

International Aircraft Owners & Pilots Association

By Frank Hofmann



IAOPA Views on the Insertion of UAS operations in Non-Segregated Airspace

The International Council of Aircraft Owner and Pilot Associations (IAOPA) represents the interests of more than 470,000 aircraft owners and pilots who are members of affiliate organizations in 68 States. This representation occurs at the State, Regional, and ICAO levels. IAOPA concerns itself with the safety, efficiency, access to airspace, economic, technical and regulatory issues as they affect general aviation aircraft owners and pilots.

IAOPA has been an active participant in the ICAO UAS Study Group since its inception, seeking to assure that the possible introduction of UAS operations in unsegregated airspace will not result in any increased risk or constraints to current general aviation users. Any changes to the existing operating environment must result in as safe an operating environment as had previously existed, and must first have been demonstrated to be as safe. A system consisting of old and 'new' users cannot have additional risks introduced even if the additional risks are 'minimized' or 'managed'. The fact that current UAS operations require segregated airspace demonstrates to the public and to general aviation that UAS operations still pose an unacceptable risk. Even the current practice of issuing a NOTAM for the airspace being used by UAS demonstrates the unsafe state of UAS operations.

From general aviation's perspective, UAS operations must:

- Operate under established safety criteria;
- Demonstrate an ability to 'see, hear, talk and avoid';
- Maintain a radio listening watch and be able to communicate dynamically on local frequencies with other aircraft in their area as well as with Air Traffic Control;
- Not limit the airspace available to general aviation operations.

The anticipated growth rate of UAS operations creates a pressing need for ICAO, the entire aviation industry and the airspace users to address the joint use issue and to generate standards and recommended practices designed to ensure the safety of all aeronautical activities. This is an urgent requirement. The addition of UAS operations in the airspace currently used by general aviation will increase traffic density, augmenting congestion and therefore risks. Will UAS airspace deny simultaneous operations to the manned aircraft? This issue is of import to the general aviation community. General aviation faces the constant erosion of available airspace in the name of military, national security and commercial aviation 'necessity'. General aviation looks upon the world-wide trend of the commercialization of airspace with some trepidation, understanding that Air Navigation Service providers will yield to a 'user buys' concept.

UAS operations occur in the low altitude airspace structure and away from major hubs of aeronautical activity - as do those of general aviation. The see, hear, talk, and avoid principle is the primary and often only means of separating aircraft in low altitude and remote environments; it requires the active attention of pilots in all aircraft to effectively ensure separation. Without the vigilance of all parties the possibility of a collision increases dramatically. Even in the IFR operating environment the hazard of collision exists despite modern transponder and collision avoidance

technology. Constant human visual surveillance provides the ultimate avoidance backup, regardless of the best intended CNS/ATM schemes.

General aviation faces many pressures as it is forced to adapt to change. The cost of adaptation stems from regulatory requirements, cost of equipage, fuel costs - some of which are due to the cost of circumnavigating restricted areas, user charges and the cost of adding new equipment. Additionally, newer general aviation aircraft are faster and tend to be equipped in a manner which focuses some of the pilot's attention inside the cockpit. This has the effect of reducing scan-time in VFR situations, particularly hazardous in low level operations where there are tall towers, denser traffic, congested radio frequencies and possibly no communications with a control agency. The wish to introduce UAV operations into such airspace, in which some aircraft are not radio equipped (NORDO), is contradictory given that the UASSG has agreed that the level of safety must not be diminished for any sector of aviation nor, for that matter, even for people on the ground.

General aviation cannot tolerate:

- Risks posed to safety;
- Potential restrictions to airspace;
- Increased traffic density;
- Additional equipage demands;
- Loss of freedom to fly.

These are real and ongoing concerns that already have impacted general aviation. As general aviation declines airports are closed, repair facilities are closed, manpower training opportunities are lost - even to airline operations, and individuals and whole communities experience a diminution of a necessary alternate mode of travel.

IAOPA considers that tri-partite working groups consisting of the regulators, the UAS industry and the current users - airlines and general aviation - together should determine what the picture of the eventual integration of UAS activity might resemble, and establish from the outset the mechanism by which the impact on airspace users will be evaluated by each State. The tools used to assess any level of risk must be agreed upon in advance of any sanction for operations in unsegregated airspace.

Frank Hofmann
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