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FAA
Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building, Ground Floor, Room W12-140
Washington, DC 20590

Dear Exemption Manager,

I am submitting my Petition for Exemption for Unmanned Aircraft Systems operations.

I am currently an experienced UAS pilot with over 200 flight hours and also an FAA licensed private pilot. I have been a private pilot since 1988 and currently completing my most recent recurrency requirements and my Second Class Medical Certificate.

I am also a participant in the FAA Wings educational program and undertake approved FAA training classes for recognized educational hours through both the FAA and Aircraft Owners and Pilots Association, with whom I am a member.

In addition I did notice, as part of my work on a COA application that a current FAA approved ground school course completion is desired within the last 24 months and I am completing that requirement again at the current time. I take the skills and education for safe operation of UAS, very seriously.

I have also worked closely with public safety agencies as a ground based photographer in many emergency operations. I am most familiar with the work of fire departments and EMS and currently regularly respond to those calls and work closely with those departments.

My experience flying UAS craft to date, my private pilot skills and my close working relationship with public safety agencies makes me uniquely well qualified to apply for and receive this requested exemption.

My request is for a waiver of the sections identified below in an effort to operate a UAS in public safety operations with Fire Departments, EMS and Rescue Services, and potentially joint operations with Law Enforcement, when requested or the situation requires it. Often, Law Enforcement is first on the scene and technically it is their scene but my desire is to specialize in Fire, Rescue, and EMS operations.

In the area of Fire, EMS, and Rescue Services there is already a culture of privacy and there is little additional information I would obtain as a UAS pilot that is not already visible to a firefighter

on a 100 foot ladder or a paramedic crawling into a vehicle involved in an accident. Any flights with public service agencies will honor the current privacy policies of those agencies.

This request specifically serves the public interest in the most pure form. In my opinion there can be no greater public benefit than using UAS to rescue people and save lives.

The granting of this exemption would make logical sense because of my professional approach to UAS operations, my clear understanding of FAA rules, my awareness of operational and restricted airspace, my experience as a pilot, my ongoing FAA approved educational activities, and my attitude of safety first when it comes to flight operations.

I believe with the granting of this exemption and the additional operational experience I will gain from public safety flight operations I will be a much better future UAS instructor to help train future public safety UAS pilots to operate and fly safer as they apply for FAA COA or other approval. More flight experience now will be invaluable for me to assist public safety agencies in the future as they embark into UAS operations.

There is much work to be done in developing the best use of UAS in fire, rescue, EMS, and emergency operations. The coursework and training for best use of the UAS, best operational utilization, best role for the UAS pilot, etc. has yet to be developed in the public safety arena. I'd like to play a role in that development but I need more operational flight experience with public safety agencies to do that. This exemption would allow me to get that real world experience.

I am currently seeking exemption of:

Section of 14 CFR: parts 21 Subpart H, 27, 45.23(b), 45.27(a), 61.113(a) and (b), 61.133(a), 91.7(a), 91.9(b)(2), 91.103, 91.109(a), 91.119, 91.121, 91.151(a), 91.203(a) and (b), 91.319(a) (1), 91.405(a), 91.407(a)(1), 91.409(a)(2), 91.417(a) and (b)

If I have erroneously omitted any other relevant section for my intended operations, please feel free to suggest the missing section(s).

Suggested Public Federal Register Summary:

“The petitioner is seeking an exemption to operate unmanned aircraft systems (UAS) with a maximum weight of less than 55 pounds to perform public safety operations with fire departments, ambulance services, emergency medical service operations, and search and rescue agencies in order to provide real-time operational assistance in emergency operations. Data gathered may include still and moving images captured with onboard cameras, including thermal imaging cameras. These cameras can provide a live stream of visual images to scene commanders and others to direct operations to rescue, save and protect people and property in emergency situations.”

Additional Points:

While local public safety agencies are embarking on the FAA COA process, it is a daunting task for them primarily because the lack of operational experience or a qualified instructor who can help teach them what they need to know to operate with maximum safety.

If there was an FAA UAS Flight Instructor endorsement for my FAA license, I'd jump on the opportunity to help write that course, take it or be the first in line to embark on that qualification.

My concern is that faced with the hurdles public safety agencies must deal with and the lack of qualified and experienced UAS pilots in those roles, many agencies will rush in without the necessary skills and abilities.

My exemption request makes logical sense in that I already have experience in UAS operations and substantially more FAA rule awareness than the majority of future emergency service agencies and new pilots who will want to apply. Most who will be small districts without any previous aviation operations.

UAS Description:

I am asking for an exemption for a UAS up to 55 pounds because I forecast I may be testing and evaluating UAS for the public safety role. These tests would occur in a controlled environment and a flight safe range.

The initial craft I would fly operationally, weighs less than ten pounds and would be better qualified as a sUAS.

In the event a loss of communications occurs the craft will rise up vertically to a safe height before beginning an automatic return to home function. The control signal may be reconnected in flight and the pilot can take over safe operations again if communication is reestablished. However in the case of a GPS failure the craft will be able to be manually flown to a safe landing by the pilot.

The craft operates electrically, carries no flammable fuel, has an integrated GPS pilot system, provides location information along with height AGL, speed, battery life, has programmed no-fly zones for controlled airports, and provides direction of travel and distance from the pilot.

Flight Operations:

I am well aware of conducting safe flight operations and planning flight paths that minimize any overflight of crowds.

Any flight operations in town environments would typically be for close air support for very focused events such as structure fires, Haz Mat inspection, or severe accidents. These operations occur in a very limited area and would not need to overfly densely populated areas in general. Operations would be more vertical in nature above the specific event.

My proposed public safety UAS operations are typically conducted at low altitudes less than 400 feet AGL (within Class G airspace), not over crowds, and not near airports. Flights will end when battery reserve reaches 25 percent. Operations will not occur under IFR conditions.

In addition, preflight and post-flight checklists and UAS examinations will help detect any abnormalities prior to flight and after flight. Any UAS unable to satisfy safety checklists will be removed from service until the issue can be resolved.

Granting this request would not adversely affect safety since operations would be in accordance with current UAS rules.

Section 333 Compliance and Appropriateness:

Based on the size of the craft, experience of the pilot, and operational goals, this request appears to be well suited for approval using the criteria outlined in Section 333 of the FAA Modernization and Reform Act of 2012 and will move safe flight operations forward in accordance with the intent of Section 333.

Ongoing Efforts:

I am also keenly aware of the new issues involved in UAS public safety operations and would greatly like to assist public safety departments to fly with commonsense and safety first in mind.

Many departments I've seen are under the misperception small UAS craft are toys, which they are not. With your help I hope to obtain this exemption in order to use my exempted flight experience to help to agencies to get off on the right foot, learn what they don't know, and help them to move forward to operate safer while they utilize the UAS to save lives.

As an example of my public effort to help public safety agencies in the safe and proper use of UAS craft I have just launched a new website to help distribute information, advice and share the valuable experience I will obtain as the result of the granting of this request for exemption.

Sincerely,
Steve Rhode