THE PORT AUTHORITY OF NY & NJ

14 CFR Part 150 Airport Noise Compatibility Planning Study: Teterboro Airport (TFB)

For project information, please see our website at: PANYNJpart150.com

To submit a formal comment, please email or call us at: NJPart150@panynj.gov
(212) 435-3777
STUDY UPDATE

The Teterboro Airport (TEB) Part 150 Noise Study is well under way. The Technical Advisory Committee (TAC) has been meeting regularly and the Study Team is continuing to make progress on several key milestones.

Throughout the summer and fall of 2015, the Study Team, together with the Federal Aviation Administration (FAA) and the Port Authority of New York and New Jersey (PANYNJ), developed a Study Protocol which outlines how the Part 150 Studies will be conducted for both TEB and Newark Liberty International Airport (EWR). The Study Protocol also outlines agency roles and responsibilities, methodologies for data collection and analysis, and lists project deliverables and key milestones. The Study Protocol can be viewed and downloaded from the project web site at: http://panynjpart150.com/TEB_SP.asp.

Currently much of the focus of the TEB Part 150 Study is on the collection and verification of data and the development of the Noise Exposure Maps (NEM). Two NEMs will be developed for the Part 150 Study: a 2016 map showing existing conditions, and a 2021 map showing future conditions. Runway use and flight track information is based on the full year 2014 data. The Study Team has been working with the FAA and the PANYNJ to collect and review runway usage data and to develop flight tracks which most accurately represent how aircraft are currently flown at TEB. Per the Part 150 regulations, the Study Team is also developing a five-year forecast for conditions at TEB for the year 2021, which will account for the types and number of aircraft that are expected to be flown at TEB and any changes to the airspace around TEB that would affect where aircraft are flown in the future. All of this information will be used to develop the noise contours for the NEM. The Draft NEM will be sent to FAA for review in the summer of 2016.

STAY CONNECTED

For more information or to submit comments and feedback, the PANYNJ has several ways you can participate and stay informed:

- The project website (http://panynjpart150.com/TEB_homepage.asp) is updated regularly with project documents, meeting announcements and other general information about the study. Register here to join the mailing list and receive project updates.

- To make comments, give feedback, or ask questions, please call us at (212) 435-3777 or email us at NJPart150@panynj.gov

- To file an aircraft noise complaint, please call the noise complaint hotline at 1-800-225-1071.
TECHNICAL ADVISORY COMMITTEE OVERVIEW

Experience has shown that most 14 CFR Part 150 Noise Studies benefit from the creation and participation of a Technical Advisory Committee (TAC). The TAC serves several important functions including: representing a broader range of stakeholder groups in the study; receiving information about the study and sharing it with their respective organization; and providing technical input and guidance to the study and the Study Team. The PANYNJ has invited a diverse group of stakeholders to be on the TEB TAC including:

- Community representatives: members of the Teterboro Aircraft Noise Abatement Advisory Committee (TANAAC) and the Newark Airport Community Roundtable
- Airport Management and Fixed Based Operators: AvPorts, Atlantic Aviation, Landmark Aviation, Meridian Teterboro, Signature Flight Support, Jet Aviation
- Pilots/Airport Users: Teterboro Users Group, Aircraft Owners and Pilots Association
- Business organizations: National Business Aviation Association, Aviation Development Council
- Local and regional land use planners: Bergen County, New Jersey Sports and Exposition Authority (formerly Meadowlands Commission)
- Federal Aviation Administration (FAA): Local and District Offices, Tower Operations, Air Traffic
- TAC meetings are open to the public

The TEB TAC has met 4 times since July 2015 and has discussed topics such as the Part 150 Study Process, aircraft noise terminology, as well as technical data that will be entered into the noise model including aircraft flight tracks and runway usage data. It is important to note, however that the role of the TAC is advisory; the TAC may offer opinions, advice and guidance on the Part 150 Study, but the PANYNJ has the sole discretion to accept or reject the TAC recommendations in accordance with 14 CFR Part 150 regulations.

The TEB TAC has scheduled two meetings over the next three months: Wednesday, March 30, 2016 at 1 p.m. and Tuesday, May 24, 2016 at 1 p.m.; both meetings will be held in the Manager's Conference Room at TEB (90 Moonachie Avenue, Teterboro, NJ). Members of the public are encouraged to attend these meetings to learn more about the Part 150 process and aircraft noise in general. Opportunities for public comment will be provided at both meetings. More information about the TEB TAC including meeting announcements, presentations, and meeting summaries can be viewed and downloaded from the project web site at http://panynjpart150.com/TEB_TAC.asp.

LAND USE DATA COLLECTION

The TEB Part 150 Study Team is currently collecting local land use data and reviewing local land use policies. Working through the municipalities within the TEB study area, the Study Team is collecting available master plans, zoning and subdivision ordinances, development codes, existing/future land use databases and mapping, redevelopment plans, and information on development trends. All of this data will be used during the development of the NEM to identify areas where sensitive land uses such as dwellings, schools, healthcare facilities, places of worship and historic properties are incompatible with aircraft noise exposure.

PUBLIC WORKSHOP

A second public workshop for the TEB Part 150 Noise Study is being scheduled for late summer/early fall 2016. Please check the project web site for more information http://panynjpart150.com/TEB_homepage.asp.

Please visit the project web site http://panynjpart150.com/TEB_homepage.asp for the most recent project information.
Title 14 CFR Part 150, Airport Noise Compatibility Planning, was issued by the Federal Aviation Administration (FAA) as a final rule in January 1985. Part 150 describes a voluntary process airports can follow to describe current and five-year forecast airport-related noise exposure; identify areas where land uses are incompatible with that exposure; identify ways to address those incompatibilities; and otherwise seeks reasonable and practical means to noise over sensitive land uses such as dwellings, schools, healthcare facilities, places of worship, and historic properties.

A Part 150 study has two major elements:
- The Noise Exposure Map (NEM) describes the airport layout and operation, aircraft-related noise exposure, land uses in the airport environs and the resulting noise/land use compatibility situation, for existing and five-year forecast conditions.
- The Noise Compatibility Program (NCP) identifies and supports a collection of proposed actions that the airport, local jurisdictions, airport users, and other stakeholders can take to minimize noise issues. The NCP development process involves working with stakeholders on policies and procedures to include in the program.

Both the NEM and the NCP must be accepted by the FAA as being compliant with the Part 150 regulations. Once the FAA has accepted the NEM and the NCP as compliant, the FAA will then approve or disapprove each individual element of the NCP proposal.

**STAY CONNECTED**

For more information or to submit comments and feedback, the PANYNJ has several ways you can participate and stay informed:

- The project website (http://panynjpart150.com/TEB_homepage.asp) is updated regularly with project documents, meeting announcements, and other general information about the study. Register here to join the mailing list and receive project updates.
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STUDY TEAM

The Port Authority of New York and New Jersey (PANYNJ) has hired a team of experienced noise consultants (HMMH) to conduct the TEB Part 150 Study. A Technical Advisory Committee (TAC), representing a full-range of airport operation, business, and county and municipal stakeholders will provide oversight and guidance as well as assist with public outreach.

STUDY SCHEDULE

The TEB Part 150 began in the first quarter of 2015 and is scheduled to be submitted to the FAA for final review in the fourth quarter of 2017. Public workshops and briefings will be held at several key points in the study process, to permit all interested parties to review assumptions, baseline data, forecasts, draft results, and to provide feedback and suggestions.

PROJECT NEWS

The first public workshop was held at the Holiday Inn Hasbrouck Heights on the evening of October 15th, where the public met with PANYNJ, the FAA, and members of the Study Team. During the workshop, residents and business owners had the opportunity to browse project information and discuss components of the study with team members. The presentation boards can be viewed and downloaded from the project website http://panynjpart150.com/TEB_homepage.asp, under the “Documents/Public Information Workshop” page.

Please visit the project web site http://panynjpart150.com/TEB_homepage.asp for the most recent project information.
The Teterboro Airport (TEB) Part 150 Noise Study is approaching an important milestone: completion of the draft Noise Exposure Map (NEM) figures and supporting documentation. The NEM describes the airport layout and operation, aircraft-related noise exposure, land uses in the airport environs and the resulting noise/land use compatibility situation, for existing (2016) and five-year forecast conditions (2021) at TEB.

The outdoor noise environment, in relation to airport noise compatibility, is quantified in terms of the yearly Day-Night Sound Level (DNL) metric. The DNL represents noise as it occurs over a 24-hour period, with one important note: DNL treats nighttime noise differently from daytime noise. In determining DNL, it is assumed that the sound levels occurring at night (defined as 10 p.m. to 7 a.m.) are 10 dB (decibels) louder than they really are. This 10 dB penalty is applied to account for greater sensitivity to nighttime noise, and the fact that events at night are often perceived to be more intrusive.

FAA has published guidelines that identify what types of land uses are incompatible with certain levels of noise exposure; for example, residences, schools, and outdoor music shells or amphitheaters are incompatible land uses where noise exposure levels are greater than DNL 65 dB. While noise from airport operations may be experienced in areas beyond the DNL 65 dB noise contour, only those areas with noise levels of DNL 65 dB or higher are considered incompatible.

**STAY CONNECTED**

For more information or to submit comments and feedback, the PANYNJ has several ways you can participate and stay informed:

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NOISE SENSITIVE SITES WITHIN THE DNL 65 CONTOUR - 2016 AND 2021

Table 1. Results of the Preliminary Land Use Evaluation for 2016 (DRAFT – For Preliminary Discussion Purposes Only; Subject To Change)

<table>
<thead>
<tr>
<th>Noise Level</th>
<th>Total Acres</th>
<th>Dwelling Units</th>
<th>Estimated Residents</th>
<th>Places of Worship</th>
<th>Schools</th>
<th>Hospitals/ Medical Facilities</th>
<th>Transient Lodging Structures</th>
<th>Historic Resources</th>
<th>Day Care Facilities</th>
<th>Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNL 65-70</td>
<td>439</td>
<td>158</td>
<td>382</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>DNL 70-75</td>
<td>179</td>
<td>8</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DNL 75+</td>
<td>201</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>819</td>
<td>166</td>
<td>401</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: 1. Based on GIS identification of parcels confirmed with direct counts using aerial photography.
2. Based on 2.42 residents per dwelling unit, developed from 2010 U.S. Census block data; rounded to the nearest whole number.
3. The school was included in the Port Authority School Soundproofing Program, and is compatible with DNL 65+.

Source: RS&H and HMMH, 2016

Table 2. Results of the Preliminary Land Use Evaluation for 2021 (DRAFT – For Preliminary Discussion Purposes Only; Subject To Change)

<table>
<thead>
<tr>
<th>Noise Level</th>
<th>Total Acres</th>
<th>Dwelling Units</th>
<th>Estimated Residents</th>
<th>Places of Worship</th>
<th>Schools</th>
<th>Hospitals/ Medical Facilities</th>
<th>Transient Lodging Structures</th>
<th>Historic Resources</th>
<th>Day Care Facilities</th>
<th>Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNL 65-70</td>
<td>454</td>
<td>162</td>
<td>392</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DNL 70-75</td>
<td>183</td>
<td>17</td>
<td>41</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DNL 75+</td>
<td>203</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>840</td>
<td>179</td>
<td>433</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: 1. Based on GIS identification of parcels confirmed with direct counts using aerial photography.
2. Based on 2.42 residents per dwelling unit, developed from 2010 U.S. Census block data; rounded to the nearest whole number.
3. The school was included in the Port Authority School Soundproofing Program, and is compatible with DNL 65+.

Source: RS&H and HMMH, 2016

NEXT STEPS: NOISE COMPATIBILITY PROGRAM

After the PANYNJ submits the Noise Exposure Map to the FAA for acceptance, the PANYNJ, in coordination with the Technical Advisory Committee (TAC), will begin to develop the Noise Compatibility Program (NCP). The goal of the NCP is to reduce noise levels so that they are compatible with surrounding land uses; the first priority of the NCP will be to address those areas identified as incompatible with noise exposure levels of at least DNL 65 dB, and to reduce the potential for incompatible development in the future. The NCP strategies will fall into three categories: noise abatement strategies, land use strategies, and programmatic strategies.

To learn more, please attend the:
Part 150 Public Workshops

Thursday, September 22, 2016; 6 p.m. to 9 p.m.
Bergen County Complex Multi-purpose Room (1st Floor)
One Bergen County Plaza, Hackensack, NJ 07601

At this workshop, a Noise Exposure Map (NEM) will be presented that describes the airport layout and related levels of noise exposure in the surrounding area for the current year (2016), and a forecasted future year (2021). This workshop gives you the opportunity to share your concerns and ideas for addressing aircraft noise around TEB. Please join the discussion and tell us what is important to you! Let's work together to address aircraft noise issues at Teterboro Airport.

The workshop will be held in an "open house" format. Please come anytime between 6 p.m. and 9 p.m. to view project materials and talk to PANYNJ Staff and members of the Study Team.

Want to find out more information or get involved?
Please visit: http://panynjpart150.com/TEB_homepage.asp

Can't attend the workshop but want to provide input?
Please email: NJPart150@panynj.gov; or call 212-435-7777
Welcome to the Public Information Workshop for the TEB Airport 14 CFR Part 150 Study

The meeting is designed as an "open house" with various stations with study information available for review. Members of the HMMH Study Team and Port Authority Representatives are available for one-on-one discussion and to answer questions regarding the materials located at each station.

Sign-in
Station #1  Welcome
Station #1  14 CFR Part 150 Overview and Process
Station #2  TEB Part 150 Forecast
Station #3  TEB Part 150 Land Use Map
Station #4  TEB Part 150 Noise Exposure Map (NEM)
Station #5  "Where's My House?"
Station #6  Port Authority Flight Tracking and Noise Information System
Station #7  Next Steps/Public Comments/Documents

See reverse for station layout
Teterboro Airport
Title 14 of the Code of Federal Regulations (14 CFR) Part 150
Airport Noise Compatibility and Planning Study

Forecast Conditions (2021) Noise Exposure Map
Draft – for Preliminary Discussion Purposes Only

THE PORT AUTHORITY OF NY & NJ
Teterboro Airport
Airport Noise Compatibility Part 150 Study
2016 and 2021 Noise Exposure Maps

Forecast Conditions (2021) Noise Exposure Map

- 2021 DNL Contours (65-75 dB)
- TEB Airport Boundary (Approximate)
- Runway
- Noise Monitor Locations
- Municipal Boundary
- Park / Open Space
- Water
- Highway
- Minor Roads
- Major Roads
- Single Family Residential
- Multi-Family Residential
- Mobile Home
- Transient Lodging
- School / University / Daycare
- Place of Worship
- Recreational / Open Space
- Commercial Use
- Manufacturing and Production
- Public Use
- Vacant / Undefined
- Place of Worship
- School

Note: Entire area depicted on the figure is within Bergen County

Source: The Port Authority of NY & NJ, Cornell University Geographic Information Repository (CUGIR), NJ DEP Bureau of GIS, NYC Open Data, Environmental Systems Research Institute (ESRI)

THE PORT AUTHORITY OF NY & NJ
http://panynjpart150.com/TEB_homepage.asp
Teterboro Airport
Title 14 Code of Federal Regulations Part 150 Study

What is a 14 CFR Part 150 Study?

Title 14 Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning, was issued by the Federal Aviation Administration (FAA) as a final rule in January 1985. 14 CFR Part 150 sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs.

14 CFR Part 150 studies typically consist of two primary components: (1) the Noise Exposure Map (NEM) report, which contains detailed information regarding existing and 5-year forecast airport/aircraft noise exposure patterns, and (2) the Noise Compatibility Program (NCP), which includes descriptions and an evaluation of noise abatement and noise mitigation options/programs applicable to an airport.

Has a 14 CFR Part 150 Study been prepared for Teterboro Airport (TEB)?

Although the Port Authority of New York and New Jersey has a long history of addressing noise exposure from aircraft operations at TEB, this is the first 14 CFR Part 150 Study for TEB. The Port Authority is also preparing 14 CFR Part 150 studies for Newark Liberty International Airport (EWR), John F. Kennedy International Airport (JFK), and LaGuardia Airport (LGA) concurrent with the TEB 14 CFR Part 150 study.

Why is the Port Authority undertaking a 14 CFR Part 150 Study for TEB?

In response to growing community concerns about aircraft noise, Governor Christie directed the Port Authority to undertake 14 CFR Part 150 Studies for TEB and EWR. Governor Christie directed the Port Authority to open a full and thorough dialogue with the impacted communities while also pursuing a noise study to better address the issue. Port Authority Aviation Director Thomas Bosco said, “The Port Authority understands it must strive to be a good neighbor in the communities where its airports are located.” He added, “We will seek noise mitigation with the FAA where feasible.”

The 14 CFR Part 150 Study for TEB will identify areas that are not compatible with significant levels of aircraft noise exposure and will recommend measures for mitigating aircraft noise impacts to the greatest extent feasible.

What will the Port Authority produce during the TEB 14 CFR Part 150 Study?

The 14 CFR Part 150 Study must be prepared in accordance with guidance provided in the 14 CFR Part 150 regulations. The FAA has prepared checklists for the NEM and NCP which must be followed to ensure compliance with 14 CFR Part 150. As part of the TEB 14 CFR Part 150 Study, the Port Authority and its consultant will quantify existing (2016) and forecast (2021) aircraft noise exposure levels in the vicinity of TEB. The Port Authority will also develop supporting documentation explaining the process used to calculate existing and forecast aircraft noise exposure levels. The TEB NEM Report will provide the Port Authority with a set of NEMs that identify areas exposed to aircraft noise of day-night average sound level.
(DNL) 65 decibels (dB) and higher. The NEMs will be submitted to FAA for review and acceptance. Additional maps will be created for informational purposes only to show the existing and forecast DNL 55 dB contours. These maps will not be included in the formal submittal of the NEM to FAA.

After the TEB NEMs are complete, the Port Authority and its consultants will examine potential measures for minimizing TEB’s noise impact. The Port Authority will consider a range of feasible mitigation measures including operational, remedial, preventative, and administrative measures. The measures providing the greatest potential to minimize the noise impacts from aircraft operations at TEB will be forwarded to the FAA for review and approval. Certain measures may require FAA funding to be implemented (e.g., sound insulation). Only those measures approved by the FAA will be eligible for federal funding.

How long will the TEB 14 CFR Part 150 Study take to complete?

14 CFR Part 150 Studies vary in duration depending on a number of factors including, but not limited to, the complexity of the airport operations and local airspace, availability of data, the public outreach process, and agency review periods. The estimated duration of the TEB 14 CFR Part 150 Study is approximately three to four years. The Port Authority is committed to taking the time required to provide the FAA with NEMs and an NCP for TEB that meet requirements of 14 CFR Part 150.

Where can I get more information?

General information, project reports and public workshop materials, including presentation boards, will be uploaded to the project website at http://panynjpart150.com/TEB_homepage.asp as they become available.

How can I get involved?

14 CFR Part 150 encourages the participation of citizens and public agencies. The Port Authority will convene several public information workshops during the 14 CFR Part 150 Study process. This public information workshop is being held to introduce the TEB 14 CFR Part 150 Study. We anticipate that the second public information workshop will be convened next spring to present key study findings.

The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint, the airport noise complaint hotline is 1-800-225-1071. Comments regarding the TEB 14 CFR Part 150 Study can be submitted at the public workshop or by (1) email to NJPART150@panynj.gov or (2) by calling (212) 435-3777, or (3) by mailing them to the Port Authority at the following address:

14 CFR Part 150 Study
Attn: New Jersey Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006
TEB Part 150 Study Next Steps: Noise Compatibility Program (NCP) Strategy Development

After the approval of the noise exposure maps (NEMs) by the Federal Aviation Administration (FAA) later this year, the PANYNJ, in coordination with the Technical Advisory Committee (TAC), will begin to develop the NCP. The goal of the NCP is to reduce incompatibilities with surrounding land uses. Over the next year the following process will be applied to determine feasible approaches for reducing and mitigating airport noise at TEB:

**Noise Compatibility Program Development Process**

- **Step 1:** Identify Incompatible Land Uses
  - Existing conditions Noise Exposure Map
  - Forecast conditions Noise Exposure Map
- **Step 2:** Consider Noise Abatement Strategies
  - Reduce exposure over incompatible uses
  - Limit growth in exposure over incompatible uses
- **Step 3:** Consider Land Use Strategies
  - Mitigate residual incompatible uses
  - Prevent introduction of new, incompatible uses
- **Step 4:** Consider Programmatic Strategies
  - Implement and promote measures
  - Monitor and report on effectiveness
  - Update NEMs and revise NCP as appropriate

The NCP strategies will fall into three categories: noise abatement strategies, land use strategies, and programmatic strategies. Potential strategy options that could be recommended in the NCP include:

**Major NCP Strategy Options within Each Category**

- **Noise Abatement Strategies**
  - Noise abatement flight tracks
  - Preferential runway use
  - Arrival/departure procedures
  - Airport layout modifications
  - Noise barriers
  - Rumble strips
  - Use restrictions
  - Other actions proposed by stakeholders

- **Land Use Strategies**
  - Mitigation
  - Land acquisition
  - Sound insulation
  - Aviation easements
  - Prevention
  - Land use controls
  - Zoning
  - Building codes
  - Comprehensive plans
  - Real estate disclosures
  - Other actions proposed by stakeholders

- **Programmatic Strategies**
  - Implementation tools (rules, regulations, ordinances, etc.)
  - Promotion, education, training, etc.
  - Monitoring
  - Reporting
  - NEMs updating
  - NCP revision
  - Other actions proposed by stakeholders

The Draft NCP is expected to be submitted to the FAA for review and approval in late 2017. TAC and public involvement will continue to be an important part of this study; therefore the PANYNJ is encouraging the continued participation of elected officials, municipal planners, and members of the public from within the affected jurisdictions.