

Town of Lincoln

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SELECT BOARD

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April 26, 2024

To: Alexander Strysky, MEPA Analyst for the Project
Delivered via email: alexander.strysky@mass.gov

Subject: EEA No. 16654 – L.G. Hanscom Field North Airfield Development, Bedford

Dear Mr. Strysky,

We would like to thank you for the opportunity to comment on the North Airfield Development Draft Environmental Impact Report (DEIR). This comment is being submitted in addition to a joint comment we have signed along with the three other Hanscom-area Towns Committee (HATS) Select Boards of Bedford, Concord, and Lexington.

We find the Proponent's DEIR deeply troubling for a number of reasons, chief among these include the Proponent's:

- incomplete treatment of **GHG emissions**,
- unsubstantiated **analysis of ferry flights** (empty flights),
- inaccurate representation of the role of **sustainable aviation fuels (SAFs)**, and
- misleading characterization of commitments to **solar installations**.

Our detailed comments on these points follow.

The Proponent's Incomplete Treatment of GHG Emissions

- The Proponent's claims to Net Zero commitments are restricted to building emissions, and disregard emissions from aircraft, which overshadow them.

"However, when the whole project, including the aircraft, is considered, the 2,800 Tons saved by the solar panels would be dwarfed by the aircraft emissions, only saving 1.7% of the total emissions of 160,000 Tons. Therefore, the Net Zero claim is untrue and deceptive."
[- 4/10/24 Analysis](#)

- While the Proponent claims that the Project will reduce flights and GHG emissions, their fuel farm plans indicate otherwise. The DEIR states that the Project's Fuel Storage Facility (Section 1.5.2.4) will include:
 - 4 new 20,000-gallon underground tanks of jet fuel
 - 2 fuel delivery trucks per day (10,000 gal per truck)

20,000 gallons of jet fuel delivered daily computes to **over 5.5 million gallons of jet fuel per year for just this facility**. For context, there are three existing private jet facilities at Hanscom that already sell aviation fuel, and whose collective total came to 11-12 million gallons of fuel annually in recent years, and thus the new fuel deliveries would increase total usage by roughly 50%. Furthermore, this new jet fuel usage **can be translated to [150,000-220,000 tons CO2e per year](#)**. For context, the **Town of Lincoln**, its 7,000 residents, their homes, their cars, the Town's businesses, and schools are responsible for about **60,000 tons of CO2e annually**.

- Incredibly, the Proponent claims only 30,686 tons of GHG aircraft emissions (Table 8-5, Section 8.3.3) This is because the FAA's AEDT model used by the Proponent in the DEIR only accounts for CO2 emissions from takeoff and landing local to the airport. It does not include emissions of the aircraft during flight. Using this method, a flight to Europe has the same emissions as a flight to Nantucket, because only the takeoff/landing is modeled.

This model was developed to examine local particulate or chemical concentrations, which are the most concentrated right around the airport. It was never developed to deal with GHGs, which have a global and not local effect. The Proponent's use of this method is misleading.

- The Proponent's Project will be required to undergo a **federal NEPA (National Environmental Policy Act) environmental review**, shortly after the DEIR, and possibly overlapping the MEPA process. NEPA released a relatively new guideline on 1/9/23, the [\(NEPA\) Guidance on Green House Gas Emissions and Climate Change](#), which includes a number of important requirements.

For example, the developers must consider:

- CO2e and not just CO2 (CO2e includes many climate-change producing chemicals, beyond CO2, like methane)
- Emissions for the entire flights from the airport, not just emissions near the airport
- State and local GHG reduction goals and plans, and determine if the project is consistent with them.

The Proponent should include these considerations in a revised DEIR.

The Proponent's Ferry Flight Analysis

In their first report to MEPA (Environmental Notification Form, ENF, 1/17/23), the Proponent's leading rationale for building a nearly 500,000 sf private jet hangar facility on 47 acres of land was that it would reduce ferry flights, decrease overall flights, and decrease GHG emissions. **In her 2/14/23 DEIR Scope, Secretary Tepper instructed the Proponent to provide supporting data for this assertion. The Proponent has failed to do so, and should be instructed to produce a study with credible statistical integrity.**

The Proponent's treatment of ferry flights (empty flights) is flawed in these ways:

- Their four criteria for "ferry flights" are based on unvalidated proxy assumptions and must therefore be considered arbitrary.
- Their definition for "ferry flights" is overly broad and incorrectly includes flights that are not empty--as was conceded by their HMMH consultant at recorded public meetings in February [start [vimeo](#) at timestamp 3:57] and March —with the effect that the allegedly problematic number of ferry flights is improperly inflated to 3,543 per year.
- Their assertion that building more hangars will reduce flights contradicts [studies on Induced Demand](#), as well as [an FAA report](#) which asserts that lack of infrastructure can impact the FAA's otherwise "unconstrained" forecasts for growth which can be corrected by providing sufficient infrastructure.

- A recently released detailed [independent analysis by the firm Industrial Economics, Inc.](#) refutes the Proponents' claim that the hangar Project will reduce ferry flights and GHG emissions. The analysis identified only 3 aircraft that regularly ferry through Hanscom, which correlates with 75 fewer ferry flights associated with the Project if they relocated to Hanscom – vastly less than the 3,543 claimed by the Proponents. This would not justify building a 522,380 sf hangar facility. Moreover, the IEc study found that the Project would *add* approximately 6,000 more regular flights, which would result in about 150,000 tons of new CO₂e per year.

The Proponent's Sustainable Aviation Fuels (SAFs) Claims

The Proponent has inaccurately represented the role of sustainable aviation fuels (SAFs) at the proposed facility with enthusiastic references to SAFs, leading the public and policymakers to assume that aircraft based at the new facility will be engaged in innovative "green" aviation, which is not the case.

Examples of these SAF pledges include:

"The Project will promote the use of clean aviation fuels, future conversions to electric aircraft...and other sustainable technologies and practices that are emerging in the industry."
(Section 1.1.2)

"The Project also aims to support sustainable aviation in the future, by providing infrastructure for aircraft (and vehicle) electrification and Sustainable Aviation Fuels (SAF) storage that does not exist today at BED, which would further mitigate air emissions, specifically GHG emissions."
(Section 2.4)

"The Project is designed to be the largest hangar complex with net zero GHG emissions* at Hanscom Field and will be designed to accommodate the future transition of the industry to electrification and sustainable aviation fuels." (Section 1.5.1) [Be it noted: The Net zero claim only includes emissions from buildings and excludes emissions from aircraft.]

Midway through the DEIR, the Proponent discloses that SAFs and electric-based aviation are a long way off from wide-spread availability:

"The Preferred Alternative is proposed to be phased over approximately three years...[from late summer/early fall 2024air to winter 2027]...**whereas the aviation industry projects use of alternative/clean fuel aircraft (i.e., electric or SAF) to be approximately 10 percent of aircraft by 2030 so that delaying later phases contingent upon the availability of SAF or electric aircraft is not feasible.**" (Section 3) [bolding & italics are ours] Note: The aviation industry has a record of [not meeting their SAFs benchmarks](#).

In other words, the Proponent's priority is not to model sustainable aviation, as claimed, but to build the facility as fast as possible, regardless of SAFs. This stated goal ignores that continued use and growth of fossil-based jet fuel prior to 2030 will exacerbate the Climate outlook in 2030, and that such action is antithetical to our Commonwealth's decarbonization goals which urge immediate meaningful reductions by all sectors.

Beyond this, the Proponent's SAF claim ignores that:

- The biofuels that SAFs are derived from (i.e., plants or oils) generate the same amount of CO₂e (and sometimes more) in the atmosphere as conventional jet fuel.
- SAFs are a mix of biofuels and conventional aviation fuel.
- Growing biofuels at scale would necessitate the repurposing of arable land for food production.

- ICAO (International Civil Aviation Authority) estimated that **complete replacement with SAFs “by 2050 would require around 170 new large biorefineries to be built every year from 2020 to 2050, at the cost of \$15bn to \$60bn per year...”**
Source: [Aviation Could Consume a quarter of 1.5C carbon budget by 2050](#), Carbon Brief, 8/8/16
(This article was a footnote in Climate Chief Melissa Hoffer’s 10/25/23 Report)
- Even if SAFs were available tomorrow, they would not necessarily be used, because neither the Proponent nor any airport has the authority to require their use by aircrafts – this has been publicly confirmed by Massport and the Proponent at public meetings about the DEIR.

As for electric aircraft:

- [Lufthansa Says Green Fuel Would Eat Up Half German Electricity](#) “Germany’s biggest airline would consume half of the country’s entire electricity production to switch its fleet to green fuels like e-kerosene, according to Deutsche Lufthansa AG, underscoring the challenge in reducing emissions from air transport” - September 25, 2023, Bloomberg

Sources for SAF information above:

- [GREENWASHING THE SKIES: How the Private Jet Lobby Uses “Sustainable Aviation Fuels” as a Marketing Ploy](#), Institute for Policy Studies, Program on Inequality, Inequality.org 3/24/24
- [Sustainable Aviation Fuel Emission Impacts](#), World Resources Institute, 12/20/24

The Proponent’s Solar Claims

The Proponent’s commitments to solar installations are superficial and misleading:

“...Although the developer makes detailed claims about the GHG savings of solar in the DEIR, the project **does not actually include any solar**. The DEIR is careful to say that the buildings ‘**may be appropriate for PV systems**’ and will be made ‘**solar ready**.’⁴ ...There is no commitment to any amount of solar: ‘The final sizes of the solar arrays are subject to change as the design progresses.’ ...**If built as described, this project could end up with little or no solar PV**...The developer states they intend to reach net zero using an enormous solar installation. Yet, that installation is only put forward as a *possible future option* and, even if implemented in its entirety, would cancel out only 1.7% of the project’s GHG emissions.” - [4/10/24 Analysis](#)

Question of Project Segmentation: Taxiway Romeo & North Airfield Box Hangars

in addition, there are two related matters, not discussed in the DEIR, that we request Secretary Tepper to take under consideration:

- the matter of upgrading Taxiway Romeo (directly adjacent to the Project site) to support Design Group III aircraft over 100,000 pounds and/or Design Group IV aircraft. This taxiway upgrade is explicitly discussed as a desired option by Runway Realty Ventures, LLC (RRV) in its [Land Swap Agreement](#) with Massport (p. 9-15) dated 10/20/22: “as requested by Runway Realty Ventures”. It is not included in the Proponent’s ENF nor DEIR and should be, because it is integral to the Project’s plans to accommodate large jets.
- the matter of 8 new box hangars in North Airfield built by FBO Atlantic Aviation adjacent to and directly to the west of the Project site. Passing comments and thoughtful speculation points to the possibility that these eight box hangars will likely be connected to the Project site in the future.

Both the Taxiway Romeo and North Airfield Box Hangars bring up the question of potential Project Segmentation which should be more fully explored. **To avert Project Segmentation, the Proponent should include these matters in a revised DEIR.**

Concluding Remarks

Based on the above, we are forced to conclude that the Proponent's DEIR is not a serious assessment of the environmental impacts of the proposed Project, and that their claims are not backed by adequate analysis or fact. **We therefore urge Secretary Tepper to instruct the Proponent to revise their DEIR to produce a more comprehensive and accurate environmental impact report.**

Sincerely,

Lincoln Select Board



Kim Bodnar (Apr 30, 2024 17:08 EDT)

Kim Bodnar, Chair



Jennifer Glass (May 1, 2024 07:25 EDT)

Jennifer Glass, Member



Jim Hutchinson (Apr 30, 2024 17:02 EDT)

Jim Hutchinson, Member

CC: The Honorable Governor Maura Healy
Secretary Rebecca Tepper, Executive Office of Energy and Environmental Affairs
Senator Michael Barrett
Representative Alice Peisch
Representative Carmine Gentile

Lincoln Select Board Hanscom DEIR Comment 2024-04-29

Final Audit Report

2024-05-01

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