

# European Defence Agency

By Alexander Weis, Chief Executive



The 2010 Yearbook on 'UAS: The Global perspective' provides a timely overview of the key technical, programmatic and regulatory challenges linked to UAS and their integration into wider Air Traffic. It pinpoints the crucial issues which the European Defence Agency and the European Commission will address in a joint conference on UAS on 1 July 2010 on "European Unmanned Aircraft Systems - Benefits for the European citizens and new opportunities for the European economy".

UAS Air Traffic Insertion has been high on the agenda of the European Defence Agency's work from the beginning of its activities. An important aspect of this has been coordinating its own activities with a variety of actors such as the European Commission, the European Aviation Safety Agency and Eurocontrol. National airworthiness authorities, air traffic management bodies, procurement agencies, industry and research institutes have all been strongly encouraged to develop and propose a joint agenda for common European UAS activities. Building on a well-defined civil-military roadmap, Europe is moving forward in a step-wise approach in support of our ambitious vision to seamlessly integrate civilian security (state/governmental) and defence UAS into non-segregated airspace by 2015.

It is essential that we move quickly, given that UAS are becoming increasingly important for commercial and governmental applications in Europe, including for missions and operations in the context of the Common Security and Defence Policy. While the civil market is expected to grow in the years to come, the use of UAS for the military community is now becoming an essential element of the Common Security and Defence Policy. Gaining public acceptance for UAS to fly seamlessly in general airspace is crucial. To this aim, we first need to raise public awareness about the stakes involved and then to gain trust, through the creation of harmonised rules and standards, certification, training and licensing requirements as well as through definition of acceptable safety levels.

Additionally, we need to look far beyond the horizon of the European UAS community. A truly 'global perspective' will mean looking beyond European borders to establish global standards with allies and partners, including with regard to the efforts undertaken by ICAO in the field of Air Traffic Management. In this context, the European Single European Sky (SES) initiative aims at establishing a European Air traffic management environment capable of accommodating the future growth of aviation in Europe, while maintaining high levels of safety and standard of service. Its technological strand of activities (SES Air traffic management Research - SESAR) plays an important role for enabling safe access to airspace for UAS.

Within this overall context, the European Defence Agency naturally focuses on CSDP mission needs in the area of tactical and MALE UAS, performing surveillance missions over land and sea as well as cross-border ferry flights to operational theatres in Europe and beyond. With regard to technical requirements in areas such as collision avoidance, data link for command and control and availability of required radio frequencies and bandwidth, the European Defence Agency has developed a

wide range of activities with the support of its Member States. The MIDCAS (Mid-air Collision Avoidance System) project sets out to demonstrate a Sense and Avoid system for UAS able to fulfil the requirements for traffic separation and mid-air collision avoidance in non-segregated air space. This activity is coordinated with the European Space Agency as regards Command and Control of UAS over satellite as well as Air Traffic Control data link targets. A demonstration mission is foreseen for 2011 in order to reach initial operational capability by 2015.

Following a 'Study on Military Spectrum Requirements for the Insertion into the General Air Traffic for UAS' (SIGAT), work is continuing towards the identification of appropriate spectrum requirements to consolidate a common European position on regulatory and operational UAS requirements, with a view to the upcoming World Radio Conference.

The European Defence Agency will continue to encourage and catalyse collaboration in research projects to develop UAS technologies and to support the development of required regulations and procedures at European level. However, the military market for UAS per se is too limited for industry to reach sufficient economies of scale and return on investment. The development of common standards and solutions across the civilian, security and defence domain would provide industry confidence to invest and provide competitive products. Furthermore, the coordination between EDA, the European Commission and the European Space Agency will ensure best value for money for the European taxpayers.

We need now to pave the way towards a common European policy which will address the required research and development activities, establish a European regulatory framework and ultimately enable end-users the safe and secure operation of Unmanned Aircraft Systems in Europe. The high-level European UAS Conference on 1 July 2010, with the presence of decision-makers from EU Member States, European institutions as well as end users and industry, is an important step in the right direction. The combined effort of all parties involved will enable the routine operation of civilian, security and defence-related UAS in general air traffic to become a reality and help towards the development of a strategic standardisation approach for a common transatlantic way forward.

Alexander Weis  
Chief Executive  
European Defence Agency

