



# MEMORANDUM

U. S. Department  
of Transportation

**Federal Aviation  
Administration**

**Subject: Request for Opinion - Public Aircraft  
New Mexico State University COA**

**Date: October 7, 2005**

**From:** Senior Attorney, AGL-7

**To:** John Timmerman, Acting Manager, System Safety and Procedures ATO-R

You have requested a review of the Certificate of Authorization (COA) submitted by New Mexico State University (NMSU) concerning the University's operation and testing of unmanned aerial vehicles (UAV) to determine whether the operations are public aircraft operations within the meaning of 49 U.S.C. 40102 (37) and 14 C.F.R. Part 1. It is my determination that the UAV operations, as described by NMSU, are public aircraft operations.

## Facts

New Mexico State University's Physical Science Laboratory seeks FAA approval to perform unmanned aerial vehicle (UAV), synonymous with remotely operated aircraft (ROA), flight operations in the airspace designated in its the COA. The described airspace is solely within the United States.

NMSU states that it is an entity of the State of New Mexico. The COA states NMSU shall own or lease for a period of at least 90 consecutive days each UAV/ROA operated under the authority of the COA. Subsequent to the submission of the COA, Phil Copeland of NMSU, indicated to the undersigned in a telephone conversation that NMSU is now leasing the UAV/ROAs for 18 months with an intent to purchase the vehicles.

In its COA NMSU states the use of the UAV's will only be for research, analysis, and development that are associated with NMSU/PSL's programs, purposes and objectives. The University states there will be no UAV/ROA flights for commercial operations or to support any non-governmental organization.

On March 24, 2005, FAA representatives met with NMSU officials to discuss the University's UAV operations. During that meeting, the University stated that its UAV programs were being conducted under a prime contract with the United States Air Force. Stephen Hottman of NMSU subsequently provided the undersigned with a copy of the Statement of Objectives from the prime contract.

The Statement of Objectives for the Unmanned Aerial Vehicle (UAV) Systems Operations Validation Program (USVOP), paragraph 3.0, states the program objective is to "conduct an acquisition program to design, develop, demonstrate and validate UAV systems operations in the

NAS...The developed UAV airspace shall be based upon the New Mexico State University/Physical Science Laboratory FAA-issued Certificate of Authorization."

### Analysis

Since the statutory change to the definition of public aircraft by Congress in 1994, the FAA has analyzed public aircraft issues in terms of the operational nature of the definition. A particular aircraft's status as civil or public depends on its use in government service and the type of operation being conducted. See, Advisory Circular 00.1-1, Government Aircraft Operations, Chapter 1, Paragraph 1.d.

An analysis of a particular aircraft operation is done by looking at the criteria set forth in the statutory definition. Each of these criteria should be addressed and supported by the aircraft operator/COA applicant, as follows:

#### Criteria 1:

In pertinent part, Public Law 106-181 (49 U.S.C. 40102 (37)), defines a public aircraft as:

(A) Except with respect to an aircraft described in subparagraph (E), an aircraft used only for the United States Government, except as provided in section 40125(b).

(C) An aircraft owned and operated by the government of a State, the District of Columbia, or a territory or possession of the United States or a political subdivision of one of these governments, except as provided in Section 40125(b).

(D) An aircraft exclusively leased for at least 90 continuous days by the government of a State, the District of Columbia, or a territory or possession of the United States or a political subdivision of one of these governments, except as provided in Section 40125(b).

(E) An aircraft owned or operated by the armed forces or chartered to provide transportation to the armed forces under the conditions specified by Section 40125(c).

In order to meet the threshold test of "public aircraft" the NMSU operations must meet the criteria of one of the above statutory sections (omitted sections are not pertinent to these facts). Under the facts set forth above, NMSU has taken the position that it will be operating under section (D).

The COA states the University is an entity of the State of New Mexico. The Constitution of the State of New Mexico Article XII, Education §11. State educational institutions, created New Mexico State University as a state educational institution. New Mexico State Constitution Art. 12, §11. The Board of Regents of the NMSU constitutes a body politic and corporate, and has the power to sue and be sued, to contract and be contracted with, and hold title to property. N.M.S.A. 1978, § 21-3-4. Finally, New Mexico State University has additional powers and authorities traditionally exercised by governments. N.M.S.A. 1978, § 76-1-2.

Based upon the above, New Mexico State University is a part of the government of the State of New Mexico.

NMSU/PSL currently leases the UAV's for more than 90 continuous days, and has indicated it will be purchasing the UAV's in connection with its program.

Therefore, NMSU currently meets the test of Section (D) above, by virtue of its status as an entity of the State of New Mexico and its leasing of the UAV's for more than 90 continuous days. Upon obtaining ownership of the UAV's, NMSU will meet the criteria of Section (C), as the aircraft will be owned and operated by the University.

Finally, since NMSU has indicated that its operations are being conducted pursuant to a prime contract that flows from the Department of Defense and the U.S. Air Force, the operations may also fit under Section (E), above, as operations by the armed forces. However, there is insufficient information in the information in the record to make this determination. As the operations meet the tests of Section (D), it is not necessary to pursue the analysis of Section (E) factors.

#### Criteria 2:

To qualify for public aircraft status, an aircraft being operated by a governmental entity, other than the Armed Forces or an intelligence agency of the United States Government, must be performing one of the governmental functions listed in section 40125 (a)(2) of the definition. Aeronautical research is one of the listed functions. As with all of the governmental functions listed in the definition, the FAA has noted that in order to be a public aircraft operation, the use of an aircraft must be necessary to the performance of the mission. If the mission can be performed without the aircraft, the operation would not be a public aircraft operation even though the function being performed is one of those listed.

The FAA has defined aeronautical research to include flights to measure the performance of aircraft or aeronautical components. AC 00.1-1 Chapter 1, Paragraph 2(d)(5). The NMSU COA does not describe the NMSU aeronautical research program. The COA merely states that the UAV will be used only for "research, analysis, and development that are associated with NMSU/PSL's programs, purposes and objectives." In addition the COA itself does not precisely describe the purpose of the operations being performed, but merely states that it is seeking approval to operate UAV's within specified areas of the NAS. Nevertheless, It is clear from the information presented at the meeting held with NMSU personnel and the Statement of Objectives for the Unmanned Aerial Vehicle (UAV) Systems Operations Validation Program (USOVP), that the purpose of the operations are to "design, develop, demonstrate and validate UAV systems operations in the NAS." See, Statement of Objectives, USOVP Paragraph 3.0 Program Objectives. The operations would constitute aeronautical research as the FAA has defined the term. In addition, the very objective of the operation is to test the UAV's themselves and their performance in the NAS. Therefore, the criteria that the use of the aircraft be necessary for the performance of the mission is satisfied. Finally, the University has stated in discussions with the FAA that it is specifically designated as a center for aeronautical research. For these reasons, NMSU would be performing a governmental function and qualify for public aircraft status under this "governmental function" criteria.

#### Criteria 3:

An aircraft operating as a public aircraft may only carry crewmembers and those the definition refers to as "qualified non-crewmembers." The latter are persons necessary to the performance of the mission. Since these UAV's do not carry any persons, this criteria is not a factor in analyzing UAV COA applications.

#### Criteria 4:

An aircraft (other than those owned or operated by the Armed Forces) which meets the above three tests, will not be considered to be a public aircraft if it is being operated for a "commercial purpose." 49 U.S.C. 40125(b) The term "commercial purpose" means the transportation of persons or property for compensation or hire. 49 U.S.C. 40125(a)(1).

The UAV's are unmanned aircraft. Therefore, no persons will be on board to be transported. The description of the UAV/ROA system and operations contained in the COA indicates that the only equipment on board will be equipment or systems installed for the purposes of testing the vehicles or the equipment in the NAS. Therefore, NMSU would not be transporting property. NMSU states in its COA that the operations will not be conducted for commercial purposes, or to support any non-governmental organization. However, even if it were to be determined that NMSU was receiving compensation for these aircraft operations, they would not be receiving compensation for transporting persons or property. The operations would meet the fourth criteria for public aircraft operation.

It should be noted that the legislative history of the public aircraft definition indicates that Congress intended to bring aircraft operations in which people are being transported under the Federal Aviation Regulations by limiting the public aircraft status of flights carrying persons to those where the person is critical to the mission. Where there are no people on board, Congress gave governments authority to operate as public aircraft when performing functions that governments often perform, so long as the government is not being compensated for air transportation.

Based upon the above factors, the NMSU/PSL operations, as described in the COA and at the meeting held in March, 2005, would be public aircraft operations.

Since any determination of whether aircraft operations are public or civil is based upon the facts of the particular operation, this determination is based upon the information provided by NMSU. Any change in the facts may result in a different determination.

In order to assist review of future COA's, you may wish to revise the application to require the applicant to provide some type of evidence that it is a governmental entity. The applicant should also describe the purpose of the operations and whether they are being conducted pursuant to a contract with a government or a commercial entity.

Eileen A. Wilson