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Press Release

Professional Helicopter Pilots Association (PHPA) Submits Drone Recommendations to FAA

Los Angeles, CA, June 2, 2015: Last month, we advised our members that the Federal Aviation Administration (FAA) was soliciting input from the aviation community regarding future regulations affecting drone operations.

PHPA representatives submitted a response based on our discussions with several key players, including helicopter operators, drone operators, air traffic controllers and others. Our submittal is attached below, but here are a quick list of some of our recommendations.

- Altitude limits (200' AGL)
- Different classes based on weight, with additional limitations
- Delay larger weight ranges pending further experimentation
- Expand and continue the COA approach for certain categories
- Aircraft markings for day visibility
- Tracking capability / geolocation
- Speed limitations (50 mph)
- Airspace restrictions
- Expanded operator training including real world orientation flight
- Insurance requirements of substantial nature
- and more.

We will keep you updated on future developments.

These devices are permanently changing the helicopter industry in many ways beyond the issues of safety (paramount) and into the issues of cost efficient methodologies and markets for hover-capable craft.

PHPA Board of Directors

FAA Rulemaking Docket 2015 - 0150
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building Ground Floor, Room W12-140
Washington DC 20590

Date: April 24, 2015

Subject: FAA Drone Rulemaking 14 CFR 91

The Professional Helicopter Pilots Association based in Los Angeles, California, has considered the current FAA Rulemaking Project for the operation of Drone Aircraft in U.S. Airspace. As you are aware the airspace in the greater Los Angeles area is among the most congested airspace in the United States as well as the world. Our concerns are for safety of operations and protection of human life. We offer the following comments for consideration by the FAA in the current Rulemaking Project.

Comments: Rulemaking Process:

Given the extreme issues of safety, visibility, control, certification and enforcement, we respectfully suggest that the rulemaking proceed in progressive steps, limited at first and expanding as time and experience accumulate ~ even more so than is currently the case.

For instance, rather than have initial rulemaking apply to UAS under 55 lbs gross weight at take-off ("GWATO"), initial rulemaking should be only for UAS under 15 lbs GWATO. Experience should be gathered for two years under whatever broad licensing rules are established for operation of UAS at 15 lbs or less, and then move to Rulemaking for UAS of a higher gross weight at take-off, such as <55 lbs.

For those parties who wish to operate UAS at or below 55 lbs GWATO, such parties should, during that subsequent two year period (likely 2017~2019) be required to receive a Certificate of Authorization ("COA") as these parties are today.

This approach would not limit legitimate operators willing to go through the COA process, yet it would provide the FAA with critical and substantial information regarding the regulated operation of UAS both of the very small size (under 15 lbs) and further and critical information in regards to operations of UAS at or below 55 lbs GWATO.

Such a progressive Rulemaking Process would also provide time for the technology to catch up with the desires in the marketplace as well as the substantial difficulties of integrating UAS into a long-operating and extremely well-operating National Airspace System ("NAS"), a NAS that has taken over 100 years to develop and is arguably better than any "nas" of any other country.

For instance, this would provide time for miniaturization, cost reduction and weight reduction of transponder technology, for miniaturization and cost reduction of TCAS technology, and even miniaturization, weight reduction and cost reduction of ADS-B Out technology.

Effectively, this approach would allow not only for the accumulation of far more illustrative data on which the FAA would be afforded the opportunity to make wise decisions, but this approach would allow for the affordable "sense and avoid" technology to develop for UAS that will make it as or more effective than the FAR requirements for "see and be seen" in VFR piloted aircraft or as is created today by sophisticated Air Traffic Control for IFR traffic.

We strongly recommend this tiered approach to the development of FARs. However, whether or not this specific recommendation for expanded tiered or stair-stepped development of FARs is adopted by the FAA, we make the following comments and recommendations under the current approach.

Aircraft Requirements:

- Small UAS under 55 pounds should have lighting systems to provide visual awareness to other aircraft and persons on the ground. This lighting system should be intense enough to be visible during daylight and under bright sunlight conditions.
- UAS markings should include bright color finish and markings to ensure they are highly visible during daylight hours of operation.
- While the NPRM requires some form of aircraft registration we recommend that each UAS in this category be registered for operation to enable tracking and accountability.
- UAS Aircraft noise emissions should be below 65 DBE under all conditions of operation.

Operational Limitations:

- Maximum altitude for Small UAS operations should be restricted to 200 ft AGL unless under positive control by ATC to prevent collisions with low flying helicopters and other aircraft. This is a highly significant recommendation at this stage of progressive integration and data accumulation for effective Rulemaking.
- Small UAS aircraft must not be operated over persons or property in an unsafe manner, or in a manner not directly involved in their appropriate permitted operation ~ provision for which should be made. FAA support should be provided for means by which individuals or companies can limit or eliminate the overhead or adjacent operation of UAS by anyone other than properly certified public service / public safety operators.
- Visual observation by a second person as a means to provide a primary set of eyes and control should not be permitted. Such an approach involving little or no direct control allows substantially unsafe operating conditions.
- Maximum operational airspeed should be restricted to below 50 mph. The proposed 100 mph limit is excessive and unsafe under many conditions within which UAS will fly.
- UAS operations in Class B Airspace should not be allowed even with ATC permission unless a certified transponder or other certified multi-dimensional position-locating device is installed which is operational at least above 200 feet AGL.
- Eventually, such certified multi-dimensional position-locating device should be required of ALL UAS being flown in U.S. Airspace regardless of status as COA- holder, licensed operator and/or hobbyist and regardless of whether the UAS operation is in currently regulated airspace or in currently unregulated airspace (such as Class G Airspace or airspace below the final determination of allowed altitude of operation by licensed operators).

Notification of Operations:

- All operations of UAS over 200 feet (by definition of these recommendations requiring a COA for the next 3~4 years) should require notification of no less than 48 hours in advance to the FAA for smooth and easy incorporation of operations plans into NOTAMs and, if applicable, ATIS broadcasts.
- The FAA should provide an easily accessible and effectively-staffed capacity to handle and process these notifications especially in, but not limited to, areas of congested airspace such as the greater Los Angeles area and other major metropolitan areas of the United States.

Operator Certification:

- The FAA Regulations should require UAS Operators to report to the FAA within 48 hours all accidents resulting in substantial damage to the operator's UAS and absolutely provide reporting in regards to accidents involving other aircraft during flight whether the other aircraft are "manned" and cockpit-piloted or "unmanned" and not cockpit-piloted.
- UAS Operator Certification should be required and issued by the FAA and require examination by a certified FAA UAS Examiner. Such training should require a review of cockpit-piloted aircraft rules and regulations AND a familiarization flight of at least one hour and a half or more with a CFII in a cockpit-piloted aircraft (fixed or rotary) in the general area of proposed UAS operations, with at least one-half hour of that occurring well into darkness, for instance at least an hour past official sunset or an hour prior to official sunrise. Such a "fam-flight" is particularly important in airspace as congested at what we experience in greater Los Angeles, but such a "fam-flight" should be required of any UAS Operator as a part of receiving his or her or the entity's Operator Certification and especially in the case of receiving a COA for commercial operations or operations over 200 ft AGL.
- Pilot-in-Command concept equivalency should be established within the context of operation of a UAS. Not only must the individual operating a UAS be licensed but any corporate entity receiving a COA must have a designated "UASOPIC" (or "UAS Operator Pilot in Command") specifically designated and put in writing (similar to the use of logbooks in cockpit-piloted flight) and kept on record for a minimum of five (5) years with access provided to any Law Enforcement Officer or FAA Inspector upon request.
- Public privacy is a critical issue for operations of UAS Aircraft as is respect for the FARs that result from this Rulemaking Project and others that may follow. Making sure that such respect exists both for privacy as well as for rules of operation is beyond the manpower capacities of the FAA as currently organized or likely eventually to be organized; therefore, we have the need for delegated or distributed enforcement. Operators of UAS should be required to present their Operators Certificate to any Law Enforcement Officer or FAA Inspector on demand. As a part of such an enforcement initiative, it will be incumbent upon the FAA to provide educational materials and a program for education of all local and national law enforcement organizations and employees. Such a program should, ideally, have Congressional approval and legislative support; however, should that not be forthcoming, it is our considered opinion that the FAA should provide at the very least the educational materials on the internet to all local, State and national law enforcement organizations in regards to the FARs, as hereby developed, and the effective "deputizing" of these

personnel as “arms of the law” (or, specifically, the FARs) in the enforcement and control of any operator of UAS in public airspace as specified in the FARs.

Model or Hobby Aircraft:

- The proposed rules should codify FAA's enforcement authority in Part 101 to prevent careless and reckless operations of UAS or Model/Hobby Aircraft wherever such aircraft are operated, including restricted airspace and including TFR designated airspace.
- Our recommendations are not designed to further limit Model or Hobby Aircraft operations in specifically designated airspace “boxes” where these are currently allowed or may in the future be established.
- To the extent that these airspace “boxes” for Model or Hobby Aircraft are established, such “boxes” should be appropriately charted and such charts as TAC and Sectional charts be updated periodically in regards to the existence of these “boxes”.

Insurance:

- As we are all aware, the private sector, through independent insurance companies, as much or more than the FAA, designates who can fly and who cannot fly at least in commercial operations and often in aircraft rental or lease operations in the U.S.
- Given that the barriers to entry into operation of UAS of anything less than meaningful military magnitude, and certainly for anything under 55 lbs GWATO, has come down by leaps and bounds; and since these cost barriers to entry are so low BUT the cost of collision with very expensive and multi-passenger cockpit-piloted aircraft has expanded exponentially in the past few years and even the past few months plus given the not-inconsequential potential losses and liabilities to ground-based assets and personnel ~ given these facts, we strongly recommend that any COA holder (according to these recommendations anyone operating a UAS above 200 feet or over 15 lbs GWATO) be required to carry a minimum of \$1,000,000 gross insurance and no less than \$200,000 per human disabled or deceased as a direct or indirect result of that COA holder's operation of a UAS. Further, we recommend that any licensee (as determined to be so by the FAA) be required to hold such insurance for all operations including those under 200 ft AGL immediately.
- Such insurance requirements should be promulgated for at least the next five (5) years and, if set in place for only those five (5) years, reviewed in regards to the mandate at year four (4) for consideration and continuance beyond the initial five (5) years

PHPA also respectfully requests extension of the comment period from April 24, 2015 to May 24, 2015 as previously requested by Helicopter Association International. This time extension would allow comments from operators of helicopters who will be sharing the airspace with these UAS to ensure the safety of these operators and the safety of the general public.

Sincerely,
William Withycombe
PHPA Board of Directors