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September 18, 2016 - Newton, Massachusetts

Honorable Councilor Emily Norton

Re: Opposition to items in
197-15(2) Ordinance Proposal
Sec. 20-64 Pilotless Aircraft Operation

Dear Councilor Norton,

My name is Andrew Argenio and I serve as an Academy of Model Aeronautics (AMA) executive board member and district vice president representing AMA members and clubs in New England. I write today at the request of Howard Samuels, an AMA member and resident of Newton, MA to support his opposition to specific items in the proposed Pilotless Aircraft (sUAS) ordinance.

The AMA is the official national model aviation association organized for the purpose of promoting, educating, and safeguarding the sport of model aircraft building and flying. Established in 1936, today the AMA has 195,000 members and 2,450 flying clubs located in both urban and rural areas on public, private and commercial property including schools and airports where safe and responsible flying of model aircraft has been permitted for many decades without incidents. AMA has 36 flying clubs and 40 flying sites in Massachusetts.

The FAA considers AMA pilots to have an exemplary safety record and as a result, Congress in 2012's Federal Modernization & Reform Act (FMRA) passed Public-Law 112-95 Sec. (c) 336 for UAS recreational operations. This law exempted AMA's community based organization (CBO) from further FAA regulations, allowing AMA to continue to create safety programming for AMA member flight operations.

The first item of concern is (2) Registration. Opposition to registration initially comes from the FAA document "State and Local Regulation of Unmanned Aircraft Systems" Dec. 17, 2015 wherein the document states that "*no State or Local government may impose an additional registration requirement on the operation of Unmanned Aircraft in navigable airspace without first obtaining FAA approval.*" If FAA has provided approval, there is no objection.

Opposition to registration also stems from preemption, which as I am sure you know better than I, that prohibits state or local governmental regulation in an area if the federal government's regulatory scheme is sufficiently comprehensive that it evidences the intent for federal law to occupy the entire field.

Ms. O'Keefe advised the council to proceed with a registration regulation because as she stated, "the FAA was still in the process of formulating their regulation". If this was true at the time, then drone registration would not be subject to preemption. She also stated that "Commercial drone use is heavily regulated by the FAA and preempted from municipal regulations."

From January to June the registration of hobby drone pilots reached 450,000, exceeding 300,000 manned aircraft and 5,000 commercial drones, in FAA's drone registry. This would certainly make Newton's registration regulation for hobby drone pilots subject to federal preemption and very unlikely of standing up to a legal challenge. Unless permission is granted by the FAA as required, I strongly recommend leaving the registration for hobby drone pilots to the FAA.

The intent for Newton drone registration was to aid local law enforcement in investigating drone incidents and violations and as a means of disseminating safety related educational guidance to those registering. Without local registration, law enforcement has access to obtaining and verifying the registration number affixed to sUAS for any FAA registered remote pilot in Massachusetts at LEA Assistance, by contacting FAA Special Agent Tracy Schiebel at (781) 238-7704. In terms of providing basic drone education during a registration process, it is provided when a person registers with the FAA and safety guidelines are printed on the registration. FAA registration is done online and no photos are necessary nor does it require registering rubber powered toy airplanes that weigh under 8 ounces.

There isn't any opposition to items (3) thru (9).

It is recommended to add an item (10) Federal Preemption: *"If federal law preempts any provision of this bill, that provision shall not apply."*

There are some concerns with answers provided in the DRONE FAQ's section as follows:

Q 1- I already registered my drone with the FAA, why should I have to register again?

The Newton registration process includes a significant educational component that will help owners and operators better understand how and where to fly drones in a safe and careful manner.

Comment – Good idea to Educate owners and operator on “where” and “when” they can fly but this may reach more people on a Newton webpage with links to FAA and AMA websites as well. Many of AMA's 36 Clubs in MA offer free flight training for a 60-day period with insurance. The FAA and AMA have extensive educational material on multiple websites to address safety concerns, regulations and operational requirements and limitations for all types and sizes of sUAS that are monitored and revised as new technologies are utilized/adopted into the organizations safety programming.

Q2 - Does the FAA also regulate drones?

A2 - In general, the FAA is concerned with protecting public safety, and focuses its regulations on aircraft that operate above 400 feet and that share the airspace with airplanes and helicopters. The City of Newton ordinance only regulates drones that fly under 400 feet, in the airspace that the FAA permits cities and towns to oversee.

Comment – **Both answers above are incorrect**, misleading and contradictory to FAA's regulatory authority over NAS.

The FAA received directives from Congress in the 2012 FMRA to safely integrate sUAS into the National Airspace (NAS). **The FAA focus is on sUAS flights** for public, commercial, and recreational applications which take place in Class G uncontrolled airspace where many millions of sUAS will be flying **between 200 ft.– 400 ft. AGL**. There is very much less activity in large

UAS flights for military, scientific, and surveillance purposes taking place above 500 ft. and more often above 18,000 ft. AGL.

In no way would the FAA permit cities or towns to oversee UAS/drone flying at altitudes between 200ft – 400 ft.

This is the flight airspace where sUAS are predominate and there is already 450,000 sUAS and growing fast.

Referring to FAA document titled “*State and Local Regulation of UAS*” December 17, 2015 The document essentially informs legislators that the FAA views its authority to regulate UAS safety and operations in the NAS as pervasive and exclusive. Jim Williams, the recently retired Director of the FAA UAS Integration Office, has stated many times that the FAA considers the airspace one millimeter above your lawn to be the national airspace subject to federal government regulation. States or local government do not have the authority to regulate drone operations in the NAS and courts have held that the U.S. government by statute “has exclusive sovereignty” of the NAS and any state or local statutes would be preempted by FAA regulations.

The following statements from the 7-page document clearly indicate FAA’s thoughts about state local UAS regulations:

- A navigable airspace free from inconsistent state and local restrictions is essential to the maintenance of a safe and sound air transportation system.
- Fractionalized control of the navigable airspace could result in a patchwork quilt of differing restrictions that could severely limit the flexibility of FAA in controlling the airspace and flights of unmanned aircraft.
- A consistent regulatory system for aircraft and use of air space has the broader effect of ensuring the highest level of safety for all aviation operations.
- Where Congress occupies an entire field ...even complimentary state regulation is impermissible.

Local Regulation:

Ms. O’Keefe stated that Permission from the FAA for the local regulation of drones flown under 400 feet is derived from two sources. The FAA’s Interpretation of the Special Rule for Model Aircraft states that operation of model aircraft is restricted to 400 from the surface. In addition, the Fact Sheet issued by the FAA on December 15, 2015 states that certain aspects of drone regulation are best effectuated by local government. Together, these are read to confer tacit approval for the City to enact the proposed ordinance and regulate model drones operating under 400 feet.

Response – The FAA’s Interpretation of the Special Rule for Model Aircraft was posted for public comment on June 23, 2014 and cannot be used as a source of regulatory information at this time since the document was never codified into law. The FAA is still revising the document based on the 33,000 comments and according to them it may not be finalized until late in 2017.

Attached is a letter dated July 7, 2016 from Earl Lawrence FAA Director of the UAS Integration Office stating that “*model aircraft may be flown consistently with section 336 and agency guidance at altitudes above 400 ft. AGL when following a community-based organizations safety guidelines. A CBO such as the AMA may establish limitations in their safety guidelines that exceed the FAA’s 400 ft. AGL recommendations.*”

In the meantime, the Special Rule for Model Aircraft incorporating the statutory language from Section 336 of the FAA FMRA of 2012 (without FAA's interpretation) has been codified into Law with the passage of FAA's sUAS Part 107 on August 29, 2016 and placed in Part 101. This preserves AMA's 336 exemption allowing AMA to continue to provide operational safety programming for AMA remote pilot sUAS flight operations.

Visual Line of Site:

Ms. O'Keefe again made reference to FAA's Interpretation of the Special Rule for Model Aircraft and as stated above this 2014 interpretation which doesn't allow First Person View (FPV) was not codified into law and when finalized, it will not include the restriction to FPV flying with goggles and aided by a Visual Observer. As a result of 336 being codified (previous paragraph) AMA/CBO members are permitted to continue flying FPV. On August 2, I was the Contest Director for the Drone Sport National FPV Racing event held on Governors Island in N.Y. and FAA executives were guest speakers in attendance. Attached see "FPV FLYING UNDER 107 ALLOWED" is a copy of page 149 of the new 107 regulations.

AMA Pilots have different Flight Rules from other Recreational Pilots

AMA's Safety Programming systems approach to risk assessment and mitigation for all types of model aircraft operations allows AMA remote pilots to exceed flight operations of non-member recreational remote pilots in the following FAA approved areas:

- FPV Google Flying • Altitudes above 400 ft. AGL • Speeds to 200 mph
- Plane Weight to 125 lbs. • Night Flying LED Lighting •

(Liability Insurance Coverage AMA members 2.5 million – Flying Sites 5 million)

In summary, I would recommend a review of the FAA "State and Local Regulations of UAS" Fact Sheet by the committee. It provides good examples of sUAS laws traditionally enacted by states and municipalities that may not be challenged or preempted. I would recommend not moving forward with registration unless consulting with the FAA and getting their blessing. Stay away from flight operational issues dealing with everything from altitudes to specific operations like FPV. Focus on creating regulations that look at when and where flying may occur in Newton. Recognize and provide opportunities for sUAS STEM education and permitted supervised flying at schools and consider creating an AMA Drone Zone space on mandated passive use public property.

Please accept my apology for such a long letter however, in an effort to provide current information for consideration on UAS/Drone legislation that's trying to keep pace with an accelerating technology, is difficult.

I would be happy to meet with you or the committee to further explain our organization and its community-based safety programming or to help in any sUAS initiatives.

Sincerely,

Andrew Argenio,
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