



STAFF REPORT No. 3

To: Robby Hammond, City Manager

From: Ruth Klein, Senior Planner

Date: August 18, 2026

Subject: Two Appeals of Development Review Approval for Aircraft Hangars
Case File No. APPEAL-001-26 Sky Harbour Barnes et. al.
Case File No. APPEAL-002-26 Sky Harbour Richmond et. al.
Underlying Case File No. DR-044-25 Sky Harbour Hangars

Requested Action:

Planning Division staff recommends that the City Council deny APPEAL-001-26 and APPEAL-002-26, affirm the decision under appeal with the changes described in Section VII of the August 11, 2026 City Council staff report, and adopt an order containing the Council's findings of fact, conclusions, and conditions of approval.

Updated Information:

This is the third City Council staff report for Case File Nos. APPEAL-001-26 and APPEAL-002-26. This report transmits testimony received by the Planning Division after assembly of the August 11, 2026 City Council staff report and identifies which issues raised in that testimony have been addressed in the record and which are raised for the first time.

Staff received testimony from fifty-three individuals and organizations, and twelve submittals from appellants, the Port of Portland, and persons associated with the appeals, following issuance of the August 11, 2026 City Council staff report. This testimony is in opposition to the development. The letter from the Port of Portland is the only submittal received during this period in support of the Planning Commission decision.

Issues Previously Raised and Addressed:

The majority of testimony received during this period consists of an identical or near identical form letter asserting four grounds for reversal and five categories of impact. The form letter grounds are that the application fails to meet the approval criteria, that the applicant relies on false statements made to the Federal Aviation Administration, that the applicant failed to carry its burden of proof, and that procedural errors occurred. The

impact categories are noise pollution, air pollution, adverse health impacts, reduced property values, and carbon emissions.

The following issues appear in testimony received during this period and have been addressed in the March 18, 2026 Planning Commission staff report, Supplemental Staff Reports Nos. 1 through 6, the July 7, 2026 staff report, or the August 11, 2026 City Council staff report. The responses in those documents are not restated here and remain applicable.

- Aircraft noise, including nighttime and early morning operations and sleep disruption
- Air quality, aircraft emissions, particulate matter, and aviation fuel
- Health effects on residents living beneath flight paths
- Residential property values and Washington County property tax revenue
- Carbon emissions and consistency with the City's climate goals
- Absence of environmental review and the Federal Aviation Administration Categorical Exclusion determination
- Adequacy of mailed public notice, including notice to residents outside the city limits
- Scope of the land use review and whether another body should evaluate aircraft operations
- Impacts to wildlife and to the Hillsboro Brookwood Library setting
- Compatibility with surrounding development and land uses under CDC Section 12.80.040.H.7.d
- Whether negative impacts have been sufficiently minimized or mitigated under CDC Section 12.80.040.H.7.e

New Issues Raised:

The following issues are raised for the first time in testimony received during this period.

Issue 1. New Airport Road and NE Springer Street

Appellants' assertion. Hamilton asserts that NW Airport Road and NE Springer Street are the same road, that the Hillsboro Transportation System Plan designates it a three-lane collector at page 200, identifier 22-005b, and that a Development Agreement between the City and the Port of Portland describes it as a public road and ties it to conditions of approval imposed on Case File No. DR-044-25. Hamilton argues that by identifying the road as a private driveway, the applicant avoids standards applicable to a corner lot on a public street, including driveway spacing, and that the application does not conform to the Transportation System Plan or the Hillsboro Airport Master Plan.

Staff position. NW Airport Road is presently a private driveway located on Port of Portland property. It has not been dedicated as public right of way and does not meet the CDC definition of a street. The Transportation System Plan identifies a future commercial and industrial collector in this vicinity, and the Hillsboro Airport Master Plan identifies a

proposed public road connecting the eastern end of NE Springer Street to the signalized intersection at NE Brookwood Parkway. Those documents identify a planned improvement. They do not create a dedicated public street, and they do not establish that the improvement will be constructed in the alignment shown, constructed to the cross section shown, or dedicated at all. The Development Agreement submitted by the appellants is an unexecuted draft, and its own terms provide that the obligations it describes may be rescinded if the roadway is removed from the Hillsboro Airport Master Plan and the collector is removed from the City's Transportation System Plan.

The City does not have authority to apply development standards on the basis of a future circumstance that is neither certain nor within the applicant's control. Approval standards are applied to the development as proposed and to the property as it exists. Applying corner lot and driveway spacing standards measured from a street that does not exist, and that may never be constructed in the location, configuration, or ownership assumed, would condition approval on a contingency rather than on the applicable criteria.

Staff plans for the anticipated circumstance by enforcing the adopted plan for the area. The conditions of approval imposed on Case File No. DR-044-25 require the Port of Portland to provide right of way at no cost to the City and to fully fund half street improvements along the site frontage at the time a project is undertaken to construct the roadway identified in the Transportation System Plan. Recital E of the Development Agreement submitted by the appellants describes those conditions. The adopted plan for the area is carried forward and protected through those conditions without applying present development standards to a roadway that does not yet exist.

Issue 2. Comprehensive Plan Environmental Stewardship Initiatives

Appellants' assertion. Hamilton asserts that the development conflicts with Environmental Stewardship Initiative 1, encouraging infrastructure enhancements to reduce energy use and the use of fossil fuels, and Environmental Stewardship Initiative 8, improving air quality and reducing carbon emissions, in the Hillsboro Comprehensive Plan. A commenter separately asserts that the Comprehensive Plan requires major infrastructure development to include measures protecting humans and wildlife from adverse aviation impacts.

Staff position. The Comprehensive Plan contains no core area titled Environmental Stewardship and contains no provision numbered Environmental Stewardship Initiative 1 or Environmental Stewardship Initiative 8. The provisions Hamilton cites are initiatives of the Hillsboro 2035 Community Plan, not provisions of the Comprehensive Plan. The Hillsboro 2035 Community Plan is organized as initiatives within focus areas. The Comprehensive Plan is organized as goals and policies within core areas. Chapter 3 of the Comprehensive Plan describes the distinction between the two documents. Visioning is a voluntary, citizen-driven process with no limit in scope that provides a guiding strategy for all City functions. The Comprehensive Plan is required by law and is driven by City staff and decision makers with citizen participation to establish regulations limited to land use

planning. The Comprehensive Plan states that some initiatives in the Hillsboro 2035 Community Plan do not pertain to land use planning and are therefore outside the scope of the Comprehensive Plan.

Issue 3. Environmental Site Assessment Marked Draft

Appellants' assertion. Hamilton asserts that the Limited Scope Phase II Environmental Site Assessment prepared by GRI and included in the application is labeled as a draft on the majority of its pages, is unsigned and not final, and should not be relied upon for stormwater, pavement, or structural design review.

Staff position. The document is titled Limited Scope Phase II Environmental Site Assessment, Sky Harbour HIO, and was prepared by GRI for Sky Harbour LLC. It is dated June 2, 2025. It is located in the record at Item H10, Supplemental Staff Report No. 4, Revised Application, Testimony, and Order.

An environmental site assessment is not a required submittal item for a Development Review application. CDC Section 12.80.040.F lists the minimum submittal requirements and does not include an environmental site assessment. No approval criterion at CDC Section 12.80.040.H requires one, and the City did not request one as a technical report for this application. The assessment was prepared for the applicant on June 2, 2025, approximately six months before the application was submitted on December 1, 2025. It was provided by the applicant in response to concerns raised in testimony regarding soil and site conditions, which are matters outside the scope of this land use review.

Because the assessment is not a required submittal and the findings supporting Order No. 8492 do not rely upon it, its status as a draft does not affect the Council's evaluation of the approval criteria. Stormwater management is evaluated against the Clean Water Services Design and Construction Standards and is addressed through the conditions of approval, which require submittal of a stormwater drainage report and downstream analysis prior to issuance of the Private Utility Permit. Pavement and structural design are reviewed at building permit under the applicable specialty codes and are not approval criteria in this proceeding.

Issue 4. Sufficiency of Masonry Wall Condition

Appellants' assertion. A commenter asserts that the six-foot masonry wall required by Condition 45 is ineffective against low frequency turbine noise, jet blast, and air pollution, and that the condition therefore does not satisfy CDC Section 12.80.040.H.7.e.

Staff position. Solid barriers do reduce noise. The percentage of reduction achieved, and which properties would benefit from that reduction, are matters for the Council's discussion. Neither is quantified in the record. The absence of a quantified reduction does

not defeat the condition, because CDC Section 12.80.040.H.7.e requires that negative impacts be sufficiently minimized or mitigated, not that they be eliminated.

Site configuration also affects sound at the perimeter. The jet hangar to the west of the site is set closer to NE Brookwood Parkway, with its maneuvering area located behind the building. Hangars 4 and 5 are set back farther in areas, due in part to the curvature of NE Brookwood Parkway. The buildings block sound for approximately half of the site. Hangars 1 and 2a are the farthest from NE Brookwood Parkway. Distance combined with the solid wall required by the Planning Commission provides sound mitigation, although the extent of that mitigation is unknown.

Staff's position remains that the City does not have authority to regulate noise associated with the airport. Aircraft noise is exempt from local noise regulation under Hillsboro Municipal Code Section 6.24.050.D, which excepts sounds regulated by federal law, including sounds caused by aircraft, from the requirements of that subchapter. That exception applies to the Council and to the Planning Commission alike. Condition 45 was imposed by the Planning Commission as a site design measure addressed to the physical development under CDC Section 12.80.040.H.7.e. It is not an exercise of authority over aircraft operations, and the City could not impose a condition regulating aircraft noise.

Issue 5. Multiple User Occupancy Under a Single Hangar Lease

Appellants' assertion. A commenter asserts that a hangar leased to a fractional ownership operator, or sublet by an individual lessee, would generate substantially more aircraft operations than a single owner operator, and asks what restrictions the City would impose to prevent that arrangement.

Staff position. The CDC regulates the physical development proposed and the on-site operating characteristics of that development. It does not regulate the ownership structure, lease terms, or tenancy arrangements of a permitted use, and it contains no criterion authorizing the City to limit the number of persons who may use an aircraft based in a permitted hangar. The volume of aircraft operations resulting from a permitted aviation use is not an approval standard under the CDC.

Issue 6. Aviation Accident Risk

Appellants' assertion. A commenter cites a June 16, 2026 aircraft accident in Laredo, Texas involving an operator identified as a Sky Harbour tenant and asserts that a comparable event on the Hillsboro Airport approach path would occur over homes, schools, and churches.

Staff position. Aircraft accident risk arises from aircraft operations in flight, which are regulated by the Federal Aviation Administration. Safety under CDC Section 12.80.040.H.7.c is evaluated with respect to the proposed development on the site, including site access,

circulation, emergency vehicle access, and on-site fuel storage, each of which is addressed in the findings. Accident risk associated with aircraft in navigable airspace is not an approval standard under the CDC.

Issue 7. Absence of Flight Path Modeling

Appellants' assertion. A commenter asserts that the Council cannot determine whether neighborhood impacts have been minimized because the application does not include modeling showing where aircraft will fly.

Staff position. Flight path modeling is not a submittal requirement under the CDC and is not necessary to evaluate the applicable approval criteria. Flight paths are established by the Federal Aviation Administration. The criteria at CDC Section 12.80.040.H evaluate the proposed development and its on-site operating characteristics, not the routes flown by aircraft leaving and arriving at the airport.

Issue 8. Absence of a Nighttime Curfew

Appellants' assertion. A commenter asserts that the Hillsboro Airport has no mandatory nighttime curfew and that the development therefore imposes an unmitigated round-the-clock burden on adjacent neighborhoods. Another commenter separately asserts that the Port of Portland has recently extended permitted operating hours at the airport.

Staff position. Hours of aircraft operation at the Hillsboro Airport are established by the Port of Portland and the Federal Aviation Administration. The CDC does not authorize the City to impose curfews on aircraft operations at the airport, and changes to airport operating hours are not a subject of this land use review. On site operating characteristics, including hours of onsite activity, lighting, and circulation, are addressed in the findings.

Issue 9. Public Benefit, Employment and Financial Beneficiary

Appellants' assertion. A commenter asks which governmental body benefits financially from the development, how many locally based jobs would be created and at what wage levels, and how increased financial and social inequality would be mitigated.

Staff position. Economic benefit, job creation, wage levels, and distributional equity are not approval standards for Development Review under CDC Section 12.80.040.H. Because all Major Adjustments were eliminated from the revised proposal, the Public Benefit standards in CDC Subchapter 12.50.900, which apply only when an Adjustment or Variance is requested, are not applicable to this review.

Issue 10. Geographic Reach of the Decision

Appellants' assertion. Commenters assert that the decision is made by a Hillsboro body while the impacts fall largely on residents outside the city limits who have no vote in Hillsboro elections and received no mailed notice.

Staff position. Notice was provided in accordance with CDC Section 12.70.130. The Council's jurisdiction over this application derives from the location of the subject property within the city, and the applicable approval criteria are those contained in the CDC. The geographic distribution of persons who may be affected by aircraft operations does not alter the criteria the Council applies or the scope of its authority.

Issue 11. Scope of De Novo Review

Appellants' assertion. Commenters ask the Council to use its de novo review authority to evaluate matters the Planning Commission declined to reach, including conflicts with municipal regulations and the Comprehensive Plan.

Staff position. A de novo hearing permits the Council to receive new evidence and testimony and to decide the application anew. It does not expand the approval criteria. The Council applies the same CDC criteria that applied before the Planning Commission and may not approve or deny the application on the basis of standards not contained in the CDC.

Issue 12. Accuracy of Categorical Exclusion Submittal

Appellants' assertion. Barnes asserts that the Port of Portland provided false information to the Federal Aviation Administration in requesting a Categorical Exclusion, specifically that the project would not increase aircraft operations, would not change the aircraft fleet mix, and would not require a noise analysis, and that the application narrative itself projects increased operations. Barnes further asserts that the Categorical Exclusion documentation was withheld from the Planning Commission and the public until after the Commission decision and after the appeal period on the federal determination had closed.

Staff position. Whether the Port of Portland provided accurate information to the Federal Aviation Administration is a matter between those two parties. The Categorical Exclusion is a federal determination made under the National Environmental Policy Act by a federal agency applying federal standards. The City is not a party to that determination, has no role in making it, and has no jurisdiction to review, evaluate, or set it aside. Any challenge to the accuracy of the information submitted, or to the determination itself, is directed to the Federal Aviation Administration and not to the Council.

Regardless of how that question is resolved, the City has the materials it needs to decide this application. The approval criteria are those contained in CDC Section 12.80.040.H. No criterion requires a Categorical Exclusion, an Environmental Assessment, an Environmental

Impact Statement, or any other federal environmental determination. The record contains the plans, narrative, technical reports, and agency comments necessary to evaluate each applicable criterion, and the findings supporting Order No. 8492 do not rely on the Categorical Exclusion.

The characterization that the Categorical Exclusion documentation was withheld is misleading. The document was not a required submittal item for this application, was not requested by the City, and was not needed by the Planning Commission or the Council to reach a decision on the applicable approval criteria. Its timing relative to the Planning Commission decision, and the timing of the federal appeal period, do not affect the Council's evaluation of this application under the CDC.

Issue 13. Clarification of Asserted CDC Section 12.80.040.H.7.F

Appellants' assertion. Richmond states that her reference to a subsection (f) at CDC Section 12.80.040.H.7 was a scrivener's error, that no such subsection exists, and that her argument was intended to reference subsections (d) and (e) in combination.

Staff position. Staff confirms that CDC Section 12.80.040.H.7 contains no subsection (f). The additional criteria for non-residential applications consist of subparagraphs (a) through (e). The substance Richmond describes, unreasonable impacts on surrounding properties, is addressed by Criteria 7.d and 7.e, which are analyzed at Issue 7 and Issue 8 of the August 11, 2026 City Council staff report. The Council packet was finalized and posted prior to receipt of the clarification, and Issue 10 of that report remains as written. The clarification is before the Council through the attached exchange.

Attachments:

A. Appellant and Applicant Testimony

- Email from Greg Driscoll, received August 6, 2026
- Email from Brett Hamilton, received August 12, 2026, with attachment
 - Development Agreement Between Port of Portland and the City of Hillsboro for the Future Right-of-Way Dedication and Construction of a Future Commercial & Industrial Collector, draft
- Email from Sarah Richmond, received August 12, 2026, with staff response, August 14, 2026
- Email from Brett Hamilton, received August 13, 2026, with attachment
 - Sky Harbour APPEAL-002-26 Supplemental, Richmond, Hamilton, Pratt, August 13, 2026
- Email from Brett Hamilton, received August 13, 2026, with attachment
 - Sky Harbour APPEAL-002-26 Supplemental Revised, Richmond, Hamilton, Pratt, August 13, 2026
- Email from Dan Eisenbeis, Port of Portland, received August 13, 2026, with attachment
 - Letter from Chris Czarnecki, Port of Portland, August 14, 2026

- Email from Miki Barnes, received August 13, 2026, with attachment
 - Sky Harbour NEPA Document Peppered with Mistruths and Falsehoods, by Miki Barnes, August 3, 2026
- Email from Miki Barnes, received August 13, 2026, with attachment
 - Article, Oregon Aviation Watch, Port's Approval of the Sky Harbour Hangar Development Widens Gap Between the Ultra-Wealthy and Everyone Else, by Miki Barnes, published April 29, 2026, updated August 13, 2026
- Email from Blaine Ackley, received August 14, 2026, with attachment
 - Blaine Ackley's Comments to Hillsboro City Council about Sky Harbour Hangar Appeal, August 13, 2026
- Email from David Barnes, received August 14, 2026, with attachments
 - Report, International Council on Clean Transportation, Air and Greenhouse Gas Pollution from Private Jets, 2023, by Daniel Sitompul and Dan Rutherford, published June 2025
 - Report, Institute for Policy Studies and Patriotic Millionaires, High Flyers 2023, How Ultra-Rich Private Jet Travel Costs the Rest of Us and Burns Up Our Planet, published May 2023
- Email from David Barnes, received August 14, 2026, with attachment
 - Article, Communications Earth & Environment, Private Aviation is Making a Growing Contribution to Climate Change, by Stefan Gössling, Andreas Humpe, and Jorge Cardoso Leitão, published November 7, 2024
- Email from David Barnes, received August 14, 2026, with attachment
 - Article, ProPublica, Nike's Gold Standard, After Nike Leaders Promised Climate Action, Their Corporate Jets Kept Flying and Polluting, by Rob Davis, Agnel Philip, Alex Mierjeski, and Matthew Kish, published August 13, 2024

B. Testimony Received

- Email from Nicole Adams, received August 13, 2026
- Email from James and Marilyn Arp, received August 11, 2026
- Email from Theresa Baird, received August 11, 2026
- Email from Theresa Baird, received August 13, 2026
- Email from Joe Baker, received August 6, 2026
- Email from Brenda Benda, received July 31, 2026
- Email from Jason Brock, received August 10, 2026
- Email from Maya Bronleewe, received August 13, 2026
- Email from Denise Caire, received July 31, 2026, with attachment
 - DR-044-25 Land Use Application, Construction of Sky Harbour Hangers, by Denise Caire, July 30, 2026
- Email from Denise Caire, received August 12, 2026, with attachment
 - Appeal of DR-044-25 Land Use Application, Sky Harbour T-Hangars, by Denise Caire, August 12, 2026
- Email from Mike Clouser, received August 9, 2026
- Email from Margaret Crepps, received August 13, 2026
- Email from Sophia de Klerk, received August 12, 2026

- Email from Anita Derry, received August 11, 2026
- Email from Shawn and Laura Downing, received August 14, 2026
- Email from Ted Dreier, received August 2, 2026
- Email from Ted Dreier, received August 10, 2026
- Email from Andrew Eggert, received August 12, 2026
- Email from Holly Garland, received July 31, 2026
- Email from Eve Goldman, 1000 Friends of Oregon, received August 11, 2026, with attachment
 - Letter, 1000 Friends of Oregon, Comments in Support of the Appeal of Land Use Application DR-044-25, by Eve Goldman, August 11, 2026
- Email from Jennifer Hagen, received August 11, 2026, with attachment
 - Letter from Jennifer Hagen, August 11, 2026
- Email from Dafna Avinoach Harush, received August 3, 2026, with attachment
 - Public Comment in Opposition to Sky Harbour's Land Use Application, by Dafna Avinoach Harush, August 3, 2026
- Email from Mary Hewitt, received August 12, 2026
- Email from Thomas Hudson, received August 14, 2026
- Email from Tim Hudson, received August 10, 2026
- Email from Amanda Hughes, received August 3, 2026
- Email from Patricia Andrade Jacquez, received August 10, 2026
- Email from Lothar Kress, received August 7, 2026
- Email from Lothar Kress, received August 13, 2026
- Email from Catherine LaTempa, received August 13, 2026
- Email from Riley Lozano, received August 14, 2026
- Email from Patricia Martin, received August 10, 2026
- Email from Tom and Tammy McHale, received August 10, 2026
- Email from Angela Mendel, received August 14, 2026
- Email from George Muff, received August 13, 2026
- Email from Michelle Muff, received August 13, 2026
- Email from Karin Muilman, received August 10, 2026
- Email from Erika Murray, received August 1, 2026
- Email from Nathan Paul, received August 3, 2026
- Email from Sidarany Phillips, received August 6, 2026
- Email from Heather Quirke, received August 10, 2026
- Email from Wayne Ragas, received August 10, 2026
- Email from Rylee Ryan, received August 13, 2026
- Email from Teri Sall, received August 8, 2026
- Email from Matt Schlanser, received August 10, 2026, with attachment
 - Statement from Matt Schlanser, undated
- Email from Ken Seymour, CPO6, received August 12, 2026, with attachment
 - Letter, CPO6 Aloha-Reedville-Cooper Mountain, Hillsboro Airport and Sky Harbour Expansion, Application DR-044-25, by Ken Seymour, August 12, 2026
- Email from Rob and Darlene Shelby, received August 14, 2026
- Email from Bob Shingler, received August 13, 2026

- Email from David Michael Smith, received August 10, 2026
- Email from Shira Smith and Thom Hudson, received August 13, 2026
- Email from Patrick Taylor, received July 31, 2026
- Email from Larry Weber, received August 10, 2026
- Email from Marcus Winston, received August 10, 2026

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Driscoll: Case File No. DR-044-25 (Sky Harbour Hangars)
Date: Friday, August 07, 2026 03:40:46 PM

Council - FYI

Amber Rios, MMC | City Recorder

City of Hillsboro | City Manager's Office

503-407-6875 (cell) | 503-681-6117 (office)

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The City of Hillsboro provides translation, interpretation, alternative formats, and accessibility services upon reasonable request. To request language help
<<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/language-help>> and/or accessibility services
<<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/language-help>> : Contact 503-681-6100, City TTY 503-681-6284, Relay Service: 711.

Traducción e Interpretación
<<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/spanish>> | Biên Dịch và Thông Dịch <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/vietnamese>> |
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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Greg Driscoll <gdriscoll222@gmail.com>

Sent: Thursday, August 6, 2026 2:16 PM

To: Council <Council@hillsboro-oregon.gov>

Subject: Driscoll: Case File No. DR-044-25 (Sky Harbour Hangars)

Dear Hillsboro City Council,

I am writing to express concerns regarding the scope of authority exercised by the City Planning Commission in its review of Case File No. DR-044-25 (Sky Harbour Hangars) with a decision scheduled on Aug 18th

While this has been presented as a land-use-only decision, the practical impacts extend far beyond building placement. Approval of these hangars will enable a substantial increase in private-jet activity over both the City of Hillsboro and Washington County. Although the Planning Commission does not regulate airspace, its land-use approval effectively authorizes the infrastructure that will drive significant increases in jet operations.

Because the Commission is viewing this project through a narrow land-use lens, several critical issues are not being evaluated:

- * The Port selected a flight-activity multiplier based on the slowest Sky Harbour airports, even though Hillsboro is likely to be among the busiest. A realistic multiplier dramatically changes projected daily jet operations.

- * No air-quality or noise-impact assessments have been required for any phase, despite the proximity of residential neighborhoods.

- * Approximately 15,000–20,000 residents in the approach, takeoff, and downwind corridors received no written notice, including many who live outside city limits but will be heavily affected.

- * Potential impacts to property values — and the resulting reduction in County tax revenue — have not been considered.

Given these broader implications, I respectfully request that the City Council determine:

1. Whether additional oversight is required beyond the Planning Commission's land-use authority, and
2. Which governing body is responsible for evaluating the air-use, environmental, and community-impact components of this project, since these fall outside the Planning Commission's jurisdiction.

This project has two distinct components — land use and air-use impacts — and only the first is currently being reviewed. The community deserves clarity on which governing body is responsible for the second.

Thank you for your attention to this matter.

Greg Driscoll

From: [Brett Hamilton](#)
To: [Ruth Klein](#)
Cc: [Sarah Richmond](#); [Valerie Pratt](#)
Subject: NE Springer Street
Date: Wednesday, August 12, 2026 10:17:17 AM
Attachments: [COH2026032001.pdf](#)

Dear Ruth,

We would request that the attached "NE Springer Street Development Agreement" be added to the public record and included in the hearing packet for the Sky Harbour Appeal hearing DR-044-25.

Thank you! -Brett

DEVELOPMENT AGREEMENT

BETWEEN PORT OF PORTLAND AND THE CITY OF HILLSBORO FOR THE FUTURE RIGHT-OF-WAY DEDICATION AND CONSTRUCTION OF A FUTURE COMMERCIAL & INDUSTRIAL COLLECTOR

This Development Agreement is entered into by and between Port of Portland (hereafter referred to as "PORT") and the City of Hillsboro, a municipal corporation in Washington County, acting by and through its Manager (hereafter referred to as "CITY") to defer right-of-way dedication and construction of future commercial & industrial collector half-street improvements.

RECITALS

- A. PORT prepared and completed a HIO (Hillsboro Airport) Master Plan Update in March of 2020 that proposed a public road with utilities connecting the eastern end of NE Springer Street to the traffic signal on NE Brookwood Parkway at the Hillsboro Brookwood Library intersection.
- B. CITY adopted the proposed road in the CITY's Transportation System Plan in March of 2022 as a "Commercial & Industrial Collector".
- C. PORT is leasing 13.14 acres of land on the southwest corner of the NE Brookwood Parkway / Hillsboro Brookwood Library intersection to the Sky Harbour Group to construct and operate six private aircraft hangars that will front the proposed Commercial & Industrial Collector as depicted in **Exhibit A** attached hereto.
- D. PORT requests to defer the Commercial & Industrial Collector right-of-way dedication and half-street improvements due to PORT uncertainty of the Commercial & Industrial Collector alignment.
- E. CITY has imposed land use conditions of approval on Case File DR-044-25 that require PORT to fully fund half-street improvements and to provide right-of-way at no cost to the CITY along the site frontage at the time of a project to construct the public roadway identified in the CITY's Transportation System Plan.

Now, THEREFORE, in consideration of the public benefit to provide more street connectivity in the city, the Parties hereby agree to the following:

AGREEMENT

1. PORT shall establish a restrictive covenant of a 48-foot setback from the centerline of the existing paved roadway along the northern frontage of the site as depicted in **Exhibit A** attached hereto. This setback prevents any permanent structures, such as buildings and stormwater facilities, from being placed within the setback.
2. PORT will dedicate right-of-way to the CITY at the time of a project to construct the commercial & industrial collector as depicted in **Exhibit A** attached hereto. Forty feet of the restrictive covenant width shall be utilized as right-of-way and the remaining 8 feet shall be utilized as a public utility easement.
3. PORT will fully fund half-street improvements along the site frontage at the time of a project to construct the commercial & industrial collector as depicted in **Exhibit A** attached hereto. The funded cost of the half-street improvements will include 28 feet of concrete for two travel lanes, 0.5-feet of curb, 7-foot cycle track, 6-foot landscape strip, 5-foot sidewalk, and 0.5-feet behind the curb based on the CITY's Design and Construction Standards. Street lighting, water, sewer, and transportation communications infrastructure will also be funded along the site frontage.
4. PORT will fully fund the relocation of the site's driveway farther west from NE Brookwood Parkway at the time of a project to construct the commercial & industrial collector as depicted in **Exhibit A** attached hereto. This site driveway relocation would likely require the relocation of the trash enclosure to the location of the old driveway. The relocation of the trash enclosure will also be fully funded by the PORT.
5. The above obligations of the PORT can be rescinded if the proposed public roadway is removed from the PORT's HIO Master Plan and the CITY removes the collector from their Transportation System Plan.

TERMS AND CONDITIONS

- A. Default: Time is of the essence in the performance of the Agreement. A party shall be deemed to be in default if it fails to comply with any provisions of this Agreement. Any party shall provide any other party with written notice of default and allow thirty (30) days within which to cure the defect.

- B. Indemnification: This Agreement is for the benefit of the Parties only. Each Party agrees to indemnify and hold harmless the other Parties, and its officers, employees, and agents, from and against all claims, demands and causes of actions and suits of any kind or nature for personal injury, death or damage to property on account of or arising out of services performed, the omissions of services, or in any way resulting from the negligent or wrongful acts or omissions of the indemnifying party and its officers, employees and agents. To the extent applicable, the above indemnification obligation of CITY and PORT is subject to and shall not exceed the limits of liability of the Oregon Tort Claims Act (ORS 30.260 through 30.300). In addition, each Party shall be solely responsible for any contract claims, delay damages or similar items arising from or caused by the action or inaction of the Parties under this Agreement.
- C. Modification of Agreement: No waiver, consent, modification or change of terms of this Agreement shall be binding unless in writing and signed by all Parties.
- D. Disputes: The Parties shall attempt to informally resolve any dispute concerning any Party's performance or decisions under this Agreement, or regarding the terms, conditions or meaning of this Agreement. The Parties agree that in the event of an impasse in the resolution of any dispute, a neutral third party may be used to facilitate these negotiations if the Parties agree.
- E. Remedies: Any Party may institute legal action to cure, correct or remedy any default, to enforce any covenant or agreement herein, or to enjoin any threatened or attempted violation of this Agreement. All legal actions shall be initiated in Washington County Circuit Court. The Parties, by signature of their authorized representatives below, consent to the personal jurisdiction of that court.
- F. Excused Performance: In addition to the specific provisions of this Agreement, performance by any Party shall not be in default where delay or default is due to war, insurrection, strikes, walkouts, riots, floods, drought, earthquakes, fires, casualties, acts of God, governmental restrictions imposed or mandated by governmental entities other than the Parties, enactment of conflicting state or federal laws or regulations, new or supplementary environmental regulation, litigation or similar bases for excused performance that are not within the reasonable control of the Party to be excused.
- G. Severability: If any one or more of the provisions contained in this Agreement is invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions of the Agreement will not be affected or impaired in any way.
- H. Integration: This Agreement is the entire agreement of the Parties on its subject and supersedes any prior discussions or agreements regarding the same subject.

- I. Notice: Any notice required or permitted under this Agreement shall be addressed and given in writing as follows: (i) by certified mail, return receipt requested, which shall be effective when actually delivered in person or 72 hours after having been deposited in the United States mail, whichever occurs first; (ii) by personal delivery, which shall be effective on the date of delivery; (iii) by email (including by .pdf attachment) if successful delivery is confirmed by electronic delivery receipt provided that the addressee acknowledges in writing (including by return email) that the addressee has received the emailed notice, which shall be effective on the date of electronic delivery receipt; or (iv) by FedEx and similar reputable overnight delivery service, which shall be effective on delivery:

To CITY: Rahim Harji
 Assistant City Manager
 150 East Main Street
 Hillsboro, OR 97123
 Email: rahim.harji@hillsboro-oregon.gov

To PORT: Name
 Title
 Address
 City
 Email:

- J. Time Periods: If the time for performance of any obligation under this Agreement expires on a day that is not a business day, the time for performance shall be extended to the next business day. As used herein, "business day" means any day other than a Saturday, Sunday, or a day on which banking institutions in the state of Oregon are authorized by law or executive order to close.
- K. Nonwaiver: Failure by either party at any time to require performance by the other party of any of the provisions hereof shall in no way affect the party's rights hereunder to enforce the same, nor shall any waiver by the party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this no waiver clause.
- L. Counterparts: This Agreement may be executed in any number of counterparts and by different parties hereto on separate counterparts, and each counterpart, when so executed and delivered, shall be deemed to be an original and all of the counterparts, taken together, shall constitute but one and the same agreement. A party's properly executed and authorized signature may be given in .pdf format and transmitted by email and upon receipt by the other party shall constitute an original signature.
- M. Authority to Sign: Each Party acknowledges that its respective signer of this Agreement has the full and complete authority to do so.

N. Term of Agreement/Termination: The term of this Agreement shall be from the last date executed by the parties below until the completion of the new southbound deceleration and right turn lane on SW 209th Avenue as shown in **Exhibit B** and the eastbound right turn lane on SW Blanton Street at the intersection with SW 209th Avenue shown in **Exhibit A**, but not to exceed five (5) years. This Agreement may be amended or extended for periods of up to one (1) year by mutual written consent of the parties. It may be canceled or terminated for any reason by any party. Termination or cancellation shall be effective thirty (30) days after written notice to the other parties, or at such time as the parties may otherwise agree. The parties shall, in good faith, agree to such reasonable provisions for winding up the projects and paying for any additional costs as necessary.

IN WITNESS WHEREOF, the parties have executed this Development Agreement as of the Effective Date.

PORT OF PORTLAND, OREGON

CITY OF HILLSBORO

Authorized Signature

Printed Name: _____

Date Executed: _____

APPROVED AS TO FORM

Assistant Port Counsel
Port of Portland, Oregon

Authorized Signature

Printed Name: _____

Date Executed: _____

APPROVED AS TO FORM

Attorney for City of Hillsboro

From: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
To: Sarah Richmond <sarahrichmond03@gmail.com>
Cc: "valprattor@gmail.com" <valprattor@gmail.com>; "brett@simple.be" <brett@simple.be>; Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: RE: Yesterday's Staff Report
Date: Friday, August 14, 2026 08:49:46 AM

Hi Sarah,

Thank you for the clarification. Your email of August 12, 2026 and this response will both be entered into the record for the August 18, 2026 City Council appeal hearing.

You are correct that CDC Section 12.80.040.H.7 contains no subsection (f). The additional criteria for non-residential applications consist of subparagraphs a through e.

The Council staff report addresses this at Issue 10 and reaches the same conclusion. The Staff position under that issue also states that the substance you described, unreasonable impacts on surrounding properties, is addressed by Criteria 7.d and 7.e, both of which are before the Council. Those criteria are analyzed at Issue 7 and Issue 8 of the report. Issue 8 addresses the negative impacts criterion and Condition 45, which staff identifies as the central issue in both appeals.

The Council packet was finalized and posted prior to receipt of your email, so Issue 10 remains as written. Your clarification that you intended to reference subsections (d) and (e) will be before the Council through this exchange, and the Council will determine what weight to give it.

Thank you,

Ruth

Ruth Klein | Senior Planner

City of Hillsboro | Community Development: Planning Division

503-686-1433 (cell) | 503-681-6465 (office)

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<<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/language-help>> : Contact 503-681-6100, City TTY 503-681-6284, Relay Service: 711.

Traducción e Interpretación

<<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/spanish>> | Biên Dịch và Thông Dịch <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/vietnamese>> |
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繁體中文 <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/traditional-chinese>> |
हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Sarah Richmond <sarahrichmond03@gmail.com>

Sent: Wednesday, August 12, 2026 9:31 AM

To: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>

Cc: Brett Hamilton <brett@simple.be>; Valerie Pratt <valprattor@gmail.com>

Subject: Yesterday's Staff Report

Hi Ruth;

Hope this note finds you well.

I'm reaching out as the latest Staff Report on Page 21 (Issue 10. CDC Section 12.80.040.H.7.f) says...

"Appellants' assertion. Richmond asserts that a subsection (f), addressing unreasonable impacts on surrounding properties, exists at CDC Section 12.80.040.H.7 and that no findings address it."

It looks like this is in reference to my email sent on May 27th, prior to the Appeal. Rather than section (f), which does not exist, my argument was intending to reference a combination of sections (d) and (e).

This was a scrivener's error and whatever is the appropriate way to address this please do. No need to dedicate a section of the staff report to a typo that occurred prior to the appeal.

Thank you so much for your help here,

Sarah

From: [Brett Hamilton](#)
To: [Council](#)
Cc: [Ruth Klein](#); [Leslie Hamilton](#); [Brianna Ross](#)
Subject: Sky Harbour Appeal Supplemental
Date: Thursday, August 13, 2026 10:10:47 AM
Attachments: [Richmond20260813.pdf](#)

Dear Hillsboro City Council,

Please find attached two pages of additional material for your consideration on the Sky Harbour appeal. (APPEAL-002-26, Richmond) Thank you for your attention to this matter.

Sincerely,
Brett Hamilton

Dear Hillsboro City Council,

Thank you for the opportunity to submit this additional material prior to the Sky Harbour hearing.

Environmental Stewardship

Sky Harbour's facility will be in direct conflict with the Environmental Stewardship goals in the Hillsboro Comprehensive Plan:

Initiative 1: Encourage and implement infrastructure enhancements to reduce energy use and the use of fossil fuels.

Initiative 8: Improve air quality and reduce carbon emissions.

The proposed use for this development will cause direct environmental damage. Private jet travel is the most carbon-intensive mode of passenger transport. This 30-jet facility is being designed to support the Bombardier Global 7500, which burns 1000 gallons of jet fuel in the first 30 minutes of flight.

Degradation in local air quality, and a significant increase in noise pollution and carbon emissions will result from the approval of this project. Although you may be evaluating this case as a local land use issue, your vote will have local and global ramifications.

NW Airport Road is not a private driveway.

NW Airport Road and NE Springer Street are two names for the same road. The applicant uses the label NW Airport Road and claims that this is a private driveway. However, the Hillsboro Transportation System Plan (TSP) calls it NE Springer Street with the designation as a 3-lane collector. A development agreement between the City of Hillsboro and the Port of Portland also calls it NE Springer Street and agrees that it will be a public road:

“PORT prepared and completed a HIO (Hillsboro Airport) Master Plan Update in March of 2020 that proposed a public road with utilities connecting the eastern end of NE Springer Street to the traffic signal on NE Brookwood Parkway at the Hillsboro Brookwood Library intersection.” (Agreement Recital A)

“CITY has imposed land use conditions of approval on Case File DR-044-25 that require PORT to fully fund half-street improvements and to provide right-of-way at no cost to the CITY along the site frontage at the time of a project to construct the public roadway identified in the CITY's Transportation System Plan.” (Agreement Recital E)

“NE Springer St Extension. Start: End of existing segment. End: Brookwood; Extend three-lane road to signalized intersection at Brookwood Library; see HIO Master Plan.” (TSP Page 200 ID: 22-005b)

Sky Harbour’s claim that NW Airport Road is a private driveway ignores both the TSP and the City’s Development Agreement with the Port. By mislabeling NW Airport Road as a “Private Driveway” the applicant attempts to avoid the requirements for a corner lot on a public road, including, but not limited to, driveway spacing. This land use application, as submitted, does not conform to the Hillsboro TSP or the HIO Master Plan.

Environmental Site Assessment is a Draft

The “Limited Scope Phase II Environmental Site Assessment Sky Harbour HIO” document prepared by GRI and included in the application is labeled as a “DRAFT” on the majority of the pages. The document is not signed or final; and as such, should not be relied upon for stormwater, pavement, or structural design review. (H31 Application Documents p 235)

Possibly Incomplete Council Packet

While reviewing the August 11 packet for your August 18 City Council appeal hearing, we are unable to find the latest revised land-use application materials for Sky Harbour. The “Application Documents” (H 31) in the packet appears to only include the original files and an earlier revision. The latest version, which the Hillsboro Planning Commission used to make their decision, may be missing. Considering the high page count of the appeal materials, it is very possible that we missed it, but if not, we want to bring this to your attention,

Thank you for your consideration and your attention to this matter.

Sincerely,

Sarah Richmond

Brett Hamilton

Valerie Pratt

From: [Brett Hamilton](#)
To: [Council](#)
Cc: [Ruth Klein](#); [Leslie Hamilton](#); [Brianna Ross](#)
Subject: Sky Harbour Appeal Supplemental Revised
Date: Thursday, August 13, 2026 10:31:55 AM
Attachments: [Richmond2026081302.pdf](#)

Dear Hillsboro City Council,

We were able to locate the revised application materials in “H 10 Staff Report No. 4 Rev Application, Testimony, Order” and have updated our supplemental letter (attached) to reflect this. Apologies for the mistake. Please replace the earlier document with this one.

Thank you for your attention to this matter.
(APPEAL-002-26, Richmond)

Sincerely,
Brett Hamilton

Dear Hillsboro City Council,

Thank you for the opportunity to submit this additional material prior to the Sky Harbour hearing.

Environmental Stewardship

Sky Harbour's facility will be in direct conflict with the Environmental Stewardship goals in the Hillsboro Comprehensive Plan:

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Sky Harbour’s claim that NW Airport Road is a private driveway ignores both the TSP and the City’s Development Agreement with the Port. By mislabeling NW Airport Road as a “Private Driveway” the applicant attempts to avoid the requirements for a corner lot on a public road, including, but not limited to, driveway spacing. This land use application, as submitted, does not conform to the Hillsboro TSP or the HIO Master Plan.

Environmental Site Assessment is a Draft

The “Limited Scope Phase II Environmental Site Assessment Sky Harbour HIO” document prepared by GRI and included in the application is labeled as a “DRAFT” on the majority of the pages. The document is not signed or final; and as such, should not be relied upon for stormwater, pavement, or structural design review. (H10 Staff Report No. 4 Rev Application, Testimony, Order p 354)

Thank you for your consideration and your attention to this matter.

Sincerely,

Sarah Richmond

Brett Hamilton

Valerie Pratt

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: FW: Eisenbeis: Written Testimony on Appeal-001-26 & Appeal-002-26 of DR-044-25 Sky Harbour Hangers
Date: Thursday, August 13, 2026 2:11:26 PM
Attachments: [image001.png](#)
[Port-of-Portland-Appeal-001-and-002-26-Testimony-DR-044-25 \(002\) - FINAL.pdf](#)

Council - FYI

Amber Rios, MMC | *City Recorder*

City of Hillsboro | City Manager's Office

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From: Eisenbeis, Dan <Dan.Eisenbeis@portofportland.com>
Sent: Thursday, August 13, 2026 12:35 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ariel Nelson <Ariel.Nelson@hillsboro-oregon.gov>
Subject: Eisenbeis: Written Testimony on Appeal-001-26 & Appeal-002-26 of DR-044-25 Sky Harbour Hangers

Hi Aubrey,

Please find attached written testimony on behalf of the Port of Portland on Appeal-001-26 Barnes et. al. & Appeal-002-26 Richmond et. al. of DR-044-25 Sky Harbour Hangers at the August 18th City Council meeting.

Thank you,
Dan

Daniel Eisenbeis

Regional Affairs Manager | Port of Portland

he/him

dan.eisenbeis@portofportland.com

m: 971.322.1032



August 14, 2026

Beach Pace, Mayor
Rob Harris, Council President
Hillsboro City Council

Submitted via: Council@Hillsboro-Oregon.gov

RE: Appeals of Development Review Approval for Aircraft Hangars
Case File No. APPEAL-001-26 Sky Harbour Barnes et. al. and
Case File No. APPEAL-002-26 Sky Harbour Richmond et. al. (collectively, "Appeals")

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to provide comments relating to the above-referenced Appeals that are scheduled for hearing as Agenda Item 5.1 before the City Council on August 18, 2026.

The Port of Portland (Port) owns the Hillsboro Airport property where the proposed SkyHarbour Hangar campus will be located. To help guide long-term development at the Hillsboro Airport, the Port of Portland utilizes a master planning process, last completed in 2020. The proposed Sky Harbour campus is consistent with the current Master Plan, located within an area designated for future corporate aviation uses. The aviation activity associated with the campus is well within aviation demand forecasts prepared to support the Master Plan. In 2025, there were 165,317 takeoffs and landings at Hillsboro Airport, well below the approximately 217,000 takeoffs and landings projected in the most recent aviation demand forecast.

The Port has reviewed the Appeal Staff Report and proposed Order No. 36, which would deny the Appeals, affirm Planning Commission Order No. 8492 with certain modifications, and grant Development Review approval of the Sky Harbour Hangar campus. Based on the Port's review, the Appeal Staff Report accurately sets out applicable considerations to conclude that the Sky Harbour proposal meets the relevant Community Development Code (CDC) approval criteria. The Port agrees with conclusions in the Appeal Staff Report and Planning Commission Order No. 8492 that issues such as aircraft flight paths, aircraft operations, aircraft noise, and FAA approvals fall outside of the CDC approval criteria and this development review process.

Thank you for your attention and review of the Sky Harbour's application and the Appeals.

Sincerely,



Chris Czarnecki
Port of Portland, Director, Business & Properties

From: [Miki Barnes](#)
To: [Ruth Klein](#)
Subject: Sky Harbour CATEX Analysis 2026-8-3
Date: Thursday, August 13, 2026 5:35:21 PM
Attachments: [Sky Harbour CATEX Analysis 2026-8-3.pdf](#)

Hi Ruth,

Please include this 8/3/2026 CATEX Analysis in the 8/17/2026 Staff Report.

Thank you.

Miki Barnes

Sent from my iPad

Sky Harbour NEPA Document Peppered with Mistruths and Falsehoods

The Port of Portland Submitted False Information to the Federal Aviation Administration (FAA) to Justify their Failure to Complete an Environmental Assessment on the Sky Harbour Hangar Development.

*Miki Barnes
August 3, 2026*

One issue raised by many of the 150 residents who submitted testimony in opposition to the exclusive Sky Harbour hangar development for ultra-wealthy jet owners at the Hillsboro Airport (HIO) was the failure to complete an environmental assessment prior to approving the project. The proposal involves constructing 7 hangars with office suites, customer lounges, and other amenities, along with two 20,000-gallon fuel tanks on a 13.70 acre site to accommodate 30 private jets. The applicant does acknowledge that, "The number of aircraft allowed is not regulated, however this is the expected capacity." (Strata Consulting 5/4/2026 Memo, Sky Harbour Land Use Application Materials (Pg. 111.)

An environmental review that would consider the significant increase in greenhouse gas emissions, noise, air and water quality and other impacts resulting from the development was never completed because the Port and Federal Aviation Administration (FAA), behind closed doors and without public participation, issued a Categorical Exclusion (CATEX), claiming that the project has no significant effect on the quality of the human environment. As a result, the Hillsboro Planning Commission and the public were denied access to critical and meaningful information upon which to assess the proposal.

The unelected, Governor-appointed members of the Port of Portland Board of Commissioners approved this project from their lofty perch at Portland International Airport (PDX) on 4/09/2025. They made no effort to seek input from the local community. The majority of Port commissioners don't live in Washington County thus are not subjected to the noise, pollution, safety and security risks local residents are forced to endure as a result of their decrees.

HIO started out as a private 100 acre grassy airstrip in 1928. The Port purchased the property in 1966. Since that time, it has expanded into the largest General Aviation (GA) airport in the state. Never in the nearly 100 years of its existence has an Environmental Impact Statement (EIS) been completed, even though HIO is a major facility source of noise, PM2.5, benzene, lead, and a host of other criteria pollutants and carcinogenic air toxins.

The Port profits from lease agreements with airport tenants as well as flowage fees affixed to every gallon of fuel sold at the airport. As a result their decisions are tainted by

an inherent bias towards turning a profit by currying favor and honing business agreements with affluent private jet and aircraft owners. In this scenario, consideration for public health and the environment is all too often marginalized or totally ignored.

Port Promotes Economic Inequity and Pollution

The Port's dismissive attitude is extremely concerning, especially insofar as private jet travel is one of the most polluting and economically inequitable forms of transportation per capita on the planet.

The following quotes are from an International Council on Clean Transportation report, [Air and Greenhouse Gas Pollution by Private Jets, 2023](#) by Daniel Sitompul and Dan Rutherford, PhD.

"Private jets emit at least 10 times more pollutants than commercial planes per passenger" and "...a typical private jet emits about 810 tonnes of GHGs in a typical year, equivalent to 177 passenger cars or nine Class 8 heavy-duty trucks." (Pg. ii) *[Editor's note: 1 tonne (a metric ton) is about 10% heavier than a US ton.]*

Within the aviation sector, private jets occupy a unique position, catering to a select group of corporate executives and other high net-worth individuals. (Pg. 4)

Although private jets represent a small fraction of overall aviation activity, the disproportionately contribute to emissions, releasing up to 14 times more CO₂ per passenger than commercial jets and 50 times more than trains. (Pg. 4)

...the FAA (2024) projects that U.S. private jets will emit 28 Mt of CO₂ in 2044, a 70% increase from 2023 levels. (Pg. 5)

In addition to GHGs, private jets emit air pollutants that impact human health, including nitrogen oxides (NO_x) and fine particulate matter (PM_{2.5}). Atmospheric ozone linked to aviation NO_x caused an estimated 53,000 premature deaths in 2015, with PM_{2.5} accounting for an additional 21,000 premature deaths that year (Eastham, 2024). Due to their high-altitude operations, private jets may also contribute disproportionately to persistent condensation trails (Gryspeerd et al., 2024). (Pg. 5)

In 2023, two-thirds of global private jet flights departed from US airports, accounting for more than half (55%) of estimated private jet GHG emissions. The second and third largest contributors, France and the United Kingdom, trailed with 2.2% and 2.1% of flights, respectively. (Pg. 35)

A typical private jet flight is short-haul and lasts less than two hours...The median private jet flight in 2023 lasted 85 min, indicating a regional to short-haul operational range. These findings suggest that private jets prioritize convenience and flexibility over speed or range. Private jet flights may therefore be mitigatable by modal shift to high-

speed rail in regions like Asia and Europe and by an increased use of turboprop aircraft, which are more fuel efficient than turbofan aircraft. Short-haul flight bans have already been introduced in France, where high-speed rail can compete with air travel in terms of total travel time for short distances. (Pg. 35)

According to the Hillsboro Airport Master Plan, **"Research has shown that there is a direct correlation between fuel combustion and greenhouse gas emissions. Therefore, sources that require fuel or power at an airport are the primary sources that would generate greenhouse gases."** This same document states, **"In the environmental review prior to initiating projects, a review of current climate impacts will examine the effects of any proposed development on greenhouse gas emissions."** See Hillsboro Airport Master Plan Update (Appendix E - Environmental Overview, Climate Pgs. 6-7)

Despite these assurances the effect of greenhouse gas emissions and other pollutants generated by the Sky Harbour development were never considered.

What Is A Categorical Exclusion?

The U.S. Department of the Interior provides the following explanation of Categorical Exclusions,

"The National Environmental Policy Act (NEPA) defines categorical exclusions (CEs) as a category of actions that a Federal agency has determined normally does not significantly affect the quality of the human environment (42 USC 4336e (1)). In cases where a CE applies, neither an environmental assessment (EA) nor an environmental impact statement (EIS) is required unless there are extraordinary circumstances."

The Federal Aviation Administration (FAA) Standard Operating Procedure for CATEX Determinations provides additional information on the required documentation and procedure for requesting a CATEX.

"To request a CATEX determination from the FAA, the sponsor should review potentially affected environmental resources, review the requirements of the applicable special purpose laws, and consult with the Airports District Office or Regional Airports Division Office staff about the type of information needed. The form and supporting documentation should be completed in accordance with the provisions of FAA Order 5050.4B, paragraph 302b, and submitted to the appropriate FAA Airports District/Division Office. The CATEX cannot be approved until all information and documentation is received and all requirements have been fulfilled." (See Standard Operating Procedure: CATEX Determination, Pg.9)

Port and Sky Harbour Intentionally Concealed CATEX Documentation from Public

During the 4/8/2026 Hillsboro Planning Commission hearing, Sky Harbour announced that the project had been granted a Categorical Exclusion. A one page document signed by the FAA on 3/6/2026, more than a month before the hearing, was subsequently added to the record.

When I asked the Port for supporting documentation on the CATEX decision, I was told to file a public records request.

On 5/15/2026, I filed the following,

A document dated 3/6/2026 granting a Categorical Exclusion on the Sky Harbour Hangar Development proposal was entered into the record during a 4/8/26 Hillsboro Planning Commission hearing on this project. It was not included in the application materials for review prior to the hearing. The applicant provided no substantiating evidence explaining the basis upon which the FAA arrived at their decision not to complete an environmental assessment on the Sky Harbour proposal. Please provide all information pertaining to this decision and an explanation for why this document was not made available for public review when it was initially signed on 3/6/2026.

More than two weeks elapsed before the information was made available on 6/3/2026. By that time, the Hillsboro Planning Commission had already approved the Sky Harbour proposal at the 5/27/2026 hearing. In addition, the appeal window on the CATEX had closed.

A 6/3/2026 email from Kama Simonds, Senior Manager of GA Operations for the Port offered the following explanation,

The FAA provides NEPA approvals for projects to the Port. The FAA makes the decision of what level of NEPA environmental review is required for a project. Because NEPA compliance is owned by the FAA, the FAA also makes decisions of how and when to distribute NEPA-related documents to the public.

On 6/7/2026 I responded with the following email,

It appears you're saying the FAA is responsible for this decision, not the Port, even though the Port submitted the CATEX application. Did the Port or FAA provide any public notification about the CATEX process? Was there any effort to seek public input or feedback?

On 6/9/2026 Kama Simonds responded as follows,

The FAA is the agency that makes the decision as to what level of NEPA environmental review is required for a project. I would direct your question to them regarding their public notification and engagement processes.

If the FAA requires the sponsor (airport) to conduct public involvement, the Port complies. Additionally, we work to make sure development at the airport aligns with long-term neighborhood plans, regulations, and community input. The Sky Harbour hangar project is part of the adopted Hillsboro Airport Master Plan, which identified this area for corporate aviation uses through an extensive two-year public planning and engagement process which included advisory committee meetings, open houses, online and in-person surveys, tabling at community events, and presentations to local community groups.

The Hillsboro Airport Master Planning meetings were held between 2017 and 2020, 6 to 9 years before the Sky Harbour proposal was brought before the Hillsboro Planning Commission, long before any proposal to build an exclusive, luxury jet hangar at HIO was announced.

In any case, the CATEX submission states that it was prepared by the Port on 2/26/2026 and approved by the FAA on 3/6/2026. Clearly it could have been included in the Sky Harbour application but was intentionally withheld from the Planning Commission and the public.

To access the documentation the Port of Portland submitted to the FAA to justify a Categorical Exclusion click [here](#).

Port CATEX Document Provided False Information to the FAA

A review of information the Port presented to the FAA reveals that the document is rife with distortions and mistruths. Below are some examples. (Port CATEX statements in **bold**.)

Sky Harbour to Remove Fuel Storage Tank and Contaminants

"This CATEX includes the closure and removal of a fuel storage tank, and the remediation of contaminants resulting from a fuel storage tanks at an FAA facility or on an airport where the FAA has ALP [Airport Layout Plan] approval or disapproval authority of the project, provided those actions occur in accordance with the order and the regulations noted above. The establishment of bulk fuel storage and associate distribution system is not within the scope of this CATEX." (Pg. A5)

The closure and removal of a fuel storage tank was not addressed in the Sky Harbour application. Moreover, the description of the proposed Sky Harbour site said that the acreage had previously been used for agricultural purposes. There was no mention of

an existing fuel storage tank or contaminants on the property. The Sky Harbour proposal does, however, include plans to construct two 20,000-gallon fuel tanks directly across the street from the Brookwood Library.

Port Responses to CATEX Questions about Community Disruption

"Will the project disrupt a community, planned development or be inconsistent with plans or goals of the community?"

Port's Response - "NO. The proposed project is located entirely within Airport boundaries and is consistent with the 2020 HIO Master Plan Update. The project would not disrupt a community, planned development, or be inconsistent with area land use plans." Pg. A12

Multiple aspects of this proposal violate the Hillsboro Comprehensive Plan and City Development Code, yet the Port chose to ignore these impacts.

The Port and FAA both know that community disruption caused by an airport is not confined to the site where hangars and other airport infrastructure are located. The Hillsboro Airport's environmental footprint extends for miles in every direction well beyond the City limits, impacting thousands of people, their residential communities, business centers and farms, and the air, land, and watersheds that support them.

But instead of addressing the noise, pollution, safety, and security risks caused by aviation activity both close-in and at a distance from the airport, the Port and the FAA chose to dismiss and minimize these well documented impacts.

More than 150 people submitted testimony in opposition to this development. Many cited concerns about the disruptive nature of airport noise, environmental pollution, ecological harms, and safety risks. It is also worth noting that the Sky Harbour application failed to include information on flight paths.

Port Responses to CATEX Questions on Noise Impacts

As a result of the false information provided by the Port to the FAA, a determination was made that no noise analysis for the Sky Harbour development would be required. A number of the Port responses were predicated on the blatantly false claim that adding 30 jets at HIO would not change the aircraft fleet mix or increase operations.

The following are responses to questions about noise impacts included in the CATEX (See pages A13-A14)

"Will the project result in an increase in aircraft operations, nighttime operations, or change aircraft fleet mix?" (Pg. A13)

Port Response - "NO. This project would not increase aircraft operations, nighttime operations, or change the aircraft fleet mix at the airport."

Sky Harbour's own application admitted to a significant increase in operations. According to the Application Narrative, "The hangars are typically expected to have approximately 60% of jets active at one time..." (Pg. 4)

If 60% of the 30 jets based at Sky Harbour depart on any given day, the HIO annual operational count would increase by 6,500 additional flights. If these same aircraft returned to HIO on that same day, the annual operational count would increase to 13,000 operations per year.

Since there are no restrictions on either daytime or nighttime operations at HIO, an increase in 30 private jets will inevitably result in an increase in nighttime operations.

The addition of 30 private jets at HIO constitutes an undeniable change in fleet mix.

"Does the forecast exceed 90,000 annual propeller operations, 700 annual jet operations or 10 daily helicopter operations or a combination of the above? (Pg. A13) If yes, a noise analysis may be required if the project would result in a change in operations."

Port Response - "YES. There were over 150,000 total flight operations at HIO in 2022. Since this project relocates existing air services at HIO, the project would not result in a change in the number of or type of operations. Therefore, a noise analysis is not required."

There was nothing in the Sky Harbour application, their presentations, or Planning Commission Staff Reports about on-airport "existing air services" being the sole occupants of the Sky Harbour hangar development. In fact, the Sky Harbour application assumed that 60% of the projected aircraft would be new to the airport. Sky Harbour Land Use Application Materials. Pg. 118.)

The Questions section of the 10/29/2025 Neighborhood Presentation and Meeting Notes included the following, "How do people connect with Sky Harbor for leasing? Some HIO existing tenants may become incentivized to invest in larger planes if hangar space is available."

This statement can hardly be construed as a plan for existing HIO air services to relocate to the Sky Harbour site. The suggestion that existing tenants may be incentivized to invest in larger planes leads one to wonder just exactly what these incentives are and who is offering them.

Finally, the Sky Harbour application states that, "The trip generation calculations project up to 90 daily vehicle trips. However, this is a worst-case trip generation scenario where

100 percent of the jets are active on a given day. The hangars are typically expected to have approximately 60 percent of jets active at one time; therefore the expected daily trips to the site are expected to be less than the maximum daily total." Sky Harbour Land Use Application Materials. Pg. 122.)

The above quote appears to be focused on arrivals "expected daily trips to the site." This language does not appear to factor in departures. In any case, 90 daily vehicle trips translates into an additional 32,850 operations at HIO annually.

"Has a noise analysis been conducted, including but not limited to generated noise contours, a specific point analysis, area equivalent method analysis, or other screening method? If yes, provide that documentation."

Port Response - "NO. No noise analysis has been prepared for this proposed action because no change to aircraft fleet mix, number of operations, or flight paths are proposed."

Again, the Port puts forth the specious claim that this project will not change the fleet mix or increase operations at HIO.

"Could the project have a significant impact (DNL 1.5 dB or greater increase) on noise levels over noise sensitive areas within the 65+ DNL noise contour?"

Port Response - "NO. The proposed project would not affect aircraft noise exposure. Temporary construction related noise impacts may occur within airport boundaries. Operational noise would not change because of this project."

There is no evidence provided in the Sky Harbour application to support this claim. No noise analysis was completed. It stands to reason that 13,000 or more additional annual operations will lead to a significant increase in noise. To pretend otherwise without evidence defies credulity.

Port Claims Sky Harbour Project Not Expected to Be Controversial

"Is the project highly controversial? The term 'highly controversial' means a substantial dispute exists as to the size, nature, or effect of a proposed federal action. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Mere opposition to a project is not sufficient to be considered highly controversial on environmental grounds."

"Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement exists regarding the effects of a proposed action".

Port Response - "NO. The proposed project is not expected to be controversial. The project is located within the Corporate General Aviation Reserve. The project was discussed at HIO Tenant Meetings."

The Port did not bother to notify impacted community members about this project. Instead, they maintain that because the Sky Harbour development is located within the "Corporate General Aviation Reserve" and that they discussed the project with Hillsboro Airport tenants, they were able to make a determination that the project was not expected to be controversial.

As mentioned earlier, more than 150 residents testified against the development even though impacted residents were neither notified or invited to attend a neighborhood meeting on the proposal. Perhaps if the Port and FAA had demonstrated even a rudimentary level of common courtesy and public engagement, they would have realized early on that a noisy, toxic, elitist enclave for billionaires at a publicly subsidized airport is not in the best interest of this community.

Port Responses to Public Involvement

"Was there any public notification or involvement? If yes, provide documentation."

Port Response - "YES. Corporate Aviation use of this area, and in particular hangar development, is included in the ALP [Airport Layout Plan] and discussed in the 2020 Airport Master Plan for Portland-Hillsboro Airport."

"The plan and ALP drawings are available to the public on the Port of Portland website (Port of Portland 2020). In addition, this project was discussed during HIO Tenant Meetings."

The Port's response reveals that it considers meeting with airport tenants as public involvement. Apparently the rest of us are here merely to be exploited by the Port and their tenants which explains why no effort was made to include community members in meaningful dialogue. The meetings on the Airport Master Plan occurred 6-9 years ago, between 2017 and 2020. It is completely unreasonable to claim that the public had an opportunity to discuss the impacts of the Sky Harbour proposed development at that time.

Concluding Remarks

The Port's responses to questions about the impact of Sky Harbour on air and water quality, transportation impacts, endangered species, wildlife, hazardous materials and other topics were equally vague, misleading and dismissive.

The public deserves an honest, open and transparent appraisal of the environmental impacts. Out of respect for the community, the Sky Harbour proposal should be withdrawn due to the false premises upon which the Categorical Exclusion is based.

To access the CATEX document in full click [here](#).

From: [Miki Barnes](#)
To: [Ruth Klein](#)
Subject: Sky Harbour Port Approval Widens Gap 20260429
Date: Thursday, August 13, 2026 5:52:56 PM
Attachments: [Sky Harbour Port Approval Widens Gap 20260429.pdf](#)

Hi Ruth,

Please include the Attached Oregon Aviation Watch article in the 8/17 Staff Report for the 8/18/2026 Sky Harbour hearing.

Thank you.

Miki Barnes

Sent from my iPad

Port's Approval of the Sky Harbour Hangar Development Widens Gap Between the Ultra-Wealthy and Everyone Else

*Miki Barnes, Founder - Oregon Aviation Watch
April 29, 2026 (Updated 8/13/2026)*

"...we're strategic about the greenfield stuff, that is, our vanilla day-to-day business is acquire raw land. We are absolutely geared up and capitalized to be opportunistic." — Tal Keinan, Sky Harbour Group Founder and CEO

The Port of Portland has long been a key driver of income inequality in Oregon – a disparity that will grow even wider if Sky Harbour's proposal to build 7 hangars for 30 private business jets at the Hillsboro Airport (HIO) is approved. This project is a thinly veiled attempt by the Port to profit from the massive tax breaks granted to billionaires by the Trump Administration.

Sky Harbour's proposal highlights the ever-expanding income inequality in Oregon and throughout the U.S. Though marketed as a public benefit project, nothing could be further from the truth. This expansion is designed to give Sky Harbour full advantage of publicly-subsidized land and infrastructure, while giving back as little as possible to the communities that provide these perks.

As stated by the Institute for Policy Studies article, Income Inequality,

"Income disparities are now so pronounced that America's richest 1 percent of households averaged 139 times as much income as the bottom 20 percent in 2021, according to the Congressional Budget Office."

These same inequities run rampant in Oregon. An 11/03/2022 report by OCPP, Wealth Inequality in Oregon is Extreme, revealed that "Oregon's wealthiest billionaire, Nike co-founder Phil Knight, alone owns more wealth than the bottom half of Oregonians." Knight constructed a \$7.6 million private hangar at HIO to house his collection of private jets including a luxury Gulfstream G650. Tim Boyle, the second wealthiest billionaire in Oregon also bases his private jet out of this airport.

Background

On 4/09/2025, the Port Board of Commissioners, without public notification, neighborhood outreach or an environmental assessment, approved the Sky Harbour hangar proposal.

The primary beneficiaries of this development will be the multi-millionaires and billionaires who can afford to invest in this highly polluting mode of transportation. And of course the Port which will profit off the lease agreements and flowage fees affixed to every gallon of fuel sold.

According to their website, Sky Harbour is "an airport infrastructure company building the first nationwide network of Home Base Operator (HBO) campuses for business aircraft." The company was founded in 2018, less than a year after Congress passed a massive tax break for private jet owners.

As explained by Chuck Collins in the High Flyers 2023 report,

"In 2017, the Trump administration passed the unpopular Tax Cuts and Job Act of 2017...One of the tax subsidies the private jet lobby won was a bonus depreciation provision for qualified assets that enabled private jet owners who use their jets for business to immediately realize the benefits of depreciation — that is, they could write off 100 percent of the cost of a used or new jet in the year of purchase, instead of depreciating the aircraft over the (also exaggerated) IRS standard of five years." (Pg. 25)

Concerns about these tax breaks prompted a 11/20/2025 letter from five U.S. Senators to the Joint Committee on Taxation.

"We are writing to request information on how private jet owners are benefiting from 100 percent bonus depreciation, a tax break Republicans made permanent in the recently enacted "One Big Beautiful Bill Act...

"Making this tax break permanent instead of allowing it to gradually phase down until full expiration in 2027 will cost U.S. taxpayers \$362.7 billion over ten years, according to Joint Committee on Taxation (JCT).

"...100 percent bonus depreciation has encouraged purchases of big-ticket luxury items, such as private aircraft, and its creation led to a boom in jet sales. The provision began a scheduled phaseout in 2023, but the One Big Beautiful Bill Act restored bonus depreciation to 100 percent. In the wake of this expansion, sales of private aircraft have risen 11 percent compared to last year and 30 percent compared to the year prior."

Sky Harbour CEO - Tal Keinan

The founder and CEO of Sky Harbour, Tal Keinan, came from a life of privilege. After attending the prestigious Phillip Exeter Academy during his high school years, he went on to earn degrees from Tel Aviv University, The Israel Air Force Academy, and Harvard Business School.

Per the [Sky Harbour website](#), "Tal served in the Israel Air Force for 18 years, piloting the Lockheed Martin F-16 Viper in combat and as an Air Combat Instructor. He is the co-founder and former CEO of Clarity Capital, where he serves on the Board of Directors."

His book, *God Is in the Crowd*, described Clarity Capital as "a global asset management firm based in Tel Aviv and New York. Clarity is the vanguard of the emerging Israel-based financial industry serving global clients."

His book also lists some of his previous positions in the financial industry including,

- Partner at Giza LLC, an Israel-based private equity firm active in the technology sector.
- Chairman of Koret Israel Economic Development Funds
- Member of the Ariav Commission, a Bank of Israel–Finance Ministry task force on creating a global financial center in Israel

The Sky Harbour website lays out the company's aggressive agenda for establishing exclusive, private campuses for ultra wealthy jet owners at numerous publicly funded airports throughout the country. Since its founding seven years ago,

"Sky Harbour has established campuses at the following locations: Dallas Addison Airport (ADS), Denver Centennial Airport (APA), Houston's Sugar Land Regional Airport (SGR), Miami Opa-Locka Executive Airport (OPF), Nashville International Airport (BNA), Phoenix Deer Valley Airport (DVT), San José Mineta International Airport (SJC), Seattle's King County International Airport – Boeing Field (BFI) and Southern California's Camarillo Airport (CMA).

"Campuses in development include Atlanta's Peachtree-DeKalb Airport (PDK), Chicago Executive Airport (PWK), Connecticut Bradley International Airport (BDL), Dallas Executive Airport (RBD), Dallas Love Field (DAL), Fort Worth Meacham International Airport (FTW), New Jersey Trenton-Mercer Airport (TTN), New York Hudson Valley Regional Airport (POU), New York Stewart International Airport (SWF), Orlando Executive Airport (ORL), Portland Hillsboro Airport (HIO), Salt Lake City International Airport (SLC), Southern California's Long Beach Airport (LGB) and Washington Dulles International Airport (IAD)."

For additional information click [here](#).

NYSE Interview with Sky Harbor CEO, Tal Keinan

This 10 minute interview with Tal Keinan from a 1/15/2025 New York Stock Exchange (NYSE) discussion provides information about Sky Harbour's agenda and intentions. It opens with the following:

Keinan (0:57) - "On the site acquisition side...we've really been exceeding our estimates on new airfield wins. Most recently we announced a new lease at Trenton, New Jersey, a strategic field in the New York market that is quite key to us and our first brownfield acquisition in Camarillo, California."

The Camarillo Airport proposal involves removing 45 small plane hangars and replacing them with larger hangars to accommodate up to 20 business jets. The plan has generated opposition from SOS Camarillo Save Our Skies. As stated on their website, "Hangars for jets will benefit the rich hangar owners, companies that lease jets and the wealthy that can afford a private jet. The County of Ventura would get all the profits from the parking storage and fuel sales of the large jets and the residents of Camarillo get nothing except noise and pollution."

After Keinan finished his opening presentation, the NYSE interviewer posed a few questions. Below are some excerpts.

Interviewer (4:45) - "Talk a little bit about how the Camarillo purchase fits into Sky Harbour's site acquisition framework."

Keinan - "The Los Angeles Basin is definitely a tier one market for Sky Harbour and even within Los Angeles we have two themes we're tracking. One is the concentric circle of occupancy. If you take Van Nuys as sort of the epicenter of Los Angeles business aviation, that airport has been tapped out for a long time in terms of capacity. It's land locked...We're seeing a lot of spillover into surrounding airports...As Santa Monica is set to close, to shut down at some point soon, we're going to see a lot of migration of aircraft...A westward migration of aircraft from Los Angeles..."

Interviewer (7:10) - "Do you see additional acquisitions like you mentioned in the near future?"

Keinan - "Opportunistically, yeah. I mean we're strategic about the greenfield stuff, that is, our vanilla day-to-day business is acquire raw land. We are absolutely geared up and capitalized to be opportunistic. If the stars align like they did in Camarillo, absolutely."

Interviewer (7:35) - "As you begin to scale your operational footprint with Denver, Phoenix and Dallas coming soon, will the company experience any networking benefits from these new locations?"

Keinan - "Over time we can see that. We definitely have residents who are sitting in multiple locations and want to treat more than one city as a home base and that's been great for us."

Interviewer (10:04) - "Is it possible to have 50 locations in three to five years?"

Keinan - "It's absolutely possible...It might be possible to exceed that as well."

Conclusion

A 4/15/2026 report by Americans for Tax Fairness lends added perspective about who is really footing the bill for luxury hangars on behalf of billionaire jet owners.

"This Tax Day 2026, after a year of fiscal policies enacted by President Trump and his Republican Congress that reward the wealthy, America's 974 billionaires are flying high while workers and families struggle to afford the basics. In just the 16 months since Trump was reelected, the collective fortune of billionaires has grown by \$1.96 trillion, or 30.6%, according to a new report released today by Americans for Tax Fairness (ATF).

"Last July, Trump and his fellow Republicans enacted H.R. 1, the One Big Beautiful Bill Act, a massive tax-and-spending law that, including added interest on the debt, will cost more than \$4 trillion over the next decade. The bulk of that expense comes from \$4.5 trillion in tax cuts that mostly benefit the wealthy...

"Those tax cuts were partially paid for through cuts to vital human services. Around 15 million people will likely lose healthcare over the next eight years because of cuts to Medicaid and the failure of the law to extend enhanced premium tax credits to buy coverage under the Affordable Care Act. Some four million people will lose nutrition assistance or see their benefits substantially reduced. As of December 2025, Protect Our Care had counted 600 hospitals, clinics and nursing homes that had closed or were in danger of closing because of the healthcare cuts in the Republican law."

In other words, while the Port is busy promoting over-sized, luxury garages for the very rich, many people in Oregon are struggling to keep up with rent, mortgage, student loans, car payments, medical expenses and to provide food and other basic necessities for their families.

Clearly, any empty pretense that building hangars for multi-millionaires and billionaires will benefit the public is false and misleading. The inescapable reality is that these lavish transportation choices will increase noise, pollution and CO2 emissions, degrade the environment, pose a threat to wildlife and diminish community livability.

The rise in influence of the billionaire class has coincided with relentless attacks on democracy, an increase in racist rhetoric, job losses, higher prices on consumer goods, destructive wars, a weakening of environmental protections, cuts to health care, and unspeakable violence unleashed against immigrant communities.

From: [Blaine Ackley](#)
To: [Ruth Klein](#)
Subject: Case File Nos. APPEAL-001-26 APPEAL-002-26 Project Names: Barnes et Al.
Date: Friday, August 14, 2026 8:13:08 AM
Attachments: [August 18, 2026 City council.docx](#)

Good morning Ms. Klein,

It is my understanding that if I submit my written testimony today, it will be included in the packet of materials that will be sent to city council prior to the hearing on August 18. Therefore I have attached my written comments in favor of the appeal to this message.

Would you please respond to notify me that you have received the message and the attachment.

Thank you,
Blaine Ackley
Hillsboro resident

August 13, 2026

Mayor Pace, Council President Harris, and Hillsboro City Councilors

From: Blaine Ackley, citizen

RE: Appeal of Hillsboro Planning Commissions approval of the Sky Harbor Hangars Project

My name is Blaine Ackley and I reside in Hillsboro about 1 and ½ miles from the airport in the Orenco area.

I am writing to you to express my support for the appeal of the Planning Commission's approval of the Sky Harbor Hangar Project.

I cannot see how you can approve the project for a host of reasons which I will summarize below:

- 1) As you know Brookwood Parkway is an important north/south street arterial in Hillsboro. It is adjacent to the project proposal and across the street from the Hillsboro Library Brookwood Main Branch. The current speed limit on Brookwood Parkway is 45 mph but if you have traveled on Brookwood, you know that vehicles regularly travel at 55 to 60 mph. Because the project proposal has two 20,000-gallon fuel cylinders on the side of the property facing the south bound portion of the road, it is located in a very dangerous position in relation to this well-traveled road. You may also recall that recently there was a 3-car traffic accident at that location that shut down the street for over 4 hours. It is just sheer luck that none of the vehicles ended up at the HIO perimeter fenceline. Had these vehicles been traveling at a higher rate of

speed that might well have happened. Now add the fuel tanks to that same scenario and you have what some might call a conflagration. Literally, if the Council approves this project, you are playing with fire.

- 2) The Brookwood Main Branch library is the most visited public site in the city. The 2025 visitor counts place the number of visits at a half a million per year. In addition, libraries are supposed to be a place of quiet contemplation, and our main branch is no exception with the ponds at Dawson Creek providing a home for birds of all kinds including ducks, geese, small birds, hawks, and even an occasional bald eagle. The hangar project would be a direct intrusion on this setting. Because the Port and the city staff used some shady and, in some cases, illegal actions to avoid an environmental impact statement (which might delay this hastily put together project for the benefit billionaires), we will never know the true impact of this project on our lives and environment.
- 3) The city has adopted a vision 2035 plan which includes a provision for reducing our carbon emissions. However, the 27 to 30 small business jets that will be using this proposed project emit 10 to 20 times more carbon than a regular commercial jet. Each jet emits this. The claim is that there will only be one to two flights per day but that means a minimum of at least 40 flights per month and take-offs and landings are the point with the most emissions. The Council has wisely passed a unanimous resolution urging the Port of Portland to expedite the adoption of unleaded fuel at HIO. The Port says that they are on track to do that by the 2030 EPA and FAA deadline. Great news but now are we going to replace the lead emissions with greater carbon emissions that will directly

affect the city's ability to meet it's 2035 carbon emission reduction goals? I think this is a bad trade off that will haunt us for years to come if the council approves this project.

- 4) The hangar project also provides the city with another major conundrum. What kind of city do we want to live in? Many years ago, the small city of San Jose, California had a small local airport that was expanded to provide for jet travel. San Jose is no longer a small city, and it is full of noise, traffic, and air pollution. Do you want Hillsboro to become another San Jose?
- 5) The Sky Harbor project is funded by a tech hedge fund that hopes to double their investment through rental fees to the billionaire individuals and/or corporations that own them. The small business jet market has recorded the greatest number of airplane deliveries each year for the past several years and the pace will not stop. There are more small jets on back order this year than there were last year. If this project is allowed to go forward, do you think it will stop there? Not a chance, I predict this project is the first of many. Do we really want our city to be known as a hub for business jets? Once you open the box, will you not be able to stop future expansions?
- 6) In the overall scheme of things, this is a project that will benefit the billionaires but will have no benefit for our city or its residents. This is the wrong project at the wrong place and at the wrong time for the future of our fair city.

For all these reasons and many more, I urge the council to reject this egregious misuse of our natural resources and our city's livability and peace of mind. Think of people walking or riding their bikes on the paths in the vicinity of the project. How will people be able to enjoy

our great outdoors and have a contemplative moment or have an intimate conversation with a friend as a small jets lumbers noisily on the jetway to the taxiway to accelerate their multiple jet engines to the max to achieve take off speed as they spread their carbon, benzene, and noise pollution. The city will enter a new age and a new phase and the direction we take as a city is up to you, our city councilors. Therefore, I urge you to reject this slap dash attempt to alter the very nature of our city and its livability. Please take a stand for our city and reject this proposal outright.

Thank you in advance for your thorough consideration of this proposal.

From: [Dave Barnes](#)
To: [Ruth Klein](#)
Cc: [Miki Barnes](#)
Subject: Re: Documents for inclusion in the staff report
Date: Friday, August 14, 2026 2:08:48 PM
Attachments: [ICCT-Air-and-greenhouse-gas-pollution-from-private-jets-2023.pdf](#)
[High-Flyers-Ultra-rich-private-jet-travel-costs-us-and-our-planet-2023.pdf](#)

You don't often get email from dbarnes97106@gmail.com. [Learn why this is important](#)

Hi Ruth,
Miki asked me to help with properly formatting these articles.

I've attached two articles here that I was able to download in PDF format. The other links will require some conversion on my part, so I will send them later.

Thank you for your help,
David

The International Council on Clean Transportation,
Air and Greenhouse Gas Pollution from Private Jets, 2023

High Flyers 2023
How Ultra-Rich Private Jet Travel Costs the Rest of Us and Burns Up Our Planet

Hi Miki,

I can include these articles in the record, but I need them in a form I can attach: a PDF of each article, or the full text pasted into the body of an email. Links cannot be accepted because the linked content is not guaranteed to remain available or unchanged.

Send them in either format and I will get them incorporated. The sooner I have them, the better, given the August 18 hearing.

Thank you,
-Ruth

Ruth Klein | *Senior Planner*

City of Hillsboro | Community Development: Planning Division
503-686-1433 (cell) | 503-681-6465 (office)
[Hillsboro-Oregon.gov](https://hillsboro-oregon.gov) | [Engage with Us](#)

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JUNE 2025

Air and greenhouse gas pollution from private jets, 2023

DANIEL SITOMPUL AND DAN RUTHERFORD, PH.D.



ACKNOWLEDGMENTS

We thank our Aviation colleagues for their careful review of interim modeling. Thanks also to Jayant Mukhopadhaya, Uwe Tietge, and Stefan Gossling for their review of an earlier draft. Aircraft flight trajectory (Automatic Dependent Surveillance-Broadcast, ADS-B) data used for the bottom-up estimate of fuel burn and emissions were kindly provided by Spire, and were supplemented by aircraft engine data from IBA Group. Additional fleet data from JETNET were used as supplemental data for our approach to estimating top-down greenhouse gas emissions from private jets.

International Council on Clean Transportation
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communications@theicct.org | www.theicct.org | [@TheICCT](https://twitter.com/TheICCT)

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EXECUTIVE SUMMARY

The aviation industry, including commercial, private, and military aircraft, emits about 1 billion tonnes of carbon dioxide (CO₂) annually, making it the seventh-largest source of CO₂ if considered a country. Without significant action, emissions from international aviation could double or even triple by 2050, reaching up to 1,800 million tonnes (Mt), according to the Climate Action Tracker (2024).

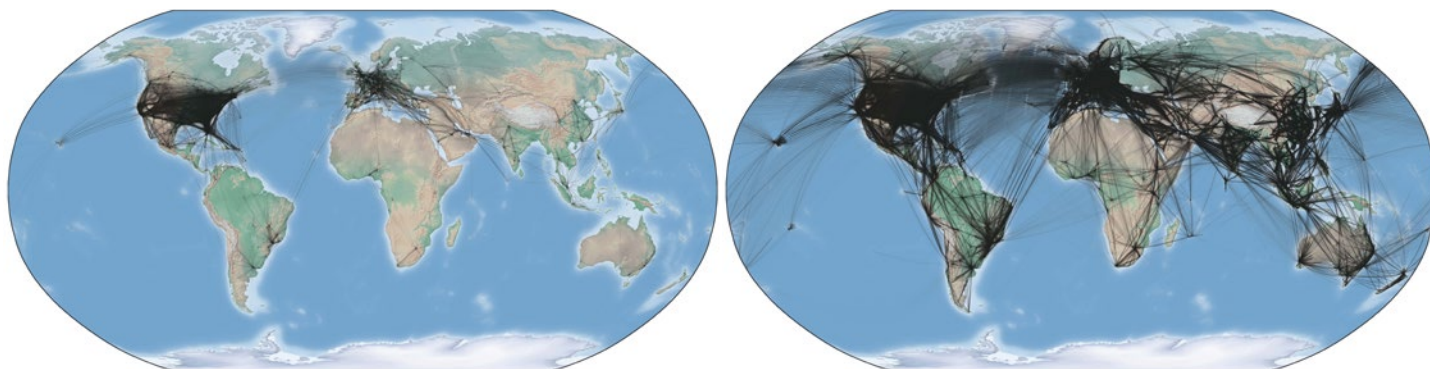
While there are several high-fidelity emission inventories for commercial aviation, data on greenhouse gas (GHG) and air pollution from general aviation—including nitrogen oxides (NO_x) and fine particulate matter (PM_{2.5}), which impact air quality and human health—remain limited. Private jets were responsible for about 2%–4% of total annual GHG emissions from aviation in 2013–2023. Better data on the magnitude and distribution of private jet pollution could help inform efforts to reduce these emissions through targeted policy measures.

This report quantifies and maps the air and GHG pollution emitted globally by private jets in 2023. We developed both a top-down and a bottom-up emissions inventory for private jet flights using a variety of data sources, such as global flight trajectories, airport coordinates, and engine emission databases. These data allowed us to spatially allocate fuel use and emissions to airports and countries for about 94% of private jet activity globally.

Figure ES1 shows the global distribution of private jet flights (left panel) and commercial flights (jets and turboprops; right panel) in 2023. Private jet activity was overwhelmingly located in the United States, with almost two-thirds (64.6%) of flights departing a U.S. airport. In contrast, commercial jet flights were distributed more widely around the globe, with only about 26% of flights departing U.S. airports.

Figure ES1

Flight trajectories for private jets (left) and commercial flights (right), 2023

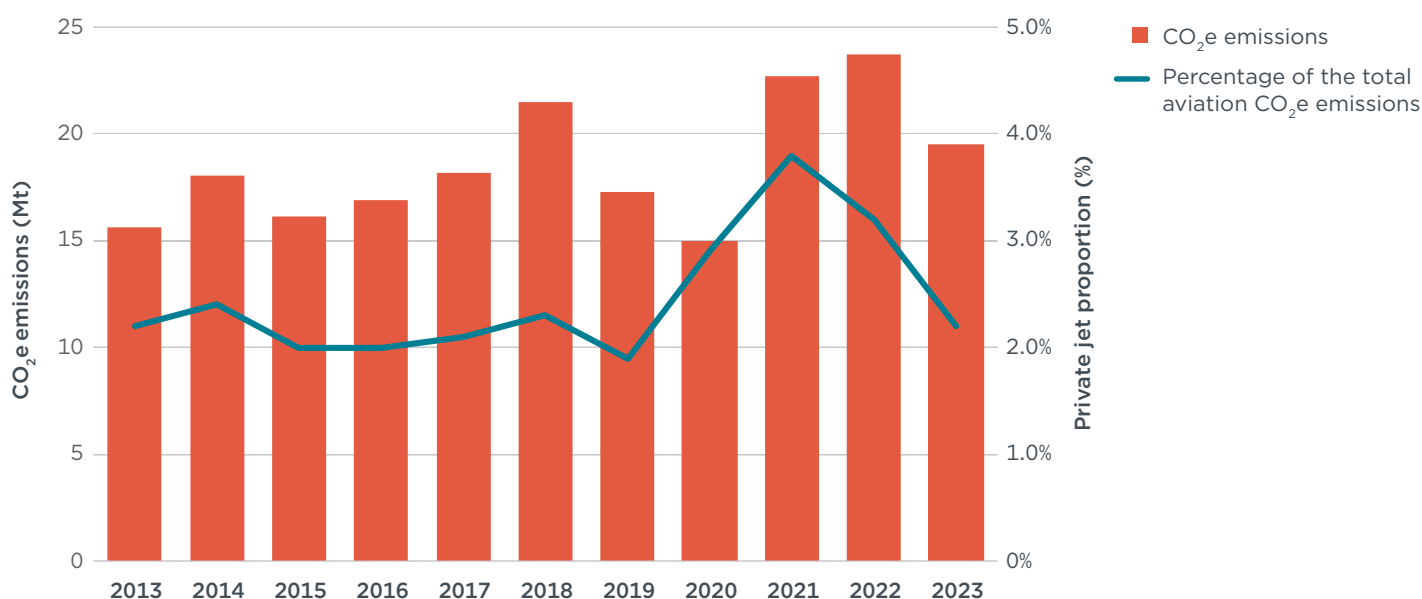


Note: This figure was derived from Spire's 2023 database.

Figure ES2 displays the estimated GHGs from private jets over time based on our top-down emissions inventory methodology. The bars show absolute emissions (in Mt) and the line shows private jets' share of civil aviation (commercial plus private jet) emissions. Greenhouse gas emissions from private jets increased 25% over the past decade, from 15.7 Mt in 2013 to 19.5 Mt in 2023, with significant year-on-year volatility.

Figure ES2

Private jet GHG emissions (bars) and percentage of total aviation GHG emissions (line), 2013 to 2023



THE INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION [THEICCT.ORG](https://theicct.org)

From these results we draw the following conclusions and policy recommendations.

Private jets are a large and growing source of air and climate pollution. A private jet emits about 810 tonnes of GHGs in a typical year, equivalent to 177 passenger cars or nine Class 8 heavy-duty trucks. At their post-COVID peak in 2022, private jets emitted an estimated 23.7 Mt of CO₂-equivalent emissions and accounted for nearly 4% of the civil aviation total. In 2023, private jets collectively emitted more GHGs than all flights departing from Heathrow Airport, the busiest airport in Europe (Heathrow Airport, 2024).

Private jet activity and emissions are overwhelmingly concentrated in the United States. In 2023, private jet flights departing from U.S. airports accounted for more than half (55%) of private jet GHG emissions globally. The states of Florida and Texas generated more private jet flights and GHG emissions than the entire European Union. We found that 18 of the 20 airports with the highest estimated private jet NO_x emissions in 2023 are in the United States.

A typical private jet flight is short-haul (less than 900 km) and lasts less than two hours. This means that the emissions of private jet flights could be reduced through the use of turboprop aircraft, which are much more fuel efficient than turbofan aircraft, and by a modal shift to high-speed rail in regions where it exists, like Europe.

Taxation of private jet flights or GHG emissions could generate substantial revenue to support aviation decarbonization. We find that introducing a global tax on fuels consumed by private flights of approximately \$1.59/gallon (\$0.42/L)—as proposed in legislation considered by the previous U.S. Congress—could generate up to \$3 billion annually, based on a top-down analysis of total annual fuel usage estimated at 5.8 million tonnes.

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INTRODUCTION

Aviation is a cornerstone of global connectivity, economic development, and cultural exchange. In 2019 alone, the aviation industry supported 87.7 million jobs worldwide and contributed approximately \$3.5 trillion to global gross domestic product (GDP), equivalent to 4.1% of the world's economic output (Air Transportation Action Group, 2020). This level of activity has a steep environmental and social impact. Commercial aviation emitted an estimated 918 million tonnes (Mt) of carbon dioxide (CO₂) in 2019 (Graver et al., 2020). The International Energy Agency estimated that global aviation emissions rebounded from the global COVID-19 pandemic to almost 950 Mt CO₂ in 2023 (Lombardo, n.d.). That would rank aviation as the seventh-largest source of CO₂ if it were treated as country (Joint Research Centre, 2023).

Within the aviation sector, private jets occupy a unique position, catering to a select group of corporate executives and other high net-worth individuals. Ownership models of private jets vary, ranging from full ownership to fractional shares and charter services. Although private jets represent a small fraction of overall aviation activity, they disproportionately contribute to emissions, releasing up to 14 times more CO₂ per passenger than commercial jets and 50 times more than trains (Murphy & Simon, 2021). As the aviation industry faces increasing scrutiny over its contribution to global carbon emissions, a more rigorous examination of private jets' environmental footprint is necessary.

This paper quantifies and maps the greenhouse gas (GHG) pollution emitted globally by private jets in 2023. We develop two emissions inventory methodologies: a top-down approach for estimating global fuel burn and GHG emissions and a bottom-up approach for modeling GHG and air pollution (NO_x and PM_{2.5}) at the country and airport levels. The next section reviews the literature on aviation emissions and recent policy efforts to reduce private jet emissions. We then introduce the methods we used to model the fuel burn and CO₂ and air pollution emissions of private jets. From there, we describe the results of our modeling and validate those results against available data. We close with recommendations for policymakers who aim to constrain the growth of private jet emissions. Additional methodological detail and results can be found in Appendices A through D.

RESEARCH AND POLICY CONTEXT

While there are several high-fidelity emission inventories for commercial aviation, data on GHG and air pollution from general aviation are limited. In 2009, private jets and turboprops were estimated to be responsible for about 2% of total aviation GHG emissions, or 20 Mt of CO₂ (General Aviation Manufacturers Association & International Business Aircraft Council, 2009). Gössling and Humpe (2020) applied a top-down assessment to conclude that private jets might have emitted as much as 34 Mt of CO₂ in 2016. In an updated study using high-fidelity Automatic Dependent Surveillance-Broadcast (ADS-B) flight trajectory data,¹ Gössling et al. (2024) concluded that private aviation emitted at least 15.7 Mt of CO₂ globally in 2023.

There are also several regional estimates of private aviation emissions. In the United States, where 60% of all private jets are registered (General Aviation Manufacturers Association, 2020), private jets emitted an estimated 16.3 Mt of CO₂ in 2023, representing 7% of all CO₂ emissions from U.S. aviation. Argus Analytics (2024) tracked 4.7 million business flights (private jets and turboprops) in 2023 globally; the large majority (67%) originated from U.S. airports, with 31% of flights departing from just three states: Florida, Texas, and California. The second-most private flights originated in Europe, accounting for 16.5% of global private flights. Faber and Raphaël (2023) concluded that private jet flights in the top 10 countries in Europe emitted 2 Mt of CO₂ in 2022.

A consistent theme of research on private jet emissions has been the explosive growth in private aviation over the past two decades, which has further accelerated since the COVID-19 pandemic. Murphy and Simon (2021) leveraged European Business Aviation Association data to conclude that greenhouse gas emissions from private jets increased by 31% in the European Union (EU) from 2005 to 2019. Gössling et al. (2024) and the Federal Aviation Administration (FAA; 2024) estimated that CO₂ emissions from private aviation—including private jet, piston, and turboprop flights—jumped by 46% between 2019 and 2023. Health and safety concerns led to an increase in private jet use during the pandemic (Amalfijets, 2024). Looking ahead, the FAA (2024) projects that U.S. private jets will emit 28 Mt of CO₂ in 2044, a 70% increase from 2023 levels.

Given the short duration of many private flights, researchers have also focused on the high emission intensity of private jets and the emissions reduction potential of modal shift. Murphy and Simon (2021) concluded that private jets burn, on average, 10 times more fuel per passenger than commercial aircraft, and that close to half of all intra-EU private flights cover distances less than 500 km. Gössling et al. (2024) and Faber and Raphael (2023) concluded that about half of private aviation flights are less than 500 km in length. This brevity implies that much of the greenhouse gas emissions from private jets could be avoided, either by modal shift to high-speed rail or the use of alternative fuels. U.S. private jet fuel burn and operating hours have remained closely coupled, suggesting only modest (0.4%) annual improvements in fuel efficiency since 2010 (FAA, 2024).

In addition to GHGs, private jets emit air pollutants that impact human health, including nitrogen oxides (NO_x) and fine particulate matter (PM_{2.5}). Atmospheric ozone linked to aviation NO_x caused an estimated 53,000 premature deaths in 2015, with PM_{2.5} accounting for an additional 21,000 premature deaths that year (Eastham, 2024). Due to their high-altitude operations, private jets may also contribute disproportionately to persistent condensation trails (Gryspeerd et al., 2024).

1 ADS-B is a surveillance technology used by most aircraft to broadcast their position in real time to ground and satellite receivers.

In 2021, the International Business Aviation Council committed to achieve net-zero CO₂ emissions by 2050. However, few concrete policy measures are in place to curb private jet emissions. The International Civil Aviation Organization (ICAO) established international fuel efficiency targets for private jets in 2016, but it will not require any jets to make improvements when the targets take full effect in 2028 (Rutherford & Kharina, 2017).

Moreover, private jets are not often subject to the same level of taxation imposed on commercial aviation and other forms of transportation. In 2021, Transport and Environment found that in most European countries, private jet fuel is taxed at a lower rate relative to their GHG emissions per passenger than commercial aviation or automotive fuel, effectively creating a tax advantage for the wealthiest travelers (Murphy & Simon, 2021). Many non-commercial aircraft operators, such as private jets, also are exempt from emissions trading under the EU Emissions Trading System (ETS), as they fall below the 1,000-tonne CO₂ emissions threshold in effect through 2030 (European Commission, 2023a). As a result, these operators are not required to purchase emission allowances, meaning their flights are undertaxed relative to commercial flights. These regulatory differences not only undermine efforts to address aviation's carbon footprint but also highlight the opportunity for targeted policies to ensure private jets contribute their fair share to climate mitigation efforts.

Policymakers in Europe and the United States have taken important steps in the regulation of private aviation. Beginning in 2025, the UK and French governments will tax private jet passengers between £84–£673 (Sentinel Aviation, n.d.) and €420–€2,100 (GlobeAir, n.d.), respectively, depending on flight distance. Meanwhile, various proposals to tax private aviation have failed to advance in the United States, where most private jet activity is concentrated. In 2023, companion bills were introduced in the U.S. House and Senate that would have increased the fuel tax for private jet travel to \$1.589/gallon (\$ 0.42/L) and devoted the revenue to public transport and climate spending (Fueling Alternative Transportation with a Carbon Aviation Tax Act, 2023).² A separate measure would have established tax surcharges on private jets to reduce GHG emissions (Whitehouse, 2023). During the Biden administration, the Internal Revenue Service announced that it would audit private jet tax exemptions claimed by executives (The Associated Press, 2024), but the status of that initiative is uncertain.

Civil society groups, notably the Global Solidarity Levies Task Force, have proposed a luxury aviation tax as a way to raise funds to compensate the Global South for historical damages from climate change (Global Solidarity Levies Task Force, 2024).

² In January 2025, U.S. Senator Edward Markey of Massachusetts reintroduced the Senate measure for consideration in the 119th Congress; the new bill would increase the federal jet fuel tax to \$1.641 per gallon. As this analysis was conducted prior to the reintroduction of the bill, the section on taxing private jets considers the original (\$1.589) proposed increase.

METHODOLOGY

We used two methods to estimate global fuel burn and GHGs from private jets: a simplified top-down approach using data on yearly private jet operations and total registered private jets, and a spatially allocated bottom-up calculation using aircraft trajectory data matched to fleet inventories and engine emissions data. The top-down approach was used to estimate global fuel burn and GHG emissions, while the bottom-up approach allowed for estimation of GHG and air pollution (NO_x and PM_{2.5}) at the country and airport level.

TOP-DOWN APPROACH

Our top-down approach used FAA general aviation and JETNET data to calculate total fuels consumed and GHGs emitted by private jets globally. The FAA (2023) general aviation data provide insights into U.S. and global private jet fuel consumption and carbon dioxide emissions. Key data points include the estimated average fuel consumed per hour of flight and the average hours flown annually per registered aircraft. JETNET (2023) data provide insights into globally registered private jets. We used the number of registered private jets on an annual basis from 2013 to 2023 to estimate the global fuel consumption and GHG emissions assuming the same average hours flown, as suggested in the FAA dataset.

Top-down fuel consumption and GHG emissions

We first determined the number of private jets in the United States and globally using data from the FAA and JETNET. Using total annual private jet flight hours estimates from the FAA, we calculated the total fuel consumption, factoring in the average fuel burned per hour. As the FAA general aviation data contain no private jet-specific data on flight distance or fuel usage, we used the “all turbojet aircraft” category as a proxy for private jets. We assumed that global private jets had the same average fuel consumption per flight hour and annual flight hours per aircraft as reported in the FAA data. The global top-down fuel burn was calculated using the following equation:

$$TFB = RPJ \times AFC \times AHF$$

Where:

- TFB* is global fuel burn by private jets;
- RPJ* is global registered private jets;
- AFC* is average fuel consumed by U.S. private jets per hour; and
- AHF* is average hours flown per U.S.-registered private jet.

The average fuel consumed per hour, annual hours operated, and GHGs per U.S. private jet from 2013 to 2023 is shown in Table 1.

Table 1
U.S. private jet activity statistics, 2013 to 2023

Year	Average fuel consumed (kg/h)	Average hours flown per year (h)	Average GHG emissions per U.S. private jet (tonnes CO ₂ equivalent)
2013	822.9	299.8	780.6
2014	886.9	313.9	880.8
2015	840.5	285.5	759.2
2016	881.4	279.7	780.0
2017	897.8	285.9	812.1
2018	960.5	314.6	956.1
2019	903.8	263.7	754.1
2020	941.4	217.8	648.8
2021	969.6	318.8	978.0
2022	974.2	324.8	1001.1
2023	930.8	279.9	824.3

Note: Table 1 assumes an energy density of 0.8 kg per L of fuel. Adapted from Federal Aviation Administration, 2023.

We then used a tank-to-wheel (TTW) CO₂-equivalent (CO₂e) emission factor to derive CO₂e emissions from the fuel burn estimates. In our top-down calculation, we used a TTW value of 3.164 kg CO₂e per kilogram fuel burn. The equation used to calculate total TTW emissions is as follows:

$$TCO_2e = TFB \times TTW$$

Where:

TCO_2e is total carbon dioxide equivalent;

TFB is total fuel burn by private jets; and

TTW is tank-to-wake carbon dioxide equivalent per kilogram of fuel.

BOTTOM-UP APPROACH

Our bottom-up approach uses data from Spire, OurAirports, IBA Insight, ICAO, the Engine Emissions Databank (EEDB), and the World Bank to calculate emissions at the airport, country, and regional levels, providing insights into the distribution of private jet flights.

Dataset

Aircraft position data

Spire's ADS-B database was our primary data source for identifying private jet flights by airport and calculating flight distances for our bottom-up analysis. The dataset includes 1-minute interval trajectory data for global flights from January to December 2023 (Spire Aviation, 2023). The data include details on flight departure and arrival time, departure and arrival airports, aircraft type, plane registration, and flight role (commercial, private, etc.).

For this study, we filtered Spire's data for private jets to estimate air pollution based on flight distance, analyzing impacts at the airport and country levels. Aircraft were identified based on the 24-bit ICAO address of the ADS-B transponder, a unique identifier assigned to each aircraft. This information is available for all flights in the

Spire dataset, though the information is inconsistent over time for some aircraft. To harmonize aircraft characteristics, we selected the most common value of each attribute for the same aircraft based on the number of flights. Table 2 shows the shares of valid, invalid, and missing values in the raw data, as well as the share of values we arrived at by using the statistical mode (i.e., the value that appears most frequently in a dataset) per aircraft.

We singled out private jets based on two aircraft attributes. First, we identified specific aircraft types that are designated as private jets in Spire’s dataset. Examples include the Embraer EMB 505 Phenom 300 and the Cessna 680A Citation Latitude, which are commonly operated for private or business travel rather than commercial airline services. Aircraft model information was available for 96% of flights in the Spire dataset; a full list of aircraft models we classified as private jets is presented in Appendix D. Second, we identified all aircraft whose role was listed by Spire as “VIP,” which denotes private jets as well as commercial aircraft configured for private use (such as Boeing Business Jet and Airbus Corporate Jet aircraft, which are often designated with BBJ or ACJ in their type name).³ Aircraft role information was available for 56.6% of flights in the Spire dataset.

Table 2
Share of all flights and private jet flights with valid, invalid, or missing values per attribute in the raw 2023 Spire data

Attribute	All flights				Private jet flights			
	Valid	Invalid	Missing	Mode	Valid	Invalid	Missing	Mode
Aircraft type	92.2%	0.1%	7.7%	96.1%	100.0%	0.0%	0.0%	100%
Aircraft role	56.4%	0.0%	43.6%	56.6%	3.4%	0.0%	96.6%	4.3%
Tail number	95.9%	0.6%	3.5%	95.9%	99.3%	0.6%	0.0%	99.3%
Departure airport	91.9%	0.1%	8.1%	—	92.7%	0.2%	7.1%	—
Arrival airport	90.2%	0.1%	9.6%	—	93.5%	0.4%	6.1%	—
Takeoff time	86.7%	0.0%	13.3%	—	90.5%	0.0%	9.5%	—
Landing time	89.1%	0.0%	10.9%	—	95.9%	0.0%	4.1%	—

Note: The Mode column shows the percentage of flights that use the most common value for that attribute for each aircraft (tail number). This reflects how consistently a given value (e.g., aircraft type or role) appears across all flights for the same aircraft.

In total, we identified approximately 3.57 million private jet flights conducted globally in 2023. Of these, 3.49 million (97.8%) were identified based on the aircraft type, roughly 100,000 based on a combination of aircraft type and role, and about 50,000 based on aircraft role.

In the Spire database, approximately 11.7% of private jet flights had incomplete departure or arrival information (Table 3). For these flights, we used the average distance of all flights with complete departure and arrival airport data (1,164 km) to ensure that every flight in the database was taken into account. As we used the departure airport as the reference point for our flight distance calculation, flights with a known departure airport but without a known arrival airport were included in our country- and airport-level analysis using this average flight distance. Flights without departure airport data were excluded from the country- and airport-level analysis but included in the global results.

³ Because the “VIP” value was available only for flights beginning in September 2023, we reclassified all aircraft that were labelled “VIP” after that time as private jets throughout the entire year based on aircraft tail number.

Table 3
Spire data quality and coverage

Status	Median ground time (h)	Flight share
Continuous flight with complete arrival and departure	10.1	79.6%
Incomplete arrival/departure airport	20.9	11.7%
Incomplete routes	22.2	8.7%

We also identified flights with non-continuous routes, using aircraft tail numbers to determine whether a given aircraft departed from the same airport it flew into on the preceding flight. Approximately 8.7% of flights did not depart from the preceding arrival airport. These non-continuous flights had a median ground time twice as long as that of continuous flights. Similarly, flights with incomplete departure or arrival information exhibited double the median ground time. These findings suggest that up to 8.7% of private jet flights may be entirely or partially missing from the ADS-B data and underscore the need for both a top-down and bottom-up approach to account for data gaps and better understand yearly trends.

We used Spire data to calculate the flight time between two airports. Understanding private jet flight time is crucial for evaluating the efficiency that most users gain by flying private compared with taking other modes of transportation. We used the trajectory observation time to account for idling (i.e., taxi) time. The flight time of each flight is calculated as below:

$$T_i = TOE_i - TOS_i$$

Where:

- T_i is total flight time for flight i;
- TOE_i is flight trajectory observation end in Spire database for flight i; and
- TOS_i is flight trajectory observation start in Spire database for flight i.

Airport location data

To calculate actual distances between airports, we used arrival and departure airport coordinates from the OurAirports (2024) database. We merged these data with the departure and arrival airport ICAO codes provided for each flight in the Spire data. The flight distance was then calculated using the Great Circle Distance (GCD) formula (Roy, 2022), which determines the shortest path between two points on a spherical surface, effectively representing the ideal flight distance between airports. We also applied a correction factor based on actual flight trajectories from the Spire dataset to ensure the distances reflected realistic flight paths (see “Bottom-Up Fuel Consumption and GHG Emissions” below).

Aircraft registration data

Aircraft tail numbers from the Spire dataset were cross-referenced with an aircraft fleet database from IBA Insight (2024) to identify corresponding engine configurations. For aircraft lacking direct matches in the IBA database, we assigned representative engines based on the most frequently occurring engine type within the same aircraft model category.

Engine Emission Databank

We used the engine configuration data to estimate emissions using the European Union Aviation Safety Agency’s EEDB, which provides emissions information on

different engines based on the aircraft type. The EEDB served as our primary source for engine-specific emissions data, including for nitrogen oxides (NO_x) and non-volatile Particulate Matter (nvPM; ICAO, 2024). For consistency, we used the most recent test results available for each engine model in our calculations. In cases where nvPM data were unavailable, we employed smoke numbers (SNs) for estimation, applying ICAO-recommended Smoke Factor (SF) values to predict missing data points following the methodology outlined in the *Airport Air Quality Manual* (ICAO, 2020), as shown in Table 4.

Table 4
SF values used to predict missing SNs in the ICAO EEDB

Engine category	Take-off	Climb-out	Approach	Idle
Most non-DAC engines	1.0	0.9	0.3	0.3
GE CF34 engines	1.0	0.4	0.3	0.3
CFM DAC engines	0.3	0.3	0.3	1.0

Note. Values are derived from the International Civil Aviation Organization, 2020. After populating the missing SN values, we calculated the emission index value using the SCOPE11 method (Ahrens et al., 2023). More detail on the SCOPE11 method is provided in Appendix B. We then used the emission index and emission value to calculate the Landing and Take-Off (LTO) cycle emissions of each flight (see “Bottom-Up Air Pollution Estimation”).

World population data

To calculate private jet flights in each country on a per capita basis, we used World Bank population estimates (World Bank Group, 2024) together with Spire data on the number of private jet flights departing each country. We calculated per capita flights as follows:

$$FPC_j = \frac{\sum P_j F_j}{P_j}$$

Where:

- FPC_j is flights per capita in country j;
- $P_j F_j$ is the number of private jet flights departing from airports in country j in 2023; and
- P_j is the population of country j in 2023.

In addition to analyzing per capita private jet flights, we identified the top countries of origin for private jets traveling to destinations with the highest per capita flight activity.

Small Emitters Tool

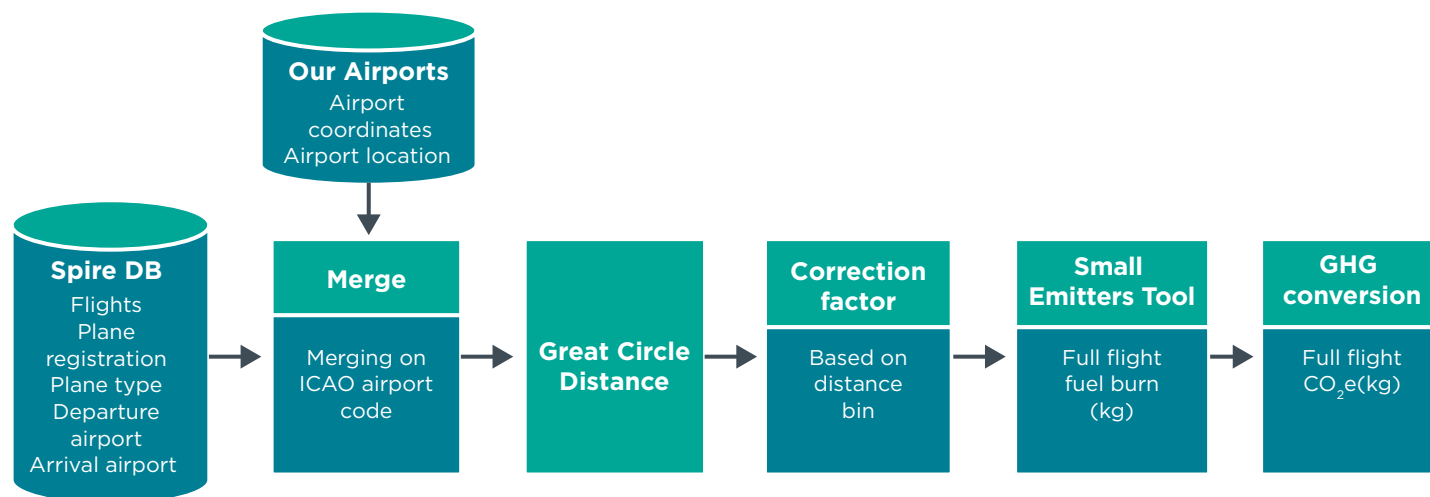
Flight fuel consumption and associated CO₂ emissions were calculated using Eurocontrol’s Small Emitters Tool, which determines full flight fuel burn based on flight distance and aircraft type. For precise aircraft-specific modeling, specific ICAO aircraft type designators were applied to each flight. The European Commission uses the Small Emitters Tool for EU ETS annual compliance reporting, specifically for aircraft operators emitting less than 25,000 tonnes of CO₂ per year (European Commission, 2023a). While the standard methodology includes a 95-km adjustment, we developed a custom distance correction factor, detailed in the next section, to more accurately represent the unique flight patterns of private jets.

Bottom-up fuel consumption and GHG emissions

With our bottom-up analysis, we calculated fuel consumption and CO₂ emissions based on the aircraft type and distance flown. Figure 1 illustrates the methodology

of this approach. The distance flown was derived using departure and arrival airport information from Spire. This distance, along with the aircraft type information, was input into the Small Emitters Tool to estimate the full flight fuel burn. We then used the TTW conversion factor to calculate the full flight CO₂e. For the country- and airport-level analysis, we used Spire data on departure and arrival airport locations to identify the route of each flight.

Figure 1
Bottom-up modeling of fuel burn and CO₂ emissions



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We calculated the GCD between origin and destination points using the Haversine formula, which accounts for Earth's spherical geometry (Sinnott, 1984).

$$GCD = 2 \times R \times \arcsin \left(\sqrt{\sin^2 \left(\frac{lat_2 - lat_1}{2} \right) + \cos(lat_1) \times \cos(lat_2) \times \sin^2 \left(\frac{lon_2 - lon_1}{2} \right)} \right)$$

Where:

- GCD is the great circle distance in kilometers;
- R is the mean radius of Earth (6371.0088 km);
- lat_1 and lon_1 are the latitude and longitude of the first point (in radians); and
- lat_2 and lon_2 are the latitude and longitude of the second point (in radians).

To reflect more realistic flight paths, we used the trajectory data available from Spire and the GCD to derive correction factors. After missing trajectory sections were linearly interpolated and resampled to 1-min intervals, the real-world ground distance flown was calculated as the sum of distances between each waypoint for each flight. This approach establishes a standardized method to handle incomplete trajectory data and ensures consistency in calculating distances across all flights. While direct distance calculations from ADS-B data could be more precise, they are often subject to data gaps, noise, and irregular update intervals, which can introduce inconsistencies. By aggregating correction factors into distance bins, we mitigated these issues and provided an adjustment for emissions modeling. Correction factors were aggregated to distance bins as follows:

$$corr_i = \frac{\sum_i TD}{\sum_i GCD}$$

Where:

- $corr_i$ is the distance correction factor in distance bins i ;
- TD is the trajectory ground distance of all flights in distance bins i ; and
- GCD is the GCD of all flights in distance bins i .

To enable a comprehensive analysis, we established five distance-based flight categories. Regional flights encompass distances below 500 km, while short-haul flights range from 500 to 1,499 km. Medium-haul flights cover distances between 1,500 and 4,000 km, and long-haul flights are from 4,001 to 10,000 km. Finally, ultra-long-haul flights are classified as those exceeding 10,000 km. The correction factor varied by distance bin, as shown in Table 5. For ultra-long-haul flights, a correction factor of 1 was applied because, at such distances, the deviation caused by the Earth’s oblate shape becomes negligible, and GCD calculations are highly accurate.

Table 5
Distance correction factor by distance bin

Distance bin	Stage length	Correction factor
Regional	< 500 km	1.219
Short-haul	500–1,499 km	1.076
Medium-haul	1500–4,000 km	1.044
Long-haul	4,001–10,000 km	1.043
Ultra-long-haul	> 10,000 km	1

The GCD was thus adjusted by multiplying it with the correction factor to yield the corrected GCD. To correct abnormalities in flight distance—specifically, several flights by small private jets with fewer than 19 passengers—we identified flights exceeding 12,000 km as outliers and applied the average flight distance in these cases.

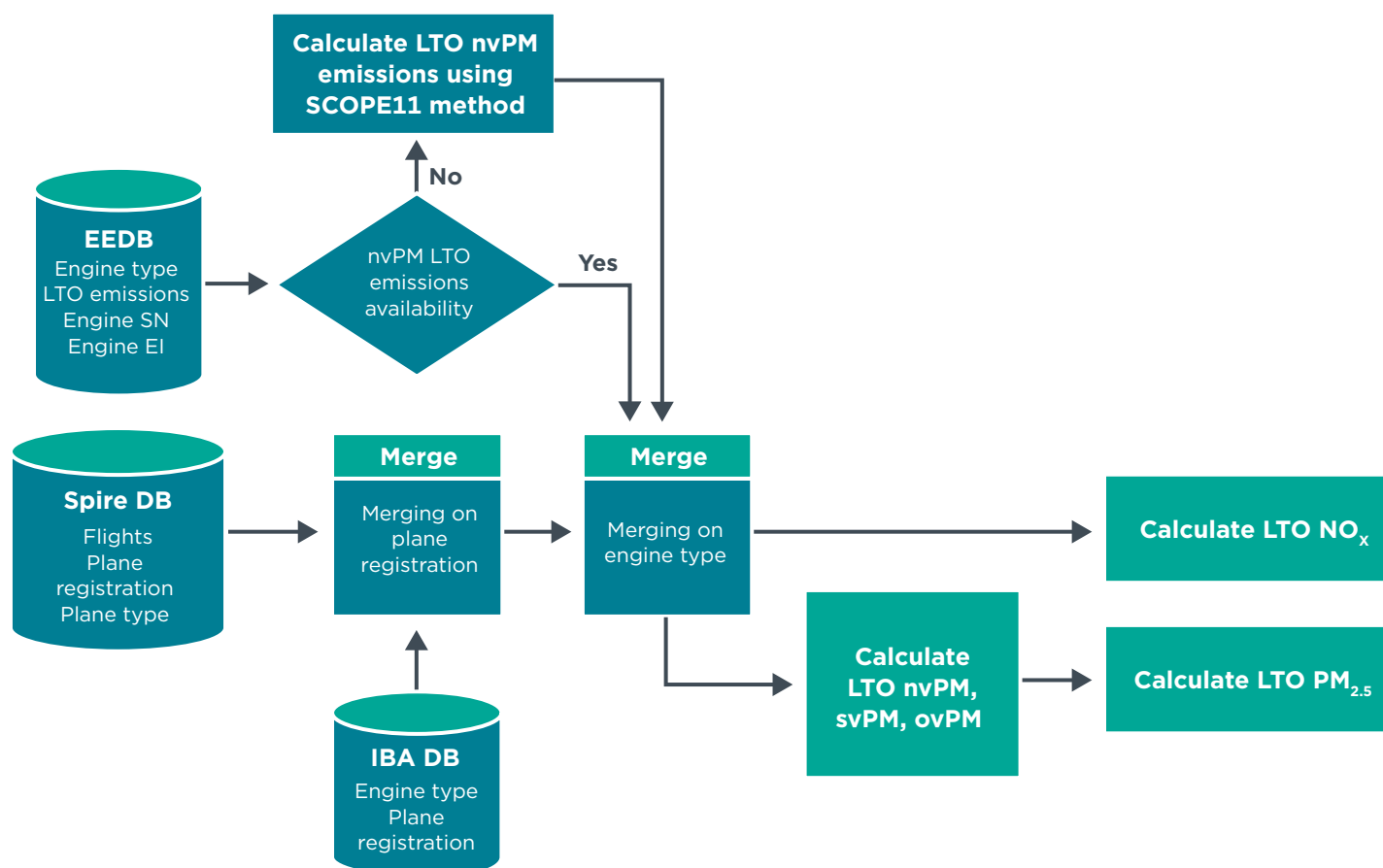
To validate our bottom-up methodology for fuel consumption and emissions calculations, we compared our results for all commercial flights with FAA-reported figures and found a 5% underestimate, demonstrating that the Small Emitters Tool provides a sufficiently accurate basis for our calculations. The CO₂ consumption calculation using the Small Emitters Tool was also compared with the Conklin and de Decker CO₂ calculator, as shown in Appendix A. We compared the values using the average private jet flight distance and found an average difference of 8%, with the highest deviation at 18% and the lowest at -3% among the top 10 most-used aircraft in 2023.

Bottom-up air pollution estimation

In our NO_x and PM_{2.5} calculations, we focused exclusively on LTO emissions as estimated via engine certification standards established by ICAO. The LTO cycle comprises four modes of operation: takeoff, climb, approach, and idle/taxi. Emission quantities are based on test points in each operating mode that approximate thrust conditions. To simplify our modeling, we assigned all emissions from a single operation to the departing airport, assuming that approach and taxi-in emissions at the arrival airport are mirrored on the return flight.

Figure 2 illustrates the methodology we used to model NO_x and PM_{2.5} LTO emissions. The primary data sources were Spire, IBA, and EEDB. There is a slight difference in the methods used to calculate NO_x and PM_{2.5} due to limited PM_{2.5} data for engines in the EEDB database. To address this limitation, we applied the SCOPE11 method to approximate the emission index for PM_{2.5} based on SN values from the NO_x data (Appendix C).

Figure 2
Modeling NO_x and PM_{2.5} LTO emissions



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Estimating NO_x LTO emissions

Private jet engines emit NO_x during high-temperature combustion, in which temperatures often exceed 1600 °C (2912 °F; Prashanth et al., 2021). At these temperatures, nitrogen in the air reacts with oxygen to form nitric oxide (NO) and nitrogen dioxide (NO₂), collectively known as thermal NO_x. The quantity of emissions is influenced by engine design and operational conditions, with high-thrust operations producing considerable output (Stettler et al., 2011). In the atmosphere, NO_x reacts with volatile organic compounds (VOCs) to create ground-level ozone (a smog component linked to respiratory issues) and contributes to fine PM_{2.5}, posing significant health risks near airports (Lee et al., 2010). At higher altitudes, NO_x affects global warming by influencing atmospheric chemistry, specifically its role in the short-term production of ozone (O₃) and the destruction of methane (CH₄; Fuglestad, 1999).

We used the EEDB to calculate LTO cycle NO_x emissions per engine, which we multiplied by the number of engines on each aircraft. Emissions were then aggregated to the airport level.

Estimating LTO PM_{2.5} emissions

PM_{2.5} emissions are a significant environmental and health concern associated with private jet operations. These fine particles, smaller than 2.5 micrometers in aerodynamic diameter, are primarily emitted during the LTO cycle, particularly at lower altitudes where incomplete combustion occurs (Stettler et al., 2011). PM_{2.5} comprises non-volatile particulate matter (nvPM) formed from soot and trace metal impurities

in jet fuel, along with secondary particles produced through atmospheric reactions involving sulfur oxides (SO_x) and NO_x (ICAO, 2019). Near airports, PM_{2.5} exposure has been linked to severe respiratory and cardiovascular health issues (World Health Organization, 2021). Moreover, PM_{2.5} has broader environmental implications, as fine particles can alter cloud microphysics, influencing regional precipitation patterns and contributing to radiation forcing (Righi et al., 2013).

We quantified PM_{2.5} emissions using the EEDB, which provides engine-specific data based on aircraft type and operational profiles (International Civil Aviation Organization, 2024). To calculate final PM_{2.5} values, we added the total nvPM to two kinds of volatile PM—the first derived from fuel sulfur (svPM) and the second from unburned hydrocarbons (ovPM)—per the ICAO (2020) *Air Quality Manual*. For engines listed in the nvPM emission database, the emission calculation follows the same equation as for NO_x (see “Estimating NO_x LTO emissions”).

As noted above, for engines without nvPM data in the EEDB, we estimated the emissions index using the SCOPE11 method (Agarwal et al., 2019), where fuel used in each mode is the product of the time in that mode and the fuel flow (kg/s) in that mode. The time in mode (TIM) assumptions for each of the four components of the LTO cycle can be found in the Environmental Protection Agency’s (1992) *Procedures for Emission Inventory Preparation*:

$$fuel\ in\ mode\ [kg] = fuel\ flow\ [kg/s] \times TIM[min] \times 60\ [s/min]$$

Table 6 shows the TIM assumptions used in this analysis.

Table 6
Time in mode assumed for air pollution modeling

Mode	TIM (min)
Take-off	0.4
Climb	0.5
Approach	1.6
Idle/taxi	13

Note. Values are derived from Environmental Protection Agency, 1992.

Aircraft engines produce svPM emissions when fuel containing sulfur is combusted. The level of emissions is directly proportional to the sulfur content of jet fuel. ICAO’s *Airport Air Quality Manual* (2020, §3.8) suggests a conversion efficiency of 0.024 (m/m) of sulfur to vPM and sulfur content of 680 parts per million (ppm); 0.068%. Accordingly:

$$LTO\ svPM\ [mg] = 0.024 \times 0.068\% \times LTO\ fuel\ [kg] \times 1,000,000\ [mg/kg] \times NE$$

Where:

- LTO svPM* is total svPM emissions during the LTO cycle;
- LTO fuel* is total fuel during the LTO cycle; and
- NE* is the number of engines on the aircraft.

Engines produce ovPM emissions when unburnt hydrocarbons from the fuel adsorb onto a fine particle, adding to its mass. These emissions are largely untested across EEDB engines, so we followed ICAO’s method to calculate them by using the CFM56-

2-C1 turbofan aircraft engine as a reference (see ICAO, 2020, §3). The ovPM emissions were assumed to be directly proportional to LTO fuel for all engines in the EEDB:

$$LTO\ ovPM\ [mg] = (4.6 \times TO\ fuel\ [kg] + 3.8 \times CO\ fuel\ [kg] + 4.5 \times App\ fuel\ [kg] + 11.3 \times Idle\ fuel\ [kg]) \times NE$$

Where:

LTO ovPM is total ovPM emissions during the LTO cycle;

TO fuel is fuel burn during takeoff, in kilograms;

CO fuel is fuel burn during climb out, in kilograms;

App fuel is fuel burn during approach, in kilograms;

Idle fuel is fuel burn during idle/taxi, in kilograms; and

NE is number of engines on the aircraft.

The equation to calculate the final $PM_{2.5}$ value is as follow:

$$PM_{2.5}\ [g] = nvPM\ [g] + svPM\ [g] + ovPM\ [g]$$

Where:

nvPM is non-volatile particulate matter;

svPM is sulfate particulate matter; and

ovPM is organic particulate matter.

RESULTS

PRIVATE JET FLIGHTS

Based on 2023 Spire data, our bottom-up analysis identified 22,749 private jets by unique tail number that operated over 3.57 million flights. In terms of global flights in 2023, Table 7 shows the top 10 private jet models seating 19 or fewer passengers (left) and the top 10 models with more than 19 seats converted from commercial types (right).

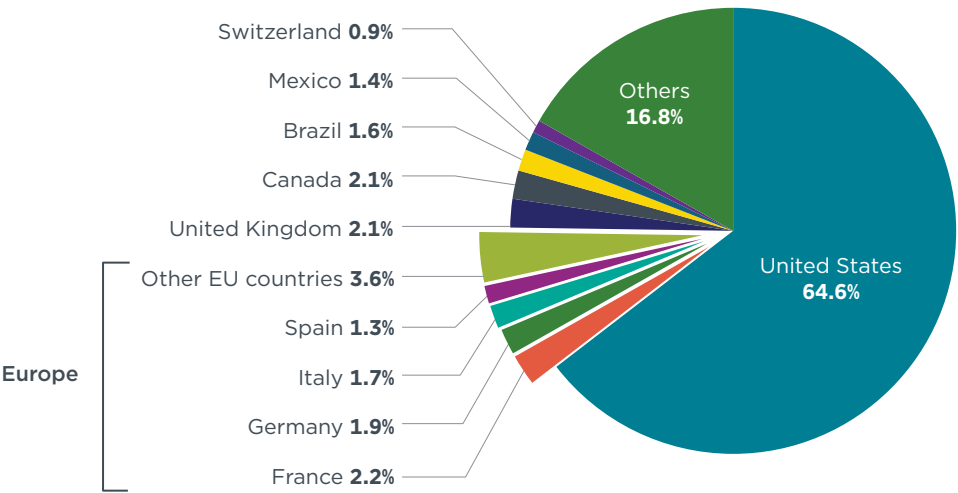
Table 7
Top 10 aircraft models based on number of seats and number of flights in 2023

19 or fewer seats			More than 19 seats		
Rank	Aircraft model	Number of flights	Rank	Aircraft model	Number of flights
1	Embraer EMB 505 Phenom 300	238,141	1	Boeing 737-700 (BBJ)	11,757
2	Cessna 680A Citation Latitude	167,513	2	Airbus ACJ319-100	9,579
3	Bombardier BD-100-1A10 Challenger 350	145,221	3	Boeing 757-200 (BBJ)	5,743
4	Cessna 560XL Citation XLS	99,139	4	Embraer Lineage 1000	4,708
5	Bombardier BD-100-1A10 Challenger 300	89,030	5	Airbus ACJ320-200	4,294
6	Cessna 525B CitationJet CJ3	76,307	6	Airbus A320-200	2,592
7	Cessna 560XL Citation XLS+	74,962	7	Airbus A321-200NX(LR)	2,309
8	Bombardier Learjet 45	73,202	8	Boeing 737-800(BBJ)	2,228
9	Cessna 560XL Citation Excel	69,703	9	Airbus ACJ318-100	2,164
10	Cessna 680 Citation Sovereign	67,574	10	Airbus A319-100	1,822

Table 7 highlights the dominance of private jets with 19 or fewer seats compared with those with more than 19 seats. In total, private jet models seating 19 or fewer passengers accounted for 97% of all flights. Among these smaller jets, the Embraer EMB 505 Phenom 300 topped the list with 238,141 flights, followed by the Cessna 680A Citation Latitude and Bombardier BD-100-1A10 Challenger 350. Meanwhile, among private jets with more than 19 seats, the Boeing 737-700 Business Jet led with 11,757 flights, along with models from Airbus and Embraer. These larger jets may be favored in some instances for their extended range and larger seating capacity.

The bottom-up analysis data revealed a significant geographical concentration in the United States. Figure 3 shows the top 10 countries in terms of total private jet flights in 2023. An estimated 2.3 million flights departed U.S. airports in 2023, representing almost two-thirds (64.6%) of all global private jet flights. France and the United Kingdom, the second and third most active countries, recorded 80,169 and 73,626 flights, respectively. These figures represented just 2.3% and 2.1% of the global total, highlighting the disparity in private jet activity between the United States and other countries. Canada logged 73,536 flights (2.1% of global activity), while Germany, Italy, Brazil, Mexico, Spain, and Switzerland each contributed less than 2% of global flights.

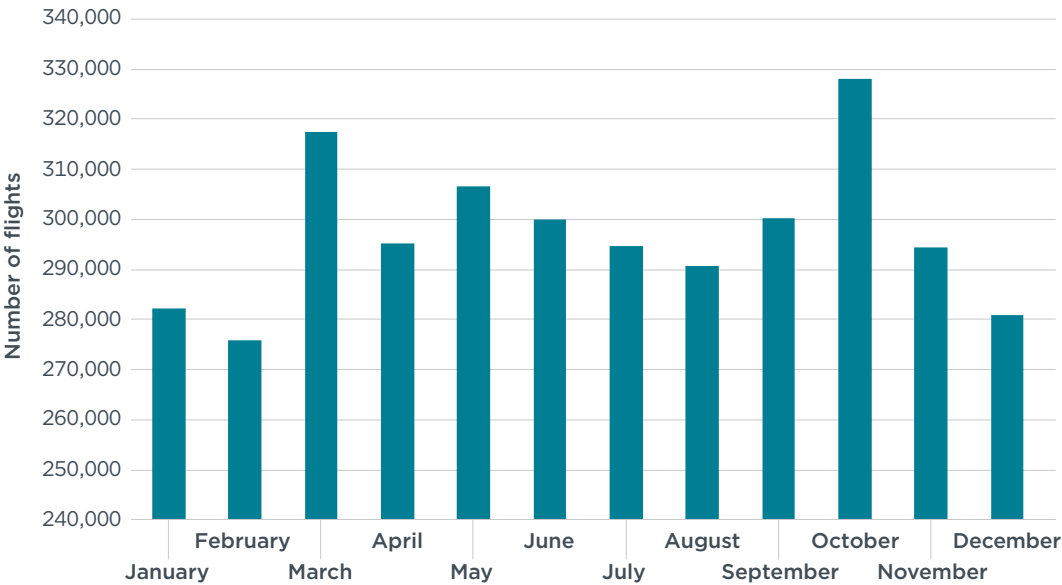
Figure 3
Share of private jet flights globally for the top 10 countries and regions



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Figure 4 shows global private jet flights in 2023 by month. Activity was relatively stable, averaging 297,150 flights per month. Flights peaked in October (327,955) and March (317,403); the United States played a major role in both surges, accounting for month-over-month increases of 14.2% (25,983 additional flights) in October and 15.6% (29,153 additional flights) in March. The lowest activity levels were observed in February (275,792 flights) and December (280,826 flights). This variation suggests potential seasonal factors influencing private jet operations, such as holidays, fiscal year-end activities, or global events that affect aviation demand.

Figure 4
Global private jet flights by month, 2023

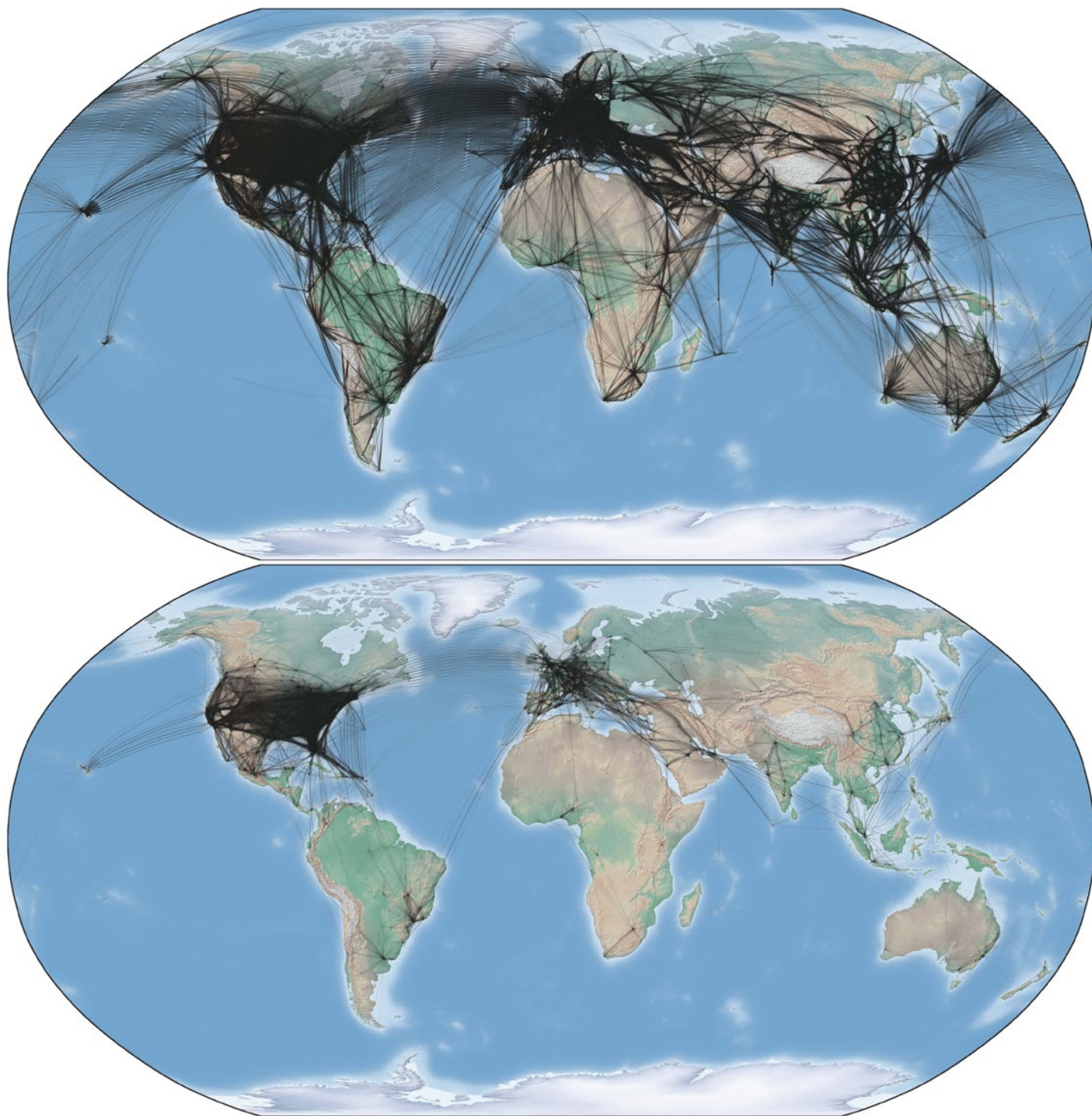


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As shown in Figure 5, most private jet flights were concentrated in North America and Europe, while commercial flights were more evenly distributed across continents. This distinction highlights the differing roles of these aviation sectors, with private jets primarily serving niche markets, and underscores the distinct environmental impacts and policy considerations required for each sector.

Figure 5

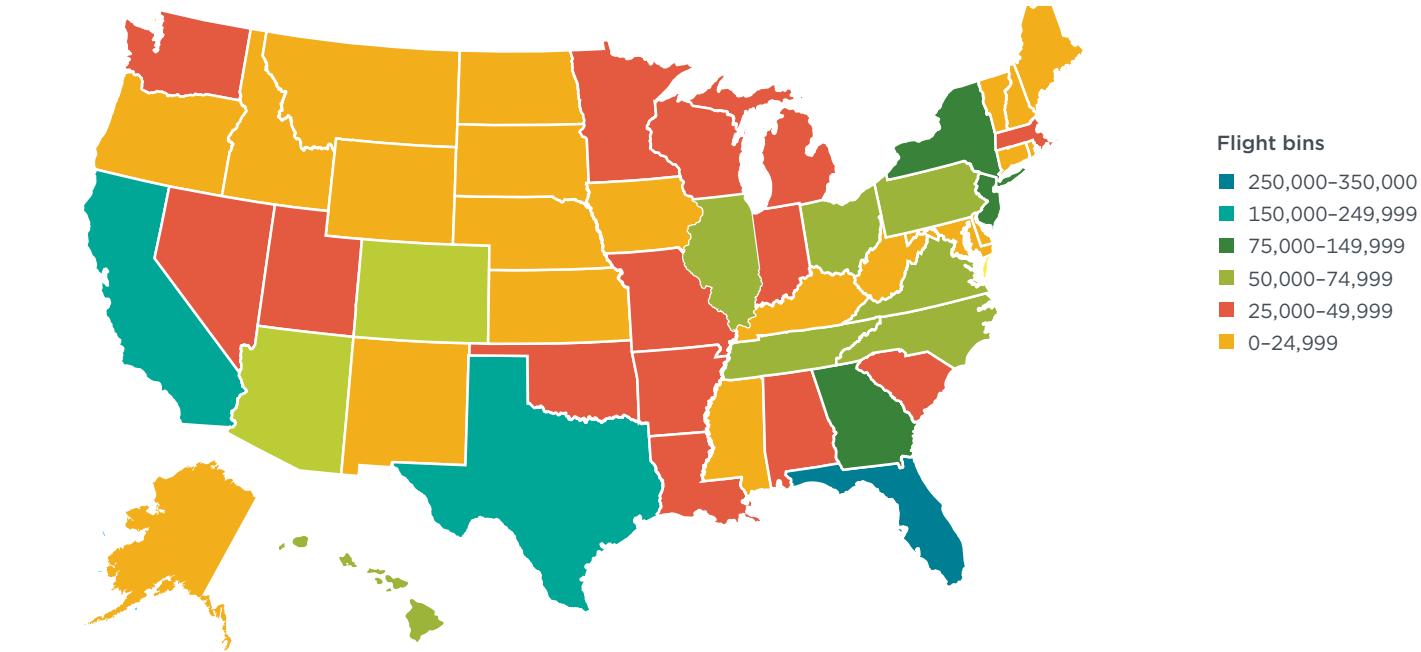
Trajectories of global commercial flights (top) and private jet flights (bottom), 2023



United States

Within the United States, private jet activity is concentrated in highly populated states (Figure 6). Florida leads among the states for private jet departures with 313,672 flights, accounting for 13.7% of the U.S. total. Texas and California follow, with 10.0% and 9.55% of U.S. flights, respectively. These three states also rank first (California), second (Florida; tied with New York), and fourth (Texas) in the number of residents on the Forbes 400, an annual list of the wealthiest people in the United States (Hunter-Hart, 2024). Other notable contributors include New Jersey (4.29%) and Georgia (3.66%).

Figure 6
U.S. private jets flights by state, 2023

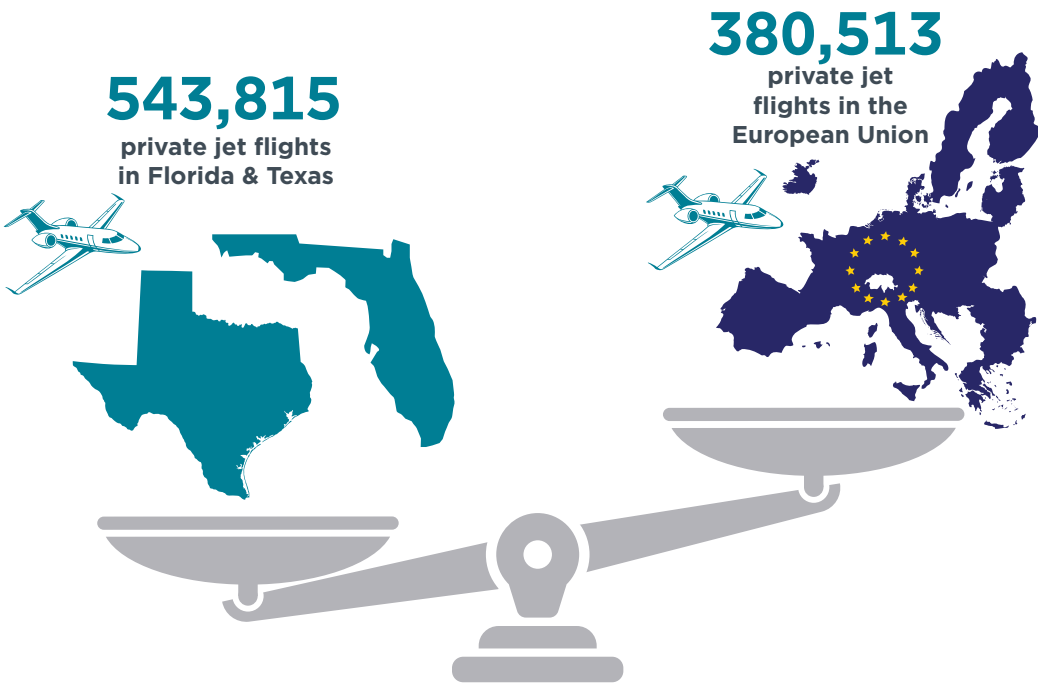


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European Union

The European Union recorded 380,513 private jet flights in 2023, of which 71.1% were domestic or intra-EU flights. This number of flights was lower than the combined total for just the U.S. states of Florida and Texas (Figure 7). Most international private jet flights departing from EU countries were destined for the United Kingdom (35,889 flights), Switzerland (22,437 flights), and the United States (8,052 flights).

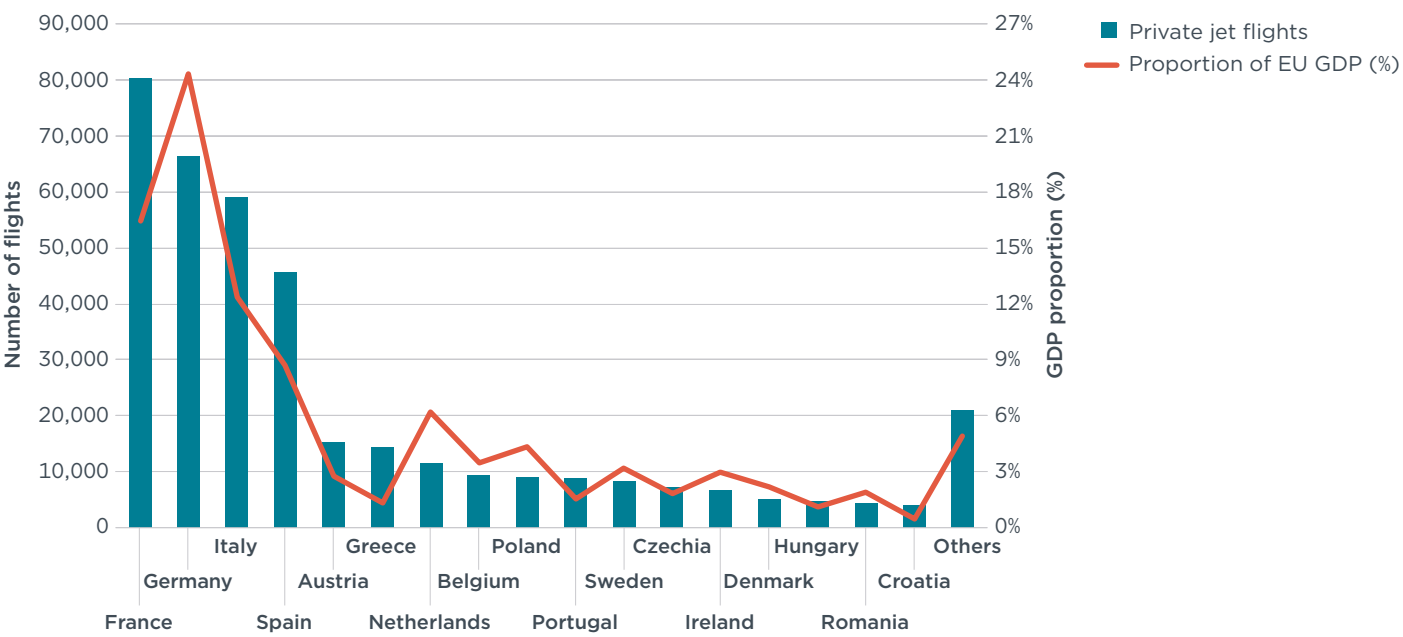
Figure 7
Private jet flights in the European Union compared with Florida and Texas



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As shown in Figure 8, France led the European Union in private jet activity in 2023 with 80,169 flights, representing 21.1% of the EU total. Germany and Italy followed with 66,337 flights (17.4%) and 58,933 flights (15.5%), respectively, reflecting their roles as key business and travel hubs. Spain accounted for 45,595 flights (12.0%), driven by both business and tourism demand, while Austria, a tourism hotspot, ranked fifth with 15,185 flights (4.0%). Smaller EU countries like Greece (14,332 flights, 3.8%), the Netherlands (11,373 flights, 3.0%), and Belgium (9,416 flights, 2.5%) showed lower activity levels, primarily driven by regional travel.

Figure 8
Private jets flights by EU country, 2023



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Comparing GDP in 2023 to private jet activity shows a correlation between economic size and flight volume. This suggests that private travel patterns generally align closely with economic performance. However, there are notable exceptions to this trend. For example, France, which accounted for 16.4% of the European Union's GDP, had more private jet flights than Germany, which accounted for 24.3%. This difference is likely attributable to international tourism rather than corporate travel trends: France ranked first globally in international tourist arrivals in 2023 (United Nations Tourism, 2024). A similar trend is observed between Austria and Greece, which rank fifth and sixth in private jet activity, despite being 10th and 16th in GDP, respectively.

Flights per capita

The 10 countries with the most outgoing private jet flights per capita in 2023 were predominantly located in the Caribbean and Atlantic Islands, as shown in Table 8. Gibraltar was the exception. By comparison, the three countries with the most private jet flights in 2023 had 687 (the United States), 107 (France), and 117 (the United Kingdom) flights per 10,000 people.

Table 8
Top 10 countries with the most private jet flights per capita

Rank	Country Name	Flights per 10,000 population	Most common origin country
1	Turks and Caicos Islands	9,361	United States
2	Sint Maarten	7,642	
3	The Bahamas	4,626	
4	Cayman Islands	3,979	
5	Bermuda	3,247	
6	British Virgin Islands	2,260	
7	Virgin Islands	1,290	
8	Gibraltar	1,245	Spain
9	Antigua and Barbuda	1,214	United States
10	St. Kitts and Nevis	902	

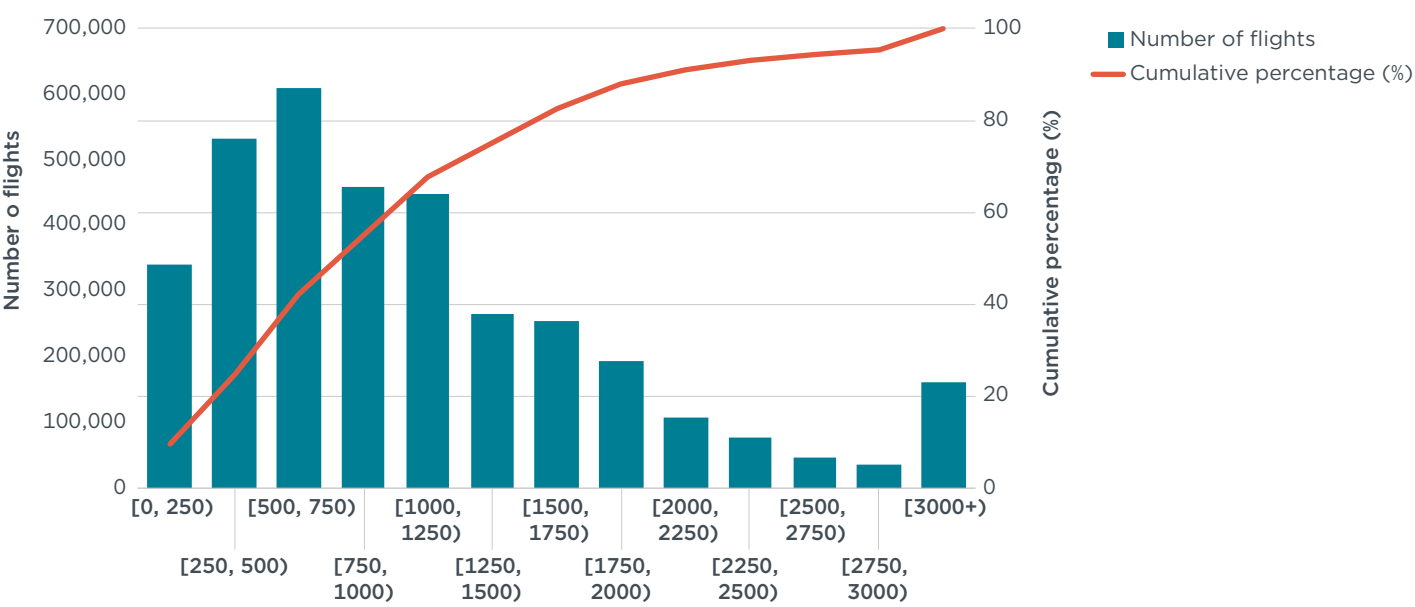
The top 10 countries in terms of private jet flights per capita were characterized by small populations and strong appeal as tourist destinations for luxury travelers from the United States and, in the case of Gibraltar, from Spain. These islands appeal to affluent travelers drawn to exclusive resorts, private villas, and natural beauty and who prefer private aviation for its flexibility and convenience, particularly in the wake of the COVID-19 pandemic (Gollan, 2021). Moreover, some travel agents market private jet services for island-hopping in the Caribbean (Haute Jets, 2024).

Private jet distance and flight times

Our bottom-up analysis indicated that most private jet operations consisted of regional and short-haul flights. Figure 9 illustrates the number of flights categorized into 250-km distance bins (bar chart) and the cumulative percentage of flights for each distance bin (line chart). Out of all global private jet flights in 2023, 50% were shorter than 900 km, and 75% were shorter than 1,500 km. The most frequent flight distance range was between 250 and 500 km, accounting for about 600,000 flights, followed by the 500–750-km range, with about 500,000 flights. As flight distances increased, the frequency declined sharply; for example, flights over 3,000 km accounted for only 5% of the total.

Figure 9

Number and cumulative proportion of private jet flights by distance bins



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Table 9 shows the average duration of private jet flights by distance bin. In 2023, flights under 500 km, categorized as regional flights, averaged around 48 min, while short-haul flights (between 500 and 1,499 km) lasted an average of 93 min. Long-haul (4,001–10,000 km) and ultra-long-haul (over 10,000 km) flights had average durations of 417 and 724 min, respectively. The average private jet flight duration was approximately 109 min, indicating a typical short- to-medium-haul operational range. The median duration of private jet flights was 85 min, reflecting the fact that more than half of private jet flights were regional and short haul.

Table 9
Average flight time per distance category

Distance Category	Distance bin	Average flight distance (km)	Average flight time (min)
Regional haul	< 500 km	283	48
Short haul	500–1,499 km	923	93
Medium haul	1,500–4,000 km	2,119	178
Long haul	4,001–10,000 km	5,709	417
Ultra-long haul	> 10,000 km	10,525	724
Average		1,164	109

The relatively short average flight time aligns with the earlier finding that most private jet operations focus on short-haul and regional travel, underscoring that the primary benefit of private jet travel is convenience and flexibility, not speed or range. The predominance of short-haul, short-duration private jet flights provides a compelling case for exploring alternatives to private aviation, including modal shift to high-speed rail where available (Li et al., 2024) or the use of more fuel-efficient turboprop aircraft (Kilic, 2023).

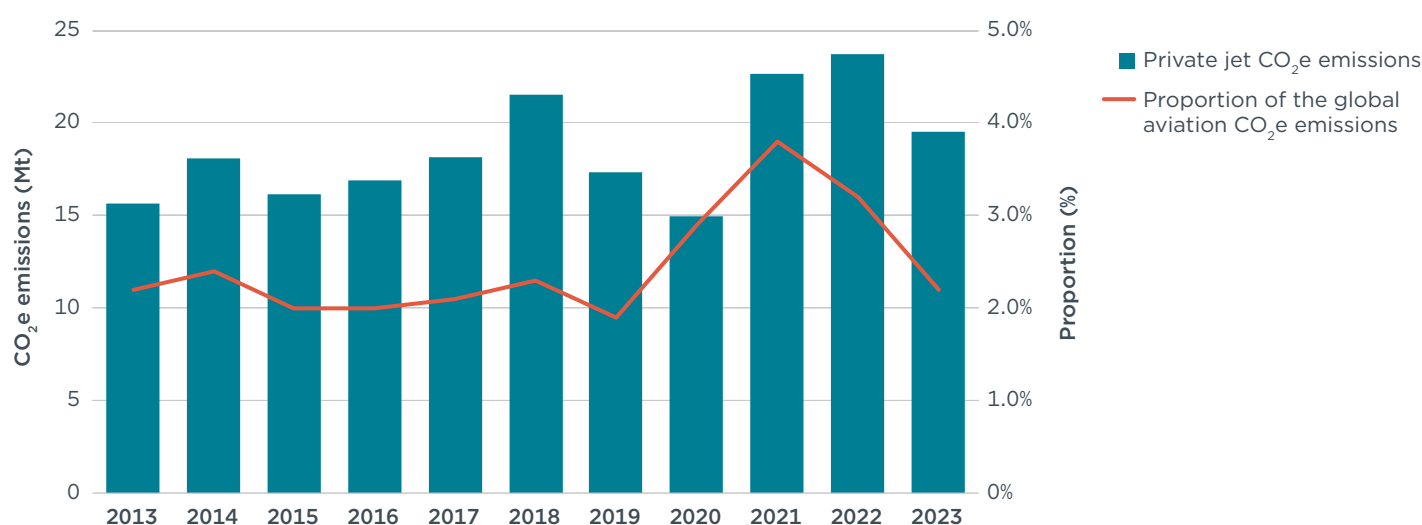
GREENHOUSE GAS EMISSIONS

Top-down approach

Our results indicated an overall increasing trend in GHG emissions from private jets globally between 2013 and 2023. Figure 10 presents estimated private jet CO₂ emissions (bars) and their corresponding share of civil aviation (commercial plus private jet) emissions (line).⁴ Absolute GHG emissions from private jets increased 25% over the period, from 15.65 Mt in 2013 to 19.55 Mt in 2023, with significant year-on-year volatility. At their post-COVID peak in 2022, private jets emitted an estimated 23.74 Mt CO₂e and accounted for nearly 4% of the civil aviation total.

Figure 10

Global private jet GHG emissions, 2013–2023



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Peaks in activity occurred in 2014, 2018, and 2022, with a significant decline in 2020 due to the COVID-19 pandemic. Private jets' share of civil aviation CO₂ emissions ranged between 2% and 2.5% most years but increased to nearly 4% in 2021 as private travel surged while commercial aviation remained depressed, reflecting an increased reliance on private aviation amid restrictions and health concerns related to COVID-19. Private jets' share of civil aviation emission subsequently declined to pre-pandemic levels by 2023, when travel patterns shifted amid a normalization of commercial travel for business purposes (Soderlund, 2023). This shift is reflected in the decline of private jet GHG emissions as a proportion of global aviation emissions. These trends coincided with a 8.6% drop in private jet activity (Federal Aviation Administration, 2023) compared to 2022 (Kerry Lynch, 2024).

Bottom-up analysis

Based on the bottom-up analysis, private jets emitted an estimated 18.4 Mt of CO₂e in 2023, totaling more GHGs than all flights departing from Heathrow Airport, the busiest airport in Europe (Heathrow Airport, 2024). This level of emissions translates to an average of 5.15 tonnes of CO₂e per private jet flight globally.

⁴ This calculation excludes emissions from military aviation, which were estimated to account for approximately 10%–15% of total aviation emissions in 2002 based on Aero2k modeling. Additionally, emissions from turboprop and piston-driven aircraft could not be calculated due to a lack of engine emissions data for these aircraft types.

The bottom-up estimate of 2023 GHG emissions is just 5.9% lower than our top-down estimate of 19.55 Mt. A potential source of error in our bottom-up analysis arises from the 7.1% of flights without a recorded departure airport, for which we applied an average flight distance of 1,164 km, accounting for 1.56 million tonnes of CO₂e. These missing data, along with additional flights not captured in the dataset, could have contributed to the gaps between our top-down and bottom-up results. For example, when applying our top-down analysis, the United States accounts for 13.6 million tonnes of CO₂e, whereas applying our bottom-up analysis results in 10.2 million tonnes.

Table 10 shows the dominance of the United States and European countries in global private jet fuel consumption based on our bottom-up analysis. According to this approach, the United States accounted for 55% of total private jet CO₂e emissions in 2023.

Table 10
Top 20 countries by private jet fuel burn and estimated GHG emissions, 2023

Rank	Country	Fuel burn (thousand tonnes)	GHGs (thousand tonnes CO ₂ e)	Share of total
1	United States	3,220.66	10,190.17	55.1%
2	United Kingdom	165.95	525.07	2.84%
3	France	146.83	464.58	2.51%
4	Canada	114.22	361.39	1.96%
5	Italy	94.97	300.50	1.63%
6	United Arab Emirates	87.37	276.43	1.50%
7	Spain	80.55	254.86	1.38%
8	Germany	79.96	253.00	1.37%
9	Mexico	68.67	217.28	1.18%
10	Brazil	68.49	216.70	1.17%
11	China	60.26	190.66	1.03%
12	Saudi Arabia	59.31	187.67	1.02%
13	Switzerland	54.44	172.25	0.93%
14	India	50.80	160.73	0.87%
15	Türkiye	43.54	137.76	0.75%
16	Japan	36.40	115.18	0.62%
17	Russian Federation	32.17	101.80	0.55%
18	Australia	31.97	101.15	0.55%
19	Bahamas	26.33	83.32	0.45%
20	Ireland	24.39	77.18	0.42%
	Others	1,293.76	4,011.68	22.15%
Global total		5,841.04	18,399.28	100%

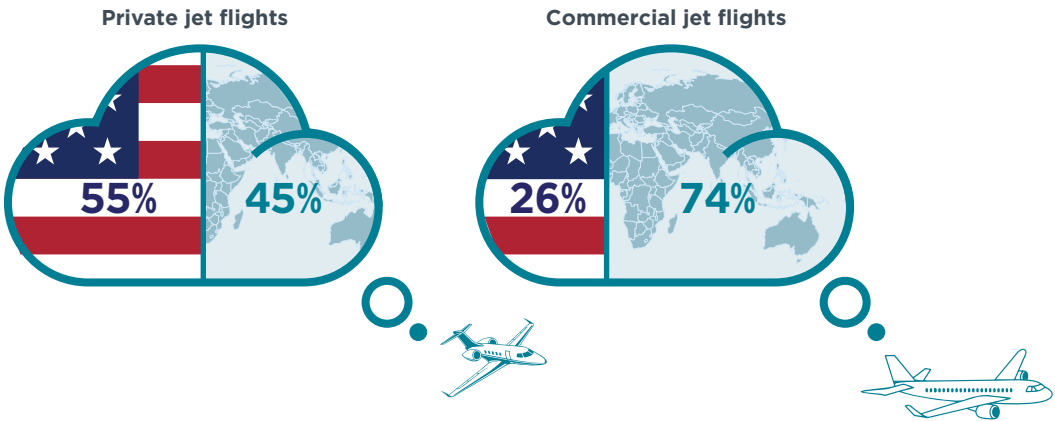
Other top contributors of CO₂e from private jets included the United Kingdom (525.1 thousand tonnes), France (464.6 thousand tonnes), and Canada (361.4 thousand tonnes), each accounting for about 2% of the global private jet total. Private jets departing from the remaining countries in the top 10, including Italy, the United Arab Emirates, Spain, Germany, Mexico, and Brazil, collectively contributed approximately

1.52 million tonnes of CO₂e. In total, the top 10 countries represented 70.7% of global private jet CO₂e emissions, and the top 20 countries represented approximately 77.8%.

United States

Figure 11 illustrates the United States’ share of private jet (left) and commercial jet (right) GHG emissions in 2023. While the United States accounted for 55% of estimated private jet emissions, its share of total commercial jet emissions was lower, at 26%.⁵ Private jets departing U.S. airports emitted 19 times more GHGs than the second highest emitter, the United Kingdom. These results underscore the opportunity for effective carbon mitigation by targeting high-emission countries and regions, particularly the United States.

Figure 11
GHG emissions from U.S. private and commercial jet flights versus rest of world



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Consistent with the results of the top-down methodology, Florida, California, and Texas were the top three states in terms of GHG emissions (Table 11). Flights departing from Florida (responsible for 1.42 Mt of GHGs) and California (1.24 Mt) collectively accounted for over 25% of U.S. private jet emissions. Texas (938.3 thousand tonnes, 9.1% of the total), New Jersey (686.1 thousand tonnes; 6.7%), and New York (434.5 thousand tonnes; 4.2%) rounded out the top five, collectively accounting for more than 45% of U.S. private jet emissions and 26% of global private jet greenhouse gas emissions.

5 This figure is based on Spire’s 2023 database of departing airports, modeled using the Small Emitters Tool.

Table 11

Top 20 U.S. states by private jet fuel burn and GHGs, 2023

Rank	State	Fuel burn (thousand tonnes)	GHGs (thousand tonnes CO ₂ e)	Share of total
1	Florida	449.5	1,422.1	13.8%
2	California	392.4	1,241.5	12.1%
3	Texas	296.5	938.3	9.1%
4	New Jersey	216.8	686.1	6.7%
5	New York	137.3	434.5	4.2%
6	Colorado	112.2	355.0	3.5%
7	Georgia	97.3	307.8	3.0%
8	Illinois	94.3	298.3	2.9%
9	Arizona	83.3	263.6	2.6%
10	Virginia	82.5	261.1	2.5%
11	Nevada	79.7	252.2	2.5%
12	Massachusetts	74.8	236.6	2.3%
13	North Carolina	70.5	223.0	2.2%
14	Tennessee	69.8	220.8	2.1%
15	Ohio	68.3	216.1	2.1%
16	Pennsylvania	61.3	194.1	1.9%
17	Michigan	58.8	185.9	1.8%
18	Missouri	51.4	162.7	1.6%
19	Washington	47.2	149.2	1.5%
20	Indiana	43.3	137.0	1.3%
	Others	633.46	2,004.27	20.4%
U.S. total		3,220.66	10,190.17	100%

European Union

The EU-27 countries collectively accounted for 1.95 Mt (11.8%) of estimated global GHG emissions from private jets (Table 12). Consistent with the top-down results, France was the largest emitter, accounting for 23.8% of the European Union's total private jet CO₂e emissions. Italy (15.4%), Spain (13.1%), and Germany (13.0%) were other top emitters. Collectively, these four countries constituted close to two-thirds of the GHG emissions of EU-27 countries.

Table 12
Top 20 EU countries by private jet fuel burn and GHGs, 2023

Rank	Country	Fuel burn (thousand tonnes)	GHGs (thousand tonnes CO ₂ e)	% of total
1	France	146.83	464.57	23.8%
2	Italy	94.97	300.49	15.4%
3	Spain	80.55	254.86	13.1%
4	Germany	79.96	252.99	13.0%
5	Ireland	24.39	77.17	4.0%
6	Portugal	21.83	69.07	3.5%
7	Greece	21.53	68.12	3.5%
8	Austria	17.50	55.37	2.8%
9	Netherlands	15.65	49.52	2.5%
10	Poland	13.82	43.73	2.2%
11	Sweden	13.30	42.08	2.2%
12	Belgium	13.15	41.61	2.1%
13	Czechia	10.51	33.25	1.7%
14	Cyprus	8.89	28.13	1.4%
15	Hungary	7.97	25.22	1.3%
16	Denmark	7.53	23.82	1.2%
17	Romania	5.92	18.73	1.0%
18	Malta	5.54	17.53	0.9%
19	Croatia	4.90	15.50	0.8%
20	Slovak Republic	4.30	13.61	0.7%
	Others	16.99	53.74	2.9%
EU-27 total		616.03	1,949.11	100%

Other countries in the top 10, including Ireland, Portugal, and Greece, each contributed less than 5% of total emissions. Meanwhile, the seven EU countries outside of the top 20 in terms of private jet emissions—comprising smaller countries like Luxembourg, Lithuania, Latvia, Estonia, and Slovenia—collectively accounted for less than 3% of the regional total. These findings highlight the concentration of emissions in a few key countries, suggesting that targeted policies could yield large reductions in GHG emissions within the EU-27.

Emissions per aircraft

Our analysis of emissions per flight found that, within the global fleet of 22,749 registered private jets, each jet emitted an estimated 812.4 tonnes of CO₂e annually on average. This figure is equivalent to the annual GHG emissions of 177 typical passenger vehicles (U.S. Environmental Protection Agency, 2024), or nine trucks of the heaviest vehicle category, Class 8 (U.S. Department of Energy, 2021).

AIRPORT FLIGHT INTENSITY AND POLLUTION

The United States has a commanding share of the top airports in terms of private jet flights, with 18 of the top 20. As shown in Table 13, Teterboro Airport in the U.S. state of New Jersey led with 69,932 flights, followed by Florida’s Palm Beach International Airport (39,927) and Texas’ Dallas Love Field (34,438). These three airports accounted for 4.0% of all global private jet flights.

Table 13
Top 20 airports by private jet flights and estimated LTO NO_x and PM_{2.5} emissions, 2023

Rank	Airport Name	Country	Flights	NO _x (tonnes)	PM _{2.5} (tonnes)
1	Teterboro Airport	United States	69,932	478.73	4.88
2	Palm Beach International Airport		39,927	250.74	2.38
3	Dallas Love Field Airport		34,438	198.21	2.05
4	Van Nuys Airport		30,778	210.32	2.28
5	Harry Reid International Airport		30,338	202.80	1.93
6	Westchester County Airport		29,298	198.92	2.06
7	Washington Dulles International Airport		27,419	177.39	1.74
8	Miami-Opa Locka Executive Airport		26,636	183.11	1.72
9	Scottsdale Airport		25,335	142.70	1.46
10	William P Hobby Airport		24,447	148.47	1.31
11	Paris-Le Bourget Airport	France	22,837	128.99	1.46
12	Naples Municipal Airport	United States	22,049	131.71	1.15
13	DeKalb Peachtree Airport		21,215	126.42	1.08
14	Chicago Midway International Airport		20,575	124.38	1.12
15	Centennial Airport		20,474	123.77	1.12
16	John Wayne Orange County International Airport		20,172	128.61	1.20
17	Austin Bergstrom International Airport		18,858	113.44	1.04
18	Nashville International Airport		18,660	125.34	0.97
19	Laurence G Hanscom Field Airport		18,204	115.97	1.12
20	Nice-Côte d’Azur Airport	France	16,768	100.25	1.16

Van Nuys Airport, which ranked fourth in terms of private jet flights, has become a “super-hub” post-pandemic for private jet travelers from Hollywood (Stern, 2023). Private jet activity has also increased at other airports. Westchester County Airport, for example, has become a preferred hub for hedge fund managers (Zucker, 2020), reflecting the close relationship between the finance industry and private jet usage and emissions.

The only two non-U.S. airports in the top 20 are both in France: Paris-Le Bourget Airport (ranked 11th, with 22,837 flights) and Nice-Côte d’Azur Airport (ranked 20th, with 16,768 flights). Paris-Le Bourget Airport is recognized as Europe’s leading business aviation hub, commonly used for corporate travel and luxury tourism (Groupe ADP, n.d.). Nice-Côte d’Azur functions as the main entry point to the French Riviera, a renowned destination for luxury tourism and affluent travelers (Smith, n.d.).

Nearby communities have complained about noise and air pollution from several of these airports. For instance, residents living near Teterboro Airport have filed complaints with the FAA and the Port Authority, citing noise and pollution caused by aircraft operations (DiTommaso, 2024). Similarly, concerns about heightened noise pollution and air quality Van Nuys have increased due to private jet traffic (Eng, 2023). Residents frequently report disturbances from low-flying jets and health symptoms linked to elevated emissions. These challenges underscore opportunities for stricter regulation of private jet operations and policy measures, such as emissions or fuel taxes to address the impact of these jets.

NO_x and PM_{2.5} emissions

Estimates of LTO NO_x and PM_{2.5} emissions reflect the number of flights from a given airport. Globally, private jets emitted an estimated 21.3 thousand tonnes of LTO NO_x emissions and 203 tonnes of LTO PM_{2.5} emissions across 7,082 airports. Of the 20 airports with the highest estimated LTO NO_x emissions in 2023, 18 are in the United States (Appendix D, Table B4). Teterboro Airport ranked highest, with 478.7 tonnes of NO_x emissions and 4.88 tonnes of PM_{2.5} emissions, followed by Palm Beach International Airport, with 250.7 tonnes of NO_x and 2.38 tonnes of PM_{2.5}. Notably, NO_x emissions from private jets at Teterboro Airport alone exceeded the total emissions from all private jets in Canada, which amounted to 450 tonnes. Similarly, estimated PM_{2.5} emissions from private jets at Teterboro Airport (4.88 tonnes) nearly equaled the total PM_{2.5} emissions from private jets across the United Kingdom (4.87 tonnes).

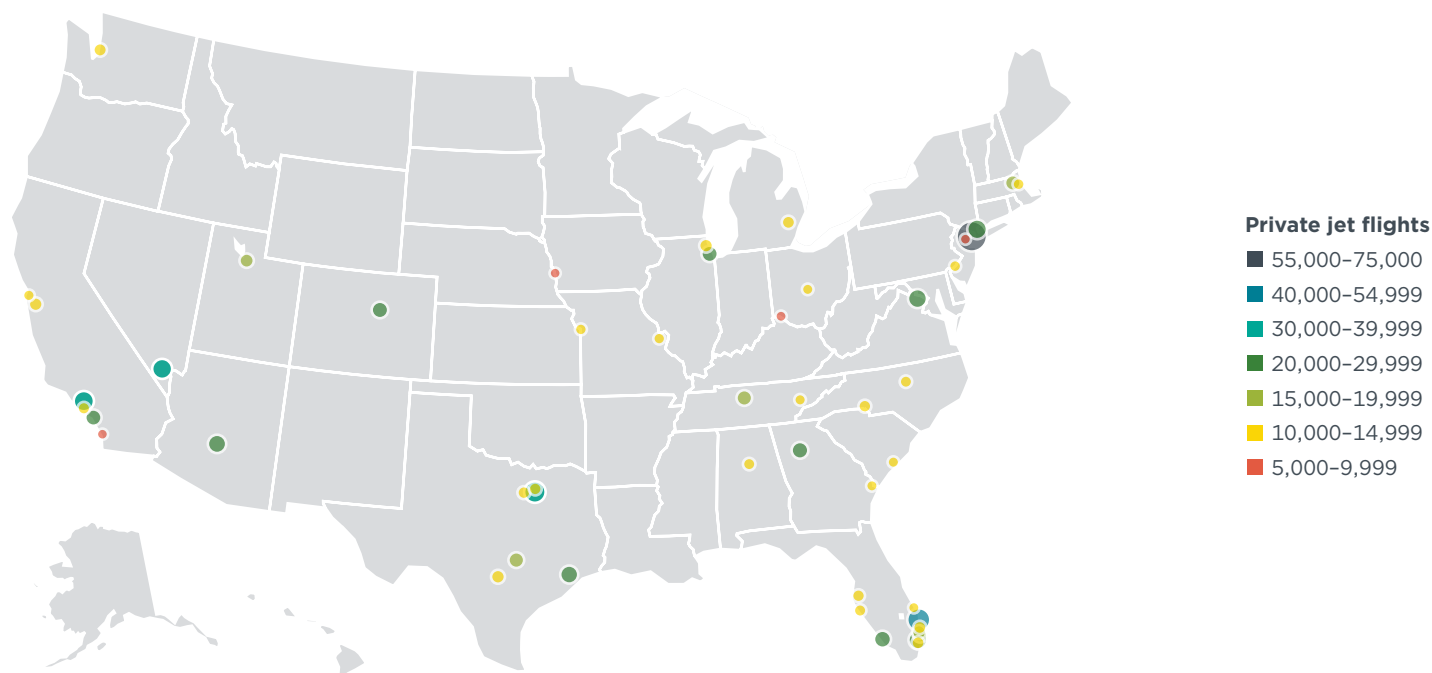
Among the 20 airports with the highest estimated LTO NO_x emissions, only two are outside the United States: Paris-Le Bourget Airport and Nice-Côte d’Azur Airport in France, which emitted 129.0 tonnes and 100.3 tonnes, respectively. The ranking differs slightly for LTO PM_{2.5} emissions, where Canada’s Toronto Pearson International Airport joins the list, contributing 1.06 tonnes of PM_{2.5} emissions (Appendix D, Table B5). These findings further highlight the concentration of private jet emissions in the United States and the potential for geographically targeted mitigation strategies to yield large reductions in overall NO_x and PM_{2.5} emissions from private jets.

U.S. airports

The top 50 U.S. airports with the largest number of private jet flights in 2023 were distributed across 23 states, as shown in Figure 12. Florida led with 10 airports, followed by California and Texas, with six each. These three states alone account for 44% of the top 50 airports. Florida has four airports with the most private jet charters: Fort Lauderdale-Hollywood International Airport, Miami Executive Airport, Miami-Opa Locka Executive Airport, and Miami International Airport (Zaher, 2019). These airports serve as hubs for luxury travel, such as cruises to the Caribbean and island-hopping in the Caribbean.

Figure 12

Top 50 U.S. airports by private jet flights, 2023



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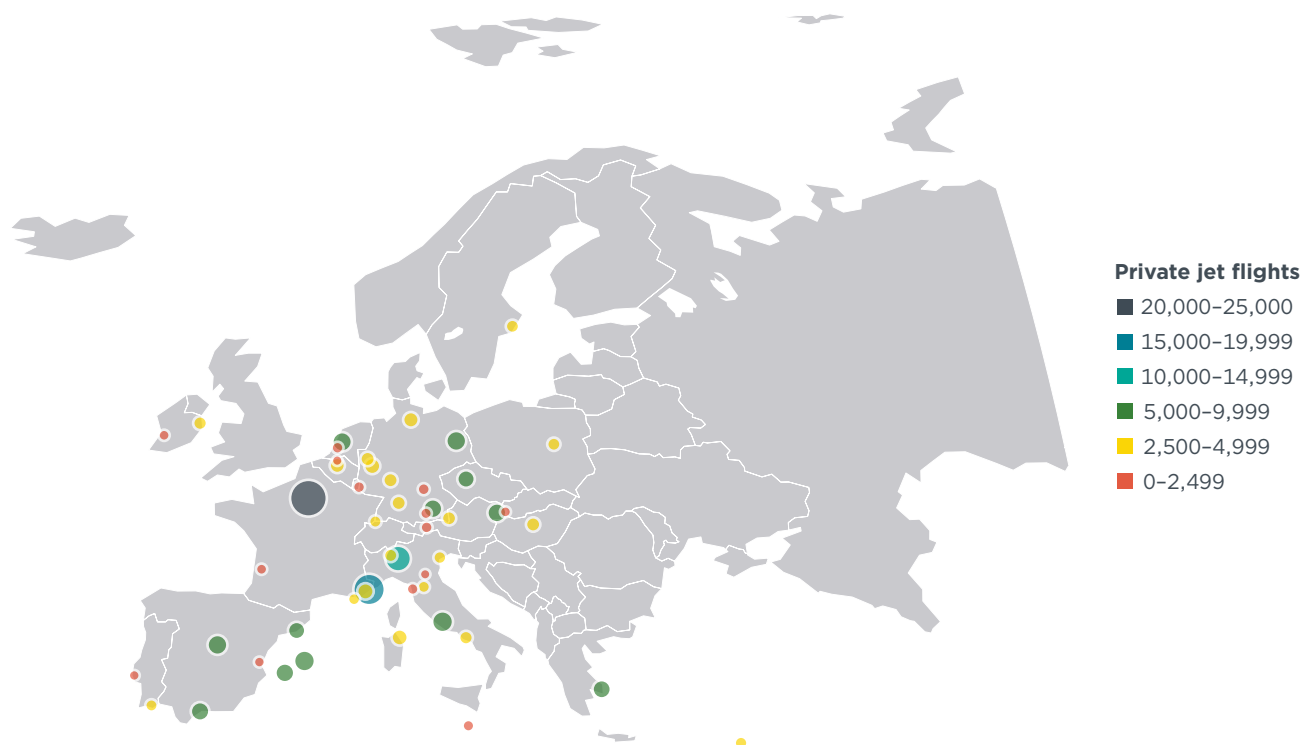
Georgia, Illinois, Massachusetts, Missouri, North Carolina, New Jersey, Tennessee, and Ohio each had two airports in the top 50, while 13 other states, each had one airport in the top 50.

EU airports

In the European Union, the top 50 airports by number of private jet flights were spread across 18 countries (Figure 13), but activity was concentrated in only a few countries. Italy and Germany led with nine airports each, followed by France and Spain, with six each. These four countries collectively accounted for 60% of the top 50 airports.

Figure 13

Top 50 EU airports by private jet flights, 2023



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The remaining 14 countries, including Austria (three airports), Ireland, Belgium, Netherlands, and Portugal (two airports each), and smaller contributors such as Czechia, Greece, Hungary, and others (one airport each), hosted the rest of the top 50 airports.

Top domestic route pair

The most common domestic routes for private jets were concentrated in the United States. In 2023, 2,116,512 U.S. flights were domestic, accounting for 91.9% of U.S. private jet flights. Table 14 highlights the top five domestic airport pairs globally. The Harry Reid International Airport–Van Nuys Airport route (connecting Las Vegas, Nevada, and Los Angeles, California) ranked highest with 5,549 flights, contributing an estimated 17.49 thousand tonnes of GHG emissions. All other flights in the top five traveled to and from Teterboro Airport in Teterboro, New Jersey, connecting with airports in Florida, Virginia, and Massachusetts. Collectively, these flights accounted for an estimated 93.1 thousand tonnes of GHG emissions. Although it did not rank among the top five most flown routes, the Teterboro Airport–Van Nuys Airport route generated the highest domestic flight GHG emissions, accounting for an estimated 50.47 thousand tonnes.

Table 14**Top five global domestic route pairs, 2023**

Rank	Route	City Pair	Number of flights	Total GHGs (thousand tonnes CO ₂ e)
1	Harry Reid International Airport-Van Nuys Airport	Las Vegas, Nevada-Los Angeles, California	5,549	17.49
2	Teterboro Airport-Palm Beach International Airport	Teterboro, New Jersey-West Palm Beach, Florida	4,702	36.92
3	Teterboro Airport-Washington Dulles International Airport	Teterboro, New Jersey-Dulles, Virginia	4,461	13.50
4	Teterboro Airport-Miami-Opa Locka Executive Airport	Teterboro, New Jersey-Opa-locka, Florida	3,984	34.17
5	Teterboro Airport-Laurence G Hanscom Field	Teterboro, New Jersey-Bedford, Massachusetts	3,468	8.55

Table 15 shows the top five domestic routes outside of the United States. The top route was in Nigeria, connecting Murtala Muhammed International Airport and Nnamdi Azikiwe International Airport, with 3,115 flights, accounting for an estimated 10.63 thousand tonnes of GHG emissions. The King Khaled International Airport-King Abdulaziz International Airport route in Saudi Arabia ranked second with 2,883 flights, and was the leading non-U.S. domestic flight route in terms of GHG emissions, contributing 29.57 thousand tonnes. The other top domestic private jet routes involved airport pairs in France, Canada, and Brazil.

Table 15**Top five non-U.S. global domestic route pairs, 2023**

Rank	Route	City Pair	Number of flights	Total GHGs (thousand tonnes CO ₂ e)
1	Murtala Muhammed International Airport-Nnamdi Azikiwe International Airport	Lagos, Nigeria-Abuja, Nigeria	3,115	10.63
2	King Khaled International Airport-King Abdulaziz International Airport	Riyadh, Saudi Arabia-Jeddah, Saudi Arabia	2,883	29.57
3	Paris-Le Bourget Airport-Nice-Côte d'Azur Airport	Paris, France-Nice, France	2,326	9.02
4	Montreal / Pierre Elliott Trudeau International Airport-Toronto Lester B. Pearson International Airport	Montreal, Canada-Toronto, Canada	1,763	5.46
5	Congonhas Airport-Santos Dumont Airport	São Paulo, Brazil-Rio de Janeiro, Brazil	1,748	3.74

Top international route pair

Among the top international route pairs (Table 16), the most common was Toronto Pearson International Airport-Teterboro Airport, connecting Toronto, Canada, and Teterboro, the United States, with 2,866 flights. This route pair accounted for an estimated 9.27 thousand tonnes of GHG emissions. The next top route pairs were Paris, France-Geneva, Switzerland (2,655 flights) and Punta del Este, Uruguay-San Fernando, Argentina (1,995 flights). Although it did not rank among the top five international routes in terms of number of flights, the Newark Liberty International Airport-Paris-Orly Airport, connecting the United States and France, generated the highest estimated international flight GHG emissions, of 44.79 thousand tonnes.

Table 16
Top five global international route pairs, 2023

Rank	Route	City Pair	Number of flights	Total GHGs (thousand tonnes CO ₂ e)
1	Toronto Lester B. Pearson International Airport- Teterboro Airport	Toronto, Canada- Teterboro, New Jersey, U.S.	2,866	9.27
2	Paris-Le Bourget Airport- Geneva Cointrin International Airport	Paris, France-Geneva, Switzerland	2,655	7.19
3	Capitan Corbeta CA Curbelo International Airport- San Fernando Airport	Punta del Este, Uruguay- San Fernando, Argentina	1,995	3.61
4	Lynden Pindling International Airport- Palm Beach International Airport	Nassau, Bahamas- West Palm Beach, Florida, U.S.	1,672	4.12
5	Farnborough Airport- Nice-Côte d’Azur Airport	Farnborough, United Kingdom- Nice, France	1,550	8.71

CONCLUSIONS

We assessed trends in global private jet activity and emissions, using both top-down and bottom-up approaches. Several conclusions can be drawn from our results.

Private jets are a large and growing source of air and climate pollution. We identified a total of 3.57 million private jet flights in 2023, with a typical private jet emitting approximately 810 tonnes of GHGs annually, equivalent to the emissions of 177 passenger cars or 9 Class 8 heavy-duty trucks. At their post-COVID peak in 2022, private jets collectively emitted an estimated 23.74 million tonnes of CO₂e, accounting for nearly 4% of total civil aviation emissions. Our top-down analysis revealed that global private jet operations in 2023 consumed 6.2 million tonnes of fuel, resulting in an estimated 19.5 million tonnes of CO₂e emissions. We estimated that these flights produced 21.3 thousand tonnes of NO_x and 203 tonnes of PM_{2.5} at airports.

Private jet activity and emissions were overwhelmingly concentrated in the United States. In 2023, two-thirds of global private jet flights departed from US airports, accounting for more than half (55%) of estimated private jet GHG emissions. The second and third largest contributors, France and the United Kingdom, trailed with 2.2% and 2.1% of flights, respectively. The U.S. states of Florida and Texas alone generated more private jet flights and GHG emissions than the entire EU-27. Moreover, 18 of the top 20 airports globally by private jet NO_x emissions were in the United States. This concentration of private jet activity implies that U.S. national or state-level policies to reduce private jet emissions could have a substantial impact.

A typical private jet flight is short-haul and lasts less than two hours. Our bottom-up analysis showed that private jet operations were predominantly short-haul. Half of all flights covered distances under 895 km, while 75% were under 1,500 km. Flights over 3,000 km make up only 5% of the total. The median private jet flight in 2023 lasted 85 min, indicating a regional to short-haul operational range. These findings suggest that private jets prioritize convenience and flexibility over speed or range. Private jet flights may therefore be mitigatable by modal shift to high-speed rail in regions like Asia and Europe and by an increased use of turboprop aircraft, which are more fuel efficient than turbofan aircraft. Short-haul flight bans have already been introduced in France, where high-speed rail can compete with air travel in terms of total travel time for short distances. Meanwhile, taxation policies with differentiated rates for turbofan versus turboprop aircraft could incentivize a shift to the latter.

Policy recommendations

Policymakers could consider various measures to reduce the growing emissions of private aviation. Potential policies include tightening fuel efficiency (CO₂) requirements for new private jets (Rutherford & Kharina, 2017); requiring the use of sustainable aviation fuels (SAF), for example under an aviation-wide mandate like ReFuelEU (European Union Aviation Safety Agency, n.d.); and implementing measures to limit the formation of persistent condensation trails (contrails). This last approach may be especially effective because contrails have a large but short-lived climate impact and because private jet flights may be especially likely to form persistent contrails (Gryspeerd et al., 2024).

In addition, the taxation of private jet flights or GHG emissions could generate substantial revenue to support aviation decarbonization or other priorities. Taxing private jets could simultaneously reduce emissions and generate climate finance revenue by targeting passengers who are ultra-wealthy and less price-sensitive (Collins et al., 2024), allowing tax rates to bridge the 2-5 times cost gap between conventional jet fuel and SAF without heavily impacting commercial aviation. If implemented in 2023, a private jet fuel tax of \$1.589/gallon (\$0.42/L), as proposed in House and

Senate measures introduced in the last Congress (Fueling Alternative Transportation with a Carbon Aviation Tax Act, 2023), could have generated up to \$3 billion globally, based on an estimated 5.8 million tonnes of annual fuel consumption. Additional tax options include distance-based levies, emission-based taxes tied to fuel consumption or pollutant output, and luxury taxes on non-essential flights. These revenues could be directed toward zero-emission aviation technology development, public transportation infrastructure, or loss and damage mitigation in the Global South, promoting a just transition to net-zero aviation.

Future work

This paper presented a medium-fidelity emissions inventory for global private jets in 2023, covering full-flight CO₂ emissions and LTO NO_x and PM_{2.5}. Future research could refine and expand this analysis by including full-flight NO_x and PM_{2.5} emissions to create a more comprehensive inventory. Additionally, modeling the contrail impacts of private jets would provide a deeper understanding of their climate effects. Expanding the scope to include all general aviation, such as turboprops and piston engine aircraft, would capture more of the general aviation emission. Updating the inventory with future-year data would allow for the creation of a bottom-up time-series analyses, enabling the identification and tracking of emissions trends over time.

Another avenue for future research is to explore the drivers behind the growing number of private jet flights. This knowledge would support data-driven recommendations for policies such as taxation or regulation of private jet operations to mitigate their environmental impact.

Additional research could inform policies to curb fuel use and emissions from private jets. Given the short average stage length (with 50% of flights traveling less than 900 km), public policies promoting the shift of fossil-fuel private jets to alternatives could be explored, including the shift to high-speed rail where available, the use of turboprops with much better fuel efficiency, and the development of zero-emission planes, notably hydrogen aircraft. Performance standards to boost the fuel efficiency of private jets could also be investigated.

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APPENDIX A. COMPARISON OF FUEL BURN MODELS

Using the Conklin and de Decker CO₂ calculator, we performed comparative analyses of fuel burn across the top 10 aircraft number of flights globally. We applied the same average private jet flight distance of 1,164 km and calculated the difference of the CO₂ modeling result. From Table A1, we see an 8% difference on average, ranging from the highest at 18% and lowest at -4%.

Table A1
Comparison of Conklin and de Decker (C&D) and Small Emitters Tool (SET) modeling results

Aircraft	C&D CO ₂ (kg)	SET CO ₂ (kg)	Difference (%)
Embraer EMB 505 Phenom 300	2,760	3,115	13%
Cessna 680A Citation Latitude	4,700	4,738	1%
Bombardier BD-100-1A10 Challenger 350	4,280	4,823	13%
Cessna 560XL Citation XLS	3,570	3,673	3%
Bombardier BD-100-1A10 Challenger 300	4,250	5,005	18%
Cessna 525B CitationJet CJ3	2,450	2,655	8%
Cessna 560XL Citation XLS+	3,570	3,673	3%
Learjet 45	2,950	3,468	18%
Cessna 560XL Citation Excel	3,810	3,673	-4%
Cessna 680 Citation Sovereign	4,330	4,580	6%

APPENDIX B. DETAILED STATISTICS

The top 20 countries with the greatest number of private jet flight departures in 2023 are shown in Table B1.

Table B1
Top 20 countries by private jet flights, 2023

Rank	Country	Flights	Rank	Country	Flights
1	United States	2,302,236	11	China	24,400
2	France	80,169	12	India	22,530
3	United Kingdom	73,626	13	Australia	22,401
4	Canada	73,536	14	Turkey	19,398
5	Germany	66,346	15	Bahamas	19,088
6	Italy	58,933	16	United Arab Emirates	16,540
7	Brazil	55,889	17	Austria	15,185
8	Mexico	48,521	18	Greece	14,332
9	Spain	45,638	19	Saudi Arabia	13,841
10	Switzerland	32,923	20	Argentina	11,915

The number of flights in the 10 U.S. states with the most private jet flight departures in 2023 are shown in Table B2.

Table B2
Top U.S. 10 states by private jet flights, 2023

Rank	State	Flights
1	Florida	313,672
2	Texas	230,143
3	California	218,989
4	New Jersey	98,339
5	Georgia	84,052
6	New York	80,378
7	Colorado	74,214
8	North Carolina	67,566
9	Illinois	67,493
10	Tennessee	65,433

The number of private jet flight departures in the EU-27 in 2023 are shown in Table B3.

Table B3**EU-27 countries by private jet flights, 2023**

Rank	Country	Flights	Rank	Country	Flights
1	France	80,169	15	Hungary	4,669
2	Germany	66,346	16	Romania	4,164
3	Italy	58,933	17	Croatia	4,144
4	Spain	45,638	18	Cyprus	3,869
5	Austria	15,185	19	Finland	3,226
6	Greece	14,332	20	Slovak Republic	2,852
7	Netherlands	11,373	21	Luxembourg	2,458
8	Belgium	9,416	22	Malta	2,335
9	Poland	9,175	23	Bulgaria	2,196
10	Portugal	8,883	24	Slovenia	1,164
11	Sweden	8,251	25	Lithuania	1,161
12	Czechia	7,186	26	Estonia	927
13	Ireland	6,662	27	Latvia	849
14	Denmark	4,950			

The top 20 airports by private jet estimated LTO NO_x emissions in 2023 are shown in Table B4.

Table B4**Top 20 airports by private jet estimated LTO NO_x emissions, 2023**

Rank	Airport Name	Country	NO _x (tonnes)
1	Teterboro Airport	United States	478.73
2	Palm Beach International Airport		250.74
3	Van Nuys Airport		210.32
4	Harry Reid International Airport		202.80
5	Westchester County Airport		198.92
6	Dallas Love Field Airport		198.21
7	Miami-Opa Locka Executive Airport		183.11
8	Washington Dulles International Airport		177.39
9	William P. Hobby Airport		148.47
10	Scottsdale Airport		142.70
11	Naples Municipal Airport		131.71
12	Paris-Le Bourget Airport	France	128.99
13	John Wayne Orange County International Airport	United States	128.61
14	DeKalb Peachtree Airport		126.42
15	Nashville International Airport		125.34
16	Chicago Midway International Airport		125.34
17	Centennial Airport		125.34
18	Laurence G Hanscom Field Airport		115.97
19	Austin Bergstrom International Airport		113.44
20	Nice-Côte d'Azur Airport	France	100.25

The top 20 airports by private jet estimated LTO PM_{2.5} emissions in 2023 are shown in Table B5.

Table B5
Top 20 airports by private jet estimated LTO PM_{2.5} emissions, 2023

Rank	Airport Name	Country	PM _{2.5} (tonnes)
1	Teterboro Airport	United States	4.88
2	Palm Beach International Airport		2.38
3	Van Nuys Airport		2.28
4	Westchester County Airport		2.06
5	Dallas Love Field Airport		2.05
6	Harry Reid International Airport		1.93
7	Washington Dulles International Airport		1.74
8	Miami-Opa Locka Executive Airport		1.72
9	Paris-Le Bourget Airport	France	1.46
10	Scottsdale Airport	United States	1.34
11	William P Hobby Airport		1.31
12	John Wayne Orange County International Airport	France	1.20
13	Nice-Côte d’Azur Airport		1.16
14	Naples Municipal Airport	United States	1.15
15	Centennial Airport		1.12
16	Laurence G Hanscom Field Airport		1.12
17	Chicago Midway International Airport		1.12
18	DeKalb Peachtree Airport	Canada	1.08
19	Toronto Lester B. Pearson International Airport		1.06
20	Norman Y. Mineta San Jose International Airport	United States	1.05

APPENDIX C. SCOPE11 METHOD

The SCOPE11 method uses nvPM emission data as the input. Before the tenth meeting of the Committee on Aviation Environmental Protection (CAEP10), only the particulate-related standard of SCOPE11 was based on the SN. For some engines, nvPM emission data are not available in the EEDB, so only SN measurements can be used to estimate nvPM emissions. In Step 0, calculations are performed sequentially, using the SN to derive nvPM concentration (CI_{mass}), which is then used to compute the nvPM emission index in terms of mass (EI_{mass}).

To derive the nvPM concentration (CI_{mass}), the following equation is used:

$$CI_{mass} \left[\frac{\mu g}{m^3} \right] = \frac{648.4 \times e(0.0766 \times SN)}{1 + e^{(1.099 \times (SN - 3.064))}}$$

The emission index (EI) is calculated by multiplying the concentration (CI_{mass}) by the volumetric flow rate Q_{mode} (measured in m^3/kg). The flow rate Q_{mode} depends on the Air-to-Fuel Ratio (AFR) and the reference by-pass ratio β , given by:

$$Q_{mode} \left(\frac{mg^3}{kg} \right) = 0.776 \times (AFR) \times (1 + \beta) + 0.767$$

The AFR at each of the four LTO points have been estimated by Wayson et al. as 106 at idle, 83 at approach, 51 at climb-out, and 45 at take-off.

A correction factor k_{slm} is used to adjust for measurement system losses. It depends on the reference by-pass ratio β and nvPM concentration (CI_{mass}), calculated as:

$$k_{slm} = \ln \left(\frac{3.219 \times CI_{mass} \times (1 + \beta) + 312.5}{CI_{mass} \times (1 + \beta) + 42.6} \right)$$

The nvPM emission index by mass (EI_{mass}) is derived for each of the four LTO modes as:

$$EI_{mass} \left[\frac{mg}{kg} \right] = CI_{mass} \times Q_{mode} \times k_{slm}$$

For the nvPM emission index by number (EI_{num}), the mean particle size across all modes is used, with the number density calculated by:

$$EI_{num} \left[\frac{particles}{kg} \right] = \frac{EI_{mass}}{\left(\frac{\pi}{6} \times 10^9 \times \frac{GMD}{10^9} \times e^{(4.5 \times (\ln(1.8))^2)} \right)}$$

This method allows for a step-by-step derivation of EI_{mass} and EI_{num} from the SN, enabling estimation of nvPM emissions for engines lacking direct nvPM emission data in the EEDB.

APPENDIX D. LIST OF PRIVATE JET AIRCRAFT TYPES

Aircraft type names categorized as private jets for this study are shown in Table D1.

Table D1

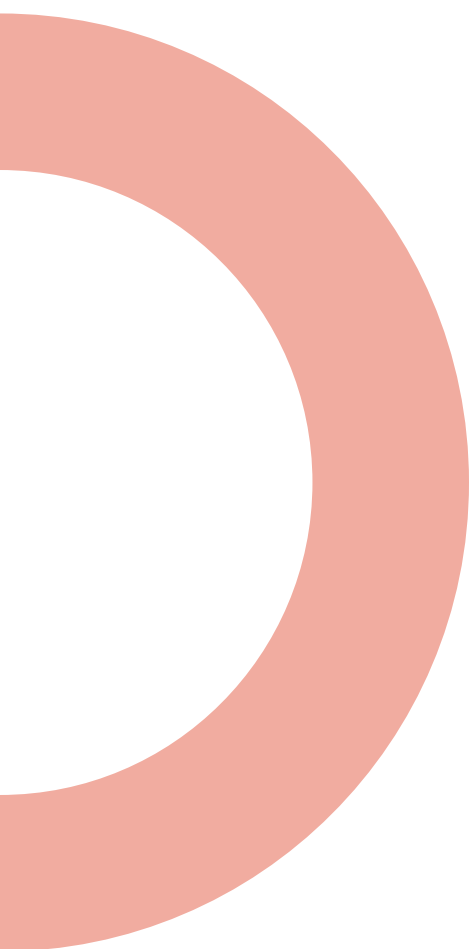
Aircraft names categorized as private jets, 2023

Embraer EMB 505 Phenom 300	Embraer Lineage 1000
Cessna 680A Citation Latitude	Airbus A340-300
Bombardier BD-100-1A10 Challenger 350	Dassault Falcon 20D
Cessna 560XL Citation XLS	Raytheon Hawker 800SP
Bombardier BD-100-1A10 Challenger 300	Airbus ACJ320-200N
Cessna 525B CitationJet CJ3	Boeing 757-200(VC-32A)
Cessna 560XL Citation XLS+	Shukoi SSJ 100/95B
Bombardier Learjet 45	Boeing 747-8(BBJ)
Cessna 560XL Citation Excel	Boeing 737-400
Cessna 680 Citation Sovereign	Airbus A340-200
Gulfstream Aerospace GV-SP (G550)	Dassault Falcon 6X
Raytheon Hawker 800XP	Grumman G-1159B Gulfstream II-B
Cessna 750 Citation X	Dassault Falcon 50SurMar
Cessna 510 Citation Mustang	Mitsubishi MU-300 Diamond IA
Cessna 525C CitationJet CJ4	Fokker F70
Bombardier Learjet 60	Sukhoi SSJ 100/95SBJ
Cirrus Vision SF50	Gulfstream Aerospace GV-SP (G550) CAEW
Gulfstream Aerospace GIV-X (G450)	Boeing 767-300ER
Bombardier BD-700-1A10 Global 6000	Raytheon Hawker 1000
Embraer EMB 500 Phenom 100	Boeing 767-200ER
Cessna 525B CitationJet CJ3+	Boeing 777-300(ER)
Cessna 525A CitationJet CJ2	Bombardier BD-100-1A10 Challenger 350
Gulfstream Aerospace G280	Airbus A340-500
Cessna 525 Citation M2	Tu-204-300
Canadair CL-600-2B16 Challenger 604	Cirrus Vision SF50 G2
Beechjet 400A	Dassault Falcon 2000DX
Hawker 400XP	Tu-214PU
Cessna 525 CitationJet	Boeing 737-300
Canadair CL-600-2B16 Challenger 605	Gulfstream Aerospace TP 102D (G550)
Gulfstream Aerospace GVI (G650)	Gulfstream Aerospace C-20G
Dassault Falcon 2000LX	Boeing 737-700
Gulfstream Aerospace G-IV-SP	Airbus A350-900
Bombardier Learjet 35A	ARJ100
Dassault Falcon 7X	Tu-214
Cessna 550 Citation Bravo	Bombardier Learjet 55B
Canadair CL-600-2B16 Challenger 650	Airbus ACJ330-200
Cessna 560 Citation Ultra	Boeing 777-200LR

Bombardier Learjet 75	Bombardier Learjet 25B
Cessna 550 Citation II	ERJ 170-200STD
Cessna 560 Citation V	Dassault Falcon 50-4
Cessna 525A CitationJet CJ2+	Dassault Falcon 20CF
Dassault Falcon 2000	Boeing 737-8(BBJ)
Honda HA-420 HondaJet	Boeing 777-300ER(BBJ)
Embraer Legacy 600	Fokker F100
Bombardier BD-700-1A11 Global 5000	Bombardier Learjet 24D
Raytheon Hawker 900XP	CRJ700 Srs 702
Cessna 525 CitationJet CJ1	Cirrus Vision SF50
Embraer EMB 545 Legacy 450	Boeing 767-300(ER)
Gulfstream Aerospace GVI (G650ER)	Boeing 787-9(BBJ)
Cessna 560 Citation Encore	Embraer ERJ 135BJ Legacy 650
Gulfstream Aerospace G200	Israel C-38A Astra SPX
Raytheon 390 Premier 1	Airbus A310-300
Embraer Legacy 650	Gulfstream Aerospace C-20H
Bombardier BD-700-2A12 Global 7500	Antonov An-148-100
Eclipse Aerospace EA500	Airbus A319-133CJ
Embraer Praetor 600	Grumman G-1159 Gulfstream II-TT
Gulfstream Aerospace G-IV	Cessna 680 Citation Sovereign
Bombardier Learjet 40	Bombardier Learjet 25
Dassault Falcon 900EX	Gulfstream Aerospace TP 102C (G-IV-SP)
Gulfstream Aerospace GV	Embraer Praetor 500
Dassault Falcon 50	Boeing 757-200(C-32A)
Embraer Praetor 500	Boeing 747-200(VC-25A)
Embraer EMB 550 Legacy 500	Boeing 737-79V BBJ
Challenger 850	Boeing 767-200(ER)
Gulfstream Aerospace GVII-G600	ACJ340-500
Bombardier Learjet 31A	Dassault Falcon 20EF
Bombardier BD-700-1A10 Global Express XRS	Boeing 767-400ER
Gulfstream Aerospace GVII-G500	Airbus ACJ220-100
Gulfstream Aerospace G150	Hawker 400XPR
Dassault Falcon 2000EX EASy	Dassault Falcon 200
Bombardier BD-700-1A10 Global Express	Boeing 777-300(ER)(BBJ)
Cessna 650 Citation III	Embraer EMB 505 Phenom 300E
Cessna 525 CitationJet CJ1+	Bombardier Learjet 40
Cessna 650 Citation VII	Tu-204-100
Cessna 501 Citation I/SP	Gulfstream Aerospace C-20B Gulfstream III
Cessna 680+ Citation Sovereign	Airbus ACJ340-600
Dassault Falcon 2000EX	Dassault Falcon 900EX EASy
Raytheon Hawker 850XP	Airbus A321-200
Dassault Falcon 900EX EASy	ARJ70

Dassault Falcon 8X	Boeing C-40B
Boeing 737-700(BBJ)	A330-200(MRTT)
Cessna 560 Citation Encore+	Boeing C-40C
Honda HA-420 HondaJet Elite	Boeing 777-200ER
Dassault Falcon 900B	Airbus CC-330
Dassault Falcon 50EX	Gulfstream Aerospace GV-SP (G550) Nahshon-Eitam
Airbus ACJ319-100	Boeing 777-200(LR)
Cessna 550 Citation S/II	Sukhoi SSJ 100/95LR
Canadair CL-600-2B16 Challenger 601-3A	Gulfstream Aerospace GV-SP (G550) Nahshon-Oron
Cirrus Vision SF50 G2	Il-96-300PU
Bombardier BD-700-1A10 Global 6500	Airbus Voyager KC3
Raytheon 390 Premier 1A	Embraer ERJ 135LR
Dassault Falcon 900LX	Bombardier Learjet 45
Dassault Falcon 900	Tu-214SR
Dassault Falcon 2000S	Airbus A321-251NX
Raytheon Hawker 750	Cessna 519 Citation Mustang
Israel IAI-1125A Astra SPX	Airbus A321-200NX
Bombardier Learjet 55	Yak-42D
Canadair CL-600-2B16 Challenger 601-3R	Boeing 787-8
Hawker Beechcraft 4000	Gulfstream Aerospace C-20A Gulfstream III
Boeing 757-200	Mitsubishi MU-300 Diamond I
Lineage 1000	Various Bombardier BD-100-1A10 Challenger 350 Airframes
Israel IAI-1126 Galaxy	Bombardier Learjet 35A
Airbus ACJ320-200	Bombardier BD-1001A10 Challenger 350
Cessna 500 Citation I	Boeing 727-100
Cessna 650 Citation VI	Dassault Falcon 20E-5
Bombardier Learjet 45XR	Dassault Falcon 20DF
Bombardier BD-700-1A11 Global 5500	Boeing 747-8
Cessna UC-35A-1 Citation Ultra	Challenger 870
Bombardier Learjet C-21A	Bombardier Learjet 24F
Bombardier Learjet 36A	Gulfstream Aerospace G280
Gulfstream Aerospace G-IV (G400)	Boeing 777-200(ER)
Dassault Falcon 10	MD-87
Bombardier Learjet 31	Boeing 737-7BC BBJ
Bombardier CRJ200LR	Gulfstream Aerospace GVIII-G800
Bombardier Learjet 70	Airbus ACJ321-200
Cessna 551 Citation II/SP	Embraer ERJ 145MP
Dassault Falcon 20F	Hawker Siddeley DH-125 Series 400A
Bombardier Learjet 60XR	Tu-154M
Dassault Falcon 900DX	Embraer ERJ 135B Legacy 650
Bombardier Learjet 35	Boeing 737-7JY BBJ

Airbus A320-200	Boeing 747-8KB
Israel IAI-1124 Westwind	Bombardier ND-100-1A10 Challenger 350
Dassault Falcon 20F-5	Bombardier Learjet 24E
Hawker Siddeley HS-125 Series 700A	Various Bombardier Airframes
Eclipse Aerospace EA550	Hawker Siddeley HS-125 Series 700B
Airbus A321-200NX(LR)	Gulfstream Aerospace
Dassault Falcon 20DC	Gulfstream Aerospace G-IV-SP
Dassault Falcon 20C-5	Embraer ERJ 145LU
Cessna UC-35D Citation Encore	Boeing 737-74U BBJ
Boeing 737-800(BBJ)	Embraer EMB 505 Phenom 300
Israel IAI-1125 Astra SP	Bombardier ND-100-1A10 Challenger 300
Israel IAI-1124A Westwind 2	Embraer EMB 505 Phenom 300
Airbus ACJ318-100	Gulfstream Aerospace GVI (G650ER)
Gulfstream Aerospace G-IV (G300)	Bombardier Learjet 24B
Gulfstream Aerospace C-37A	Bombardier BD-200-1A10 Challenger 300
Dassault Falcon 900C	Gulfstream Aerospace GVII-G600
Raytheon Hawker 800	Boeing 737-7GV BBJ
Challenger 800 (CRJ100)	Various Dassault Falcon 7X Airframes
Airbus A319-100	Bombardier BD-700-1A10 Global Express (Miscode)
Gulfstream Aerospace G100	Bombardier BD-700-1A10 Challenger 350
Beechjet 400	Raytheon 390 Premier I
Gulfstream Aerospace C-37B	Various Dassault Falcon 2000 Airframes
Cessna UC-35B Citation Encore	Boeing 737-800
Israel IAI-1125 Astra	Cessna Citation M3
Boeing 737-800	Various Dassault Falcon 2000LX Airframes
Bombardier Learjet 36	Boeing 737-8 BBJ
Gulfstream Aerospace G-1159A Gulfstream III	Embraer EMB-500 Phenom 100
ARJ85	Sukhoi SuperJet 100-95B
Raytheon Hawker 800XPI	Tu-214SUS
Gulfstream Aerospace GVIII-G700	Grumman G-1159 Gulfstream II-SP
Dassault Falcon 100	Various Bombardier BD-100-1A10 Challenger 350 Airframes
Airbus A330-200	Boeing 747SP
Dassault Falcon 20C	Gulfstream Aerospace G250
Gulfstream Aerospace GIV-X (G350)	Cessna 525A CitationJet CJ2
Bombardier Learjet 40XR	Bombardier BD-700-1A10 Global 5000
Bombardier Learjet 25D	Airbus A340-313X
Dassault Falcon 20E	Embraer EMB-505 Phenom 300
Canadair CL-600-1A11 Challenger 600S	Dassault Falcon 900EX EASy
Hawker 400XT	Dassault FA8X
Gulfstream Aerospace GV-SP (G500)	Embraer EMB 5005 Phenom 100
Challenger 800 (CRJ200)	Airbus A319-153N ACJ



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A Cost of Billionaires Report

HIGH FLYERS 2023



How Ultra-Rich Private Jet Travel
Costs the Rest of Us and Burns
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PATRIOTIC
MILLIONAIRES

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Policy Studies

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OTHER RELEVANT RESEARCH

Since 2008, the IPS Program on Inequality and the Common Good has been analyzing the harms caused by private jets on our society and environment. Previous reports include:

- [*High Flyers 2017: How the Private Jet Lobby Shifts Costs to the Rest of Us, Threatens Our Security, and Fuels a Warming Planet*](#)
- [*High Flyers 2008: How Private Jet Travel is Straining the System, Warming the Planet, and Costing You Money*](#)

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About the Patriotic Millionaires

The Patriotic Millionaires is a group of high-net worth Americans, business leaders, and investors who are united in their concern about historic levels of inequality and the destabilizing concentration of wealth and power in America. The mission of The Patriotic Millionaires organization is to build a stable, prosperous, and inclusive nation by promoting public policies based on the “first principles” of equal political representation, a guaranteed living wage for all working citizens, and a fair tax system.

About the Institute for Policy Studies

The **Institute for Policy Studies** (www.ips-dc.org) is a multi-issue research center that has been conducting pathbreaking research on inequality for more than 20 years. The **IPS Program on Inequality and the Common Good** was founded in 2006 to draw attention to the growing dangers of concentrated wealth and power, and to advocate for policies and practices to reverse extreme inequalities in income, wealth, and opportunity. The project produces the **Inequality.org** website.

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KEY FINDINGS

- **Private jets emit at least 10 times more pollutants than commercial planes per passenger.** Unsurprisingly, approximately 1 percent of people are believed to be responsible for about half of all aviation carbon emissions. In addition, since the start of the pandemic, private jet use has increased by about a fifth and private jet emissions have increased more than 23 percent, according to a recent study.
- ***Private jets make up approximately one out of every six flights handled by the Federal Aviation Administration (FAA) but contribute just 2 percent of the taxes that make up the trust fund that primarily funds the FAA. Instead, the majority (roughly 70 percent) of the tax revenue that makes up the aviation trust fund is financed by passengers purchasing commercial air travel. Passengers pay a 7.5 percent tax on the prices of their tickets plus a passenger facility charge of no more than \$4.50. Passenger taxes are increasing as flight prices increase. Meanwhile, private jet fliers only pay fuel surcharge taxes — roughly \$0.22 per gallon of jet fuel.***
- ***The median net worth of a full and fractional private jet owner is \$190 million and \$140 million respectively. They represent 0.0008 percent of the global population. The jet-owning oligarchy is overwhelmingly male, over the age of 50, and concentrated in the industries of banking, finance, and real estate.***
- ***The private jet sector set industry records with regards to transaction and dollar volume in 2021 and 2022. The size of the global fleet has increased 133 percent in the last two decades from 9,895 in 2000 to 23,133 in mid-2022. This bonanza was accompanied by an unprecedented number of business jet operations, 5.3 million in 2022.***
- ***A 10 percent and 5 percent transfer fee on preowned and new private aircraft would have raised \$2.4 billion in 2021 and \$2.6 billion in 2022. The size of the private jet market grew from \$32.3 billion in 2021 to \$34.1 billion in 2022, with the market only set to expand.***
- ***Elon Musk would pay an additional \$3.94 million in taxes if our recommended transfer fee and jet fuel tax were implemented. He is the most active high flyer in the United States. He purchased a new jet, took 171 flights, contributed to the consumption of 837,934 liters of jet fuel, and was responsible for 2,112 tons of carbon emissions in 2022.***
- ***Thousands of municipal airports in the US are funded by the public, but many primarily serve private and corporate jets. These airports may not offer scheduled passenger service, but they still offer airport runways subsidized by taxes.***

- *The largest player in the private jet lobby, the National Business Aviation Association, has spent an average [\\$2.4 million](#) each year since 2008 lobbying the federal government, primarily for tax giveaways. During the Covid-19 pandemic, the industry specifically [lobbied](#) for Covid relief, particularly “medium to long-term liquidity assistance and relief from air transportation excise taxes,” even though industry demand was quickly [climbing](#).*
- *The wealthy can transfer ownership of their jets to a private trust, obscuring the true ownership of the aircraft. In an age where commercial passengers must take off their shoes to be screened and fly, beneficial ownership of aircraft presents a fully legal yet significant security risk.*
- *While sustainable aviation fuels (SAFs) have a role to play in reducing aviation emissions, they should not be considered a panacea by the private jet industry. SAFs still release emissions, though less than traditional fuels, and they are currently expensive and rarely used.*

INTRODUCTION:

The High Costs of Private Jet Travel to the Rest of Us

Private jets have rightfully earned their reputation as symbols of excess. As society's wealth has concentrated in fewer hands over the last several decades, a period corresponding with the acceleration of inequality, there has been an explosion in private jet purchases and travel.

This is bad for both the earth — in terms of carbon emissions — and taxpayers who subsidize the private jet consumption of the ultra-rich.

Private jet excess has finally come onto the public and political radar, thanks to the efforts of Twitter accounts like the once suspended @CelebJets that publicly made available the daily private jet habits of the rich and famous. The large carbon footprint of the billionaire class has been documented by Oxfam, spurring climate and inequality activists alike to call for greater taxation and regulation of private aviation. Lawmakers in a number of countries are currently drafting or in the process of implementing legislation that would levy duties on the sale of new private aircraft, short flights, and emission outputs.

The private aviation industry has seen an unprecedented boom in the past two years. The preowned market, in particular, posted record numbers in terms of sales and revenue. The time is ripe to pass US legislation that would regulate and levy duties on private jet transactions and aviation since the industry is expected to grow at a steady pace over the next few years. Any taxes imposed will not affect 99 percent of us, and the revenue raised could be used to ensure we have a more environmentally sustainable planet.

BILLIONAIRE ELON MUSK TRIGGERS TURBULENCE ON TWITTER

Elon Musk is no longer the world's wealthiest individual, but he is perhaps its most infamous and prolific private flier. His aerial activity — a little under one flight

every two days for a total of 171 flights — produced 2,112 tons of CO₂ emissions in 2022 alone.¹ This is 132 times more than the average carbon footprint of an individual resident in the United States.² And Musk has no intention of rolling back his use of private aviation. He recently added a new aircraft to his private collection with a \$78 million purchase of a Gulfstream G700.³ This new jet is expected to take the place of model G50ER as his primary aircraft after it is delivered sometime this year.



**Recommendations found at end of report*

high-profile private jet owners in real time. Musk initially offered Sweeney a small sum of money to delete the account, but the offer was rejected.⁴ After assuming ownership of the social media platform, Musk proceeded to use his newfound power to ban a number of user accounts, including @ElonJet and @JxckSweeney, after alleging that a stalker used the published data to find his exact location and threaten the safety of his family.⁵ Musk now allows for private jet tracking on the condition that the information is published a day after it is recorded. Meanwhile, Sweeney has launched his own website to compete with ADS-B Exchange's database after it was acquired by aviation research firm JetNet in January.⁶

Musk's private jet activity garnered further international attention in December 2022 when Twitter, under the direction of CEO Musk, suspended a number of accounts belonging to user Jack Sweeney. Sweeney is a student programmer at the University of Central Florida who created several automated Twitter accounts that used publicly available information to track the flight paths of

WHO ARE THE HIGH FLYERS?

Individual ownership of private aircraft provides society with a glimpse at who sits at the top of the global wealth distribution. After all, private jets are expensive toys with high operation and maintenance costs that are simply unaffordable for the median US household. To give just one example, the asking price for a new, light jet such as the Cessna CJ4 is \$4.8 million, and that is on the low-end of the spectrum.⁷ Due to the expensive price tags of private jets, those in the market for such aircraft are naturally a small minority of individuals — those who succeeded at concentrating wealth at an extreme level.

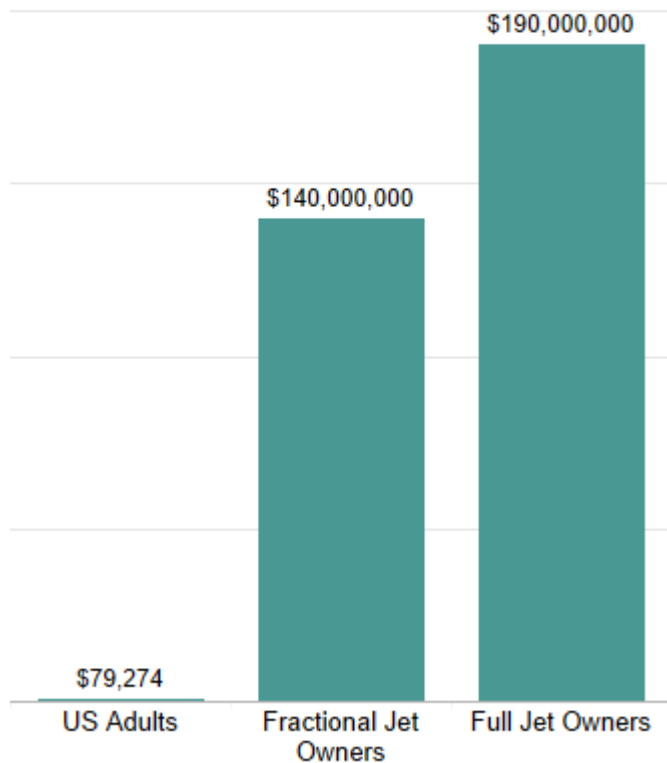
The profile of your typical private jet owner is a male over the age of 50, though a wave of first-time buyers under the age of 45 have ventured into the industry over the past couple of years. Jet owners' wealth comes from diverse sources, though owner occupations are largely concentrated in the banking, finance, and real estate industries.⁸ These business tycoons reside primarily in North America (Canada, Mexico and the US account for about 70 percent of the private jet market) with Europe a distant second.

When purchasing private aircraft, the ultrawealthy can opt for either full or fractional ownership. Fractional ownership is an option that individuals and business entities explore if they wish to save money and not extravagantly spend (tens of) millions of dollars on a new or preowned private jet. Instead of establishing full ownership of an aircraft, fractional owners sign a contract through which they purchase only a share of a plane, and are not responsible for upkeep and other logistical requirements and associated costs.

The difference in wealth between these two types of owners, however, is not very significant. The median net worth of a full private jet owner is \$190 million while the median net worth of a fractional private jet owner is \$140 million.⁹ There were only 63,610 people in the world with a net worth of \$100 million or more.¹⁰ This means that the median jet owner represents roughly 0.0008 percent of the globe's population.¹¹

Median Wealth of Jet Owners

Median wealth of fractional and full jet owners
vs. that of all US adults



Source: Credit Suisse and Wealth-X

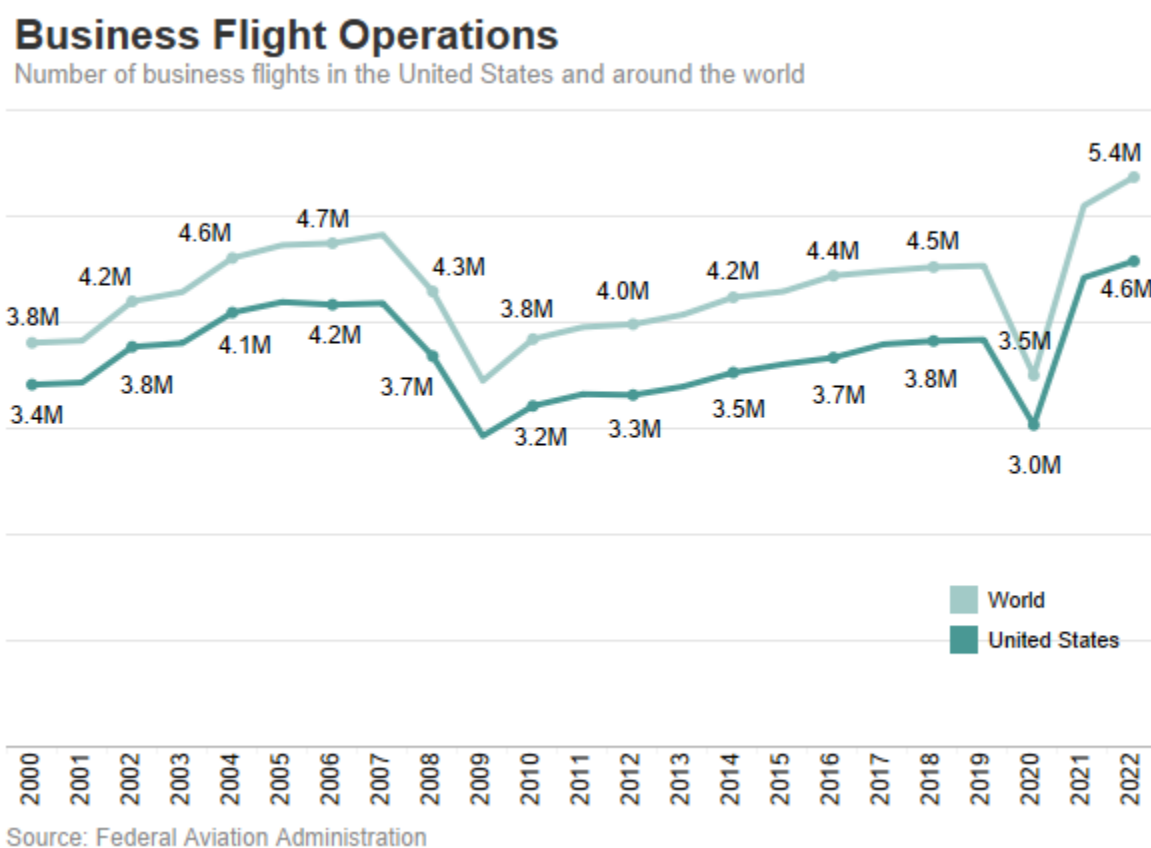
But an ultrahigh net worth individual does not need to own a jet, whether full or fractional, in order to join the exclusive club of high flyers. An additional option are membership programs known as Jet Cards where an individual or business forgoes any long-term financial commitment or obligation by prepaying for the number of hours they wish to privately fly. On-demand chartering requires even less of a commitment by giving high flyers the option to book individual private flights. Regardless of the ownership structure or the programs utilized, one thing is absolutely clear: the world's high flyers consist of a small group of ultrahigh net worth individuals.

ANALYSIS: US Business Aviation Traffic and Market

The Covid-19 pandemic and the lockdown orders that followed caused a dramatic collapse in the demand for global aviation. The result was a gargantuan economic loss of \$168 billion for the airline industry in 2020.¹² The economic pain, however, was not equally distributed across the aviation sector. Demand for private flights quickly rebounded and there are now more business jet operations today compared to any other period before 2020. The pre-pandemic apex — in the twenty-first century at least — was 2007 with a total of 4.8 million private flights. Domestic

operations inside the US made up 87 percent of this total. But the 2007 peak has been eclipsed by more than half a million in 2022, bringing last year's total to 5.3 million.¹³

Business aviation's current recovery is interesting since a similar collapse in flight operations occurred shortly after the Great Recession when flight activity dropped to 3.4 million in 2009. While the trajectory has gradually trended upwards ever since, it never reached its pre- Recession levels until 2021! This demonstrates that additional factors like the fear of contracting the coronavirus, the desire to steer clear from the hustle and bustle of airports, and flight flexibility were driving demand.



This has manifested itself in three ways. First, private aviation is capturing a bigger share of air traffic in the United States. The Federal Aviation Administration (FAA) handled 16,405,000 flights in FY2019.¹⁴ Private jet flights accounted for 15.8 percent of these operations—approximately one in six US flights.¹⁵ The three most popular airports in the United States for

domestic private jet operations are Teterboro Airport in New Jersey, Palm Beach International Airport in Florida, and Dallas Love Field in Texas. With a decrease in flight operations by commercial airliners to smaller regional airports, private aviation has also filled a crucial gap by providing services at those locations these past three years.¹⁶ Second, the entry of newcomers put a lot of pressure on the private aviation market who found it difficult to meet the remarkable growth in demand. Staff and fuel shortages and an unprecedented number of flight delays led to increased costs to the chagrin of the high flyers.¹⁷ One of the main benefits of flying private is its predictability yet that guarantee was vetoed in 2021. The market, however, is beginning to stabilize after a hectic two years.¹⁸

And third, we witnessed a period of robust growth for business aviation. Transaction volume is up and the size of the private jet fleet is slowly expanding. Just like every industry in the economy, business aviation was impacted by the pandemic. Supply chain disruptions impeded the production of new jets, but preowned transactions set new industry records in 2021. The numbers differ slightly depending on the source, but the total transaction value of the more than 2,400 preowned jets sold was between \$14.5 billion to \$16.7 billion.¹⁹ Even though the total number of transactions of preowned and new aircraft was down in 2022, the total dollar volume — \$34.1 billion — actually exceeded the previous year, rising by 5.5 percent because of increasing aircraft prices.²⁰

The tendency for the jet-owning oligarchy to purchase preowned aircraft these past three years is driven by the lack of new inventory, interest rate hikes by the Federal Reserve, and as a preemptive strategy to avoid paying new taxes.²¹ Canada passed a 10 percent luxury tax on new aircraft manufactured after 2018. Preowned aircraft are subject to the tax, but exceptions exist if they meet certain criteria.²² This strategy from the ultrawealthy highlights the need to not exempt preowned aircraft from any new duties, especially since older models are even less fuel-efficient than the newer ones.

The bonanza of 2021 was exceptional. The market in 2022 was equally impressive. And there is a consensus that the principles of supply-and-demand in the industry are sound. The forecast indicates steady growth for the next half-decade. Manufacturers saw an increase in order placements and are expected to ramp up production to churn out new aircraft. This will add to the

ever expanding global fleet, which has grown substantially in the twenty-first century. One estimate counted 9,895 private jets in the year 2000.²³ The total fleet as of last June was 23,133.²⁴ This is a 133 percent increase in 22 years with an average addition of 602 new aircraft per year.

A larger carbon footprint is the logical consequence of a growing fleet of private jets, but it is also an opportunity for lawmakers across the globe to raise significant revenue through the imposition of a tax regime that resembles Canada’s luxury tax. We recommend a 10 percent tax on all preowned transactions and a 5 percent tax on all new aircraft sales. The table below demonstrates that a total of \$8.9 billion dollars in estimated tax revenue would have been collected if this tax regime were in place in 2019.²⁵ The year 2022 alone would have yielded \$2.6 billion in tax revenue.

Global Business Jet Sales, 2019-2023

All sales and revenue amounts are shown in the millions of dollars

Year	Pre-owned jet sales	Revenue that would have been generated by a 10% tax on pre-owned jet sales	New jet sales	Revenue that would have been generated by a 5% tax on new jet sales	Total jet sales	Total revenue generated by jet sales taxes
2019	\$11,400	\$1,140	\$16,900	\$845	\$28,300	\$1,985
2020	\$11,800	\$1,180	\$14,200	\$710	\$26,000	\$1,890
2021	\$16,700	\$1,670	\$15,600	\$780	\$32,300	\$2,450
2022	\$19,100	\$1,910	\$15,000	\$750	\$34,100	\$2,660
2023 (Forecasted)	\$15,700	\$1,570	\$18,900	\$945	\$34,600	\$2,515

Source: IPS analysis of data from Global Jet Capital

THE ENVIRONMENTAL EQUATION

Emissions

Global aviation is currently responsible for approximately 3.5 percent of human-driven climate change.²⁶ This measure includes carbon emissions, nitrogen emissions, exhaust plume clouds, soot, and other factors, but by far the most dangerous and most prevalent greenhouse gas is carbon dioxide. In contrast to other pollutants, carbon emissions remain in the atmosphere for hundreds of years. Aviation's carbon emissions alone account for 2.4 percent of global carbon outputs, as of 2018.²⁷

While just a small portion of these carbon emissions are due to private jet use — an estimated 4 percent, according to a 2020 study using pre-pandemic data — there is a stark imbalance between a jet carrying at most a handful of people, or carrying no one in some cases, versus a commercial aircraft loaded with hundreds of passengers.²⁸ As a result, multimillionaires and billionaires are responsible for a highly disproportionate amount of carbon emissions from air travel. A recent report by Europe-based advocacy group Transport & Environment found that, on average per passenger, private jets contribute to carbon pollution at a rate 10 times that of commercial airliners.²⁹ As private aviation increases in popularity, the emissions gap between an extremely wealthy jetsetter and the average traveler is only widening.



As mentioned above, use of commercial aviation decreased during the Covid-19 pandemic and the number of private flights soared. It is much easier to keep one's social distance and avoid contracting the virus on a plane if one is the only passenger. The ultrawealthy could avail themselves of the option to travel private and keep themselves protected from disease. The number of private flights taken in the US grew by approximately 20 percent after the start of the pandemic and,

according to a recent study, this growth in private aviation resulted in a 23 percent increase in carbon emissions.³⁰

Sustainable Aviation Fuels

The private jet industry is very much aware of the campaigns waged by climate activists who call public attention to the frequent use of private aviation and its negative impact on the environment. The industry has attempted to deflect climate criticism by claiming they are suited to lead decarbonization efforts as they are in the process of developing sustainable technology. Many in the business aviation industry believe that the solution lies with the production and adoption of sustainable aviation fuels (SAFs), an umbrella term for any aviation fuel that meets certain sustainability criteria and thus may contribute fewer emission outputs than fossil fuels. According to a report by the International Council on Clean Transportation (ICCT), SAFs will play a major role in the decarbonization of aviation over the next few decades. The ICCT predicts that SAFs will be responsible for the majority of mitigated aviation emissions (somewhere between 59 and 64 percent), as compared to the mitigation effects of demand change, operational and technical efficiencies, or zero-emission planes.³¹

SAFs do not require much change to the industry beyond that of switching fuels, so one can imagine how their development and production will be fundamental to business aviation's climate plans. However, SAFs are much more expensive than conventional aviation fuels — costing as much as three to five times more — and as a result, they are rarely used.³² For instance, approximately 33 million gallons of SAFs were purchased in 2021 for a total cost of \$250 million; this translates to about 0.1 percent of total aviation fuel purchases.³³ Still, any use of SAFs can be used to bolster private aviation's environmental reputation. “Biofuel turns private aviation from a public relations nightmare to an environmental calling card,” reads the website metadata of alternative fuel company Gevo, describing the purpose of a webpage devoted to highlighting private aviation's use of SAFs.³⁴

SAFs are indeed considered to be important in a green energy future. US policies to incentivize the use of SAFs are currently focused on ramping up SAF development and production. In 2021, the Biden administration announced the Sustainable Aviation Fuel Grand Challenge, a federal,

cross-agency effort to bring SAFs to scale. The challenge has annual production goals of 3 billion gallons of SAFs by 2030 and 35 billion gallons (100 percent of US aviation fuel demand) by 2050, significantly more than the current production of 4.5 million gallons per year.³⁵

SAFs indeed produce fewer emissions when burned than traditional fuel. The Biden administration determined that for a jet fuel to qualify as an SAF, it has to achieve “a minimum of 50% reduction in life cycle [greenhouse gas] emissions compared to conventional fuel.”³⁶ All else being equal, the adoption of such a fuel would represent a substantial drop in emissions, but additional variables will determine how the use of SAFs will actually affect total emissions. For example, successfully ramping up the production of SAFs will increase the supply of all jet fuel and push fuel prices down, but it will also likely stimulate an increase in air travel due to these lower costs. On the other hand, if SAFs could possibly *fully* replace traditional jet fuel, fuel prices may not fall and air travel could decline.

In addition, some alternative fuels could potentially lead to even more harmful public health effects. ProPublica recently published a report on how the Environmental Protection Agency recently approved a Chevron plan to make jet fuel derived from plastic waste. However, the production of at least one of Chevron’s planned fuels would emit toxins that could lead to one out of four people in the refinery area getting cancer over their lifetimes (a risk 250,000 times greater than what the EPA usually approves).³⁷ Plastics themselves are created from fossil fuels and release toxins into the atmosphere when burned.

It is clear that while SAFs have a role to play in the transition to clean energy, they are by no means a panacea, particularly for the private jet industry. In order to achieve a net-zero emissions future for aviation, SAFs and energy-efficient aircraft are necessary, but there will also need to be a reduction in the demand for air travel.

Other Travel Options

No one needs a private jet to travel from point A to point B. Other transport options contribute fewer carbon emissions and are thus better for the environment. Importantly, private jet flights are often *short*. And some private jet flights are *extremely* short; in 2022, socialite and cosmetic

entrepreneur Kylie Jenner went viral for a 17-minute flight.³⁸ Many celebrities are known for taking short trips that could have easily been taken via a carbon-neutral mode of transportation.³⁹ And while the extremely rich may deride the possibility of traveling with the public, bus, rail, or even commercial air travel is almost always more energy efficient than flying privately. In the table below, we present alternatives to private air travel for a popular route, that of New York to Washington, D.C. These estimates suggest that a passenger on a private jet is responsible for approximately 45 times as many emissions as a passenger on a commercial plane flying the same route, and more than 1,100 times the emissions of a train passenger.⁴⁰

Private Aviation and Its Alternatives

Route: New York City (JFK) to Washington, DC (DCA), 210 Miles

Travel Mode	Travel Time	Estimated CO ₂ Emissions/Pax
Private aircraft	1.5 hours	7,913 lbs
Commercial aircraft	1.5 hours + 2 hours security	174 lbs
Train	3.5 hours	7 lbs
Bus	4 hours	88 lbs

Source: emissions calculators provided by Paramount Business Jets, Carbon Footprint, and the International Civil Aviation Organization

HOW DO THE HIGH FLYERS USE THE AIR SPACE?

While private jet owners contribute significantly to the output of carbon emissions, they do so per the use of public air space — and its associated network of public airports and air traffic control — while offering little in compensation to the public. The navigable airspace above us is part of the public domain; it is much like a public highway except that, unless you have the funds, you have to pay a lot of money to be jammed between strangers as you travel.⁴¹

General aviation, including private jets, make use of the country's vast network of airports. There are approximately 500 commercial airports across the US that offer scheduled passenger service. But there are more than 5,000 public airports nationwide. The vast majority of public airports — nearly 3,000 — are general aviation airports.⁴² These airports do not service commercial flights or have scheduled passenger service. Some are used primarily for military or agricultural flights, or they host flight schools. Others are simply convenient stops along the arteries that the rich travel.

Because these are public-use airports, they receive a significant amount of investment from the taxpayer. The FAA grants general aviation airports public funds through the Airport Improvement Program each year. This program is funded through the FAA's Airport and Airways Trust Fund (AATF). This trust fund makes up the bulk of FAA funding, and the bulk of *it* is funded by commercial passenger taxes and fuel taxes. General aviation flights do not pay commercial passenger taxes. Instead, those taking such flights are obligated to pay duties on fuel. Jet fuel taxes made up \$186 million of the more than \$8 billion in tax revenue that was allocated to the AATF in FY2021, or about 2 percent of the fund's total tax revenue.⁴³ Meanwhile, more than half of the AATF's tax revenue — \$5.32 billion — came from passenger taxes.⁴⁴

Anyone who takes a commercial flight has to pay passenger taxes. These taxes equal 7.5 percent of the ticket fare, in addition to a fee of no more than \$4.50. As commercial flight prices increase, taxes on passengers (and the tax revenue collected) also increases. However, fuel prices — and thus the fuel taxes levied on the jet-owning oligarchy — have remained relatively constant.⁴⁵ This means that not only do commercial passengers contribute much more than private jetsetters to the

FAA trust fund, but also that commercial passenger taxes have been increasing over time, while private jet passenger contributions remain comparatively static.

The small group of ultrahigh net worth individuals who fly private also benefit from the country's air traffic control system. Air traffic controllers provide an essential service by managing the flow of air traffic and ensuring there are no airborne collisions. However, approximately one out of six flights that the FAA's air traffic control handles is a general aviation turbojet flight (i.e., a private jet flight), even while these flights pay roughly 2 percent of the tax revenue that makes up the Airport and Airway Trust Fund. In effect, commercial passengers subsidize the carbon and convenience of the High Flyers.



At the time of writing, there have been five instances in the first three months of 2023 when unauthorized private jet operations have jeopardized the safety of our skies. The most recent example occurred at Boston Logan Airport where a Learjet — despite being told by air traffic control to stand by and not depart — decided to take off just as a JetBlue airplane was attempting to land. The unsanctioned decision taken by the private aircraft almost resulted in a collision, but disaster was avoided thanks to action taken by commercial airline pilots.⁴⁶ Meanwhile, House Republicans are currently threatening the safety of our airspace by pledging to decrease FAA funding in their upcoming budget proposal. This has the potential to result in layoffs of air traffic controller workers, leading to less secure skies and longer wait times for commercial passengers at large and busy airports.⁴⁷

General Aviation Airports

There are thousands of public-use, general aviation airports across the country, and it is likely that you may live near one. It is less likely that you have actually used it.

Often located in mid-size or rural areas, these airports are meant to connect less-populated areas of the country to air transportation routes. They are also regularly seen as sites of economic development for the communities in which they are located, especially in more rural areas where industrial and other jobs have vanished and economic distress has taken its place. However, the extremely wealthy use these general aviation airport locations to their advantage.

The Nemaquin Resort located in rural Farmington, Pennsylvania is a prime example. Rooms usually cost at least \$500 a night, but during peak dates and times, they can usher in prices as high as \$1,000 per night. The resort is a playground for the rich and guests enjoy great amenities. There are two championship golf courses, a casino, a handful of fine dining restaurants, and two spas. Nemaquin guests flying commercial have to fly into Pittsburgh International Airport in order to get to Farmington, but this airport is about an hour and half's drive away! But if you have access to a private jet, no problem. Guests can avoid this inconvenience and utilize Nemaquin's private airstrip. The airstrip is not very big, however, so visitors to Nemaquin can also opt to use the Connellsville Airport, just 18 miles from the resort. Though the Nemaquin website advertises Connellsville as a "private airport," it is not.⁴⁸ It is a general aviation airport funded by public dollars yet it offers no scheduled passenger service. The airport also receives private donations. A notable contribution was made by the late Joe Hardy, who donated \$800,000 in 2007 to improve the airport's runways. In fact, the Connellsville Airport's official name is Joseph A. Hardy Connellsville Airport.

Who is Hardy? Before his death in January 2023, Hardy was a billionaire — worth \$1.1 billion according to Wealth-X — who owned 84 Lumber, the hardware store chain, as well as Farmington's Nemaquin Resort.

Other public-use airports favored by the rich include one of the busiest general aviation airports, Van Nuys Airport in Los Angeles; Reno-Stead Airport, which offers access to wealth management heavyweight Nevada; as well as Bandon State Airport near the upscale Bandon Dunes Golf Resort on the southern coast of Oregon.

The private jet industry regularly harps on the point that general aviation is integral to the economies of small communities, just as the extremely wealthy point to family farms to argue against the estate tax. Small communities are more sympathetic than billionaires; family farmers are more sympathetic than billionaires. But in the same way family farms are not likely subject to the current federal estate tax, small communities are not the biggest beneficiaries of private jet travel, which is just one component of general aviation. After all, the vast majority of general aviation aircraft in the US are light, single engine planes; in 2021, single engine aircraft flew more than 2.5 times as many hours in total as private jets did (at a fraction of aviation fuel consumed).⁴⁹ Those who most benefit from private jet travel are obviously the multimillionaires and billionaires who utilize it and, of course, the industry itself.

THE SECURITY RISKS OF PRIVATE JET TRAVEL

Commercial aviation passengers are subject to extraordinary security measures when they travel commercial. While the public must go through metal detectors and radiation screenings, those who fly private face very little scrutiny. Passengers on private aircraft can drive up directly to their business jet and carry their weapons and other items forbidden by the Transportation Security Administration (TSA). Their names are checked against a flight register, but the process is much weaker than what commercial passengers regularly experience.

Why does this matter? For one, members of our security services like the former Secretary of Homeland Security Michael Chertoff believe that future threats to our national security will not occur via commercial aviation, but through the use of privately owned jets and planes. And secondly, a security regime with such minimal surveillance may overlook serious safety and security issues, especially when we take into consideration the growth of business jet operations and the wave of newcomers who entered the private aviation market as passengers for the first time within the past three years. European Union officials have expressed concern over the “light touch” security approach with regards to private aviation.⁵⁰

Nevertheless, the private jet lobby has successfully fended off TSA oversight to protect their voluntary security regimes and block increased security provisions that ensure minimum oversight of private jet owners and passengers. Whenever the TSA or other regulatory bodies suggest increased security measures on business aviation, the private jet lobby mobilizes their powerful and politically influential network to make certain that they are free from such provisions.

The private jet lobby has also worked to protect the secrecy of private jet owners and operators; private aviation has not imposed transparency provisions that discourage the purchase of business jets by shell companies and trusts. As a result, the beneficial owner of such aircraft is not known and anonymous ownership has the potential to constitute a security risk.

Anonymous Ownership

While the extremely wealthy can easily retain anonymity by flying privately via fractional ownership, outright ownership of a private jet is more difficult — yet very possible — to obfuscate. Keeping ownership hidden from the public and sometimes even law enforcement is simple: all that is required is an owner trust where a third party will hold the legal title of the aircraft for the benefit of the true owner. Any plane operating in the US, including those owned by non-citizens, can be registered with the FAA as long as the registered owner is a US person or a US legal entity. Therefore, the registered owner can easily act as a veil to ensure ownership secrecy, whether the owner listed on the FAA registration form is a trust company or a shell company.

Indeed, a 2018 investigation by *The Boston Globe* found that approximately one in six private aircraft registered with the FAA is registered through a trust, a Delaware corporation, or a P.O. box, tactics frequently used to conceal the identity of an aircraft's owner.⁵¹ We cannot know how many planes are registered to noncitizens using trusts as the FAA does not monitor this information.

Though the FAA oversees the registration of approximately 300,000 general aviation aircraft, the FAA does not investigate the accuracy of the information provided on plane registration forms due to limitations in the agency's resources.⁵² A 2020 US Government Accountability Office (GAO) report found that the FAA's failure to verify key information such as owner name and address increases the risk of aircraft-related fraud and abuse.⁵³

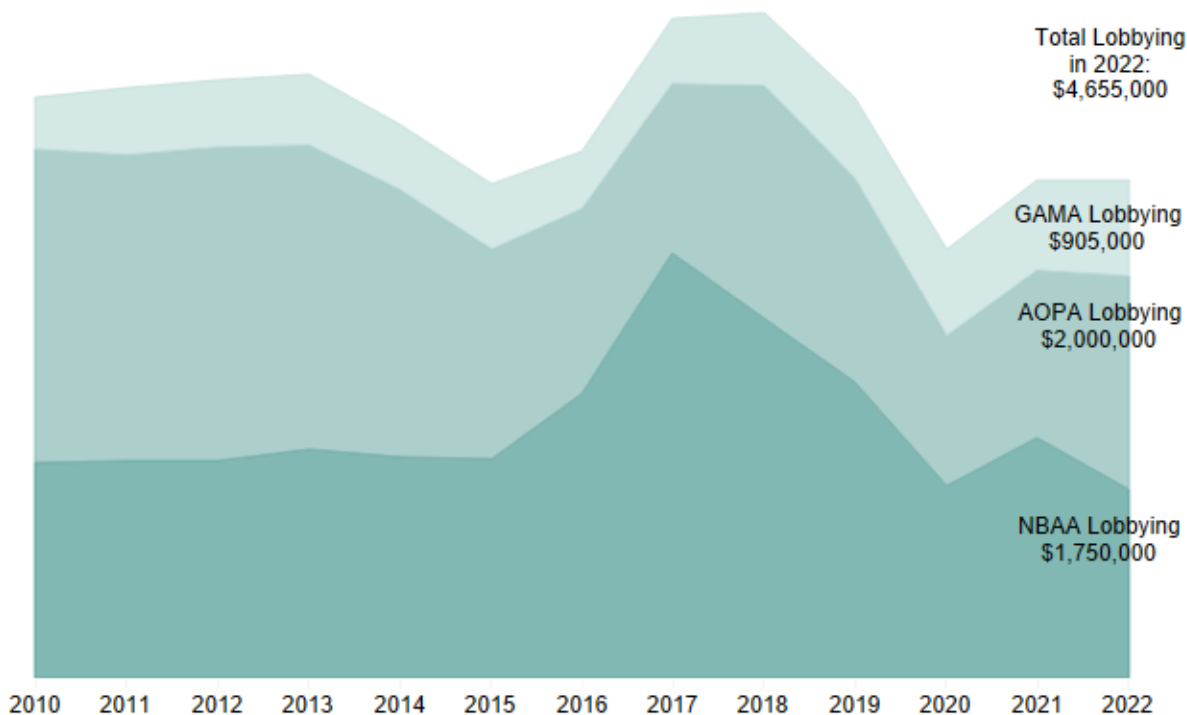
Because of lax requirements, aircraft can be used to transport illegal goods such as narcotics (US-registered planes have been tied to illegal drug cartels for decades) or, as planes are expensive assets, used to launder illicit funds through sales transactions. For example, the GAO report includes a case study of a US corporation with a Venezuelan beneficial owner that purchased an aircraft with laundered money. The aircraft was then registered with the FAA through another corporation in the interests of the Venezuelan beneficial owner. Eventually, the aircraft was seized by law enforcement because it was purchased using illicit funds. In addition, law enforcement cite the lack of accessible information in the FAA registry as an impediment to their investigations.⁵⁴

In 2017 and 2019, members of Congress from both parties introduced the Aircraft Ownership Transparency Act. This law would require greater disclosure of beneficial ownership of private aircraft, arguing that secrecy of private jet ownership puts the US at risk. However, within each session, the bill died in committee.

THE LOBBYISTS BEHIND (AND IN) PRIVATE JETS

The private jet lobby — a network of several associations that represent the interests of private jet owners, manufacturers, and pilots — has aggressively worked to defend taxpayer subsidies and fend off any regulation of private jets.

Lobbying Expenditures for Private Jets, 2010-2022



Source: OpenSecrets

The three biggest trade associations representing private jets spent nearly \$68 million combined on lobbying to protect their interests over the last 12 years. The big three include the Aircraft Owners and Pilots Association (AOPA) that represents pilots and private jet owners; the National Business Aviation Association (NBAA) that represents corporations with private jets; and the General Aviation Manufacturers Association (GAMA) that represents private jet manufacturers. Other major associations that also contribute to private aviation lobbying efforts include the

Alliance for Aviation Across America, a general aviation advocacy coalition, and the National Air Transportation Association, a group of general aviation businesses.

In 2017, the Trump administration passed the unpopular Tax Cuts and Job Act of 2017.⁵⁵ The business aviation industry lobbied in favor of the legislation and the NBAA set an institutional record by spending nearly \$4 million in lobbying funds that year.⁵⁶

One of the tax subsidies the private jet lobby won was a bonus depreciation provision for qualified assets that enabled private jet owners who use their jets for business to immediately realize the benefits of depreciation — that is, they could write off 100 percent of the cost of a used or new jet in the year of purchase, instead of depreciating the aircraft over the (also exaggerated) IRS standard of five years.⁵⁷ (In 2013, President Barack Obama attempted to extend private jet depreciation to seven years to match that of commercial airliners, but faced vigorous opposition from the private jet lobby.⁵⁸) While the bonus depreciation provision begins to phase out as of 2023, it is still rather generous until 2027, when traditional depreciation rules will once again apply.⁵⁹

In 2008, the private jet lobby worked to quash the findings of our first report on private jets, which it called “think tank propaganda” that was “a rehash of the big airlines’ discredited attacks on general aviation aircraft that are a lifeline to small towns and communities.”⁶⁰ The lobby aimed to control the narrative around private jets by decentering the multimillionaires and billionaires that purchase, use, and benefit from private jets, instead pointing to the small communities that may be served economically from all general aviation airport activities.

HOW PRIVATE JETS WIDEN INEQUALITY

A key word when discussing the private jet industry is “private.” While business aviation technically falls under the regulatory purview of the FAA, regulatory requirements are much milder than that of commercial airlines. The effects boil over into both issues for workers in the industry as well as limited tax oversight of private jets and private jet companies. And though the industry serves the richest Americans, during the pandemic the private jet industry was keen to take advantage of federal relief funds intended for struggling small businesses.

One way the world’s wealthiest benefited from the Covid-19 pandemic — while the gaps of inequality widened — was through private jets, and not merely through their use. According to the government watchdog group Accountable.US, private jet companies received more than \$643 million from emergency aid programs as of January 2021. This pandemic-era economic relief included: \$528 million from the Payroll Support Program, designed to support the payrolls of aviation workers; \$7.9 million in Economic Injury Disaster Loans, meant to help small businesses recover from the pandemic; and at least \$107 million in Paycheck Protection Program (PPP) funds to help keep workers employed. The watchdog group reported that at least 49 private jet companies received funds from all three federal programs.⁶¹ While keeping workers employed is a priority, it is important to remember that this is an industry dominated by the ultra wealthy customers and that many of these loans were later forgiven. Furthermore, private jet companies did not necessarily use the money to the direct benefit of their workers. Clay Lacy Aviation (CLA), a private jet company in Los Angeles that was founded at the Van Nuys Airport, shared its PPP funds with its clients, that is, with the individuals and entities who own private jets. According to NBC News, the company sent a letter to its clients stating that “CLA is prospectively offering aircraft owners a credit for a portion of full-time payroll and employee benefit costs paid through CLA to their respective flight, cabin and maintenance crew members during the covered period.”⁶² The distribution of PPP funds to wealthy private jet owners was not the intention of the program.

The Industry’s Workers

Unlike commercial airline workers, who are often unionized, private jet workers rarely belong to unions, save for the manufacturing workers who build such jets or the ground crews who work on them at airports.⁶³ Flight attendants and pilots with commercial airlines (with the notable exception

of Delta) are almost always covered by a collective bargaining agreement, and their labor issues are governed by the Railway Labor Act of 1926, which pertains to workers in both the rail and airline industries.

As private pilots and flight attendants are siloed between dozens of different private jet companies, the ability to organize is more difficult. Indeed, in 2015, pilots at Flexjet voted to unionize and join the International Brotherhood of Teamsters. On more than one occasion, Flexjet was cited for violating federal labor law by not bargaining in good faith.⁶⁴ By May 2018, Flexjet succeeded in an anti-union campaign that encouraged pilots to decertify Teamsters Local 1108.⁶⁵ Pilots at the other behemoth company, NetJets, are unionized with their “independent labor advocate,” the NetJets Association of Shared Aircraft Pilots.

Heir Pollution: Dynastic Wealth and Private Jets

In 1957, the year that Fortune published its first list of the wealthiest people in the US, it placed Paul Mellon — son of banking magnate Andrew Mellon — high at the top, as one of the eight richest Americans. The magazine estimated that Mellon had a total net worth between \$400 and \$700 million dollars (between roughly \$4.26 billion and \$7.45 billion in 2023 dollars). That same year, Mellon completed the construction of a private airstrip at his home in Northern Virginia for his and his wife’s private jet (the airstrip was also likely to have later been planned for use by the federal government to spirit away national leadership to a nearby bunker in event of catastrophe).⁶⁶

Today, more than one out of four extremely wealthy private jet owners around the world — 26 percent as of 2021 — inherited their wealth entirely or in part.⁶⁷ As a result of this “heir pollution,” private jets abound among the dynastically wealthy. It is not surprising that the Mellon family and other family dynasties still rely on private jets for their travel. Paul Mellon’s son, the far-right campaign backer Timothy Mellon, is known to fly a Cessna Citation.

RECOMMENDATIONS

Private jets' privileged perks should not be allowed to fly. The United States under the Biden administration has committed to tackle the climate crisis with the goal of net-zero emissions by 2050.⁶⁸ Considering the disproportionate emissions that private jets produce, it would be folly to ignore private aviation as a significant driver of the climate crisis. The US needs to pass policies that disincentivize the use of private jets.

This issue also concerns inequality. It is important that Congress level the playing field between the wealthy who use private jets and the passengers who must use commercial aviation, requiring that private jet owners pay their fair share for airspace and airport services. Lawmakers should consider a number of reforms to fix this broken system.

1. Implement a Transfer Tax on All Private Jets



We recommend a 10 percent sales tax on all preowned private aircraft and a 5 percent tax on new aircraft transactions. According to Global Jet Capital, the total dollar volume of preowned and new private jets in 2022 was \$19.1 billion and \$15 billion, respectively. This is a total of \$34.1 billion. Our recommended transfer tax proposal would yield approximately \$2.6 billion in revenue for 2022. Elon Musk's tax obligation would be \$3.9 million if this fee was applied to his new \$78 million jet purchase.

2. Levy a Private Jet Fuel Tax

The European Union is seeking to meet more than half of its climate goals within the next seven years by finally levying a tax on jet fuels on all intra-EU air travel. The "Fit for 55 Plan" will nearly double the cost of jet fuel and it is currently being discussed by EU member states.⁶⁹ The United States already levies a federal excise tax on general aviation fuels, but an additional duty on private jet fuel consumption can raise funds that can go towards a sustainability fund, reduce

unnecessary flights, or encourage the high flyers to consider alternative forms of transportation. Doubling the federal jet fuel tax from \$0.219 per gallon to \$0.438 per gallon for the high flyers would be a good place to start. It is a tax that only applies to those who sit at the very top of the wealth distribution.⁷⁰ Musk's private aircraft consumed 837,934 liters of jet fuel, that is, approximately 221,358 gallons. Our recommended rate would raise about \$96,954.80 from his private jet activity last year.

3. Institute a “Short Hop” Surcharge

The purpose of a short hop tax is to disincentivize private jet owners from taking ridiculously short flights, especially when other transportation options are available. Belgium has begun to lead the way by instituting a €10 duty per passenger on all flights shorter than 310 miles.⁷¹ We recommend instituting a “short hop” surcharge on any private jet operation where the distance between the two destinations is less than 210 miles. This is approximately the distance between New York City's JFK airport to Washington D.C.'s DCA airport. Any private flight shorter than 210 miles will be subject to a duty and a higher tax rate should be applied to all private flights where the destination is shorter than 100 miles away. Our definition of a “short hop” flight is consistent with the standard established by Belgium where their tax regime will apply to very short-haul flights.

4. Resist Efforts to Increase Passenger Facility Charges until Private Jet Owners Pay Their Fair Share

If additional funds are required to upgrade our nation's airports, additional revenue should come first from the private jet industry, not from increasing costs on ticket prices for ordinary commercial jet flying consumers.

5. Create a Sustainable Transportation Equity Trust Fund

The creation of a fund that captures the revenue raised from increased taxes and fees on private jet travel is absolutely necessary. The fund can then direct resources towards sustainable transportation equity projects that would increase light rail, city-to-city rail, cycle tracks and bike lanes, and other non-emission burning transportation infrastructure.

6. Increase TSA Security Oversight of Private Jets

Eliminate the “self-regulating” features of private jet security with greater TSA oversight of private jet security.

7. Pass the Aircraft Ownership Transparency Act

The public and law enforcement have a legitimate interest in knowing who are the beneficial owners of private jets. The FAA should have a more complete picture of who owns private aircraft prior to approving a certificate of registration in the United States. As public scrutiny increases and tax legislation on private aircraft begins to be considered in Congress, the jet-owning oligarchy will seek to obscure and complicate their structures of ownership. The elimination of ownership by anonymous trusts and other entities needs to be a top priority.

METHODOLOGY

All wealth calculations and data are from Wealth-X. The median wealth of jet owners and the number of individuals who have net worths of at least \$100 million are based off of 2021 data. According to Altrata's report published in November 2022, *World Ultra Wealth Report 2022*, there are now more than 83,000 people with \$100 million or more in wealth. However, Altrata updated its wealth model in 2022 and calculations for the median net worth of jet owners used the previous model. The Institute for Policy Studies used Altrata's 2021 wealth data for consistency.

The literature differentiates between “private” and “business” jets since the former is used for leisure and the latter is utilized for conducting business. However, some sources admit that they employ the term “business” as all-encompassing because it avoids the negative connotations associated with “private.” As such, the terms “private” and “business” in reference to jets are used interchangeably in this report. Jets, aircraft, and aviation are also used interchangeably. The Federal Aviation Administration's definition of “business aviation” is quite broad and includes helicopters and turboprop planes and any non-military general aviation flight. This helps explain the discrepancy of flight statistics between the FAA and private research firms. In the interest of consistency, we used FAA data to calculate the growing share of air traffic by business aviation.

The sales data provided by Global Jet Capital for 2022 is preliminary. More transactions will be reported throughout the year and it will yield a higher total dollar amount than what is publicized in their quarterly market brief.

Emission data in the table *Private Aviation and Its Alternatives* are estimates based on various emissions calculators. Each of these calculators uses different methodologies and thus table data should be considered estimates only.

Private jet emissions were calculated via Paramount Business Jets's carbon offset calculator. The jet used in the estimate was the Cessna Citation Excel, the most popular jet to own, according to the FAA.

Train and bus emissions were calculated using Carbon Footprint's public transportation calculator.

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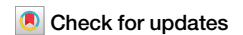
Communications Earth & Environment

Private aviation is making a growing contribution to climate change

Thanks,
David

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Private aviation is making a growing contribution to climate change



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Commercial aviation's contribution to climate change is growing, but the global role of private aviation is not well quantified. Here we calculate the sector's CO₂ emissions, using flight tracker data from the ADS-B Exchange platform for the period 2019 to 2023. Flight times for 25,993 private aircraft and 18,655,789 individual flights in 2019–2023 are linked to 72 aircraft models and their average fuel consumption. We find that private aviation contributed at least 15.6 Mt CO₂ in direct emissions in 2023, or about 3.6 t CO₂ per flight. Almost half of all flights (47.4%) are shorter than 500 km. Private aviation is concentrated in the USA, where 68.7% of the aircraft are registered. Flight pattern analysis confirms extensive travel for leisure purposes, and for cultural and political events. Emissions increased by 46% between 2019–2023, with industry expectations of continued strong growth. Regulation is needed to address the sector's growing climate impact.

Global commercial aviation is estimated to have emitted 892–936 Mt carbon dioxide (CO₂) in 2019^{1–3} and is responsible for about 4% of global net anthropogenic effective radiative forcing^{4,5}. Industry estimates suggest continued strong growth over the next two decades^{6,7}. As demand growth has outpaced efficiency gains in the past, emissions from the sector will continue to rise unless sustainable aviation fuels can be made available at scale^{8–10}. Technical and cost challenges are transition barriers to net-zero aviation^{8,11–13}.

Air transport is an energy-intensive activity, in which only a small share of the world population is involved¹⁴. Within the population of commercial air travelers, the percentile of the most frequent fliers accounts for approximately half of all emissions. Premium class flights are known to be five to nine times more carbon intense than those in economy class¹⁵. To be effective, policies designed to reduce the environmental impacts of aviation need to consider such complexities of growth, geographical distribution, and energy intensity.

Private aviation (PA) is the most energy-intensive form of air transport, but its global scale, distribution, and energy intensity remain insufficiently understood. Sun et al.¹⁶ evaluated “250 private jets” for the period 2019–2022, concluding that emissions amounted to between 0.45 and 0.5 Mt CO₂. Sobieralski and Mumbower¹⁷ assessed US private aviation during the COVID-19 pandemic (January 2019 to October 2021), finding that private air travel accounted for 6.3% of the ‘total commercial plus private aviation emissions’ in the USA in 2019, and 7.9% in 2021.

PA has received attention because of its interlinkages with climate change and emission distributions¹⁸. Users of PA have been described by industry as the “ultra-high net worth”, including about 256,000 individuals, or 0.003% of the global adult population, owning an average of US\$123

million and a combined wealth of US\$31 trillion¹⁹. Private aircraft can be owned, or accessed through demand chartering, membership programs, or fractional ownership. The sector has relevance for climate politics, as international aviation is not covered by efficient climate policies²⁰. While the scale and distribution of PA remain insufficiently understood, industry expectations point to continued growth^{21,22}.

Global climate change mitigation efforts are hampered by growth in individual economic sectors, and the energy intensity of consumption patterns of affluent population groups²³. Wealth determines per capita emissions^{23,24}, with evidence that differences in individual emissions between low and high emitters within a country are high, and up to several orders of magnitude between individuals^{18,25}. Analyses show that global emissions continue to grow^{26–28}, and that this growth is driven by the wealthiest^{23,29}.

There are two important implications: emission reductions are particularly difficult to achieve under scenarios of continued growth in economic output or wealth³⁰; and policies focused on CO₂ will disproportionately affect less affluent population groups^{31,32}. Given difficulties in reducing emissions in line with the Paris Agreement that are evident in most countries³³, a central question is how further growth in emissions can be limited. Private air transport illustrates the policy conundrum of addressing the role of the affluent, as policymakers are reluctant to focus on the wealthy and powerful³⁴. Against this background, the paper investigates the energy intensity of private aviation, its global scale and distribution, the role of events in attracting private aviation, patterns of individual aircraft use, as well as travel motives and growth trends.

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Results

Energy intensity and distribution

Private aviation is energy-intensive. Our analysis identified 72 PA models marketed as business jets, with fuel consumption values ranging between 48 to 576 gph (equivalent to 182–2180 L per hour). For some aircraft models, this implies more CO₂ per hour than emitted by an average human per year (4.5 t CO₂e in 2020³⁵) (Fig. 1). Private aircraft spend 45.4% of the total flight time at >30,000 and 21.4% at >40,000 feet, suggesting that a share of emissions enters sensitive layers of the atmosphere with relevance for non-CO₂ radiative forcing^{5,36}.

The total number of private aircraft in service at the end of December 2023 was 25,993. A total of 4,301,561 individual flights (legs) were made in 2023, with a total flight time—not including taxiing—of 6,474,710 hours, or 249 h per aircraft. Weighted for aircraft models, this generated 15.62 Mt CO₂ (3.6 t CO₂ per flight) in direct emissions. The average great circle distance flown was 865.7 km, with an average speed of 575 km/h, and an average flight time of 90 min. Almost half of all flights (47.4%) cover distances below 500 km, and 4.7% of flights are shorter than 50 km (Table 1). Less than one-third of flights (29.1%) are longer than 1000 km.

The spatial distribution of private aviation is shown in Fig. 2. Most of the air traffic is taking place within the USA, followed by Europe. Central American capitals (Mexico City, Guatemala City, San José, and Panama City), as well as the Caribbean (Turks and Caicos, Anguilla, Barbados, Cancun) are highly frequented, as is the Middle East. Private air transport is less common in China and Southeast Asia, Oceania, Central and South America, except Brazil and individual capital cities (Caracas, Bogota, Montevideo, Buenos Aires). There appears to be limited private air transport in all of Africa, with the exception of South Africa and Nigeria. Some islands attract much air transport, including the Hawaiian Islands, Caribbean, Canary Islands, Cape Verde, as well as some remote destinations, including Maldives, Seychelles, Mauritius, or French Polynesia. There are also notable concentrations of air transport in specific areas: for example, the Miami area alone accounts for 6% of all PA departures.

PA use is concentrated, with six countries accounting for more than 80% of aircraft. The USA are home to about 4% of the world population, but 68.7% of all PA are registered in the country (Table 2). Brazil has the second highest number (3.5%, 927 private aircraft), followed by Canada (2.9%, 770), Germany (2.4%, 630), Mexico (2.0%, 534), and the UK (2.0%, 522). Per capita, Malta has by far the highest density of PA (46.5 per 100,000

residents), followed by the USA (5.5), Switzerland (3.8), and Austria (2.9) (Supplementary Material, Table 2).

Air transport patterns

Further insights can be derived from the analysis of spatial patterns, such as the importance of global events. Figure 3 depicts various global events and conferences taking place in 2023, including the World Economic Forum in Davos, Switzerland (16–20 January), the Super Bowl in Arizona, USA (12 February), the Conference of Parties (COP28) in Dubai (30 November–12 December), and the Cannes Film Festival in France (16–27 May). The maps illustrate that events attract considerable air transport activity, including international (WEF, COP28), national (Super Bowl), and regional (Cannes) air traffic.

One of the most relevant global events is the FIFA World Cup (Fig. 4). In 2022, the event took place in Qatar, attracting visitors from all over the world. This may have included affluent spectators, but also functionaries, or football stars owning PA³⁷.

Events can attract hundreds of individual flights, and generate considerable emissions, ranging from 1.5 kt CO₂ (Super Bowl) to 14.7 kt CO₂ (FIFA Qatar) (Fig. 5, Table 4). Total emissions from events are higher, as affluent attendees may also use helicopters, or arrive by yacht (Cannes).

The analysis of the spatial movement patterns of individual air travelers reveals considerable differences in flight numbers, emissions, min-max, and average distances (Figs. 6 and 7). These require further investigation, as very short flights (13–72 km) suggest that aircraft are moved for parking and used for pickup/delivery (for both business and leisure; Supplementary Material, Fig. 2). An indeterminable share of flights is made empty. For example, in on-demand chartering, the nearest available jet will be sent to pick up a client¹⁹.

Travel motives

The use of PA for leisure purposes is investigated for Ibiza, Spain, and Nice, France (Fig. 8), showing a clear seasonal trend of visitation peaking in summer. Arrivals are also concentrated on weekends (arrivals on Fridays, departures on Sundays), suggesting that travel motives are leisure-dominated. In Ibiza, visitation is highest in the summer (June to August).

Data also reveal that private aircraft serve the same events. The events studied (Figs. 3–5) have political, economic, cultural, and sports foci, yet are frequented by the same aircraft (Fig. 9). For example, 172 of the 595 aircraft

Fig. 1 | Private aircraft emission intensity*.

*Highlighted models are the most popular in the global fleet of PA; see also “Methods” and Table 1.

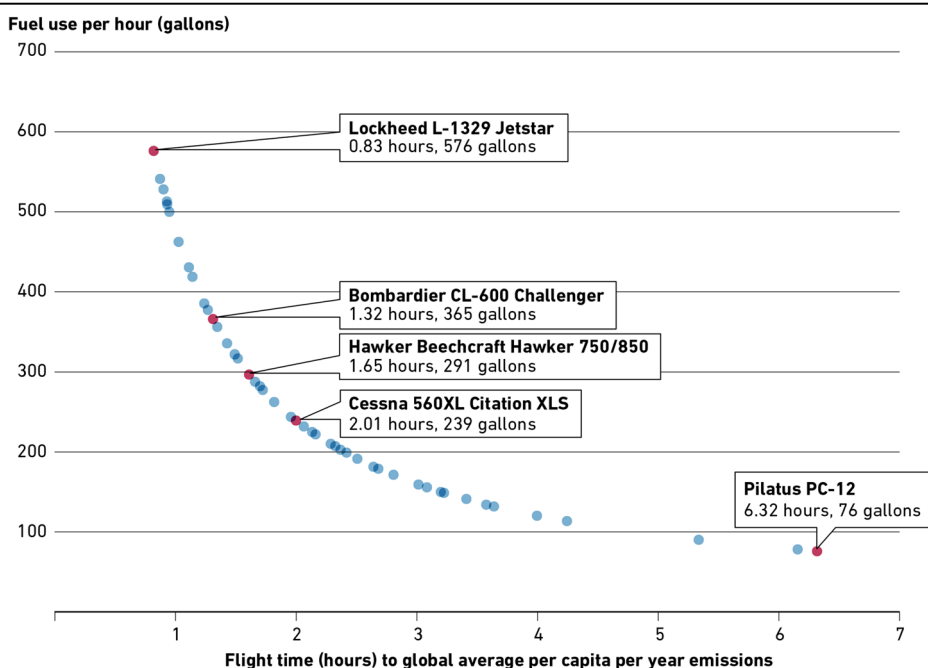


Table 1 | Trip length* distribution

Trip length (km)	# of flights	% of total	Cumulative %
<50	204,300	4.7	4.7
50–100	190,925	4.4	9.2
101–200	415,867	9.7	18.9
201–500	1,226,123	28.5	47.4
501–1000	1,012,051	23.5	70.9
>1000	1,252,295	29.1	100.0

*Great circle distances. Real distances are on average 10.1% longer.

Table 2 | National private aircraft densities

Country	Number of aircraft	% of global total	Aircraft per 100,000 residents
United States	18,163	68.7%	5.45
Brazil	927	3.5%	0.43
Canada	770	2.9%	1.98
Germany	630	2.4%	0.75
Mexico	534	2.0%	0.42
United Kingdom	522	2.0%	0.78
Switzerland	330	1.2%	3.76
Australia	317	1.2%	1.22
Austria	266	1.0%	2.94
France	248	0.9%	0.36
Malta	247	0.9%	46.51
China	213	0.8%	0.02
Argentina	167	0.6%	0.36
Portugal	160	0.6%	1.54
South Africa	160	0.6%	0.27
India	147	0.6%	0.01
Russia	139	0.5%	0.10
Turkey	137	0.5%	0.16
Venezuela	129	0.5%	0.46
Netherlands	114	0.4%	0.64

tail numbers appearing at the World Economic Forum (WEF) in Davos also served the Cannes Film Festival, and 65 identical tail numbers were identified at both the WEF and COP28. Of the 404 aircraft at COP28, 96 also appeared at the FIFA World Cup. It is not possible to say whether this means that events are attended by the same individuals, as aircraft are often chartered, though it would be of interest to further investigate travel motivations across political, economic, and cultural dimensions.

Growth trends

Data for 2019–2023 confirms PA growth trends for jet numbers (6.45% per year), distances traveled (11.31% per year) and emissions (9.93% per year) (Fig. 10). In total numbers, PA numbers grew by 28.4%, distances flown by 53.5%, and emissions by 46.0%. Growth trends are distorted by the COVID-19 pandemic, as 2020 saw a reduction in flight distances and emissions, even though aircraft numbers increased consistently (from 25,993 aircraft in December 2023 to 26,454 in February 2024 alone; see Supplementary Material, Table 1), as did the average distances flown. Emissions per km stagnated. It is less clear why the total distance flown stagnated between 2022 and 2023. One explanation may be the growing use of Privacy ICAO Addresses (PIA): according to the FAA (personal information, 19 April 2024), 283 aircraft in US airspace temporarily used PIAs in 2023.

Conclusions

The study provides a first understanding of global private aviation's role in climate change. Total direct emissions of 15.6 Mt CO₂ in 2023 amount to 1.7% to 1.8% of commercial aviation's CO₂ emissions. As this research only assesses direct emissions from fuel use in flight, the full impact of private aviation on climate change would have to consider the time aircraft spend taxiing, or support services such as helicopters used to reach final destinations. Non-CO₂ effects from PA require further investigation^{5,38}.

In the future, PA will become more relevant, as efficiency gains for the period 2019–2023 at around 1.25% per year (fuel use per km) are likely lower than growth rates in this market: for the period 2019–2023, our data points to a 46% increase in emissions. Industry expectations are that another 8500 business jet deliveries will be made in the period 2024–2033²². PA will thus likely become increasingly important as a source of emissions in relative (share of global emissions) and absolute terms (sector's total emissions). As sustainable aviation fuel use remains limited, and a majority of private aircraft owners do not plan to use it in the near future²², it will be necessary to regulate the sector. There are similarities to commercial aviation, where demand and supply side management have become a focus of discussions³⁹, including reductions in air traffic¹³.

Findings also have relevance for distributional perspectives^{11,23–25}. There is a social cost of carbon (SCC)⁴⁰ that constitutes a subsidy to emitters under current policy regimes, which have only internalized a small share of the SCC³⁵. This should also be seen in light of energy use patterns. As the analysis of travel patterns shows, 18.9% of flights are short (<200 km), and many are empty, delivery, or pickup flights. Findings also confirm that PA are used routinely, and in many instances appear to replace cars for time gains or convenience, as evident from the 4.7% share of very short flights below 50 km. As seasonal and weekly arrival peaks in popular holiday destinations show, many flights are made for leisure purposes.

The analysis shows that individuals using PA emit disproportionately more than an average human. This illustrates the sector's relevance from distributional per capita viewpoints, and its relevance for climate policy. As many flights are made for leisure, findings thus also have relevance for tax authorities, as private aircraft expenses, including fuel, maintenance, and management costs, can be tax-deductible when the aircraft is used for business purposes (for the USA)⁴¹. To monitor PA is fundamental to understanding and managing the sector. This may become more difficult in the future, as the use of PIA is growing and will potentially lead to a declining quality of ADS-B data for emission assessments.

Methods

Inclusion of aircraft models

Private aircraft are defined as aircraft models primarily intended for transporting individuals. To identify the range of private aircraft models, marketing materials were manually analyzed. In total, 72 aircraft models were identified, based on the definition of being marketed as 'business jets' by manufacturers or brokers.

ADS-B data

For air traffic control and monitoring, aircrafts are required to switch on the Automatic Dependent Surveillance–Broadcast (ADS-B) transponder during flight^{42,43}. ADS-B enhances airspace safety by offering a precise tracking of aircraft in real time. There are only very few exceptions to this rule, such as military operations. The ADS-B data was retrieved from ADS-B Exchange (<https://www.adsbexchange.com>), a platform that offers comprehensive and unfiltered traffic data for every aircraft on a 60 s basis. For each aircraft, the dataset contains timestamp, latitude, longitude, barometric altitude, and an indicator of whether the aircraft is grounded. For this project, the entire database for private aircraft was retrieved for the period 2019 and 2023, totaling 1.8 TB of data related to a total of 18,655,789 legs (individual flights).

ADS-B Exchange is a flight-tracking website and supplier of ADS-B data. Earlier studies have pointed to FlightRadar24 as the provider of the most comprehensive data, in comparison to OAG (Official Airline Guide) and OpenSky², but ADS-B Exchange is the only supplier that does not filter

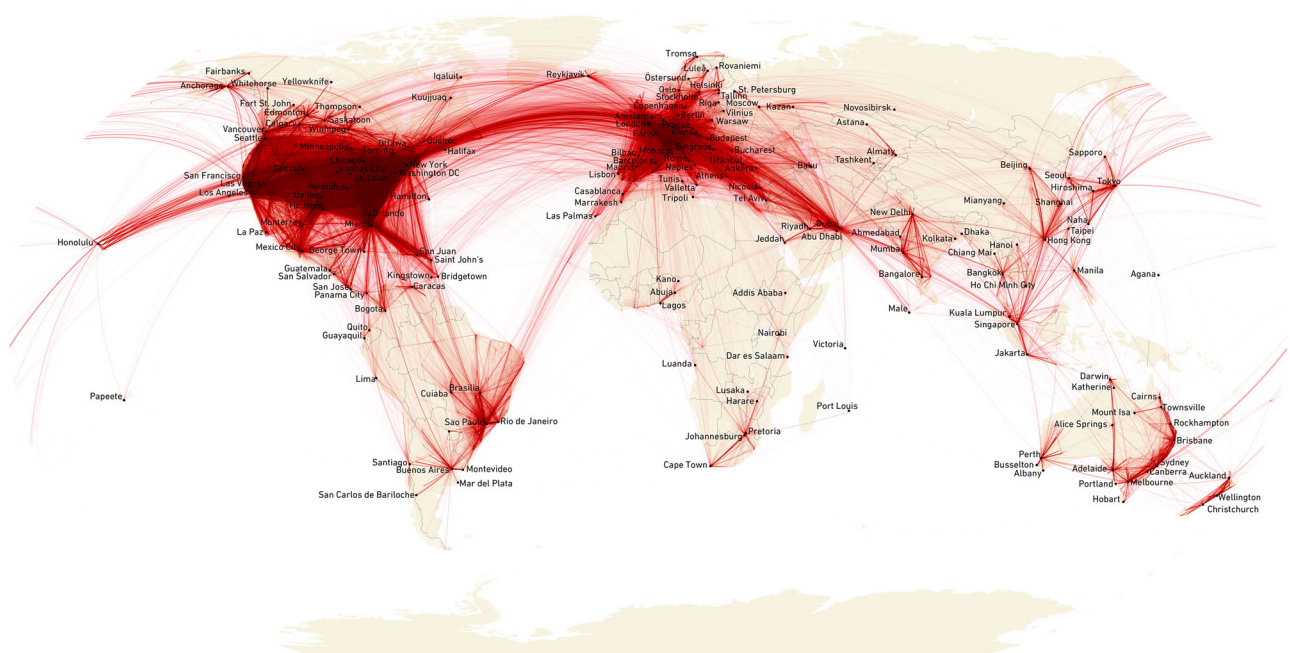


Fig. 2 | Geospatial pattern of private aviation, 2023*. *Lines depict direct connections between city pairs, considering 4.3 million flights.

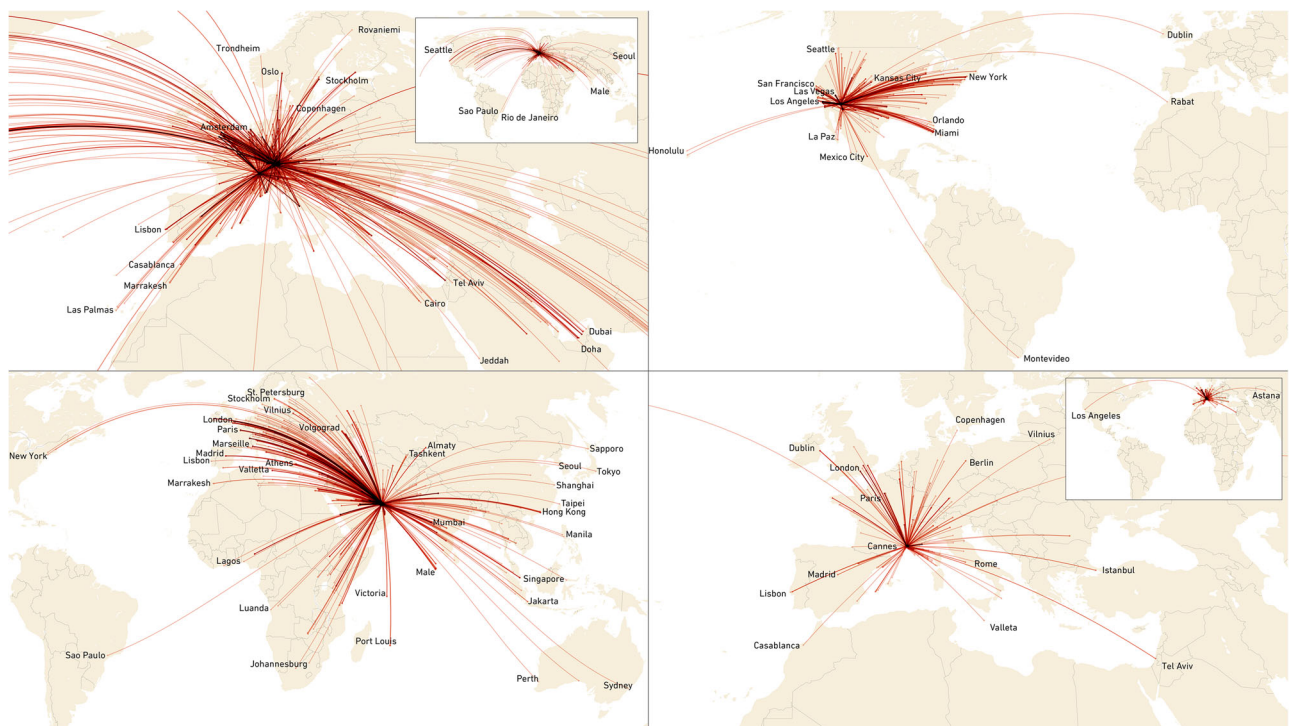


Fig. 3 | Global events attracting private air transport in 2023*. *From top left to bottom right: World Economic Forum, Super Bowl, Conference of Parties, Cannes; includes all air travel at dates of the event.

signals under the USA's Federal Aviation Administration's⁴⁴ Limiting Aircraft Data Displayed (LADD). To understand the scale of LADD, we examined a sample of 10% of all private flights in 2023, finding that 30% had requested LADD. ADS-B Exchange thus appears to be a more reliable provider for private aviation data than FlightRadar24. As data are continuously updated, marginal changes can occur.

There are limitations even to the use of ADS-B Exchange data. Flights are not tracked when they are using a third-party flight ID. Under

the Federal Aviation Administration's ADS-B Privacy program, aircraft registered in the US and flying in US-managed flight information regions can apply for Privacy ICAO Addresses (PIA). These are temporary ICAO aircraft addresses not assigned to the owner in the Civil Aircraft Registry (CAR)⁴⁵. Legs under these ICAO numbers are not considered in the analysis, because the ADS-B exchange database relies on the original ICAO aircraft address to link it to the model that we use to determine if it is a private aircraft. According to information provided by the FAA



Fig. 4 | FIFA World Cup*. *Includes all air travel at dates of the event.

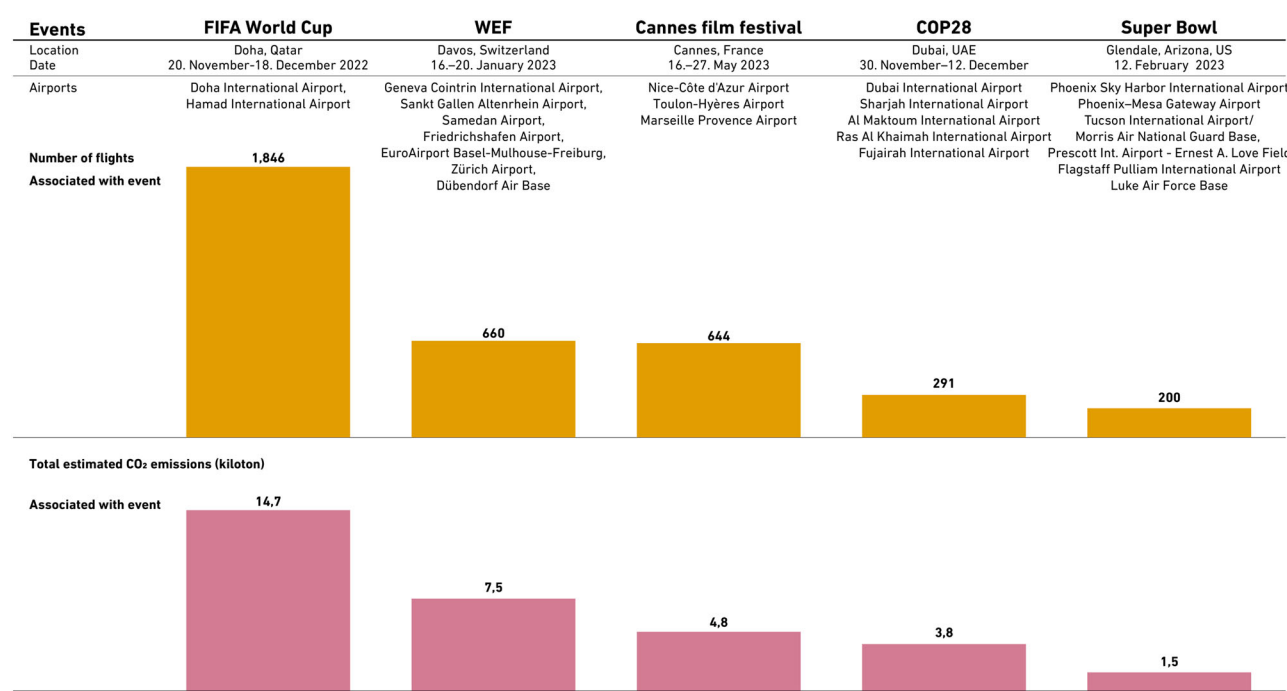


Fig. 5 | Carbon-intensity of events*. *Includes only flights associated with the event.

(personal communication, 19 April 2024), 283 PIA are currently issued, indicating that around 1% of aircraft may not be covered by ADS-B Exchange temporarily. It is possible that these are used primarily by owners of larger aircraft and lead to a larger underestimate in fuel consumption. We generally find earlier ADS-B Exchange data to be noisier, potentially because of changes to the open-source software distributed by volunteers of the ADS-B Exchange network. In more recent years, PIAs affect the data, as the FAA (Personal Communication, April 19, 2024) outlines that the number of PIA applications has risen considerably since 2020.

ADS-B Exchange data is used to calculate fuel use and emissions based on flight time, as well as great circle distances based on the identification of departure/arrival airports for each leg. To assess the difference between great circle and real distance, we calculate real distances based on georeferenced flight tracks (60 s intervals). Flown distances are on average 10.1% larger than great circle distances.

Aircraft fuel use

ADS-B Exchange provides data of all aircraft with a ICAO 24-bit code, the tail number and model. A manual inspection and comparison of *n* = 23

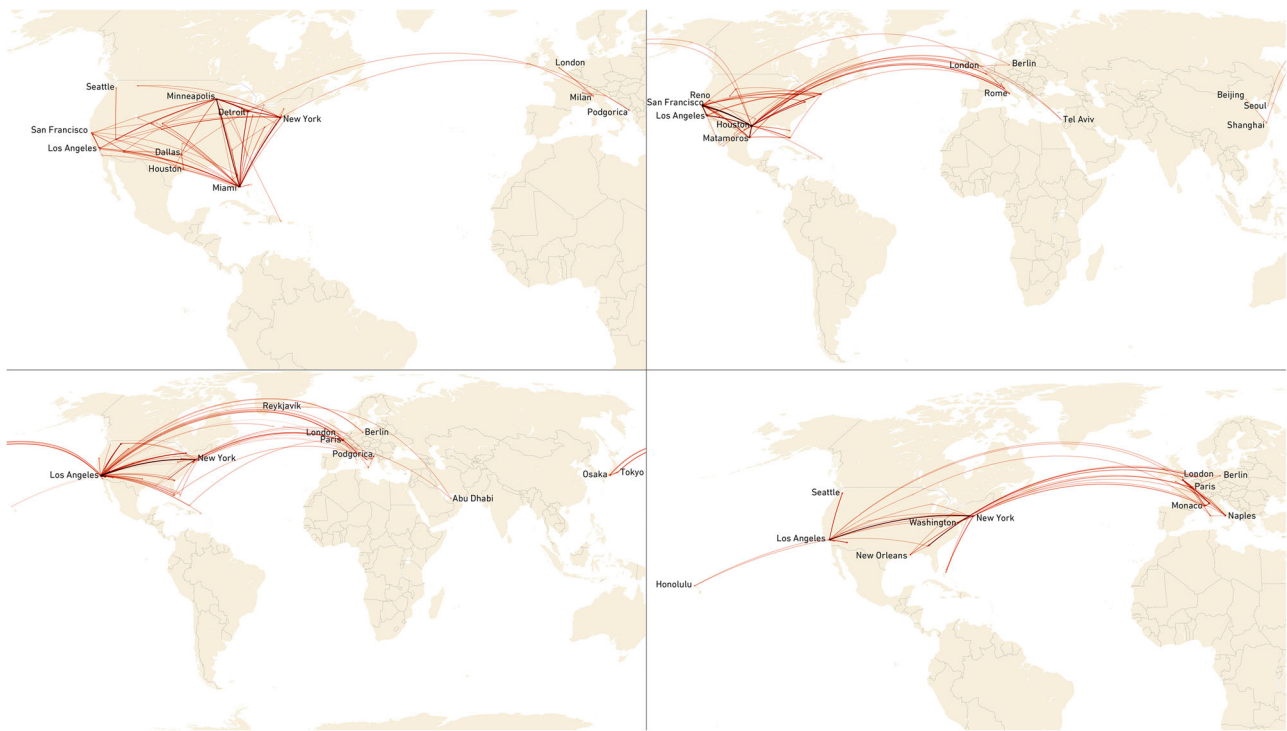


Fig. 6 | Individuals’ air travel, 2023*. *Global public figures, anonymized.

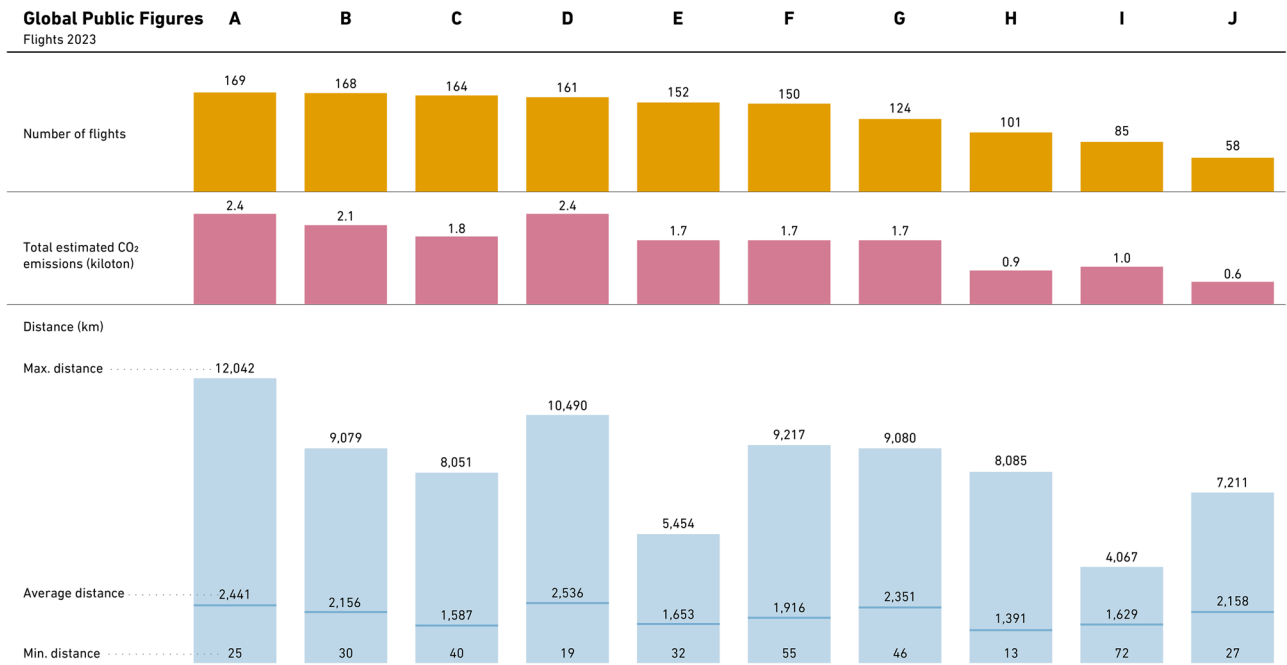


Fig. 7 | Global public figures and their private air travel, 2023*. *List based on Yard⁵⁰, includes reknowned actors, singers, and directors.

aircraft with FAA, FlightAware, and FlightRadar24 was performed to assess the quality of ADS-B Exchange, but no differences were found. The country of registration was obtained from the ICAO 24-bit code based on [ICAO working paper NACC/DCA/3 – WP/05]. This dataset is available at https://private-jets.fra1.digitaloceanspaces.com/private_jets/all.csv. Based on ADS-B Exchange data and unique hex codes, it was determined that there were 25,993 aircraft in December 2023. This compares to industry figures pointing to 23,369 business jets in 2023⁴⁶, 2.1% more than our number that includes 22,878 business jets, as well as 3115 turboprops. The difference can potentially be explained with the use of PIA or aircraft

that are offered for sale and not in use. Table 1 shows the number of private aircraft by model, including fuel consumption in gph, as provided by aircraft brokers for these models. The 10 most popular models represent about 40% of the total fleet. The most common is the Pilatus PC-12 with an 8% market share, followed by the Bombardier CL-600 Challenger and the Piper PA-46-500TP. For the analysis of private aircraft traffic between 2019 and 2023, all data was retrieved and stored to minimize operational impact to ADS-B exchange. The data includes the ICAO code, aircraft, timestamp, coordinates, altitude of the aircraft, and an indicator variable whether the plane is

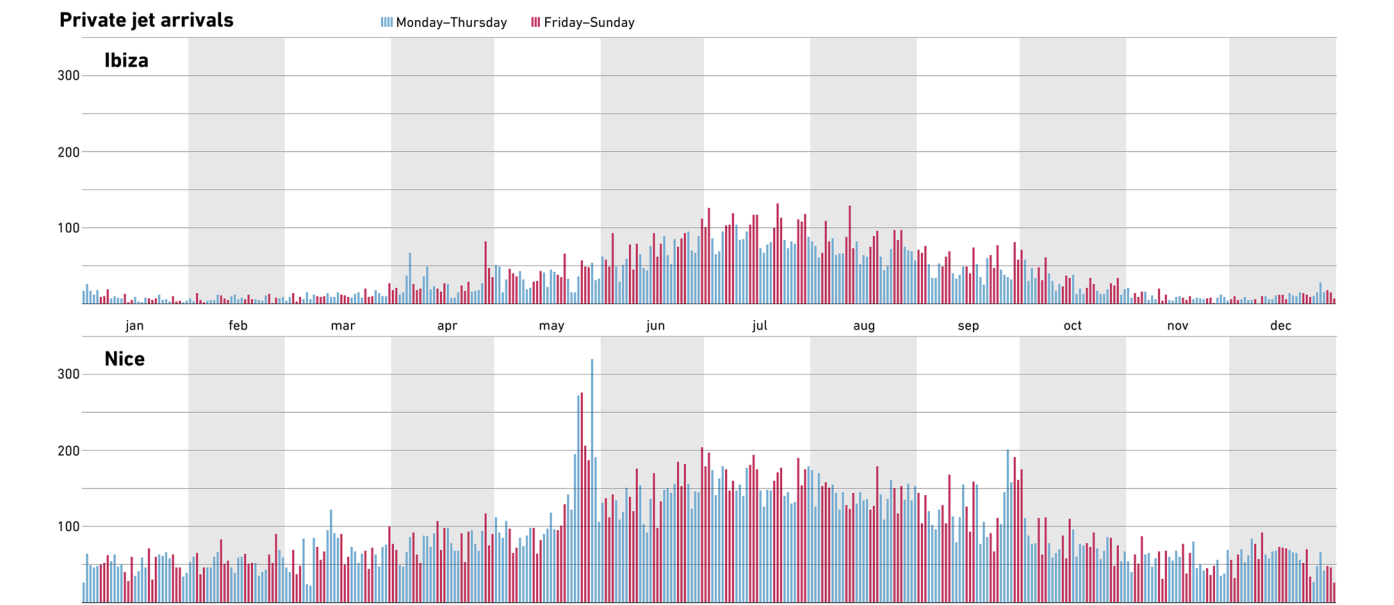


Fig. 8 | Seasonality of arrivals in Ibiza and Nice*. *Peaks in arrivals in Nice: 24 May, during the Cannes Film Festival.

Table 3 | Uncertainties

Issue	Potential error	Relevance for assessment
1. The actual number of aircraft is higher than the number tracked	Industry sources suggest 2.1% more aircraft, but this is potentially explained by PIA use and aircraft for sale/not in use.	Not considered in analysis, potentially leads to underestimate.
2. Aircraft using PIA	PIA are temporarily used by 1.0% of aircraft.	Not considered in analysis, potentially leads to underestimate.
3. LADD	ADS-B providers may not offer comprehensive tracking data.	Not an issue with ADS-B Exchange data.
4. ADS-B Signal losses	Signals may be lost and flights not tracked properly.	Addressed through methodology (Supplementary Fig. 1).
5. ADS-B Coverage	Flights within regions that do not track aircraft. The error is likely small, as the number of aircraft tracked is within 2% of industry aircraft number estimates (issue 1).	Not considered in the analysis.
6. Fuel use averages	Average fuel use values used do not consider thrust-specific flight stage energy use. Calculation of SD suggests error within 10%.	Not considered in the analysis.
7. Taxiing, lifecycle emissions	Consumption of fuel use for taxiing, lifecycle emissions (aircraft production, etc.) not considered.	Results of this study focus on direct emissions from flight.
8. Ambulance and government services	Operations not serving affluent individuals.	Not considered in the analysis, but leading to overestimate.
9. Use of biofuels	The share of fuels with lower lifecycle emissions used.	Not considered in analysis, but likely <1%.

grounded at around 60 s intervals. By tracking the position of each aircraft over time, flight legs, distances, and flight times can be calculated. To calculate fuel use, we use averaged fuel economy values provided for the 72 models, in gallons per hour (gph), as retrieved from marketing materials (see <https://private-jets.fra1.digitaloceanspaces.com/model/db/data.csv>).

Fuel consumption is calculated for aircraft in flight, i.e., this excludes time spent taxiing or other on-the-ground emissions, and results thus need to be considered lower boundary values for fuel use. Whether an aircraft is in flight is determined based on transponder data that signals a touch-down/takeoff. Emissions of CO₂ were computed based on leg duration for each flight:

$$\text{leg emission kg CO}_2 = \text{consumption gallon/h} * \text{liters per gallon/Lgallon} * \text{kg per liter of jet fuel kg/L} * \text{CO}_2\text{emissions per kgCO}_2\text{kg} * \text{leg time[h]}$$

Where:

Liters per gallon = 3.78541 [L/gallon], kg per liter of jet fuel = 0.8 [kg/L], CO₂ emissions per kg = 3.16 [kg CO₂/kg jet fuel], leg time [h] computed duration of flight, and average consumption [gallon/h] obtained from the manufacturer.

The focus is on CO₂, and does not consider non-CO₂ warming. To assess this contribution, we use ADS-B Exchange data^{47,48} for an analysis of the flight time spent at altitudes >30,000 and >40,000 feet, finding that 21.4% of flight hours are spent at >40,000 feet, and 45.4% at >30,000 feet. This is not proportional to emissions at these altitudes, as larger aircraft models are more likely to fly at these altitudes. The data are available at⁴⁹.

A limitation of our approach is that we use averaged LTO fuel economy values that are applied to flight times. Various earlier studies have sought to assess aviation fuel use through complex models^{1,2,16,17}. These consider the different flight cycle elements and assign specific fuel use values to each of these; some models also consider aircraft mass and payload, and weather conditions^{1,2}. While these models may be more accurate than the LTO fuel economy values used in this paper, discussions with pilots have pointed us to the fact that PA is characterized by specific flight styles that lead to considerable differences in fuel burn.

To assess the potential range of fuel consumption values, we consider the ranges specified by brokers for *n* = 18 aircraft. Average fuel consumption values are calculated for standard operating profiles, i.e., the Landing and Take-Off (LTO) cycle that considers taxiing, takeoff, climb, cruise, descent,

Table 4 | Calculation of flights related to events

Event	Airports	Flights during event	Flights before	Flights after	Associated with event	Emissions associated with event (kt)
FIFA World Cup 2022	Doha, Hamad	2090	290	199	1846	14.7
World Economic Forum 2023	Zurich, Geneva, Altenrhein, Dübendorf, Samedan, Friedrichshafen, Basel	1559	834	965	660	7.5
COP28, 2023	Dubai, Sharjah, Al Maktoum, Ras Al Khaimah, Fujairah	1012	738	704	291	3.8
Super Bowl, 2023	Phoenix Sky Harbor, Phoenix-Mesa, Tucson, Morris, Prescott, Flagstaff, Luke	505	321	289	200	1.5
Cannes Film Festival, 2023	Nice, Toulon, Marseille	2337	1341	2046	644	4.8

and landing. Brokers use these values so that customers—often charter companies—can compare the fuel efficiency of different aircraft models. As fuel is one of the major operational cost factors, reliable fuel economy values have relevance for purchase decisions. Ranges provide an indication of the relevance of other factors. Over the sample of the 18 aircraft models, we find a variation in fuel consumption values of 10.1%, calculated as the standard deviation from the average consumption values available at <https://private-jets.fra1.digitaloceanspaces.com/model/db/data.csv>.

Signals

ADS-B data relies on responder signals to determine flight altitude and location. Coverage is generally good. Signals may however be lost in specific situations, which could lead to an incorrect allocation of airports. Calculations thus follow a set of rules (for illustration, see Supplementary Material, Fig. 1):

1. When the signal is “on the ground”, the location is marked as the end of the leg.
2. When the signal is lost for more than 5 minutes at an altitude above 10,000 feet, the last known location is considered to be the end of the leg.
3. When the signal is lost for more than ten hours, the last known location is marked as the end of the leg.

Uncertainties

There are various uncertainties that affect the accuracy of the calculations. Some of these have been discussed in preceding sections, this section provides a summary (Table 3), showing that there is a risk of a small error.

Patterns

Distance and time-based flight patterns have been analyzed to determine their robustness, particularly concerning emissions. To quantify the uncertainty associated with our mean distance and emission estimates, we applied a bootstrapping methodology. We drew 10,000 bootstrap samples, each comprising 100,000 legs, from the original dataset of more than four million flights in 2023. For each bootstrap sample, the mean was calculated, and the distribution of all bootstrapped means was computed. From this distribution, we derived the empirical 95% confidence interval by taking the 2.5th and 97.5th percentiles. To report the accuracy of our estimates, we present the mean and the associated errors as indicated by the 95% confidence interval. Results show a 95% confidence interval (CI) for the average distance of 865.8 km (859.5–872.1 km), with an error of the mean that varies between a lower 6.3 km and an upper 6.4 km. For average emissions of 3632 kg, the CI is 3598–3666 kg, with a lower error of 33.88 kg and an upper error of 33.95 kg. This suggests robustness in determined flight patterns (distance) as well as emissions.

Geospatial patterns have been derived by focusing on events, individuals, and a family-owned company. For all events, the closest airports are included in the analysis, or those airports referred to by event organizers (Table 4). For example, the WEF in Davos includes Zurich, Geneva, Altenrhein, Dübendorf, Samedan, Friedrichshafen, and EuroAirport Basel. The exact dates of the event are used to determine private aviation arrivals. This can underestimate attendance, as participants may have arrived/departed on days preceding/following the event. Calculations are based on the following procedure:

1. Definition of all relevant airports for event
2. Definition of start and end date for event
3. Inclusion of all flights arriving at relevant airports in event period.

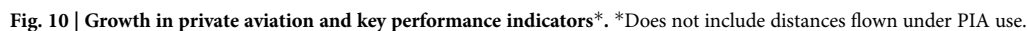
To derive the net emissions associated with an event, arrivals are compared with a corresponding period prior to and after the event. For short events, this includes flights a week before/after the event, for an identical number of days (a three-day event is compared with a three-day period). For longer events, the period for comparison is chosen with a greater distance to the event (two weeks). Results for the before/after periods are added and divided by two to derive an average. Estimates of the “net” number of flights arriving for the event are then derived by subtracting the

The bubble chart displays the number of mentions for five categories: WEF, COP28, Cannes, Super Bowl, and FIFA. The size of each bubble represents the number of mentions, and the color represents the category. The data is as follows:

Category	Mentions	Color
WEF	595	Red
COP28	404	Blue
Cannes	766	Orange
Super Bowl	378	Green
FIFA	409	Light Blue

The chart also shows the number of mentions for each category across the five categories, represented by smaller bubbles connected to the main category bubble:

Category	WEF	COP28	Cannes	Super Bowl	FIFA
WEF	595	65	65	5	65
COP28	65	404	61	2	96
Cannes	65	61	766	8	66
Super Bowl	5	2	8	378	66
FIFA	65	96	66	66	409



Company patterns are exemplified on the basis of a family-owned company in Denmark for which tail numbers for three aircraft are publicly known. As the company is family-owned, it is possible to explain flight patterns as partially related to publicly known second homes, and flights that appear to serve holiday destinations (for illustration see Supplementary Material, Fig. 2). Flight patterns are illustrated for a five-year period to show

overlap. It is unknown who used the aircraft, which may also have been made available to non-family members within or outside the company.

Development of maps

Maps visualize air transport based on the geographic coordinate system World Geodetic System 1984 that defines latitude, longitude, and altitude. Maps are generated based on ADS-B transponder data for departure and arrival points. The projection distorts distance by increasingly stretching distances between points as they move away from the equator towards the poles, leading to visual distance exaggeration of high-latitude regions.

Data availability

All data are available through the following link⁴⁹: (enter the year 2019, 2020, 2021, 2022 or 2023 in {year}): <https://private-jets.fra1.digitaloceanspaces.com/leg/v2/all/year=2023/data.csv>. There are no restrictions to data access.

Code availability

The code is available via Github, <https://github.com/jorgecardleita/private-jets>.

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Author contributions

S.G., A.H. and J.C.L. conceived and designed the study. A.H. and J.C.L. performed the analysis. S.G. wrote the paper.

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Competing interests

The authors declare no competing interests.

Additional information

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From: [Dave Barnes](#)
To: [Ruth Klein](#)
Cc: [Miki Barnes](#)
Subject: Documents for inclusion in the staff report, ProPublica article about Nike
Date: Friday, August 14, 2026 3:40:57 PM
Attachments: [ProPublica-Nikes-gold-standard.pdf](#)

Ruth,
Here is another article Miki would like to include in the staff report.
Thanks,
David

ProPublica

After Nike Leaders Promised Climate Action, Their Corporate Jets Kept Flying
— and Polluting

PROPUBLICA

Nike's Gold Standard

After Nike Leaders Promised Climate Action, Their Corporate Jets Kept Flying - and Polluting

Nike has staked a claim as a corporate leader on sustainability. Yet company disclosures show that its jets emitted almost 20% more carbon dioxide last year than in 2015. It's one small factor in Nike's failure to slash emissions as promised.

by Rob Davis, Agnel Philip and Alex Mierjeski, ProPublica, and Matthew Kish, The Oregonian/OregonLive

This story was originally published by [ProPublica](#).

Co-published with The Oregonian/OregonLive

August 13, 2024, 6:00 am

On dozens of occasions since 2020, a private Gulfstream jet belonging to Nike has touched down at Moffett Field, a federally owned airfield on the banks of San Francisco Bay.

The Silicon Valley site's most notable feature is a hulking building known as Hangar One, which in the 1930s housed a U.S. Navy airship and today is a conspicuous landmark along U.S. 101.

It also happens to sit about a 30-minute drive from one of Nike CEO John Donahoe's homes. He became the Oregon-based company's top executive in January 2020, bought a condo in Portland and registered as an Oregon voter. But he also maintained a home in the Bay Area community of Portola Valley. His previous job was leading a tech company in Santa Clara, and his wife worked at Stanford University until September.

Nike's jets landed at Moffett more than 100 times in the first three and a half years of Donahoe's tenure, flight-tracking records show. Landings at Moffett stopped in July 2023 but became more frequent at a nearby airport with a similar drive time to Portola Valley.

Donahoe and Nike executive chairperson Mark Parker have made clear that climate change is a crisis demanding urgent action. "It's about leading with actions, not words," Parker said in Nike's 2019 corporate responsibility report. "We are more committed than ever to help save the planet," Donahoe said in a 2022 company video.

Yet Nike has failed to shrink one aspect of its carbon footprint that the two men directly influence: travel on the private jets, which emit far more carbon per passenger than commercial airliners.

Nike's jet travel is up. Company disclosures show that its private planes last year emitted almost 20% more carbon dioxide than they did in 2015, which the company uses as a baseline for its climate goals.

The flights are one small reason Nike and its supply chain produced roughly as much carbon dioxide in 2023 as in 2015, despite the company's commitment to sharply reduce emissions.

The company owns two Gulfstream G650ERs. Flight-tracking records show that their destinations include New York City, where the company has a corporate office, and Paris during the Olympics and in April, when Nike unveiled its Olympic uniforms.

In July, a Nike jet flew down to San Jose, California, and back to its base in Hillsboro, Oregon; it then took off two days later for Idaho, where Donahoe and his wife were photographed at the Allen & Co. conference in Sun Valley, an annual gathering dubbed "summer camp for billionaires."

Vacation spots Nike jets have traveled to include Cape Cod, where Parker owns a home. Since 2020, the planes have landed there at least 15 times. They've touched down in the Cayman Islands at least six times since 2021.

But the Bay Area has been a magnet. It was an out-of-the-way pit stop for an Oregon-bound flight after Donahoe delivered the spring commencement keynote at West Virginia's Marshall University in 2023. It has been a weekend destination with Friday landings and Sunday returns to Oregon. (The jets averaged about 10 flights a year to Moffett Field in the two years before Donahoe's hiring, when he was a Nike board member and lived in California, versus an average of about 30 a year from 2020 through mid-2023, while he was Nike's CEO.)

More than 30 times, one of the company's private jets flew down to Moffett and back to Oregon in the same day, sometimes spending as little as [25 minutes](https://globe.adsbexchange.com/?icao=a3f6d3&showTrace=2021-05-23) on the ground.

If those flights ferried a single person in one direction, turning what would be one commercial flight into two by private jet, it would release 160 times as much carbon per passenger as if the person flew commercial, said Phillip Ansell, director of the Center for Sustainable Aviation at the University of Illinois Urbana-Champaign. He called this arrangement "completely inexcusable."

"In the current climate where aviation does not yet have a viable route to fully decarbonize, we need to see these types of flights come to a halt," Ansell said.

Nike did not make Donahoe and Parker available for interviews and declined to say why the jets frequented Moffett Field and, more recently, San Jose Mineta International Airport.

The company said in a statement that its jet passengers comprise a variety of people who are essential to its business objectives, including executives, employees, athletes, entertainers and others. The jets improve productivity and address security concerns for executives, Nike said, calling private flights a standard practice among large global companies.

As for curbing carbon pollution, the company said that "we focus on Nike's areas of greatest impact," noting that the bulk of its emissions come from the production of materials for its sneakers and apparel.

Celebrities including Taylor Swift, Drake and Kylie Jenner have drawn scrutiny for their profligate jet-setting in the face of the planet's record-breaking temperatures. And in the business world, CEOs are increasingly being allowed to use corporate jets for personal use, according to Equilar, a data firm that

studies executive compensation. In 2018, 36% of S&P 500 companies included the perk in CEO pay packages. By last year, that had grown to 45%.

But Nike, the world's largest athletic apparel company, stands apart: It has staked a claim as a corporate leader on the environment, joining thousands of companies pledging to voluntarily slash carbon emissions in line with the Paris Agreement on climate change.

Nike also stands out for disclosing more about its private jet travel than its peers. A review by ProPublica and The Oregonian/OregonLive of the disclosures of 30 companies, including 18 of Nike's self-identified peers, found no others that publicly report emissions from corporate jets. Roughly half report emissions from business travel, which can include jet use.

In addition to reporting rising emissions from its jets, Nike's disclosures show that it is behind on its ambitions for reducing its overall contribution to climate change. The company said in 2016 that it would halve its total emissions; instead they have grown slightly since 2015.

Meanwhile, since December, Nike has laid off 20% of its dedicated sustainability staff, The Oregonian/OregonLive and ProPublica have reported, and lost another 10% through internal transfers or voluntary departures.

Nike's growing private jet use sets the wrong tone from the top, said Charles Elson, founding director of the Weinberg Center for Corporate Governance at the University of Delaware.

"It's, 'Do what I say, not as I do,'" Elson said. "Flying private aircraft all over the place certainly isn't a bold action in support of climate responsibility. That's the problem. Your actions and your words seem to diverge in unflattering ways. It is not a good look."

Private jet use represents less than a tenth of a percent of all Nike's emissions. The overwhelming majority come from production and shipping by the company's overseas suppliers. But the jets generate 6% of the carbon coming from assets that Nike owns, a share that has grown as Nike has powered its buildings around the world with renewable energy.

Donahoe, whose \$29.2 million compensation last year made him one of America's highest-paid executives, has an arrangement with Nike that allows him to use the jets for more than business. He can fly in them for personal travel at his own expense. He has reimbursed Nike more than \$700,000 for such trips in the last two years, securities filings show.

In addition, the company has given the chief executive \$293,000 in free personal travel since 2020 as part of his compensation. Parker, the executive chairperson, has received \$494,000 in free personal use of the jets in that time.

The jets' flight paths can be found on the website of ADS-B Exchange, which crowdsources location readings from airplane transponders. The flight records don't show who is on board, but in some cases flights coincided with news coverage and social media posts indicating their purpose.

Nike's jets have landed at golf destinations around the country. They visited Augusta, Georgia, ahead of the Masters Tournament in 2022 and again in 2023. A Nike jet has joined the roughly 1,500 other private jets that crowd the small airport during the tournament, making it so busy that Golf Digest has described it as a "bonafide Heathrow."

In 2022, Donahoe golfed in a morning pro-am event before the Memorial Tournament at Muirfield Village Golf Club, outside Columbus, Ohio. Social media photos show Donahoe playing with Rory McIlroy, a golf star Nike sponsors.

One of Nike's corporate jets landed in Columbus the day before the golf event; it returned to Oregon after the pro-am ended, flight records show.

Traveling by private jet is far more polluting than flying commercial.

Ansell, the sustainable aviation expert, said a fully loaded Gulfstream G650ER flight releases about 4.5 times as much carbon dioxide per passenger as a Boeing 737, the workhorse commercial airplane. If the Gulfstream is carrying only a single passenger, it's about 80 times as polluting, he said, because the private aircraft's weight and fuel consumption stay roughly the same.

Nike's Gulfstream models can be configured to carry as many as 19 passengers. It's unknown how many people typically travel on them.

"It is patently irresponsible to be using luxury G650s for flights that carry only a few passengers," Ansell said.

The pollution from Nike's jets adds up. Last year, they generated roughly the same amount of carbon dioxide as a passenger car driving 10.9 million miles, company disclosures and an Environmental Protection Agency emissions calculator show. (Imagine driving a car around the equator 438 times.) It was roughly equal to the amount of carbon pollution that would be released by burning 4.7 million pounds of coal.

While Nike's corporate jets have been generating more carbon, the company last year recorded a 65% decline compared to 2015 in emissions from another source: commercial air travel by rank-and-file employees.

Four former employees said the company has restricted worker travel in recent years. They said their managers didn't cite the need to reduce emissions but instead the need to save money. Nike, in a statement, said its employees also had embraced remote meeting tools since the pandemic, allowing them to "operate effectively without extensive travel."

By contrast, the company's jets are used for transportation to "specific high-level meetings and events that require executive presence," Nike said, "and cannot be conducted remotely."

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Adams: Sky Harbour
Date: Thursday, August 13, 2026 02:19:39 PM

Council - FYI

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-----Original Message-----

From: Nicole Adams <nicole@adamsnw.com>
Sent: Thursday, August 13, 2026 12:32 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Adams: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Arp: Sky Harbour Hearing
Date: Tuesday, August 11, 2026 02:36:25 PM

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From: Marilyn Arp <marilynarp@gmail.com>
Sent: Tuesday, August 11, 2026 2:13 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Arp: Sky Harbour Hearing

You don't often get email from marilynarp@gmail.com <<mailto:marilynarp@gmail.com>> . Learn why this is important <<https://aka.ms/LearnAboutSenderIdentification>>

Hillsboro City Council Members:

To start with, thank you for your service and the opportunity to make our feelings known regarding the Sky Harbour proposal.

As residents of Hillsboro whose home is directly under the flight pattern of Hillsboro Airport we are appalled that there is no required notice or consideration of our health and safety in the review of the Sky Harbour application. Per the staff report, impacts on residents under the flight pattern is the purview of the FAA. However, as our elected representatives, we believe that it is your duty to consider how any proposal affects the health and safety of Hillsboro residents. We are concerned that if the proposal is approved that the increased number of flights and increased size of aircraft will add substantially to the current noise and air pollution.

We urge you to deny the Sky Harbour application.

Thank you,

James and Marilyn Arp

1069 SE 62nd Ave.

Hillsboro, OR 97129

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Baird: Hillsboro airport jet hub
Date: Wednesday, August 12, 2026 09:48:26 AM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Theresa Baird <tsbaird@comcast.net>
Sent: Tuesday, August 11, 2026 7:46 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Baird: Hillsboro airport jet hub

To the Hillsboro City Council,

I have already submitted one online comment to express my very strong opposition to the proposed idea of building new private use jet hangers at the Hillsboro airport.

Here's my question should you approve this application:

What restrictions do you plan to have in place to absolutely prevent a literal jet "Airbnb" situation, with individual hanger owners/renters sub-letting to multiple users, or renting out a jet to multiple users? One jet owner can operate one jet on a predictable basis, but jet and hanger sub-users can take off and land ALL the time!

No one on the planning commission or the staff obviously lives near the airport --and consequently they don't hear the very loud roar of these jets as they take off, or the vibrations as the jets pass low over neighborhoods in landing. Thousands of Hillsboro residents unfortunately do know that experience.

Let's hope there is a majority vote of reason and intelligence in your decision on the 18th. Slow down on all this reckless and unplanned industrial construction which hurts your constituents. That is not development.

Theresa Baird

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Baird: Supporting information for previously stated concerns about Sky Harbour
Date: Thursday, August 13, 2026 02:17:51 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Theresa Baird <tsbaird@comcast.net>

Sent: Thursday, August 13, 2026 2:17 PM

To: Council <Council@hillsboro-oregon.gov>

Subject: Baird: Supporting information for previously stated concerns about Sky Harbour

To our Hillsboro City Council:

I wish to add this additional comment and the linked article in support of my previous concerns about safety risks with Sky Harbour's business model and about increased take off & landing activity through multiple users under one Sky Harbour's client agreement.

Very Recent Jet Crash: Netjets is one of Sky Harbour's known hanger tenants, and would have access to Sky Harbour's proposed new hangers at Hillsboro airport -- if approved. On June 16th, 2026, just under two months ago, a Netjets jet crash- landed in Laredo, Texas, en route from San Jose del Cabo (business, or wealthy party jet?), killing one passenger, injuring other passengers, crew, vehicle driver,

and damaging municipal utility lines and private citizens' vehicles.

<https://www.ainonline.com/aviation-news/business-aviation/2026-07-13/fuel-system-components-mx-eyed-netjets-crash>

(please print linked article, if possible)

According to a recent AP news article, the jet was reportedly low on fuel and may have run out of gas. Had the tanks been full, the fire and toxic emissions released by that crash would have been far worse.

Also fortunately that Netjet jet crashed onto an open highway, so fatalities, injuries and property damage were limited. But Hillsboro airport's inbound flight path is directly above several neighborhoods-- including my neighborhood!-- adding great risk to hundreds of homes, schools, churches, businesses, and thousands of Hillsboro residents.

Multiple-parties under one Sky Harbour contract: the Airbnb-type scenario

Netjets is a fractional-ownership luxury aviation company: for an individual hanger lease, and its one large, private jet, there are multiple and ever-changing wealthy users; more flights taking off and landing, more loud jet engine noise, vibration and disturbance-- 24/7, and more risks!, with NO increased benefit to Hillsboro city or its residents. Sky Harbour markets itself as a business- oriented aviation real estate company, but who are their clients? Little is known about that. In addition to Netjets fractional-ownership model, only about 5 clients are regularly mentioned. Of those, two are Rap musicians and producers-- one of which is known to use Sky Harbour hangers to produce his music videos. This does not sound like the type of solid tech-focused business traveler Sky Harbour likely portrayed to the Hillsboro City Planning Commission when they instantly approved of the 35 year lease to Sky Harbour.

There is so much to still to learn about the many facets and risks of Sky Harbour's extremely new & unproven aviation real-estate business model, safety and health issues for the community, loss of residential property values, and ongoing disturbances. I've read that other municipal and metropolitan governments have generally taken about up to 5 years to study, evaluate and consider similar proposals-- but strangely, this has unrolled almost instantly in Hillsboro, and Sky Harbour boats on its website that they already in development in Portland, Oregon (Hillsboro is in fine print).

Even if you don't consider the immorality of the visiting ultra-wealthy having more rights than the local middle-class, do please consider every risk to your community, and the realistic long-term issues this proposal could produce for Hillsboro.

Finally, it seems very few Hillsboro residents are aware of the jet hub proposal and the potential alterations/damage to the airport and community. My husband and I only learned about this recently by seeing a sign posted along side Airport road near the library. The next day the sign was gone. Don't believe that community silence represents support of the proposal.

Sincerely,

Theresa Baird

1638 NE 52nd Court (Hawthorn Farm Village)

Hillsboro, 97124

From: Joe Baker <talktojoe@gmail.com>
To: Ruth.Klein@hillsboro-oregon.gov
Cc: "action@oregonair.org" <action@oregonair.org>
Subject: Sky Harbour Project
Date: Thursday, August 06, 2026 04:44:37 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council,

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

In addition to the improper procedural grounds, the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

My family with growing children lives on Cooper Mountain, directly under the flight path of these highly-polluting aircraft, and there is already significant air traffic at a very low altitude directly over our home. It is unjust to allow that traffic to increase without so much as a consideration for the thousands of us who are impacted.

I respectfully request that DR-044-25 be denied.

Thank you.

Joe Baker
Beaverton, Oregon

From: Brenda Benda <b.benda234@gmail.com>

To: Ruth.Klein@hillsboro-oregon.gov

Cc: action@oregonair.org

Subject: Sky Harbour

Date: Friday, July 31, 2026 01:23:15 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Stop putting billionaires before the residents who live here! We pay our taxes and follow all the rules that apply to pollution: air, water, land and noise pollution. Do not force yet another environmental damaging billionaire, polluting business, or criminal politician to ruin our quality of life!

Brenda Benda

4 decade resident

Sent from my iPad

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Brock: Sky Harbour
Date: Tuesday, August 11, 2026 03:26:55 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: j b <gongaka@gmail.com>
Sent: Monday, August 10, 2026 7:42 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Brock: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

As a new homeowner in the area, I respectfully request that DR-044-25 be denied. Thank you.

Jason Brock

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Bronleewe: Sky Harbour
Date: Thursday, August 13, 2026 02:10:29 PM

Council - FYI

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-----Original Message-----

From: Maya Bronleewe <mayabronleewe@gmail.com>
Sent: Thursday, August 13, 2026 12:03 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Bronleewe: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Maya Bronleewe

Resident of Hillsboro

Sent from my iPhone

From: [Denise Caire](#)
To: [Ruth Klein](#)
Cc: [OSPARG](#); action@oregonair.org; [Denise Caire](#)
Subject: Re: Testimony for DR-044-25
Date: Friday, July 31, 2026 12:05:48 AM
Attachments: [DR-044-025_testimony_letter.pdf](#)

In the last 5 minutes, there were 3 loud and low flying planes directly over my house, prop planes I guess. What is going on? There goes another one, 12:04 am! Imagine how large luxury jets would sound? Think about your decision seriously please. Thank you, Denise

On Thursday, July 30, 2026 at 11:56:51 PM PDT, Denise Caire <denise451@yahoo.com> wrote:

Please see the attached DR-044-25_testimony_letter. Thank you, Denise Caire

To: Ruth.Klein@hillsboro-oregon.gov

Date: July 30, 2026

Cc: Oregon Air Outreach action@oregonair.org

Subject: DR-044-25 Land Use Application, Construction of Sky Harbour Hangers

Good day Mayor Pace, Council President Harris and the COH Council,

Thank you for taking the time to read and consider my letter requesting that you deny the land use application for Sky Harbour to construct L-hangers at HIO, the Portland-Hillsboro Airport. The sudden announcement of this project caught me off guard. Please consider my concerns to deny the land use application as follows:

- Excessive Loud Noise Day and Night
- Unknown Air Pollution, incomplete and inaccurate research conducted, if any
- Unknown Long/Short Term Impact on Health of Humans, Wildlife and Habitat
- Inaccurate statements to the FAA
- Non-compliance with the COH Code

My name is Denise Caire, a 40-year Hillsboro resident, and raised locally in Aloha since 1956. In all my 70+ years, I've never been as shocked and flabbergasted with the actions of the COH and POP in conjunction with the FFA as on this project.

I live less than One Mile from the HIO, about 5 blocks from Brookwood, 2 blocks off Main. Over the years, I know when the Nike jet is taking off before it's on the runway when the engines are warming up. Many times, the noise has woken me up before the crack of dawn, and rattled my windows after takeoff. I KNOW when it's Nike from the DISTINCT LOUD BOOMS.

Can you tell me how an additional 30 to 50 luxury jets will sound each time they land and take off? I know you don't want the jets to routinely disturb the peace and quiet of we Hillsboroites living in proximity to and beneath the flight. Correct?

This Noise disturbs my peace, interrupts my sleep, and impacts my health negatively. It also interferes with the life cycles of wildlife which is highly revered and part of our day-to-day lives.

The daily sounds of nature is an integral component in my life, has been since I was a small child, and is likely the same for many, many, many Hillsborites. Without these sounds of Nature, it feels like I'm living in a mausoleum, void of the simple, soothing joys of birds singing, frogs croaking, crickets chirping and bugs buzzing. It's hollow, cold, and sterile, and absolutely affects my mental wellbeing negatively.

I've observed the haze increasing over our landscape since 1973 when Intel began fabricating integrated circuits and increasing fabrication since the construction of Ronler Farm, Jones Farm and Hawthorn Farm. It smells bad, causes me to cough, burns my eyes, and looks ugly.

The air over Hillsboro was once crystal clear and sweet as freshly cut wheat grass. Now, the layer of haze is constant and getting worse with time. It rarely lifts, if ever. What's it doing to my health over time? And to the health of my children and grandchildren? How long does it take to slowly become ill? Is it painful? How many years will it shorten my life and that of my children and grandchildren? What's our future going to entail? Lung disease? Cancers? Something else?

Can you tell me how the air will be polluted, contaminated with additional toxic exhaust and carbon from the planned 30 to 50 luxury jets arriving and departing daily? I imagine that environmental studies were conducted, right? Did the Port of Portland (POP), the Federal Aviation Administration (FAA) and/or the City of Hillsboro (COH) "extrapolate" data from previous and ancient studies in lieu of new 21st century studies? To me, that's plain reckless and short shrifted.

I've also heard of misleading and inaccurate statements given to the FAA. Is that true? Maybe final draft revisions have not yet been made? I'm sure you plan to make corrections, right? Anything less than that would be dishonest, manipulative, and short changing Hillsborites. Accuracy is of the utmost importance. This isn't like playing Horse Shoes where "coming close" is good enough. I pray not.

Isn't it ironic when a city defines and creates reasonable and legitimate Codes, expects project teams to honor and comply with them, and then allows the city itself to break the processes and Codes, to be in non-compliance? What kind of example is that? Do as I say, not as I do?

I'm sure this isn't intentional, just something that happens when people are in a rush generally caused by incomplete planning and unrealistic deadlines. That can be corrected. Maybe management needs to do better with project sizing and identifying available resources? Maybe they need additional training and more time to get it right to have a better outcome, fewer late revisions and scrambles from confusion? A predictable project runs smoothly with few hiccups, is productive, much more efficient, and a better use of scarce resources.

DR-044-25 is not ready. There are far too many important, crucially important, missing essential parts.

For these reasons, I ask, implore you to deny the application from Sky Harbour to construct L-hangers at the HIO and to increase luxury jet traffic at the detriment of we Hillsborites and our wildlife. We all want to live long and healthy lives. Please don't jeopardize our life's and those of our children. I ask you to Reject DR-044-25.

In closing, please accept my gratitude to you for taking this seriously. I appreciate the time you take to make a well-researched, complete, accurate, and equitable decision. Our life's and those of our wildlife depends on it

With sincere and warm regards,
Denise Caire

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: FW: Caire: Support appeal of DR-044-25, Sky Harbour T-hangars
Date: Thursday, August 13, 2026 8:44:19 AM
Attachments: [DR-044-25 testimonial support appeal.pdf](#)

Council - FYI

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-----Original Message-----

From: Denise Caire <denise451@yahoo.com>
Sent: Wednesday, August 12, 2026 6:22 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Denise Caire <denise451@yahoo.com>
Subject: Caire: Support appeal of DR-044-25, Sky Harbour T-hangars

[You don't often get email from denise451@yahoo.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Please see my attached and revised on Aug. 12th testimonial in support of the appeal of DR-044-25.

Thank you,
Denise Caire

To: Ruth.Klein@hillsboro-oregon.gov

Date: Aug. 12, 2026

Cc: Oregon Air Outreach action@oregonair.org

Subject: Appeal of DR-044-25 Land Use Application, Sky Harbour T-Hangars

Good day Mayor Pace, Council President Harris and the COH Council,

Thank you for taking the time to read and consider my letter requesting that you support the appeal for the land use application for Sky Harbour to construct H-hangars at the Portland-Hillsboro Airport (HIO). The sudden announcement of this project caught me off guard. Please consider my concerns to support the appeal of DR-044-25 as follows:

- Excessive Loud Noise Day and Night
- Unknown Air Pollution, incomplete and inaccurate research conducted, if any
- Unknown Long/Short Term Impact on Health of Humans, Wildlife and Habitat
- Inaccurate statements from Sky Harbour to the Federal Aviation Administration (FAA)
- Non-compliance with the City of Hillsboro (COH) Code

My name is Denise Caire, a 40-year Hillsboro resident, and raised locally in Aloha since 1956. In all my 70+ years, I've never been as shocked and flabbergasted with the actions of the COH and the Port of Portland (POP) in conjunction with the FAA as on this project.

I live about One Mile from the HIO, about 5 blocks from Brookwood Ave. and 2 blocks off Main St. Over the years, I know when the Nike jet is taking off when it's warming up on the runway before gunning it. At times, the noise has woken me up before the crack of dawn, and rattled my windows after takeoff. I KNOW when it's Nike from the DISTINCT LOUD BOOMS.

Can you tell me how an additional 30 (to 50) luxury jets will sound each time they land and take off at HIO? I know you don't want the jets to routinely disturb the peace and quiet of we Hillsborites, waking us at all hours of the night, living in proximity to and beneath the flight path. Correct?

This Noise disturbs our peace, interrupts our sleep, and impacts our health negatively. It also interferes with the life cycles of wildlife, flora, fauna, and fungi, which are highly revered by many Hillsborites and a fundamental part of our day-to-day life's.

The daily sounds of nature are an absolutely integral aspect of daily life, has been since I was a small child, and is likely the same for many, many Hillsborites. Without the sounds of Nature, it feels like I'm living in a mausoleum, void of the simple, soothing joys of birds singing, frogs croaking, crickets chirping and bees buzzing. It's hollow, cold and sterile, and 100 % affects my mental wellbeing negatively. It "sounds" like my world died, absent of the sounds of Nature and it's very lonely for a retired 75-year-old person.

I've observed the haze increasing over our landscape since 1973 when Intel began fabricating integrated circuits and then increasing fabrication with the construction of Ronler Farm, Jones Farm and Hawthorn Farm. It smells bad, causes me to cough, hurts my throat, burns my eyes, and looks ugly. It's VISUALY VERY UGLY.

Thirty years ago, the air in Hillsboro was clear and sweet as freshly cut wheat grass. Now, the layer of haze is constant and getting worse with time. It rarely lifts, if ever. What's it doing to my health over time? And to the health of my children and grandchildren? How long does it take to slowly become ill? Is it painful? How many years will it shorten my life and that of my children and grandchildren? What's our future going to be? Lung disease? Fertility issues? Birth defects? Genetic disorders? Cancers? Something else?

Can you tell me how the air will be polluted, contaminated with additional toxic exhaust and carbon from the planned 30 (to 50) luxury jets arriving and departing daily? I imagine robust environmental studies were conducted, right? Did the POP, FFA and/or the COH "extrapolate" data from previous, ancient environmental studies in lieu of new 21st century studies? That's just reckless and short shrifted. It shows you don't care about Hillsborites.

I've also heard of misleading and inaccurate statements given to the FAA. Is that true? Maybe final draft revisions have not yet been made? I'm sure you plan to make corrections, right? Anything less than that would be dishonest, manipulative, and short changing Hillsborites. Accuracy is of the utmost importance. This isn't like playing Horse Shoes where "coming close" is good enough. I pray not.

Isn't it ironic when a city such as the COH defines and creates reasonable and legitimate Codes, expects project teams to honor and comply with them, and then allows the city itself to break the processes and Codes, to be in non-compliance? What kind of example is that? Do as the COH says, not as the COH does?

I'm sure this isn't intentional, just something that happens when people are in a rush generally caused by incomplete planning and unrealistic deadlines. That can be corrected. Maybe management needs to do better with project sizing and identifying available resources? Maybe they need additional training and more time to get it right for a better outcome, fewer revisions and scrambles from confusion? A predictable project runs smoothly with few hiccups, is productive, more efficient, and a better use of resources.

DR-044-25 is not clean. There are far too many fundamentally important, foundationally important missing essential parts.

For these reasons, I implore you to support the appeal to the HIO extension application from Sky Harbour to construct H-hangars and increase luxury jet traffic to the detriment of Hillsborites and our wildlife. We want to live long and be healthy. Don't jeopardize our life's, those of our children, and our surrounding living things. I ask you to 100% support the appeal of DR-044-25.

In closing, please accept my gratitude for taking this seriously. I appreciate the time you need to make a thoroughly researched, complete, accurate, and equitable decision. Our life's, our descendant's, and those of our wildlife depend on a fair decision, not one tailored to affluent and wealthy corporations like Intel, Nvidia, Microsoft, Amazon, etc.

Respectfully,
Denise Caire

From: mike clouser <mikeclouser@outlook.com>
To: "council@hillsboro-oregon.gov" <council@hillsboro-oregon.gov>
Cc: "Ruth.Klein@hillsboro-oregon.gov" <Ruth.Klein@hillsboro-oregon.gov>;
"action@oregonair.org" <action@oregonair.org>
Subject: Sky Harbour
Date: Sunday, August 09, 2026 06:18:29 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Crepps: Sky Harbour
Date: Thursday, August 13, 2026 02:09:34 PM

Council - FYI

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-----Original Message-----

From: Margaret Crepps <margaret.crepps@gmail.com>
Sent: Thursday, August 13, 2026 2:02 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Crepps: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Margaret Crepps

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Klerk: Sky Harbour
Date: Wednesday, August 12, 2026 01:48:08 PM

Council - FYI

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繁體中文 <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/traditional-chinese>> |
हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Sophia de Klerk <hdeknow57@gmail.com>
Sent: Wednesday, August 12, 2026 10:23 AM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Klerk: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Sophia de Klerk

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Derry: Appeal Case Nos. APPEAL-001-26 and APPEAL -002-26-
Date: Tuesday, August 11, 2026 03:22:50 PM

Council - FYI

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From: ak derry <akderry@yahoo.com>
Sent: Tuesday, August 11, 2026 2:36 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: anita <akderry@yahoo.com>
Subject: Derry: Appeal Case Nos. APPEAL-001-26 and APPEAL -002-26-

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City Council

City of Hillsboro

Civic Center

150 E. Main St

Hillsboro, Oregon 97123

Council@Hillsboro-Oregon.gov <mailto:Council@Hillsboro-Oregon.gov>

RE: Appeal Case Nos. APPEAL-001-26 and APPEAL-002-26 – Two appeals of the Planning

Commission Order No. 8492 (Case File No. DR-044-25)

Mayor Beach Pace

Councilor Rob Harris

Councilor Olivia Alcaire

Councilor Kipperlyn Sinclair

Councilor Saba Anvery

Councilor Elizabeth Case

Councilor Cristian Salgado

It is with respect that I submit the following request that you consider the appeals presented and exercise your capacity in ruling in favor of the health and wellbeing of close by residents, and even those of us at a bit of a distance, though still negatively impacted.

Though the legal representation of proponents of the Sky Harbour project appear to view your authority as limited in jurisdiction re: broader implications, I would ask you to consider the information before you today, as critical in asserting your ultimate authority on weighing all the implications of the magnitude of this decision.

I believe when due process is not met in ensuring the health and well being of a community through rigorously assessing human and environmental impacts of a proposed project, it becomes even more urgent for our community government to become the guardian for us all in taking into consideration information that comes to light revealing failure to accurately assess risks/impacts nor meet transparency of the process, and include citizen involvement. Other agencies may at times fail to fulfill their responsibilities, and this then can lend the fortitude to go forward with diligence and conscience to correct those oversights (or failures of responsibilities) to protect communities and ensure safer impacts by community businesses and projects.

In reference to the Sky Harbour proposal:

"An environmental review that would consider the significant increase in greenhouse gas emissions, noise, air and water quality and other impacts resulting from the development was never completed because the Port and Federal Aviation Administration (FAA), behind closed doors and without public participation, issued a Categorical Exclusion (CATEX), claiming that the project has no significant effect

on the quality of the human environment. As a result, the Hillsboro Planning Commission and the public were denied access to critical and meaningful information upon which to assess the proposal. ”
(8/3/2-26Miki Barnes-Oregon Aviation Watch)

When we embrace what we have learned, and open our senses and awareness to the deep dependence & interrelatedness with our earth, with all life, and the impact of human activity, perhaps that will shore us up in making these difficult decisions and not putting them off to the future.

With gratitude for your service to our community.

Anita Derry

10580 SW Highland Dr.

Tigard, Or. 97224

From: Laura Wilson <laurabugsu13@gmail.com>

To: council@hillsboro-oregon.gov; Ruth.Klein@hillsboro-oregon.gov; "action@oregonair.org" <action@oregonair.org>

Subject: Sky Harbour

Date: Friday, August 14, 2026 10:10:44 AM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution affects people and pets
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied.

Thank you,

Shawn and Laura Downing

(503) 648-7737

From: Ted Dreier <teddreier@gmail.com>
To: Ruth.Klein@hillsboro-oregon.gov
Cc: action@oregonair.org
Date: Sunday, August 02, 2026 12:10:36 PM

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To: Ruth Klein Ruth.Klein@hillsboro-oregon.gov <mailto:Ruth.Klein@hillsboro-oregon.gov>
Cc: Oregon Air Outreach action@oregonair.org <mailto:action@oregonair.org>

Subject: Sky Harbour

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Sincerely,

Ted Dreier, PhD
7037 SW 54th Avenue
Portland, OR 97219

From: Ted Dreier <teddreier@gmail.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Date: Monday, August 10, 2026 10:00:09 PM

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To: Hillsboro City Council council@hillsboro-oregon.gov <mailto:council@hillsboro-oregon.gov> ,

Cc: Ruth Klein Ruth.Klein@hillsboro-oregon.gov <mailto:Ruth.Klein@hillsboro-oregon.gov>

Cc: Oregon Air Outreach action@oregonair.org <mailto:action@oregonair.org>

Subject: Sky Harbour

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied.

Sincerely,

Ted Dreier, PhD

7037 SW 54th Avenue

Portland, OR 97219

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Eggert: Sky Harbour Hangar
Date: Thursday, August 13, 2026 08:42:51 AM

Council - FYI

Amber Rios, MMC | City Recorder

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| हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Hillsboro, OR <noreply@hillsboro-oregon.gov>
Sent: Wednesday, August 12, 2026 7:24 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Eggert: Sky Harbour Hangar

Contact the Mayor and/or City Council

Submission #:

5054708

IP Address:

2601:1c0:4401:8780:f167:4469:a07c:86e9

Submission Date:

08/12/2026 7:24

Survey Time:

3 minutes, 47 seconds

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Full Name

Andrew Eggert

Full Address (Optional)

334 ne 33rd ct

Hillsboro, 97124

Email

aeggert114@gmail.com <mailto:aeggert114@gmail.com>

Phone

(510) 708-6830

Preferred Contact Method

Please reply by email address

Read-Only Content

Who would you like to contact?

Entire Hillsboro City Council (includes Mayor Pace)

Read-Only Content

Your Question or Comment:

To: Hillsboro City Council From: Andrew Eggert and Verenice Leon-Hurtado Date: August 12, 2026
Subject: Public Comment Opposing Case File No. DR-044-25 (Sky Harbour Hangars Development Proposal) - Appeals APPEAL-001-26 and APPEAL-002-26 Dear Mayor and Members of the City Council, Please accept this testimony in opposition to the proposed Sky Harbour private jet hangar facility at Hillsboro Airport (HIO). While the Planning Commission previously reviewed this strictly as a narrow development application, I urge the City Council to exercise its de novo review authority to evaluate the project's fatal conflicts with broader municipal regulations, the Hillsboro Community Development Code (CDC), and the Hillsboro Comprehensive Plan. The approval of this application should be reversed based

on the following specific land use and regulatory failures: 1. Failure to Address Airport Zoning and CDC Environmental Criteria (CDC Section 12) The project site sits within the I-P (Industrial Park) zone. Development in this sector must prove compatibility with surrounding uses and minimize impacts on adjacent public sectors. The Planning Commission erred by stating that noise and air quality fall completely outside local land-use authority. Local zoning criteria mandate that development must not create adverse environmental hazards that impair nearby properties. By introducing up to 42 ultra-long-range private and corporate aircraft immediately adjacent to the Brookwood Library and established residential neighborhoods, this development creates an incompatible land-use clash that directly threatens public safety and health. 2. Incompatibility with the Hillsboro Comprehensive Plan The Hillsboro Comprehensive Plan requires all major infrastructural developments to include measures that "protect humans and wildlife from the adverse impacts of aviation activity." • Lack of Required Assessments

Read-Only Content

Thank you,
City of Hillsboro, OR

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From: Holly Garland <garland.holly@yahoo.com>
To: "Ruth.Klein@hillsboro-oregon.gov" <Ruth.Klein@hillsboro-oregon.gov>
Cc: "action@oregonair.org" <action@oregonair.org>
Subject: Subject: Sky Harbour
Date: Friday, July 31, 2026 03:15:46 PM

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Subject: Sky Harbour Appeal (DR-044-25)

Dear Mayor Pace, Council President Harris, and Members of the Hillsboro City Council,

Thank you for the opportunity to comment on the Sky Harbour appeal. I respectfully ask that you overturn the Planning Commission's decision and deny Land Use Application DR-044-25 for the following reasons:

- * The application fails to meet the City's approval criteria.
- * The applicant relies on false or misleading statements made to the Federal Aviation Administration (FAA).
- * The applicant failed to carry its burden of proof.
- * Significant procedural errors occurred during the review process.

The proposed development would permanently increase aviation activity and cause ongoing harm to the residents of Hillsboro and Washington County. The applicant has failed to adequately evaluate, minimize, or mitigate the impacts required by the Hillsboro Community Development Code, including:

- * Noise pollution
- * Air pollution
- * Adverse health impacts
- * Reduced property values
- * Increased greenhouse gas and carbon emissions
- * Decreased quality of life

I also ask the Council to consider the cumulative impacts on those of us who already live near the airport.

I work at Intel and routinely work very long shifts, often between 12 and 14 hours a day. Like many workers in our community, I depend on being able to sleep during my time off so I can safely return to work. The aircraft noise from the airport already wakes me up. Additional jet traffic would only make that problem worse.

When I purchased my home, aircraft did not regularly fly over it. For approximately the first fifteen years I lived there, this was not an issue. Since then, flight paths have changed and aircraft now routinely pass over my home. The annual Portland Air Show has become especially disruptive. What was once an occasional inconvenience has become a recurring intrusion into the quiet enjoyment of my property. I strongly oppose expanding jet operations that would make this level of disruption a year-round reality.

I urge the Council to consider the many long-term consequences of approving this project, including:

- * Increased aircraft noise affecting thousands of existing residents.
- * Sleep disruption for shift workers, children, seniors, veterans, and people with medical conditions.
- * Increased stress, anxiety, and reduced overall quality of life.
- * Greater exposure to ultrafine particulate matter and other aircraft emissions associated with respiratory and cardiovascular disease.
- * Increased greenhouse gas emissions that conflict with local and state climate goals.
- * Lower residential property values for neighborhoods affected by increased jet traffic.
- * Additional traffic congestion generated by airport-related business activity.
- * Increased demand on local infrastructure and public services.
- * More frequent low-flying aircraft over established neighborhoods.
- * Expansion of industrial airport uses immediately adjacent to residential communities.
- * Establishment of a precedent for continued airport expansion with little meaningful protection for nearby homeowners.
- * Permanent impacts that cannot realistically be reversed once additional aviation infrastructure is built.

Hillsboro has grown into a thriving city with neighborhoods, schools, parks, and employers like Intel located near the airport. The people who already live and work here deserve meaningful protection from additional noise, pollution, and other impacts. Existing residents should not be expected to bear these burdens primarily for the benefit of a private development.

For these reasons, I respectfully request that the Hillsboro City Council overturn the Planning Commission's decision and deny Land Use Application DR-044-25.

Thank you for your time and consideration.

Respectfully,

Holly Garland

From: [Eve Goldman](#)
To: [Council](#)
Cc: [Ruth Klein](#); action@oregonair.org
Subject: 1000 Friends comments in support of Sky Harbour appeal
Date: Tuesday, August 11, 2026 3:08:43 PM
Attachments: [Sky Harbour Letter of Support.pdf](#)

You don't often get email from eve@friends.org. [Learn why this is important](#)

Good afternoon,

Please find attached comments on behalf of 1000 Friends of Oregon in support of the appeal of land use application DR-044-25. If you would, please confirm receipt of this email and the attached comments.

Best,
Eve

--

Eve Goldman
Staff Attorney
971-420-0916
she/her/hers



Support a beautiful, bountiful Oregon for generations to come...[*join us today!*](#)



1000 Friends of Oregon
340 SE 6th Ave, Portland, OR 97214
www.friends.org
503-497-1000

August 11, 2026

VIA email to council@hillsboro-oregon.gov

RE: Comments in support of the appeal of land use application DR-044-25

Mayor Pace, Council President Harris, members of Hillsboro City Council,

1000 Friends of Oregon is a nonprofit, membership organization that works with Oregonians to support livable urban and rural communities, protect family farms, forests and natural areas, and provide transportation and housing choices. Thank you for the opportunity to comment on the Sky Harbour appeal.

1000 Friends supports the appeal of land use application DR-044-25 ("Sky Harbour") and respectfully asks that the Council reverse the Planning Commission's approval decision. As the appellants have properly outlined, the application fails to meet City criteria, including various sections of the Community Development Code (CDC).

The Planning Commission's decision approving the Sky Harbour application was improperly made and should be denied on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

1000 Friends respectfully requests that DR-044-25 be denied. Thank you.

A handwritten signature in black ink, appearing to read "Eve Goldman".

Eve Goldman
Staff Attorney
1000 Friends of Oregon
eve@friends.org

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: FW: Hagen: PDF regarding Sky Harbour
Date: Wednesday, August 12, 2026 9:49:44 AM
Attachments: [Sky Harbour.pdf](#)

Council - FYI

Amber Rios, MMC | *City Recorder*

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| [अनुवाद और व्याख्या](#)

From: Jennifer Hagen <montanahoa@yahoo.com>
Sent: Tuesday, August 11, 2026 5:06 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Hagen: PDF regarding Sky Harbour

 You don't often get email from montanahoa@yahoo.com. [Learn why this is important](#)
Hello,

Please find attached my letter that I would like to submit to you consider regarding the Sky Harbour issue.

Kind regards,
J Hagen

August 11, 2026

To Washington County Commissioners,

My name is Jennifer Hagen, and I reside in Hillsboro, Oregon. I live quite close to the Hillsboro Airport.

I am sending you this letter to voice my opposition to the proposed Sky Harbour's proposal for the building of their private jets.

My reasons for my opposition are as follows: first off, the noise pollution will increase dramatically. It has already increased the past several years, and it isn't from the small plane traffic, it is from the private jets already located at the airport. They leave and fly in at all hours of the day and night. It is making the livability more difficult. Also, there is the air pollution that these planes generate, and now that the fuel source has been brought to the public's attention, this has been, in my opinion, something kept under wraps. With all of the affordability issues for local residents who are just trying to have a decent life and live in a community that they may raise a family, or just live a nice life, we are not seeing this happen in our local community. It seems as though the billionaires who have the money seem to get what they want, where they want it, and no one will tell them "NO". If they truly need to have their private jets available for them, there is the Portland International Airport, and they have plenty of access to personal drivers to take them wherever they need to go here in the Portland/Metro area and beyond.

How does would this private jet hub be a positive addition to my livability here in Hillsboro? Will they be reducing my property tax bill, making my air cleaner, reducing the noise level, helping with our local school's financial situation, as well as the local economy? Well maybe in the short term, with construction jobs and a few more on-site jobs, but the negative is out weighing the positive. Hillsboro, is already dealing with a huge issue regarding the data centers and all they are taking away from our local and state economy, and resources. What sort of tax breaks, incentives, perks, and bonuses are these conglomerates willing to hand out in order to get their way no matter how it will affect the local resident?

I implore you to start putting the local resident's needs above the need of billionaires, whom by the way, most likely don't even live close to the airport or surrounding area.

I will be paying VERY close attention to how this issue plays out, as well as the data center issue. I will also be paying close attention to how my local county commissioners vote on this issue, and their words of support or opposition to this issue. I take my life and livability very serious for future generations, and my fellow person living here right now.

Thank you for your time reading my concerns regarding Sky Harbour's proposal.

Kind regards,

Jenni Hagen

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: Dafna: Public Comment Sky Harbour"s.pdf
Date: Monday, August 3, 2026 11:57:13 AM
Attachments: [Public Comment Sky Harbour"s.pdf](#)

Council - FYI

From: Dafna Harush <dafnaah@gmail.com>
Sent: Monday, August 3, 2026 6:43 AM
To: Council <Council@hillsboro-oregon.gov>
Subject: Public Comment Sky Harbour's.pdf

You don't often get email from dafnaah@gmail.com. [Learn why this is important](#)

Dear Members of the Council,

Please find the attached document for your review.

Thank you for your time, consideration, and assistance.

Best regards,

Dafna

Date: 08/03/2026

To: Hillsboro City Council

Subject: Public Comment in Opposition to Sky Harbour's Land Use Application (Hillsboro Airport Development)

Dear Members of the Hillsboro City Council,

I am writing to formally voice my opposition to Sky Harbour Group's land use application to build a private jet hub at Hillsboro Airport. As a local resident living directly along the flight path, I respectfully urge the City Council to deny this application.

Even under current conditions, occasional aircraft noise already disrupts the peace of our neighborhood, periodically interfering with daily life. Rather than approving projects that would increase the frequency of low-flying jet traffic overhead, our community's goal should be finding ways to reduce the existing noise and flight frequency over our homes.

Expanding jet operations to this degree significantly escalates noise pollution and diminishes our quality of life without serving the residential neighborhoods that bear the primary impact of these overflights.

For these reasons, I respectfully ask the Council to reject Sky Harbour's application and protect our community.

Thank you for your time, consideration, and leadership in protecting our neighborhoods.

Sincerely,

Dafna Avinoach Harush

18324 SW Santoro Dr.

Beaverton, OR 97007

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Hewitt: Sky Harbour
Date: Wednesday, August 12, 2026 09:47:38 AM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Hillsboro, OR <noreply@hillsboro-oregon.gov>
Sent: Wednesday, August 12, 2026 9:00 AM
To: Council <Council@hillsboro-oregon.gov>
Subject: Hewitt: Sky Harbour

Contact the Mayor and/or City Council

Submission #:

5053138

IP Address:

50.39.207.84

Submission Date:

08/12/2026 9:00

Survey Time:

7 minutes, 8 seconds

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Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

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Full Name

Mary Hewitt

Full Address (Optional)

637 SE 28th Place

Hillsboro, 97123

Email

marylouisehewitt540@gmail.com <mailto:marylouisehewitt540@gmail.com>

Phone

(513) 372-1585

Preferred Contact Method

Please reply by email address

Read-Only Content

Who would you like to contact?

Entire Hillsboro City Council (includes Mayor Pace)

Read-Only Content

Your Question or Comment:

Regarding the Sky Harbor use of the Hillsboro Airport. Please answer this question: Which governmental body benefits financially from the proposed addition of hangars and increased flights? How does the general public benefit from this land-use change. If the answer is employment, how many new locally based jobs and what are the salary levels. Other comments: How will the decreased health of residents be mitigated, through noise pollution, and increased emissions? How will the increase in financial and social inequality be mitigated? The new land use is available to a few individual who have the financial resources to withstand legal activity. The general public will absorb the increase in emissions, noise , land transportation coming from a source that is closed to the general public. Thank you for your

consideration.

Read-Only Content

Thank you,

City of Hillsboro, OR

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From: Thom Hudson <thomhudson@gmail.com>

To: council@hillsboro-oregon.gov; Ruth.Klein@hillsboro-oregon.gov; "action@oregonair.org" <action@oregonair.org>

Subject: Sky Harbour

Date: Friday, August 14, 2026 12:12:50 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

I was only recently made aware of the proposal to radically change the nature of the Hillsboro airport in ways that will permanently negatively alter the Hillsboro living environment. Thank you for the opportunity to comment on the Sky Harbour appeal to the Planning Commission's approval of the proposal. It is unfortunate that decisions proposing such profound changes with major consequences were made by the Planning Commission with little public notice or solicitation of public input. The effects of the proposed development are major, and should be evaluated with the full input of the public. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

I know that these bases have been discussed by other residents of the city in much detail. I will, thus, not go into all of these in great detail. The operating characteristics of the proposed Private jet hub development would cause perpetual harm to the residents of Hillsboro and Washington County. I will focus my comments on the particular impacts of the ultra-long-range jets on greater Hillsboro, negative impacts which have not been fully evaluated. In particular, the impact of noise pollution throughout Hillsboro, particularly in the areas under the plane air paths and the residential areas near the airport.

Apparently, one argument that proponents of the increased private jet use is that the modern jets are quieter than past planes. However, there is no data presented that supports what criteria is used to determine how "quieter" is determined to be "sufficiently" quieter. The planes are still going to be loud. Further, there is no guarantee that only "sufficiently quieter" planes will be using the hangars. Assurances must be made that this will not negatively impact the residents and voters of Hillsboro.

I respectfully request that DR-044-25 be denied. Thank you.

Thomas D. Hudson

--

Thom Hudson, PhD

Professor Emeritus

Second Language Studies

Department of Second Language Studies

University of Hawai'i

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Hudson: Sky Harbour opposition
Date: Tuesday, August 11, 2026 03:28:24 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Tim <hudsontr@comcast.net>
Sent: Monday, August 10, 2026 4:39 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: 'Tim' <hudsontr@comcast.net>
Subject: Hudson: Sky Harbour opposition

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As a resident on the flight path of Hillsboro air port I am opposed to adding more flights as proposed by Sky Harbour.

Just another example of the rich getting special treatment at the cost of the working class. I am sure none of the users of this service or the ones that will profit from it live in the flight path.

Tim Hudson

7825 SW Miller Hill Rd

Beaverton OR

From: Amanda Hughes <amanda.hughes@startmail.com>

To: Ruth.Klein@hillsboro-oregon.gov

Cc: action@oregonair.org

Subject: Sky Harbour

Date: Monday, August 03, 2026 06:29:30 AM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Amanda Hughes, Hillsboro resident.

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Jacquez: Citizen's concern with proposed HIO Added Private Jet Travel
Date: Tuesday, August 11, 2026 03:29:25 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Patricia Andrade Jacquez <pjacquez@gmail.com>

Sent: Monday, August 10, 2026 4:09 PM

To: Council <Council@hillsboro-oregon.gov>

Cc: Family <izjacquez@gmail.com>

Subject: Jacquez: Citizen's concern with proposed HIO Added Private Jet Travel

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An airport takes decades of planning. Usually built in conjunction with surrounding neighborhoods, not after neighborhoods are long established. Homeowners are aware of the surrounding noise and vibration. Not after the fact.

The impact: cost, safety, well being of my home, family, neighbors and neighborhood will be negatively impacted. If there were studies or assessments done about the lasting impacts this would have on our

environment and community, they are not easily accessible.

Are there time constraints on when jets will be allowed? Will I be hearing jets at all hours of the day and night? Not to mention the impact on wildlife such as birds, live stock, and air quality.

I am astonished that this is being considered, and even more shocked at the lack of propriety in making the public aware of such a change. This does not benefit the general public and their wellness at all. Our local gov't is here to protect the wellbeing of the people who call this place home, not a few individuals or groups who want to make it more convenient for them to travel.

As an Oregonian, as a Washington county resident who will be directly affected by this choice to deteriorate my quality of life and everything I have worked for in the past 25 years, I strongly urge you to deny the (private) proposed Sky Harbour Group for the jet campus at Hillsboro Airport (HIO)

Please take my input into consideration.

Patricia A. Jacquez and Family

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Kress: Sky Harbour Hangar
Date: Friday, August 07, 2026 03:39:44 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: Hillsboro, OR <noreply@hillsboro-oregon.gov>

Sent: Friday, August 7, 2026 11:54 AM

To: Council <Council@hillsboro-oregon.gov>

Subject: Kress: Sky Harbour Hangar

Contact the Mayor and/or City Council

Submission #:

5045229

IP Address:

187.40.54.94

Submission Date:

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Survey Time:

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Full Name

Lothar Kress

Full Address (Optional)

1638 NE 52nd Ct

Hillsboro, 97124

Email

lotharkress@comcast.net <mailto:lotharkress@comcast.net>

Phone

(503) 806-9726

Preferred Contact Method

Please reply by email address

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Who would you like to contact?

Selected City Councilor(s)

Please select the City Councilor(s) you would like to contact below:

Ward 1 Position B: Councilor Saba Anvery

Read-Only Content

Your Question or Comment:

Hello Saba, My name is Lothar Kress and I'm a retired Intel Engineer. I worked at ATTD until 2022. I know you are also a board member of the HFVOA. My wife and I moved into Hawthorne Farms Village over 1 year ago. We have recently learned about the Sky Harbor jet hub plans that have already been approved by the city planning commission. We're very concerned about the impact this will have on our

neighborhood. It will lead to increased air pollution and noise and will certainly decrease the property values in our neighborhood and others in the flight path. I know there is a city council meeting about the jet hub on Aug. 18th. What is your position on this project? Since you are also living here and have a responsibility as an HOA board member to maintain property values, we are hoping you'll be our advocate on the city council to put a stop to this. Everyone we talked to in our neighborhood hasn't even heard about it, including the president of our HOA. It seems the public has not been sufficiently informed. I'm looking forward hearing back from you and thanks in advance for your neighborhood advocacy. Best regards, Lothar Kress

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Thank you,
City of Hillsboro, OR

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From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Kress: Support of overturning the Hillsboro Planning Commission's approval for the Sky Harbour Jet Hub development
Date: Friday, August 14, 2026 03:17:00 PM

Council - FYI

Amber Rios, MMC | City Recorder

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From: lotharkress@comcast.net <lotharkress@comcast.net>

Sent: Thursday, August 13, 2026 3:08 PM

To: Council <Council@hillsboro-oregon.gov>

Subject: Kress: Support of overturning the Hillsboro Planning Commission's approval for the Sky Harbour Jet Hub development

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Dear Mayor and Members of the Hillsboro City Council,

My name is Lothar Kress, and I live in the Hawthorn Farm Village neighborhood, directly east of the airport. I am asking the Council to grant the appeal and overturn the Planning Commission's approval of the Sky Harbour jet hub.

As a resident who lives on the front lines of this expansion, I can tell you that the noise impacts are already a daily reality. From my home, we clearly hear the roaring of corporate jets at takeoff, and the constant high-pitch drone of flight training loops. We have accepted a baseline level of aviation as part of our community. However, this massive development represents an entirely different, unmitigated acoustic burden.

Under a de novo review, the City Council has a duty to look at this project fresh. I urge you to look closely at Hillsboro Community Development Code Section 12.80. This section legally requires commercial and industrial developments to sufficiently minimize or mitigate adverse impacts on adjacent residential zones. The Planning Commission completely failed to enforce this standard.

The Commission's last-minute condition of a six-foot masonry ground wall is entirely ineffective. A ground wall does absolutely nothing to block low-frequency turbine rumble, jet blast, or the air pollution. Because this airport has no mandatory nighttime curfew, this code violation directly threatens our sleep, our daily health, and the neighborhood stability that the Hillsboro Comprehensive Plan is designed to protect.

Furthermore, this code violation threatens our neighborhood's long-term economic stability. While city code does not guarantee individual profit margins, land-use laws do look at whether a new industrial footprint degrades surrounding residential zones. Introducing a heavy-fume, high-decibel private jet campus permanently damages Hawthorn Farm Village's market profile and that of other nearby neighborhoods. The added noise pollution suppresses our local resale values and bakes severe environmental penalties directly into our baseline property values.

Finally, to my understanding, the developer's application omitted flight path modeling. It is legally impossible for this Council to determine if the neighborhood impacts have been minimized when the developer has withheld the data showing where these ultra-long-range jets will actually fly over our homes.

Do not let your decision erode the livability of established Hillsboro neighborhoods. Please uphold the code, protect our community's health and property stabilization, and grant this appeal.

Sincerely,

Lothar Kress

1638 NE 52nd Ct, Hillsboro OR 97124

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: LaTempa: Sky Harbour
Date: Thursday, August 13, 2026 11:05:04 AM

Council - FYI

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-----Original Message-----

From: C L <catherine.latempa@gmail.com>
Sent: Thursday, August 13, 2026 9:27 AM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: LaTempa: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

Yet, no input has been sought by those affected, especially those in other communities!

I respectfully request that DR-044-25 be denied. Thank you.

Catherine LaTempa

From: Riley Lozano <rileyd.lozano@gmail.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Friday, August 14, 2026 02:04:17 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Riley Lozano

Riley Lozano
(She/Her/Hers)
760-885-5908

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Martin: Jet Hub Proposal at Hillsboro Airport
Date: Tuesday, August 11, 2026 03:28:58 PM

Council - FYI

Amber Rios, MMC | City Recorder

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繁體中文 <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/traditional-chinese>>
| हिन्दी में <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Patricia Martin <psmartin.usa@gmail.com>
Sent: Monday, August 10, 2026 4:13 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Martin: Jet Hub Proposal at Hillsboro Airport

You don't often get email from psmartin.usa@gmail.com <<mailto:psmartin.usa@gmail.com>> . Learn why this is important <<https://aka.ms/LearnAboutSenderIdentification>>

On Mon, Aug 10, 2026 at 4:09 PM Patricia Martin <psmartin.usa@gmail.com
<<mailto:psmartin.usa@gmail.com>> > wrote:

Hillsboro City Council

I am a 26 yr resident of Hillsboro and a home owner in Orenco Gardens and I strongly oppose the Jet Hub at the airport! The 24/7 jet noise and pollution will absolutely adversely impact my quality of life here! This airport is surrounded by residential homes, there is no buffer! I feel that this entire plan has been done without the knowledge and approval of the citizens here in Hillsboro, and in the rest of the metro area, and if this plan goes ahead without the support of our community Beach Pace and all of the city council members should be recalled and will certainly never be reelected! You should all be ashamed of trying to pull one over on your constituents! None of you has alerted the citizens and it feels as if all of you really thought you could get away with this plan. It seems that you are all getting something in return here and I am not alone in wondering exactly what that is!

Patricia Martin

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: McHale: Comment to oppose Sky Harbor
Date: Monday, August 10, 2026 03:46:40 PM

Council - FYI

Amber Rios, MMC | City Recorder

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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Tom McHale <tom.mchaledunne@gmail.com>

Sent: Monday, August 10, 2026 3:06 PM

To: Council <Council@hillsboro-oregon.gov>

Subject: McHale: Comment to oppose Sky Harbor

You don't often get email from tom.mchaledunne@gmail.com <<mailto:tom.mchaledunne@gmail.com>>
. Learn why this is important <<https://aka.ms/LearnAboutSenderIdentification>>

Having moved to Hillsboro to retire we were shocked to learn about the Sky Harbor project at Hillsboro Airport.

This is a threat to our home value - our family's primary asset.

The added noise and pollution Sky Harbor will subject us to is very unsettling. If we had been aware of the Sky Harbor project we would have reconsidered our plan to retire in Hillsboro - and I am sure that

same concern will be a consideration for others looking at a move to Hillsboro.

I hope that our public officials will prioritize the well being of the vast majority of Hillsboro's citizens who will suffer negative health and financial impact on their lives.

Please stop the Sky Harbor project in Hillsboro.

Respectfully,

Tom and Tammy McHale

862 NE Rothbury Ave

Hillsboro OR 97124

From: Angela M <18527sw@gmail.com>
To: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: Re: Angela M: Sky Harbour
Date: Friday, August 14, 2026 08:09:12 AM

Hello -

My name is Angela Mendel. Please accept this email as my formal testimony regarding the Sky Harbour appeal (DR-044-25), submitted with my name included as requested.

Regards -

Angela Mendel

On Fri, Aug 14, 2026 at 8:04 AM Ruth Klein <Ruth.Klein@hillsboro-oregon.gov
<mailto:Ruth.Klein@hillsboro-oregon.gov> > wrote:

Good morning,

Testimony require the first and last name of the person providing the testimony. If you would like this emailed testimony to be considered by the Council please resend the email with the inclusion of your first and last name by August 17th, 5pm.

Thank you,

-Ruth

Ruth Klein | Senior Planner

City of Hillsboro | Community Development: Planning Division

503-686-1433 (cell) | 503-681-6465 (office)

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| हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Council <Council@hillsboro-oregon.gov <mailto:Council@hillsboro-oregon.gov> >
Sent: Thursday, August 13, 2026 11:06 AM
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov <mailto:Ruth.Klein@hillsboro-oregon.gov> >
Subject: FW: Angela M: Sky Harbour

Council - FYI

Amber Rios, MMC | City Recorder

City of Hillsboro | City Manager's Office

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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Angela M <18527sw@gmail.com <mailto:18527sw@gmail.com> >
Sent: Thursday, August 13, 2026 9:18 AM
To: Council <Council@hillsboro-oregon.gov <mailto:Council@hillsboro-oregon.gov> >
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov <mailto:Ruth.Klein@hillsboro-oregon.gov> >;
action@oregonair.org <mailto:action@oregonair.org>
Subject: Angela M: Sky Harbour

You don't often get email from 18527sw@gmail.com <mailto:18527sw@gmail.com> . Learn why this is important <<https://aka.ms/LearnAboutSenderIdentification>>

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: George Muff <gamuff1@gmail.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Thursday, August 13, 2026 09:23:11 AM

[You don't often get email from gamuff1@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

George Muff
6295 SE Maple St
Hillsboro, OR 97129

From: michellemuff91@gmail.com
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Thursday, August 13, 2026 07:36:16 PM

[You don't often get email from michellemuff91@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Michelle Muff

Sent from my iPhone

From: Karin M <ktmuilman@gmail.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Monday, August 10, 2026 03:38:54 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Karin Muilman

Ktmuilman@gmail.com <<mailto:Ktmuilman@gmail.com>>

3016 NE 4th Place
Hillsboro, OR 97124

From: erika murray <erikaisaduck@yahoo.com>

To: Ruth.Klein@hillsboro-oregon.gov

Cc: action@oregonair.org

Subject: Sky Harbour

Date: Saturday, August 01, 2026 02:50:49 PM

[You don't often get email from erikaisaduck@yahoo.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Sent from my iPad

From: Nathan Paul <njusticep@gmail.com>
To: ruth.klein@hillsboro-oregon.gov
Cc: "action@oregonair.org" <action@oregonair.org>
Subject: Sky Harbour
Date: Monday, August 03, 2026 07:23:57 AM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: sidarany phillips <sidaranyalexus@gmail.com>
To: "Ruth.Klein@hillsboro-oregon.gov" <Ruth.Klein@hillsboro-oregon.gov>
Cc: "action@oregonair.org" <action@oregonair.org>
Subject: Sky Harbour
Date: Thursday, August 06, 2026 05:44:24 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

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- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: H Q <grinch4me@hotmail.com>
To: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: Re: Sky Harbour
Date: Monday, August 10, 2026 12:47:15 PM

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My name is Heather Quirke

I have lived here in Hillsboro for over 15 years at 194 NE Iberian lane and each year the airplane noise continues to get louder and more frequent. It's to the point where I am planning on moving out of the city/county and probably out of the state of Oregon in general.

I feel like you do not take consideration of the people that live around the airport and just want to take money from the businesses that are gonna supposedly put back into the community but probably in people's back pockets were not naïve to this. It's been happening since the beginning of time. It's disruptive. It's disrupt my sleep and my children. Sleep on several occasions and I know that it is affecting my neighbors as well. We're tired and we're over it! Money should not come before people and their quality of life. I don't even wanna know what's in the air and what we've been breathing. and if I sound angry, it's because I am. I've been dealing with this noise pollution for years now and I'm over it bye-bye my taxpayer dollars pretty soon.

But short answer to your question I am a real person so thanks for listening to me, but you probably won't anyways cause the money talks

Typos courtesy of my iPhone

> On Aug 10, 2026, at 7:51 AM, Ruth Klein <Ruth.Klein@hillsboro-oregon.gov> wrote:

> Good morning,

>

> Testimony require the first and last name of the person providing the testimony. If you would like this emailed testimony to be considered by the Council please resend the email with the inclusion of your first and last name by August 14th, 5pm.

>

> Thank you,

> -Ruth

>

> Ruth Klein | Senior Planner

> City of Hillsboro | Community Development: Planning Division

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>

> -----Original Message-----

> From: Council <Council@hillsboro-oregon.gov>

> Sent: Sunday, August 9, 2026 1:26 PM

> Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>

> Subject: FW: Sky Harbour

>

> Council - FYI

>

> Amber Rios, MMC | City Recorder

> City of Hillsboro | City Manager's Office

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>

> -----Original Message-----

> From: H Q <grinch4me@hotmail.com>

> Sent: Saturday, August 8, 2026 5:11 PM

> To: Council <Council@hillsboro-oregon.gov>

> Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org

> Subject: Sky Harbour

>

> [Some people who received this message don't often get email from grinch4me@hotmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

>

> Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

>

> Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

>

- > • Application fails to meet the City's approval criteria.
- > • Applicant relies on false statements made to the FAA.

> • Applicant failed to carry their burden of proof.

> • Procedural errors.

>

> The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

>

> • Noise Pollution

> • Air Pollution

> • Adverse Health Impacts

> • Reduced Property Values

> • Carbon Emissions

>

> I respectfully request that DR-044-25 be denied. Thank you.

>

>

>

> Typos courtesy of my iPhone

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Ragas: Jethub Comment
Date: Tuesday, August 11, 2026 03:27:57 PM

Council - FYI

Amber Rios, MMC | City Recorder

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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Wayne Ragas <ltlrags@yahoo.com>
Sent: Monday, August 10, 2026 4:49 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Ragas: Jethub Comment

You don't often get email from ltlrags@yahoo.com <<mailto:ltlrags@yahoo.com>> . Learn why this is important <<https://aka.ms/LearnAboutSenderIdentification>>

When I bought my house I knew that I would be living in the flight path of the Hillsboro airport. I knew that I would see and hear many prop planes and several jets daily. I also learned that a C130 would rattle my windows in the lead up to the annual air show. I accept all of that as the price I pay for living on Cooper Mountain.

What I didn't foresee is that the small, regional airport that enables the overflights would want to add more capacity for the loudest jets, and that the decision would be controlled by a city council when the

impact would be absorbed by the communities far beyond its reach. I hope you'll consider that your decision extends outside the city limits and weigh the repercussion of that decision on the thousands of neighbors living in the flight path of your city's airport.

I only have two concerns, both involving the noise throughout the three seasons when I like to leave windows open:

* Daytime noise: I work from home, as do many of my neighbors. Much of my work involves teleconferences, and because of high-frequency hearing loss I use a speaker which picks up more ambient noise.

* Nighttime noise: I sleep with windows open most nights. While prop planes pass mostly unnoticed, jets invade my sleep and can be heard for a much longer period.

Wayne Ragas

7908 SW Red Sunset Lane

Aloha, OR 97007

From: Rylee Ryan <reese024@gmail.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour - APPEAL
Date: Thursday, August 13, 2026 09:17:21 AM

[You don't often get email from reese024@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

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- Reduced Property Values
- Carbon Emissions

Please please don't pass this, this is right over our home. Please please don't do this to us.

I respectfully request that DR-044-25 be denied. Thank you.

From: Teri Sall <terisall@icloud.com>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Saturday, August 08, 2026 02:19:51 PM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: FW: Schlanser: Sky Harbor Appeal
Date: Tuesday, August 11, 2026 3:25:57 PM
Attachments: [Skyharbor appeal.pdf](#)

Council - FYI

Amber Rios, MMC | *City Recorder*

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| [अनुवाद और व्याख्या](#)

From: mschlanz@aol.com <mschlanz@aol.com>
Sent: Monday, August 10, 2026 9:29 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Schlanser: Sky Harbor Appeal

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. Please find the attached statement.

Matt Schlanser

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

The proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. I am going to speak from personal experience on the impacts to my home with respect to the following:

- Noise Pollution: A few days ago, I went outside for a run at 6 AM. Within 10 minutes, I heard two jets fly directly over my residence at this early hour. This is not acceptable. This is without increased traffic proposed by the Sky Harbor development. When I returned from my run, another jet flew right over my residence. The flights today are already too much, and I can't imagine increasing the number of flights above what we already experience today—which is already a large disturbance.
- Air Pollution: The amount of pollution dispersed from increased flights will land directly on the neighborhoods and areas under the flight paths.

I respectfully request that DR-044-25 be denied. If not, my family will be moving and leaving the area. Our home is supposed to be a safe area--a refuge from noise, pollution, health impacts from external sources. The reduction to our property values are secondary effect that are too much to stomach. The Sky Harbor development is extremely harmful to community in its path.

Matt Schlanser

From: [Council](#)
Cc: [Ruth Klein](#)
Subject: Seymour: CPO6 Opposition to Sky Harbour
Date: Wednesday, August 12, 2026 1:47:10 PM
Attachments: [Sky Harbor Opposition.pdf](#)
Importance: High

Amber Rios, MMC | *City Recorder*

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| [अनुवाद और व्याख्या](#)

From: Ken Seymour <ken.seymour@comcast.net>
Sent: Wednesday, August 12, 2026 12:48 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org; kqrz.fm@gmail.org
Subject: CPO6 Opposition to Sky Harbour
Importance: High

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Please see enclosed letter for the hearing on August 18th.

Regard, Ken Seymour

Ken Seymour
xChair, CPO6
503-720-2200

CPO6 | Aloha-Reedville
Cooper Mountain



August 12, 2026

To: Mayor Pace and the Hillsboro City Council

RE: Hillsboro Airport and Sky Harbour Expansion, Application DR-044-25

Dear Mayor and Council Members,

We are writing to express our strong opposition to Land Use Application **DR-044-25**, submitted by the **Sky Harbour Group**, for expansion of jet operations at the Hillsboro Airport.

The proposed expansion would increase aircraft traffic, noise, and air pollution for surrounding communities, while adding unnecessary carbon emissions. These impacts are particularly concerning for residents beneath the established flight paths over Cooper Mountain and portions of Bull Mountain.

CPO6 has historically opposed expansion and has repeatedly heard concerns from community members regarding aircraft noise and the close proximity of flights over these populated areas. CPO6¹ has also attempted to work with the FAA to make modest adjustments to flight paths to reduce flights over Cooper Mountain's natural riparian and wildlife habitat and nearby residential areas, without success. Aircraft and jets can currently fly as low as 1,000 feet above ground in these areas. This is too close and extremely noisy. More air traffic would profoundly make the noise pollution worse.

We understand that **DR-044-25 does not meet the City's applicable approval criteria**. Given the significant impacts on residents, natural habitat, and the environment, we respectfully request that the Hillsboro City Council **deny Land Use Application DR-044-25**.

Thank you for your consideration of the concerns of the affected communities.

Sincerely,

Ken Seymour, **xCPO6 Chairperson**

¹ **Note:** Washington County has recently disbanded the CPO programs: i.e.: Community Participation Organization

From: Rob and Darlene Shelby <d.shelby@comcast.net>
To: council@hillsboro-oregon.gov
Cc: Ruth.Klein@hillsboro-oregon.gov; action@oregonair.org
Subject: Sky Harbour
Date: Friday, August 14, 2026 11:28:17 AM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied.

Thank you.

Rob and Darlene Shelby

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Shingler: Sky Harbour - The air traffic noise over my home
Date: Thursday, August 13, 2026 11:04:25 AM

Council - FYI

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-----Original Message-----

From: Bob Shingler <bobs503@gmail.com>
Sent: Thursday, August 13, 2026 9:33 AM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Shingler: Sky Harbour - The air traffic noise over my home

[You don't often get email from bobs503@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County.

The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

Additionally, there is increasing traffic from prop planes with excessively loud open exhaust that fly lower than the jet traffic, which is a considerable disruption to our otherwise beautiful and peaceful neighborhood.

I respectfully request that DR-044-25 be denied.

Thank you for your consideration.

--

Bob Shingler

7997 SW 189th Ave

Beaverton, OR 97007

Cell (503) 642-4548

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Smith: Sky Harbour
Date: Tuesday, August 11, 2026 03:29:55 PM

Council - FYI

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-----Original Message-----

From: David Smith <david.personalsaga@gmail.com>
Sent: Monday, August 10, 2026 3:47 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Smith: Sky Harbour

[You don't often get email from david.personalsaga@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts

- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Sincerely,

David Michael Smith

971-777-9876

Sent from an Inner Realm.

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Smith: Sky Harbour
Date: Friday, August 14, 2026 03:16:32 PM

Council - FYI

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繁體中文 <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/traditional-chinese>>
| हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Hillsboro, OR <noreply@hillsboro-oregon.gov>
Sent: Thursday, August 13, 2026 5:31 PM
To: Council <Council@hillsboro-oregon.gov>
Subject: Smith: Sky Harbour

Contact the Mayor and/or City Council

Submission #:

5056689

IP Address:

2601:1c0:4400:6910:a4de:120c:cbe9:256

Submission Date:

08/13/2026 5:31

Survey Time:

4 minutes, 18 seconds

You have a new online form submission.

Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Full Name

Shira Smith

Full Address (Optional)

5284 Northeast Harrow Street

Hillsboro, 97124

Email

shira.smith@gmail.com <mailto:shira.smith@gmail.com>

Phone

(808) 398-5912

Preferred Contact Method

Please reply by email address

Read-Only Content

Who would you like to contact?

Hillsboro Mayor Beach Pace

Read-Only Content

Your Question or Comment:

Dear Mayor Pace, First of all, big fans of you and your work. Just wanted, in case we can't make it to the Aug 18th public meeting, that Thom and I strongly object to the proposed Sky Harbour jet hub. It would benefit only the 1% leaving the rest of us to hear their noise and deal with their pollution. Please do what you can to block this before it even starts. Respectfully, Shira Smith and Thom Hudson

Read-Only Content

Thank you,

City of Hillsboro, OR

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From: Patrick Taylor <patrondrone@gmail.com>

To: Ruth.Klein@hillsboro-oregon.gov

Cc: action@oregonair.org

Subject: Sky Harbour

Date: Friday, July 31, 2026 07:18:39 AM

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Patrick Taylor

19320 SW Cedarview Ln

Beaverton, OR. 97007

503.449.4825

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Weber: Sky Harbour
Date: Tuesday, August 11, 2026 03:30:22 PM

Council - FYI

Amber Rios, MMC | City Recorder

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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Larry W <wbrlkm@gmail.com>
Sent: Monday, August 10, 2026 3:42 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Weber: Sky Harbour

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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

Thank you for the opportunity to comment on the Sky Harbour appeal. I ask that you overturn the Planning Commission's decision, which was improperly made, and deny this land use application (DR-044-25) on the following grounds:

- Application fails to meet the City's approval criteria.
- Applicant relies on false statements made to the FAA.
- Applicant failed to carry their burden of proof.
- Procedural errors.

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code, including:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Larry Weber

From: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>
Subject: FW: Winston: Sky Harbour Land Use Appeal
Date: Tuesday, August 11, 2026 03:27:27 PM

Council - FYI

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हिन्दी <<https://www.hillsboro-oregon.gov/our-city/diversity-equity-and-inclusion/hindi>>

From: Marcus Winston <marcus@thechocolatehouse.net>
Sent: Monday, August 10, 2026 4:56 PM
To: Council <Council@hillsboro-oregon.gov>
Cc: Ruth Klein <Ruth.Klein@hillsboro-oregon.gov>; action@oregonair.org
Subject: Winston: Sky Harbour Land Use Appeal

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<<mailto:marcus@thechocolatehouse.net>> . Learn why this is important
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Dear Mayor Pace, Council President Harris, and Hillsboro City Council:

I would like to take this opportunity to comment on the Sky Harbour land use appeal. I ask that you overturn the Planning Commission's decision, which failed to follow the required processes, and deny this land use application (DR-044-25) on the following grounds, all of which are substantive and

material errors and omissions:

- Application fails to meet the City's approval criteria
- Applicant relies on false statements made to the FAA
- Applicant failed to carry their burden of proof
- Procedural errors

The operating characteristics of the proposed development would cause perpetual harm to the residents of Hillsboro and Washington County. of which I am one. The negative impacts of this development have not been fully evaluated, minimized, or mitigated as required by the Hillsboro Community Development Code.

As a resident who lives under the approach path, I am already bothered by the continuous expansion of HIO operations, by the Port of Portland, including recently extending the permitted operating hours to very early morning and very late at night. This is disturbing my sleep, my family, and negatively impacting my quality of life. Since it is abundantly clear that the Planning Commission failed to follow process, and completely failed to take into account the residents' input, this "decision" must be overturned, and the Planning Commission be publicly reprimanded for what used to be called malfeasance. Such behavior by public officials is unacceptable. Among the things they failed to include were:

- Noise Pollution
- Air Pollution
- Adverse Health Impacts
- Reduced Property Values
- Carbon Emissions

I respectfully request that DR-044-25 be denied. Thank you.

Marcus Winston

Washington County resident