

Civil, Public, or State Aircraft? The FAA's Regulatory Authority Over Governmental Operations of Remotely Piloted Aircraft in U.S. National Airspace

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Introduction

Many governmental entities operate a variety of unmanned aircraft, ranging in size from recreational radio-controlled model airplanes to high-flying surveillance or remote sensing platforms with dimensions and performance characteristics that are comparable to commercial passenger aircraft. More recently, a number of law enforcement organizations around the country have acquired small remotely piloted aircraft or rotorcraft, outfitted with cameras or remote sensing devices, and have sought permission

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from the Federal Aviation Administration (FAA) to operate these devices in their jurisdictions, and until very recently have had their requests denied. Scientific researchers and others from the academic world also have attempted deployment of a variety of unmanned aerial systems to support their respective fields of interest and to collect and analyze relevant data, with a modest degree of success in obtaining necessary permissions from the controlling governmental agencies. When operated by state, local, and federal governmental entities, even very small Unmanned Aircraft Systems (UAS) may be deemed to be subject to some degree of aviation regulation, depending upon interpretation of the statutes and regulations pertaining to these activities. The area of uncertainty that is the focus of this article is the extent to which public entity UAS operations in the U.S. National Airspace are subject to regulation by the FAA.

History of the Policy

While the Federal Aviation Regulations (FARs) generally do not apply to public aircraft, the FAA has declared through guidance documents and policy statements that public aircraft, their pilots/operators, and any required visual observers of UAS must be certificated or meet some equivalent standard.¹

Operations of all aircraft in the U.S. National Airspace, including the area within three nautical miles of the coast, must comply with all relevant general operating and flight rules as set forth in the FARs.² An “aircraft” is defined as a device that is used or intended to be used for flight in the air.³ An “airplane” is an engine-driven fixed-wing aircraft, heavier than air, that is supported in flight by the dynamic reaction of the air against its wings.⁴ There is no regulatory or statutory definition or description of an unmanned or remotely piloted aircraft – thus for purposes of regulations and standards, unmanned or remotely piloted aircraft (or rotorcraft) should be subject to the same set of rules

¹ Aviation Safety Unmanned Aircraft Program Office (UAPO), Interim Operational Approval Guidance 08-01, *Unmanned Aircraft Systems Operations in the U. S. National Airspace System*, Mar. 13, 2008 [hereinafter UAPO Guidance 08-01], available at http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/faq/media/uas_guidance08-01.pdf.

² 14 C.F.R. § 91.1(a) (2010).

³ 14 C.F.R. § 1.1 (2010).

⁴ *Id.*

and regulations as manned aircraft, unless the Administrator of the FAA specifically exempts them from regulation. The FAA created a regulatory exception by inference in an Advisory Circular (a guidance document with no regulatory effect) issued in 1981, which declared a policy that the FARs do not apply to hobbyists and amateur model aircraft users when operating systems for sport and recreation.⁵

All pilots and essential crew members of U.S. civil aircraft must be properly certificated and rated for the operations flown.⁶ Civil aircraft operated in the U.S. National Airspace System (NAS) must be airworthy and registered in the U.S. or, if registered elsewhere, operated only with the permission of the FAA and Air Traffic Controllers.⁷ Except as provided in 14 C.F.R. § 45.22, no person may operate a U.S.-registered aircraft unless that aircraft displays nationality and registration marks in accordance with the requirements of 14 C.F.R. §§ 45.21, and 45.23 through 45.33. No person may operate an aircraft in U.S. National Airspace unless the aircraft is registered or is otherwise exempt from the registration requirements.⁸ Public aircraft are eligible for registration, but are not required to be registered.⁹

The United States Code and the rules and regulations found in the Code of Federal Regulations recognize three distinct categories of aircraft for purposes of regulatory oversight: state aircraft, public aircraft, and civil aircraft. “State aircraft” are defined by international agreement as aircraft operated by the military, police, and customs and border protection.¹⁰ These aircraft operations would include the use of any military aircraft, regardless of its purpose, law enforcement aviation activities, and flight operations in support of patrolling the borders or enforcement of customs and immigration laws. Generally, state aircraft of one

⁵ FAA Advisory Circular No. 91-57, Model Aircraft Operating Standards (1981), available at [http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/1acfc3f689769a56862569c70077c9cc/\\$FILE/AT_TBJMAC/ac91-57.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/1acfc3f689769a56862569c70077c9cc/$FILE/AT_TBJMAC/ac91-57.pdf).

⁶ 14 C.F.R. § 61.3 (2010).

⁷ 14 C.F.R. § 91.7 (2010).

⁸ 14 C.F.R. § 47.3 (2010).

⁹ *Id.*

¹⁰ Convention on International Civil Aviation art. 3, opened for signature Dec. 7, 1944, 61 Stat. 1180, 15 U.N.T.S. 295 (entered into force Apr. 4, 1947) [Chicago Convention].

country cannot enter the airspace of another country without that country's permission.¹¹

The second category, "public aircraft," are aircraft operated and/or owned by the federal government, or a state government or any political subdivision thereof, so long as they are not operated commercially for compensation or hire.¹² Interagency "loans" of aircraft and crew are not considered to be commercial operations so long as the individuals on the aircraft are there as essential crew or to further the mission of the aircraft. For example, firefighters, researchers, scientists, and essential observers of the core activities of those individuals are typically aboard the aircraft to advance the mission of the flight, although they may not actually be piloting the aircraft. Their presence on the aircraft does not render the flight a civil operation. However, if the flight is made merely to carry passengers, whose presence does not contribute to the aircraft or agency's mission (perhaps to carry an agency official or a governor to a business meeting), then it is a commercial and not a public aircraft operation unless the operating entity certifies to the FAA that the flight is necessary for emergency or humanitarian purposes (such as, in a governor's case, when the aircraft is used to fly the governor to respond to a natural or man-made disaster.) When one unit of a governmental entity (e.g., the U.S. Federal Bureau of Investigation) provides air transportation services to the personnel of another unit of the federal government (perhaps the Department of Homeland Security) in response to a particular event or situation, the mere carriage of passengers should not render the flight a commercial operation. That, however, has not always been clear, as became evident when the FAA proposed an Advisory Circular attempting to define what is, and is not, a public aircraft operation under the circumstances just described.¹³

The third category of aircraft is "civil," which includes everything that is not public or state. All civil aircraft operations must be conducted in strict observance of all relevant FARs, which typically requires pilot certification, aircraft type and manufacturing certificates, airworthiness certificates, registration, identifi-

¹¹ *Id.*

¹² 49 U.S.C. § 40102(a)(4)(C) (Supp. III 2009).

¹³ FAA Advisory Circular No. 00-1.1, Government Aircraft Operations (1995), available at [http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/f13648f3433d1c24862569ba00688e3f/\\$FILE/AC00.1-1.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/f13648f3433d1c24862569ba00688e3f/$FILE/AC00.1-1.pdf).

cation, and compliance with the general operating rules. Anyone seeking to operate an aircraft of any type in U.S.-controlled airspace is obligated to be familiar with and obey literally thousands of regulations pertaining to aviation. Penalties for failure to comply may include civil fines, forfeitures of property, loss of privileges, and even criminal charges.

In 1995, Congress passed Public Law 103-411, the Independent Safety Board Act Amendments of 1994, in which the definition of the term “public aircraft” was changed to exclude any government-owned aircraft engaged in carrying persons or property for commercial purposes, but provided exceptions to the broad rule when the operation had certain purposes and the personnel being transported were essential to the mission of the operation.¹⁴ The FAA attempted to interpret the statutory definition of “public aircraft” as it pertains to operations where the federal government contracts with state or local governmental entities to provide aviation services in situations where the federal government has jurisdiction (such as forest fires in national parks), but does not have sufficient assets available to respond, and thus enters into an arrangement with the state or local government entity in which the land lies to provide assistance. The same issues are presented when any governmental entity, which otherwise enjoys the protection and regulatory exemptions of public aircraft status, contracts with a private entity or individual to provide those support services. The question in these circumstances is whether such an operation would qualify for the veil of liability protection that is enjoyed by the governmental entity for which the services are provided. The continued controversies and uncertainties generated by the earlier interpretation have persuaded the FAA to issue a new policy statement clarifying AC00-1.1 and soliciting comments (a process underway as this article goes to press).¹⁵

The proposed policy is as follows:

- Public aircraft status is not an “automatic” status granted by the existence of a contract between a civil operator and a government agency.

¹⁴ 49 U.S.C. § 40102(a)(37) (2000) (currently at 49 U.S.C. § 40102(a)(41) (Supp. III 2009)).

¹⁵ Notice of Policy Regarding Civil Aircraft Operators Providing Contract Support to Government Entities (Public Aircraft Operations), 76 Fed. Reg. 16,349 (Mar. 23, 2011) [hereinafter Notice of Policy, Public Aircraft Operations].

- The FAA considers ALL contracted operations to be civil aircraft operations, unless:
 - The contracting government entity provides the operator with a written declaration (from the contracting officer or higher-level official) of public aircraft status for designated, qualified flights;
 - The contracted operator notifies the FAA Flight Standards District Office (FSDO) having oversight of the operator (or the operation, as appropriate) that it has contracted with a government entity to conduct “eligible” public aircraft operations;
 - The contracted operator submits the written declaration to the FSDO with jurisdiction having oversight;
 - The flight(s) in question are determined to be legitimate public aircraft operations under the terms of the statute; and
 - The declaration is made in advance of the proposed public aircraft flight.
 - To implement this policy and collect data, the FSDO having oversight of the contracted operator will record receipt of these declarations by electronic means.

Contracted government entities are cautioned that public aircraft operations performed by civil operators create a significant transfer of liability to the contracting government entity, and that FAA oversight ceases.

Civil operators are cautioned that unless there is a declaration of public aircraft status, all operations must be conducted in accordance with all applicable civil aviation regulations, and that the FAA retains oversight and enforcement authority for any deviation from the provisions of Title 14 of the Code of Federal Regulations (14 CFR). Operators are also cautioned that it is their responsibility to refuse a contract to perform operations that violate 14 C.F.R. if they cannot ensure that the government entity offering the contract has declared that

operation as a public aircraft operation and that such flight meets the public aircraft eligibility requirements as outlined in the statute.¹⁶

Do the Current and Proposed Policies Apply to Public Aircraft UAS Operations?

What is the significance of this proposed policy interpretation as it impacts operations of unmanned and remotely piloted aircraft in the United States? U.S.-registered public aircraft are not required to have an airworthiness certificate while operating in domestic airspace, but if they enter international airspace or the airspace of another country they must be so certificated. Many federal agencies other than the Department of Defense and Customs and Border Protection and state and local governments, including state colleges and universities, own and operate a variety of unmanned aircraft (“UAVs,” “drones,” “UASs,” or “RPAs”) ranging in size from hand-held and launched devices similar to recreational radio-controlled model airplanes that weigh less than five pounds to high-flying surveillance or remote sensing platforms whose dimensions and performance characteristics are similar to those of commercial passenger aircraft. FAA policy states that these “public” aircraft cannot operate outside of segregated or restricted airspace without the permission of the FAA, secured by a document known as a “Certificate of Waiver or Authorization” (COA).¹⁷ The issuance of a COA, again according to current FAA policy, requires an exhaustive safety and operational review of all the details of the proposed flight or flights, and results in the granting of certain waivers of pertinent sections of 14 C.F.R. Part 91, the General Operating and Flight Rules of the FARs. The FAA’s policy also requires that COA applications include detailed airworthiness statements, as well as assurances that the pilots (operators) of the systems and the visual observers that are usually required be certificated and medically qualified. The alternative for the public operator is to pursue the same operational permit as the civil sector, which is a Special Airworthiness Certificate in the Experimental Category. This is a long and potentially expensive process, and one that users are loath to pursue.

¹⁶ *Id.*

¹⁷ UAPO Guidance 08-01, *supra* note 1, at 4.

Thus the essence of the FAA policy regarding remotely piloted aircraft is that all users of the NAS must comply with all of the FARs, not just the general operating and flight rules in 14 C.F.R. Part 91, and that federal, state, and local governmental agencies must certify (or self-certify) their aircraft and pilots as if they were civilian operators.

While the law discussed thus far seems to state that the FARs generally do not apply to public aircraft (although their pilots must comply with the general operating rules so that there are no compromises to safety in the air), the FAA has declared by guidance documents and policy statements that public aircraft and their pilots must be certificated or something equivalent thereto to qualify for the Certificate of Waiver or Authorization that the FAA states is a requirement for UAS operations to take place outside of protected or segregated airspace.¹⁸ Some public agencies (particularly law enforcement organizations) have begun to push back against those restrictions and are challenging the FAA policy as unsupported by law and therefore unenforceable.¹⁹ More specifically, these entities argue that the restrictions imposed and reflected by the FAA's 08-01 Guidance Document not only impede their ability to respond to the public's needs (such as prompt response to events, search and rescue missions, traffic observation, and crime prevention), but are all but unenforceable in situations where the entity may elect to operate a remotely piloted system without seeking permission due to time constraints or other exigent circumstances. The refrain of "we'd rather go ahead and later beg for forgiveness than seek permission and run the risk of denial" is often heard even in public forums.

If public aircraft operations are, by statute, exempt from the FARs, except for the general operating rules, then what authority does FAA have over public UAS with regard to airworthiness, certification, and operator qualifications? If none, then it could be argued, as some have, that there is no basis for FAA to demand a COA from a governmental entity. Generally, an aircraft used exclusively for the U.S. Government may be considered a "public aircraft" as defined in Public Law 106-181, provided it is

¹⁸ *Id.*

¹⁹ See, e.g., Paul Weinberg, *FAA Nixes Unmanned Surveillance Aircraft for U.S. Cops*, DIGITALCOMMUNITIES, June 9, 2009, <http://www.digitalcommunities.com/articles/FAA-Nixes-Unmanned-Surveillance-Aircraft-for.html>.

not a Government-owned aircraft transporting passengers or operating for commercial purposes. A public aircraft is not subject to many FARs, including the requirements relating to aircraft certification, maintenance, and pilot certification. If an agency transports passengers on a Government-owned aircraft or uses that aircraft for commercial purposes, the agency must comply with all Federal Aviation Regulations applicable to civil aircraft.²⁰

Unmanned Aircraft Program Office (UAPO) and Air Traffic Organization (ATO) personnel are directed to use their internal policy guidance when evaluating each application for a Certificate of Waiver or Authorization (COA) and special airworthiness certificates (normally issued in an experimental category). The document defines “public aircraft” as “(a)n aircraft operated by a public user which is intrinsically governmental in nature (i.e. federal, state, and local agencies). Examples of public entities are Department of Defense (DoD) and its military branches; other local, state, and federal government agencies; and state universities.”²¹

The COA process and the form that must be submitted to apply for the waiver represent the sole mechanism for a qualified organization or individual to gain approval for an “aviation event” (other than parachuting) such as an airshow or air race, and the instructions that accompany the form clearly state that it is for that purpose only.²² The waivers that are to be sought under this process refer to 14 C.F.R. Parts 61 and 91, the pilot certification and general operating rules sections of the FARs. In other words, the regulators are most concerned that participants in such aviation events are appropriately qualified to operate the aircraft that are involved, and that the applicants and event organizers have taken necessary measures to protect persons and property on the ground and do not interfere with other aviation activities in the area.

Thus, there is some inherent ambiguity in the FAA’s policy requiring a public UAS user to meet all of the COA qualification standards, not simply those that require compliance with the relevant general operating rules, because the necessity of even partic-

²⁰ 41 C.F.R. § 102-33.165 (2010).

²¹ UAPO Guidance 08-01, *supra* note 1, at 3.

²² FAA Form 7711-2 (and instructions), *Application for Certificate of Waiver or Authorization*.

ipating in the COA process is not clear if the applicant is not staging aviation events such as airshows or air races.

Another source of uncertainty is the policy that underlies the distinction between public aircraft use for specific governmental purposes and for merely carrying passengers. Under the current policy, even though public aircraft operations must comply with certain general operating rules (including those applicable to all aircraft in the National Airspace System), other civil certification and safety oversight regulations do not apply. Whether an operation may be considered public is determined on a flight-by-flight basis under the terms of the statutes, and the FAA considers aircraft ownership, identity of operator, the purpose of the flight, and the persons on board the aircraft in determining whether the operation qualifies for public aircraft designation or is being operated for commercial purposes.²³ It is clear from examining the history of the statutes and the policies that the intent is to separate operations that are solely conducted for the purpose of carrying passengers from those that have persons on board but whose presence is required to perform the mission of the flight, or who are associated with the performance of the aircraft operation. Examples given in the policy include aircraft maintenance personnel who may accompany the aircraft to a remote location so as to service and maintain the aircraft away from its home base.

The term “for commercial purposes” means for compensation or hire.²⁴ It can also include cost reimbursement, even between units of government (with an “imminent danger” exception). No profit is required. However, the transfer of funds from one element of government to another (a mere accounting transaction) is not a commercial transaction. If the governmental entity declares that there is an imminent danger of loss of life or substantial property, the carrying of passengers alone can also be a protected activity that does not lose its public designation to become a “civil” operation.²⁵

If operations for a commercial purpose provide an exception to public aircraft designation, and “commercial purpose” means for hire or compensation, is the intent to protect passengers on board and, if so, does that then apply to UAS? History suggests that the safety concern expressed in the policy is the carriage of passen-

²³ 49 U.S.C §§ 40102, 40125 (Supp. III 2009).

²⁴ FAA Advisory Circular No. 00-1.1, *supra* note 13.

²⁵ 41 C.F.R. § 102-33.165 (2010).

gers, or transporting property or “passengers” for compensation or hire. The unifying characteristic shared by the governmental functions listed in the statute is that they each involve the carriage of persons as part of a mission for which the use of an aircraft is necessary.

Current FAA policy is that public aircraft status is not an “automatic” status granted by the existence of a contract between a civil operator and a government agency. The FAA considers all contracted operations to be civil aircraft operations, unless:

1. The contracting government entity provides the operator with a written declaration (from the contracting officer or higher-level official) of public aircraft status for designated, qualified flights;
2. The contracted operator notifies the FAA Flight Standards District Office (FSDO) having oversight of the operator (or the operation, as appropriate) that it has contracted with a government entity to conduct “eligible” public aircraft operations;
3. The contracted operator submits the written declaration to the FSDO with jurisdiction having oversight;
4. The flight(s) in question are determined to be legitimate public aircraft operations under the terms of the statute; and
5. The declaration is made in advance of the proposed public aircraft flight.²⁶

What does this mean for other “public aircraft” users and operators? Is a governmental agency desiring to operate a remotely piloted aircraft compelled to apply for a Certificate of Waiver or Authorization and to provide to the FAA comprehensive statements of airworthiness and pilot qualifications before it can conduct operations in the National Airspace? In other words, can the FAA require public entities to comply with the non-operating conditions imposed in the terms of COAs? The FAA policy is that COAs are not required for operations conducted wholly within an active Restricted, Prohibited, or Warning Area airspace when operating with permission from the appropriate authority

²⁶ Notice of Policy, Public Aircraft Operations, 76 Fed. Reg. at 16,350.

or using agency of that airspace.²⁷ There is nothing in the United States Code or the current regulations that establishes that distinction, or makes an exception for unmanned operations, to the general public aircraft rule for operators of unmanned aircraft.

Conclusion

In spite of a widely observed policy that declares that public aircraft operators are generally exempt from compliance with FARs, except for the general operating rules, and that all public operators must obtain a Certificate of Waiver or Authorization before they can operate remotely piloted aircraft in the National Airspace, there is little or no statutory or policy justification for that policy. It therefore is not unlikely that a public entity could operate an unmanned aircraft in the National Airspace without applying for a COA and, in fact, asking for no permission at all other than that which would ordinarily be required of a manned aircraft operation pursuant to the general operating rules.

The policy ambiguities, the absence of any regulations that specifically address the unique characteristics of UAS, and the lack of statutory mandate that would compel the FAA to adopt UAS-specific rules through the normal rulemaking process have had three noticeable impacts on the civil user community, government operators, and the broader UAS industry that supports those elements. First, the manufacturers, developers, and planners of unmanned aerial systems have no real guidance, nor a set of standards against which the design and engineering soundness of their systems can be measured. The industry is rapidly growing, largely in response to demands for more unmanned systems by the military, but the latent civil market remains somewhat stagnant because it is difficult to make a business case for investment in non-military systems when there is no certainty that they will be allowed to operate in a commercial, non-public, non-military environment.

Second, the COA process has been under development and periodic revision virtually since the day that it was imposed upon UAS operators via the published guidance documents. The process is lengthy, due in part to FAA understaffing and in part to the complexities inherent in the requirements that underlie each application. Even military COA applicants (services desiring to

²⁷ *Id.*

operate remotely piloted aircraft in the national non-restricted airspace for training purposes) have to go through the process, and although the Department of Defense has negotiated an arrangement with the FAA by way of a Memorandum of Agreement,²⁸ the services operating under that agreement still consider the restrictions to be an impediment to their collective mission.

Third, there is a growing element of “underground” or “under the radar” (literally) non-military public and private UAS operators who ignore the COA process altogether and deploy their systems without seeking any authorization from the FAA. Covert and sometimes open defiance of the FAA’s published policies threatens to create an atmosphere of lawlessness, even by some law enforcement agencies that have taken the position that they are not required to seek permission to fly small, lightweight devices that are typically equipped with video or digital cameras, at altitudes and in conditions where there is no threat to other aviation activities and little risk to persons or property on the ground. The day has yet to come, and may not come, when the FAA takes formal steps to terminate such an operation by a public operator, because the agency has, by its own acknowledgment in policy documents, little or no enforcement authority over public aircraft activities. It may well not have enforcement power over any UAS activity other than violations of the general operating rules, because there are no regulations or requirements pertaining to UAS activities that can be enforced. The military has for decades flown high performance aircraft at low altitudes and near supersonic speeds over unpopulated, unrestricted airspace, and all the FAA can do is attempt to provide a margin of safety between military and civilian aircraft. But, the FAA has always deferred to the military to certify the airworthiness of their aircraft and the fitness of their pilots. The current COA process as it applies to public UAS operations is often viewed as an intrusion on the knowledge, skills, and abilities of military aviation.

While wholesale changes to the FARs to accommodate the integration of UAS into the National Airspace System are unlikely to be implemented any time soon due to the statutory requirements of the rulemaking process, there is ever-increasing pressure on the FAA to create a mechanism that would allow public users of UAS

²⁸ Memorandum of Agreement Concerning the Operation of Department of Defense Unmanned Aircraft Systems in the National Airspace System (Sept. 24, 2007) (on file with author).

easier access to the NAS. One expedient that does not require rulemaking or any lengthy process of revision of existing regulations would be the issuance of an Advisory Circular or Order that declares, in essence, that public UAS users fall under the same general guidelines and restrictions that apply to manned public aircraft operations; in other words, the duty to comply with the general operating rules only. By putting public UAS in the same category as manned military aircraft, the already overburdened FAA staff would be relieved of the obligation to review airworthiness statements, pilot qualifications, and other technical specifications in order to issue a COA that is arguably not legally mandated in the first place, and instead be able to concentrate on developing operating protocols to ensure that the unmanned aircraft can safely navigate in the National Airspace and not create a hazard to persons or property in the air or on the ground.