

CONTRIBUTING STAKEHOLDERS

Federal Aviation Administration

By Kenneth Douglas Davis, Unmanned Aircraft Program Office



This past year has seen some significant successes for the advancement of Unmanned Aircraft in the United States National Airspace System (NAS). The FAA continues to process over 100 Certificates of Authorization/Waiver (COA) per year, and the number of Experimental Airworthiness Certificates issued is over 28.

In September, 2007 a Memorandum of Agreement (MOA) was finalized between the FAA and the Department of Defense. This MOA grants expanded access to the DoD and reduces the number of Certificates of Authorizations/Waivers that would need to be issued.

Requests to operate UAS by public agencies, whether it is Federal, State or Local Law Enforcement, are rising along with civil interest. With the increase in the use of UAS by the military in overseas operations, there has been a significant increase in the number of vendors both producing and marketing these same units to law enforcement and first responders.

The FAA understands the needs and requirements of local law enforcement and these needs must be balanced with the obligation to protect the safety of users of the National Airspace System and people/property on the ground. To that end, the FAA is working with urban police departments in Houston and Miami on pilot test programs involving unmanned aircraft. The goal of these projects is to begin identifying the challenges that operating UAS in this environment will face and what type of operations can safely be conducted by law enforcement.

Concerns of using these aircraft in populated areas have included radio frequency interference, unexplained control loss, and the lack of durability of the units for repeated flight operations.

The FAA is pursuing the creation of new regulation for small UAS to fly in the airspace. This recent development is just starting and will be the genesis for getting small UAS flying in a majority of the US without a COA.

The FAA has established an Aviation Rulemaking Committee (ARC) that is comprised of industry, associations, and other government agencies. The target objective for the ARC is to develop the potential language that will allow for a small category UAS to operate for commercial and recreational purposes in the certain areas of the NAS. This will support interim regulatory standards in the form of a Special Federal Aviation Regulation (SFAR) and will allow for data collection activities.

This work group is focused on defining and developing necessary interim policy guidance with corresponding training material for the operation of a small size category UAS within the NAS. This includes defining characteristics and attributes for small and restricted category UAS. Such data collection efforts are anticipated to provide for subsequent updates. More specific plans are under development. This activity is ground-breaking. Using the

market survey projections mentioned earlier in this report, it is apparent that the small UAS community will be the first to establish an economic impact in this area.

The need for data continues to float to the top of being one of the critical «must haves» for regulators in the development of UAS. In addition, many manufacturers were not ready to enter into the Experimental application process due to the immaturity of the systems. The FAA signed a Cooperative Research and Development Agreement (CRDA) with the New Mexico State University (NMSU). The FAA foresaw the need for this type of national asset and began pursuing it almost two years ago.

As a result, any manufacturer may enter into an agreement with NMSU and conduct flight tests in the Las Cruces, New Mexico area under the oversight of NMSU as delegated by the FAA. The location of the FTC provides a critical mitigation of the potential risk to other aircraft and people or property on the ground that unmanned aircraft need to operate in a safe environment while under testing and development. In addition, the formalization of the CRDA allows for data to be protected and not releasable which addresses any concerns of proprietary data being unknowingly released outside of the FAA.

The International harmonization of UAS activity has been impressive to participate in. It's been my pleasure to be a part of EUROCAE WG-73 and see the progress and the desire to link up with RTCA. The FAA and EUROCONTROL partnership is progressing with some important deliverables. In addition, the Netherlands is conducting a certification project for an 80 Kg UAS helicopter and is taking the proactive step of opening the project up for desiring states to participate or observe. What a great opportunity for the regulators to experience this first type of effort together. Many thanks to Ron van de Leijgraaf of the Netherlands Civil Aviation Authority for coordinating this effort!

This truly highlights the global nature of this activity. As such, the challenges we all face should be done so globally and not in a vacuum. Forums like UAS 2008 are a great way to bring the community together and up-to-speed. Thanks again to Peter van Blyenburgh and the UVS International team!



Kenneth Douglas Davis
Federal Aviation
Administration
Unmanned Aircraft
Program Office