for non-segregated flight operations in Germany. Two options are possible, training abroad or using an optional piloted aircraft or most likely a combination of both. The main reason for flights in Germany would be the training with army units and other supported forces. Otherwise simulation is the key element in the training of RPA crews. It is important to have simulators that enable system as well as crew training. Mission simulators should have adaptable scenarios and a high fidelity representation of the outside world. The crew in this case should not be limited to the pilot and sensor operator but also include imagery analysts and liaison personnel provided by the supported ground forces.

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## Introducing the only conference in the world dedicated to advancing the training of UAS operators

The majority of the debate surrounding the use of drones is platform-centric, often comparing the operational performances of the latest UAVs or surveillance UAS. However, given that 60% of the average UAS project budget is spent on training and simulation for service personnel, this is an area which needs greater attention – this conference will fill that void.







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