

PANYNJ Fly Quiet Programs

March 5, 2024

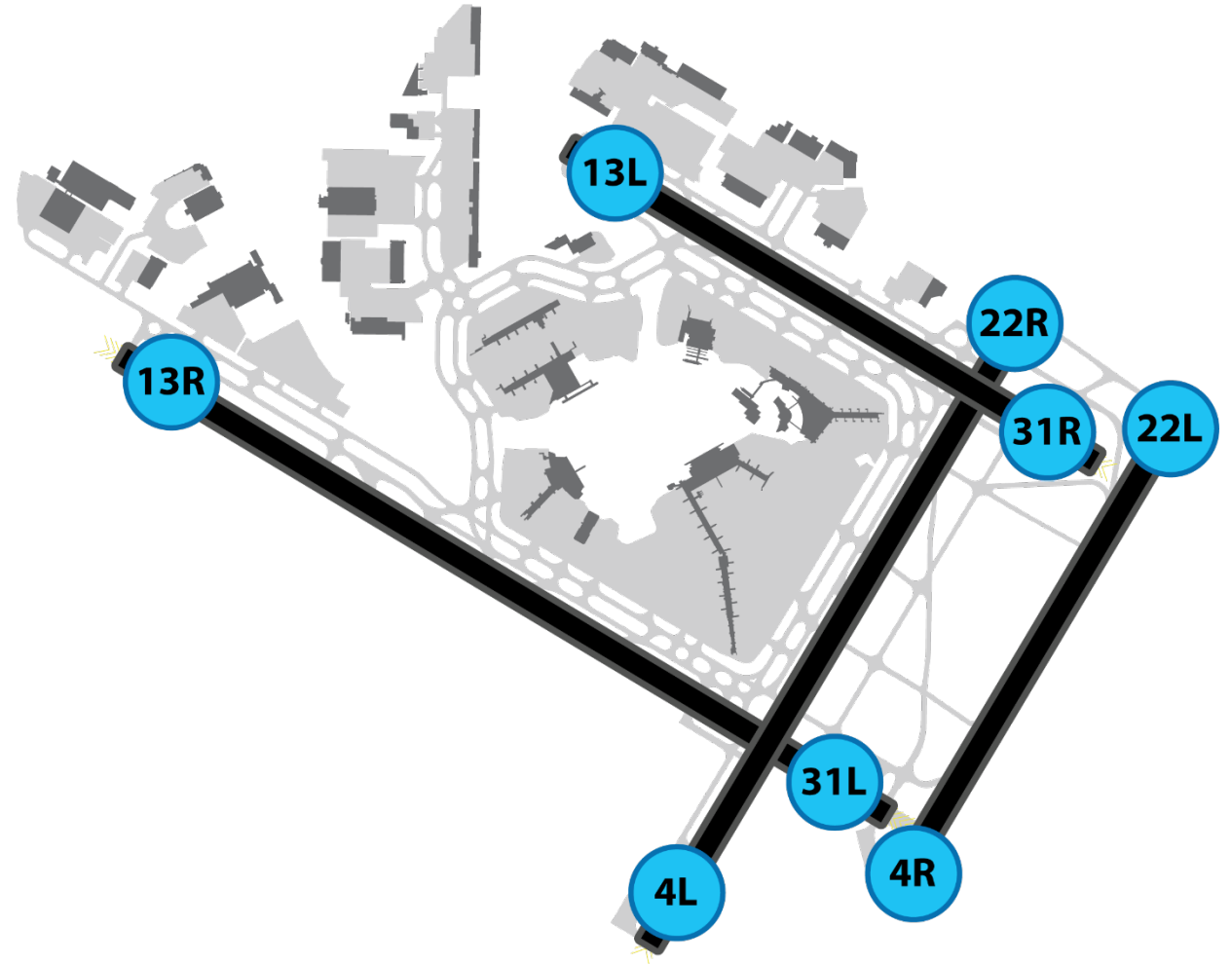
Region

- Five PANYNJ Airports (JFK, LGA, EWR, TEB, SWF)
- 2023 Stats:
 - ✓ 1,230,000 aircraft movements
 - ✓ 144,200,000 annual passengers



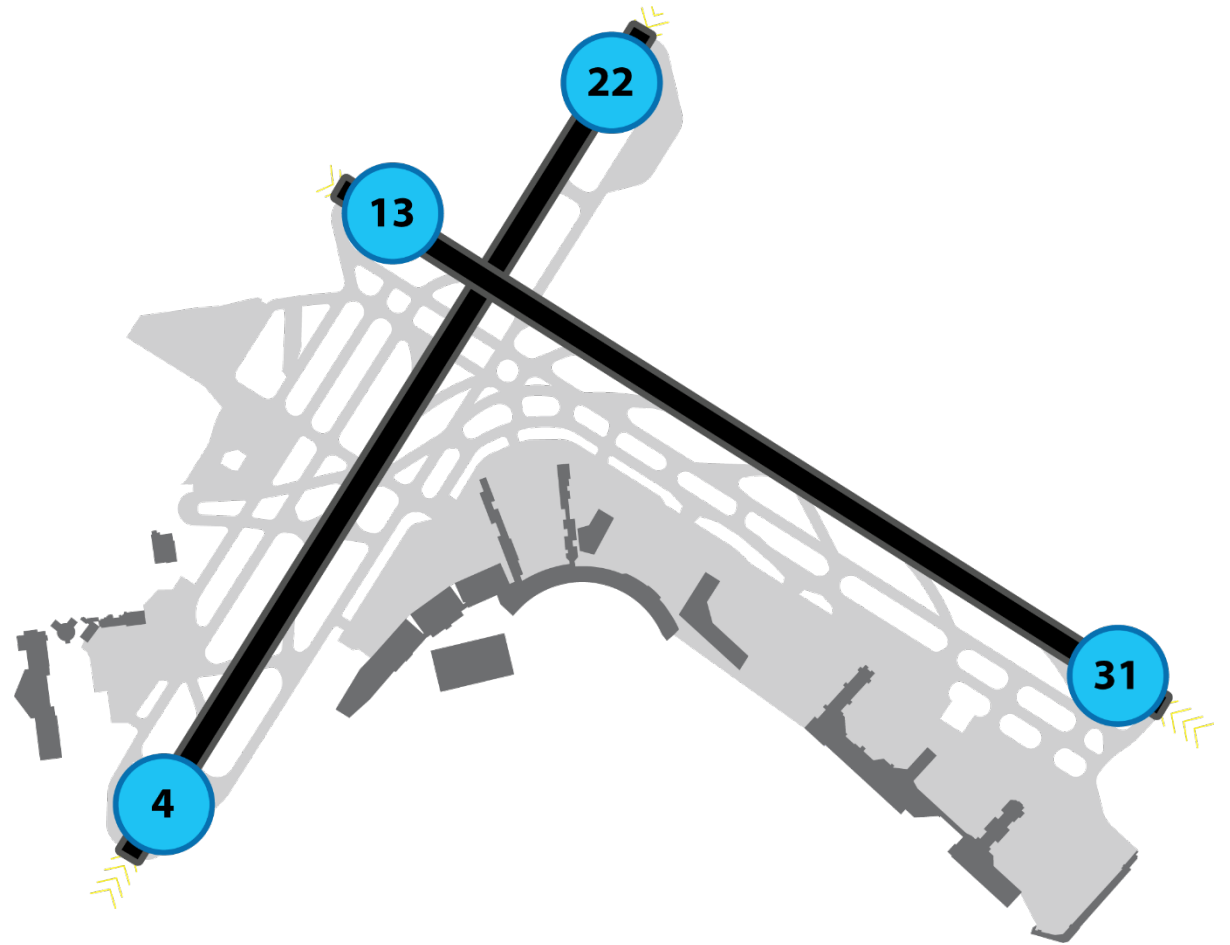
JFK

- 4 runways
(4L-22R, 4R-22L and 13L-31R, 13R-31L)
- 450,000 aircraft movements
- 62,500,000 total passengers
- 1,600,000 metric tons of cargo



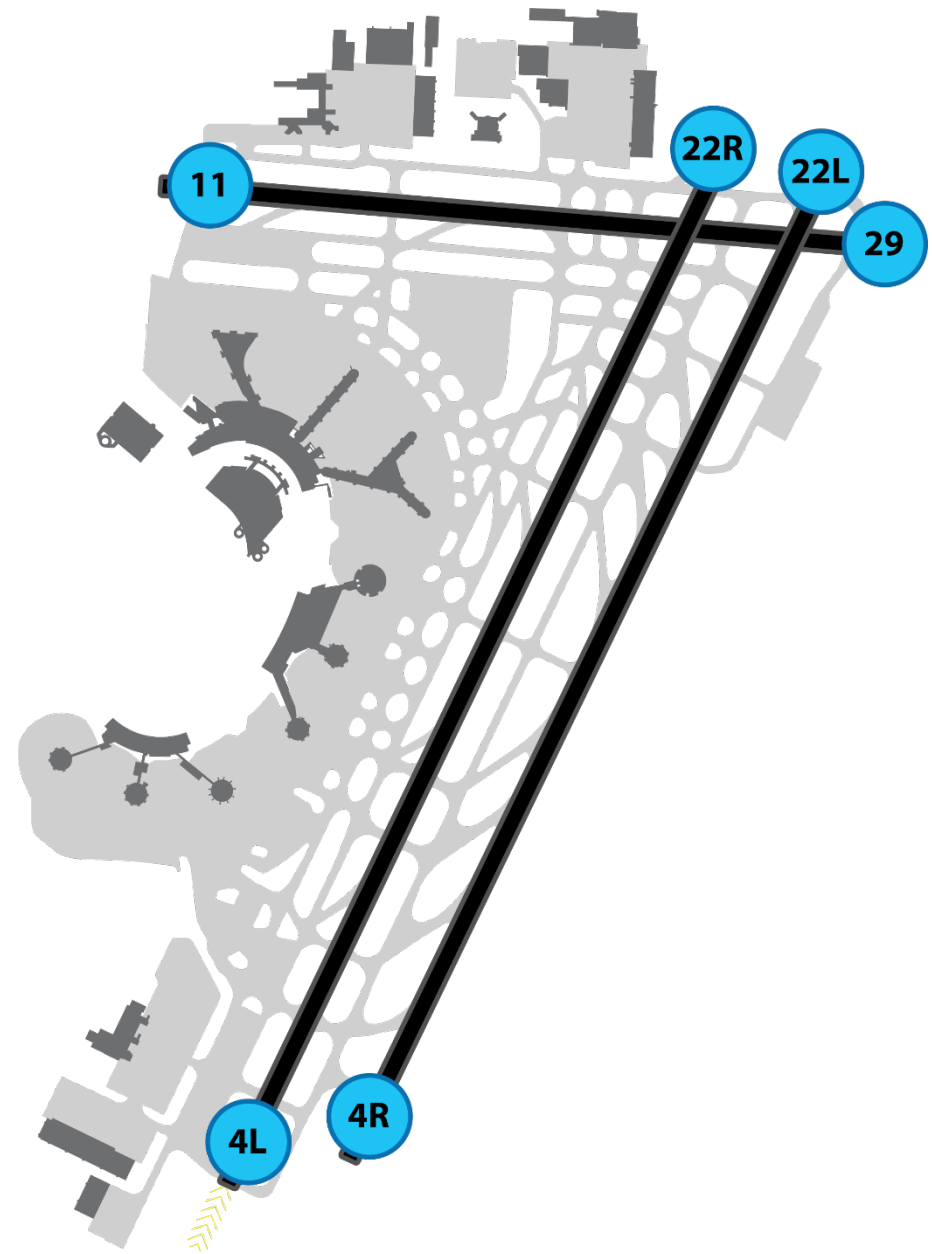
LGA

- 2 runways (4-22 and 13-31)
- 350,000 aircraft movements
- 32,400,000 annual passengers



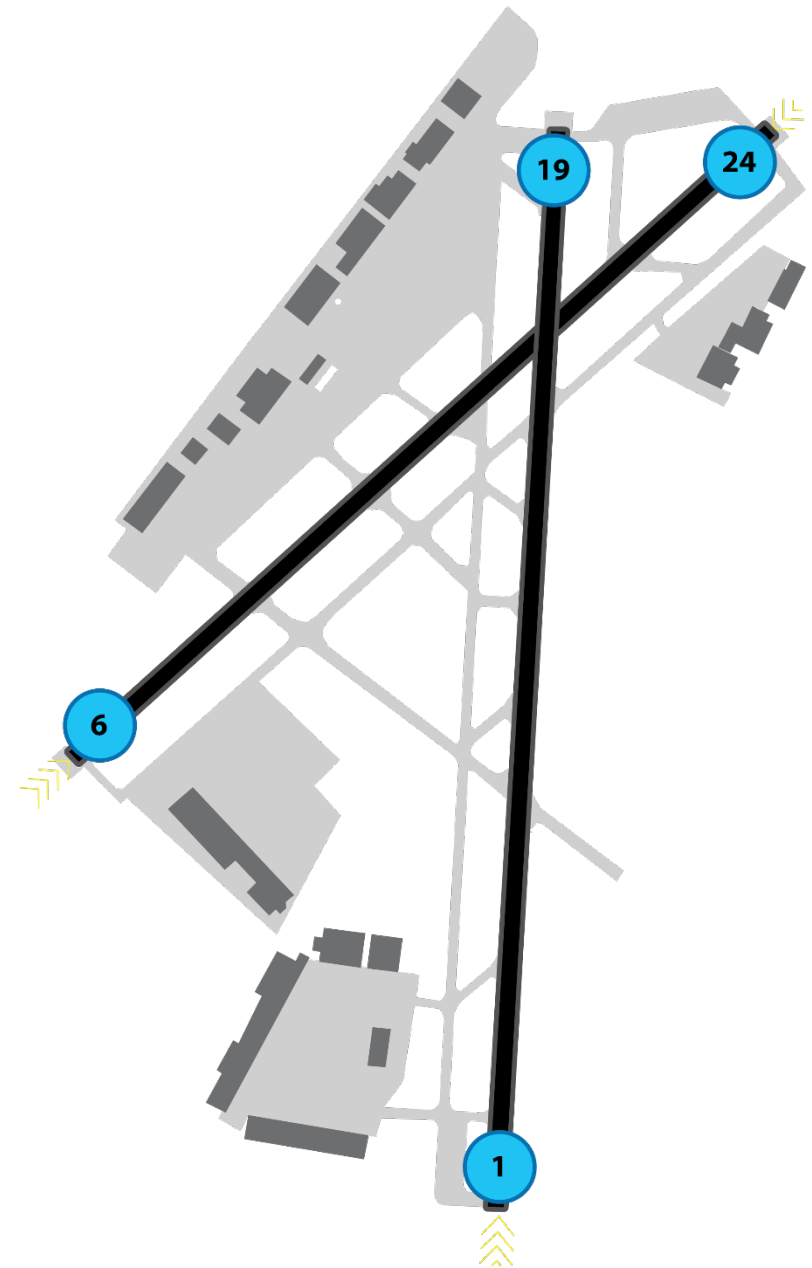
EWR

- 3 runways (4R-22L and 4L-22R, 11-29)
- 400,000 aircraft movements
- 49,100,000 total passengers
- 690,000 metric tons of cargo



TEB

- 2 runways (19-1 and 6-24)
- 170,000 aircraft movements (General Aviation)
- Existing Fly Quiet Program



PANYNJ Airports

FIGURE 2.16
New York's Airports Compared to Denver International Airport
Source: Regional Plan Association

LGA

680 Acres



EWR

2,207 Acres



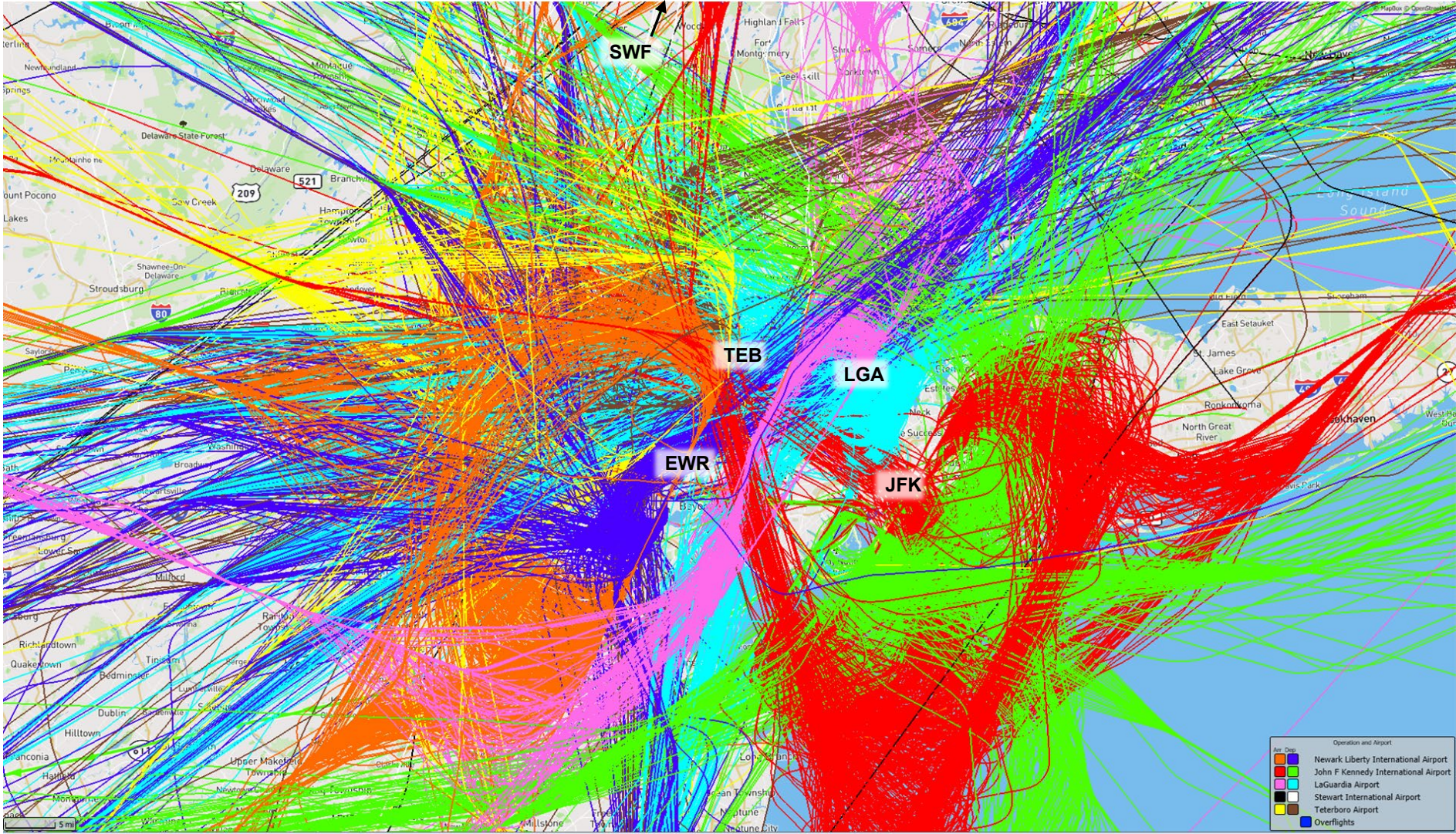
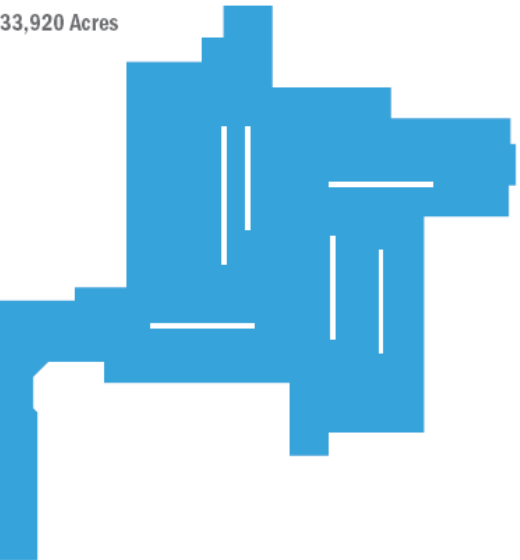
JFK

4,930 Acres



DEN

33,920 Acres



Background on PANYNJ Fly Quiet Programs

- The Fly Quiet program (FQP) was recommended by the Port Authority in the Part 150 Noise Compatibility Program (NCP) for all four airports
- FQP was envisioned to 1) track and report on NCP implemented NA measures, and 2) address noise concerns for communities outside the 65 DNL contour
- Establish new programs at JFK, LGA, and EWR Airports
- Evaluate and enhance the existing TEB Quiet Flying Program

What is a Fly Quiet Program?

- Fly Quiet is a **voluntary collaboration** of the Port Authority, Airlines, aircraft operators, and FAA air traffic controllers that **encourages** them to use suggested quieter aircraft, noise abatement flight procedures, and preferential runways.



Benchmarking and Development

- **Benchmarking conducted in 2022**
 - **Surveys and interviews of other airports with FQPs nationwide to learn best practices**
- **Technical Focus Groups were established in 2022**
 - **Involving airlines, operators, and the FAA**
 - **Working together to develop the FQPs**

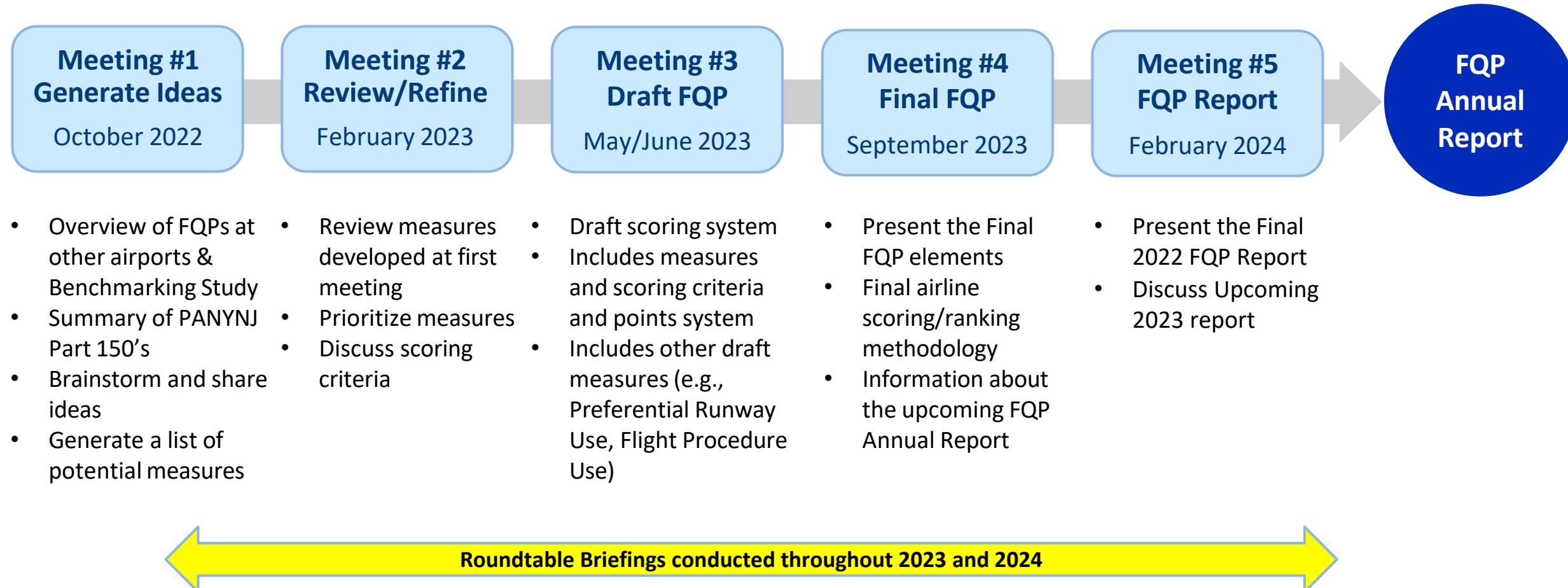
Airports interviewed and researched:

San Francisco Intl.
San Diego Intl.
Seattle-Tacoma Intl.
Aspen/Pitkin County
Teterboro Airport
Los Angeles Intl.
John Wayne Airport
O'Hare International
Jackson Hole Airport
Philadelphia Intl.

Measures Identified based on Benchmarking

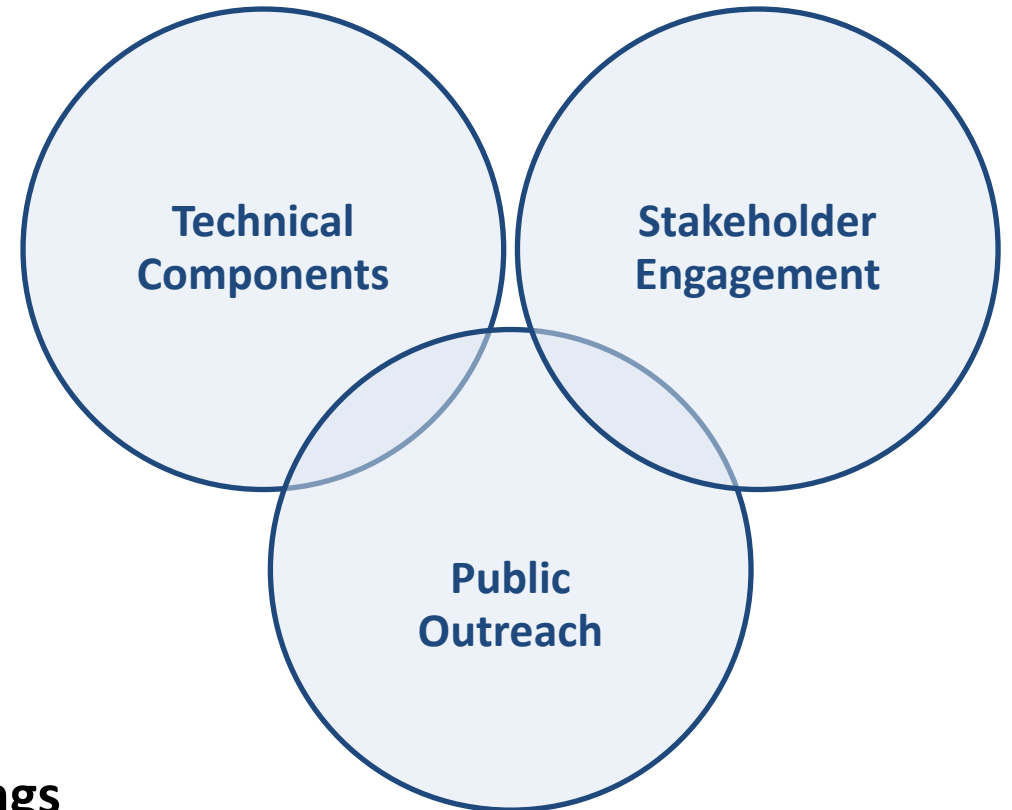
- **Ranking of airlines according to their fleet mix and aircraft noise levels**
 - Benchmarking showed this is a foundational element of all FQPs
- **Preferential Runway Use to reduce noise exposure**
 - Considered in Part 150 and especially useful during late-night hours
 - Common to many FQPs
- **FQP will not propose any new flight procedures**
 - Instead, track and encourage greater use of existing procedures
 - Common to many FQPs

Stakeholder Focus Group Meetings

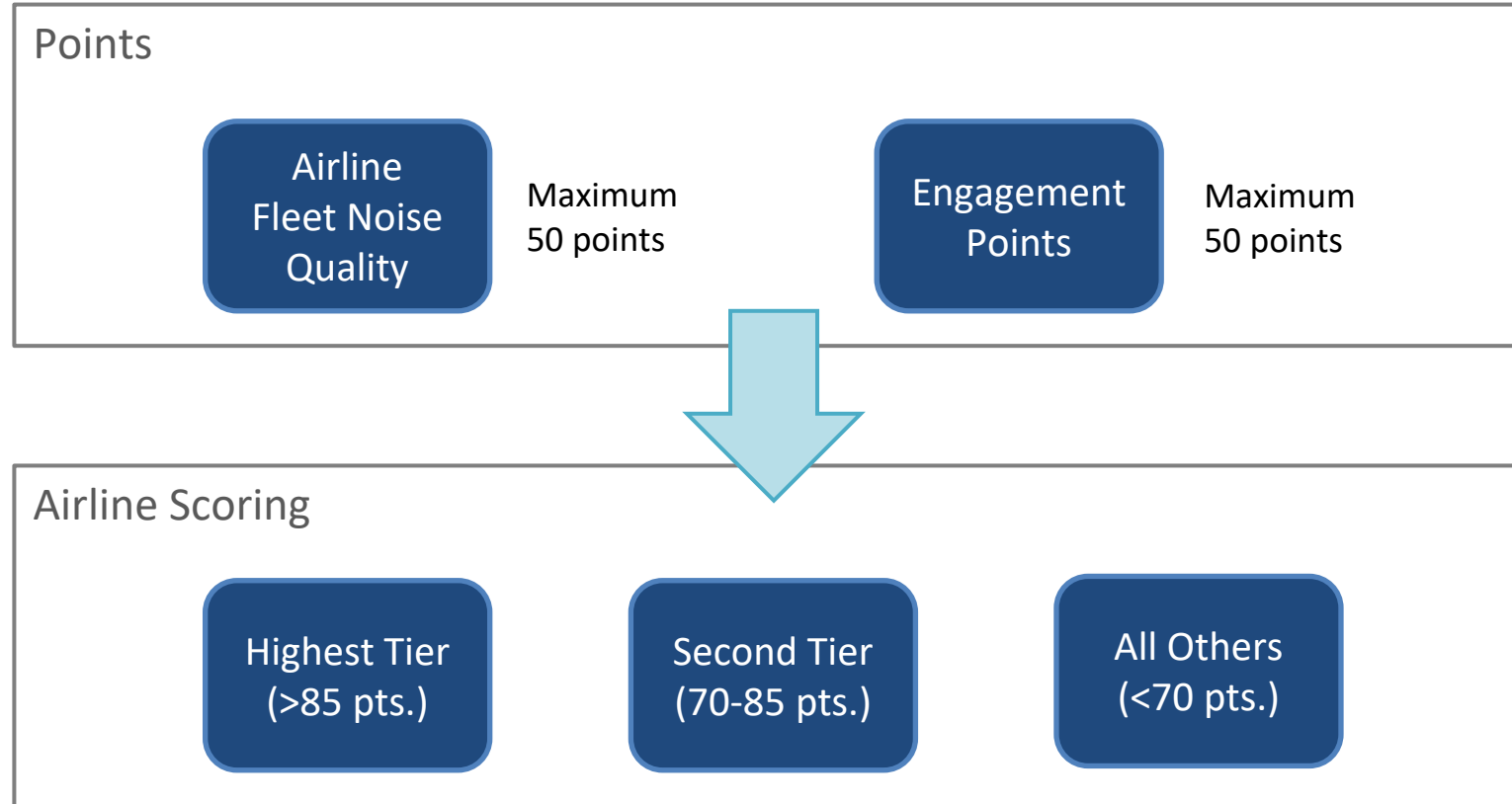


Foundation of PANYNJ FQPs

- **Technical components**
 - Data collection
 - Software/dashboard setup
 - Tracking and reporting
- **Stakeholder engagement**
 - Airlines/operators, airports, FAA
 - Buy-in and participation
- **Public outreach**
 - Annual reports, website, roundtable briefings



Scoring System Overview



A Database was developed using ANOMS data to categorize airlines and determine scores based on airline fleet mix (i.e., Noise Stage data)

Top Tiers will be recognized in the FQP Annual Report:

- ✓ Awarded in each airline category (Air Carrier, Regional, Int'l., Cargo)
- ✓ Scored on a scale of 0 to 100

Airline Scoring Details

Scoring Categories		Max. Points
Airline Fleet	Fleet Noise Quality: <ul style="list-style-type: none"> • Weighted average of an airline's operations and the certificated "Noise Stage" of each aircraft • For airlines with minimum of 365 operations per year (operation is one arrival or one departure) 	50
Engagement	Participate in FQP Focus Group annual virtual briefing(s) – includes 2022 and 2023	10
	Participate in Roundtable Meetings (for JFK and LGA only) <ul style="list-style-type: none"> • Up to four meetings per year, 2.5 points per meeting, 10 points maximum 	10
	Access and review the FQP Dashboard Reporting site once per quarter <ul style="list-style-type: none"> • Tracked four times per year, 2.5 points per login, 10 points maximum 	10
	Provide copies of pilot training/educational materials on noise abatement and Fly Quiet along with the date(s) training was conducted	10
	Provide information/documentation on airline fleet noise reductions (vortex generators, etc. installed on the aircraft; pilot operating techniques; NADP; etc.)	5
	Provide information/documentation on any annual airline sustainability practices/offsets/etc.	5
Total:		100

Airport-wide Statistics for Annual FQP Report

- Provide statistics on noise and operations that are reported airport-wide *(not a part of an airline's score)*
 - Airport-wide fleet mix by Noise Stage
 - Runway use including late-night hours
 - Flight procedure use
- Recognizes the FAA's participation and role in runway selection and flight procedure selection

Annual Report

- 2022 FQP Report
 - Separate report for each airport (JFK, LGA, EWR)
 - Based on annual data for Calendar Year 2022
 - Brief, 10-page summary of Airline Awards and metrics
 - Graphical, easy-to-read format
- 2023 FQP report
 - Release April 2024
- Future years – release Annual Reports in April of the following year

Link to the FQP webpage: <https://aircraftnoise.panynj.gov/fly-quiet-program/>



 **John F. Kennedy**
International Airport

Fly Quiet Program

Annual Report

2022



CONGRATULATIONS TO THE WINNERS OF THE JFK FLY QUIET AWARDS

2022

GOLD TIER



SILVER TIER



**DOMESTIC MAJOR
AIR CARRIER**

GOLD TIER WAS NOT
AVAILABLE FOR THE YEAR 2022.*

American Airlines  jetBlue
AIRWAYS
 DELTA  UNITED

**INTERNATIONAL
AIR CARRIER**

GOLD TIER WAS NOT
AVAILABLE FOR THE YEAR 2022.*

 Emirates  NORSE

**REGIONAL
AIR CARRIER**

GOLD TIER WAS NOT
AVAILABLE FOR THE YEAR 2022.*

NONE

**CARGO
AIRLINE**

GOLD TIER WAS NOT
AVAILABLE FOR THE YEAR 2022.*



AIRLINE SCORING

Points are evenly split between aircraft noise ratings and engagement scores.



OVERVIEW

Airline scores are calculated annually based on two categories, and the maximum possible score is 100 points.

- Fleet noise quality – maximum 50 points
- Engagement points – maximum 50 points

FLEET NOISE QUALITY

Noise performance metrics are computed quarterly for each airline and operator at EWR, based on operations reported by the PANYNJ Airport Noise and Operations Monitoring System (ANOMS).

Aircraft “Noise Stages” are defined by the FAA for every model of aircraft when they are first manufactured and entered into service. The FAA classifies aircraft as follows:

- Stage 3 – these are the loudest aircraft currently allowed to operate in the U.S.
- Stage 4 – these aircraft are at least 10 decibels quieter than Stage 3 aircraft.
- Stage 5 – these aircraft are at least 7 decibels quieter than Stage 4 aircraft.
- Stage 5 Plus – this is not a formal noise rating, however the FQP gives extra points to the newest aircraft that are 5 or 10 decibels quieter than Stage 5.







The noise quality score is computed for each airline based on its annual number of operations, the type of aircraft used for each flight, and each aircraft’s noise stage. A weighted average is then calculated for the year.

The minimum number of annual operations for an airline is one operation per day (365 operations per year). Airlines with fewer operations are not included in the FQP.

ENGAGEMENT POINTS

Engagement points are earned by an airline when it demonstrates the following categories are met during the calendar year. Attendance records and other documentation from the airlines are collected by the PANYNJ throughout the year.

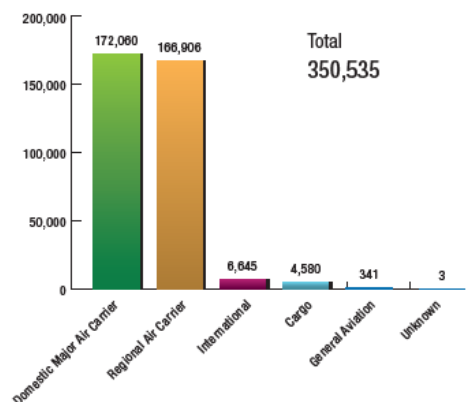
AIRLINE SCORING

CATEGORY	MAX POINTS
 Participate in FQP Focus Group annual virtual briefing(s) – includes 2022 and 2023	10
 Participate in Roundtable Meetings (for JFK and LGA only) <ul style="list-style-type: none">• Up to four meetings per year, 2.5 points per meeting, 10 points maximum	10
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 Provide copies of pilot training/educational materials on noise abatement and Fly Quiet along with the date(s) training was conducted	10
 Provide information/documentation on airline fleet noise reductions (vortex generators, etc. installed on the aircraft; pilot operating techniques; NADP; etc.)	5
 Provide information/documentation on any annual airline sustainability practices/offsets/etc.	5
TOTAL	50

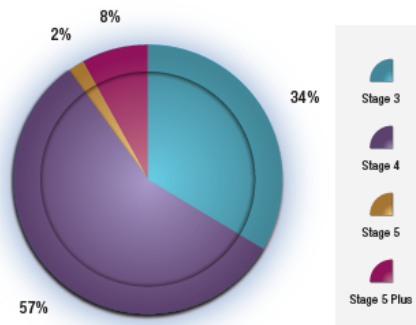
AIRPORT STATISTICS 2022

ANNUAL METRICS

The FQP Annual Reports provide statistics on airport operations, runway selection, and flight procedure utilization. The data is provided quarterly to airline and FAA stakeholders for technical review and progress tracking. The total annual operations at the airport are shown below. Included are the annual operations by category of aircraft. These statistics are not a part of an airline's FQP score.



The Noise Stage is a measurement of how loud an aircraft is, with Stage 3 being the loudest and Stage 5 Plus being the quietest. The chart below shows the percentage of operations for the year 2022 flown by each Noise Stage aircraft.

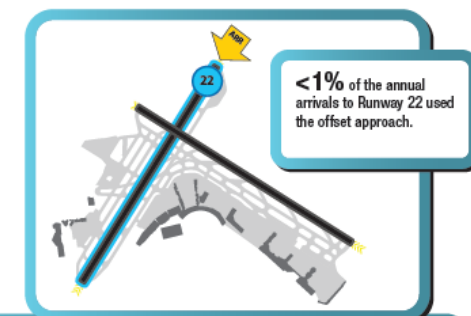


PROCEDURE USE

Flight procedure use is not a part of an airline's FQP score. Instead, the data is provided in the FQP Annual Report to inform the public and airport stakeholders. Flight procedure use captures the annual utilization of the arrival and departure procedures described below. However, the selection of a flight procedure for use by arriving and departing aircraft at the airport is determined by several factors: FAA air traffic control's assignment of a procedure to an aircraft; which runways are in use at the time; operations at nearby airports; wind and weather patterns; efficiency and safety; and, noise abatement when operationally feasible.

The flight procedures tracked at LGA airport are listed below. See the graphics on this page for detailed information on each procedure.

- Runway 22 RNAV "Offset" Approach – Aircraft approach the runway at an angle instead of lined up directly with the runway, shifting noise away from the straight-in flight path. This flight procedure was an approved noise abatement measure from the Part 150 Noise Compatibility Program.



Program Development Strategy

- Benchmarking
- Clear program objectives and goals
- Clear project schedule and timeline
- Frequent communications and collaboration with stakeholders
- Transparency with data
- Managing expectations
- Buy-in from airlines
- Making the program meaningful for stakeholders
- All meetings were virtual

Questions?