



AVIATION NOISE MANAGEMENT

PORT OF PORTLAND

Noise Management Mission
 Minimize, to the extent possible, the noise impacts from aircraft utilizing airports operated by the Port of Portland. Encourage cooperation and collaboration with internal and external partners.

Phil Stenstrom
 Port of Portland Noise Manager
 503.415.6063
philip.stenstrom@portofportland.com

For general information
 or to report a noise event dial:
 503.460.4100
 or contact us via email:
pdxnoise@portofportland.com.

2015 Year in Review

A summary of the Port of Portland's Aviation Noise Management Program key metrics and highlights of the year

The Port's mission is to enhance the region's economy and quality of life by providing efficient cargo and air passenger access to markets. In 2015, we continued our Aviation Noise Management Program on the successful foundation that has balanced regional interests for over 30 years. We thank the members of our volunteer Citizen Noise Advisory Committee and Hillsboro Airport Roundtable Exchange for their contributions and ongoing support.

Fast Facts and Stats

	Portland International PDX	Hillsboro Airport HIO	Troutdale Airport TTD	Other*	Total
Annual flight operations	218,021	186,402	129,033	-	533,456
Complaints and comments submitted	688	91	4	512	1,295
Households submitting complaints or comments	158	46	2	108	314
Percentage of total submissions by top 5 individuals	61%	46%	100%	72%	24%
Stakeholder engagement events (Community and industry)	23	7	1	0	31
Source: Port Aircraft Noise and Operations Monitoring system (ANOMS) and Research and Strategic Analysis Department					
*Note: "Other" counts submissions that could not be attributed to a specific airport.					



PDX Noise Management 2015 Highlights

Media Helicopter Operator Outreach

During a meeting with the Portland City Council, concern was raised about media helicopter operations over residential areas. While these are typically not directly affiliated with Port of Portland airports, the Port Noise Team reached out to the local media to share the concern. Media efforts to reduce/minimize the noise were discussed, and recommendations shared for further improvements. The Port provided copies of the Helicopter Association International “Fly Neighborly” guides, which include best practices for reducing noise in the community. As members of the HAI’s Fly Neighborly Committee, Port staff helped develop the materials.

Performance-Based Navigation Monitoring, Analyses, Promotion

Performance-based navigation is a cornerstone of the Federal Aviation Administration’s Next Generation Air Transportation System. PBN increases the precision and predictability of aircraft operations as well as the situational awareness for both flight crews and air traffic control.

The benefits of PBN are significant, including from noise and emissions reduction and increased flight efficiency. The improved precision results in more predictable, reliable, concentrated operations for both arrivals and departures. The Port has developed a number of analytical tools to help analyze, quantify, and communicate the implications of PBN, and share this information with the community.

The Port partnered with FAA Air Traffic Control, Alaska Airlines, and Boeing, to develop tracking tools to quantify use of these procedures, and a strategy for quantifying the benefits in terms of reductions in noise and emissions. The Port developed a mapping tool to enable staff to monitor changes in flight patterns as use of PBN grows.

Recognizing the benefits of PBN, the Port again partnered with Alaska Airlines and FAA Air Traffic Control to become one of the few airports in the nation to promote the use of PBN procedures on the Automated Terminal Information System, which provides airport and weather information to pilots.

Troutdale Airport Master Plan Update

The Troutdale Airport Master Plan provides a roadmap for future use and development of the airport. The Port Noise Team is providing technical expertise and support to the project team to ensure community noise impacts are considered during the planning process. This effort began in 2015 and is expected to continue through 2016.

Supporting Our Kids, Supporting Our Communities

The Port partnered with the Portland Air National Guard to provide support for the local STARBASE program, <http://dodstarbase.org>, which provides science, technology, engineering, and math (STEM) education to students in communities surrounding PDX.

Additionally, working in conjunction with OregonASK, the Port developed and deployed classroom curricula for fifth through eighth grade students, introducing them to the science of acoustics and engineering design.

Industry Involvement—Working Groups

In ongoing efforts to engage with industry in support of balancing the needs of aviation and community stakeholders, the Port participated in a number of industry events and working groups.



Activities included maintaining involvement in the Airport Cooperative Research Program, supporting research into all things aviation and airports. Guidance continued through 2015 for airports and communities regarding the implementation of performance-based navigation. This is a two-year project with the final report expected in 2016.

The Port participated on another project which will develop a “Helicopter Noise Information Guidebook” for airports and communities. The project is intended to provide airport operators and community members’ information about helicopter operations and acoustics and strategies and resources for minimizing noise impacts.

The Port also supported the Performance-Based Navigation Strategy Ad Hoc Working Group, part of the Performance-Based Operations Aviation Rulemaking Group (PARC), which is helping develop a PBN roadmap for the FAA. The work is addressing critical issues including the need to focus more on understanding and considering airport and community interests in PBN design and implementation.

Industry Involvement – Presentations and Technical Briefings

In 2015, the Port initiated a PBN post-implementation analysis effort to better understand the benefits and negative impacts, e.g. increases in noise of the performance-based navigation procedures implemented for PDX. We established a core team made up of FAA, Boeing, and Alaska Airlines, and received additional support from other organizations. The initial work focused on comparing the benefits of PBN vs. conventional arrivals based on noise exposure, flight time and distance, and fuel burn and emissions. This effort, the only one of its kind, has been of interest to other airports as well as industry and community groups.

The Noise Team made presentations at a number of industry events in 2015 including the American Association of Airport Executives Noise Mitigation Conference, the National Business Aviation Association Annual Conference, and the International Civil Aviation Organization Communication, Navigation, and Surveillance/Air Traffic Management Task Force Meeting.

Statewide Aviation Noise Disclosure

The Port supported a proposal by the PDX Citizen Noise Advisory Committee for a statewide noise disclosure requirement for real-estate transactions located in areas impacted by aviation noise. The Port facilitated discussions between the committee and the Oregon Department of Aviation, who will serve as the lead agency on this effort.

Addressing Drones

The use of unmanned aerial systems, commonly known as “drones”, represents a new era in aviation. With millions of drones already sold, aviation stakeholders including the FAA, operators of manned and unmanned aircraft, airports and local governments all have interests, many of which may be conflicting. The public is also interested, both as users of this new technology and as those concerned with questions about noise, safety, and privacy. The Port has a stake in a number of ways; as an airport operator ensuring UAS operations do not affect aviation safety; as a community advocate, sensitive to concerns about noise, safety, and privacy; and as a potential operator.

The Port’s Noise Team has been tasked with building internal expertise in the area of drone operations, regulations, and commercial and industrial uses. It will also help develop organizational policies which will govern the use of drones on or in proximity to Port airports, marine terminals, and industrial properties. The work will enable the Port to provide support to users, local governments, and the public, regarding questions or concerns about drone operations within their community.