

AVIATION NOISE MANAGEMENT

Port of Portland

2022 Year in Review

Emerging Issues & Risk Management

AVIATION NOISE

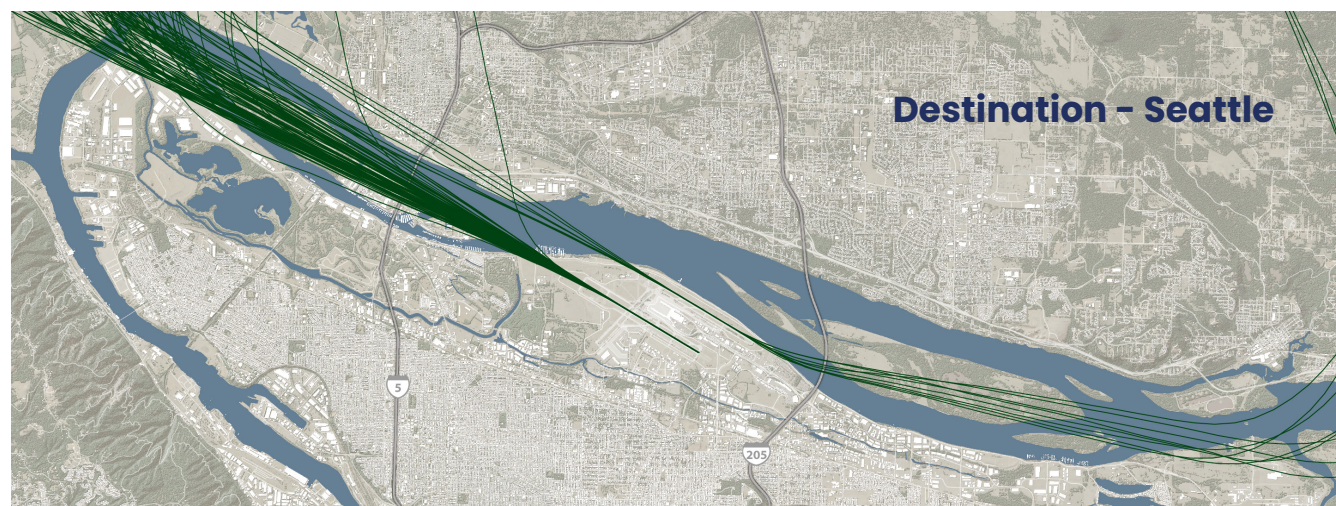
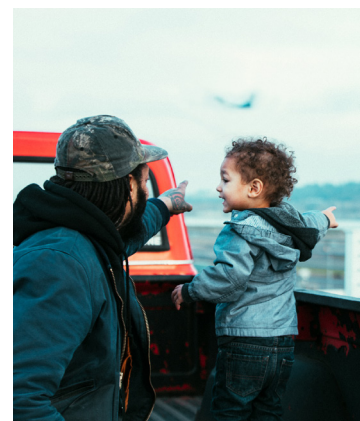
We continue to receive a high volume of complaints from one household, accounting for roughly 95% of the total complaints received overall in 2022. A large amount of staff time and resources are required to log and provide responses to complaints, inquiries, media requests and testimony. Strategies are being explored to manage repeat and high-volume community complaints more efficiently.

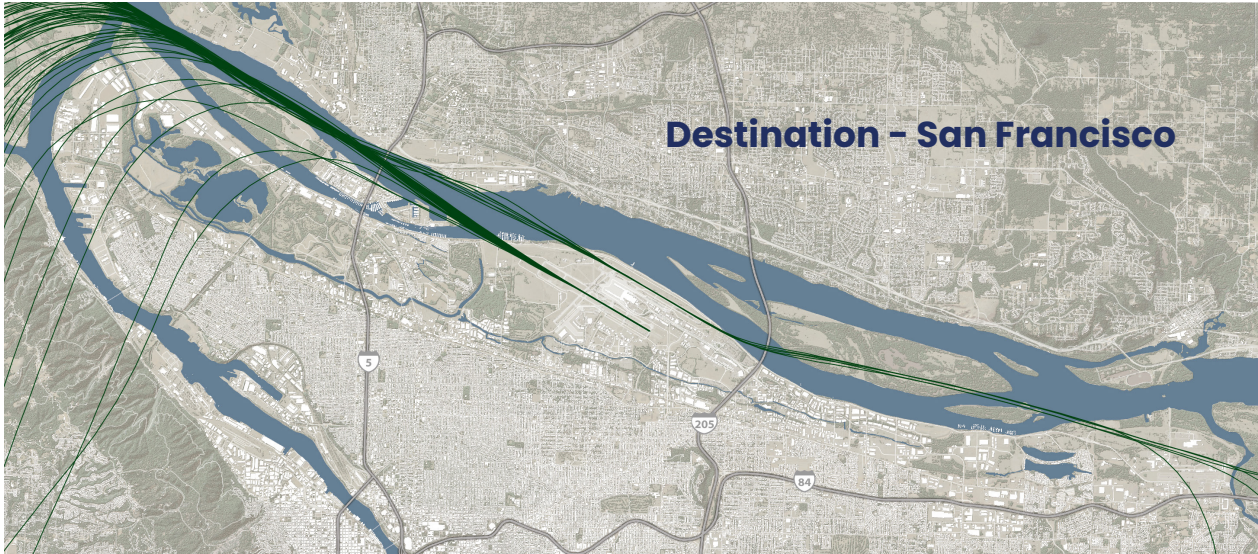
Standard operating procedures are under review as part of a larger Noise Program Progression Plan, a study in part to review the procedures and structure of the Noise Management Office as a whole. The plan is expected to be completed in late 2023.

Key Accomplishments

PDX FLY QUIET PROGRAM

The decommissioning of a conventional navigational aid at PDX, and the lack of RNAV (GPS) departure procedures for aircraft with destinations in Hawaii and to the north, have resulted in increased overflight of Hayden Island and southern Vancouver. Figures 1 and 2 below show examples of departures to Seattle and San Francisco, respectively, for RNAV-capable flights.





In an effort to increase voluntary compliance with the Fly Quiet program, we've engaged the FAA to request adjustments to existing departure procedures as well as creation of two new departure procedures.

Noise Program Performance

The following section details work within the noise management program for 2022.

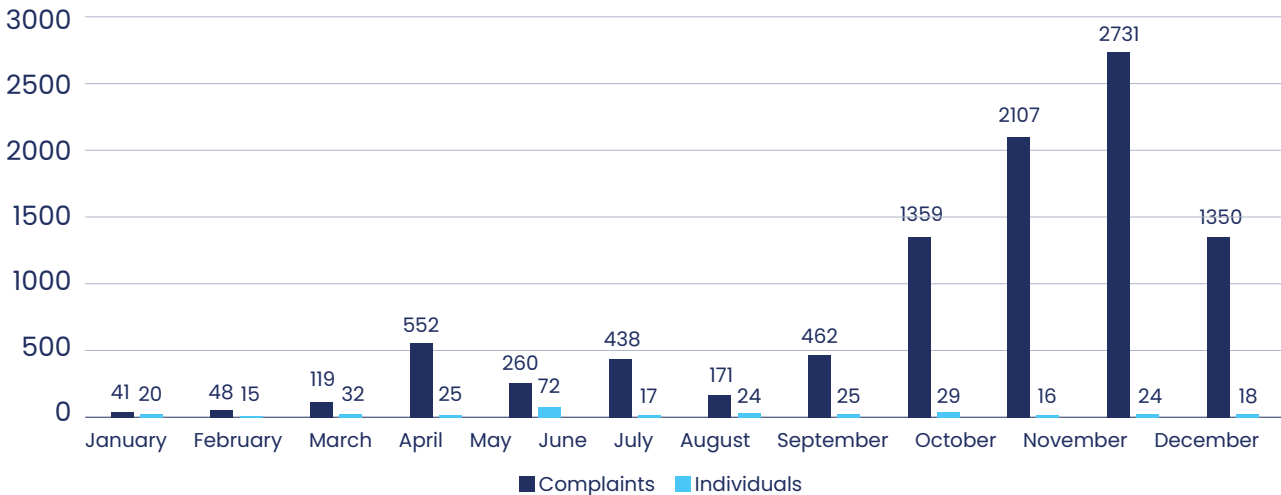
NOISE COMPLAINT MANAGEMENT

Objective: A: Act as the primary point of contact to respond to aviation noise related complaints from the public.

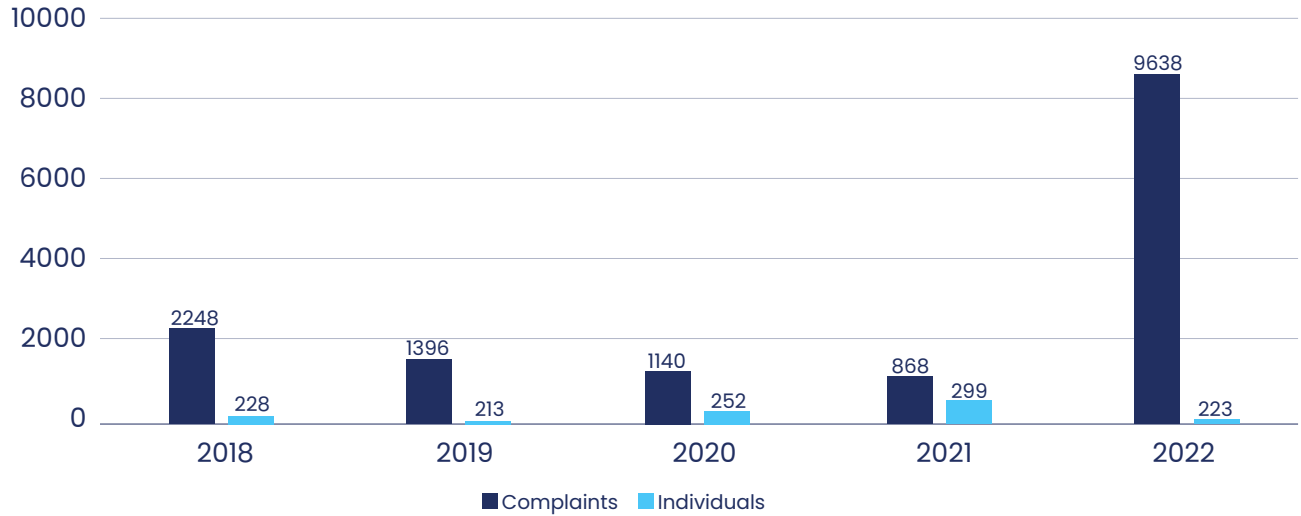
The Noise Management Office received a total of 9,638 aircraft noise complaints from 223 individuals in 2022. Roughly 95% of the total complaints were issued by two individuals from a single household.

Monthly aircraft noise complaints by total complaints and number of individuals

Monthly Aircraft Noise Complaints CY 2022



Annual Aircraft Noise Complaints 2018-2022



Top ten categories of noise complaints by total complaints and individuals

Top Ten Categories of Noise Complaints				
Operator	Aircraft Type	Activity	Complaints	Individuals
Other	All	Overflight	8553	18
General Aviation	Propeller	Other	208	24
Commercial	Jet	Arrival	188	31
Commercial	Jet	Departure	99	36
General Aviation	Helicopter	Other	91	23
Law Enforcement	Propeller	Other	77	33
General Aviation	Other	Other	48	12
Military	Jet	Departure	24	22
Commercial	Turboprop	Arrival	24	9
Military	Jet	Arrival	17	13

The total number of complaints have increased since 2018, while the number of individuals issuing complaints has remained steady. The total number of complaints in 2022 increased 10-fold due to repeat complaints received from a single household.

FLY QUIET PROGRAM

Objective: Voluntary noise abatement flight patterns for jet and turboprop aircraft at PDX were designed to keep aircraft over the Columbia River and away from residential areas to the extent possible. Under the Fly Quiet Program, the Noise Management Office monitors use rates of these flight paths and meets as needed with stakeholders to discuss trends in operations, to give positive feedback, as well as highlight areas where performance could be improved.

- **Target 1:** Following departure from runways in east flow aircraft should remain over the Columbia River until reaching 7,000' of altitude or 11 nautical miles of distance for jets, 3,000' of altitude for turboprops.
 - Use rate for jet aircraft – 69%
 - Use rate for turboprop aircraft – 97%

- **Target 2:** Following departure from runways in west flow aircraft should remain over the Columbia River until reaching 6,000' of altitude or 8 nautical miles of distance for jets, 3,000' of altitude for turboprops.
 - Use rate for jet aircraft – 86%
 - Use rate for turboprop aircraft – 98%

- **Target 3:** Jet aircraft should use RNAV (GPS) arrival and departure procedures and turboprop aircraft for arrivals (turboprops are ineligible for RNAV departure).
 - Use rate for both jet and turboprop arrivals – 81%
 - Use rate for jet departures – 9%

- **Target 4:** All capable aircraft and crews should use Required Navigation Performance (RNP) approach procedures. (Note – RNP is an advanced form of GPS based aircraft navigation)
 - Utilization for all capable aircraft – 6.2%

COMMUNITY OUTREACH AND ENGAGEMENT

Objective: The Noise Management Office works with internal and external stakeholders to communicate and collaborate on aviation noise issues.

The Citizen Noise Advisory Committee (CNAC) continued to meet every other month in 2022. Due to the COVID-19 pandemic, meetings were virtual for most of 2022. In-person meetings resumed in September 2022, leading CNAC to adopt a hybrid meeting policy offering both in-person and virtual meeting attendance options. The purpose of the meetings is to discuss aircraft noise and community compatibility. CNAC meeting notes are available on the Port of Portland website at <https://www.portofportland.com/Committees/CNAC>

The Noise Management Office continued to attend the Hillsboro Airport Community Advisors (HACA) meetings at HIO and met virtually with the Oregon Air National Guard, PDX and HIO Air Traffic Control, and aviation students at Portland Community College to provide information regarding aircraft noise issues.