

APPENDIX H

Public Outreach

This Appendix includes details of public outreach conducted for the Tampa International Airport Draft Noise Exposure Map Update. Documentation in this Appendix includes copies of public workshop notices, workshop presentation boards and handouts, and other public outreach materials.

- Appendix H-1 October 2020 Kick-off Public Workshops
 - Meeting Notices
 - Attendance/Sign-in Sheets
 - Presentation Materials
- Appendix H-2 Noise Abatement 101 (*Presented by HCAA*)

Appendix H-1

October 2020 Kick-off Public Information Workshops

October 2020 Kick-off Public Information Workshops

Meeting Notices

Tampa Bay Times
Published Daily

STATE OF FLORIDA
COUNTY OF Hillsborough

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Before the undersigned authority personally appeared Deirdre Almeida who on oath says that he/she is Legal Advertising Representative of the Tampa Bay Times a daily newspaper printed in St. Petersburg, in Pinellas County, Florida, that the attached copy of advertisement, being a Legal Notice in the matter RE: Notice of Public Workshops English was published in Tampa Bay Times: 9/6/20, 9/23/20 in said newspaper in the issues of Baylink Hillsborough

Affiant further says the said Tampa Bay Times is a newspaper published in Hillsborough County, Florida and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida each day and has been entered as a second class mail matter at the post office in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that he/she neither paid not promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper

Signature Affiant

Sworn to and subscribed before me this 09/23/2020

Signature of Notary Public

Personally known or produced identification

Type of identification produced _____

**Notice of Public Workshops for
Part 150 Noise Exposure Map Update
Tampa International Airport**

Hillsborough County Aviation Authority (HCAA) recently began a study to evaluate the noise compatibility of Tampa International Airport with the surrounding communities. This study, a "Noise Exposure Map (NEM) Update," will follow the process outlined in Title 14 of the Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning.

The HCAA invites you to attend one of three public workshops that will provide information on the NEM Update. Due to the ongoing health and safety concerns related to COVID-19, two of these workshops will be conducted virtually through an internet-based meeting platform, including a teleconference option. For those who have limited access to internet, an in-person meeting option will be held by appointment only, and will comply with all CDC guidelines. For all public workshops, there will be a 20-minute presentation reviewing information on the Study process, project schedule, an introduction to noise, and information about modeling aircraft noise exposure. The presentation will be followed by a question and answer session to provide the community an opportunity to submit questions and receive answers, in real time, from the Study Team.

To register for the virtual workshops, and obtain any updated meeting information, please visit <http://bit.ly/tpaworkshop>. The virtual workshops will be recorded, and the videos will be posted to www.tampaairport.com/part-150-study to allow the community members to view at a later time.

Community members can also call in (toll free) to listen to the scheduled virtual workshops at: 833-548-0282 or 877-853-5247.

The Conference ID Number is 865 9411 6939.

The workshops will be held on the following dates and times:

DATE: Monday, October 5, 2020 (Virtual)
TIME: 10:00 a.m. - 12:00 p.m.
REGISTER: <http://bit.ly/tpaworkshop>

DATE: Tuesday, October 6, 2020 (Virtual)
TIME: 5:30 p.m. - 7:30 p.m.
REGISTER: <http://bit.ly/tpaworkshop>

DATE: Thursday, October 8, 2020 (By appointment only)
TIME: 9:00 a.m. - 7:00 p.m.
LOCATION: Aviation Authority Boardroom at Tampa International Airport
RSVP: Reservations are required for the in-person meeting. Please email AirportMeeting@qcausa.com or call 813-397-8005 and a member of the Study Team will respond with a confirmation and meeting instructions.

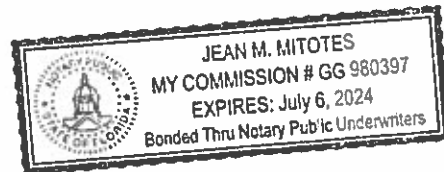
In addition to the informal question and answer process during each workshop, all interested parties are encouraged to submit formal comments in writing. To maximize the opportunity for feedback, the formal comment period will begin on September 6, 2020 and end at 5:00 p.m. on October 16, 2020. Please submit comments by mail (postmarked by October 16, 2020) to:

ESA, c/o TPA Part 150 Study, 4200 West Cypress St., Suite 450, Tampa, FL 33607

At key points during the project, updates on study progress will be posted on the project website at www.tampaairport.com/part-150-study. HCAA will also host additional outreach to provide future opportunities for input, including another series of Public Workshops in early 2021 to present the NEMs. Additionally, HCAA encourages all interested parties to monitor the project website for the latest study information and announcements.

9/6/20, 9/23/20

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Tampa Bay Times
Published Daily

STATE OF FLORIDA
COUNTY OF Hillsborough

} SS

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Affiant further says the said **Tampa Bay Times** is a newspaper published in Hillsborough County, Florida and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida each day and has been entered as a second class mail matter at the post office in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that he/she neither paid not promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signature Affiant

Sworn to and subscribed before me this **09/23/2020**

Signature of Notary Public

Personally known X or produced identification

Type of identification produced _____

Aviso de Talleres Públicos para la Parte 150 de la Actualización del Mapa de Exposición al Ruido Aeropuerto Internacional de Tampa

La Autoridad del Aeropuerto del Condado de Hillsborough (HCAA) recientemente comenzó un estudio para evaluar la compatibilidad del Aeropuerto Internacional de Tampa con las comunidades circundantes. Este estudio, una "Actualización del Mapa de Exposición al Ruido (NEM)," seguirá el proceso descrito en el Título 14 del Código de Regulaciones Federales (CFR) Parte 150, Planificación de Compatibilidad de Ruido en el Aeropuerto.

La HCAA te invita a asistir a uno de los tres talleres públicos que brindarán información sobre la Actualización NEM.

Debido a las preocupaciones actuales de salud y seguridad relacionadas con COVID-19, dos de estos talleres se llevarán a cabo virtualmente a través de una plataforma de reuniones basada en línea, incluyendo una opción de teleconferencia. Para aquellos que tienen acceso limitado a la Internet, una opción de reunión en persona se llevará a cabo solo con cita previa y cumplirá con todas las pautas de seguridad de la CDC. Para todos los talleres públicos, habrá una presentación de 20 minutos sobre el proceso del estudio, el cronograma del proyecto, una introducción al ruido e información sobre el modelado de la exposición al ruido de las aeronaves. Una sesión de preguntas y respuestas seguirá a la presentación para brindar a la comunidad la oportunidad de hacer preguntas y recibir respuestas del Equipo del Estudio en tiempo real.

Para registrarse en los talleres virtuales y obtener información actualizada sobre la reunión, visite <http://bit.ly/tpaworkshop>. Se grabarán los talleres virtuales y se publicarán los videos en www.tampaairport.com/part-150-study para permitir que los miembros de la comunidad vean en cualquier momento.

Los miembros de la comunidad también pueden llamar (sin cargo) para escuchar los talleres virtuales programados al 833-548-0282 o al 877-853-5247.

El número de identificación de la conferencia es 865 9411 6939.

Los talleres se realizarán en las siguientes fechas y horarios:

FECHA: lunes, 5 de octubre de 2020 (Virtual)
HORA: 10:00 a.m. - 12:00 p.m.
REGISTRARSE: <http://bit.ly/tpaworkshop>

FECHA: martes, 6 de octubre de 2020 (Virtual)
HORA: 5:30 p.m. - 7:30 p.m.
REGISTRARSE: <http://bit.ly/tpaworkshop>

FECHA: jueves, 8 de octubre de 2020 (Por cita solamente)
HORA: 9:00 a.m. - 7:00 p.m.
LUGAR: Sala de juntas de la Autoridad de Aviación en el Aeropuerto Internacional de Tampa
RSVP: Se requieren reservaciones para la reunión en persona. Para reservar un asiento para esta reunión, por favor envíe un mensaje por correo electrónico a AirportMeeting@qcausa.com o llame al 813-397-8005 y un miembro del equipo de estudio responderá con una confirmación e instrucciones para la reunión.

Además del proceso informal de preguntas y respuestas durante cada taller, se anima a todas las partes interesadas a enviar comentarios formales por escrito. Para maximizar la oportunidad de recibir comentarios, el período de comentarios formales comenzará el 6 de septiembre de 2020 y finalizará a las 5:00 p.m. el 16 de octubre de 2020. Envíe sus comentarios por correo (con matasellos del 16 de octubre de 2020) a:

ESA, c/o TPA Part 150 Study, 4200 West Cypress St., Suite 450, Tampa, FL 33607

En los puntos clave durante el proyecto, las actualizaciones sobre el progreso del estudio se publicarán en el sitio web del proyecto en www.tampaairport.com/part-150-study. La HCAA también organizará actividades de divulgación adicionales para brindar más oportunidades para el aporte público en el futuro, incluyendo otra serie de talleres públicos a principios de 2021 para presentar el NEM. Además, la HCAA alienta a todas las personas interesadas a monitorear el sitio web del proyecto para obtener la información y anuncios más recientes del proyecto.

9/6/20, 9/23/20

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October 2020 Kick-off Public Information Workshops

Attendance/Sign-in Sheets

TPA Part 150 Study Workshop Attendee Report

Attendee Details

Attended	User Name	First Name	Last Name	Join Time	Leave Time	Time in Session (minutes)
Yes	Margaret Kirkman	Margaret	Kirkman	10/5/2020 7:01	10/5/2020 7:56	55
Yes	Callie Almond	Callie	Almond	10/5/2020 7:01	10/5/2020 8:16	75
Yes	John Few	John	Few	10/5/2020 7:00	10/5/2020 8:02	62
Yes	Becky Kratz	Becky	Kratz	10/5/2020 7:01	10/5/2020 8:03	62
Yes	Chris Nollette	Chris	Nollette	10/5/2020 7:01	10/5/2020 7:45	45
Yes	Martha Holmes	Martha	Holmes	10/5/2020 7:00	10/5/2020 8:21	81
Yes	William Mosley	William	Mosley	10/5/2020 7:01	10/5/2020 8:10	70
Yes	john fernandez	john	fernandez	10/5/2020 7:01	10/5/2020 7:58	58
No	Brandon	Brandon	Bailey	--	--	--
No	Charles	Charles	Montgomery	--	--	--
No	Jeffrey	Jeffrey	Covert	--	--	--
No	Lori	Lori	Buck	--	--	--
No	Don	Don	Niederpruem	--	--	--
No	SUSAN	SUSAN	HUSTON	--	--	--
No	Colleen	Colleen	Quinn-Adams	--	--	--
No	Charles	Charles	Reynolds	--	--	--
No	Joseph	Joseph	Sampson	--	--	--
No	Adam	Adam	Altice	--	--	--

Other Attended

User Name	Join Time	Leave Time	Time in Session (minutes)
1813#####49	10/5/2020 7:00	10/5/2020 7:20	20
1407#####94	10/5/2020 6:34	10/5/2020 8:21	107

TPA Part 150 Study Workshop Attendee Report

Attendee Details

Attended	User Name	First Name	Last Name	Join Time	Leave Time	Time in Session (minutes)
Yes	Allison Roberts	Allison	Roberts	10/6/2020 14:32	10/6/2020 15:50	79
Yes	Chantel Heitler	Chantel	Heitler	10/6/2020 14:45	10/6/2020 14:46	2
Yes	Deborah Wyko	Deborah	Wyko	10/6/2020 14:30	10/6/2020 15:21	51
Yes	Joe Simmons	Joe	Simmons	10/6/2020 14:38	10/6/2020 15:17	40
Yes	Robert Saltzman	Robert	Saltzman	10/6/2020 14:53	10/6/2020 14:53	1
Yes	Robert Saltzman	Robert	Saltzman	10/6/2020 14:54	10/6/2020 15:15	22
Yes	Jack Nerro	Jack	Nerro	10/6/2020 14:36	10/6/2020 14:52	16
Yes	Ali Arshad	Ali	Arshad	10/6/2020 14:33	10/6/2020 15:50	78
Yes	Martha Holmes	Martha	Holmes	10/6/2020 15:30	10/6/2020 15:50	21
Yes	Trey Hodapp	Trey	Hodapp	10/6/2020 14:34	10/6/2020 15:32	59
Yes	Rlc R	Rlc	R	10/6/2020 14:37	10/6/2020 15:14	37
Yes	Joan Dance	Joan	Dance	10/6/2020 14:31	10/6/2020 14:32	1
Yes	Joan Dance	Joan	Dance	10/6/2020 14:37	10/6/2020 15:50	74
Yes	Michael Steighner	Michael	Steighner	10/6/2020 14:30	10/6/2020 15:50	81
Yes	Tina Rhodes	Tina	Rhodes	10/6/2020 14:33	10/6/2020 14:39	6
Yes	Adam Altice	Adam	Altice	10/6/2020 14:31	10/6/2020 15:01	31
Yes	Holly Simmons	Holly	Simmons	10/6/2020 14:30	10/6/2020 15:50	81
No	Jason	Jason	Carter	--	--	--
No	Robert	Robert	Meade	--	--	--
No	Jenifer	Jenifer	McCoy	--	--	--
No	Yvonne	Yvonne	Casares	--	--	--
No	Gladys	Gladys	Brown	--	--	--
No	Peter	Peter	Green	--	--	--
No	Tamara	Tamara	Hunt	--	--	--
No	Nicole	Nicole	Gulledge	--	--	--
No	Kanta	Kanta	Murjani	--	--	--
No	SUSAN	SUSAN	HUSTON	--	--	--
No	Pamela	Pamela	Dato	--	--	--
No	Adam	Adam	Altice	--	--	--
No	Ralph	Ralph	Beaver	--	--	--

Other Attended

User Name	Join Time	Leave Time	Time in Session (minutes)
1813#####82	10/6/2020 14:30	10/6/2020 14:57	27
1407#####94	10/6/2020 14:00	10/6/2020 15:50	111
Call-In User_1	10/6/2020 13:43	10/6/2020 13:45	2

October 2020 Kick-off Public Information Workshops
Presentation Materials



Welcome!

**TAMPA INTERNATIONAL AIRPORT
PART 150 NOISE EXPOSURE MAP UPDATE
KICK-OFF PUBLIC WORKSHOPS**



Presentation Summary

- Tampa International Airport (TPA) Overview
- 14 CFR Part 150 Overview
- Day-Night Average Sound Level (DNL)
- Land Use Compatibility
- DNL Contour Example
- Noise Modeling
- Existing Noise Program at TPA
- Stakeholder Outreach
- Project Schedule
- Official Public Comment



TPA Overview

- TPA covers 3,300 acres at an elevation of 26 feet
- Consists of three runways:
 - Runway 1L/19R - 11,002' long by 150' wide
 - Runway 1R/19L - 8,300' long by 150' wide
 - Runway 10/28 - 6,999' long by 150' wide
- TPA is served by approximately 20 different airlines flying to more than 70 domestic and international destinations
- Amazon, FedEx, and UPS are the primary cargo carriers operating at TPA
- Air travel has decreased in 2020 due to COVID-19



TPA Overview



Florida Department of Transportation (FDOT) estimates that TPA supports 80,000 direct and indirect jobs in the Tampa area



TPA served 217,502 operations and approximately 22.4 million passengers in 2019



FDOT estimates that TPA has an economic impact of \$14.45 billion



Over 200,000 tons of cargo activity at TPA in 2018

Monthly Activity Profile



14 CFR Part 150 Overview

- The Part 150 process is an Airport Sponsor’s official mechanism to understand and improve land use compatibility
- Establishes methodology to prepare aircraft Noise Exposure Maps (NEMs) and Noise Compatibility Programs (NCPs)
- Noise studies must adhere to 14 CFR Part 150 guidelines to be accepted or approved by FAA
- Why conduct a Part 150 noise study?
 - Determine existing and future noise around an airport
 - Evaluate flight procedure/land use changes
 - Educate stakeholders about the process and what can and cannot be done to address aircraft noise concerns



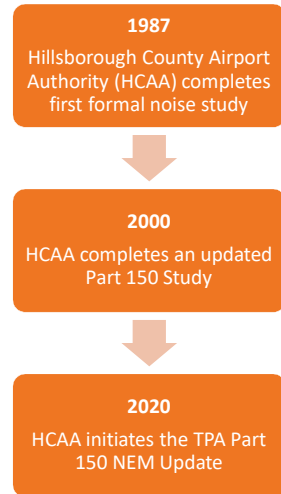
This Part 150 study involves an update to the TPA Part 150 Noise Exposure Maps



14 CFR Part 150 Overview

Key Considerations for this Part 150 NEM Update

- Aircraft technology has improved and aircraft are quieter; however, noise concerns continue
- Existing NEMs are nearly 20 years old
- Increased nighttime cargo operations since the 2000 Part 150 Study; likely to decrease once Amazon moves its cargo operations from TPA to Lakeland Linder in 2021
- Aircraft upgauging (utilizing larger aircraft) has offset the increase in passenger activity, but larger aircraft are perceived as flying lower, which raises community concerns
- Community concerns related to air emissions, soot, oily substances, fuel, safety, and health impacts are often contributing factors to concerns about noise, but are outside of the Part 150 Study process



14 CFR Part 150 Overview

Regulatory Framework

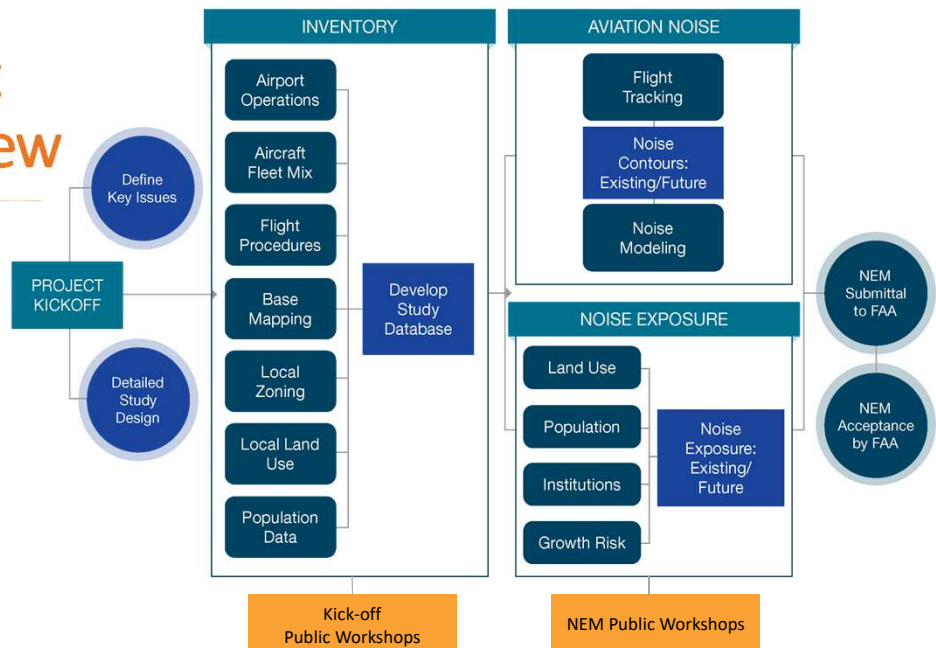
- Federal law sets aircraft noise standards, operating rules, the compatibility planning process, and limits an airport's ability to restrict aircraft operations
- State law sets forth zoning compatibility planning guidelines
- Local noise ordinances set noise standards, but aircraft are exempt

Who Can Regulate Airport Noise?

- Federal Aviation Administration
 - Controls aircraft while in flight
 - Controls noise at its source (i.e., aircraft engines)
 - Certifies aircraft and pilots
- Airport Proprietors/HCAA
 - Very limited authority to adopt local restrictions
 - Responsible for airport infrastructure
- Local Governments and States
 - Promote compatible land use through zoning
 - Require real estate disclosure
 - Mandate sound-insulating building materials

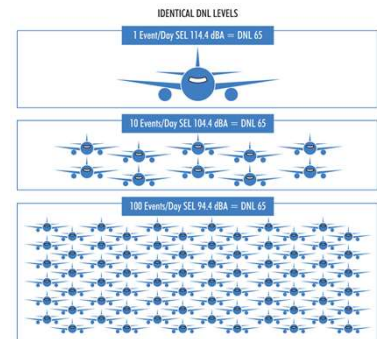
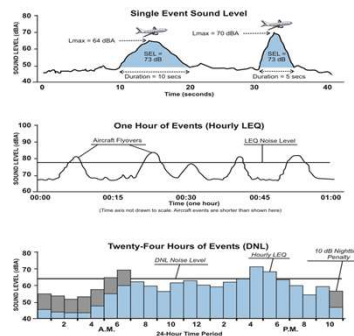


14 CFR Part 150 Overview



Day-Night Average Sound Level (DNL)

- 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)
- Noise occurring between 10 p.m. to 7 a.m. is adjusted by 10 dB to account for the higher sensitivity to noise during nighttime hours
- Average Annual Day aircraft noise exposure is calculated over a broad area and then depicted using contour lines of equal noise levels
- FAA requires the use of DNL for all airport noise assessments and environmental studies conducted nationally



Land Use Compatibility

Table 1 in Appendix A of 14 CFR Part 150 provides regulatory guidelines for noise and land use compatibility

Deems levels below DNL 65 to be compatible with all land uses

Allows for the adoption of appropriate local land use standards for land use compatibility planning purposes

The 14 CFR Part 150 process is the Airport's mechanism to improve the compatibility between the Airport and surrounding communities



Land Use Compatibility

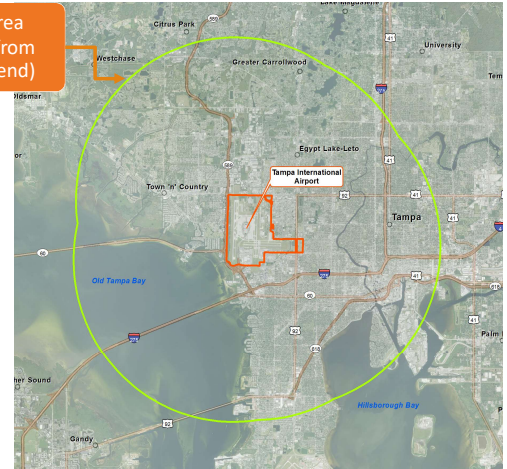
Existing and Future Land Uses

- Parcel data (if different from land use)
- Zoning
- Jurisdictional boundaries and neighborhoods

Noise Sensitive Uses

- Residential
- Places of worship
- Schools, colleges and universities
- Libraries/cultural institutions
- Hospitals and residential healthcare facilities
- Daycare and assisted living facilities
- Historic properties (i.e., properties listed, or eligible for listing, in the National Register of Historic Places)

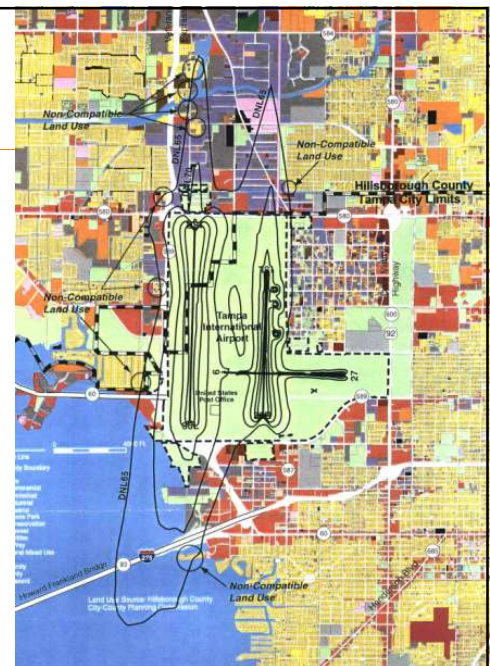
TPA Study Area
(i.e., 30,000' from
each runway end)



DNL Noise Contour Example

Official Noise Exposure Maps for TPA

- Base year (existing condition) and future conditions 5 years in the future
- Year of submittal must be consistent with base year
- Existing Condition: 2021
- Future Condition: 2026
- Existing Condition based on recent 12 months of operational data applied to 2021 projected activity level



Modeling

Noise Modeling

- Aircraft noise modeling allows:
 - Calculation of noise exposure at any point
 - Depicting annual average aircraft noise exposure
 - Predicting future aircraft noise exposure
 - Assessing changes in fleet mix and/or operations
 - Evaluating operational procedures
 - FAA’s Aviation Environmental Design Tool (AEDT) Version 3C will be used for the Part 150 Study



Model Inputs

- The Amount of Noise Exposure is determined by:
 - Aircraft types
 - Stage length
 - Number of average annual day operations
 - Nighttime weighting (1 nighttime operation is equivalent to 10 daytime operations)
- The Noise Exposure Distribution is determined by:
 - Runway configuration and use
 - Flight track locations
 - Flight track use
- Other Factors
 - Meteorological conditions



Existing Noise Program

Voluntary Noise Abatement Program Measures

- To reduce noise from jet aircraft:
 - South operations depart 19R preferred
 - North operations arrive 1L preferred
- Prevent overflight of residential areas – jet aircraft are vectored south of MacDill’s Runway 4
- Initial headings for jet aircraft: 1L/1R: 360°, 19R: 200°, 19L: 210°, 28: 280°, and 10: 100°
- Turboprop aircraft:
 - Departing 1L/1R not permitted to turn more than 20-degrees from the runway heading (7 p.m.–7 a.m.) until 3NM
 - Corporate jet departures may depart 19L at any time, emulating 19R departure path
- Staffing of an airport noise office
- Bi-monthly Community Noise Forum meetings and a “Noise Abatement 101” presentation
- Regular meetings with homeowner’s associations, airlines, fixed based operators (FBOs), and private jet operators

HCAA has a comprehensive and proactive noise management program with very high compliance



Existing Noise Program

- Meetings with other airport noise offices on best management practices
- Handouts for FBOs and pilots about the program
- Publicly released monthly Noise Monitoring Office Report and monthly Community Noise Monitoring Report
- Review and categorization of every deviation from the preferential runway use program
- Reporting of program (runway use) deviation information on TPA’s website daily
- Airport noise monitoring system and flight tracking website
- Online noise complaint portal
- Website updates containing scheduled runway closure information



Stakeholder Outreach

Public Outreach

Initial Public Workshops
October 5-8, 2020
 (Three workshops: Two virtual and one in-person by appointment)

Community Noise Forum Presentation
TBD
 (Four briefings)

Small Community Meetings
TBD
 (Four meetings)

Draft NEM Report Public Workshop
TBD
 (Four workshops)

At key points during the project, newsletters will provide updates on study progress, and will be posted on the project website:

www.tampaairport.com/part-150-study

HCAA will also host additional outreach to provide future opportunities for input. HCAA encourages all interested parties to monitor the project website for the latest study information and announcements.



To maintain public safety, HCAA will be holding public workshops according to guidelines issued by the CDC.



Project Schedule*

- Fall 2020 - Develop Noise Contours
- Spring 2021 – Complete Draft NEM Report and Public Outreach
- Spring 2021 – Respond to Comments on Draft NEM Report
- Late Spring 2021 – Complete Final Draft NEM Report
- Summer 2021 – FAA Completes Review
- Summer 2021 – Complete Final NEM Report
- Late Summer 2021 – FAA Acceptance of NEM Report

**Project Schedule Subject to Change*

HCAA encourages interested parties to use the project website for project updates, study announcements, and educational material

Project Website

[www.tampaairport.com
/part-150-study](http://www.tampaairport.com/part-150-study)



How to Provide Official Public Comments

Questions submitted via the Q&A feature are not considered official public comments. If you would like to submit an official comment, please send your written comments by email to AirportMeeting@qcausa.com or by mail to:

Tampa International Airport
C/O Part 150 Study - Airport Operations
PO Box 22287
Tampa, FL 34622

Please submit your comments by 5PM on October 16, 2020.

Thank You for Your Participation!



Appendix H-2
Noise Abatement 101



Noise Abatement 101

December 2, 2019

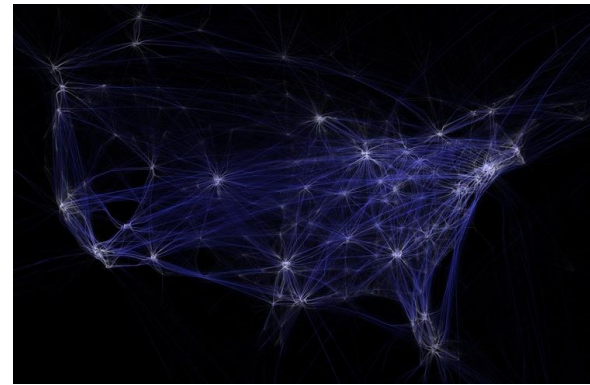


Objectives

- Provide context and a better understanding for how and why flights operate at Tampa International Airport.
- Provide an overview of laws, regulations and other factors that limit airports in implementing restrictions, curfews or fines.
- Review the steps the Hillsborough County Aviation Authority takes on a daily basis to engage and educate stakeholders in an effort to maintain the highest level of compliance possible to the Airport's Voluntary Noise Abatement Program.

U.S. Aviation – Brief Overview

- 532 airports in the nation certified for commercial air service.
- 5,000 aircraft in the air at any given moment.
- Over 600 million passengers fly every year in the U.S.
- 50% increase in U.S. air traffic is projected by 2025.
- Aviation accounts for 11.5 million jobs:
 - Accounting for \$396 billion in annual wages
 - Contributes \$1.3 trillion to the U.S. Economy
 - Accounts for approximately 5.6% of U.S. GDP



Source: FAA Next-Gen 101 Video

Tampa International Airport – Highlights

- Tampa International Airport is one of 29 large hub airports in the nation.
- 22,285,829 passengers served (12 months ending October 2019).
- 214,814 operations (12 months ending October 2019).
- Generates approximately \$14.5 billion in economic activity each year.
- TPA Air Service:
 - 18 Airlines
 - 3 Air Cargo Operators
 - 2 Fixed Based Operators (serving General Aviation)
- Supports over 81,000 jobs in the community.



TPA's Voluntary Noise Abatement Program

Tampa International Airport

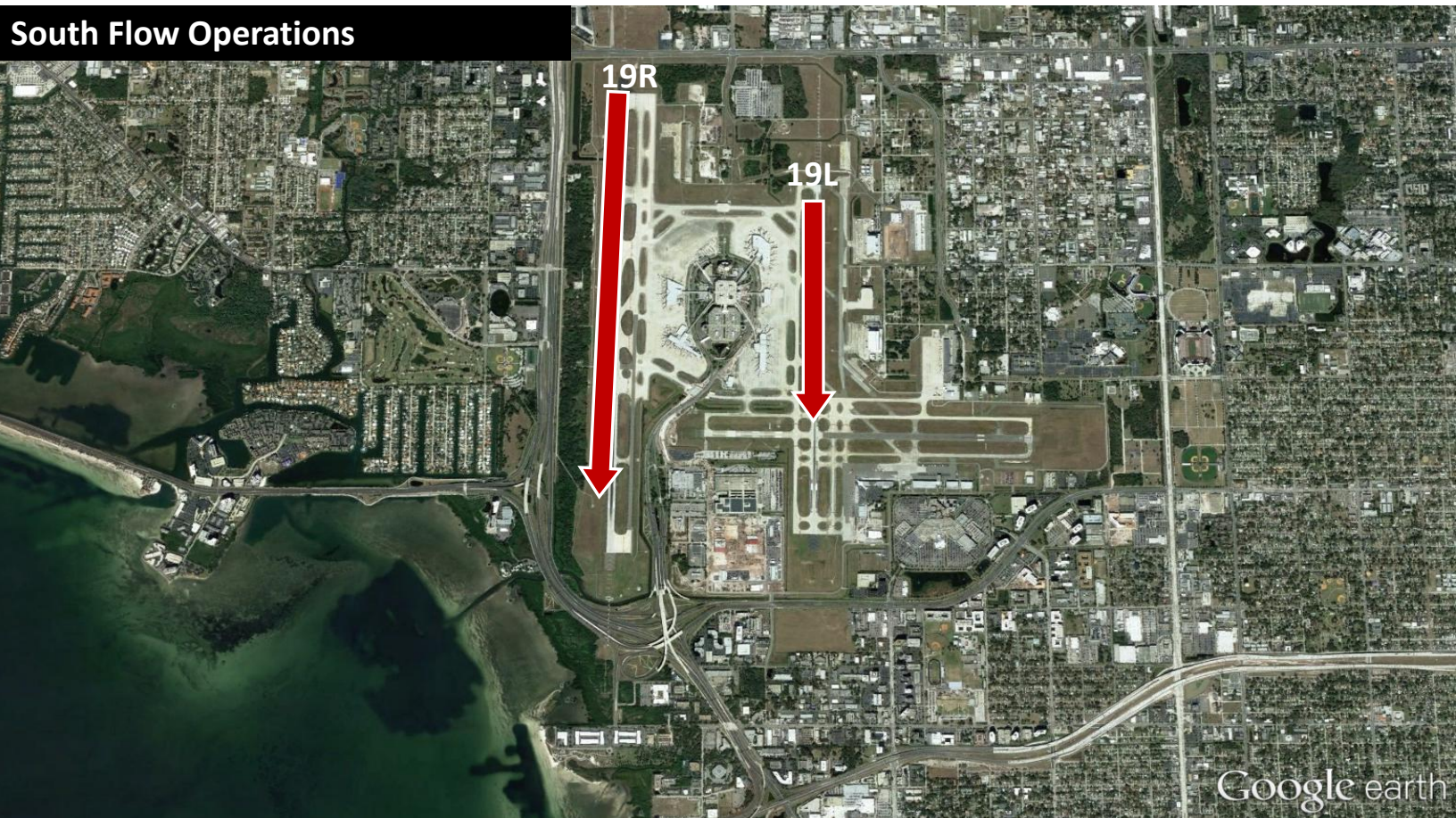


- Part 150 Noise Studies:
 - First completed in 1987.
 - Second completed in 2000.
 - The Airport is in the process of updating the Noise Exposure Map for Tampa International Airport. Public meetings are expected in 2020.
- Pilot compliance with the program is key to the success of the program.
 - Commercial pilots have complied with the Airport's Voluntary Noise Abatement Program over **99%** of the time.
 - The Authority continues to educate corporate jet pilots on the Airport's Noise Program to gain further compliance.
 - On a combined basis, year-to-date corporate and commercial jet pilot compliance is 99%.
 - This is a Voluntary Noise Abatement Program and ultimately, it is up to the pilot and the FAA on how flights are flown over the community.

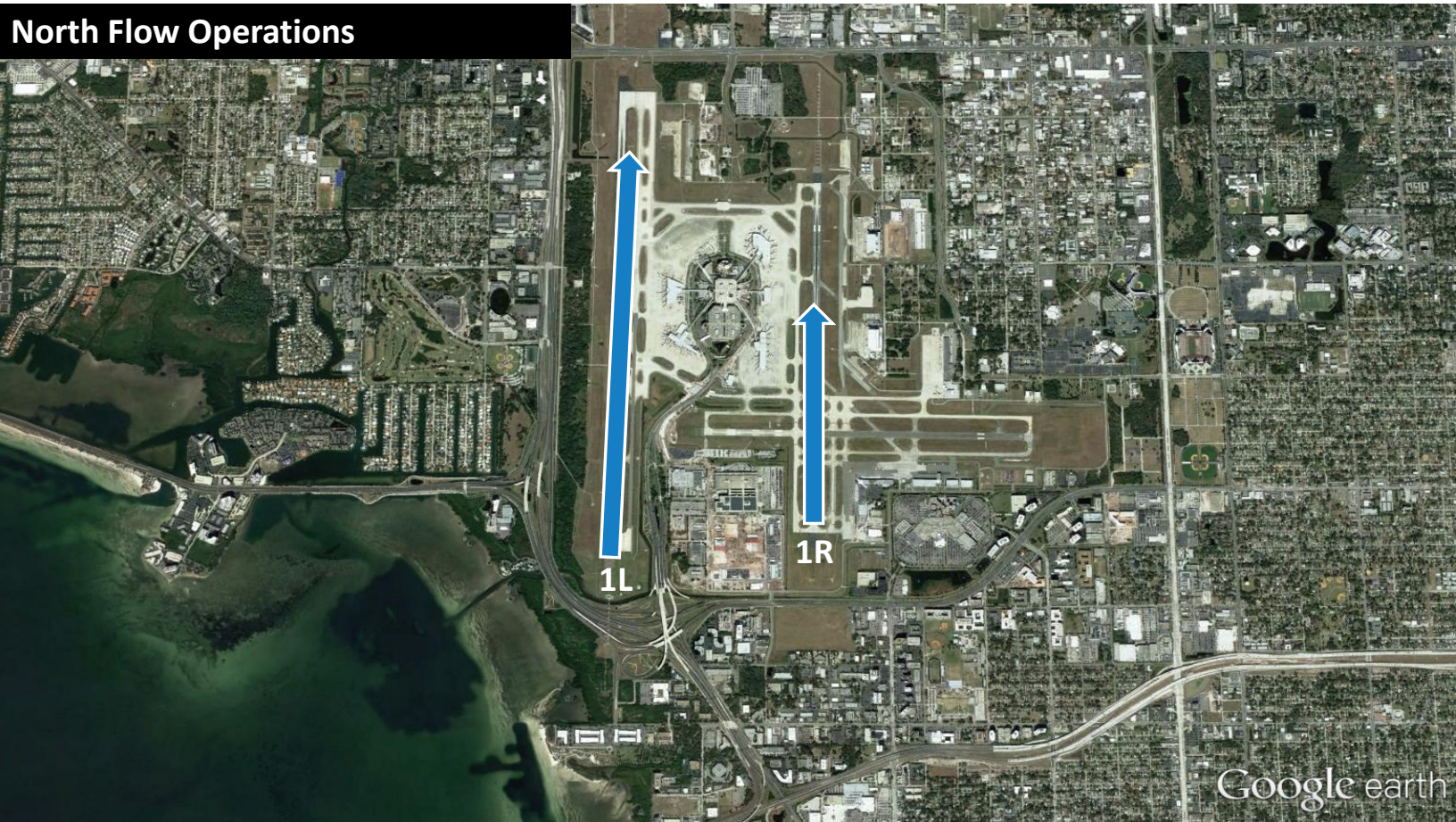
TPA Part 150 Recommendation Highlights

- Preferential Runway Use:
 - Goal is to maximize flights over water to the greatest extent possible.
 - South Flow: Runway 19R is the preferred runway for commercial jet departures, maximizing flights over water.
 - North Flow: Runway 1L is the preferred runway for jet arrivals, maximizing flights over water.
 - There is no stated preference to runway arrivals for south flow arrivals or north flow departures.
- North flow departures are to fly assigned headings to 3,000 ft. before turning on course.
- Full Part 150 study is available online.

South Flow Operations

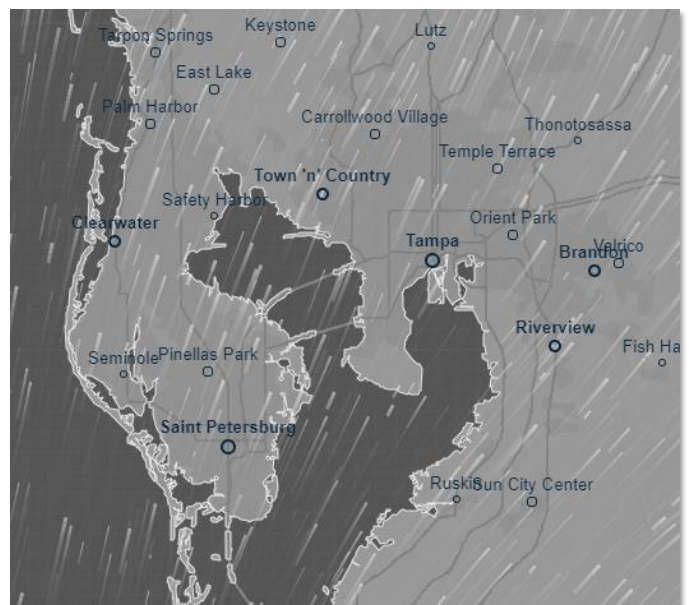


North Flow Operations



Recent Arrival/Departure Flow

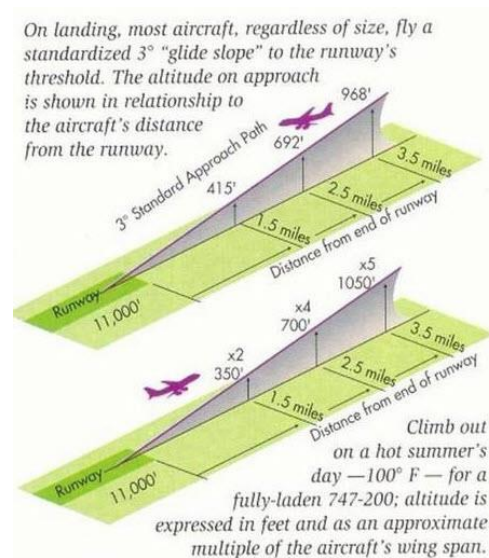
- August 62.4% South Flow
- September 76% North Flow
- October 57% North Flow
- November 79% North Flow



A Stabilized Approach and Why It Matters

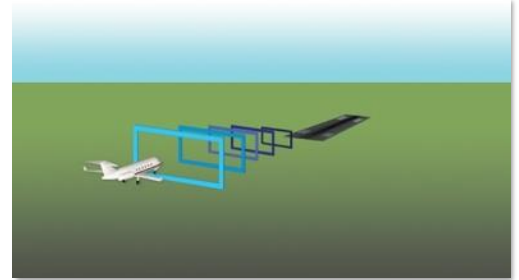
What is a Stabilized Approach?

- A pilot will establish and maintain a constant angle glidepath towards a predetermined point on the landing runway.
- An optimum glidepath follows the 3:1 principle.
 - The last 500 feet to 1000 feet are critical



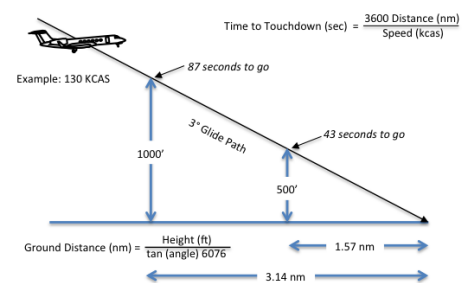
Stabilized Approach (cont'd)

- Stabilized for safety
 - Maintains alignment with the Runway
 - Prevents landing too fast
 - Prevents landing too high
- These situations can result in loss of control of the aircraft and runway surface departure.

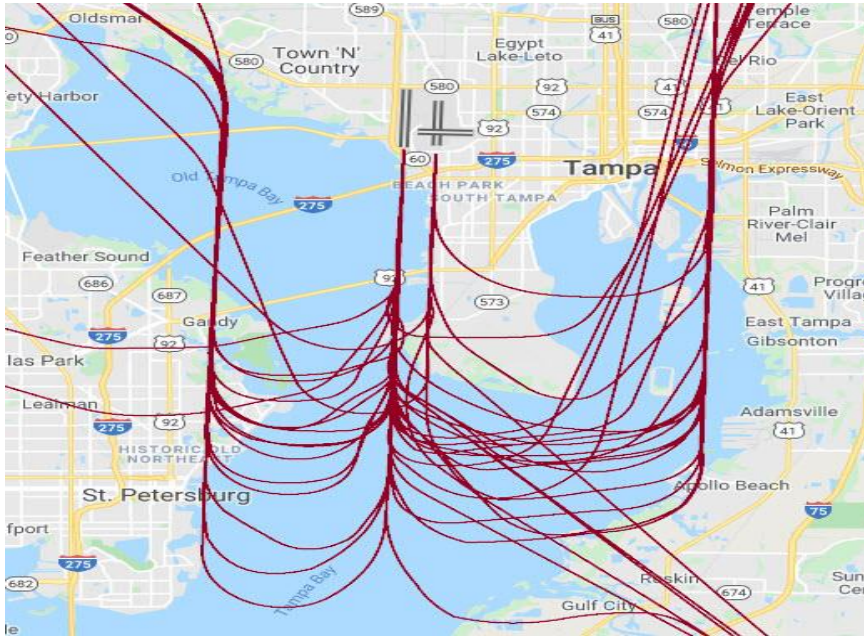


Stabilized Approaches and TPA

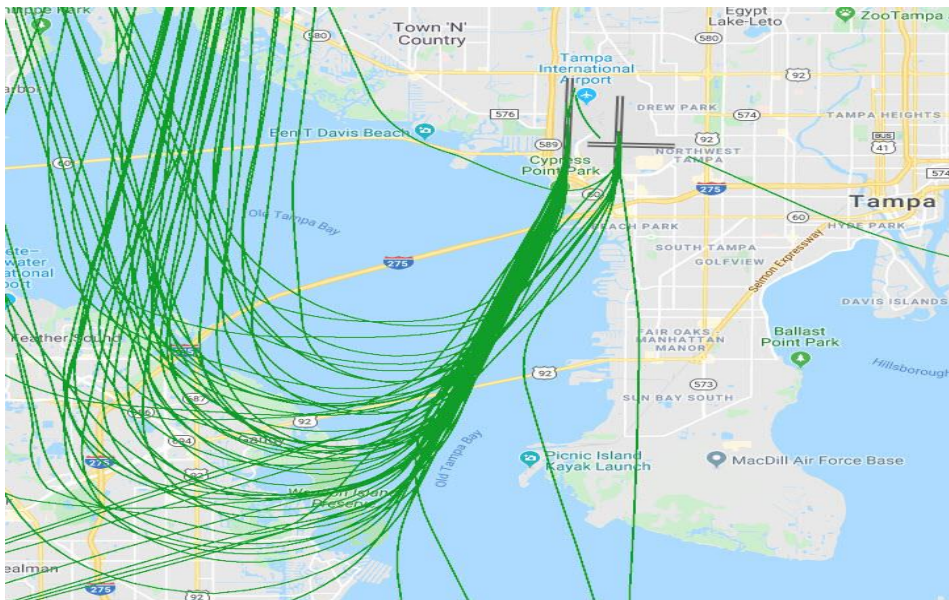
- Typically stabilized approaches begin south of MacDill which is approx. 9 miles from TPA.
 - At MacDill aircraft are 2,600 feet and less than 3 minutes from touchdown.
 - At the Gandy Bridge aircraft are 1,500 feet and less than 90 seconds from touchdown.
 - At the Howard Franklin Bridge aircraft are at 500 feet and 30 seconds from touchdown.



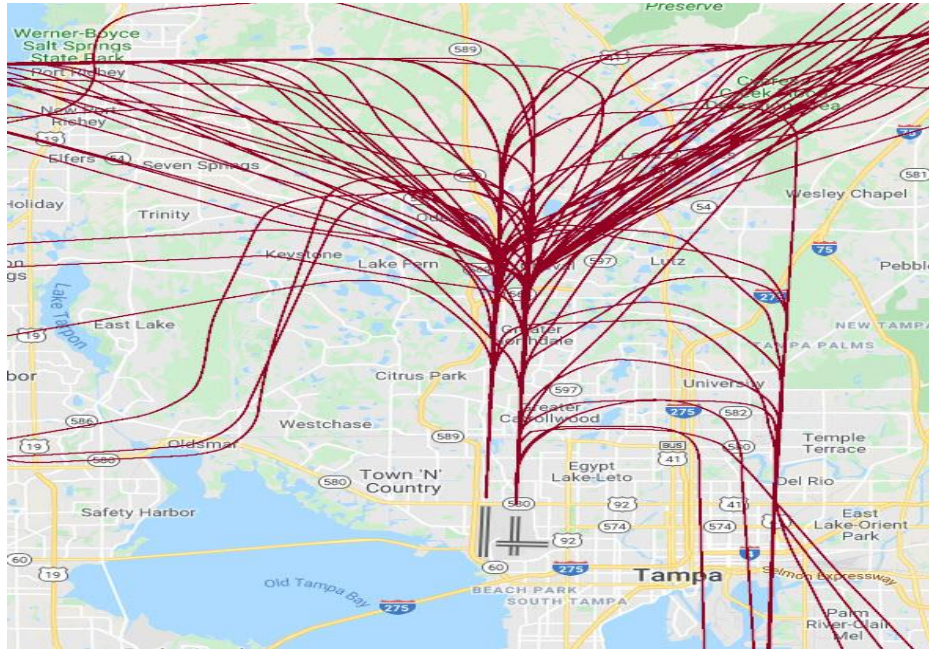
TPA Arrivals North Flow



TPA South Flow Departures



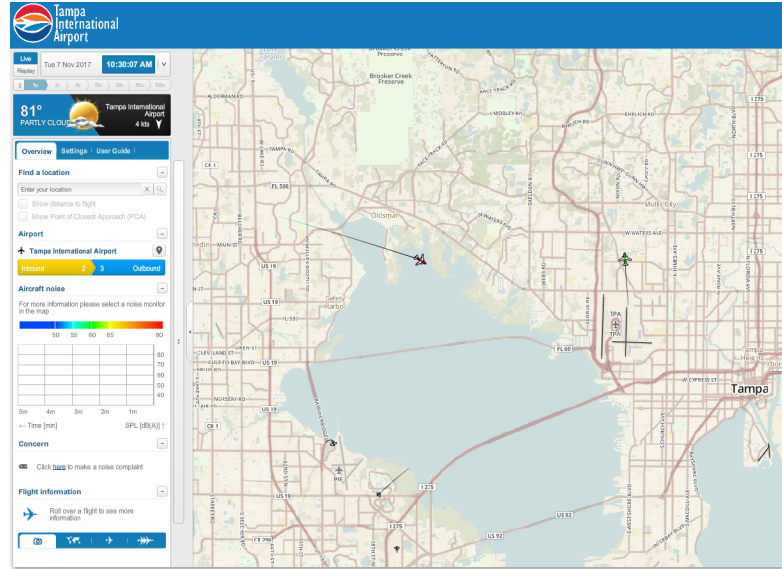
TPA South Flow Arrivals



Noise Monitoring Office Systems

Noise Monitoring Office Systems

- The Noise Monitoring Office uses advanced flight monitoring and tracking tools provided by Casper Airport Solutions.
- The Casper System was brought online effective October 1, 2017 and replaced a system used by the Airport for many years, provided by the Harris Corporation.
- The tools available to our community may be accessed by visiting www.TampaAirport.com/noise-abatement



Daily Deviations

- The Airport began posting daily deviation information on the Airport's website.
 - All commercial jet departures on Runway 19L and stated deviation cause.
 - All jet arrivals to Runway 1R and stated deviation cause.
 - All jet departures on Runway 28 and stated deviation cause.
 - All jet arrivals to Runway 10 and stated deviation cause.
- TPA is the only airport in the nation to proactively post such information on daily basis.

Daily Deviations (cont'd)

Deviation Categories:

- Pilot Request: Refers to instances where pilots request to deviate from Use Program.
- FAA Assigned: Refers to instances where air traffic controllers (FAA), of aircraft in the air and on the ground, make decisions to assign runways that differ from the Airport's Voluntary Noise Abatement Program due to operational requirements.
- Runway Unavailable: Refers to instances where the Airport's noise program is suspended or modified due to scheduled or unscheduled closures and/or impacts rendering the noise program inapplicable for arriving and/or departing aircraft.

December 9, 2018

- [Runway 1R Jet Arrivals - December 9, 2018.pdf](#)
- [Runway 28 Jet Departures - December 9, 2018.pdf](#)

callsign	ac_type	registrator	dep_af	des_af	dep_time	des_time	dep_rwy	des_rwy	jet_type	deviation_cause
EJA111	GLST	N111QS	KIAD	KTPA	12/9/2018 11:37		01R		CORPORATE	FAA ASSIGNED
N550DX	GLF5	N550DX	KSGJ	KTPA	12/9/2018 17:47		01R		CORPORATE	FAA ASSIGNED
N26HH	C550	N26HH	MYNN	KTPA	12/9/2018 18:21		01R		CORPORATE	FAA ASSIGNED



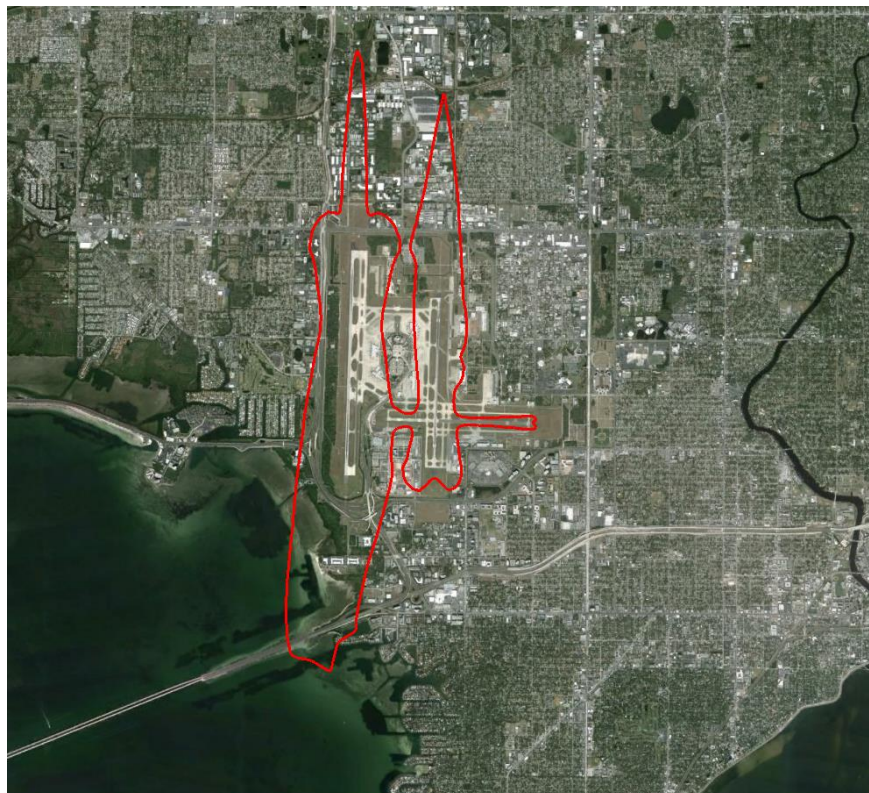
Laws and Regulations on Aircraft Noise

Aviation Safety and Noise Act (ASNA)

- This legislation was passed in 1979.
- 14 C.F.R (Code of Federal Regulation) Part 150 resulted from this legislation.
 - A Part 150 study is optional for airports (not mandatory).
- Created federal framework for FAA review of noise compatibility:
 - Day-Night Level (DNL) noise metric.
 - Established 65 DNL compatibility threshold.
- A Part 150 study establishes a plan that:
 - Is a vehicle for funding.
 - Provides means of supporting noise control measures, but tied to FAA's DNL 65 threshold.
 - Provides recommendations on noise abatement procedures.

Retrieved from presentation by John E. Putnam, Kaplan, Kirsch, and Rockwell.

Tampa International Airport – 65 DNL Noise Contour (Part 150 Study)



Represents Projected 2005 Noise Exposure Map
From Part 150 Study.

Airport Noise and Capacity Act (ANCA)

- This legislation was passed in 1990.
- Phased out noisiest large aircraft.
- Restricts an airports ability to adopt access restrictions.
- For restrictions on Stage 3 aircraft, airport must complete study *and* secure FAA approval.



History of Airport Noise Restrictions

- Since 1990, **many** airports have tried to adopt new use restrictions. **Only two have been successful; both restrictions were Stage 2 aircraft that have since been prohibited by Congress from operating nationwide:**
 - **Naples Municipal Airport (APF)**
 - **Van Nuys Airport (VNY)**
- Part 161 requires six conditions be met:
 - Reasonable, non-arbitrary and non-discriminatory.
 - **No undue burden on interstate or foreign commerce.**
 - **This condition necessitates benefits of a proposed restriction outweigh potential cost. Because no residents south of Runway 1R live within the 65 DNL, the benefit would be considered \$0, meaning that benefits would not outweigh the cost. On this one condition alone, the Airport would be unable to meet the required conditions of a Part 161 study.**
 - Maintain safe and efficient use of navigable airspace.
 - Does not conflict with existing federal statute or regulation.
 - Adequate opportunity for public comment.
 - No undue burden on national aviation system.

Overview of Deviation Causes

Deviation Categories – Pilot Request

- Pilot Request:
 - 14 C.F.R. (Code of Federal Regulation) 91.3 states:
 - “The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft.
 - A pilot in command of their aircraft may request an alternative runway from what is assigned, which may deviate from the Airport’s Voluntary Noise Abatement program. If the requested runway is available, Air Traffic Control cannot prohibit an aircraft from landing on that runway.
 - The Noise Office contacts air carriers in writing when a pilot request deviation occurs, **whether a complaint is received or not.**
 - Through continued airline partnership, commercial pilot request deviations have totaled less than 1% of the total operations at TPA.

Deviation Categories – FAA Assigned

- FAA Assigned (Air Traffic Control):
 - Air traffic control is responsible for the safe movement of aircraft in the air and on the ground.
 - Air Traffic Control has full authority over ensuring safety throughout the National Airspace System and may assign an aircraft instructions that deviate from recommendations in the Airport’s Noise Abatement Program.

Deviation Categories – Aircraft Emergencies

- Aircraft Emergencies:
 - Any aircraft experiencing a reported mechanical issue or a medical emergency will take priority. The pilot and Air Traffic Control will determine the most suitable runway for the arrival. Noise abatement procedures are not a consideration when managing an emergency.
 - Emergency arrivals may, depending on the circumstances, require a closure of the runway used for arrival. During such closure(s), arriving and departing aircraft may use the Airport’s noise sensitive runway until the noise preferred runway is reopened.

Deviation Categories – Runway Closures

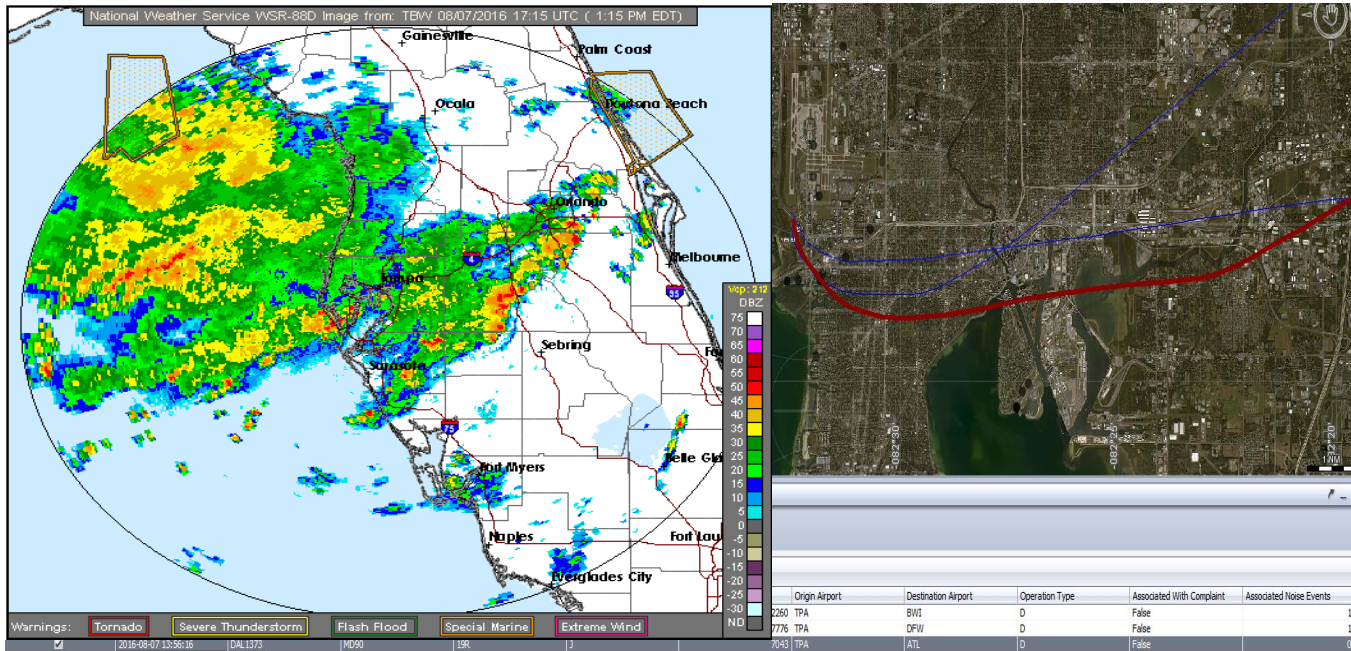
- Scheduled Runway Closures:
 - Are communicated in advance to those on the Airport’s CNC email distribution list.
 - Each of the Airport’s runways are closed at least once a month for scheduled monthly maintenance.
 - West runway generally the first Wednesday of each month.
 - East Runway generally the third Wednesday of each month.
 - Additional maintenance requirements throughout any given month may require additional closures. The maximum amount of work is coordinated to take place during each closure.
- Unscheduled Runway Closures:
 - Aircraft emergencies.
 - Wildlife strike reports.
 - FOD (foreign object debris).
 - Other safety matters that must be addressed immediately.

Deviation Categories – Weather

- Weather:
 - Wind direction dictates whether aircraft arrive and depart to the south (south flow) or arrive and depart to the north (north flow).
 - Air Traffic Control continuously monitors weather conditions and assigns instructions to crews based on numerous factors - all to ensure safety.



Deviation Categories – Weather (cont'd)



Deviation Categories – Weather (cont'd)

- Runway 1L and Runway 1R:
 - Distance between the two runways is less than 1 mile.
 - Advanced technology used by Air Traffic Control monitors for strong winds, including wind shear.
 - Wind shear alerts may be received for the approach to one runway but not the other.
 - As a result, aircraft will be vectored to the safest runway during inclement weather events.

Exempt Aircraft

- The following aircraft do not fall within the guidelines of the Airport's Voluntary Noise Abatement program:
 - Military.
 - Law Enforcement.
 - Medivac.



FAQ

Can Tampa International Airport Force Planes to Stop Using The Noise Sensitive/East Runway?

The Airport Noise and Capacity Act of 1990 **prohibits** the Airport from implementing any restriction on runway use ***without completing a Part 161 application and receiving FAA approval of the application and the restriction.***

One of six conditions set forth in Part 161 necessitates benefits of a proposed restriction outweigh potential cost. Because no residents south of Runway 1R live within the 65 DNL, the benefit would be considered \$0, meaning that benefits would not outweigh the cost. On this one condition alone, the Airport would be unable to meet the required conditions of a Part 161 study.

Can Tampa International Airport Implement a Curfew?

The Airport Noise and Capacity Act of 1990 **prohibits** the Airport from implementing a curfew ***without completing a Part 161 application and receiving FAA approval of the application and the restriction.***

One of six conditions set forth in Part 161 necessitates benefits of a proposed restriction outweigh potential cost. Because no residents south of Runway 1R live within the 65 DNL, the benefit would be considered \$0, meaning that benefits would not outweigh the cost. On this one condition alone, the Airport would be unable to meet the required conditions of a Part 161 study.

Do Residents of Hillsborough County Pay Ad Valorem Property Taxes That Support The Airport?

No.

Although empowered to levy ad valorem property taxes, the Authority has not collected any tax funds since 1973.

The Authority is a self-supporting organization and generates revenue from airport users. Capital projects are funded through generated revenue, grants, facility charges, various forms of financing and bonds.

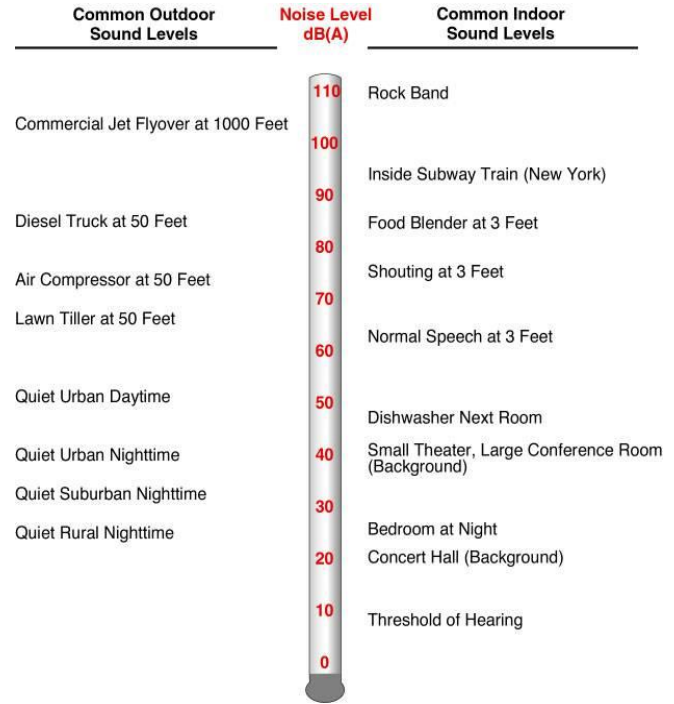
What is the Difference Between *a Noise Level of 65 dB During an Aircraft Flyover* and 65 DNL?

We use so-called “single event” noise metrics to measure individual events; those metrics only take into account the noise associated with that specific event.

DNL is a measure of cumulative noise exposure over a 24-hour period (or any number of 24-hour periods; e.g., a week, month, quarter, or year). To account for human sensitivity to noise between the hours of 10 p.m. and 7 a.m., noise events occurring during these hours receive a “penalty” when the DNL is calculated. Each nighttime event is measured as if ten daytime events occurred.

What is the Difference Between 65 dB and 65 DNL? (cont'd)

- Human auditory system not equally sensitive to all frequencies.
- To be a useful environmental analysis tool, we need a way to measure sound the same way the ear 'hears' it.
- The A-weighted level achieves this goal
Consistent with EPA's recommendation, the A-weighted level is used by federal, state, and local agencies for environmental noise analyses.



Retrieved from presentation by HMMH – Basic Aircraft Noise Terminology.

Conclusion



Noise Abatement 101

December 2, 2019

