U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

September 11, 2015

Exemption No. 11666A
Regulatory Docket No. FAA−2015−0630

Mr. Ryan Murguia
President
AeroView Services, LLC
19645 Seven Ponds Road
Sperry, Iowa 52650

Dear Mr. Murguia:

This letter is to inform you that we have granted your petition for an amendment. It explains the basis for our decision, describes its effect, and lists any changes to the original conditions and limitations.

By letters dated June 12, 2015 , and June 25, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of AeroView Services, LLC (hereinafter petitioner or operator) for an amendment to your current exemption. That exemption from §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b) of Title 14, Code of Federal Regulations (14 CFR) allows the petitioner to operate a UAS to perform aerial data collection. You requested an amendment to add the 2015 SenseFly eXom and Trimble UX5 hp.

In your petition, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested amendment to the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner. The unmanned aircraft authorized in the original grant are comparable in type, size, weight, speed and operating capabilities to those in this petition.

Airworthiness Certification

In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited

operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that relief from 14 CFR part 21, C*ertification procedures for products and parts, Subpart H—Airworthiness Certificates,* and any associated noise certification and testing requirements of part 36, is not necessary.

Our Decision

The FAA has determined that the justification for the issuance of Exemption No. 11666 remains valid and is in the public interest. Therefore, under the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, the operator is granted an amendment to add new aircraft to its UAS operations.

The operator shall add this amendment to its original exemption.

Conditions and Limitations

All conditions and limitations within Grant of Exemption No. 11666 remain in effect except as follows. Condition No. 1 has been updated to reflect the additional aircraft.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the Trimble UX5, SenseFly eXom, and Trimble UX5 hp when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

This exemption terminates on May 31, 2017, unless sooner superseded or rescinded.

Sincerely,
/s/
John S. Duncan
Director, Flight Standards Service

Mr. Jim Williams

UAS Integration Office
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591

June 12th, 2015

Re: Re: Docket FAA 2015-0630, Petition for Amendment to Exemption No. 11666

Dear Mr. Williams:

AeroView Services, LLC received FAA Exemption No. 11666 on May 22, 2015 authorizing AeroView Services, LLC under section 333 of the FAA Modernization and Reform Act of 2012 to operate an unmanned aircraft system ("UAS"), the Trimble Navigation UX5, for various commercial purposes. In this present petition for an amendment to Exemption No. 11666, AeroView Services, LLC seeks to operate the senseFly eXom UAS for the same purposes.

The eXom, weighting 3.7 pounds (Maximum Take Off Weight), contains a rich array of advanced integrated sensors. These sensors work together to provide the user with full situational awareness and support obstacle avoidance:

- Five 'Navcam' vision sensors allow the operator to see in the direction the drone is moving via its flight control software, without needing to turn the system's TripleView

camera head. This technology is unique in such a lightweight UAS, similar to the visual parking sensors in modern cars, but brought into a 3D flight environment.

- Five ultrasonic proximity sensors work in harmony with eXom's Navcams to ensure the operator always knows the drone's distance from nearby objects. (The drone's shock absorbent carbon fiber shrouding is also always on hand to protect its rotors in case of surface contact.)

- Numerous other sensors, including inertial measurement units, barometers, magnetometers, GPS and magnetic encoders, maximize the drone's stability and safety.

eXom offers different flight modes to suit every project: semi-automatic mode (waypoint navigation) or interactive ScreenFly mode (using the supplied joypad to navigate and orientate the drone via computer screen). The Screenfly mode includes flight assistance features such as cruise control and distance lock. In any situation, RC-based manual control always remains available as a backup function.

The eXom is particularly safe. It was developed with flexible material absorbing potential shocks, and senseFly's R&D team has developed also a unique carbon-fiber shrouding protecting the propellers. SenseFly has also added also redundancy in the command and control system. In case something happens to the primary autopilot, the eXom will switch automatically to the secondary autopilot.

AeroView Services, LLC will comply with all of the conditions and limitations imposed in Exemption 11666 except that condition/limitation number 1 will need to be revised to include the senseFly eXom UAS. The list of "operating documents" will also need to be revised to include the senseFly operating manual and safety assessment for the eXom UAS. Other than these revisions, there will be no change in the conditions and reasons relative to public safety that were the basis for the initial grant of exemption.

Supporting documents listed as exhibits one through five were emailed to 333exemptions@faa.gov on 6-12-15. SenseFly has requested that the proprietary information in exhibits one through five remain confidential in our amendment submission.

Because the requested amendment would not set any new precedent or otherwise raise any novel issue, and because AeroView Services, LLC seeks to begin these operations without delay, AeroView Services, LLC respectfully requests the FAA to determine that good cause exists to dispense with publication of the summary of this petition in the Federal Register and grant the requested amendment expeditiously by summary means.

Thank you for your consideration of this petition.

Respectfully submitted,

Ryan Murguia
President
AeroView Services, LLC

Encl:
cc: Zach Pieper

Mr. Jim Williams

UAS Integration Office
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591

June 25th, 2015

Re: Re: Docket FAA 2015-0630, Petition for Amendment to Exemption No. 11666

Dear Mr. Williams:

AeroView Services, LLC received FAA Exemption No. 11666 on May 22, 2015 authorizing AeroView Services, LLC (AeroView) under section 333 of the FAA Modernization and Reform Act of 2012 to operate an unmanned aircraft system ("UAS"), the Trimble Navigation UX5, for various commercial purposes. In this present petition for an amendment to Exemption No. 11666, AeroView seeks to operate the Trimble UX5 hp UAS for the same purposes.

The requested amendment to add the UX5 hp to exemption 11666 is consistent with amendment 11110A granted to Trimble Navigation to include the UX5 hp. See exemption 11110A (May 7, 2015; docket FAA-2014-0367).

The UX5 hp, has a minimal weight and power increase to allow for an increase in payload. This allows the UX5 hp to carry a slightly larger camera. The larger camera will provide higher resolution for the finished survey product. The power increase will allow for better performance in high altitude areas of the country and flexibility to increase payload in the future. The physical dimensions and operating characteristics of the UX5 hp are the same as the UX5 model approved in exemption 11666.

AeroView Services, LLC will comply with all of the conditions and limitations imposed in Exemption 11666 except that condition/limitation number one will need to be revised to include the Trimble UX5 hp UAS. Other than this revision, there will be no change in the conditions and reasons relative to public safety that were the basis for the initial grant of exemption.

Supporting documents listed as exhibits one through five were emailed to 333exemptions@faa.gov on June 25, 2015. Trimble has requested that the proprietary information in exhibits one through five remain confidential in our amendment submission. Please note that the UX5 hp has the same operating and safety characteristics as the UX5. Exhibits one through four are the same as submitted in support of exemption 11666. The official documentation has not yet been updated to include the UX5 hp. Exhibit 5 is the UX5 hp data sheet containing the updated weight and power specifications. Physical dimensions are the same as the UX5.

As the requested amendment will not set a new precedent or otherwise raise any novel issue, AeroView Services, LLC seeks to begin these operations without delay, AeroView Services, LLC respectfully requests the FAA to determine that good cause

exists to dispense with publication of the summary of this petition in the Federal Register and grant the requested amendment expeditiously by summary means.

Thank you for your consideration of this petition.

Respectfully submitted,

Ryan Murguia
President
AeroView Services, LLC

Encl:
cc: Zach Pieper