

From: Robert A. Mauro
To: Federal Aviation Administration

Subject: REQUEST FOR ISSUANCE OF EXEMPTION UNDER TITLE 14 CFR, SECTION 333

Ref: (a) FAA Notice 8900.268
(b) Title 14 CFR

Encl: (1) Explanation of Exemptions from 14 C.F.R.

To Whom it May Concern,

Since 1916, Danis Building Construction Company (DBCC) has been privileged to work on some of the most recognizable and high-profile commercial buildings and industrial projects in the Midwest, Southeast, and Carolinas. Our work includes partnerships with Fortune 500 Companies, rapidly expanding healthcare systems, and distinguished universities.

As a general contractor, DBCC is required to perform many different inspections on the outside of existing buildings. These inspections govern and/or validate our construction techniques and procedures and often require our employees to be put in situations that require DBCC to accept risk. We have found that by using a small unmanned aircraft system "sUAS" with a high resolution camera mounted on it, often times we can accomplish the same inspection and alleviate the need to put our employees in danger.

Danis shares Congress's goal of getting sUAS flying commercially in the United States safely and soon. In the FAA Modernization and Reform Act of 2012, Congress directed the FAA "to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system" and, under Section 333 of that law, gave the FAA power to grant innovators "expedited operational authorization" to do so. By this petition, DBCC is seeking authorization to conduct sUAS operations on our own construction sites in order to improve safety for our employees and ensure quality assurance for the structures we are creating.

Further, granting this request will do nothing more than allow DBCC to do what thousands of hobbyists and manufacturers of model aircraft do every day, except we will abide by much stronger safety measures. DBCC has hired an aviation expert and licensed helicopter pilot to manage our sUAS program. Under his supervision we would provide a safer level of operation that is superior to current regulations. His experience as a FAA licensed commercial pilot gives him an understanding of how manned aircraft safely navigate the National Airspace System (NAS), and his recent military aviation experience gives him an understanding of UAS operation in conjunction with manned aircraft. This invaluable experience applied to DBCC's UAS program equates to safe sUAS use on our construction projects with no conflict with manned aircraft.

Information Supporting this Petition as Specified in 14 C.F.R. §11.81

A. Mailing address and other contact information:

Danis Building Construction Company
Re: Quad Copter Operations

3233 Newmark Road
Miamisburg, Ohio 45342
Phone: (937) 228-1225
Fax: (937) 228-7443

B. The specific section or sections of 14 C.F.R from which DBCC seeks exemption.

1. 14 CFR Part 21, Subpart H: Airworthiness Certificates.
2. 14 CFR 91.203(a) & (b) Civil aircraft: Certifications required.
3. 14 CFR 45.23 Display of Marks; General and 45.29 Size of Marks.
4. 14 CFR 91.9 Civil Aircraft Flight Manual, Marking, and Placard Requirements.
5. 14 CFR 91.119 Minimum Safe Altitudes.
6. 14 CFR 91.121 Altimeter Settings.
7. 14 CFR 91.151 Fuel Requirements for Flight in VFR Conditions.
8. 14 CFR Subpart E (91.401 - 91.417) - Maintenance, Preventive Maintenance, and Alterations.
9. FAA Notice 8900.227 Paragraph 16(c) (4) PIC Medical and Paragraph 16(e)(1) Observer Medical.

C. The extent of relief DBCC seeks, and the reason DBCC seeks the relief.

DBCC seeks exemption from several interrelated provisions of 14 C.F.R. Parts 21, 45, 91, and FAA Notice 8900.227 to the extent necessary to engage in commercial operations of a sUAS on our own construction sites. If granted these exemptions we would operate the sUAS with the property owner's written permission. DBCC's intent is to use a sUAS for the following inspections:

1. Surveying in hard to reach areas of buildings.
2. Roof Top Inspections.
3. Building Exterior Envelope Inspections.
4. Visual Documentation of Existing Conditions before Demolition of Key Areas.
5. Quality Control / Quality Assurance Inspections.

We have detailed, below and in enclosure (1), a significant set of safeguards that will apply to our proposed sUAS inspection operations. Operations under these safeguards will provide a level of safety exceeding the level of safety required of similar sUAS operations that the FAA authorizes currently. In addition, our operations will not create a hazard to users of the national airspace system or the public or pose a threat to national security and are thus consistent with the congressional mandate in Section 333 of the FAA modernization and Reform Act of 2012, which gives the FAA a mechanism to allow certain UAS to operate safely in the national airspace system.

D. The reasons why granting DBCC's request would be in the public interest; that is, how it would benefit the public as a whole.

This would benefit the public by giving DBCC a capable risk mitigated inspection platform. The proposed sUAS gives DBCC an alternative to sending our employees into dangerous situations or placing large equipment next to occupied building spaces in order to accomplish necessary and required construction inspections. This in turn could prevent accidents and/or construction related deaths. This would have a positive trickledown effect to families of our employees and people that work on site which ultimately benefits the public.

E. The reasons why granting the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which DBCC seeks the exemption.

DBCC sUAS operations will provide a level of safety that far exceeds the level of safety required by the FAA for hobbyists and manufacturers of model aircraft. The following operating procedures will apply during the sUAS inspection operations under this exemption request.

1. The sUAS that DBCC has chosen to work with has an operational weight of 2.6 pounds and will be powered via a battery source. DBCC will only use sUAS that are below 4.4 pounds now and in the future if these exemptions are granted.
2. DBCC inspection operations will be conducted:
 - i. within the visual line of sight of the Pilot in Command (PIC) and one or more Visual Observers (VO).
 - ii. at less than 400 feet AGL
 - iii. within Class G airspace.
3. DBCC inspection operations will be conducted in a confined area over isolated private property located at least 5 miles away from any airport, heliport, seaplane base, spaceport or other location with aviation activities, and any military or U.S. government installations or airfields. If we are within the 5 mile radius of any of the above installations DBCC will seek written approval from that installation's owner before sUAS inspection operations take place. If said installation owner requires stricter guidelines for operation then DBCC will comply.
4. All sUAS operations will remain within the lateral and vertical boundaries of the operating area, taking into account all factors, including wind, gross weight and glide distances, that may affect the capability of the sUAS to remain within the airspace boundary; moreover, the ceiling height will be no more than 400 feet AGL.
5. DBCC sUAS inspection operations under this exemption will be conducted under the supervision designated PIC who ultimately has final responsibility for the operation in accordance with 14 C.F.R. 91.3 and either holds a current FAA private pilot certificated, a higher FAA pilot certification, or a FAA-recognized equivalent or has completed FAA private pilot ground instruction and passed the FAA private pilot written exam.
6. PIC will maintain the sUAS system in a condition for safe operation, and conduct a pre-flight inspection prior to each flight so as to ensure that the sUAS, control station, data link equipment, camera, and support equipment are in a condition for safe operation and in a configuration appropriate for the purpose of the intended flight.
7. The PIC and VO will maintain two-way communications with each other during all operations; if unable to maintain two-way communications, or if any condition occurs that may otherwise cause the operation to be unsafe, the operator will immediately conclude the operation.

8. Each sUAS that DBCC will employ under this exemption will safely return automatically to a home location designated by the PIC if the communications link is lost.
9. The aircraft documentation required by 14 C.F.R. §§ 91.9 and 91.203(b), as applicable, will be available to the PIC referred to above at any time DBCC sUAS are operating.

DBCC will effectively operate under our own standard operating procedures that will provide additional safeguards that go far beyond the level of safety for public model airplane fields.

F. A summary the FAA can publish in the Federal Register, stating: (1) The rule from which you seek the exemption; and (2) A brief description of the nature of the exemption you seek.

1. Petitioner: Danis Building Construction Company.
2. Sections of 14 C.F.R. Affected: §§ Part 21, Subpart H; 91.203; 45.23; 91.9; 91.119; 91.121; 91.151; Subpart E; and 8900.227 para(16)(4).
3. Description of Relief Sought: Petitioner seeks relief from the requirements of 14 C.F.R. §§ Part 21, Subpart H; 91.203; 45.23; 91.9; 91.119; 91.121; 91.151; Subpart E; and 8900.227 para(16)(4) in order to conduct commercial small unmanned aircraft system operations on supported construction sites with owner approval subject to operating procedures that meet or exceed those that FAA requires for similar operations.

G. Any additional information, views, or arguments available to support your request.

Please see the introduction to this exemption request.

H. If you want to exercise the privileges of your exemption outside of the United States, the reason why you need to do so.

DBCC does not wish to exercise the privileges of this exemption outside of the United States at this time.

Thank you for your consideration and I look forward to your response. I can be contacted directly via email or cell phone at your convenience.

Respectfully,



Robert Mauro
MEP Coordinator



3233 Newmark Drive
Miamisburg, Ohio, 45342
M: 937-607-9815
rob.mauro@danis.com
www.danis.com