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June 28, 2017

Senator Edward J. Markey
United States Senate
255 Dirksen Senate Office Building
Washington, DC 20510

Senator Elizabeth Warren
United States Senate
317 Hart Senate Office Building
Washington, DC 20510

Re: **Draft Amendment to the FAA Budget Reauthorization Bill**

Dear Senators Markey and Warren:

We write to express our support for including the enclosed draft amendment as part of the U.S. Senate's upcoming Federal Aviation Administration (FAA) Budget Reauthorization Bill deliberations. In short, this draft amendment would mandate that flights over residential areas within 25 miles of U.S. commercial airports return to the dispersion of flight paths and altitude levels that prevailed prior to FAA's Next Generation Air Transportation System (NextGen) Area Navigation (RNAV) current system implementation.

Hour after hour, day after day, week after week, many Milton residents suffer through the ear-splitting noise, annoying vibrations, and polluting dangers of constant low-flying aircraft coming from and going to Logan Airport. The cause of this torment is the dispersion of flights under the current RNAV system, which has the effect of sending a disproportionate number of planes on narrow flight paths over certain neighborhoods in Milton. Directly under two of those narrow flight paths – which lead to runways 4L and 4R – are schools attended by thousands of children ages 3 through 18, parks and playgrounds where hundreds of children play, senior living facilities, and a portion of the Blue Hills Reservation that was designated as an Area of Critical Environmental Concern.

The approach of the enclosed draft amendment, which has been led in Milton by resident Thomas J. Dougherty, Esq., is not to undo the NextGen technology or any of its benefits, but rather to use that technology to restore the dispersion of flight paths in effect prior to the current RNAV system by creating a number of RNAV paths. Our understanding is that Maryland

Senators Cardin and Van Hollen have informed residents affected by the RNAV flight paths around Baltimore/Washington International Thurgood Marshall Airport that they support this approach and are discussing introducing it in the Senate as well.

We view this approach as the best hope to protect Milton residents, and especially their children, from the polluting effects of the narrow dispersion of flight paths under the current RNAV system. We hope that you will sponsor this amendment as part of the U.S. Senate's upcoming Federal Aviation Administration (FAA) Budget Reauthorization Bill deliberations and support its adoption.

Thank you for your consideration, and please contact us if you have any questions or need any additional information.

Sincerely,

Milton Board of Selectmen

Richard G. Wells, Jr., Chair

Michael F. Zullas, Vice Chair

Melinda A. Collins, Secretary

Kathleen M. Conlon, Member

Anthony J. Farrington, Member

cc: Congressman Stephen F. Lynch
State Senator Walter F. Timilty
State Representative Daniel R. Cullinane
State Representative William Driscoll
Cindy L. Christiansen, Milton Representative to the Massport Community Advisory Committee
Milton Airplane Noise Advisory Committee
John P. Flynn, Esq., Milton Town Counsel
Thomas J. Dougherty, Esq.

Draft Amendment to the FAA Budget Reauthorization Bill

See attached.

DRAFT
6/25/18

[Add to S.1405]

Amendment to Federal Administration

Reauthorization Act of 2018 Proposed New Section [4119]

(1) **The Amendment**. This draft amendment adds a new Section to Title IV of the proposed FAA Reauthorization Act of 2018. ("FRA"). The FRA would extend FAA budgetary authorization through FY [2021].

(2) **Purpose**. This amendment addresses overflight noise and pollution impacts on communities surrounding commercial airports resulting from Next Generation Air Transportation System ("NextGen") concentrated and low-altitude flight paths and airspace redesign.

(3) **Background**. Using NextGen satellite Performance Based Navigation technology, the FAA has implemented at commercial airports its modernized aircraft guidance system. This includes its Wide Area Augmentation System (WAAS) enabling area navigation (RNAV) utilizing global positioning system (GPS) technology, including Required Navigational Performance guidance. Dates of implementation of NextGen WAAS-RNAV-GPS technology vary by airport and runway following NextGen rollout in 2007 with significant implementation in 2011 and thereafter.

(4) **The Problem**. NextGen's employment of satellite-based technology comprising Wide Area Augmentation System (WAAS) enabled Area Navigation (RNAV) Global

(5) Positioning System (GPS) guidance, including Required Navigation Performance[1], allows the FAA to specify precise, narrow aircraft arrival, approach and departure paths with planes flying closer together and at altitude less than 3 or more degrees glideslope. As a result, planes fly repeatedly over the same residents as if on a narrow sky-rail causing and concentrating noise and emissions. Recurring noise and highly concentrated emissions of air pollutants resulting from these narrow and low-altitude flight paths are damaging the health and welfare of underlying communities. Aircraft on these narrow flight paths fly closer together and at much lower altitudes than before, seriously exacerbating the harmful impacts of the noise and pollution for underlying communities and residents and creating safety concerns. However, NextGen era WAAS enabled RNAV-GPS technology is fully capable of providing multiple, dispersed aircraft flight paths, a so-called "family of paths" that would relieve the heavy concentration of single-path air traffic over communities by restoring aircraft dispersion to the level prior to the present one-path implementation.

(6) **The Amendment: Restoring Dispersion to Approach and Departure Flight Paths.** This new section requires the FAA to use all currently and historically available methods, and to develop and implement new methods as needed, in order to mimic the dispersion, altitudes, and historical ground paths within 25 miles of airports that were present before it implemented satellite-based technology as utilized by NextGen. These changes will reduce the impacts of noise and emissions on underlying communities in recognition of

[1] Note to Senate staff: the description of the applicable NextGen technology and its use needs to be described with specificity so that dispersion can be restored to prior levels. This definition can be reviewed and confirmed, or adjusted if better precision is attainable.

the fact that concentrated paths create untenable noise and emissions for citizens on the ground, and that decades of land-use planning and home ownership decisions were based on historical and dispersed paths. Planes flew safely on dispersed paths prior to NextGen implementation using technology which has been improved upon by NextGen itself. The amendment provides that FAA shall implement measures using NextGen WAAS-RNAV-GPS technologies to achieve overflight dispersion levels existing at an airport one year before initial NextGen era test or use of WAAS-RNAV-GPS technology at that airport runway in order to equitably distribute aircraft in the dispersed manner as at that prior year. Modern aircraft flight management systems (FMS) are modular in form, allowing additional flight paths to be added or modified without requiring recertification of the FMS. That will facilitate implementation of a dispersed family of paths for each runway.

(7) **The Amendment: Approach, Altitude and Glideslope**. Under FAA practice, approaching aircraft should maintain an altitude no lower than that resulting from a three degree glideslope. To alleviate overflight noise, the amendment makes that practice mandatory for all approaching aircraft within 25 miles of an airport, except in specified instances.

(8) **The Amendment: Highest Safe Departure Altitude**. To alleviate overflight noise, the amendment requires FAA to implement measures that require all departing aircraft to attain and maintain the highest safe departure altitude up to a distance of 25 miles from an airport, except in specified instances.

(9) **The Amendment: Reporting**. The FAA shall report to the appropriate Congressional Committees its progress in implementing these measures, including a report of single event noise exposure level (SEL) comparisons for arriving and for departing overflights, before and after such implementation.

(10) **Final Comment**: The concept of using the NextGen technology to implement a family of flight paths rather than a single flight path to/from each runway so that aircraft are dispersed as they were in the year prior to WAAS-RNAV-GPS implementation has been adopted in the Netherlands. MIT's Lincoln Labs FAA consultant has noted that a "family of paths" is a feasible way to use the same technology to achieve overflight dispersion. Because each plane approaching the same runway must follow the plane ahead of it by three miles distance (one minute at 180 mph) a family of paths does not increase the number of aircraft arriving at a runway compared to the present single track path. FAA has no mandate to adopt the measures provided by this amendment. If the FRA is enacted without this amendment, the extreme burdens imposed on communities surrounding 45 major U.S. airports in 30 states, and others, will continue for years because the FRA extends through FY [2021].