#### Advisory Board

Kathi Anderson, Executive Director, Walden Woods Project & Thoreau Institute

Ed Begley, Jr., Actor, Environmentalist Douglas Brinkley, Author, Professor of

History, Rice University

Richard D. Brown, Professor Emeritus of History, Univ. of Connecticut, Author

Ken Burns, Director, Producer, Historical Documentarian

Edward F. Countryman, Professor of History, Southern Methodist Univ., Author

Robbie Cox, Former President, National Sierra Club

Joan Cusack, Actor, Activist

Michael S. Dukakis, Professor Emeritus Northeastern University, Former Governor of Massachusetts

Eric Foner, Professor Emeritus of History, Columbia University, Author

William M. Fowler, Jr., Professor of History, Northeastern University, Author

Doris Kearns Goodwin, Historian, Author

Don Henley, Recording Artist, Founder, Walden Woods Project

Laura Johnson, Former President, Massachusetts Audubon Society

Michael Kellett, Executive Director, Thoreau Country Conservation Alliance & RESTORE: The North Woods

Marty Meehan, President, University of Massachusetts

John Hanson Mitchell, Author, Former Editor Sanctuary Magazine Richard Moe, Former President,

National Trust for Historic Preservation

Wesley T. Mott, Former President, Ralph Waldo Emerson Society, Professor, Worcester Polytechnic Institute

Nicola D. Tsongas, Former U.S. MA Representative Joanne Woodward, Actress, Humanitarian

#### Advisory Board in Memoriam:

Shelby Foote, Historian, Author Paul Newman, Actor, Humanitarian Gregory Peck, Actor, Environmentalist Christopher Reeve, Actor, Environmentalist James O. Horton, Professor of History, George Washington University, Author Alfred F. Young, Professor Emeritus of History, Northern Illinois Univ., Author David McCullough, Historian, Author Edward O. Wilson, Naturalist, Author Professor Emeritus, Harvard University

#### **Executive Director**

Anna West Winter



# Save Our Heritage

Protecting the birthplace of the American Revolution, the cradle of the American Environmental Movement, and the home of the American Literary Renaissance.

May 20, 2024

To: Alex Strysky, on behalf of EEA Secretary Tepper Re: EEA No. 16654 L.G. Hanscom Field North Airfield Development, Bedford, MA

On May 1st, 2024, Minute Man National Historical Park, Walden, and nearby landmarks, all national sites revered worldwide, were designated by the National Trust for Historic Preservation as one of *America's 11 Most Endangered Places* due to the proposed plan to buildout 522,000 sq.ft. of infrastructure for luxury private jets at Hanscom Airport.

As no historic or natural site can be protected if we fail to protect our climate, Save Our Heritage respectfully submits the below comments regarding the significant environmental impacts associated with this project and the proponent's failure to honestly and adequately address them in their DEIR submission. In particular, the DEIR is deficient in that the report fails to disclose the most important source of environmental impact.

The principal driver of airport environmental impacts is aircraft flights. Flights are responsible for the majority of Greenhouse Gas Emissions (GHG), particulate emissions, VOC emissions, noise, fuel spills, and deicing contamination. Therefore, the most important issue for any airport project is its effect on flight operations.

For this project, the proponent claims in the DEIR that future flights are "projected to occur regardless of whether the project is constructed." This bold claim relieves the proponent from needing to analyze and disclose any type of flight-related environmental impact. However, for this project, that claim is defective for three reasons:

- A. It defies common sense
- B. It is inconsistent with FAA guidance and instructions
- C. The data used to support the claim is false

Because the claim that the project creates no new flights is false, the proponent has grossly misrepresented and has not disclosed the primary impacts of the project due to GHG, particulates, VOCs, noise, fuel spills, and de-icing contamination. Each of these three defects is taken in turn:

## The claim that the project has no effect on flights defies common sense

This project doubles the jet hangar capacity of the airport.<sup>1</sup> The claim that such doubling will have no effect on flight volume is logically equivalent to saying that the traffic in and out of a parking garage will not change if the number of parking spaces in the garage is doubled.

The claim that doubling the airport's jet hangar capacity will have no effect on flight volume logically leads to the absurd conclusion that eliminating all the current jet hangar capacity would similarly have no effect on flight volume.

In light of their seemingly illogical claim and its critical consequences, the proponent must present a compelling fact-based argument to support their assertion that the project will create no new flights.

### The claim that the project has no effect on flights is inconsistent with FAA guidance and instructions.

The FAA specifically states that hangar capacity is a central factor in estimating flight count projections.<sup>2</sup> The FAA further states that growth in flight operations is dependent on airport infrastructure development.<sup>3</sup>

If FAA guidance and instructions were utilized, the doubling of jet hangar capacity represented by this project would have a dramatic effect on the number of forecasted flight operations and would result in major increases in impacts from GHG, particulates, VOCs, noise, fuel spills, and de-icing contamination.

The proponent and their expert aviation consultants must be aware of these FAA instructions but fail to cite them or provide any reason why they do not apply to this project.

### The data used to support the claim that the project has no effect on flights is wrong

The claim that the project will have no effect on flight volume is based on the proponent's theory that 3,543 current flights per year are "ferry flights" that will be eliminated by the project, savings that the proponent contends will cancel out any new flights that might result from the project.

<sup>&</sup>lt;sup>1</sup> The current gross jet hangar capacity of the airport is 478,614 sq ft, represented by hangars 1,2,3,10,13,16,17,21,24, and the new 60,000 sq ft hangar, as described in the 2017 GEIR. This project has a gross capacity of 522,000 sq ft, which is greater than the entire current capacity. Therefore, the project represents more than a doubling of the jet hangar capacity of the airport.

<sup>&</sup>lt;sup>2</sup> FAA Master plan Guidance, section titled "Steps in the Forecast Process" FAA, 2015

<sup>&</sup>lt;sup>3</sup> FAA Aerospace Forecast 2018-2038, FAA, 2018

A ferry flight is a flight that does not transport passengers. Such flights occur for a variety of reasons, the primary reason being that the flight is an air taxi service that is called to pick-up at a location and must travel empty to the pick-up location, much like a taxi or Uber. This type of flight is not affected by the availability of hangar capacity.

A narrow subset of ferry flights is eliminated by hangar capacity. These ferry flights occur when an aircraft owner regularly departs from a specific airport A, but there is no hangar capacity at that airport. The aircraft is housed at a different local airport B, where hangar capacity is available, and must travel empty back-and-forth between B and A to pick-up or drop-off the owner. When there is hangar capacity at airport A, there is no longer a need to fly between B and A, and those flights are eliminated. The proponent, in this case, has represented that their project will eliminate 3,543 such flights per year, which is the central basis for their claim that they do not need to analyze any flight increase due to the project.

The proponent derived the number 3,543 by examining flight data and assuming a very loose definition of what types of flights are ferry flights. In public hearings, the consultant who generated the number said that 3,543 was probably greater than the number that would be eliminated by new hangar capacity, and admitted that the actual number might be **somewhere between zero and 3,543**. Tellingly, the consultant admitted in public hearings that 600 of those claimed 3,543 flights were between Hanscom and Logan airports. However, there are **no private jet hangars at Logan airport**, **so none of those ferry flights are from private jets based at Logan**. The 600 Logan flights could only be other types of ferry flights that would not be eliminated by new hangars at Hanscom, and **additional hangars at Hanscom could only INCREASE ferry flights between Logan and Hanscom** by providing a hangar base at Hanscom for private jet passengers flying to and from Logan. The consultant admitted that the inclusion of these 600 flights in the DEIR was debated but she was directed to include them.

The actual number of ferry flights that would be eliminated by new hangars can be determined by a systematic study of the detailed flight data of aircraft using Hanscom Field. The proponent admitted they did not do this as part of the draft DEIR. Since this data is critical to the central claims of the DEIR, citizen groups joined together and hired Industrial Economics Inc.(IEC), which has access to experts in flight data analysis, to perform the study to determine the home base of those aircraft regularly using Hanscom Field and determine which flights are ferry flights due to Hanscom hangar incapacity.<sup>4</sup>

The IEC study found that only 3 aircraft generate ferry flights at Hanscom Field that would be eliminated by additional hangar capacity.<sup>5</sup> Those aircraft were responsible for 132 ferry flight operations at Hanscom Field; however, those same aircraft have 57 operations from their base that do not pass through Hanscom Field, so relocation to Hanscom would save 132 - 57 = 75 flights. The 75 flights saved are only 2.0% of the 3,543 claimed by the proponent in the DEIR.

<sup>&</sup>lt;sup>4</sup> <u>Analysis of the Greenhouse Gas Emissions Impact of Proposed Expansion of Hangar Capacity at Hanscom</u> Field. Industrial Economics, Inc. April 4, 2024

<sup>&</sup>lt;sup>5</sup> Identifying tail numbers and detailed travel itineraries of the three aircraft are available on request.

This finding means that the first **three** aircraft that move to Hanscom would save 75 operations; however, the jet capacity of the hangars is 66 to 79,<sup>6</sup> which is much larger than three. All of the remaining 63 to 76 aircraft housed would **not** be aircraft that eliminate ferry flights, as the proponent represents, but would be incremental new operations with associated GHG, particulates, VOCs, noise, fuel spills, and de-icing contamination.

The IEC study determined that the addition of just a **single** incremental new jet aircraft at Hanscom would cancel the savings associated with the three aircraft that saved ferry flights. This is because ferry flights are significantly shorter and emit fewer emissions than the average flight of a jet aircraft. Yet there are 63 to 76 such incremental new aircraft. The report estimates that these aircraft would generate an additional 130,000 to 161,000 tons of GHG per year.

The 3,543 number of eliminated ferry flights that is claimed in the DEIR is false, and the consultant that generated it even admits it is not accurate. The proposed hangar capacity will not house aircraft that reduce flights; virtually all of the hangar capacity will be used for aircraft that create additional flights with associated GHG, particulates, VOCs, noise, fuel spills, and de-icing contamination. The proponent has failed to admit the project creates any of these effects at all, and has therefore not reported the effects accurately. The DEIR is grossly deficient because it provides no disclosure of the most important environmental impacts.

## The proponent uses an inadequate method to determine jet GHG emissions

Even if the proponent were to admit additional operations, the method they use to determine GHG emissions from those operations is wrong and grossly misleading.

The Commonwealth and the four towns where the airport is located all have GHG reduction plans. The airport is the single largest GHG emitter in the region today; plans of the airport to increase GHG emissions will seriously and adversely impact local GHG plans and will impact the Commonwealth's plan.

The proponent does not admit that the project will result in any new aircraft operations or related GHG emissions; furthermore, the DEIR indicates that they do not intend to properly disclose GHG emissions even if they were to admit the project does add jet operations. The reasons why their approach to calculating future GHG emissions is defective and grossly understated include:

**They intend only to count jet emissions in the vicinity of the airport.** While this is not made clear in the DEIR, the AEDT model they utilize only counts aircraft emissions in the vicinity of the airport up to 3000 ft. While this is useful when examining effects local to the airport, such as VOC emissions, it is meaningless for GHG impacts that are global and have no local effects. Recent NEPA guidance requires that total GHG emissions be considered.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> Epstein, C, <u>"As the Private Aircraft Fleet Grows, Hangar Availability Dwindles</u>", Business Jet Traveler, March 2023. Quoting industry sources that the hangar area required is 5,000 to 6,000 sq feet, and noting some new very large international private jet aircraft require up to 11,000 sq ft.

<sup>&</sup>lt;sup>7</sup> COUNCIL ON ENVIRONMENTAL QUALITY [CEQ–2022–0005] RIN 0331–AA06 National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate

**They only intend to count CO2 emissions and not GHG emissions:** For jet aircraft, there are components of GHG other than CO2. GHG emissions of jet aircraft, expressed as CO2e, are approximately 2x the CO2 emissions alone.<sup>8</sup> Therefore, any CO2 emissions that they disclose would be a factor of 2 less than the GHG emissions.

They discount the effects of aircraft GHG emissions by proposing that hypothetical sustainable aviation fuels (SAF) will reduce or eliminate jet emissions in the future. This argument has no place in a DEIR for the following reasons. First, SAF fuels are only available today in minuscule amounts blended in fossil jet fuel, and there is no known time when they might be available at scale, so they cannot be counted on in any impact disclosure analysis. Second, when burned, they generate the same amount of CO2 as fossil jet fuel, and there is considerable scientific debate about how much GHG benefit results from their use. Some recent research suggests that there is no benefit at all.<sup>9</sup> Third, the land area required to grow SAF to supply the aviation industry would consume a sizable fraction of all the known arable land on Earth.<sup>10</sup> *"Sustainable aviation fuel is just greenwashing...it really is. It's nonsense and I think somebody needs to say it is for what it is."* Breeze Airways CEO David Neeleman.

## The DEIR contains significant errors related to the disclosure of ground infrastructure GHG emissions

Although flight-based effects dominate the environmental impacts of the project, the DEIR estimates the proposed hangars on the ground will be responsible for 2,900 Tons per year of CO2 emissions (DEIR Table 9.9). The primary driver of these emissions is floor heating for all 522,000 square feet of hangar space. For context, these building emissions would approximate 2% of the total emissions of the Town of Bedford; considered alone, this would be a sizable blow to the community's GHG reduction plans.

The proponent has represented to the public that the DEIR demonstrates, at least from the perspective of the land infrastructure, that the project is "the largest Net Zero GHG emission facility at Hanscom Field."<sup>11</sup> It has repeated these claims at various public meetings related to the DEIR. It bases this claim on its representation that it will install **eighteen** solar arrays totaling "approximately 7 MW," which it estimates will offset 2,800 tons of GHG emissions representing nearly all of the 2,900 tons it expects the buildings to generate.

Such a solar array would be by far the largest solar PV installation in the Town of Bedford, over 10 times larger than the closest 500kw Fuji installation. The DEIR provides no assurance that connection of an array of this size is possible on the local grid. However, the DEIR is clear that the full solar installation is *not a committed part of the project*. The only commitment of the project is that the facility will be "solar ready," that the project will include "a solar array" of

<sup>&</sup>lt;sup>8</sup> Aviation and the Global Atmosphere, IPCC, 1999, p8

<sup>&</sup>lt;sup>9</sup> Assessing the Sustainability Implications of Alternative Aviation Fuels, ICCT, 2021, p12

<sup>&</sup>lt;sup>10</sup> Becken, S. et al, "Implications of preferential access to and clean energy for Sustainable Aviation Fuels," p3, *Journal of Science of the Total Environment*, April 2023.

<sup>&</sup>lt;sup>11</sup> Hanscom Field Advisory Commission, DEIR presentation, Feb 20, 2024

unspecified size, that "the final sizes of the solar arrays are subject to change," and that it may be "a *future* net zero facility." Once the hangar facility is built, and the GHG emissions commence, the proponent has no enforceable commitment to ever install the solar arrays they claimed would offset the building emissions.

The DEIR cannot claim to mitigate GHG impacts of ground infrastructure through the use of equipment that is not part of the proposal and may never be installed. Since the proponent claims the quantitative emissions benefit as part of the disclosure, MEPA acceptance of the environmental disclosure project must be contingent on the proponent determining whether the equipment can be installed, and committing to install it, as described in the disclosure.

### There is no need or legitimate public purpose for the project

The proponent postulates a public need that it claims will offset any impacts of the project. In the DEIR, they base need on three factors:

*First*, they claim, without explanation, that the project will relieve Logan Airport. However, Massport has stated that there are no private jet hangars at Logan Airport and no possibility of such. Therefore, whatever traffic might result from the proposed Hanscom Field hangars cannot instead occur at Logan Airport if Hanscom hangars are not built. This project *adversely* affects Logan as it will allow more flight traffic into the Logan control airspace, which is overtaxed, and will further burden safety at Logan and surrounding communities.

*Second*, the proponent claims, without any justification, that the "strong economy in Massachusetts continues to rely on the GA capabilities of Hanscom Field." While the DEIR presents no economic data to support this claim, recent NEPA guidance requires that any such analysis should include the social cost of carbon as a negative effect; if aircraft emissions resulting from this project were properly disclosed, this project would have a major negative economic impact. It is notable that over the course of the strong opposition to this project, **not one business has ever argued in favor of this project, claimed it would support business, or suggested it was essential to the economy**. What has emerged are studies showing that the primary purpose of private jet activity is to support a miniscule number of wealthy people to travel to resort destinations.<sup>12</sup> *The desire for convenience by a few wealthy people is not the same as a public need.* This project cannot be considered to have any legitimate public purpose.

*Third*, they make the primary argument of need claiming that the absence of this capacity causes "ferry flights" and their undesirable operations and emissions. This, their principal justification of "need," has been clearly proven to be totally false.

Of all the "needs" related to this project, the overriding public need is to reduce GHG emissions and support the Commonwealth's climate plans. This project is diametrically opposed to Chapter 8 of the Acts of 2021 which require every sector to reduce GHG emissions. Supporting and incenting<sup>13</sup> growth of private jet travel, *which is the most environmentally destructive activity a* 

<sup>&</sup>lt;sup>12</sup> Hanscom High Flyers, Institute for Policy Studies, 2023

<sup>&</sup>lt;sup>13</sup> Public Subsidies for Private Luxury Jets, Save Our Heritage, Savourheritage.com, 2023

*person can engage in without being arrested*, is against the public interest. If we were to continue to support and enable industry projections for private jet growth, and the City of Boston was to achieve its published climate plans, *then before 2050 the private jet GHG emissions from Hanscom Field would surpass the emissions of Boston*.

#### Conclusion

The draft EIR was constructed to deceive the public. The proponent had access to the same data that IEC used and could have determined the correct number of relevant ferry flights. The consultant utilized by the proponent, HMMH, is a recognized expert in such analysis. The consultant and the proponent must have known the actual number of relevant ferry flights but deliberately chose to exclude the data from the analysis because it contradicted the desired narrative of "this project creates no new flights."

By constructing a theory that allows the proponent to claim no new flight operations, the DEIR becomes free from the need to admit, analyze, or disclose any aircraft impacts related to GHG, particulates, VOCs, noise, fuel spills, and de-icing contamination. In the Climate Resilience Report filings of Appendix F, in response to the question of whether the project "promotes decarbonization," the proponent deceptively answers "yes." If MEPA were to accept this DEIR it would be used to support a finding of "no significant impact" in relation to any other permitting or review. This draft EIR has clearly been constructed to protect the project from further review, and not to accurately disclose the expected impacts to the public as required by law. It must be rejected. Due to the broad range of deficiencies, a supplemental DEIR is not adequate and an entirely new DEIR is required.

Over 14,000 signatures have been collected on a petition asking the governor to stop this project, and the Commonwealth has received hundreds of letters from citizens and organizations nearly uniformly opposing it. In order to protect and honor the historic and natural sites that define our nation, we made the decision to establish National Parks and designate National Historic Landmarks. To protect our planet's climate, we have decided to cease building GHG emitting coal plants; for the same reasons, we must stop the building of infrastructure supporting further expansion of luxury private jet travel, and its ensuing and disproportionate GHG emissions, at Hanscom Airport or anywhere.

Sincerely

Neil Rasmisson

Neil Rasmussen President, Save Our Heritage neil@saveourheritage.com