Hillsboro Airport Parallel Runway 12L/30R

Final

Supplemental Environmental Assessment

Volume 2 of 2 (Appendices G and I)



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Cover: base map: Google Stock photos: Bigstock.com

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Comments and Responses to Comments Comment File G.1

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1		
4/17/2013	Andy Duyck (AD#)	
4/19/2013	Bill Lennox (BL#)	
4/18/2013	Pamela Treece - WEA le	tter (WEA#)
4/19/2013 #2	Blaine C Ackley (BAE# a	nd BAL#)
4/15/2013	Bryan/Robin Pietz (BP#)	
Undated	Chris & Valeska Arneser	n (CVA#)
4/18/2013	Dale Feik (DF#)	
4/7/2013	David Nardone (DN#)	
4/15/2013	Fred Hostetler (FH#)	
4/18/2013	Gary Warren (GW#)	
3/25/2013	Greg Driscoll (GD#)	
April 17, 2013 Public He	earing Transcript	
Wayne Vanderzanden (WV#) M		Miki Barnes (MB#)
Dan Bloom (DB#)		Jack Lettieri (JLt#)
Martin Granum (MaG#)		Renee Strong (RS#)
Megan Granum (MeG#) Bill Stone		Bill Stone (BS#)

Larry Altree (LA#)	Larry Bird (LB#)
Blaine Ackley (BA#)	Jim Lubischer (JL#)
Jim Lubischer (JL#)	David Barnes (DB#)
John Southgate (JS#	#) Miki Barnes (MB#)
Ellen Sanders (ES#)	Ruth Warren (RW#)
Sharon Cornish (SC	#) Brian Hannah (BH#)
Vernon Mock (VM#) Miki Barnes (MB#)
Ruth Warren (RW#)	Vernon Mock (VM#)
Brian Hannah (BH#)	
Comment File G.2	
4/17/2013	Jim Lubischer
Comment File G.3	
4/19/2013	Henry Oberhelman
4/17/2013	Howard Radin
4/17/2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lvnn Hamm
May 12, 2013 (sic)	Ruth Warren
Comment File G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone
Comment File G.7	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comment File G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J.
Comment File G 9	
<i>4/27/2013</i>	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillshord Airport Parallel Runway Draft
7/1/2013	Supplemental Environmental Assessment
1/17/2013	OAW Testimony (Barnes) Attach1 Williams
7/1/2010	

COMMENT FORM

Hillsboro Airport

Draft Supplemental Environmental Assessment Public Hearing April 17, 2013

Please Print

I would like to express my strong support for the expanded runway system at Hillsboro airport. Aviation activities at the airport provide numerous benefits and opportunities. I'd like to talk about just one that is personal to my family.

About a year ago, my younger sister contracted cancer. As part of her treatment, she needed to travel to a cancer center in Seattle each week. Because of her weakened condition, she could not drive. But, then she learned of a volunteer program operated out of the Hillsboro airport, in which pilots would fly her for free while accumulating flight time. This was a lifesaving gift for her. Her treatment has so far been successful, but delays caused by heavy airport traffic on too few runways, would have lessened the value of this program.

The biggest point to this is that the benefits of an airport cannot always be measured in dollars and cents. Whether it is voluntary transport, search and rescue, or foreign student pilots who return to their home countries with a better knowledge of Hillsboro's economic climate, this is a valuable asset.

I urge the completion of the third runway at the airport, which will continue to benefit our community in both, financial and non financial terms.

Washington County Chair

Andy Duyck

Return Comments to:

Renee Dowlin Port of Portland Box 3529 Portland, OR 97208 Comments must be postmarked later than April 19, 20013

Response to Andy Duyck 4-17-2013 Comment Form		
AD1	Comment noted.	

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Friday, April 19, 2013 4:54 PM Mary Vigilante Fwd: Hillsboro Runway Expansion

Sent from my iPhone

Begin forwarded message:

From: Bill Lennox <<u>BillLennox@aol.com</u>> Date: April 19, 2013, 4:51:31 PM PDT To: <<u>renee.dowlin@portofportland.com</u>> Subject: Hillsboro Runway Expansion

Renee,

I was unable to attend the April 17th public meeting in Hillsboro. I offer the following as my statement.

I would like to voice my support of the new third runway at the Hillsboro airport. I have been a resident of Hillsboro for almost 20 years. When I purchased a home, we were very aware that there was an active general aviation airport to our north. We simply looked at the local map. We also drove the general area and were able to see the extent of operations in late 1994. My home is at 1877 SE Walnut St in Hillsboro. It is adjacent to the approach to the crosswind runway, zero two. We do experience some aircraft noise but to be frank the summer noise from the local park is much more of a problem.

Being retired Air Force, I have lived on or near busy military airfields with 24 hour operations for 20 plus years. The noise generated by Hillsboro airport is relatively low. Operations are generally not conducted within the quiet hours of 11PM and 7AM. In the past there has been quiet hours noise generated by medical evacuation aircraft (LifeFlight) but I view that as necessary and of benefit to the community.

The very vocal minority of Miki Barnes and her associates have been complaining about the airport for many of those years. They have taken every opportunity to protest anything involving the Hillsboro airport. Being vocal, they receive an unfair portion of the news cycle in the local media. I strongly disagree with them.

I was at the public meeting in Hillsboro following the air show crash several years ago and made a public statement supporting the air show, the airport and aviation in general. I also stated that aircraft do crash but do so at a much lower rate that automobiles. I also stated that if aviation safety, licensing and maintenance rules were applied to autos, most people would not be driving. I believe Ms Barnes made a rambling statement at that meeting about the great dangers of general aviation daily, opposed the air shows and aviation etc because of the 'danger' involved.

However, the very vocal minority have generated enough noise complaints that Lifeflight has relocated flight operations to Aurora with the resulting increased response time to medical

1

emergencies in the metro area. This has increased the frequency of ground ambulance transport of trauma patients with an impact on patients. You won't get anyone to publicly admit this but the information is available within the emergency medical community in the metro area.

The financial benefits of the airport are many and have been documented. I leave it to others to address that. I will point out that Mr Barnes pointed out the decreased number of flight operations since 2007, with a depressed economy. If you compare flight operations to the general economy, you will see it rises and falls together over time. You need to look at a larger period of time to get a realistic picture.

I would like to see a public listing of dates, times and locations of the persons who are complaining about airport noise. I think an objective analysis would find some interesting information about who and where the complaints are coming from. I believe this would be of value in evaluating the information from a statistical point of view.



In summary, I support the third runway at the Hillsboro airport.

Thank you

Bill Lennox

--Bill Lennox USAF Retired 503-693-2581

	Responses to Bill Lennox 4-19-2013 Email
BL1	It is important to note the purpose of National Environmental Policy Act (NEPA) documentation is to assess and disclose the environmental effects associate with a proposed project, not to prepare a financial cost/benefit of the proposed actions. However, the environmental effects that would be beneficial to the area as it relates to NEPA are of a socio-economic nature, which are discussed in Chapter 5, of the original Environmental Assessment and in Section 6 of the Supplemental Environmental Assessment. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.
BL2	The Port of Portland does not disclose aircraft noise complaints, as the Port feels that receiving such information is important, and public disclosure of the names and addresses could discourage receipt of that information. However, the Port prepares a quarterly summary of aircraft noise complaints, which gives a general location of the noise complaints, and this information is made available to the public. This information can be obtained from the Port's Noise Office at 1-800-938-6647.

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PAMELA TREECE WESTSIDE ECONOMIC ALLIANCE



April 18, 2013

Ms. Renee Dowlin Senior Environmental Planner Port of Portland P.O. Box 3529 Portland, OR 97208

Dear Ms. Dowlin:

Westside Economic Alliance was unable to attend the Hillsboro Airport Parallel Runway environmental assessment hearing and open house, but wanted to offer written testimony for the record.

Hillsboro Airport is an important asset for our region's economic prosperity and multimodal transportation system. Hillsboro Airport has approximately 50 on-airport businesses and 363 based aircraft, including local corporate flight departments and corporate air shuttle service, and other business jet and aircraft. Intel contracts with a private air shuttle operator to provide scheduled corporate air shuttle to Intel facilities in: Olympia, WA; San Jose, CA; and Chandler, AZ. Intel's air shuttle service also creates local business for car rental agencies, shuttle bus operators, hotels and restaurants. Other business aircraft based at Hillsboro Airport include: Nike, Teufel nurseries, Bruun Construction, and other corporations with aircraft based with Fixed Base Operator.

The economic value of Hillsboro Airport is significant. General aviation and passenger activity at Hillsboro Airport generated 1,199 direct, induced and indirect jobs in the Portland metropolitan area and \$75.7 million of business revenue in 2011. A total of \$60.9 million of direct personal income, induced income and consumption impacts, and indirect income was also generated by activity at Hillsboro Airport. The airport activity provided \$5.6 million of state and local taxes. The jobs and business revenue at Hillsboro Airport include the impacts generated by the air service provided for employees of, and visitors to, companies located in the Hillsboro area.

Ensuring this important regional asset is maintained and upgraded to meet our region's needs is essential to our business community with national and international connections. Construction of the parallel runway will segregate aircraft and improve efficiency and reduce delay at Hillsboro Airport, and provide 179 construction jobs.





We urge your consideration of these business factors in your review of the Hillsboro Airport environmental assessment.

Sincerely,

amele IS Sum

Pamela Treece Executive director

Response to Pamela Treece – WestSide Economic Alliance (WEA) 4-18-2013 letter

WEA1 It is important to note the purpose of National Environmental Policy Act (NEPA) documentation is to assess and disclose the environmental effects associate with a proposed project, not to prepare a financial cost/benefit of the proposed actions. However, the environmental effects that would be beneficial to the area as it relates to NEPA are of a socio-economic nature, which are discussed in Chapter 5, of the original Environmental Assessment and in Section 6 of the Supplemental Environmental Assessment. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.

From: Sent: To: Subject: Attachments: Dowlin, Renee <Renee.Dowlin@portofportland.com> Friday, April 19, 2013 3:06 PM 'Mary Vigilante' FW: Lead research paper Original Miranda Study.pdf

More commnets

-----Original Message-----From: Blaine Ackley [mailto:blaineackley@me.com] Sent: Friday, April 19, 2013 2:53 PM To: Dowlin, Renee Subject: Lead research paper



Oops, Sorry, Renee, I neglected to attach the research article so here it is. Please add this research article as further evidence in support of my concerns about lead in the environment:t

	Response to Blaine C Ackley Email 4-19-2013
BAE1	Thank you for the material titled:
	EPA Regulatory Announcement EPA-420-F-10-013 April 2010
	 USEPA Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engined Aircraft Using Aviation Leaded Gasoline
	Santa Monica Airport Health Impact Assessment (HIA), February 2010.
	 "A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels", Environmental Health Perspectives, Volume 119, October 2011
	The Port and FAA appreciate the submission of an extensive listing of published material.

Blaine C. Ackley

655 NW 229th Ave.

Hillsboro, OR 97124

503-693-0610

Ms. Renee Dowlin Senior Environmental Planner Port of Portland, P.O. Box 3529 Portland, Oregon 97208

RE: Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Environmental Assessment

Ms. Dowlin and Members of the Port Commission and FAA:

After my testimony last night at the hearing, I wanted to include supplemental information about lead contamination in the file.

First of all, in an EPA report (EPA-420-F-10-013, April, 2010), the EPA says that ½ of all lead emissions into the air are from piston driven aircraft. The lead that is emitted by these aircraft, "disperse widely in the environment because lead is emitted as a small particle and can travel widely before depositing in soil, water, vegetation or other surfaces" (p.2) Consequently, when the draft supplemental assessment says that there will be little or no effect on land, soil, water, or wildlife, it is just plain wrong. The factual data contradict the statement.

The danger to humans is that once humans or animals come into contact with lead, "it is absorbed in the blood stream and results in a broad range of health effects. "Exposures to low levels of lead early in life have linked effects on IQ, learning, memory, and behavior. There is no identified safe level for lead in the body" (p. 3).

Friends of the Earth, an environmental group, which in 2006 petitioned the EPA to phase out the use of lead in aviation fuel, issued the following warning:

1

Blaine C. Ackley

655 NW 229th Ave.

Hillsboro, OR 97124

503-693-0610

"... even small discrete doses from aircraft emissions can have long term health and environmental impacts... Piston-engine emissions of lead occur at ground level as well as flying altitude. Lead from this source is thus concentrated near airports and is also dispersed over a large geographic area potentially contributing to higher ambient concentrations in many communities. Numerous groups within the population may be at risk."

Next, I raise the issue of the Santa Monica Airport Study Health Impact Assessment from February 10, 2010. This was done by a group of pediatricians from the UCLA Medical Center. This study found unacceptable levels of lead and a new hazard to health – black carbon. Black carbon comes from jet take-offs and landings. Black carbon effects include respiratory and cardio-vascular diseases (p. 3). Also they found something called polycyclic aromatic hydrocarbons (PAH). The presence of PAH has been associated with cancer, hormone imbalance and lower IQ for children (p. 3).

This additional information just serves to support my position that the current airport is bad for my health and the health of my neighbors and the 3,000 school children who attend schools within two miles of the airport. It defies logic to suggest that an additional runway at Hillsboro will not increase airport traffic and further health and noise issues, The SEA just does not address these issues of life and death. I think this is purposeful because the Port will not like the answers from real data.

I have included copies of the studies I cited for your reference.

Sincerely yours, Blaune

Responses to Blaine C Ackley Letter "Re: Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Environmental Assessment"

BAL1	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA Tables 6-2 and 6-3, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, lead emissions would increase by 0.1 ton per year (for total annual emissions of 0.9 tons per year) with the project. When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS to protect public health and welfare.
	This Final Supplemental EA includes a study prepared by the Port of Portland in response to the Oregon Department of Environmental Quality's (ODEQs) initial evaluation of lead emissions performed in the fall of 2010. The Port of Portland was concerned that the methodology used by ODEQ to assess lead dispersion did not reflect aircraft flight and dispersion. ODEQ relied upon the CALPUFF model (developed by the California Air Resources Board for the dispersal of emissions from point sources) rather than FAA's EDMS/AERMOD model. AERMOD is most often used to assess dispersion over long distances, from tens to hundreds of kilometers and is the model recommended by EPA for near-field lead dispersion analysis. The FAA's model is appropriate in this context because it reflects use of a steady-state plume, which is believed to more accurately represent the emissions associated with aircraft. FAA requires the use of its EDMS model in air quality analyses developed for NEPA documents.
	The 2010 Port of Portland study considered 2007 activity levels (at 240,735 annual operations) and evaluated the lead emissions associated with aircraft that operate on AvGas (100LL). Several evaluations were conducted: 1) Use of EDMS, 2) a simplified AERMOD evaluation, and 3) two analyses reflecting adjustments in the emission release height and inclusion of ground-based aircraft movement. Both maximum concentrations and average concentrations were identified.
	The highest concentration of lead emissions was found in the evaluation associated with the ground-based source test. In this evaluation lead emissions were estimated to be 0.06567 μ g/m ³ , which is less than 50% of the lead NAAQS. It is important to note that the primary and secondary lead NAAQS are 0.15 μ g/m ³ measured on a 3-month rolling average. The modeled concentration of 0.06567 μ g/m ³ corresponds well to the emission inventory reported in the original EA at 0.622 tons of lead emitted per year as they both examined year 2007 activity levels. Thus, as the proposed project would result in either no increase in lead emissions, or an increase in lead emissions of 0.1 ton, relative to the No Action Alternative as delay would be

	reduced with the project, a NAAQS violation as a result of project implementation is not expected.
BAL2	The FAA and Port of Portland have prepared the original EA and Supplemental EA in accordance with FAA Orders 1050.1E and 5050.4B. These documents have included a detailed review of the environmental effects that completion of the proposed project would have in accordance with the spirit and intent of NEPA.
	Included in the material reviewed in preparation of the original and Supplemental EA was the air measurements conducted in the region and the USEPAs designation of the area relative to the National Ambient Air Quality Standards. The region is designated as in attainment for the lead standard, indicating that the quality of the air protects public health and welfare.
BAL3	The Supplemental EA was prepared in accordance with FAA Orders 1050.1E and 5050.4B. These orders specify the methodologies that the FAA is required to following in evaluating project effects under NEPA.
	An extensive amount of research has been and is being conducted to address lead content in AvGas. This research informs EPA's decisions concerning the National Ambient Air Quality Standards.
	The Oregon Department of Environmental Quality (ODEQ) conducts measurements in the area to ensure that the quality of air meets the Federal and state ambient air quality standards. The ODEQ has established an air measurement station within the City of Hillsboro (in 2007 at Hare Field – 1149 NE Grant Street) which replaced a different station in Hillsboro that closed in August 2004. This site measures PM2.5 and PM10. Measurements have not shown an violation of the NAAQS.
	A press release/Fact Sheet from ODEQ ¹ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur" Reasons given for expanding the data collection at the Hillsboro site include:
	 The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation Rapid growth of the area Air toxics have not been conducted in the area
	The fact sheet specifically addresses the issue of measuring lead from Hillsboro Airport. While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study). That study was completed in early July 2013, but further steps by the USEPA have not been announced.
BAL4	The Santa Monica Airport is a location where research is being conducted by various agencies concerning emissions effects including criteria pollutants such as lead, but also hazardous air pollutants. These studies do not lead to a different conclusion with regard to the proposed project at Hillsboro Airport. While these studies assist with developing research that will eventually benefit the industry, FAA Orders 1050.1E and 5050.4B have a prescribed approach to complying with NEPA, and the original and Supplemental EA comply with these orders.

¹ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

	Black carbon and polycyclic aromatic hydrocarbons (PAH) are also mentioned by the commenter. These two compounds are the result of fuel combustion and are not unique to avgas. Although avgas combustion contributes to the presence of PAH and black carbon, other mobile sources such as cars and trucks also contribute these pollutants.
BAL5	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
	According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
	As the proposed project is not expected to result in violations of the National Ambient Air Quality Standards, no air quality related health effects are expected.

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:22 AM 'Mary Vigilante' FW: 3rd runway at hillsboro airport

From: Bryan Pietz [mailto:pietza@gmail.com] Sent: Monday, April 15, 2013 1:14 PM To: Dowlin, Renee Subject: 3rd runway at hillsboro airport

We have been residents of Hillsboro for 18 years and have noticed substantial aircraft flying over our home (2832 se camwal Dr). This has caused quite a loud noise and we can't even talk outside in our yard. It is very disturbing. Another runway would just increase this noise. It brings down our property value and is annoying to say the least. We are against another runway. Robin Pietz



	Responses to Bryan/Robin Pietz Email 4-15-2013
BP1	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
BP2	The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained, and Remand Forecast). As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not expected, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour.
BP3	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports, which are summarized in documents such as FAA's 1985 <i>Aviation Noise Effects</i> Report, have concluded that airport noise has only a slight impact on property values within the 65 DNL or greater noise contour. Additionally, comparison of older studies ² to more recent studies ³ indicates that noise impacts were greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded: In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 *Effects of Aircraft Noise: Research Update on Selected Topics*)

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. *The Effect of Airport Noise on Housing Values*, a report prepared in 1994 by Booz-Allen & Hamilton for the FAA, outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, Booz-Allen recommended that their approach not be used at this time to determine property values due to the small sample size.

In the Summary and Conclusions section of the FAA's 1985 *Aviation Noise Effects* Report, it was stated "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

Chris & Valeska Arnesen 655 SW Brookwood Ave. Hillsboro, OR 97123-7919

Port of Portland PO Box 3529 Portland, OR 97208

Re: Notice of Public Hearing and Availability of Draft Supplemental Environmental Assessment (SEA) for Hillsboro Airport Parallel Runway

Commission President Carter and fellow Port of Portland Commissioners:

My wife and I support the results of the draft supplemental environmental assessment and in addition wish to express our complete support for the Hillsboro Airport Parallel Runway project.

It is our opinion that the airport has effectively overgrown its current capacity and that this expansion is necessary to maintain safety as well as continued growth. We've lived at our current location near the Hillsboro Airport since 2007 and believe that the airport has co-existed with our local community extremely well, especially in regard to late-night and early-morning noise levels.

Even during large events like the annual international airshow, we have had nothing but positive experiences with the Hillsboro Airport operations. While we don't generally attend the day portion of the airshow, we have attending the Friday night fireworks and night show since before we moved to the area.

We wish to see the airport growth continue as it serves as an economic hub, not only to businesses at the airport, but to businesses that geographically surround the airport. It is our hope that one day regular commercial passenger flights will once again fly from Hillsboro Airport and this project will remove a barrier that currently exists.

Thank you for your time and we look forward to seeing this project continue.

Sincerely, Chris & Valeska Arnesen

	Response to Chris & Valeska Arnesen Letter "Re: Notice of Public Hearing and Availability of Draft Supplemental Environmental Assessment (SEA) for Hillsboro Airport Parallel Runway"
CVA1	At this time, there are no plans for commercial service at Hillsboro Airport. The proposed project is intended to reduce existing and future delay and congestion at the Airport.

From:	Dowlin, Renee < Renee. Dowlin@portofportland.com>
Sent:	Wednesday, April 24, 2013 10:15 AM
To:	'Mary Vigilante'
Subject:	FW: Hillsboro Airport environment assessment Parallel Runway 12L/30R comments/testimony

I think this was not sent to you.

From: Dale Feik [mailto:dfeik33@comcast.net]
Sent: Thursday, April 18, 2013 9:26 PM
To: Dowlin, Renee
Subject: Hillsboro Airport environment assessment Parallel Runway 12L/30R comments/testimony

Ms. Renee Dowlin, Senior Environmental Planner, Port of Portland, P.O. Box 3529, Portland, Oregon 97208

renee.dowlin@portofportland.com 503.415.6566.

Dear Ms. Dowlin,

After reading the Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Assessment dated March 15, 2013, and supporting documents, I need to say I am not in favor of building Runway 12L/30R because:

It will decrease the property value of my daughter and husband's land/home that is within ½ mile east of the airport.

It will increase the amount of noise.



It will increase the amount of pollutants in the air; particularly lead which is very concerning for children

It will only promote the further use of the airport as a training airport for foreign student pilots, most for takeoff and landing practice.

"In 2007, the airfield operated at almost 100 percent of the ASV. In the absence of airfield capacity improvements, the airfield is projected to operate at 146 percent of the ASV by 2025. As the number of operations approaches the airfield's capacity, aircraft delay increases."

It seems limiting the amount of use for student pilots to accommodate the ASV standard would be a better strategy and use of resources.

Sincerely,

Dale Feik 3363 Lavina Drive Forest Grove, Oregon 97116 503-357-7555 cell: 503-504-5972 <u>dfeik33@comcast.net</u>

Responses to Dale Feik Email April 18, 2013
DF1 A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ⁴ to more recent studies ⁵ indicates that noise impacts were greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern Stage 3 planes.
A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>)
One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. <i>The Effect of Airport Noise on Housing Values</i> , a report prepared in 1994 by Booz-Allen & Hamilton for the FAA, outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, Booz-Allen recommended that their approach not be used at this time to determine property values due the small sample size. See: <i>The Effect of Airport Noise on Housing Values</i> , Booz-Allen & Hamilton (1994).
In the "Summary and Conclusions" section of the FAA's 1985 Aviation Noise Effects Report, it was stated "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
DF2 The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained and Remand Forecast). As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not expected, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour.
DF3 Lead emissions expected from the proposed project were modeled in the Supplemental EA for

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

	all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA Tables 6-2 and 6-3, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase. The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA: "The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation. and buildings." (hopt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. Therefore, the project is not expected to have an adverse environmental effect on children.
	Runway construction would not promote types of activity and aircraft types that do not already occur at Hillsboro Airport. As noted, the Master Plan estimated that the 40% of the fixed wing aircraft are conducting touch and go operations today. The Port estimates that 48% of the activity in the future could also be touch and go.
DF4	As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and is contrary with law.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.
	Separately, various noise abatement planning activities for Hillsboro Airport have been conducted over time to reduce the effects of aircraft noise on residents near Hillsboro Airport. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:23 AM 'Mary Vigilante' FW: 3rd RUNWAY HILLSBORO, OR AIRPORT

From: Dan [mailto:danardone@frontier.com] Sent: Sunday, April 07, 2013 9:07 PM To: Dowlin, Renee; 1dan FRONTIER Subject: 3rd RUNWAY HILLSBORO, OR AIRPORT

TO WHOM IT MAY CONCERN:



I appreciate the opportunity to provide feedback regarding the proposed 3rd runway at the Hillsboro, OR airport. I believe it is important to eliminate/reduce repetitive touch-and-go training flights over residential areas, especially at night (11PM to 6AM) and especially those that fly below the permitted altitude (low-flying aircraft).

THANK you for your consideration.

david.a.nardone 6714 NE Copper Beech Drive Hillsboro, OR 97124-50984

Responses to David Nardone Email 4-7-2013

DN1 As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and would be in conflict with Federal law.

The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations (such as flight training, restrictions on hours of operations, eliminations of touch & goes, and noise-related altitude restrictions) can result in burdens on interstate commerce in violation of the United States Constitution Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at the Airport.

Separately, various noise abatement planning activities for Hillsboro Airport have been conducted over time to reduce the effects of aircraft noise on residents near Hillsboro Airport. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.

April 15, 2013

Ms. Renee Dowlin Port of Portland

Subject: Addition of Third Runway at Hillsboro Airport

Ms. Dowlin;

I have been involved with the Hillsboro Airport for over 20 years in both a passive and active role. First, wy business, MagneLink Inc, is located at 1060 NE 25th Ave. which is to the south and west of the airport. My business property actually abuts the airport. Second, I am a licensed pilot with an instrument rating and fly Cessna-172, Cessna-182, and other small general aircraft in and out of the Hillsboro Airport. Third, I am currently the Chair of the Hillsboro Airport Roundtable Exchange (HARE, formerly HAIR).

The third runway project has been discussed and evaluated ever since the 2005 Master Plan was generated. The work of HARE is to review implementation of the Master Plan, and to address any new issues. We have had many meetings and presentations concerning the third runway project and the related work (taxiways, etc.) attached to this effort.

The Master Plan concluded that the Hillsboro Airport would be operating near capacity, and that the third runway 13L/31R is the best alternative to provide a safe and efficient solution. In addition, I feel the Port of Portland has provided thorough environmental studies for this and previous projects. Any expansion to the airport following the building of the third runway will be minor. Plans to relocate Hillsboro Aviation have been presented which was part of the Master Plan. However, no other projects have been added that would involve the addition of fixed base operators (FBO). That said, a third runway at Hillsboro Airport will offer some beneficial side effects such as efficient air traffic flow and noise reductions associated with residential fly overs. The fact that the traffic pattern for the 3,000' third runway will be reduced when compared to the existing pattern for the single 6,600' runway 13/31 (formerly 12/30) will have noticeable benefit to residents to the south and east of Hillsboro Airport. Further work on air traffic issues including helicopter practice areas is under way.

I have kept my comments as brief as possible. However, there has been much work and consideration given to this third runway project. The ultimate reality of providing safe and efficient fixed wing air traffic in and out of Hillsboro Airport will enhance livability in and around the airport. Thank you for the opportunity to share my input.

Fred Hostetler

Hostetler.fred@gmail.com 503-939-4578 (Cel)

	Response to Fred Hostetler Letter 4-15-2013
FH1	Comment noted.

Dowlin, Renee

From:	Gary Warren <warren.gary@gmail.com></warren.gary@gmail.com>
Sent:	Thursday, April 18, 2013 4:58 PM
To:	Dowlin, Renee; Ruth Warren
Subject:	Comments for the record: HIO Parallel Runway Supplemental Environmental Assessment
Attachments:	HIONoise Monitor at NE 51st & Campbell (1 of 4)-x.jpg; HIONoise Monitor at NE 51st &
	Campbell (2 of 4)-x.jpg; HIONoise Monitor at NE 51st & Campbell (3 of 4)-x.jpg; HIONoise
	Monitor at NE 51st & Campbell (4 of 4)-x ipg

Renee, I attended the public hearing for the HIO Parallel Runway Supplemental Environmental Assessment last night (4/17/2013). I would like my comments and photos in this email added to the record for the Third runway public hearing. Larger photos are attached to the email

I am concerned that the third runway will increase the number of training flights, both fixed wing & helicopter, and therefore increase the already excessive noise our neighborhood is subjected to by Hillsboro Aviation aircraft.

I think that the noise monitor in our area does NOT record valid noise levels due to it's placement. The HIO runway is to the EAST behind buildings and tall trees which are within a few feet of the noise monitor. It I have enclosed pictures of the Port of Portland noise monitor installed on NE 51st Ave and NE Campbell St within a few blocks (0.2 miles) of our house on NE 51st Ave & Stable Ct.

Wm Gary Warren 5093 NE Stable Ct Hillsboro, OR 97124 Reach me anywhere at 503-308-8864 (Google Voice)





Looking East-HIO Tower is about 1 mile directly East Microphone is mostly shielded from Aircraft Noise from the East


	Responses to Gary Warren Email With Photos 4-18-2013
GW1	In accordance with the Court remand, three new forecasts were prepared for the Supplemental EA that includes both training and non-training activity. Table 4-1 of the Supplemental EA lists those forecasts. Even without the proposed project, training activity is expected to increase. With the project, the runway would enable the Airport to accommodate the activity more efficiently and with less delay. In the post-2024 period, when considering the Constrained and Unconstrained Forecasts, a higher level of activity would be accommodated by the proposed project. With the Remand Forecast, based on a survey of pilots of the area, approximately 11,350 more annual aircraft operations would occur in 2016 and 2021 with the project than would not occur in the Constrained Forecast.
GW2	The Port of Portland maintains an Airport Noise and Operations Monitoring System (ANOMS) that measures sound levels and records audio at four locations near the Airport; the sound level monitors are placed in locations with the closest proximity to aircraft flight paths practicable. Given the need to place monitors in proximity to aircraft activity, and availability of open space with feasible access to utilities, it is not always possible to avoid siting monitors near trees, especially in this region. There may be the perception that monitors do not accurately measure noise because of trees. Trees can be barriers to sound when events travel through 100 feet or more of dense trees; however, the trees in most residential areas are not this numerous and have little effect on sound and the measurement results. Additionally, the system generates status reports for each device daily, automatically tests the microphones daily to ensure their proper functionality, and technicians perform inspection and field calibration of the devices annually. These steps ensure the sound level meters measure correctly.
	communicate successes and areas for improvement with stakeholders.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:23 AM 'Mary Vigilante' FW: comments on Hillsboro 3rd runway proposal

From: DRISCOLL, GREG [mailto:gd2942@att.com] Sent: Monday, March 25, 2013 7:45 AM To: Dowlin, Renee Subject: comments on Hillsboro 3rd runway proposal

Hello Renee:

I would like to register my opposition to the addition of a third runway at the Hillsboro airport with your office.

As a resident living within a mile of the airport I oppose the expansion due to the increase in noise, pollution, traffic congestion and the inherent danger that comes from additional air traffic flying over the residential communities surrounding the airport.

Please let me know if I can provide any additional information that would assist the review panel in their assessment of this proposal.

Greg Driscoll office: 503-681-9526 cell: 503-830-8274 email: <u>gd2942@att.com</u> email alias: <u>g.driscoll@att.com</u>

	Response to Greg Driscoll Email 3-25-2013
GD1	The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained and Remand Forecast). The Draft Supplemental EA was prepared according to NEPA and associated FAA guidance. The anticipated effects of the proposed action relative to all requisite environmental disciplines were documented in the original EA and this Supplemental EA. While there would be project-related effects, these effects are not expected to exceed the significance thresholds identified in Appendix A of FAA Order 1050.1E, Change 1.
	As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not expected, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour.
	The proposed project is not expected to result in violations of the National Ambient Air Quality Standards, as emissions would be de minimis and thus no air quality related health effects are expected.

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9	PUBLIC HEARING FOR THE SUPPLEMENTAL ENVIRONMENTAL
10	ASSESSMENT FOR THE HILLSBORO AIRPORT
11	PARALLEL RUNWAY PROJECT
12	* * *
13	April 17, 2013
14	Hillsboro, Oregon
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1	BE IT REMEMBERED	THAT, the testimony of
2	members of the public was tak	ken on before Lindsey
3	Weresch, a Court Reporter an	d Notary Public for Oregon,
4	on Wednesday, the 17th day	of April, 2013, commencing at
5	the hour of 5:30 p.m., at the H	lillsboro Civic Center,
6	150 East Main Street, Hillsbor	ro, Oregon.
7	* * *	
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(Wednesday, April 17, 2013, 5:30 p.m.)
HEARINGS OFFICER: Let's come to order. Thank
you all for coming this evening. My name is Dianne
Perry, and I'm the hearings officer this evening for
this public hearing. I've got some written material to
read for all of you just to let you know what we're
doing here tonight and how we're going to proceed.
But before I do that, I'd like to introduce
the two folks that are up here with me. We have a court
stenographer. This is Lindsey let me pronounce your
name right
THE COURT REPORTER: Weresch.
HEARINGS OFFICER: Weresch. Thank you.
And we also have with us from the Federal
Aviation Administration, the environmental program
manager, Janell Barrilleaux. So and I'm Dianne
Perry, as I mentioned earlier.
So just to get started, welcome to this public
hearing for the supplemental environmental assessment
for the Hillsboro Airport Parallel Runway Project.
The Port of Portland and the Federal Aviation
Administration are sponsoring this hearing to allow the
public an opportunity to provide written comments or
testimony concerning the environmental effects of the
proposal.

1 I'm here to insure that this is a respectful

2 and orderly process and that everyone has the

3 opportunity to put their comments into the record.

4 The Federal Aviation Administration and the

5 Port of Portland issued a draft supplemental

6 assessment -- environmental assessment, often called the

7 supplemental EA, for agency and public review on March

8 the 15th of this year, 2013.

9 Display boards at the back of the room

10 summarize the supplemental EA. Port staff are also

11 available at the back of the room to answer questions

12 about the contents of the document, and staff from the

13 FAA is also here tonight to monitor the hearing, but not

14 to answer questions.

15 The draft supplemental EA was placed in local

16 libraries and an electronic copy was placed on the Web

17 on the Port of Portland's Web site. In addition, the

18 Port of Portland provided CDs of the document to those

19 who requested a copy.

20 In accordance with FAA requirements under the

21 National Environmental Policy Act, also known as NEPA,

22 comments concerning the draft supplemental EA are being

23 requested. These comments can be submitted tonight in

24 writing or as oral testimony.

25 In addition, comments can be mailed to the

MOORE HENDERSON & THOMAS (503) 226-3313

2 this Friday. That's Friday, April the 19th.

3 And so if you're going to put comments in the mail, just be sure they're postmarked on Friday. Should 4 you fax them in, you should try and get them in by close 5 6 of business on Friday. 7 If you've not had a chance to review the document, I encourage you to do so. There's copies of 8 9 it here tonight if you'd like to look at it, and it's 10 also available on the Web site. 11 This hearing will run 'til approximately 7:30 12 or until the last speaker has been heard. When you 13 entered the room, you were asked to sign up if you wished to testify and so that the FAA has a record of 14 15 all of those who attended this meeting. 16 That sign-in sheet, the one for attendees, had 17 a green top header. There was also a sign-in sheet if you wished to testify that had a yellow top header. If 18

19 you did not sign that sheet and you would like to

20 testify, please go back out to the front desk and sign

21 one of the yellow sheets so that we have -- so that we

22 can get you on the list for testifying tonight.

23 We'll allow every person five minutes to

24 testify, and elected officials will be provided ten

25 minutes.

MOORE HENDERSON & THOMAS (503) 226-3313

7

1 AUDIENCE MEMBER: Who?

2 HEARINGS OFFICER: I'm sorry?

3 AUDIENCE MEMBER: Oh, I'm sorry. Do elected

4 officials get twice as much time as the public?

5 HEARINGS OFFICER: That's correct.

6 AUDIENCE MEMBER: Okay.

7 HEARINGS OFFICER: Because they represent the

8 public.

9 AUDIENCE MEMBER: That -- that surprises me,

10 but go ahead.

11 HEARINGS OFFICER: Okay. If you run out of

12 time, you can speak again after all others have been

13 heard. When you provide your testimony, if you ask

14 questions, you will not receive a response tonight.

15 Your questions will be noted, and they'll be answered in

16 the response document after this public hearing.

17 Please know that spoken testimony has the same

18 weight as written comments. Therefore, one of the most

19 important people in the room tonight is our

20 stenographer, Lindsey. It's important that she hear and

21 understand your words, and so I encourage you to speak

22 toward her. And if she doesn't understand something,

23 we'll stop and we'll seek clarification on the spot.

- 24 Based on the testimony sign-in sheet, I'm
- 25 going to call up speakers to the microphone and ask you

MOORE HENDERSON & THOMAS (503) 226-3313

8

1 to both say and spell your name before you get started

2 so that we get it down correctly. We'll ask you to say

- 3 your name and then spell your name. And then we'll ask
- 4 you to tell us the city that you reside in.
- 5 I will also -- when I call up people to speak,
- 6 I will say, "And the next person who will follow this
- 7 person," and I'll say what -- who that is so that,
- 8 whoever the next person is, you can be getting ready and
- 9 know that you're the next speaker.
- 10 You'll each be given five minutes and 30
- 11 seconds. When we get to four minutes and 30 seconds,
- 12 we'll get a high sign and just let you know that you're
- 13 within 30 seconds of the completion of your time and you
- 14 can wrap up your comments.
- 15 Also as a final reminder before I call the
- 16 first speaker, all comments not submitted tonight must
- 17 be postmarked no later than this Friday. And, again, I
- 18 think -- I don't think I showed you this, but in the
- 19 back of the room there is a comment form -- this is what
- 20 it looks like -- where you can put your comments on it.
- 21 And it has the address of where to send your comments or
- 22 you can leave them here tonight.
- 23 Okay. So with that, let's get started. Is
- 24 that a better place? Can you hear me okay? So the
- 25 first person that's signed up to speak is

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9

1 Mr. Vanderzanden, I believe. And the next person after

2 him is Dan Bloom, Dan M. Bloom.

3	Oh I'm sorry	l anologize	Renee Dowlin was
5	On, nh sony.	i apologize.	Iteliee Dowiin was

4 going to testify first.

5 I'm sorry, Mr. Vanderzanden.

6 MS. DOWLIN: No. Go ahead and sit down.

7 HEARINGS OFFICER: Just stay right there.

8 MS. DOWLIN: Just sit right here.

9 MR. VANDERZANDEN: No. Go ahead.

10 MS. DOWLIN: No. No.

11 HEARINGS OFFICER: Thank you.

12 MS. DOWLIN: I'm going to take just a second.

13 Mine's very quick. Good evening. My name is Renee --

14 Good evening. My name is Renee Dowlin, D-o-w-l-i-n. I

15 work for the Port of Portland. I'm the environmental

16 project manager for the supplemental EA document. I

17 reside in Portland.

18 And I want to enter into the record copies of

19 all of the boards that are here at the open house, so

20 this will be a part of the record, a copy of that. And

21 that's the comments I have at this point. Thank you.

22 HEARINGS OFFICER: Thank you.

23 MR. VANDERZANDEN: Good evening. My name is

- 24 Wayne Vanderzanden; W-a-y-n-e, V-a-n-d-e-r-z-a-n-d-e-n.
- 25 I reside here in Hillsboro. I have concerns with the

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10

1 environmental assessment.

2 It states that there are wetlands in the area

3 of the airport. Seven years ago the United States



4 Supreme Court took on wetlands and could not reach a5 decision on what wetlands were. So, therefore, I feel6 we do not have wetlands.

I don't know why the Port of Portland says
there's wetlands out there. They even did a mitigation
on wetlands, but they didn't tax anybody. I understand
it was to the tune of a million dollars. I don't know
where the million dollars went once you don't have
wetlands.

And we have another project problem with the wildlife on the -- on the airport. It seems as though they have a lot of Canadian geese out there. There are geese out there constantly every day, and the Port of Portland is not chasing them off.

18 Twice this spring already I've called FAA and 19 reported it. They are not chasing them. There's geese 20 there all the time. Somebody could get wiped out and 21 killed. Not -- let alone somebody in the plane and what 22 not, if they're going to land on a field, they could 23 kill people. Thank you.

24 HEARINGS OFFICER: Thank you.

25 So the next person is Mr. Dan Bloom, and he's

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11

1 to be followed by Pat Conry.

2 MR. BLOOM: And that's Dan Bloom; D-a-n,

3 B-I-o-o-m. Hillsboro. Is that enough? I just want to





4 comment that I have other growth-imposed issues that

5 take up a lot of my time, but this could be added.

6 And I want to stand with those people who are

7 bothered by the constant drone of -- well, it's --

8 what's it called -- the small planes with the lead fuel

9 training constantly overhead in a community that I live

10 in, which is a historic community with tall elm trees,

11 very peaceful, very quiet, some of the reasons that we

12 want to live on that kind of property.

13 But the constant drone with one plane after

14 another has actually become very annoying and has

15 reduced the quality of life.

16 And multiply that times a lot where the

17 population of Hillsboro has grown around this airport.

18 This weighs on everybody. You know, how much is that

19 worth? It's really in the wrong location, I think.

20 I don't like the lead. I know several people

21 in the medical field. Hillsboro air, as you may have

22 read recently, is second worst in the state. And the

23 fact that Intel emissions, the tonnages there. So we've

24 got quite a soup.

25 They're not very well -- they're regulated by

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12

1 Intel, but not -- you know, EPA doesn't have monitors.

2 It's a mess, too. So there's a soup of emissions in

3 Hillsboro. It's not looking good, and this will make it

4 worse. That's probably enough right there, so I'll end





5 with that.

6	HEARINGS OFFICER: Thank you.
7	The next person up is Pat Conry, followed by
8	Martin Granum, I believe. Martin Granum.
9	MR. CONRY: I'm going to go ahead and submit
10	my testimony rather than speak tonight to let other
11	people that to give it more fair since I have my
12	own written up.
13	HEARINGS OFFICER: Okay. Great. So I'm
14	taking up written comments here. I'm sure that one of
15	the Port people in the back room can take your comments.
16	So the next person I'm showing is Megan
17	Granum, followed by the next person after that will
18	be Larry Altree, I believe.
19	MR. GRANUM: Martin Granum; M-a-r-t-i-n,
20	G-r-a-n-u-m. And I'm a resident of Aloha. I wanted to
21	come and lend my voice as a member of the community very
22	much in support of the planned parallel runway
23	expansion.
24	I am a private pilot. I haven't flown in a
25	couple years, but I am a private pilot. And my concern
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	13

- 1 is that the airport is safe and efficient from a
- 2 flight-off standpoint as it can be.
- 3 Speaking as a member of the community who
- 4 lives near the airport and works near the airport, I

MaG1

5 welcome the investment in the airport. I'm friends with

6 a number of the instructors at Hillsboro Aviation, and

- 7 they're great members of our community.
- 8 And I think from the standpoint of the
- 9 economics and the jobs and the people that it brings in,
- 10 I think they're great additions to our community. And I
- 11 welcome the capital investment to make sure that the
- 12 airport is as safe and efficient from a flight-off
- 13 standpoint as it can be. Thank you.
- 14 HEARINGS OFFICER: Thank you.
- 15 So Megan Granum, you have an opportunity to
- 16 speak. And then Larry -- I'm trying to read this --
- 17 Altree, I think it is.
- 18 MS. GRANUM: Hi. I'm Megan Granum; M-e-g-a-n,
- 19 G-r-a-n-u-m. I go to Valley Catholic High School. I'm
- 20 18 years old, and I'm a senior. I received my private
- 21 helicopter license from Hillsboro Aviation when I was
- 22 17. Personally being a local --
- 23 HEARINGS OFFICER: Could you also mention
- 24 which city you're from? I'm sorry.
- 25 MS. GRANUM: I'm in Aloha.

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- 1 HEARINGS OFFICER: Thank you.
- 2 MS. GRANUM: Personally being a local teen,
- 3 Hillsboro Aviation has really taught me how to grow up
- 4 and be a woman and be independent in a, quote/unquote,
- 5 "man's workplace." And I think that was a really



6 valuable lesson for me.

7	I worked closely for four months with a lot of
8	old men, and that was well, not old, but at least
9	older than I was and I think that was really valuable
10	to teach me that I can do things that a man can do.
11	Also there are a lot of local economical ties
12	such as Nike and Intel that I think really would benefit
13	local employees that work there. And I think it would
14	be a travesty to not take this opportunity to expand the
15	airport. And I think it's just a great benefit to our
16	local community. Thank you.
17	HEARINGS OFFICER: Thank you.
18	Next up is Larry Altree, followed by Blaine
19	Ackley.
20	MR. ALTREE: My name is Larry Altree. It's
21	A-I-t-r-e-e. And I'm department chair of the Aviation
22	Science Program at PCC Rock Creek. My students do their
23	flying out of Hillsboro Airport. I've been flying out
24	of Hillsboro since 1990. I live under left base for
25	Runway 31.

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15

1 I'm all for the runway expansion. The problem

2 of having small, slow traffic intermixed with faster

3 jets has been a problem clear since I -- I flew back in

4 1990. It's a problem that we're equipped to deal with.

5 We're professionals. We can handle that conflict. And



6 the control tower at Hillsboro has always been really

7 excellent in sorting that out.

8	But having a separate runway to move the
9	slower traffic on to is is going to make the job of
10	keeping our flight operations safe much easier. And
11	that's my primary interest in this is I'd like to see
12	the flight operations remain safe and efficient for
13	everybody that uses the airport. That's all I've got.
14	HEARINGS OFFICER: Thank you.
15	So the next person up is Blaine Ackley,
16	followed by Jim Lubischer.
17	And I was asked to mention earlier that if
18	anyone has questions or want to discuss the project,
19	there are poster boards in the back of the room. And
20	there are Port employees back there to talk with you,
21	and they'll go out in the hall to talk with you if you'd

22 like to discuss anything about the project.

23 Thank you. Go ahead, sir.

- 24 MR. ACKLEY: Yeah. My name is Blaine Ackley;
- 25 B-I-a-i-n-e, A-c-k-I-e-y. I reside in Hillsboro,

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- 1 Oregon. I'm within a mile and a half approximately of
- 2 the airport. And so I have some concerns.
- 3 First of all, the noise. And there has -- a
- 4 fellow by the name of Dr. Jon Nelson, who's a professor
- 5 at Pennsylvania State University, used a statistical
- 6 math that we call meta-analysis where he took 20





7 different studies of property values in relation to

homes that were close to an airport. 8

9 And with every decibel above 50, the property values of those homes go down. So it affects my 10 11 property values of my property. My wife and I reside at 12 this property, and we've noticed that the noise has increased and specifically with the small planes, but 13 14 also with the jets.

15 Okay. So that's the first big point. The second big point is toxic lead emissions. I was 16 17 surprised that the supplemental draft study did not 18 include the EPA memo listing the Hillsboro Airport as the 21st dirtiest airport in the country. And nothing 19 20 was said about that. 21 And so if you come from a standpoint that no 22 lead contamination is safe, why, then lead contamination 23 by itself is bad, okay? Hillsboro right now has 68 micrograms of lead contamination, okay?

25 According to the study, with the addition of

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17

- 1 the additional runway, that will go up to nearly .89
- 2 micrograms of lead contamination. Now, lead
- contamination isn't good for anybody, but it's 3

especially bad for kids, okay? 4

- 5 And so I went through and looked at the area
- 6 around the airport within 1. -- well, within 2 miles of





7 the airport. There is Brookwood Elementary, Eastwood

8 Elementary, Lincoln Elementary, Mooberry Elementary and

- 9 Pointer Middle School.
- 10 And if you take the total of those students,
- 11 plus you add in the Orenco Elementary, which is near my
- 12 home -- it's 2.5 miles away -- that's 3,200 students
- 13 that are affected every day by lead contamination as
- 14 they go out into their playgrounds. That is
- 15 15.9 percent of the total student population of
- 16 Hillsboro School District. So this is not just a small
- 17 issue.
- 18 And then for those of us who are getting on in
- 19 our years, we have studies -- and one of them is from
- 20 Scientific American -- that suggests that there is an
- 21 increased possibility of dementia and Alzheimer's
- 22 disease as a result of exposure to lead contamination.
- 23 And I certainly don't want that to happen nor do I want
- 24 it to happen to my neighbors.
- 25 So I think that is a big issue. And then

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- 1 there is the issue that the supplemental draft study
- 2 mentions is just not significant, damage to wildlife.
- 3 And I just -- I mean, if we have lead
- 4 contamination and it's bad for humans, it just logically
- 5 follows that it's not good for wildlife either. And we
- 6 have lots of wildlife in the vicinity, red-tailed hawks,
- 7 heron. I've seen -- we have our local deer population,

8 so forth.

HEARINGS OFFICER: 30 seconds.
MR. ACKLEY: Okay. And so because of all of
those things, I am in firm opposition to this proposed
runway extension. And I have submitted written comments
as well. So thank you for taking the time to hear us.
HEARINGS OFFICER: Thank you.
So the next person up is Jim Lubischer,
followed by John Southgate.
MR. LUBISCHER: Good evening. Jim Lubischer;
Jim, and Lubischer, L-u-b-i-s-c-h-e-r. I live in
Orenco, which is now in Hillsboro.
The the supplemental environmental analysis
is based on a survey. I believe the survey is
inadequate to make any estimate of induced demand that
would be brought on by the parallel runway.
Questions to the FAA/Port, I suppose, does the
survey identify perhaps not by name but do they
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- 1 identify in some manner the primary users of this
- 2 airport, Hillsboro Airport?
- 3 Does the FAA/Port feel that an estimated
- 4 induced demand can accurately be made without input from

5 these primary users?

- 6 Another question, is it possible for flight
- 7 training operations to double as a result of another

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8 runway? Presently there are some restrictions because 9 of time waiting to get on to the current runway. Is it 10 possible that the flight training operations there could 11 double or increase significantly as a result of the third new runway? 12 13 I became interested in this issue because of 14 the noise over my property, but as I got into it, there's more issues -- the fiscal problems that we have 15 16 spending all this money, security, safety. 17 As a pediatrician, though, the most -- the 18 thing that concerns me most is the lead that is being sprayed over our community. And I thought I knew about 19 lead, but in the past few years, I've learned more and 20 21 more. 22 And actually it's only in the past few years we've been even learning more about it. Everybody knows 23 24 lead is dangerous. How dangerous? It's only been in

the last ten years or so that the CDC is now saying that

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there's no safe level of lead in a child's blood. 1 2 We don't even measure blood levels low enough to detect lead -- we don't have the -- we don't have --3 the labs that we use aren't able to measure less than 4 5 3 micrograms per deciliter. Maybe we can get down to 6 2 micrograms. We're finding there is no safe level of lead in a child's blood. 7 8 So I would like tonight to submit the CDC



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9 statement from 2005 for -- for the record. This is 137 pages, and I'll submit that tonight. Over the years the 10 lead -- CDC has had a level of concern of lead levels, 11 12 and it used to be 70. That was many years ago. 13 It was 50. It was 40. It was 30. It was 10. 14 Just recently it was 10, a few years ago. Now it's down to 5. These are levels of concern. It doesn't mean 15 16 anything under that level is safe. It just means it's a 17 level of concern. If it's higher than that, we'll spend some money to try to rectify things. 18 19 Things have gotten a lot better. We banned it 20 from our gas and our paint and so forth. Oh, expect for 21 gas in the airplanes. So for some reason it's okay, I 22 suppose, for the airplanes to spew lead over our 23 community. 24 But, as I said before, no safe level of lead has been identified. This is particular injurious to a 25

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child's brain as it's developing. The brain has 1 billions, trillions of connections, and those are all 2 3 formed in their formative years when they're very young 4 toddlers and so forth. 5 A fairly recent study in '08 and in '10 headed by Dr. Nigg, who is now at the OHSU, has differentiated 6 7 children with ADHD from kids without ADHD. He's been 8 able to differentiate two groups, and all of them had

- 9 blood levels very low, less than 2.
- 10 And the differentiation -- I want to get all

11 the details correctly -- was below even 1 microgram per

- 12 deciliter.
- 13 HEARINGS OFFICER: 30 seconds.
- 14 MR. LUBISCHER: Thank you.
- 15 With the potential -- is it potentially
- 16 possible that a third runway could increase the lead
- 17 emissions here from the current somewhat .7 to, say,
- 18 doubling that to 1.4 or so? Is it possible?
- 19 And I, lastly, would say that a rat study did
- 20 show that when rat brain cells were exposed to levels of
- 21 lead that we're seeing in kids decreased their nerve
- 22 cell connection growth by 10 percent at one
- 23 concentration -- I can't say -- and by 40 at another
- 24 concentration.
- 25 So thank you. And should I just give this to

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- 1 you?
- 2 HEARINGS OFFICER: Thank you, sir. Thank you
- 3 very much.
- 4 So the next person up is John Southgate,
- 5 followed by Ellen Saunders.
- 6 MR. SOUTHGATE: Good evening. I'm John
- 7 Southgate with the Greater Hillsboro Chamber of
- 8 Commerce. The last name is S-o-u-t-h-g-a-t-e. I'd like
- 9 to read my statement.



10 The Chamber is strongly supportive of the

11 airport as well as the many businesses located there and

12 particularly of the Port of Portland's proposal to add a

13 parallel runway.

14 Our support is based on substantial

15 contributions that the airport makes both to our economy

16 as well as to our community and quality of life.

17 The airport is a longstanding institution in

- 18 Hillsboro. It predates most of the nearby growth that
- 19 has occurred over the decades. Here are a few
- 20 statistics that speak to the economic impact of the
- 21 airport, to its benefits.
- 22 The airport generates more than \$75 million
- 23 annually in economic impact. There are more than 25
- 24 companies at the airport providing 436 direct jobs, most
- 25 of them in small businesses with 15 or fewer employees.

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There are nearly 1200 total jobs direct and 1 2 indirect generated by the airport and its associated 3 companies. 4 Third fact, the airport generates \$5.5 million 5 annually in state and local taxes. 6 In addition, the airport and one of the businesses located there plays a vital role in Portland 7 8 Community College's Aviation Sciences Program, which 9 provides an important career opportunity for dozens of



10 students annually, many of them veterans.

11 These statistics only tell part of the story. 12 The people who own businesses or work at the airport are 13 our neighbors. They pay their taxes. They contribute to our schools and charitable causes. They buy goods 14 15 from our retailers, restaurants and other businesses. 16 The companies at the airport have invested in the lives of their employees and they've invested in 17 18 their businesses. 19 Another important aspect of the airport is its 20 role in business recruitment. The companies appreciate the opportunity to fly directly in and out of Hillsboro. 21 22 We know of companies that have opted to locate in 23 Hillsboro in part because we have this strong asset 24 right here in Hillsboro. 25 The airport and the many businesses located

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1 there are an important part of the Hillsboro economy and

2 community. The Chamber wishes to go on record as strong

3 supporters of the airport and these companies and

4 expansion of the airport to include a parallel runway.

5 I will be submitting these -- these comments.

6 Thank you.

7 HEARINGS OFFICER: Thank you very much.

8 So the next speaker is Ellen Saunders.

9 Please both say and spell your name and the

10 city you're from. Thank you.

- 11 MS. SAUNDERS: My name is Ellen, E-l-l-e-n;
- 12 Saunders, S-a-u-n-d-e-r-s. I'm a member of the group
- 13 NAAVE, Neighbors Against Apple Valley Airport Expansion.
- 14 And in the last eight years, I have learned a great deal
- 15 about aviation interests in this area.
- 16 I'm also one who raises an organic orchard and
- 17 is very involved with the organic orchards and other
- 18 kinds of agriculture in the communities surrounding
- 19 western Washington County.
- 20 Over the last few years, we have witnessed
- 21 greater and greater aviation over our homes. That has a
- 22 lot to do with small private pilots using leaded fuel,
- 23 which are pouring that leaded fuel over our property.
- 24 And they hover. They don't just fly over.
- 25 They come and they circle. There is an area from

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- Hillsboro out to Buxton around south into McMinnville 1 and back in to the Hillsboro Airport that has become a 2 flight training route for many of these people that are 3 doing flight training. 4 5 So the orchards, the vineyards and many of the 6 other rural economies that depend on clean land and good 7 soil are being severely damaged by the amount of lead that is being sprayed over our communities. To expand 8 9 the Hillsboro Airport is only to add to that.
- 10 I am very directly opposed to any further



- expansion of the Hillsboro Airport because of the 11 12 possible lead contamination of our land, because of the 13 ongoing circling of small planes over our properties and 14 our loss of privacy, because the value of our property has been diminished and because it is going to be an 15 16 evermore complicated issue once another runway is put in 17 to Hillsboro to get some kind of control over the amount of aviation that is covering the entire western 18 19 Washington County area. 20 I will be submitting further comments, but so 21 many people have already spoken extensively to the lead 22 issue that I'm here predominantly to let you all know 23 how serious that lead issue is for one of our most
- 25 severely forgotten by the Chamber of Commerce. Thank

important industries, and that's farming, which has been

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1 you.

24

- 2 HEARINGS OFFICER: Thank you.
- 3 So are there -- do we have more? Thank you.
- 4 Okay. The next person up is Sharon Cornish --
- 5 I think is correct -- followed by Vernon Mock. Thank

6 you.

7 Please just state your name and spell it and8 followed by your city.

9 MS. CORNISH: My name is Sharon Cornish;

10 S-h-a-r-o-n, C-o-r-n-i-s-h. Hillsboro. When I came to

11 Hillsboro from LA County, Pico Rivera, I found 5 acres



12 on Evergreen right across from the airport. That was

13 almost 50 years ago. And I looked across, and I said,

14 "Huh-uh. I'm not buying it. I know that airport will

15 expand."

16 And here we are today expanding. In fact, I

17 think the airport -- with urban growth on Evergreen from

- 18 Sewell to 273rd, part of it's already part of the
- 19 airport on the north side of Evergreen.

20 I think it will expand from Sewell to 273rd

21 because it is a plan by the city. So if you look across

22 the fence, it's going to go north. Growth, growth,

23 growth is what's happening here, no matter what anybody

24 says.

25 We could be here all night, and nothing is

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1 going to change. What I don't understand is there is fuel without lead. Why are we still using lead? Why? 2 3 If we can use fuel without lead, why aren't 4 we? It's available. Do these planes have to have lead to run? I don't understand the lead argument. If it 5 6 can run without lead, then why aren't they using it? 7 And why aren't there restrictions making them use it? Helicopters and whatever else, the small planes. 8 9 I don't understand why we have to fight. 10 There has to be some regulation that can tell them, "Order the lead-free fuel." Do we always have to fight? 11



12 It is cheaper? I don't get it.

13	Also the overlay, it was proposed probably two
14	years ago now. They're not following the overlay
15	because they want to cut back on fuel, the big jets.
16	Why did we do all this planning and then, when there's a
17	crunch with money, you don't follow it anyway?
18	The county stopped the overlay planning
19	because it encroached on private property rights. So
20	they have to rewrite it now. I got them into the
21	attorney, and we didn't have to go to court. The
22	attorney stopped the planning of the county on the
23	overlay.
24	We're doing it all over. Why do we have to

25 fight with the airport? Why can't we get things right

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- 1 without fighting? There's a Constitution. It's still
- 2 alive. You can't encroach on private property below the
- 3 overlay. Simple. So why did they?
- 4 Why are we using lead fuel when there's
- 5 available fuel without lead? I don't get it. Thank
- 6 you.
- 7 HEARINGS OFFICER: Thank you.
- 8 The next person up is Vernon Mock, followed by

9 Ruth Warren.

- 10 MR. MOCK: Anybody here -- oh, I'm sorry. My
- 11 name is Vernon Mock. I live at 24100 West Baseline,
- 12 directly underneath the flight plan of the Hillsboro





13 Airport. I've lived there 45 years. And when I was

14 going to build there, Mr. Anderson, who was mayor then,

- 15 sold the Port -- or Hillsboro to the Port for \$1.
- 16 And he said to us at coffee, "It's okay.
- 17 They're not going to increase it. They're going to keep
- 18 it small." Guess what? The Port lies a lot.
- 19 Anybody that believes in pollution for our
- 20 children should be ashamed of themselves. They should
- 21 be ashamed of themselves. There is six preschools
- 22 between where the Port is and Baseline. Six preschools.
- 23 There's 13 schools south of the Port.
- 24 And we have no -- no time limit, no
- 25 requirements of when they can land, when they can't

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- 1 land. The other morning, one woke me up at 3 o'clock in
- 2 the morning, Sunday morning.
- 3 My wife was woke up in the middle of the
- 4 afternoon by a jet that come in so low that it woke --
- 5 she was down in the basement. We have a basement and --
- 6 and I live on 3 acres, a landlocked acre of City
- 7 property, which I've been maintaining for 45 years,
- 8 planting trees on it and stuff like that. Anyway, they
- 9 came in so low, it woke her up.
- 10 And the pollution is terrible. And the Port
- 11 lies. And the people that support it, like the Chamber
- 12 of Commerce, should be ashamed of themselves because you







13 lower my property value. That's what's happening to me.

14 Now, I'm 80 the other day, and I'm looking to

15 sell my place. Would the Port of Portland consider

16 buying my property? Live on a creek? 3, 4 acres right

17 there? It'd be a hell of a buy.

18 You know, they could make a park. It already

19 is practically a park. But they could buy it pretty

20 cheap, you know. The way they throw away money, it

21 really is.

And if -- and we could -- we could do things.
We could ship our pilots to China, train them over there
and save all that pollution over here. Wouldn't that be
a good idea? So then probably 10, 15 people lose their

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job, you know, but not necessarily. They could go there
 and, you know, make money. You know, there's -- there's
 lots of ways.
 And we could put restrictions in the
 summertime. In the summertime when it's -- when it's
 light 'til 10 o'clock, the Port has these people come in

7 after 10 o'clock and train for night flight training.

8 So they come over my house starting at 10 o'clock 'til

9 1, 2 o'clock in the morning because they need to train

10 at night. They can't do it unless it's winter.

11 So that's -- that's what I've been putting up

12 with for 45 years is -- is this noise every five

13 minutes, lots of times. Lots of times, every five



14 minutes they swing over.

15	How would these people would like to have
16	these people have some trucks come over by their house
17	and every five minutes rev up the motor or honk their
18	horn? That's what I'm putting up with. Noise, noise.
19	And remember all the children. That's what I
20	ask for you people, you know, who think this airport's a
21	great thing. Think about the kids that are inhaling the
22	pollution that these ports and these people that like
23	like to fly their plane over there, you know, maybe
24	maybe not their airplane, but like to have the Hillsboro
25	Aviation pollute our our air is is asinine to me.

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1 I -- I feel sorry for people that have no more

- 2 feeling for children.
- 3 HEARINGS OFFICER: Thank you.
- 4 The next speaker is Ruth Warren, followed by

5 Brian Hannah.

6 MS. WARREN: My name is Ruth Warren; R-u-t-h,

7 W-a-r-r-e-n. And I live in Hillsboro in the

8 neighborhood of Dawson Creek and Sunset Downs, which is

9 east of the airport.

10 And there are approximately 330 single-family

11 homes in Dawson Creek and Sunset Downs and also about

12 250 dwellings in Orenco Station and about a hundred

13 condo units on Airport Road. Also there are two daycare

14 centers within a half a mile of the airport.

Noise and pollution has eroded the liveability
for all of us in Hillsboro and other cities and counties
in the surrounding area. I and many others wake up
early morning -- wake up to early morning run-ups at the
airport.
There is a continuous stream of helicopters
and airplanes flying at times very low near our homes

- 22 during flight training. The touch-and-go training
- 23 flights circle our neighborhoods and at times continue
- 24 well into the evening, which disrupts sleep.
- 25 I've had to sleep with earplugs. I have to

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- 1 turn up my television. My cat ducks when an airplane
- 2 goes over low.
- 3 It's -- it's really eroded our liveability.
- 4 Expansion of the airport will result in increased air
- 5 traffic and aircraft that still burns leaded fuel.
- 6 Four noise monitors are presently situated
- 7 close to the airport, but apparently the data is not
- 8 integrated into their noise reduction programs as we
- 9 have only seen an increase in aircraft noise.
- 10 By the way, I've lived there 14 years. The
- 11 noise monitor by my house, which is on 51st Avenue, is
- 12 hidden among trees in a three-story condo project. We
- 13 citizens deserve a better quality of life.
- 14 I don't work for the Chamber of Commerce, but

- 15 I live in Hillsboro. I volunteer. I pay taxes. To
 16 spend public money -- and I think we're up to
 17 \$17 million -- and I say million -- for this project to
 18 build the third runway because of flight training issues
 19 is not in our best interest.
 20 We request the Port of Portland shut down all
 21 flight training and discontinue their pursuit of a third
- 22 runway. The majority of the flights in and out of the
- 23 Hillsboro Airport -- I might add, I do not object to
- 24 Intel, Nike and all the others that fly in and fly out.
- 25 They don't circle my house. They don't wake me up at

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1 night.

2 But the majority of the flights in and out of Hillsboro Airport are training flights. And Hillsboro 3 Aviation is proud of the flight training they provide 4 5 for foreign students. We no longer want or need to support flight training with public money. 6 7 We are training foreign students on our backs, our tax dollars. It's not -- someone said, "Well, they 8 9 couldn't spend that money for schools. It's earmarked 10 for something else." It's tax dollars. It's public money. And I think we can spend it in a better way. 11 12 Thank you. 13 HEARINGS OFFICER: Thank you.

14 The next person is Brian Hannah, followed



15 by -- I can't read the first name -- the last name is

16 Barnes.

17	MR. HANNAH	Hey, how's it going?	Can I
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18 request a one-minute warning, please?

- 19 HEARINGS OFFICER: I'm sorry?
- 20 MR. HANNAH: Can I request a one-minute
- 21 warning?
- 22 HEARINGS OFFICER: A one-minute warning?
- 23 MR. HANNAH: Yeah.
- 24 HEARINGS OFFICER: Yes.
- 25 MR. HANNAH: My name is Brian Hannah. I live

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- 1 in Raleigh Hills. And I would just like to say hi to
- 2 Altree, Larry and the aviation guys.
- 3 They're here tonight because noise abatement
- 4 and, you know, environmental concerns are something we
- 5 take very seriously in general aviation, not just as,
- 6 like, companies like Hillsboro, but individuals.

7 A lot of airports are closed due to noise and

8 pollution concerns. It's not something we like to see.

9 You know, we go as far as to even address it in official

10 FAA publications such as the Robinson R22 and R44 Pilots

11 Operating Handbook. There are things addressing noise

12 and environment concerns and safety for the public.

13 In fact, helicopters are one of the only

14 aircrafts to save more lives than they take. If anyone

15 in here who isn't a student has ridden in a helicopter,


16 it's probably because their life was in danger.

17 I would like to address lead. And take this
18 with a grain of salt 'cause I'm not scientist. But one
19 thing I wanted to say is there's going to be a lot of
20 congestion relieved by this new runway.
21 It's not necessarily going to bring a lot more
22 traffic because where are we going to put the extra
23 planes, you know. There's not going to be a huge

24 increase in the number of airplanes or helicopters.

25 And the cool thing is that if we have another

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runway, they don't have to keep circling over your house 1 and they don't have to keep burning more fuel, you know, 2 3 they don't have to keep making more noise. 4 I had a few people ask what the lead is for in 5 fuel. Right now it reduces the knock -- the knock and the ping, which are two things that can lead to 6 catastrophic failure of an engine, which isn't safe for 7 8 anybody. 9 It's something that the FAA is actually 10 actively investigating phasing out, as the FAA 11 representative over here can testify to. They've been 12 looking at least for the two or three years into phasing out lead fuel aviation. 13 14 Just to dispel a few common misconceptions, 15 it's not actually just lead. It's tetraethyl lead,



16 which is a lead mixed with hydrocarbons, and it's only

17 about four-ninths lead.

- And also a lot of people think about the
 leaded fuel that was around in cars 40 or 50 years ago.
 And that, again, is another misconception because that
 had 1 gram per liter whereas general aviation only has
 about .56 grams per liter.
 Also another -- another key thing is that a
- 24 lot of that lead doesn't -- you know, we're not spewing,
- 25 like, lead vapor out into the environment. A lot of it

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1 exits through the oil during oil change. It's disposed

2 of properly and recycled.

3 The lead serves also as a lubrication and seal

4 in the cylinders. So -- and mainly leaves during the

5 oil change, and it's usually -- you know, a lot of it's

6 accounted for. You'll see some of it occasionally on

7 the exhaust.

8 And that's another thing. You know, Hillsboro

9 Aviation -- I don't mean to speak for them, and I won't.

10 I promise. I don't want to get in trouble -- but

11 they've tried everything to reduce pollution and noise,

12 even gone as far as buying a more expensive replacement

13 exhaust for some of the helicopters.

14 I've seen it out there. It looks like a

15 motorcycle exhaust. It's, you know, much more -- much

16 more quiet, much more environmentally conscious. And

17 we're constantly being reminded to -- to be

18 exceptionally courteous of the people who live near the

19 airport.

- 20 You know, a lot of people -- no one really
- 21 tries to justify it. We -- we understand that it's
- 22 very -- it's very inconvenient to live next to, you
- 23 know, a loud airport, but we definitely try our best.
- 24 In fact, there's one guy in particular who
- 25 said he was going to come out and start shooting at

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1 helicopters with a shotgun, so every time I see someone

2 get up there and talk, I wonder if it's that guy. And

- 3 please don't shoot me.
- 4 You know, it's inherent not just in the
- 5 attitudes of the policy at Hillsboro Aviation, but the
- 6 individuals. We're very concerned about the public and

7 their cats. Yeah.

8 I -- I had a few other things here. I really

9 don't think I need to address them. Eminent domain, I

10 promise we're not going to take over your property. We

11 respect the Constitution. I'm really skeptical. I wish

12 property was as a cheap as it was 45 years ago. I can't

13 imagine it being any cheaper.

14 HEARINGS OFFICER: One minute, sir.

15 MR. HANNAH: Oh, thank you.

16 And I -- I was also concerned about people's



distrust of the China Program. As everyone knows, you
know, it's not the Cold War. We have a very functional
relationship with China. They're a government that
trusts us to provide the best -- best flight training
out there.

And, you know, a lot of them go back with a
very good conception of America. You know, they come
here. They learn the customs. They make friends. And
I don't think that could ever be considered a bad thing.

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I highly doubt that taxpayers are paying more money 1 than -- than the Chinese government is paying Hillsboro. 2 3 And, yeah, I've had the opportunity to fly and 4 share the sky with them. They're some of the nicest, professional, most courteous people out there. They 5 6 only allow the best to come here and train. And I've 7 got a lot of respect for all of them. And I'm glad to share the airport with them and people from all over the 8 9 world. 10 HEARINGS OFFICER: That's five minutes. Thank you. Thanks very much. 11 12 So the next person, the last name is Barnes, 13 followed by Jack -- I think is Lettieri or Lenieri. 14 MR. LETTIERI: Lettieri. 15 HEARINGS OFFICER: Lettieri. Thank you. I apologize. Sometimes I just can't read the script. 16 17 MS. BARNES: Hi. My name is Miki Barnes.

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- 18 Thanks for hearing my testimony. I -- I do want to make
- 19 a few comments about some of the previous testimony.
- 20 HEARINGS OFFICER: Could you please spell your
- 21 name and the city you're from.
- 22 MS. BARNES: It's M-i-k-i. Last name is
- 23 B-a-r-n-e-s. I'm from Banks, Oregon. I -- I did want
- 24 to make some comments. The -- the circling that's going
- 25 on around this community is not due to congestion.

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1	There is no congestion at Hillsboro Airport.
2	It's because student pilots engage in
3	operations called touch-and-goes. It's part of their
4	training, and it involves circling a 4 to 5-mile area
5	repetitively at altitudes below 2,000 feet.
6	And then they also have designated training
7	areas within 20 miles of the airport. Now, I live
8	12 miles from the airport. And for the past couple
9	days, I've had these so-called courteous pilots circling
10	my home endlessly. And I have made numerous calls to
11	the noise office not just over the past couple days, but
12	over the years.
13	And I have gotten no help. I am told that
14	student pilots are free to fly wherever they want, that
15	the Port only has control over 5 miles near the airport.
16	Now, if you're going to turn the whole
17	region and they have into an intensive flight



training area that -- that extends throughout most of
western Washington County and a large swath of Yamhill
County and then you wash your hands of it and say, "We
have no control over this"?
Now, I would say to those student pilots out
there -- I don't care what country they're from, whether

24 they're from here, whether they're from China, whether

25 they're from England. I don't care where they're from.

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1	But if they want to demonstrate their
2	courtesy, could you tell them to please quit flying over
3	my home and to quit it now 'cause I'm tired of it.
4	And maybe they come away thinking what a
5	wonderful country, but they're not they're not good
6	ambassadors for their country because I come away
7	thinking this airport seems to attract some of the
8	rudest, inconsiderate, ill-mannered people I can
9	imagine.
10	I mean, who would go over to somebody's home
10 11	I mean, who would go over to somebody's home and just circle repetitively without any consideration
10 11 12	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland
10 11 12 13	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland property, my husband and I. I don't even go out in
10 11 12 13 14	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland property, my husband and I. I don't even go out in it 12 miles away because it's I can't enjoy my
10 11 12 13 14 15	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland property, my husband and I. I don't even go out in it 12 miles away because it's I can't enjoy my property.
 10 11 12 13 14 15 16 	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland property, my husband and I. I don't even go out in it 12 miles away because it's I can't enjoy my property. There's just constant air traffic overhead. I
10 11 12 13 14 15 16 17	I mean, who would go over to somebody's home and just circle repetitively without any consideration to the liveability. You know, I bought a woodland property, my husband and I. I don't even go out in it 12 miles away because it's I can't enjoy my property. There's just constant air traffic overhead. I didn't buy my property to to hand it over to to an



19 not why we bought our property. We bought a beautiful

20 woodland property because we wanted to, you know, hear

21 the birds sing. We wanted to hear the wind through the

22 trees. We wanted to enjoy gardening.

23 We don't do that. We don't do that. You can

24 tell what I do. I spend a lot of time writing testimony

25 against this airport. That's what our quality of life

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1 has been reduced to.

2 Now, as far as PCC, I heard -- I think it was 3 Mr. Southgate speak of PCC students. You know, they're getting off pretty well with subsidized runways, 4 multimillion dollar runways. What is this thing? 5 6 14 million? 7 We subsidize their education at PCC. We 8 forfeit our liveability. We drink the poisonous air that they pollute. I mean, what a deal. What a deal. 9 But what are the rest of us getting out of this? 10 11 Now, I typically vote for every education levy that comes down the line, but I quit voting for PCC 12 13 ballot measures. I quit because I think -- you know, if 14 you have a school that's going to come into a community 15 and poison children -- I mean, oh, my gosh. 16 Do you know what lead does? It reduces IQ. 17 It's linked with ADHD. It's linked with miscarriages. 18 It's linked with birth defects. Is that what passes for





19 education in America today? Is that what we go

20 rah-rah about here in Hillsboro? This is shameful.

21 This is shameful. You know, how can people live with

22 themselves?

23 And the noise -- you know, I looked at the

24 World Health Organization. Noise can lead to hearing

25 impairment, interference with spoken communication,

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1 which in turn can cause problems with concentration,

2 fatigue, uncertainty, lack of self-confidence,

3 irritation, misunderstandings.

4 It leads to sleep disturbances, apart from

5 various affects on sleep. Noise pollution during sleep

6 causes increased blood pressure, increased heart rate,

7 increased pulse amplitude, vasoconstriction, cardiac

8 arrhythmias and increased body movement.

9 It causes cardiovascular disturbance. It

10 causes disturbance in mental health. It causes impaired

11 task performances. And it causes --

12 HEARINGS OFFICER: 30 seconds.

13 MS. BARNES: -- negative social behavior and

14 annoyance reactions. It's also -- if you look at the

15 study coming out of Santa Monica Airport in 2010, they

16 found -- Santa Monica is a general aviation airport,

17 half as many operations, a lot of issues with black

18 carbon air pollution, PAH.

19 I mean, these things are toxic. They're just

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- 20 absolutely toxic. So here I'll get you started with
- 21 this today, and there'll be more coming in.
- 22 HEARINGS OFFICER: Thank you, ma'am.
- 23 MS. BARNES: Thanks for hearing this.
- 24 HEARINGS OFFICER: The next person is Jack
- 25 Lettieri, and followed by Renee Strong.

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1	MR. LETTIERI: Hi, my name is Jack Lettieri,
2	L-e-t-t-i-e-r-i. I live in Hillsboro in a community
3	just down by Shute Park that has 642 homes in it.
4	I'm also active in the homeowners association
5	there. And I keep bringing up the issue, is is there
6	an issue with Hillsboro Airport, and to date have not
7	received a complaint from anybody.
8	However, today I'd like to talk mostly about
9	lead. There's been a lot of comments that we've heard
10	about today. And there's several issues, I think, that
11	people are are not aware of perhaps that they should
12	be.
13	One, aircraft engines that are currently in
14	operation on general aviation aircraft were designed to
15	be used with lead fuel. If you remember back when
16	lead unleaded fuel became available for automobiles,
17	there was a transition period where you couldn't put
18	you couldn't mix the fuels.
19	And they even came up with different nozzles



20 on the fuel containers to -- to make sure that you

21 couldn't do that because it would -- it would present

22 damage to the engines.

23 There is no alternative to unleaded fuel

24 currently approved by the FAA. Therefore, the engines

25 that we are currently using in airplanes today with one

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1	exception there are a few airplanes in the
2	experimental aircraft category that do use engines that
3	are designed to run on unleaded fuel. However, that's a
4	small portion of the total community.
5	Most of the commercially certified aircraft,
6	like Cessnas and Pipers and Beech and so forth that
7	in the single-engine category, use engines that are
8	designed to run on lead. Until there is an alternative,
9	there is no safe way to operate those engines without
10	lead. It would simply fail, and we don't want that.
11	As a consequence also, if and when leaded
12	fuel unleaded fuel becomes available, those engines
13	would require modification or replacement before they
14	could use the unleaded fuel. So there will be a
15	significant transition period before lead can be removed
16	from it.
17	What I'd like to get at is that lead is not
18	something that we can solve here in this body. It's got
19	national attention. It is being addressed vigorously by
20	the FAA and other people.



21 There are some promising fuels out there, 22 unleaded fuel that can potentially become available, but 23 to date none are. And until the FAA comes up with 24 something, we can talk about lead all we want to, but 25 it's out of our hands. Thank you. That's all I have to

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1 say.

2 HEARINGS OFFICER: Thank you.

3 The next person is Renee Strong, followed by

Bill Stone. 4

5 MS. STRONG: I'm Renee Strong; R-e-n-e-e,

S-t-r-o-n-g. I live in Orenco Station. I am here not 6

representing anybody but myself. I'm a homeowner. And 7

8 I just got back from San Jose, California, and there are

9 a lot of things that San Jose has that are not as nice

10 as what we have in Hillsboro, in my opinion.

There's a lot of traffic. There's a lot of 11

congestion. It's more expensive. All sorts of things. 12

13 But what they don't have is noise from the airport at

3:00 in the morning. 14

17

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15 My daughter lives 3 miles from the San Jose

16 Airport. I had the best sleep I've had in six months at

kid. She doesn't pay attention to this kind of stuff.

So I ask her neighbors, "How come it's so quiet and

you're so close to the airport?"

her house. I ask neighbors -- you know, my daughter's a



I haven't had time to really, you know, get on
the FAA Web site and look at all the facts, but what I
heard those neighbors tell me was the airport has hours
of operation, that there are time limits on when planes
can take off and when they can land.

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1 And as Sharon Cornish said, it's growth, growth, growth. We can't stop it. People keep having 2 3 babies, you know. Growth is going to happen. But I think that there ought to be a way that we can coexist 4 with the airport. 5 6 And my primary concern -- because I don't know anything about lead or not very much about 7 8 agriculture -- I'd like the noise to stop after 9 11:00 and before 7:00. And I don't think that's 10 unreasonable. 11 I want to be a good neighbor, and I am aware 12 that we need the jobs and things that go with the 13 airport. But I think maybe we could find a way to work it out so that it's a little more pleasant for all of 14 15 us. Thank you. 16 HEARINGS OFFICER: Thank you. 17 Next person is Bill Stone, followed by Larry Bird. 18 19 MR. STONE: Hi. My name is Bill Stone. I live about 700 feet north of the airport here in 20

21 Hillsboro. I'm hugely impacted. Not only is my house

- 22 there, I operate my business out of this location. I
- 23 have about an acre and a half.
- 24 I do maintenance work to landscaping,
- 25 including mowing fields and spray work. And we

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1 oftentimes have to change equipment on the back of the

2 tractor. It's nearly impossible to do it during the --

3 when the copters are flying. We oftentimes have to wait

4 to do something until the copters have stopped flying.

5 The copters come over my house. They come

6 over my shop. They're not supposed to cross my

7 property. Sometimes they'll fly from 7:00 in the

8 morning 'til 10 o'clock at night.

9 There's times when I can't not hear the

10 copters. They're that prevalent. The Charlie pattern

11 is out where my property is, and there'll be three

12 copters flying in Charlie pattern pretty much

13 continuously on nice days. And that's seven days a

14 week, too.

15 The Fly Friendly Program does not exist,

16 irregardless of what they tell you. The copter pilots

17 can fly pretty much anywhere they choose to out there.

18 The Fly Friendly Program sucks, to be very blunt.

19 Also in regards to the airplanes, I understand

20 there used to be more flights in the 1990s in and out of

21 the airport here than there is now. And if there was

22 more flights in the 1990s than there is now, why do they

23 need a third runway? To me this seems like a -- just an

24 exorbitant waste of money.

25 The Port of Portland has no control over the

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1 airplanes or the helicopters that I can see. Ive

2 talked to them numerous times about this. The Port has

3 been out and measured the decibel level in my backyard,

4 and they told me it was 101 decibels. That's probably

5 louder than my biggest chainsaw, and I have a very large

6 saw.

7 To the public, this will probably get shoved

8 down your throat or up the other end whether you like it

9 or not. I thank you.

10 HEARINGS OFFICER: Thank you, sir.

11 Next person, Larry Bird.

12 MR. BIRD: My name is Larry Bird. I live on

13 Sewell Road. I'm one of Bill's neighbors. My concern,

14 too, is with the helicopters when they changed the

15 Charlie pattern to go over close to our property. They

16 never -- they never follow the true flight path that

17 they're supposed to follow. He's -- he gets it worse

18 than I do, but at my house it's pretty bad.

19 I mean, I -- I've called so many times to

20 airport aviation and complained about it that after a

21 while you just give up because it doesn't do any good.

22 There's -- there's no recourse. You can't -- you can't



- 23 win is what it seems like. It just does -- does no
- 24 good.
- 25 My wife and I have lived over in that area for

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1 about 30 years. It used to be real peaceful. Even

- 2 living next to an airport, it was relatively peaceful.
- 3 But then when the helicopters came, it changed
- 4 everything. It has ruined the liveability in that
- 5 neighborhood.
- 6 They have absolutely no regard. I'm afraid
- 7 with this expansion it's only going to get worse. You
- 8 know, for -- for the last 25 years, you know, we've had
- 9 the International Airshow here, and we have been very
- 10 strong supporters of that. We have vacated when asked
- 11 because we're in the sterile corridor.
- 12 But I'll tell you, it's got to the point now
- 13 where, you know, it's a give and take, and it seems like
- 14 we're always giving and we're never getting anything
- 15 back in return.
- 16 And I, for one -- and I encourage my neighbors
- 17 to do the same -- when we are approached by the airshow
- 18 folks to vacate our place, I won't do it again. I will

19 not vacate.

20 HEARINGS OFFICER: Thank you.

- 21 Are there any other presenters at this time?
- 22 That's the end of the list I have. Anybody else that

- 23 would like to testify? If not, we'll take a ten-minute
- 24 break.
- 25 We'll be here 'til 7:30. If anyone would like

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- 1 to testify, please sign up outside. And if we get
- 2 additional folks that want to speak for the record,
- 3 we'll -- we'll resume the hearing.
- 4 Again, I'd like to remind everyone there are
- 5 comment forms. If you want to submit written comments,

6 they're in the back of the room that can either be left

7 here tonight or can be mailed to the Port by Friday,

8 close of -- they just need to be postmarked as of

- 9 Friday.
- 10 Thank you very much, and let's take a

11 ten-minute break. Thank you.

12 (Pause in proceedings, 6:42 p.m. - 6:59 p.m.)

13 HEARINGS OFFICER: Okay. We're going to

14 resume our hearing. We've had three more people that

15 have signed up to testify. So if you'd please take your

16 seats. Thank you.

17 Three additional folks have signed up to

18 testify. The first person that is up is Mr. Jim

19 Lubischer, followed by David Barnes.

20 So, Mr. Lubischer, if you'd please come up.

21 Five minutes.

22 MR. LUBISCHER: Thank you. Jim Lubischer,

23 L-u-b-i-s-c-h-e-r, Orenco, actually Hillsboro now.

- 24 AUDIENCE MEMBER: Can't hear you.
- 25 HEARINGS OFFICER: You need to punch that

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- 1 button so the light is red.
- 2 MR. LUBISCHER: Is that good?

3 HEARINGS OFFICER: Yes. Thank you.

4 MR. LUBISCHER: Can my five minutes start

5 over?

6 HEARINGS OFFICER: Mm-hmm.

7 MR. LUBISCHER: Jim Lubischer,

8 L-u-b-i-s-c-h-e-r, live in Orenco, which is now

9 Hillsboro. Thought of several other questions for the

10 Port and the FAA.

11 There are a number of touch-and-goes that

12 occur in our -- our neighbor. And I just wondered

13 are -- are there any HIO/TTD/PDX contacts -- that's a

14 category in the survey -- are there any of those

15 contacts that conduct more than 5 percent of their total

16 operations as touch-and-goes at Hillsboro Airport?

Second question, does the Port or the FAA feel
that the economic benefits of the airport as described
by Mr. Southgate outweigh the cost to society of the
deleterious effects of lead poisoning in our children?
Not even to mention the effects on just our lives, not
monetary.

23 Number three, does the Port or FAA consider



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- 24 inclusion of all of the HIO/TTD/PDX contacts listed on
- Page 44 of the supplemental assessment -- do they feel 25

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1	that all of those contacts are appropriate to be
2	included in this survey, in a survey that is supposed to
3	provide input to to determine an estimated induced
4	demand? I'm not aware of car rental companies and
5	hotels as being particularly relevant, but I would ask
6	that question for all of the contacts.
7	Number four, were there surveys sent to any
8	flight student flight training students?
9	Number five, in that category I was talking
10	with the Hillsboro, Troutdale and PDX, why did Global
11	Aviation get two opportunities to submit apparently
12	information to the survey? You'll see that on number
13	Page No. 44. They get two.
14	Number six, why did the survey not exclude
15	non-runway uses in the survey when this whole project
16	has to do with runway use? And the non-runway users, of
17	course, are the rotary that are not itinerant, that fly
18	locally.
19	Does the Port or the FAA agree with the
20	statement made earlier regarding that if there's a third
21	runway that we won't have repetitive circling of the
22	same airplane around and around?
23	Does the Port or the FAA agree with the
24	statement that there's not really as much lead being



JL5









Page G.1-87

25 emitted because it's contained and held in the oil? I

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1 believe that has already been factored in, but I'd like

- 2 to hear their opinion.
- 3 Does the Port disagree with the CDC's
- 4 statement that there is no safe level of lead in a
- 5 child's blood? Does the Port/FAA disagree that lead is
- 6 injurious to the developing child's brain?
- 7 And I would like to ask the Port/the FAA, in
- 8 the 1990 master plan, apparently the capacity of the
- 9 airport was in the range of 250,000 to 300,000. Is that
- 10 not a correct capacity analysis at that time?
- 11 And I think that's all. Thank you.
- 12 HEARINGS OFFICER: Thank you.
- 13 The next person up is David Barnes -- please
- 14 come forward -- followed by Miki Barnes.
- 15 MR. BARNES: I'm David Barnes. I live in
- 16 Banks. Thank you for changing the format this time and
- 17 allowing public testimony. I think it's important that
- 18 we be able to hear each other's views and that we're not
- 19 just speaking one on one to a stenographer.
- 20 In particular I'd like to address concerns
- 21 raised by the fellow from the Chamber of Commerce. The
- 22 airport does play a part in the economic life of
- 23 Hillsboro. And I work in high tech and -- and so I, you
- 24 know, have a lot of friends who work at Intel. I work





25 at Nike right now myself. And I understand the

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1 importance of the airport for business uses.

2 I just want to dispel a few myths about that. 3 The Hillsboro Airport has as many operations, as many takeoffs and landings, as PDX. That's a lot. PDX is 4 the biggest airport not just in Oregon, but in the 5 region. And -- short of Sea-Tac. And that's on the 6 7 order of over 200,000 operations per year. 8 Less than 10 percent of those are business 9 jets or air taxies. So while the airport does support business use, the primary purpose of the airport is not 10 business use. You could cut down to just those business 11 12 flights, and that airport would be a really good neighbor. What we have is 80 to 90 percent is hobbyists 13 14 and trainees. And while it does play an important role in 15 the economics of the community, it's important to point 16 17 out that the airport is a money loser. The -- let's see 18 if I can find the passage I'm looking for here. 19 The Port has owned Hillsboro Airport for 46 20 years, and it has never made a profit. So it's 21 important to think about that. The Port has owned 22 Troutdale Airport for 70 years or -- and operated 23 Troutdale for 70 years and Mulino. They have never made 24 a dime at those airports. They're money losers. We

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1	So you have to think about whether that money
2	might be better off being spent more directly in the
3	community to teachers, social workers, whatever, than to
4	put it into an aviation company and hope that, gosh,
5	they go out and buy a hamburger, you know, with that
6	money.
7	So what I'm addressing here is the need for
8	another runway. The benefits that the Chamber of
9	Commerce spoke about and the pilots who fly from the
10	airport have spoken about still exist, but I have not
11	heard an argument yet that justifies the need to expand
12	this runway with or this airport with another runway.
13	There's there's got to be a point where the
14	airport is big enough. And it's butting up against the
15	community on three sides. How big is big enough?
16	Well, in 1990 the Port of Portland put out a
17	master plan that said as long as we have fewer than
18	250,000 runway operations and if you remember what
19	Dr. Lubischer said, helicopters don't need runways, so
20	we're just talking about fixed wing flights.
21	The Port said in 1990 in their own master
22	plan, until we hit 250,000 runway operations, we don't
23	need a third runway. And their own forecasts in more
24	recent documents, including this supplemental

25 environmental assessment, projected for the next 20



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1 the airport, they own 80 of those aircraft. So that's about a third of the aircraft belonging to one company. 2 3 And the problem we're having is I couldn't find anything in the SEA or the -- or the master plan on 4 just how many operations Hillsboro Aviation logs every 5 6 year. It's not real transparent. 7 We've asked Hillsboro Aviation. And even 8 though they take -- they benefit from millions and millions of dollars of public money -- this whole new 9 10 runway is for smaller aircraft training flights -- their 11 response to us when we asked for that basic information 12 was, "That's propriety -- proprietary. We are a private company. We don't have to tell you anything." 13 14 So they benefit from all this public money, but they don't tell us what they're doing. So my 15 16 question is I would like information on exactly how many 17 operations Hillsboro Aviation logs on a monthly basis and on an annual basis. I'd like a breakdown. 18 19 Their Web site says that they do flight training. They have -- they say they log 67,000 hours a 20 21 year. Now, when you -- when you look at that, that 22 means just Hillsboro Aviation alone has seven aircraft 23 in the air on average every single day of the year, 24 hours a day, every day of the week. That's seven 24 aircraft in the air. That's how many hours they log. 25



1 That's what it averages out to.

2 But I'd all like to -- a breakdown. I'd like 3 to know how much cargo they're shipping. I'd like to 4 know who they're shipping to. And then they have charter flights. And they -- so I'd like to just see a 5 breakdown of their business. 6 7 I'd like to see the same for Aero Air. Aero Air has 19 aircraft registered in the FAA registry. And 8 9 a lot were corporate jets. And I think it's, you know, 10 kind of a lot to expect -- well, I, for one, don't own a corporate jet. You know, we struggle sometimes paying 11 12 the mortgage, car payment. 13 So having 19 aircraft, the majority of which 14 are corporate jets, and the public is subsidizing that? I mean, these are private companies. This isn't 15 particularly an airport that's serving us. 16 17 I don't come here if I want to take a trip to 18 visit relatives or take a vacation. I can't afford to 19 charter a private jet. So they have 19 based aircraft. 20 What do they do with those aircraft? You know, how many 21 charter flights are they flying every year? 22 Premier Jets, 23 based aircraft according to 23 the registry, some registered to Hillsboro, some 24 registered to a PO box in -- in Portland. But, again, 25 how many -- how many flights are they logging every

- 1 year? What is going on at this airport?
- 2 It just seems if the public is going to keep
- 3 ponying up millions and millions of dollars, we ought to
- 4 know what's happening.
- 5 Global Aviation, now, I couldn't -- they say
- 6 on their Web site they have five charter jets, but I
- 7 couldn't find them in the registry. So I -- I don't
- 8 know how that works, but how many -- how many operations
- 9 are they logging every year?
- 10 Nike, Intel, all these people using the
- 11 airport, we need transparency. We need accountability.
- 12 You know, we're subsidizing this, huge amounts of money.
- 13 And we're seeing cuts in education. We're seeing
- 14 teachers thrown out of schools. We're seeing shorter
- 15 school days. We're seeing the mentally ill go without
- 16 treatment. We're seeing people go without health care.
- 17 I want to know, you know, what am I getting
- 18 for my money here? You know, as long as we're throwing
- 19 people out on the street and leaving them unemployed,
- 20 what are we getting for our money for the few jobs this
- 21 airport provides?
- 22 For millions dollars we could hire a lot of
- 23 teachers. You know, we could feed a lot of people. We
- 24 could take care of a lot of children. We could home --
- 25 we could provide homes to a lot of homeless people.

There's a lot we could do with our money that
 would provide good jobs -- good jobs, you know, if we
 weren't throwing away millions on these kinds of
 businesses.
 I would think somebody that can afford to own

6 19 corporate jets ought to be able to subsidize their

7 own driveway. Thank you.

8 HEARINGS OFFICER: Thank you.

9 The last person we have signed up to testify

10 this evening is Ruth Warren. If there's anyone else, I

11 would encourage you to go outside and sign up now on one

12 of the yellow sheets. Thank you.

13 MS. WARREN: I just have a couple of

14 questions. Noise is a big issue in Washington County,

15 Hillsboro. And I've spoken with the Port about

16 providing a noise officer at the Hillsboro Airport.

17 Currently we don't have any. I believe there are three

- 18 or four people on the staff in the noise office.
- 19 All we do is call a number. We don't have
- 20 someone out here that is observing. They have indicated
- 21 to me that they visit the area, but it doesn't make any
- 22 sense if we're generating a huge percentage of noise
- 23 complaints that there isn't somebody out here from the
- 24 Port to monitor it.
- 25

And also is it possible to keep the record





open if people have additional comments to make beyond 1 Friday? 2 3 HEARINGS OFFICER: I -- I can't speak to that. It is open 'til Friday. 4 5 MS. WARREN: Can it be open longer? 6 HEARINGS OFFICER: You would need to talk to someone with the Port. I'm simply here to run this 7 hearing this evening. 8 9 MS. WARREN: I thought --10 HEARINGS OFFICER: So Renee Dowlin, you could speak to her after. 11 12 MS. WARREN: Well, I -- the reason I ask now 13 is if there's people in the crowd, too, that want to 14 know that -- to know --15 HEARINGS OFFICER: I'm sorry. 16 MS. WARREN: Maybe she can address it now 17 'cause the question's been brought forward. 18 HEARINGS OFFICER: It is open 'til Friday, so 19 people here would know that. 20 MS. WARREN: But if people want to do additional research based on what they've heard tonight, 21 22 could the record be kept open? 23 HEARINGS OFFICER: I -- I can't speak to that. I don't know. 24 25 MS. DOWLIN: I'm happy to speak to that. We

1 will close it -- we've had it open for --

2 MR. VANDERZANDEN: I can't hear you.

3 MS. DOWLIN: We're going to close the record

4 on Friday.

5 MS. WARREN: Okay.

6 MS. DOWLIN: We will close the record on

7 Friday.

8 MS. WARREN: Okay.

9 HEARINGS OFFICER: If everyone didn't hear

10 that, the record will close Friday. Please get your

11 comments in and have them postmarked as of Friday. And

12 there's also comment sheets in the back of the room you

13 could take with you and mail in. Thank you. Does

14 anybody else want to testify or comment?

15 So we're within 15 minutes of closing the

16 hearing. I guess I would ask folks from the Port, do

17 you want to close it now or keep it open for another 15

18 minutes?

19 MS. DOWLIN: Let's -- I think we should keep

20 it open. We can take another five-minute break, and

21 then we'll come back in five minutes.

22 HEARINGS OFFICER: Okay. So we'll take a

23 five-minute break, folks. Thank you.

24 (Recess taken, 7:16 p.m. - 7:22 p.m.)

25 HEARINGS OFFICER: We'll resume the hearing.

1 There's one more person that's signed up to testified.

2 Brian Hannah, could you please come forward.

3 MR. HANNAH: I don't mean to be a bag of hot

4 air. You guys just really wanted people to talk. So I

5 would just like to thank the FAA for being so curious.

- 6 And obviously they're very interested in everyone's
- 7 concerns 'cause they're still here just, you know,

8 milking this thing to the last minute to get as much

9 information as we can 'cause we have a great process set

10 up to make sure we do the right thing as pilots.

11 I had a question about logging of operations.

12 Do they just count landings or do they count, like, each

13 individual sortie?

14 HEARINGS OFFICER: So all questions will be

15 answered afterwards in the record. They can't be

16 answered tonight.

17 MR. HANNAH: Okay. That's fine.

18 I would also encourage people -- like, I know

19 there was concerns about logging operations. The FAA

20 doesn't currently require us to log those. And right

21 now landings are logged individually by the pilot in our

22 logbook.

23 I would like to address some of the other

- 24 benefits of having these companies. Obviously all the
- 25 revenue they make. The Port of Portland might not make





2 lot of taxes, and they're engaged in a lot of

3 philanthropy in the community.

4	Not to mention the fact that we're about to be
5	on a really huge pilot shortage, especially for the
6	rotor wing community. You know, that means all the
7	things that we take for granted, such as, you know,
8	the the medical transport pilots and the EMS pilots.
9	You know, obviously they're very important to
10	our everyday lives. Anyone who's ever had a low flying
11	transporter or saved by a helicopter pilot will you
12	know, an in-flight nurse can attest to that.
13	All the Vietnam veterans are being forced to
14	retire because we do have an FAA that cares about our
15	safety and make sure that only pilots who are safe to
16	fly do so. So that's going to open opportunities for
17	young pilots like me once I finish here at Hillsboro
18	Aviation.
19	And I just wanted to go ahead and thank the
20	taxpayers. I'm glad that we have a forum that we can
21	get together and both, you know, give our sides of the
22	issue and have, you know, polite discourse. Thank you
23	for supporting us.
24	And I would like to close on kind of a less

25 numbers-focused note. I would just like to say that a

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1 lot of the pilots in the program are using the





2 Chapter 31 G.I. Bill to go to school.

3 When I got out of the military, it was kind of an interesting experience. It was kind of a quest to 4 5 find a new purpose because a lot of the job skills you get aren't exactly transferable. 6 7 You can't really put artillery on a resume. I think there was, like, maybe you can count on the number 8 of -- on my fingers that shows the number of artillery 9 10 jobs in the civilian sector. So how many people are veterans today? Can we 11 12 count them? Can I just make that in the record? How 13 many veterans are having a new purpose with Hillsboro 14 Aviation? Yeah, that's a lot of people. You know, 15 that's -- that's money coming from the federal government into Hillsboro and being paid taxes on. 16 17 I would also like to say that if I get 18 emotional for a second, it's good to be a part of 19 something greater than myself again. And it's good that 20 I'm not going to be an old man living in the glory days, 21 you know, celebrating three years of my life sixty years 22 from now. 23 I'm glad that I can start a new chapter in my life and have a career that I can be proud of. With the 24 25 economy the way it is and with people my age especially

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1 affected, it's nice to have a career that I can put my

2 all into and be proud of.

3 It's something that I can do for the next 20
4 years instead of working at Starbucks, not that that's a
5 bad thing. Some of our instructors do work there,
6 though.

7 And I'd like to give a special thanks to Larry 8 for coming here for every single meeting and honestly 9 keeping an open ear and open mind to all the citizens 10 that are here tonight. Thank you for exercising your 11 freedom of speech and participating in the due process. 12 And to anyone who is wondering about the 13 benefits that the taxes paid by all the different FBOs 14 on Hillsboro and Troutdale, anyone wondering about those benefits, there's something called the Freedom of 15 16 Information Act. 17 You can submit requests to each of the tax 18 entities for the state and for the country -- I mean, for the state and -- yeah, state and federal taxes. 19 And, you know, they'll gladly provide that to you. I 20 21 mean, they have to, but they will gladly because, you 22 know, we appreciate transparency. 23 And also I love cats, and I'm sorry I scared

24 your cat. That's it.

25 HEARINGS OFFICER: Thank you very much.

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1 And thank you everyone. We'll keep the record

2 open for a few more minutes. The hearing will remain



3 open until 7:30. Again, I would repeat if anyone has

4 the desire to testify, now would be the time. And we'll

5 just standby then.

6 (Pause in proceedings, 7:28 p.m..)

7 HEARINGS OFFICER: One last call if anyone has

8 any comments they would like to make, now would be the

9 time. We want to be sure and get all of your comments

10 on the record.

11 Do you want to speak, sir?

12 MR. MOCK: Vernon Mock again. I have one

13 question for these pilots who --

14 HEARINGS OFFICER: Could you spell -- could

15 you spell that for the record?

16 MR. MOCK: Vernon Mock, M-o-c-k.

17 HEARINGS OFFICER: Thank you.

18 MR. MOCK: I have one question for all these

- 19 pilots that are in here. Why couldn't they on their
- 20 arrival -- you know, they got to go round and round and
- 21 round. Why couldn't they come in at a different place
- 22 each time, say, 4 or 500 feet up the -- you know, up
- 23 Baseline, 4 or 500 feet down Baseline, you know, instead
- 24 of -- instead of the same pattern every time?
- 25 I'm the one that's been there 45 years,

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1 remember? And -- and I -- I'm sick of them, really.

2 But if they could make a different pattern each time --

3 sometimes I see one of them will come on -- on the north



4 side of Baseline. Okay. That misses me 'cause I'm

5 south of Baseline.

6 And so a different pattern each time would relieve a lot of the stress on the people who have to 7 8 listen to it -- listen to them come over every five 9 minutes, you know. A lot of stress. 10 And if they could give me their phone number 11 and I could call them every five minutes when they come 12 over just to see if they like the phone ringing in their 13 ear every five minutes. 14 HEARINGS OFFICER: Thank you, sir. 15 Anyone else? 16 Come forward. Again, please state your name 17 for the record. 18 MS. BARNES: My name is Miki Barnes. I just 19 want to comment on -- on the statements by the young man 20 in the military. And I, for one, you know, can't fathom 21 the struggle that these young people go through coming 22 back from a traumatic war. And -- and I do sympathize 23 with that. I do feel for that. 24 What I do want to suggest, though, is that 25 Washington County is not an appropriate place for a MOORE HENDERSON & THOMAS (503) 226-3313

1 flight training school. That -- that -- you know, if

2 people do want to train and if that is helping them pull

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3 their life together, I -- I support that, although I'm

4	very concerned about the lead and the toxin.
5	But I I don't think a flight training
6	school in this area, which is what? the second
7	most populated county in the state, is appropriate.
8	That's not to say that I don't sympathize with
9	their struggle, that I don't want to see them thrive. I
10	do. But I don't think it's fair for people to thrive at
11	other people's expense, and that's what's happening with
12	the flight training school in the middle of Washington
13	County.
14	And I I also don't want to see it move from
15	Hillsboro to to out to some rural area because
16	that's where I live. And we've been through that, too.
17	We're 12 miles from the airport, and even out there
18	we're getting a lot of this training activity going on.
19	So just to, you know, keep the dialogue open
20	that that there are appropriate places and
21	inappropriate places for this kind of activity. Thank
22	you so much.
23	HEARINGS OFFICER: Thank you.
24	Okay. With that, one more time, is there
25	anyone else that would like to speak?

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1 Okay. Well, thank you all very much. I

2 appreciate your being here tonight on behalf of the FAA

3 and the Port of Portland. We appreciate it, appreciate

4 the dialogue. And thank you very much.

5	* * *
6	(Hearing adjourned, 4-17-13 at 7:32 p.m.)
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Reporter's Certificate

1 STATE OF OREGON)) ss.

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2 County of Multnomah )
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- 3
- 4 I, Lindsey Weresch, Court Reporter and Notary
| 5 | Public for Oregon, hereby certify that members of the |
|----|--|
| 6 | public personally appeared before me on April 17, 2013, |
| 7 | at 5:30 p.m.; that at said time and place set forth, the |
| 8 | testimony was realtime reported in stenotype and reduced |
| 9 | to computer-aided transcription under my direction; and |
| 10 | that the foregoing transcript, Pages 4 through 70, both |
| 11 | inclusive, constitutes a full, true and accurate record |
| 12 | of the testimony given, and of all other oral |
| 13 | proceedings had during the taking of said public hearing |
| 14 | and so reported by me in stenotype as aforesaid. |
| 15 | Witness my hand at Portland, Oregon, this 19th |
| 16 | day of April, 2013. |
| 17 | |
| 18 | |
| 19 | Lindsov Worosch |
| 20 | Court Reporter |
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	Responses to Wayne Vanderzanden Hearing Transcript
WV1	In accordance with FAA requirements, the original and Supplemental Environmental Assessment was required to consider the presence of wetlands on the Airport. This evaluation was done in accordance with the practices of the US Army Corps of Engineers and Oregon Division of State Lands, the agencies responsible for protecting waters of the U.S., including wetlands.
WV2	The Port of Portland has a wildlife management program that is implemented at each of its Airports, including a plan that was developed in 2007 specifically for Hillsboro Airport (see http://www.portofportland.com/PDFPOP/Env WildfireHzdMgtPrgm_HIO_0807.pdf). The strategies that the Port has implemented at Hillsboro Airport include:
	Brow base management (trapping moles and genbers)
	Prey base management (trapping moles and gophers)
	Hazing
	 Other techniques that remove feeding sources and discourage wildlife
	Hillsboro Airport flights experience about 1 bird strike per month. Because of safety concerns, the Port of Portland deploys four or five operations staff that are charged with wildlife control at Hillsboro Airport in addition to other duties.

	Responses to Dan Bloom Hearing Transcript
DB1	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
DB2	In 1978 the USEPA established a National Ambient Air Quality Standard for lead. At that time, cars and trucks were the major contributors of lead emissions. Recognizing the effect of lead on people, USEPA set national regulations to gradually reduce the lead content in gasoline. By 1996, EPA promulgated regulations that banned the use of leaded gasoline in highway vehicles. The use of lead to fuel in piston-engine powered aircraft (Avgas) was not banned in this action.
	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the USEPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.
	In October 2006, the Friends of the Earth formally petitioned for rulemaking by the USEPA to limit lead emissions from general aviation aircraft. In October 2008, the USEPA strengthened the NAAQs for lead. In April 2010, the USEPA filed their Advance Notice of Proposed Rulemaking (ANPR) on lead emissions from piston-engine aircraft using leaded avgas. At the request of the aviation industry, the EPA extended the comment period.
	Reflected in the comments on the ANPR, about 75% of the U.S. aircraft fleet are piston- powered aircraft (about 167,000 aircraft) certified to fly on leaded fuel. High performance

engines are especially susceptible to knock.

The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.

Response to Martin Granum Hearing Transcript	
MaG1	Comment noted.

Response to Megan Granum Hearing Transcript	
MeG1	Comment noted.

	Response to Larry Altree Hearing Transcript
LA1	Comment noted.

Responses to Blaine Ackley Hearing Transcript	
BA1	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ⁶ to more recent studies ⁷ indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	The commenter raises concerns about the effect of airport noise on property values and makes reference to a specific report done by Dr. Jon Nelson. This specific report was not reviewed by FAA before preparing the Supplemental EA. However, there are several studies that have been done to evaluate the effects of aviation noise on property values which considers studies such as those by Dr. Nelson. A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>)
	One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. For example, a 1994 report <i>The Effect of Airport Noise on Housing Values</i> , prepared by Booz Allen Hamilton for the FAA, outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the limited sample size. See: <i>The Effect of Airport Noise on Housing Values</i> , Booz-Allen & Hamilton (1994).
	The Summary and Conclusions section of the FAA's 1985 <i>Aviation Noise Effects</i> Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise

⁶ FAA's Aviation Noise Effects.

⁷ ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

	management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 DNL noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway would not result in growth of the 65 DNL contour beyond airport property.
BA2	The Supplemental EA was prepared in accordance with FAA Orders 1050.1E and 5050.4B. These orders specify the methodologies that the FAA is required to following in evaluating project effects under NEPA.
	An extensive amount of research has been and is being conducted to address lead content in AvGas. This research informs EPA's decisions concerning the National Ambient Air Quality Standards (NAAQS).
	The Oregon Department of Environmental Quality (ODEQ) conducts measurements in the area to ensure that the quality of air meets the Federal and state ambient air quality standards. The ODEQ has established an air measurement station within the City of Hillsboro (in 2007 at Hare Field – 1149 NE Grant Street) which replaced a different station in Hillsboro that closed in August 2004. This site measures PM2.5 and PM10. Measurements have not shown an violation of the NAAQS.
	Based on a press release/Fact Sheet from ODEQ ⁸ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur" Reasons given for expanding the data collection at the Hillsboro site include:
	 The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation Rapid growth of the area Air toxics have not been conducted in the area
	The fact sheet specifically addresses the issue of measuring lead from Hillsboro Airport. While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study). That study was completed in early July 2013, but further steps by the USEPA have not been announced.

⁸ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

	Tables 6-2 and 6-3 in the Supplemental EA (and Table 5.7-2 in the original EA) present the effects of the proposed project relative to lead emissions. In the Supplemental EA, when comparing the Unconstrained Forecast (With Project) to the Constrained (No Action), the proposed project would not change aircraft-related lead emissions. When comparing the Remand Forecast (With Project) to the Constrained, the project would increase lead emissions from 0.8 ton to 0.9 ton in 2016, but by 2021, there would be no project –related emissions. Included in the material reviewed in preparation of the original and Supplemental EA was the air measurements conducted in the region and the USEPAs designation of the area relative to the National Ambient Air Quality Standards. The USEPA has adopted national ambient air quality standards for various criteria pollutants, including lead. The area around Hillsboro Airport currently, and is expected to continue to, meets the USEPAs National Ambient Air Quality Standards (NAAQS) for lead. Washington County is designated as attainment for this pollutant and has no history of exceeding the USEPA standard. This standard is designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the USEPA: The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare
	protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)
BA3	Noise exposure maps prepared of the Environmental Assessment noted the following schools in the area: Jackson Elementary, Swallow Tail School, Mooberry Elementary, JW Poynter Middle School, Eastwood Elementary, HL Henry Elementary, Brookwood Elementary, Goodard School, Orenco Elementary, and Quatama Elementary.
	The analysis of environmental impacts to all schools in the airport environs was conducted following the requirements of FAA Order 1050.1E.
	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage hearing loss hyperactivity developmental delays in extreme cases, death
	Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought.

In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this, and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The USEPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.

The USEPA has adopted NAAQS for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:

"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)

Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, adults, and wildlife, with a margin of safety.

Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153]. Based on the results in the Supplemental EA, the project emissions would be de minimis.

JL1 The survey, shown in Appendix D of the Supplemental EA, was used solely in preparing the Remand Forecast to address activity that might not be captured in the Unconstrained Forecast. The primary users were captured either through the survey of pilots in the region or through the businesses that were surveyed. The Port and FAA feel that is was not important to know the name of the respondents as forecasts are not prepared at the company name level. Such level would imply a precision that does not exist at a forecast level. The Remand Forecast added the results of the survey to the Unconstrained Forecast; those surveyed who indicated that they might change their operations based on the availability of the new runway were added to the Unconstrained Forecast. Given the purpose of the survey, the FAA and Port believe that the survey approach was reasonable and that the responses were adequate to gauge pilot and business reaction to building a new runway at Hillsboro Airport.

The official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the respondents to the survey. The purpose of survey was to gauge whether or not the respondent anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.

The Unconstrained Forecast used standard forecasting techniques to estimate the growth in all types of activity, including training. Total activity is not expected to double. Substantial changes in the proportion of training to total airport activity is not expected to change, and thus training is not expected to double. To the degree that respondents of the survey conduct training activities, the Remand Forecast captures the thoughts about changes in activity by those users above that identified by the Unconstrained Forecast.

JL2 The FAA and Port of Portland have prepared the original EA and Supplemental EA in accordance with FAA Orders 1050.1E and 5050.4B. These documents have included a detailed review of the environmental effects that completion of the proposed project would have in accordance with the spirit and intent of NEPA.

Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.

The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:

"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)

Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently

meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS.

In 1978 the USEPA established a NAAQS for lead. At that time, cars and trucks were the major contributors of lead emissions. Recognizing the effect of lead on people, USEPA set national regulations to gradually reduce the lead content in gasoline. By 1996, EPA promulgated regulations that banned the use of leaded gasoline in highway vehicles. The use of lead to fuel in piston-engine powered aircraft (Avgas) was not banned in this action.

Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.

Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.

In October 2006, the Friends of the Earth formally petitioned for rulemaking by the USEPA to limit lead emissions from general aviation aircraft. In October 2008, the USEPA strengthened the NAAQs for lead. In April 2010, the USEPA filed their Advance Notice of Proposed Rulemaking (ANPR) on lead emissions from piston-engine aircraft using leaded avgas. At the request of the aviation industry, the EPA extended the comment period.

Response to John Southgate, Greater Hillsboro Chamber of Commerce, Hearing Transcript

Responses to Ellen Sanders Hearing Transcript	
ES1	The FAA and Port of Portland have prepared the original EA and Supplemental EA in accordance with FAA Orders 1050.1E and 5050.4B. These documents have included a detailed review of the environmental effects that completion of the proposed project would have in accordance with the spirit and intent of NEPA.
	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, lead emissions would be expected to increase by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS.
	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
ES2	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ⁹ to more recent studies ¹⁰ indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts,

⁹ FAA's Aviation Noise Effects.
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some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 *Effects of Aircraft Noise: Research Update on Selected Topics*)

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report (*The Effect of Airport Noise on Housing Values* by Booz-Allen & Hamilton) prepared for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size.

In the Summary and Conclusions section of the FAA's 1985 *Aviation Noise Effects* Report, it was stated "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

	Responses to Sharon Cornish Hearing Transcript Page 27
SC1	The Draft Supplemental EA addresses the inducing effects of the proposed project both in Section 6c (Secondary [Induced Effects]) and Section 6e (<i>Cumulative Impacts</i>), relative to the three forecasts that were prepared in response to the Court's remand. The areas referenced by the commenter are reflected in the characterization of "infill development." In addition, Section 5 (<i>Socioeconomic Impacts, Environmental Justice, and Children's Health and Safety Risks</i>) discusses the population growth that has occurred in the airport environs.
	In year 2021, under the Constrained/Unconstrained Forecast comparison, the proposed project would not be expected to create a higher level of activity than would occur without the project. Therefore, the project would not alter the local demographics or regional growth. When comparing the Constrained/Remand Forecast, approximately 11,350 additional aircraft operations might occur because of the proposed project (about 31 operations per day, or 15 arrivals and 15 departures per day). Assuming that each operation has 1 individual occupying the aircraft, this would generate approximately 15 new customers to the Airport area on an average day. Such customers could be seeking food, beverage, gasoline, and/or other consumer needs. Assuming a conservatively high 3 aviation users, the demand for local services might be 45 new customers per day if all aviation users needed consumer services.
	Given the anticipated population growth of the area unrelated to the Airport, it is unlikely that 15- 45 additional customers would cause additional businesses to be located in the Airport vicinity. Rather, such demand would likely be adsorbed in the development that has already occurred in the Airport area.
SC2	In 1978 the USEPA established a National Ambient Air Quality Standard (NAAQS) for lead. At that time, cars and trucks were the major contributors of lead emissions. Recognizing the effect of lead on people, USEPA set national regulations to gradually reduce the lead content in gasoline. By 1996, EPA promulgated regulations that banned the use of leaded gasoline in highway vehicles. The use of lead to fuel in piston-engine powered aircraft (Avgas) was not banned in this action.
	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.
	In October 2006, the Friends of the Earth formally petitioned for rulemaking by the USEPA to limit lead emissions from general aviation aircraft. In October 2008, the USEPA strengthened the NAAQs for lead. In April 2010, the USEPA filed their Advance Notice of Proposed Rulemaking (ANPR) on lead emissions from piston-engine aircraft using leaded avgas. At the request of the aviation industry, the EPA extended the comment period. Reflected in the comments on the ANPR, about 75% of the U.S. aircraft fleet are piston-powered aircraft (about 167,000 aircraft) certified to fly using leaded fuel.

SC3 The overlay is the Airport Safety and Compatibility Overlay (ASCO). The ASCO (and accompanying Airport Use Zone AU) was developed to bring the City of Hillsboro in compliance with the State of Oregon OAR 660-013. It was authored by a team that included members of the public and agency staff from Metro, the Port and the City of Hillsboro. The ASCO has not yet been adopted by the City. Michelle Barnes appealed the City of Hillsboro's ("City") decision to implement the new AU and ASCO zones. LUBA reversed the City's decision concluding that the AU and ASCO zones are unconstitutional and that the City did not properly analyze and address the possible traffic impacts of the zone change. The City plans to prepare a Comprehensive Code Update to address the issues, which will then move forward with adoption.

It is important to note that the ASCO does not regulate the flight of aircraft. Aircraft flight is regulated by the FAA. The ASCO is a City land use regulation that applies to land uses on the ground and not the flight of aircraft.

VM1 Noise exposure maps prepared of the Environmental Assessment noted the locations of the following schools in the area: Jackson Elementary, Swallow Tail School, Mooberry Elementary, JW Poynter Middle School, Eastwood Elementary, HL Henry Elementary, Brookwood Elementary, Goodard School, Orenco Elementary, and Quatama Elementary.

The analysis of environmental impacts to all schools in the airport environs was conducted following the requirements of FAA Orders 1050.1E (change 1) and 5050.4B. The proposed project would not create significant adverse environmental effects on schools as defined by the FAA Orders. The reference to project impacts not occurring off the Airport is in reference to 65 DNL and greater noise levels. However, this does not mean that residents are not annoyed by aircraft noise. Rather, FAA and other federal agencies have adopted 65 DNL as a threshold for where various land uses are not compatible with aircraft noise greater than 65 DNL.

A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies¹¹ to more recent studies¹² indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.

A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:

In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 *Effects of Aircraft Noise: Research Update on Selected Topics*)

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A report mentioned by the commenter, a 1994 report (*The Effect of Airport Noise on Housing Values*) prepared by Booz Allen & Hamilton for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size. See: *The Effect of Airport Noise on Housing Values*, Booz-Allen & Hamilton (1994).

¹¹ FAA's Aviation Noise Effects.

¹² ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

	In the Summary and Conclusions section of the FAA's 1985 <i>Aviation Noise Effects</i> Report, it was stated "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
	The commenter also expressed concerns with air pollution above the National Ambient Air Quality Standards (NAAQS). The USEPA has adopted NAAQS for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead but is designated as a maintenance area for carbon monoxide due to past violations.
	NAAQS are designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the EPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. <i>Primary standards</i> provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. <i>Secondary standards</i> provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)
	In sum, the USEPA standards are designed to protect all populations, including children, adults, and wildlife, with a margin of safety.
VM2	The Port has been unable to identify any legally binding document where the Port has committed to not expanding Hillsboro Airport.
VM3	While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and would be in conflict with Federal law.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.
VM4	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that

noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.

Responses to Ruth Warren Hearing Transcript

RW1 The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.

Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property. The Port of Portland conducts measurements at Hillsboro Airport to better understand noise conditions.

As the aviation forecasts note, regardless of whether or not the proposed project would occur activity at the Airport is expected to increase. The three forecasts examined in the Supplemental EA consider the effects of activity above that constrained forecast. As these forecasts note, increases in operations by general aviation aircraft are expected, and some general aviation aircraft can only burn avgas, which produces lead emissions. However, as is noted there have been no violations of the lead NAAQS and none are expected in the future with or with the proposed project.

RW2 There are over 19,000 airports, heliports, seaplane bases, and other landing facilities in the United States. Of these, 3,330 are included in the FAA's National Plan of Integrated Airport Systems (NPIAS), are open to the public, and are eligible for Federal funding via the Airport Improvement Program (AIP). FAA has designated Hillsboro as a General Aviation Reliever Airport in the NPIAS. As noted in an FAA report, "general aviation airports form an extensive network and make important economic contributions to society. Many of these aeronautical functions cannot be economically supported at primary commercial service airports ..." (including, flights for emergency medical services, aerial firefighting, law enforcement and border control, agricultural functions, flight training, time-sensitive air cargo services, business travel, and scheduled services) (General Aviation Airports: A National Asset). Congress, over time, has defined two classes of airports that serve mostly general aviation: those that also support limited commercial service and those that help relieve congestion at primary airports. Hillsboro Airport falls into the latter category. Aircraft activity at Hillsboro Airport relieves activity (and congestion) that would otherwise occur at PDX. The proposed improvements at Hillsboro Airport are not funded by State or local taxes on property or income, nor by Federal income tax revenue. Airport improvement projects are funded by Federal aviation excise taxes on aviation users and funds generated by airport sponsors such as the Port of Portland. These funds are, by law, raised for the purpose of improving airport infrastructure and may not be used for other purposes. The proposed project may be funded in part using funds from the state's ConnectOregon program. The ConnectOregon funds are collected by the State through the lottery.

As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise

conflicts and reduce emissions, it would not address the project purpose and need and would be in conflict with Federal law.

The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations (such as flight training) can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at the Airport.

	Response to Brian Hannah Hearing Transcript
BH1	Comment noted.

	Responses to Miki Barnes Hearing Transcript
MB1	The comment raises questions concerning the use of airspace at and in the vicinity of Hillsboro Airport. The world's navigable airspace is divided into three-dimensional segments, each of which is assigned to a specific class. Most nations adhere to the classification specified by the International Civil Aviation Organization (ICAO) and described below. The designation of an area for the conduct of flight training comes about through local requests.
	The airspace around airports is designated by the FAA as Class A through G:
	 Class A Airspace extends from 18,000' up to 60,000' MSL. It is the most controlled airspace and requires a pilot to carry an Instrument Flight Rating and proper clearance no matter what type of aircraft is being flown.
	• Class B airspace generally extends from the surface up to 10,000 ft. AGL and is the area above and around the busiest airports (LAX, ORD, etc.) and is also heavily controlled. Class B's are designed individually to meet the needs of the airport they overlay. Pilots must also receive clearance to enter the Class B airspace.
	• Class C airspace reaches from the surface to 4,000 ft. AGL above the airport, which it surrounds. Class C airspace only exists over airports, which have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight operations. Class C is also individually designed for airports but usually covers a surface area of about 5 nautical miles around the airport up to 12,000 ft. AGL. At 1,200 ft. the airspace extends to 10 nautical miles in diameter, which continues to 4,000 ft. Pilots, are required to establish two-way radio communications with the ATC facility providing air traffic control service to the area before entering the airspace. Within Class C, VFR and IFR pilots are separated.
	 Class D airspace exists from the surface to 2,700 ft. AGL above an airport and is the airspace designated around Hillsboro Airport. Class D airspace only surrounds airports with an operational control tower. Pilots are required to establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR pilots using this airspace must be vigilant for traffic as there is no positive separation service in the airspace.
	• Class E extends from either the surface or the roof of the underlying airspace and ends at the floor of the controlled airspace above. Class E exists for those planes transitioning from the terminal to enroute and is an area for instrument pilots to remain under ATC control without flying in a controlled airspace. Under visual flight conditions, Class E can be considered uncontrolled airspace.
	Class F is not used.
	• Class G airspace is completely uncontrolled airspace which extends from the surface to either 700 or 1,200 ft. AGL depending on the floor of the overlying Class E.
	These airspace designations are defined by 14 CFR Part 71. Pilots must comply with the requirements of the airspace in which they operate.
	A designated flight training area exists in the vicinity of Hillsboro Airport, as reflected in the airspace and sectional maps submitted by several commenters. This area captures flight training for a number of airports in the greater Portland region. The airspace in the immediate vicinity of Hillsboro Airport is designated as Class D. Northwest of Hillsboro Airport is a flight training area that is designated as Class E airspace that begins at 700 ft. AGL.

	Hillsboro Aviation requested that FAA publish a special notice in the Airport/Facility Directory (A/FD) NW. It was developed in consultation with the FAA to be included in the A/FD in order to alert the aviation community to be aware of flight training activities. Historically, this particular area was already in use by the local general aviation community for flight training before the issuance of the special notice. The special notice alerts pilots to increased traffic volumes they may encounter which they might not otherwise expect. The designated area is airspace in which no ATC clearance or radio communication is required for visual flight rules (VFR) flight. The FAA has assigned a frequency to the area that pilots are encouraged to use to provide their own traffic updates to one another; however they are not required to do so because it is uncontrolled airspace for VFR pilots.
	The "West Practice Area" is not officially designated by the FAA for visual flight training practice maneuvers as the FAA does not restrict where pilots can fly under VFR (other than minimum safe altitudes) in that type of airspace (Class E). There are other examples of this type of special notice in many other locations in the country. This area is not designated a special use airspace in which the FAA would control or restrict the traffic like Warning Areas, Prohibited Areas, Restricted Areas, Military Operation Areas, or Class A, B, C, or D airspace.
	14 CFR 91.119 states how low an aircraft may operate. Helicopters are allowed to operate lower than the limits stated as long as they pose no hazard to persons or property on the surface and comply with any routes or altitudes specifically prescribed for helicopters by the FAA. There are no prescribed helicopter routes or altitudes to the west of Hillsboro Airport's airspace. See 14 CFR 91.119 for Minimum Safe Altitudes – <u>http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div&wiew=text&node=14:2.0.1.3.10.2.4.10&idno=14</u>
	The FAA has limited control over where VFR pilots fly once they exit airport surface areas such as Hillsboro's. FAA Control Tower staff at Hillsboro query departing pilots regarding intended direction of flight (North, South, East, West) in order to exit Hillsboro Airport's controlled airspace (roughly a 4.2 mile bubble). Many pilots departing Hillsboro Airport prefer not to fly East in order to avoid PDX airspace and the requirements that come with flight through Class C airspace. A pilot flying North of Hillsboro Airport would encounter either PDX arrival or departure traffic and wake turbulence depending on which runways are being used at PDX. Southbound pilots would encounter traffic using the Newburg VOR ¹³ and departures/arrivals from airports such as Starks Twin Oaks, Chehalem, Sportsman, McMinnville, Aurora State, etc. Located generally Westward from Hillsboro Airport is the least dense airspace area where students and instructors can operate while avoiding most of the general PDX/HIO aviation activities.
MB2	The commenter raises questions about the value of general aviation (GA). There are over 19,000 airports, heliports, seaplane bases, and other landing facilities in the United States. Of these, 3,330 are included in the FAA's National Plan of Integrated Airport Systems (NPIAS), are open to the public, and are eligible for Federal funding via the Airport Improvement Program (AIP). FAA has designated Hillsboro as a General Aviation Reliever Airport in the NPIAS. As noted in an FAA report, "general aviation airports form an extensive network and make important economic contributions to society. Many of these aeronautical functions cannot be economically supported at primary commercial service airports" (including, flights for emergency medical services, aerial firefighting, law enforcement and border control, agricultural functions, flight training, time-sensitive air cargo services, business travel, and scheduled services) (General Aviation Airports: A National

¹³ VHF omnidirectional radio range (VOR), is a radio navigation system enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

Asset). Congress, over time, has defined two classes of airports that serve mostly general aviation: those that also support limited commercial service and those that help relieve congestion at primary airports. Hillsboro Airport falls into the latter category. Aircraft activity at Hillsboro Airport relieves activity (and congestion) that would otherwise occur at PDX. While there might be a perception that the public property taxes are "subsidizing" these airports, in reality the monies from the AIP are provided by the users of the aviation system and thus would be "subsidized" from within the aviation system by aviation users, not through local property or sales taxes. The proposed improvements at Hillsboro Airport are not funded by State or local taxes on property or income, nor by Federal income tax revenue. Airport improvement projects are funded by Federal aviation excise taxes on aviation users and funds generated by airport sponsors such as the Port of Portland. These funds are, by law, raised for the purpose of improving airport infrastructure and may not be used for other purposes. The proposed project may be funded in part using funds from the state's ConnectOregon program. The ConnectOregon funds are collected by the State through the lottery.

MB3 The commenter asks, "what are the rest of us getting out of this?" It is important to note the purpose of NEPA documentation is not to assess the cost/benefit of the proposed actions. However, the effects that would be beneficial to the area are of a socio-economic nature, which are discussed in Chapter 5, of the original EA and in Section 6 of the Supplemental EA. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.

MB4 According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:

- poor muscle coordination
- nerve damage to the sense organs and nerves controlling the body
- increased blood pressure
- hearing and vision impairment
- reproductive problems (e.g., decreased sperm count)
- retarded fetal development even at relatively low exposure levels

In children, lead poisoning can cause:

- damage to the brain and nervous system
- behavioral problems
- anemia
- liver and kidney damage
- hearing loss
- hyperactivity
- developmental delays
- in extreme cases, death

Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this, and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The EPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and

the proposed project is not expected to result in a violation of the any of the NAAQS.

The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria
pollutants, including lead. The area around Hillsboro Airport currently meets and is
expected to continue to meet the NAAQS for lead. This area is therefore designated as
"attainment" for this pollutant and has no history of exceeding the EPA standards. Although
measurements have not been conducted immediately adjacent to Hillsboro Airport,
measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or
to designate the area as non-attainment, nor the State or local air agency to indicate that
there are violations of the standard.

The NAAQS standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:

(40 CEP part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act
identifies two types of National Ambient Air Quality Standards. Primary standards provide public health
protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly.
Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)

Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.

The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153]. As the supplemental EA shows in Chapter 6, emissions from the project would be below the de minimis.

As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25 ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.

MB5 Some comments were received questioning the impacts of noise on public health. According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance.

	Response to Jack Lettieri Hearing Transcript
JLt1	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.
	Efforts to find a safe and cost-effective alternative to leaded aviation gasoline were bolstered by a March 2013 U.S. District Court ruling that the USEPA should not be forced to rush the issuance of its report on the public health effects of lead emissions from general aviation aircraft. The Court finding came in response to the Friends of the Earth's March 2012 lawsuit that sought to force the USEPA to issue an accelerated endangerment finding on GA emissions.
	In its lawsuit, Friends of the Earth claimed the 2015 timeframe "constitute(s) the unreasonable delay by the agency in performing its statutory duty" under the Clean Air Act. The USEPA countered that it needs the extra time to gather evidence on the potential health effects from 100 low-lead avgas (100LL) and to propose new regulatory standards. The U.S. District Court for the District of Columbia ruled that the agency's issuance of an endangerment finding is not mandatory under the Clean Air Act and that the environmental group's efforts to force the issue are out of the Court's jurisdiction.

	Response to Renee Strong Hearing Transcript
RS1	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport sponsors are also legally forbidden from selective or discriminatory treatment of airport tenants and others who use the airport facilities. Consequently, these types of restrictions cannot be put into place at the Airport.
	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. While noise is not a HARE agenda item, noise office staff regularly participate and attend the meetings. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
	Some airports, such as San Jose Airport, put in place a night curfew prior to the 1990 ANCA and thus are grandfathered under that law.

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Response to Bill Stone Hearing Transcript

BS1 The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. Contrary to the commenters comment, the Port has received positive feedback from the community about the voluntary HIO Fly Friendly program. This program has been designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.

Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.

It is not unusual for the level of activity at any airport to vary from year to year. As noted by some commenters, and acknowledged in the Supplemental EA, actual activity levels at Hillsboro Airport were greater in several prior years. However, current activity levels trigger the threshold noted for consideration of additional runway capacity.

Aircraft paths and patterns in the vicinity of Hillsboro Airport vary to an expected degree based on weather patterns, Air Traffic Control processes, and pilot technique. The Port of Portland's Airport Noise and Operations Monitoring System (ANOMS) continuously makes radar flight tracks available the Noise Management Department uses to monitor flight activity at HIO. The system is sometimes used to identify individual unique operations, but it is not currently possible to track or monitor every operation. The noise management staff uses the system to monitor overall noise program trends and to communicate successes and areas for improvement with stakeholders.

Response to Larry Bird Hearing Transcript

LB1 The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has voluntarily implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.

Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.

Aircraft paths and patterns in the vicinity of Hillsboro Airport vary to an expected degree based on weather patterns, Air Traffic Control processes, and pilot technique. The Port of Portland's Airport Noise and Operations Monitoring System (ANOMS) continuously makes radar flight tracks available the Noise Management Department uses to monitor flight activity at HIO. The system is sometimes used to identify individual unique operations, but it is not currently possible to track or monitor every operation. The noise management staff uses the system to monitor overall noise program trends and to communicate successes and areas for improvement with stakeholders.

	Responses to Jim Lubischer Hearing Transcript (continued)
JL3	As shown on page 9 of the General Aviation Survey Report (See Appendix D), there were no responses from HIO/TTD/PDX contacts with more than 5% touch-and-go operations out of the total airport operations.
JL4	It is important to note the purpose of NEPA documentation is not to assess the cost/benefit of the proposed actions. However, the effects that would be beneficial to the area are of a socio- economic nature, which are discussed in Chapter 5, of the original EA and in Section 6 of the Supplemental EA. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.
JL5	See response JL3.
	The Port retained an independent survey company to administer the survey, and on-line participants were invited from a broad list of pilots and companies, and phone contacts were chosen at random so as to maximize the objectivity of the survey. The survey represented all key user groups.
JL6	In preparing for the survey, the Port of Portland accessed the FAA's database of licensed pilots in the six county area with current medical card as of January 2012. This list contained approximately 5,100 licensed pilots. Approximately 2,500 names were randomly extracted from the list to receive the link to the survey. This sample size was determined to present statistical confidence in the results. As noted in Appendix D, there were 348 responses to the survey request (100 with based aircraft at Hillsboro Airport, and 248 respondents with based aircraft at other airports in the Portland region).
	The Port retained an independent survey company to administer the survey, and on-line participants were invited from a broad list of pilots and companies, and phone contacts were chosen at random so as to maximize the objectivity of the survey. As noted throughout the Supplemental EA, the survey was undertaken to supplement the Unconstrained Forecast by preparing the Remand Forecast; the survey results were added to the Unconstrained Forecast. The survey represented all key user groups. While the approach randomly resulted in two responses from one company, the responses did not sway the results.
JL7	The Survey did not distinguish between runway operations and non-runway operations. Stratifying the response in that way was not important to purpose of the surveys, as the Court suggested that the Port should have originally considered surveying pilot opinion as to whether the new runway would change which airport the pilot would use. By including the helicopter responses where pilot opinion said that they would choose to operate at HIO with the new runway, a higher level of "induced activity" is reflected. While the responses by these users were small (less than 4%), the Port and FAA chose to be conservative in responding to the Court suggestion to conduct a survey.
JL8	It is assumed that the reference to repetitive circling is to flight training operations. The forecasts prepared for the Supplemental EA reflect the inclusion of flight training, which is expected to increase in the future whether or not the proposed project is completed.
JL9	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained) as shown in Tables 6-2 and 6-3. Only one forecast, the Remand Forecast, was shown to result in any increase in lead

	emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	As noted, Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25 ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
JL10	The commenter raises a question about the capacity of the airport cited in the 1990 Master Plan. In order to respond to the comment, the response starts with context (or information) about the planning history. The evaluation of delay and capacity at airports has evolved over time with knowledge and experience. Some of these past planning efforts for Hillsboro Airport reflect that evolution in methodology. Each of the prior Master Plan's included an element to forecast future airport activity that included a forecast of the types of aircraft that would be expected to use the Airport. The plan for future facilities is based on the anticipated forecast of activity. The differences in approach between plans reflect the depth of analysis placed on the topic and an evolution in whether or not non-runway operations are reflected in the evaluation of airfield capacity.
	The evaluation conducted in 1990 was based on a generalized methodology. The need for a new runway was not eminent, and thus a more detailed evaluation was not warranted. In 1990, an estimate of hourly operations capacity was prepared and then translated into an annual activity level. Using that old methodology, the capacity was estimated to be approximately 250,000 annual operations. Despite using the more general method, it was noted that the Airport would likely need a runway in the future; the 1990 Master Plan (page

67) notes "The 250,000 to 300,000 operations capacity of the present runways would therefore be reached near the end of the 20-year Master Plan timeframe." Since this study was completed in 1990, that would imply the anticipation of runway capacity needs by 2010. However, this conclusion was reached with limited technical analysis, and rather used an approximation for airfield efficiency and capacity.

Because airport conditions and activity changes, the Port of Portland updated the Master Plan in 1996. Included in the 1996 study was an update to the aviation forecast and the use of more sophisticated evaluation techniques of airfield efficiency and capacity using the ASV methodology. This is not an unusual practice, when an earlier planning effort identified a long-term need; often the evaluation tools become more sophisticated to enable a refinement of the facility needs. The 1996 study used FAA Advisory Circular (AC) 150/5060-6 and the associated ASV methodology. The 1996 study also recommended a third general aviation runway. It noted that the ASV at the time was estimated at 230,000 annual operations. This assessment of ASV was based on the assumption that total airport activity affects capacity. Therefore the difference between the 1996 and 2005 Master Plan ASV calculation was the inclusion of total activity in the 1996 Master Plan, versus the 2005 Master Plan using just the operations that use the runway. This difference in methodology explains the difference in ASV-related numbers. The resulting capacity numbers are not materially different, when comparing the forecasts; the relationships between total operations to ASV (total operations) is similar to runway operations to ASV (runway operations).

A comparison can be made of methodologies by using the forecasts from the Supplemental Environmental Assessment. The Constrained and Unconstrained Forecast showed a total operations forecast of 224,260 annual operations in 2016 (of which 155,070 were forecast to be runway operations – See Supplemental EA Table 4-1) with an ASV of 178,000. Based on runway operation ASV, the 2016 forecast would be at 87% of ASV. If comparing total operations to total operations ASV (ASV of 230,000 operations), the 2016 forecast would be at 97% of ASV (224,260 divided by 230,000). The 1996 Master Plan forecast 2015 total operations at 268,781 with the ASV (total operations) of 230,000 (1996 Master Plan Table 1-2 and page 37). Thus total operations would be at 117% of total operations ASV. Using total operations, 60% of ASV (the threshold for planning new runway capacity) would be 138,000 total annual operations. Total operations have been above 60% ASV (total operations) for over 2 decades. As a result, when the 2005 Master Plan was prepared, this more refined examination of ASV was determined to be a better prediction of airfield operational efficiency.

	Responses to David Barnes Hearing Transcript
DB1	There are over 19,000 airports, heliports, seaplane bases, and other landing facilities in the United States. Of these, 3,330 are included in the FAA's National Plan of Integrated Airport Systems (NPIAS), are open to the public, and are eligible for Federal funding via the Airport Improvement Program (AIP). FAA has designated Hillsboro as a General Aviation Reliever Airport in the NPIAS. As noted in an FAA report, "general aviation airports form an extensive network and make important economic contributions to society. Many of these aeronautical functions cannot be economically supported at primary commercial service airports" (including, flights for emergency medical services, aerial firefighting, law enforcement and border control, agricultural functions, flight training, time-sensitive air cargo services, business travel, and scheduled services) (<i>General Aviation Airports: A National Asset</i>). Congress, over time, has defined two classes of airports that serve mostly general aviation: those that also support limited commercial service and those that help relieve congestion at primary airports. Hillsboro Airport falls into the latter category. Aircraft activity at Hillsboro Airport relieves activity (and congestion) that would otherwise occur at PDX. While there might be a perception that the public property taxes are "subsidizing" these airports, in reality the monies from the AIP are provided by the users of the aviation system and thus would be "subsidized" from within the aviation system by aviation users, not through local property or sales taxes on property or income, nor by Federal income tax revenue. Airport improvement projects are funded by Federal aviation excise taxes on aviation users and funds generated by airport sponsors such as the Port of Portland. These funds are, by law, raised for the purposed project may be funded in part using funds from the state's ConnectOregon program. The ConnectOregon funds are collected by the State through the lottery.
DB2	The evaluation of delay and capacity at airports has evolved over time with knowledge and experience. Some of these past planning efforts for Hillsboro Airport reflect that evolution in methodology. Each of the prior Master Plan's included an element to forecast future airport activity that included a forecast of the types of aircraft that would be expected to use the Airport. The plan for future facilities is based on the anticipated forecast of activity. The differences in approach between plans reflect the depth of analysis placed on the topic and an evolution in whether or not non-runway operations are reflected in the evaluation of airfield capacity.
	The evaluation conducted in 1990 was based on a generalized methodology. The need for a new runway was not eminent, and thus a more detailed evaluation was not warranted. In 1990, an estimate of hourly operations capacity was prepared and then translated into an annual activity level. Using that old methodology, the capacity was estimated to be approximately 250,000 annual operations. Despite using the more general method, it was noted that the airport would likely need a runway in the future; the 1990 Master Plan (page 67) notes "The 250,000 to 300,000 operations capacity of the present runways would therefore be reached near the end of the 20-year Master Plan timeframe." Since this study was completed in 1990, that would imply the anticipation of runway capacity needs by 2010. However, this conclusion was reached with limited technical analysis, and rather used an approximation for airfield efficiency and capacity.
	Because airport conditions and activity changes, the Port of Portland updated the Master Plan in 1996. Included in the 1996 study was an update to the aviation forecast and the use of more sophisticated evaluation techniques of airfield efficiency and capacity using the ASV methodology. This is not an unusual practice, when an earlier planning effort identified a long-term need; often the evaluation tools become more sophisticated to enable a refinement
of the facility needs. The 1996 study used AC 150/5060-6 and the associated ASV methodology. The 1996 study also recommended a third general aviation runway. It noted that the ASV at the time was estimated at 230,000 annual operations. This assessment of ASV was based on the assumption that total airport activity affects capacity. Therefore the difference between the 1996 and 2005 Master Plan ASV calculation was the inclusion of total activity in the 1996 Master Plan, versus the 2005 Master Plan using just the operations that use the runway. This difference in methodology explains the difference in ASV-related numbers. The resulting capacity numbers are not materially different, when comparing the forecasts; the relationships between total operations to ASV (total operations) is similar to runway operations to ASV (runway operations).

A comparison can be made of methodologies by using the forecasts from the Supplemental Environmental Assessment. The Constrained and Unconstrained Forecast showed a total operations forecast of 224,260 annual operations in 2016 (of which 155,070 were forecast to be runway operations – See Supplemental EA Table 4-1) with an ASV of 178,000. Based on runway operation ASV, the 2016 forecast would be at 87% of ASV. If comparing total operations to total operations ASV (ASV of 230,000 operations), the 2016 forecast would be at 97% of ASV (224,260 divided by 230,000). The 1996 Master Plan forecast 2015 total operations at 268,781 with the ASV (total operations) of 230,000 (1996 Master Plan Table 1-2 and page 37). Thus, total operations would be at 117% of total operations ASV. Using total operations, 60% of ASV (the threshold for planning new runway capacity) would be 138,000 total annual operations. Total operations have been above 60% ASV (total operations) for over 2 decades. As a result, when the 2005 Master Plan was prepared, this more refined examination of ASV was determined to be a better prediction of airfield operational efficiency.

	Response to Miki Barnes Hearing Transcript (continued)
MB6	This and other comments by Ms. Barnes requested specific operational characteristics about various users of the Airport, such as Hillsboro Aviation. The FAA Tower staff at Hillsboro Airport is responsible for counting aircraft operations performed at the Airport, both departures and arrivals, and recording operations by type (i.e., air carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information. The Port has produced all available requested information.
	The available data about operations at Hillsboro Airport comes from the FAA tower located at the Airport. The level of data provided by the FAA does not provide the individual operators and the number of operations per company. While such data is available for commercial service airports, such as PDX, this detailed information comes from the airlines as a verification of the landing fee calculations, part of their lease agreement. Such information is not required for the substantial amount of operators at Hillsboro Airport. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. Therefore, neither the Port nor the FAA is able to provide a detailed list of operations by operator, as the data is not available. In other requests of some of the commenters, the Port has offered to assist the residents with collecting the data, but there would be a manpower cost for such data collection.
	Information is not available concerning the number of flight training operations, nor the number of businesses that are conducting training, or the amount of non-commercial activity for the aircraft under 10,000 pounds as well as aircraft operations exempt from landing fees. These operations are collected in aggregate and are reflected in the past operational activity levels reported on Appendix B, C, and D.
	The method of counting traffic used by the Hillsboro Airport Tower differs from that of the HIO Master Plan's definition of "Local Operations". The tower only counts a local operation as one in which the aircraft stays inside the Class D surface area (roughly 4.2 miles surrounding Hillsboro Airport). If a pilot departs Hillsboro Airport and goes West to the "high intensity" training area, that would be counted as an itinerant operation, not local.
	The specific flight hours and training amount would vary based on the training being sought. According to the Portland Community College. Their Associate of Applied Science Degree (Aviation Science Airplane) requires a total college credit of 90 hours, some credits requiring flight time. In other request of several commenters, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection.
	A number of companies conduct flight training, including Hillsboro Aviation, TNG Aviation, Aviation NorthWest, Applebee Aviation, Fly Oregon, and Mary A. Schu Aviation. The web sites do not indicate the annual operations of these companies. Portland Community College, as noted by one commenter, also provides flight training. The specific aircraft types operated by these companies are not known. However, the aircraft mix operating at Hillsboro Airport is reflected in the data collected from the FAA; the Port and FAA is not able to identify those specifically associated with flight training.
	While there are a number of approaches to addressing the forecasting questions, the FAA

and Port believe that the approach taken in preparing the Constrained, Unconstrained, and Remand Forecast are reasonable. It is important to note that the operations of all tenants at Hillsboro Airport are included in the FAA Tower counts and represent the total demand for general aviation and flight training services at the Airport. The FAA and Port do not believe that the information requested by commenters about flight training details of individual operators or data about specific companies is necessary to prepare forecasts for this Supplemental Environmental Assessment. Background data on total flight training is available. For example, Table 3-5 presents data from the Hillsboro Tower on helicopter training operations. Table 5-1 presents forecasts of helicopter training operations. The data for training operations represent the historical and forecast demand, regardless of what company/FBO provides training services. The FBOs at HIO have been successful in growing their flight school operations because there is demand for flight training education, not simply because they expand their operations. Therefore, the detail on individual FBOs/flight schools is less important than understanding the overall demand trends for flight training. Even if the data for individual companies was available, forecasting operations by company would be speculative.

The Draft Supplemental EA presented three forecasts of future activity at Hillsboro Airport in the categories of activity that are standard to a general aviation airport. Forecasts both with and without the project are projected in the Unconstrained Forecast and Constrained Forecast, respectively. To test the issue raised by the Court (e.g., a survey of pilot opinion), a second "With Project" forecast was prepared, referred to as the Remand Forecast. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast, which already accounts for growth due to demographic and economic drivers.

As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the Court case. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the unconstrained forecast.

See also response MB2.

	Responses to Ruth Warren Hearing Transcript (continued)
RW3	The Port of Portland maintains a noise management department to address issues at each of its airports (PDX, Hillsboro, and Troutdale). The office is represented by a staff of 4 employees. About 30 percent of the total office time is spent on addressing issues at Hillsboro Airport, generally consistent with the level of activity at the Airport. Relocating an individual to be onsite has been considered from time-to-time, but is not cost effective given the integrated resources of the office.
RW4	The public comment period began on March 15 th with the release of the Draft Supplemental EA, and closed on April 19 th (allowing a few additional days more than the typical 30-day comment period.) After considering the issues raised, the FAA and Port determined there were no specific reasons suggesting the need for additional time in the comment period. Therefore, additional time was not granted.

	Responses to Brian Hannah Hearing Transcript (continued)
BH2	The FAA Tower staff at Hillsboro Airport is responsible for counting aircraft operations performed at the Airport, both departures and arrivals, and recording operations by type (i.e., air carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information.
BH3	It is important to note the purpose of NEPA documentation is not to assess the cost/benefit of the proposed actions. However, the effects that would be beneficial to the area are of a socio- economic nature, which are discussed in Chapter 5, of the original EA and in Section 6 of the Supplemental EA. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.

Comments and Responses to Comments Comment File G.2

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA le	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arneser	า
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzand	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum		Renee Strong
Megan Granum		Bill Stone
Larry Altree		Larry Bird

Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
Comment File G.2	
4/17/2013	Jim Lubischer (LBr#)
Comment File G.3	
4/19/2013	Henry Oberhelman
4/17/2013	Howard Radin
4/17/2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comment File G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone
Comment File G.7	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comment File G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer
Comment File G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams

5UBAITTING- (4-17-13) For DSER PUBLIC HERRING Preventing Lead Poisoning Young <u>Children</u>

JIM LUSISCHOP 132 84603







A STATEMENT BY THE CENTERS FOR DISEASE CONTROL AND PREVENTION August 2005



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention



	Response to Jim Lubischer Hand Written Note Submitted at the Public Hearing
LBr1	Thank you for the material titled:
	• CDC, Preventing Lead Poisoning in Young Children: A Statement by the Centers for Disease Control and Prevention, August 2005
	The Port and FAA appreciate the submission of an extensive listing of published material.

Comments and Response to Comments Comment File G.3

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

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Larry Altree Blaine Ackley Jim Lubischer John Southgate Ellen Sanders Sharon Cornish Vernon Mock Ruth Warren	Larry Bird Jim Lubischer David Barnes Miki Barnes Ruth Warren Brian Hannah Miki Barnes Vernon Mock
Brian Hannah	
Comment File G.2	line Ludeiande au
4/1//2013	Jini Lubischer
4/19/2013 4/17/2013 4/17/2013 4/18/2013 4/19/2013 4/18/2013 4/18/2013 4/19/2013 4/19/2013 4/17/2013 May 12, 2013 (sic)	Henry Oberhelman (HO#) Howard Radin (HR#) Justin St. Clair (JSC#) John Southgate (JSo#) Kimberly Culbertson (KC#) Linda Barnfather (LBn#) Linda Beall (LBe#) G Lynn Hamm (GLH#) Ruth Warren (RWa#)
Comment File G.4	
4/17/2013 4/17/2013 4/19/2013 4/17/2013 4/12/2013 4/19/2013 4/17/2013 4/17/2013 4/17/2013	Martin Donohoe Martin Granum Matthew Radin Mona Toms Nancy Monroe Patrick Conry Patrick Dunn Patrick Dunn, Constance Rosson Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	Plaina C. Acklay
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Comment File G.7	
4/15/2013	WB White
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4/17/2013	OAW Testimony (Barnes) Attach1 Williams

26185 NW Evergreen Road Hillsboro, OR 97124 April 19, 2013

Ms. Renee Dowlin Port of Portland PO Box 3529 Portland, OR 97208

Dear Ms. Dowlin:

I am adamantly opposed to any further expansion of the Hillsboro Airport (HIO).

As a long term observer of airport activities, sometime participant in airport planning and unwilling recipient of the adverse impacts of the airport, I am led to that conclusion. There is further discussion on the following pages.

Thank you for your assistance in incorporating this document into the official record so that I have standing in this issue.

Yours truly,

Berlin Ones

Henry Oberhelman

We've lived at 26185 NW Evergreen Rd for over thirty years and we've witnessed the many changes at HIO. During the early years the Port was a relatively good neighbor, if an aircraft was overly intrusive a call to the Port would result in some remedial action. By contrast, todays response is uniformly that there is nothing we can do. As a result our livability has been destroyed.

In addition throughout that time I've; attended many of the open houses put on by the Port, participated in the 2005 Master Plan and contributed to the HARE and the HARE subcommittee on Noise. The comments that are consistently expressed by the public in those events have identified the aviation noise and, more recently, the health hazards of the lead emissions from the use of 100LL aviation fuel. While work is being done at the national level for both of these issues, nothing has been accomplished at the HIO aviation community level.

I believe there are three topics around the third runway for comment; Airport Management, Adverse Community Impact and Costing and Funding

REGIONAL AIRPORT MANAGEMENT

The Supplemental Environmental Assessment (SEA) references the 2005 Master Plan as the source document for the identification and justification for a third runway. That document, the Final Environmental Assessment and the SEA rely heavily on the Integrated Noise Model (INM) and several generations of demand forecasts to predict the need for a third runway at HIO. Unfortunately those documents overlook several key factors.

One of those factors is inadequate differentiation of the impact of aviation training for profit (ATP) on the community and Washington County. The SEA clearly identifies 9 airports in the region as capable of and being used for hosting ATP and in fact these airports are being used to offload ATP from HIO. These airports then are effectively resources that could be used to reduce the load on HIO, perhaps with some FAA funded improvements. However, the planning documents study HIO in isolation and further assume that all aircraft; ATP, Business and Privately Owned need to have equal access to HIO. As a planning tool, the HIO Master Plan should make this distinction, in order to more effectively use public funds, to leverage the claimed economic benefits of aviation to other communities besides Hillsboro and to clearly identify areas to reduce the adverse community impact.

ADVERSE COMMUNITY IMPACT

ATP activities, helicopter and fixed wing, are among the highest single class of uses of HIO. Table 5-1 in the SEA shows 66521 and 71301 operations respectively for 2011; the helicopter numbers are clearly identified as training while the fixed wing numbers include other activities such as license certification and recreational flying. Nonetheless, the numbers indicate a very high level of activity, supported by claims of HIO being the second busiest airport in Oregon.

The operations numbers in the preceding are significant in that they represent repetitive aircraft operations in distinct patterns or in distinct

HO2

areas such that residents are subjected to two separate effects, Noise and Lead Emissions in concentration:

Aviation Noise, for the purposes of the 2005MP and SEA is modeled by the INM. This relies on the Operations count as one important input and in the case of Helicopter operations significantly understates the impact of helicopter noise in two ways. One understatement is exemplified by the Robinson R22 requirement for Autorotation which means more circuits within the training area even though those circuits are only counted as two operations. The second understatement is the failure to recognize the three characteristics of helicopter noise; vortex noise, rotational noise and blade slap, as identified in the 1980 Edition of "Helicopter Theory by Wayne Johnson. The need for such identification is further validated by the funding in 2012 of the Transportation Research Board's Helicopter Noise Modeling Guidance, ACRP 02-44.

Lead emissions from the use of 100LL in aircraft and the resultant impact on human health is recognized to the point where the FAA has sponsored a major program under the title of "FAA UAT ART" to find a substitute for 100LL. It appears that from the schedule on page 85 of that document that <u>eleven years will elapse</u> before full deployment of a substitute fuel. If we put together: 1.) the repetitive training patterns, 2.) the use of 100LL in these aircraft, 3.) the long time before 100ll phase out, 4.) the training flights over schools around HIO, 5.) the known health impacts and finally, 6.) the fact that the SEA utterly fails to address this issue we are left with the conclusion that the Hillsboro Master Plan needs to be completely reevaluated and updated.

FUNDING AND COSTING

Another issue is that related to the appropriate use of public funds. In theory, HIO is available to any user. However, reality says that existing users, particularly ATP providers in residence have an advantage in that there seems to be no process for competitive bidding for such limited capability. Construction of a third runway at a cost approaching \$20 million would seem to be primarily for such an ATP provider.

Finally, the HIO Master Plan was completed in 2005 with cost updates in 2009 (Appendix B.5 of the Final Environmental Assessment). Undoubtedly these costs are outdated and should be revised.





	Responses to Henry Oberhelman Letter 4-19-2013
HO1	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program.
	Although the experience of sound as noise is subjective, the 65 DNL (the industry standard) remains on airport in the future. While noise is not a Hillsboro Airport Roundtable Exchange (HARE) agenda item, noise office staff regularly participates and attends the meetings. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc.
HO2	The commenter believes that the Supplemental EA ignores facts concerning the effects of flight training on the community and that other airports should be used. The Port of Portland and the FAA did not ignore facts associated with flight training in the development of forecasts; flight training is reflected in the forecasts. The Port and the FAA are prevented from requiring aircraft to operate at other airports. The purpose of the project is to reduce delay and congestion at Hillsboro Airport. It is not possible for the Port of Portland, or the FAA to deny access to a public use airport or to require aircraft to operate at another airport. The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport. Pilots wishing to operate at Troutdale, or any other airport, are already able to do so if facilities are available at those locations. Thus, other airports are not an alternative to the need to reduce delay and congestion at Hillsboro Airport. See also response HO3.
HO3	There are legal standards and engineering requirements regarding aircraft noise and air emissions. Regarding aircraft noise, FAA has enacted 14 CFR Parts 36 and 91, which requires aircraft to meet current engine standards in accordance with the International Civil Aviation Organization (ICAO). However, these standards do not apply to the majority of propeller aircraft operating at Hillsboro Airport; the standards apply to turbojet and turboprop aircraft. 14 CFR Part 36, Subpart F applies to propeller driven small airplanes that are manufactured and type certified after 1973. Specific sound level standards are set for these aircraft, and aircraft in operation meet those standards today.
	The USEPA regulates the emissions from aircraft engines, which generally also parallel the requirements of ICAO. These requirements are explained at the EPA's website http://www.epa.gov/otaq/aviation.htm .
	Regarding aircraft noise, FAA has enacted 14 CFR Parts 36 and 91, which requires aircraft to meet current engine standards in accordance with the International Civil Aviation Organization (ICAO). However, these standards do not apply to the majority of propeller aircraft operating at

	Hillsboro Airport; the standards apply to turbojet and turboprop aircraft. 14 CFR Part 36, Subpart F applies to propeller driven small airplanes that are manufactured and type certified after 1973. Specific sound level standards are set for these aircraft, and aircraft in operation meet those standards today.
HO4	The FAA Tower staff at Hillsboro Airport is responsible for counting aircraft operations performed at the Airport, both departures and arrivals, and recording operations by type (i.e., air carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information.
	The FAA guidance for counting local operations is "one count for an aircraft departing the airport area for a designated practice area and one count for the aircraft returning from the designated practice area".
HO5	The INM is the current approved, state-of-the-art tool for considering aircraft noise exposure at an individual airport. FAA Order 1050.1E requires the use of the most recent version of INM in the preparation of noise exposure contours in NEPA documents, as occurred for the original Environmental Assessment.
	The Airport Cooperative Research Program (ACRP) is an FAA funded research program that develops near-term solutions to problems facing airport operators. ACRP is managed by the Transportation Research Board (TRB) of the National Academies and sponsored by the FAA.
	The objectives of ACRP Project 02-44 <i>Helicopter Noise Modeling Guidance</i> is to review, evaluate, and document current helicopter noise models and identify potential improvements to INM/AEDT to better capture the unique complexity of helicopter operations. As the project is still under way, no conclusions or recommendations are available at this time; the study is expected to be completed in late 2014. At that time, FAA will then consider the recommendations for changes to INM/AEDT, if any.
HO6	The FAA has established the Fuels Program Office to help meet the agency's goal of making an unleaded fuel available for the general aviation (GA) fleet. The FAA is working with the USEPA and key stakeholders to identify by 2018 a replacement for 100 octane low-lead (100LL). The office was created based upon recommendations from the Unleaded Avgas Transition Aviation Rulemaking Committee (UAT ARC) report.
	Efforts to find a safe and cost-effective alternative to leaded aviation gasoline were bolstered by a March 2013 U.S. District Court ruling that the USEPA should not be forced to rush the issuance of its report on the public health effects of lead emissions from general aviation aircraft. The Court finding came in response to the Friends of the Earth's March 2012 lawsuit that sought to force the USEPA to issue an accelerated endangerment finding on GA emissions.
	In its lawsuit, Friends of the Earth claimed the 2015 timeframe "constitute(s) the unreasonable delay by the agency in performing its statutory duty" under the Clean Air Act. The USEPA countered that it needs the extra time to gather evidence on the potential health effects from 100 low-lead avgas (100LL) and to propose new regulatory standards. The U.S. District Court for the District of Columbia ruled that the agency's issuance of an endangerment finding is not mandatory under the Clean Air Act and that the environmental group's efforts to force the issue are out of the Court's jurisdiction.
HO7	The commenter indicates that because an existing aircraft operator is already using the Airport, that limits the ability for new operators (the theory that the current operators have a competitive advantage, as the Port is not conducting a competitive bidding process) and implies that the

expenditure of funds for existing operators is not appropriate. Hillsboro Airport is a public use airport because federal funds have been used in the development of the Airport. The public use designation means that the FAA and the Port of Portland cannot prevent an aircraft operator that wishes to use the Airport from operating if the operator can do so safety. Existing operators have incurred the cost of choosing to operate at HIO and similar costs would be incurred by new users. It is unclear what would be gained from a competitive bidding process, as
so. The proposed project is needed due to the current level of activity at HIO and that indicated in the future in the Constrained and Unconstrained Forecasts.

While initial cost estimates were prepared for the 2005 Master Plan, the Port has updated the
cost estimate over time to reflect slight changes in the project discussed in Chapters 1 through
3, as well as current construction costs. The Port's current estimate for the construction of the
proposed runway is approximately \$15.2 million. That estimate was prepared in 2011 (source:
CIP) and the cost is being updated in light of the delay.

COMMENT FORM

Hillsboro Airport

Draft Supplemental Environmental Assessment/ Public Hearing April 17, 2013 TO: PORT OF PORTLAND **Please Print** FAMILY AND I LIVIE APPROXIMATELY 112 MILES THE HUSBORD AIRPORT, NEAR MOOBERRY KLEMENJARY Scheol. WE HAVE OWNED OUR Home 21 YEARS . LAST SEVERAL YEARS OVER NE TINE EXPERIENCED 5 for D INCEASE IN NOISE FROM AIRPLANES AND HR1 HELICOPTERS SEVEN DAYS PER WEEK. ALSO IAM A BUSINESS OWNER AND BUILDING CONTRACTOR AND LICENSED BY THE ORFGON HR₂ CONSTRUCTION CONTRACTURS BOARD AS A BUILDING CONTRACTOR AND LEAD BASED PAINT RENOVATION CONTRACTOR, OUR CERTIFIED SAFETY COURSE WENT INTO GREAT DETAIL EXPLAINING LEAD DANGRES OF LEAD CONTAMINATION IN HOMES BUILT THE 1978. THE COURSE WORK EXPLAINED THE RISKS BEANE OF HUMAN CONTACT WITH LEAD CONTAMINATED ITEMS IN THE INTERIORS AND EXTERIORS OF HUMES, INCLUDING PLAYGROUNDS, PLAYGROUND EQUIPMENT AND COMMON DIRT. THE CAPRICIOUS ATTITUDE OF THE PORT AS REGARDS FAMILYS, THE CHILDRENS CARE CENTERS AND SCHOOLS AS WELL AS REALESTATE VALUES FOR THE SAKE OF COMMERCIAL ENTREPRISE IS UNCONSCIONABLE. Name: RADIN HOWARD 1025 NE ARRINGTON. ROAD Address: HILLS BORD 97124

Return Comments to:

Renee Dowlin Port of Portland Box 3529 Portland, OR 97208 Comments must be postmarked later than April 19, 20013

	Responses to Howard Radin Comment Form 4-17-2013
HR1	While neighbors may have perceived a five-fold increase in activity at Hillsboro Airport, actual activity has not increased as such." Appendix B Table 3-1 shows the past actual activity levels at Hillsboro Airport.
HR2	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage hearing loss hyperactivity developmental delays in extreme cases, death
	Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The EPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.
	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)

Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.

COMMENT FORM

Hillsboro Airport

Draft Supplemental Environmental Assessment Public Hearing April 17, 2013

Please Print
I Just moved here about 3-4 weeks ago to
pecome a helicopter pilot and t live in Dawson
Greeks appartments and I just went to say JSCI
I don't think there is a noise problem at all
I mean when I am out side I hear the planes
but they are not loud atall and I night I don't
hene any thing and I get plenty of sleep and wake
up when I attend to wake up and tales sleep
with a fair on to I believe this extra runway would
bebennetical because you can get the places down
quicker with less air trattic.
Name: Justin L. St. Clair
Address: <u>SNE Tandem Way Appt#211 Hillsboro, OR 97124</u>

Return Comments to:

Renee Dowlin Port of Portland Box 3529 Portland, OR 97208 Comments must be postmarked later than April 19, 20013

	Response to Justin St. Clair Comment Form 4-17-2013
JSC1	Comment noted.

Dowlin, Renee

From: Sent: To: Cc: Subject: Attachments: John Southgate <JohnS@hillchamber.org> Thursday, April 18, 2013 10:45 AM Dowlin, Renee steve.nagy@portofportland.com; Deanna Palm hillsboro Chamber Testimony from last night's hearing Hillsboro Airport Parallel Runway.docx

Renee – good running into you last night!



Attached is the Hillsboro Chamber's testimony regarding the parallel runway. Please let me know if you have any questions. The Chamber is strongly supportive of this initiative!!!

John Southgate



Testimony Presented at Public Hearing on April 17, 2013

JS01

The Hillsboro Chamber of Commerce is strongly supportive of the Airport as well as the many businesses located there, and particularly of the Port of Portland's proposal to add a parallel runway. Our support is based on the substantial contributions that the Airport makes both to our economy as well as to our community and quality of life.

The Airport is a long-standing institution in Hillsboro. The Airport predates most of the nearby growth that has occurred over the decades. Here are a few statistics that speak to the economic impact of the Airport:

- The Airport generates more than \$75 Million annually in economic impact.
- There are more than 25 companies at the Airport, providing 436 direct jobs, most of them in small businesses with 15 or fewer employees. There are nearly 1200 total jobs (direct and indirect) generated by the Airport and its associated companies.
- The Airport generates \$5.5 Million annually in State and local taxes.

In addition, the Airport (and one of the businesses located there) plays a vital role in Portland Community College's Aviation Sciences program, which provides an important career opportunity for dozens of students annually – many of them veterans.

These statistics only tell part of the story. The people who own businesses or work at the Airport are our neighbors. They pay their taxes. They contribute to our schools and charitable causes. They buy goods from our retailers, restaurants, and other businesses. The companies at the Airport have invested in the lives of their employees, and they have invested in their businesses.

Another important aspect of the Airport is its role in business recruitment. Companies appreciate the opportunity to fly directly in and out of Hillsboro. We know of companies that have opted to locate in Hillsboro in part because we have this strong asset right here in Hillsboro.

The Airport, and the many businesses located there, are an important part of the Hillsboro economy and community. The Chamber wishes to go on record as strong supporters of the Airport and these companies, and the expansion of the Airport to include a parallel runway.

Thank-you.

	Response to John Southgate, Greater Hillsboro Area Chamber of Commerce email and letter
JSo1	It is important to note the purpose of National Environmental Policy Act (NEPA) documentation is to assess and disclose the environmental effects associate with a proposed project, not to prepare a financial cost/benefit of the proposed actions. However, the environmental effects that would be beneficial to the area as it relates to NEPA are of a socio-economic nature, which are discussed in Chapter 5, of the original Environmental Assessment and in Section 6 of the Supplemental Environmental Assessment. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.

Mary Vigilante

From: Sent: To: Subject: Attachments: Dowlin, Renee <Renee.Dowlin@portofportland.com> Friday, April 19, 2013 4:53 PM Mary Vigilante Fwd: Hillsboro Airport Parallel Runway Project third runway letter.docx; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: "Kimberly R. Culbertson" <<u>krculbertson@earthlink.net</u>> Date: April 19, 2013, 4:41:08 PM PDT To: <<u>renee.dowlin@portofportland.com</u>> Cc: "<u>Brooke.Berglund@portofportland.com</u>" <<u>Brooke.Berglund@portofportland.com</u>>, Fred Hostetler <<u>hostetler.fred@gmail.com</u>>, "<u>metta1000@gmail.com</u>" <<u>metta1000@gmail.com</u>>, Fred Subject: Hillsboro Airport Parallel Runway Project Reply-To: "Kimberly R. Culbertson" <krculbertson@earthlink.net>

Ms. Dowlin--

Enclosed please find my input on the HIO Parallel Runway Project. Below, I supply it in text form.

Kimberly R. Culbertson

Ms. Renee Dowlin Senior Environmental Planner Port of Portland P.O. Box 3529 Portland, Oregon 97208 April 19, 2013

Ms. Dowlin,

As a 15-year resident of Downtown Hillsboro and a member of the Hillsboro Airport Roundtable Exchange, I object to the development of a third runway at Hillsboro Airport (HIO).

Repetitive touch-and-go flights represent the vast majority of HIO operations, which determine the statistics used to assert demand for a third runway at HIO. This indicates that the vast majority of flights in and out of HIO are training flights. One company, Hillsboro Aviation, a privately-held corporation, runs training programs out of HIO at present. Hillsboro Aviation, while having a seat at the Hillsboro Airport Issues Roundtable (HAIR) and its successor, Hillsboro Airport Roundtable Exchange (HARE) has chosen not to attend a public meeting for the year that I have been on the body. Numerous complaints by the public have been fruitless in bringing Hillsboro Aviation to merely follow the Fly Friendly program promulgated by the Port of Portland's Noise Management Department with any regularity. This lack of public accountability is at the heart of my objection to the Third Runway Project.



According to projections from the City of Hillsboro, the city is expected to grow substantially in the coming years, becoming, in residential areas, more population dense, as Hillsboro is within Metro's Urban Growth Boundary and a large proportion of land is dedicated to industrial and farming uses. This surrounds HIO with a densely populated area and a populace with no recourse to the noise and various pollutions that helicopters and propeller-driven airplanes produce. This drives down residential quality of life and, ostensibly residential property values.



Enhanced public accountability in the form of a Memorandum of Understanding on the part of Hillsboro Aviation, Inc. would be necessary for the populace, present and future to tolerate additional operations at HIO. Nothing short of an MOU and a compliance plan would allow me to endorse a third runway at HIO.

Thank you for your part in the public planning process.

Kimberly R. Culbertson 223 NE Fifth Avenue Hillsboro, OR 97124 (503)681-9469



Ms. Renee Dowlin Senior Environmental Planner Port of Portland P.O. Box 3529 Portland, Oregon 97208

April 19, 2013

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Thank you for your part in the public planning process.

Kimberly R. Culbertson 223 NE Fifth Avenue Hillsboro, OR 97124 (503)681-9469

	Responses to Kimberly Culbertson Email and Letter 4-19-2013
KC1	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. While noise is not a Hillsboro Airport Roundtable Exchange (HARE) agenda item, noise office staff regularly participates and attends the meetings. The Noise Office staff welcome communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
KC2	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ¹ to more recent studies ² indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>)
	One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report (<i>The Effect of Airport Noise on Housing Values</i> , by Booz-Allen & Hamilton) prepared for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size.

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

	The Summary and Conclusions section of the FAA's 1985 <i>Aviation Noise Effects</i> Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
KC3	Mitigation measures are not required because there are no noise sensitive land uses within the 65 Day-Night Noise Level (DNL), the threshold of significance defined in FAA Order 1050.1E (Change 1); those contours do not extend off airport property; and there are no project-related effects that rise to the level of being significant.
	The Port of Portland has implemented voluntary initiatives designed to reduce aircraft noise through the HIO Fly Friendly program. See response KC1. The commenter appears to be requesting that the current program become mandatory to limit or control activity, particularly flight training. The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.

Т

Dowlin, Renee

From: Sent: To: Subject: Linda Barnfather <barnbarn20@gmail.com> Thursday, April 18, 2013 12:57 PM Dowlin, Renee Hillsboro Airport comment



How can you listen to an argument about aircraft noise pollution, from people who move into the area of that airport, knowing full well that there IS an airport there and acquiring their property at a reduced price because of that airport... and then complaining about the noise!!

The airport was there first, and it was their choice to move there. That would be like moving next to the Capitol in Olympia, and then complaining because they don't like politicians.

	Response to Linda Barnfather Email 4-18-2013
LBn1	Comment noted.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Friday, April 19, 2013 3:28 PM 'Mary Vigilante' FW: Port of Portland's proposal to build a third runway at Hillsboro Airport

From: Linda Beall [mailto:lindabeall2@gmail.com]
Sent: Friday, April 19, 2013 9:24 AM
To: Dowlin, Renee
Subject: Port of Portland's proposal to build a third runway at Hillsboro Airport

To: Renee Dowlin

We would like to comment on the new expansion proposed for the Hillsboro Airport. We live about three miles west of Forest Grove--approximately 15 miles from the Hillsboro Airport...one wouldn't think we would be impacted by the airport since we do not live anywhere near it--but we are. We bought our property in 1983 and over the years have become increasingly aware of airplane/helicopter noise over our home. The helicopter instructors apparently have decided to use the area in which our home is located as their private helicopter LBe1 instruction area. Some days the noise from these helicopters is so bad we have to shout to be heard while outside. Most of the time we just give up and come inside for relief. We have made several calls to complain about the noise, but gave up when we were told (paraphrasing here) the helicopters could basically do anything they want because it's a business and they are promoting commerce--by law they could even fly/hover ver LBe2 close to the ground--so we stopped calling. We cannot understand why these helicopters are allowed to fly around in circles over homes--some days for hours and hours as one leaves and another takes its place. Th LBe3are laws about pollution and noise regarding automobiles but none regarding aircraft? We wonder what the incessant helicopter traffic is doing to our hearing and health--we know it's infringing on our rights to live peacefully in our home. By allowing another runway to be built, the noise and air pollution problem that already exists will just be exacerbated. The expansion should not be allowed--at the very least an Environmental Impact Statement should be preformed, and the rights of the citizens in this county should be considered. LBe4

Sincerely,

Sherman and Linda Beall 48340 SW Carpenter Creek RD Forest Grove OR 97116

Page G.3-24

LBe5

I Be6

	Responses to Sherman and Linda Beall Email 4-19-2013
LBe1	The comment raises questions concerning the use of airspace at and in the vicinity of Hillsboro Airport. The world's navigable airspace is divided into three-dimensional segments, each of which is assigned to a specific class. Most nations adhere to the classification specified by the International Civil Aviation Organization (ICAO) and described below. The designation of an area for the conduct of flight training comes about through local requests.
	The airspace around airports is designated by the FAA as Class A through G.
	 Class A Airspace extends from 18,000' up to 60,000' MSL. It is the most controlled airspace and requires a pilot to carry an Instrument Flight Rating and proper clearance no matter what type of aircraft is being flown.
	 Class B airspace generally extends from the surface up to 10,000 ft. AGL and is the area above and around the busiest airports (LAX, ORD, etc.) and is also heavily controlled. Class B's are designed individually to meet the needs of the airport they overlay. Pilots must also receive clearance to enter the Class B airspace.
	Class C airspace reaches from the surface to 4,000 ft. AGL above the airport, which it surrounds. Class C airspace only exists over airports, which have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight operations. Class C is also individually designed for airports but usually covers a surface area of about 5 nautical miles around the airport up to 12,000 ft. AGL. At 1,200 ft. the airspace extends to 10 nautical miles in diameter, which continues to 4,000 ft. Pilots, are required to establish two-way radio communications with the ATC facility providing air traffic control service to the area before entering the airspace. Within Class C, VFR and IFR pilots are separated.
	 Class D airspace exists from the surface to 2,700 ft. AGL above an airport and is the airspace designated around Hillsboro Airport. Class D airspace only surrounds airports with an operational control tower. Pilots are required to establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR pilots using this airspace must be vigilant for traffic as there is no positive separation service in the airspace.
	• Class E extends from either the surface or the roof of the underlying airspace and ends at the floor of the controlled airspace above. Class E exists for those planes transitioning from the terminal to enroute and is an area for instrument pilots to remain under ATC control without flying in a controlled airspace. Under visual flight conditions, Class E can be considered uncontrolled airspace.
	Class F is not used.
	• Class G airspace is completely uncontrolled airspace which extends from the surface to either 700 or 1,200 ft. AGL depending on the floor of the overlying Class E.
	These airspace designations are defined by 14CFR Part 71. Pilots must comply with the requirements of the airspace in which they operate.
	A designated flight training area exists in the vicinity of Hillsboro Airport, as reflected in the airspace and sectional maps submitted by several commenters. This area captures flight training for a number of airports in the greater Portland region. The airspace in the immediate vicinity of Hillsboro Airport is designated as Class D. Northwest of Hillsboro Airport is a flight training area that is designated as Class E airspace that begins at 700 ft. AGL.
	Hillsboro Aviation requested that FAA publish a special notice in the Airport/Facility Directory (A/FD) NW. It was developed in consultation with the FAA to be included in the A/FD in

	order to alert the aviation community to be aware of flight training activities. Historically, this particular area was already in use by the local general aviation community for flight training before the issuance of the special notice. The special notice alerts pilots to increased traffic volumes they may encounter which they might not otherwise expect. The designated area is airspace in which no ATC clearance or radio communication is required for visual flight rules (VFR) flight. The FAA has assigned a frequency to the area that pilots are encouraged to use to provide their own traffic updates to one another; however they are not required to do so because it is uncontrolled airspace for VFR pilots.
	The "West Practice Area" is not officially designated by the FAA for visual flight training practice maneuvers for all area airports as the FAA does not restrict where pilots can fly under VFR (other than minimum safe altitudes) in that type of airspace (Class E). There are other examples of this type of special notice in many other locations in the country. This area is not designated a special use airspace in which the FAA would control or restrict the traffic like Warning Areas, Prohibited Areas, Restricted Areas, Military Operation Areas, or Class A, B, C, or D airspace.
	14 CFR 91.119 states how low an aircraft may operate. Helicopters are allowed to operate lower than the limits stated as long as they pose no hazard to persons or property on the surface and comply with any routes or altitudes specifically prescribed for helicopters by the FAA. There are no prescribed helicopter routes or altitudes to the west of Hillsboro Airport's airspace. See 14 CFR 91.119 for Minimum Safe Altitudes – <u>http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div8&view=text&node=14:2.0.1.3.10.2.4.10&idno=14</u>
	The FAA has limited control over where VFR pilots fly once they exit airport surface areas such as Hillsboro's. FAA Control Tower staff at Hillsboro query departing pilots regarding intended direction of flight (North, South, East, West) in order to exit Hillsboro Airport's controlled airspace (roughly a 4.2 mile bubble). Many pilots departing Hillsboro Airport prefer not to fly East in order to avoid PDX airspace and the requirements that come with flight through Class C airspace. A pilot flying North of Hillsboro Airport would encounter either PDX arrival or departure traffic and wake turbulence depending on which runways are being used at PDX. Southbound pilots would encounter traffic using the Newburg VOR ³ and departures/arrivals from airports such as Starks Twin Oaks, Chehalem, Sportsman, McMinnville, Aurora State, etc. Located generally Westward from Hillsboro Airport is the least dense airspace area where students and instructors can operate while avoiding most of the general PDX/HIO aviation activities.
LBe2	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. Existing aircraft related noise exposure was defined in the original Environmental Assessment through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result

³ VHF omnidirectional radio range (VOR), is a radio navigation system enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

	in growth of the 65 DNL contour beyond airport property.
LBe3	There are legal standards and engineering requirements regarding aircraft noise and air emissions. Regarding aircraft noise, FAA has enacted FAR Parts 36 and 91, which requires aircraft to meet current engine standards in accordance with the International Civil Aviation Organization (ICAO). However, these standards do not apply to the majority of propeller aircraft operating at Hillsboro Airport; the standards apply to turbojet and turboprop aircraft. 14 CFR Part 36, Subpart F applies to propeller driven small airplanes that are manufactured and type certified after 1973. Specific sound level standards are set for these aircraft, and aircraft in operation meet those standards today. The USEPA regulates the emissions from aircraft engines, which generally also parallel the requirements of ICAO. These requirements are explained at the EPA's website http://www.epa.gov/otaq/aviation.htm.
LBe4	According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered. As the proposed project is not expected to result in violations of the National Ambient Air
	Quality Standards, no air quality related health effects are expected.
LBe5	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
LBe6	The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if the proposed action or its alternatives has the potential to significantly affect the environment. An EIS is prepared if the proposed action or alternatives meet or exceed a significance threshold or if mitigation would not reduce the significant environmental impacts below the applicable thresholds. As the 2010 (original) Environmental Assessment and this Supplemental EA show, the analyses confirm that the proposed action's impacts would not meet or exceed a significance threshold for any of the resource categories; therefore, the preparation of an EIS is not warranted.
To: Ms. Renee Dowlin,

Senior Environmental Planner, Port of Portland,

P.O. Box 3529, Portland, Oregon 97208

Dear Ms. Dowlin,

I am writing to request that the proposed airport runway expansion project be cancelled.

At the present time several of the small planes who are landing and taking off while practicing do NOT observe the actual landing pattern. Instead they fly directly over our home. I have reported this to the airport manager but as yet there seems to be no relief.

I understand the pilots desire to get in as many landings and takeoff as possible while training. And that they can accomplish this if they "cheat" a little bit by not staying within the prescribed flight path boundaries.

In my opinion, an additional runway and the extra air traffic it would bring will only exacerbate this problem. So until those who direct the traffic at the airport require the pilots to adhere to the rules and stay within the boundaries, my family and I are opposed to any expansion of the airport.

Thank you for taking this under consideration

as you deliberate and arrive at your decision.

Regards,

Jum Hamm

G. Lynn Hamm 5341 NE Corral Ct. Hillsboro, OR 97124

GLF

	Response to G Lynn Hamm Letter undated
GLH1	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
	Aircraft paths and patterns in the vicinity of Hillsboro Airport vary to an expected degree based on weather patterns, Air Traffic Control processes, and pilot technique. The Port of Portland's Airport Noise and Operations Monitoring System (ANOMS) continuously makes radar flight tracks available the Noise Management Department uses to monitor flight activity at HIO. The system is sometimes used to identify individual unique operations, but it is not currently possible to track or monitor every operation. The noise management staff uses the system to monitor overall noise program trends and to communicate successes and areas for improvement with stakeholders.

DATE: May 12, 2013

FROM: RUTH WARREN, 5093 NE STABLE COURT, HILLSBORO, OR 972124

TO: Mailed and e-mailed to Ms. Dowlin

Ms. Renee Dowlin, Senior Environmental Planner, Port of Portland, P.O. Box 3529, Portland, Oregon 97208 / email to <u>renee.dowlin@portofportland.com</u>. All mailed comments must be postmarked by April 19, 2013. All comments submitted via email must be received by 5 p.m. on April 19, 2013.

RE: Testimony for proposed third runway project at Hillsboro Airport



I live approximately 1/2 mile east of the Hillsboro Airport and have owned my home there for 14 years. The flight training along with the run-ups at the Hillsboro Airport has diminished my family's quality of life and has affected my health.

I provide the information below to back up my contention that noise adversely affects my health and quality of life so much that I am unable to carry out daily activities. I am very tense during touch and go, low flying aircraft, and helicopter training flights near/over my home and am frequently unable to get to sleep or stay asleep because of late night and early morning airport activity; i.e. early morning run-ups, late night aircraft circling near my home. Also, frequently I am unable to converse with others in my home due to high noise levels generated by the airport activity, have to turn up the TV in order to hear it, I have to abandon working in my yard as the noise gets to be too much and I can feel my blood pressure rise, and even my cat ducks when airplanes/helicopters fly close to our home. I am frequently "targeted" by low flying aircraft-- once a plane flew very low over my driveway about 12 times during the one half hour I was in my driveway detailing the church van. I have chronic sinusitis and rhinitis and was very ill with respiratory problems after the air show held at the Hillsboro Airport. I am unable to leave my windows open during the summer as the noise is too great. It is an expense for me to have to run my air conditioning as opposed to leaving my windows open. I might add, my home has 2 x 6 construction and double pane windows which are suggested as ways to mitigate noise. It isn't working as the noise level is too great. *Good Neighbors Keep Their Noise to Themselves.*

THE ADVERSE HEALTH IMPACTS OF AIRPORT EXPANSION WITH PARTICULAR REFERENCE TO SEA-TAC INTERNATIONAL AIRPORT From the Health Subcommittee of the Environmental Impact Committee of the Regional Coalition on Airport Affair Prepared by D. Dennis Hansen, M.D. Lee A. Sanders M.D., Ph. With assistance from: Mark Benedum (Associate Administrator Highline Hospital Rose Clark (Concerned local citizen)

Noise - General Effects

Noise is considered to be a non-specific biologic stressor, eliciting a response that prepares the body for "fight or flight". The physiologic mechanism thought to be responsible for this reaction is the stimulation by noise of the brain's reticular activation system [1]. Neural impulses spread from the reticular system to the higher cortex and throughout the central nervous system. By means of the autonomic nervous system, noise can influence perceptual, motor, cognitive, behavioral, glandular, cardiovascular, and gastrointestinal function. "Noise promotes stress and anxiety, disrupts sleep and is a major threat to human health."

Bronzaft: United States aviation transportation policies ignore the hazards of airport-related noise World Transport Policy & Practice, Volume 9, Number 1, (2003) 37–40

"If we were to broaden the definition of health to 'good health,' not merely the absence of symptoms, as the World Health Organization has suggested (Berglund, Lindvall & Schwela,1999), then there would be more evidence today to support the harmful effects of noise to health. When people complain that nearby noises interfere with their ability to carry out the normal activities of the household (e.g. conversing, watching television, reading, falling asleep) as they do so often at meetings around the country held by agencies such as the Federal Aviation Administration, then we know that noise brings about stress. A decent quality of life includes carrying out normal activities without being intruded upon and stressed by nearby noises. In the study cited above (Bronzaft et al., 1998) that asked residents living near an airport and a matched sample living further from the airport to complete a health questionnaire, those living within the flight path complained that aircraft noise interfered with their right to open their windows, listen to the radio and television, talk on the telephone, converse with others and sleep. When noises cause individuals to stop talking when planes fly overhead, or to miss dialogue on television shows, or prevent them from opening their windows on a nice Spring or Fall day, then their quality of life has been diminished."

THE IMPACT OF AIRPORT NOISE ON RESIDENTIAL REAL ESTATE by Randall Bell, MAI

Data from Table III, "What People Will Accept Without Undue Complaint," Table IV, "Estimated Community Response to Noise," Orange County Health Department Report (1972).

What People Will Accept Without Undue Complaint

Location	Day dBA	Night dBA
Rural residential	35-40	25-35
Suburban residential	40-50	30-40
Urban residential	45-55	35-45
Commercial	55-65	45-55
Industrial	60-70	50-60

Estimated Community Response to Noise

Noise Level in dB(A) Above Acceptable Level	Estimated Community Response
0	No observed reaction
5	Sporadic complaints
10	Widespread complaints
15	Treats of action
20	Vigorous action

Human Effects Criteria for Noise Control

Objectives	Noise Levels at Which
	Harmful Effects Begin to Occur, dB(A)
Prevention of hearing loss	75–85
Prevention of extra-auditory physiological effects	65–75
Prevention of speech interference	50–60
Prevention of interruption of sleep	45–50
Satisfying subjective preferences	45-50

Term	Meaning	Comments	
PNL	Perceived Noise	An active band analysis that measures noise in one octave intervals. Measures sound	I
	Level	in each octave and compensates for discrete tones that are annoying but not	
		necessarily loud, such as a scratch across a blackboard.	
EPNL	Effective	Similar to PNL but measures noises in one-third octaves. This is a noise	
	Perceived Noise	measurement method where the decibels of the noise of an aircraft includes the	
	Level	loudness and the frequency spectrum of the noise for takeoffs and landings. This	
		measurement utilizes EPBdB over time.	
EPNdB	Effective	Noise generated by a single event. Few people can detect a sound below 5 EPNdB.	
	Perceived Noise	An increase of 10 EPBdB is usually perceived as a doubling of loudness.	
	Level in Decibels		

The Port of Portland contends:

RWa1

"A similar comparison was made for the new forecasts for year 2021. The 16% reduction in activity levels between the Unconstrained 2021 forecast and the original Environmental Assessment forecast for 2015 (242,680 operations and 288,300 operations, respectively) would be expected to produce approximately 0.7 dB less noise.

Since the Unconstrained and Constrained Forecasts activity would be expected to continue to confine the noise contours to the airport lands, the proposed project would not have the potential to create a significant adverse noise or land use effect.

ii) Constrained (No Action) and Remand (With Project) Forecasts Impacts. Using the same approach discussed for the Unconstrained and Constrained Forecasts, a comparison was made of the Remand Forecasts to the original Environmental Assessment analysis. The Remand Forecast for year 2021 is 254,030 operations, which is approximately 12% lower than the 288,300 operations reflected in the original Environmental Assessment. Using the same methodology discussed in the Unconstrained Forecasts above, the Remand Forecast would produce about 0.9 dBA less noise than the largest contour in the original Environmental Assessment in 2016 and 0.5 dBA less in 2021 (see **Table 6-1**). The original Environmental Assessment found that no noise sensitive land uses would be affected by 65 DNL or greater noise levels at the higher activity levels; the 65 DNL or greater noise contours would be expected to remain on-airport with the Remand Forecasts. Therefore, no exposure of sensitive land uses, at 65 DNL or greater, would be expected with the Remand Forecasts. If activity levels consistent with the Remand Forecasts were to occur, a significant aircraft noise and land use impact would not occur." The 65 DNL or greater contours do not remain on airport property, but spill out into the neighborhood. With an increase in traffic at the airport, the amount of noise and pollution will also increase which will have an adverse effect on me and all of the areas surrounding the airport

RWa3 There are 4 noise monitors that were placed in the Hillsboro area by the Port of Portland about 5 v one I am familiar with is two blocks from my home. It is "hidden" among trees and close to a 3-story condo project. When I questioned the noise office why it was hidden, they responded it had to be placed on public land. I don't agree about the placement and the Port of Portland has refused to use this data to monitor the excessive noise and have no sanctions should their noise parameters be exceeded. The Port contends vehicle traffic may alter the reading – this monitor is placed on a dead end street and south of a vacant lot with very minimal traffic from a few homes close to the monitor. I have probably had 50 conversations and filed more than 50 complaints with the Port of Portland Noise Office about the noise in the last 3 years. I have ceased filing complaints as we get no reduction in noise from the run-ups and flight training. I present the following as testimony that the Port does not monitor noise on a regular basis nor do they attempt to resolve the multitudes of complaints from the neighbors surrounding the airport as well as folks living in rural areas. The e-mails below attest to the fact that the noise level is in the upper 60 db range (I believe it is much greater when you get several aircraft flying low at the same time) yet the report contends this noise level occurs only on airport property. Frequently there are helicopters, touch and gos and run-ups occurring at the same time which pushes the noise level up.

Below are e-mails that I have exchanged with Jerry Gerspach of the Port of Portland Noise Office.

From: Ruth Warren via e-mail We have excessive noise from training aircraft at the Hillsboro Airport. I am wondering if the noise monitors are in place and what the readings are showing. We also have low flying aircraft over our house which I thought would not happen.

A reply would be appreciated.

Gerspach, Jerry < Jerry.Gerspach@portofportland.com> 3/30/12

RWa

Hi Ruth, As we discussed on the phone the closest noise monitor is a few blocks north of you near the intersection of NE 51st & Campbell St (RMT 121)

There are two fixed wing training patterns that fly near your house, one that uses runway 30 and another that uses runway 2. I located a few representative operations from each pattern and looked at the noise levels associated with each track.

Generally, the aircraft flying Touch & Go's off of runway 30 registered in the low to mid 60 dBA range. When the Touch & Go's were off of runway 2 the noise levels registered in the mid to upper 60 dBA range. There are several factors that account for the variation in noise levels including the aircrafts proximity to the monitor and the aircraft type.

Please call me if you have questions.

Jerry Gerspach Port of Portland Noise Management Department 503.460.4100 (Noise Hotline) 503.415.6072 (Desk) jerry.gerspach@portofportland.com http://www.portofportland.com/Noise Mgmt Home.aspx

From: warren.gary@gmail.com [mailto:warren.gary@gmail.com] On Behalf Of Gary & Ruth Warren Sent: Thursday, March 29, 2012 13:03
To: PDXNoise
Subject: Re: Noise Management Office

I received your phone call. Would like a written response as I am creating a paper file on the airport noise issue and don't want to misquote you.

Thanks. Ruth Warren 5093 NE Stable Ct Hillsboro, OR 97124

The WebTrak website shows the number of flights per hour. What airports are covered by this data?

Thanks for your response.

5/3/12

FROM: Gerspach, Jerry < Jerry.Gerspach@portofportland.com>

Ruth –

The noise office monitors air space within a 30 mile radius of PDX and up to 15,000 feet in altitude. The hourly count in WebTrak refers to any flight track recorded in that air space (regardless of airport) during that hour.

This area is more than adequate for the Noise Management Department to monitor noise abatement operational procedures at any of the three Port owned airports (Portland, Hillsboro, and Troutdale). However, the monitored air space includes many other both public and privately owned airports.

From: Gary & Ruth Warren [mailto:gary.ruth@gmail.com]
Sent: Wednesday, May 02, 2012 12:41
To: PDXNoise
Subject: Noise Management Office

TO Jerry Thanks for the response. You state:

This area is more than adequate for the Noise Management Department to monitor noise abatement operational procedures at any of the three Port owned airports (Portland, Hillsboro, and Troutdale). However, the monitored air space includes many other both public and privately owned airports.

So how do you monitor the noise and what is the purpose of the noise monitors and how many are there in Hillsboro? May I have the data from the noise monitors?

5/4/12

Gerspach, Jerry <Jerry.Gerspach@portofportland.com>

So how do you monitor the noise: Airport noise is primarily quantified on an annualized basis in the form of the Day-Night Level (DNL) metric. This is the metric required by the Environmental Protection Agency (EPA) and Federal Aviation Administration for quantifying airport noise.

What is the purpose of the noise monitors: The primary purpose of the noise monitors located around Hillsboro Airport, is to help when investigating specific events, such as an overflight. The noise data when available, supplements the information we have when investigating and responding to an event. Because the flight tracking coverage around Hillsboro is very limited and the tracking system is unable to differentiate between an aircraft noise event and a community (non-aircraft) noise source, the noise data typically used when investigating specific events. A great deal of staff time is required to confirm the noise data provided by the noise monitor is in fact associated with an aviation operation.

How many (noise monitors) are there in Hillsboro? Four - See attached map

May I have the data from the noise monitors? Noise data is recorded on a continuous basis (24/7). As I mentioned earlier, these monitors do not know whether the noise is from an aviation or non-aviation source. We are happy to provide you with whatever data we can, however as I mentioned, providing data on a more than a single-event

basis can require a great deal of staff time and resources. We will do our best to provide you with what you are looking for.

If you have more questions don't hesitate to call.

Jerry Gerspach 503.415.60

I have spoken with two people who have refused to purchase a home/live in Hillsboro because of the airport noise. I believe my property value is decreased because of all of the flight training noise and pollution. The noise is not confined to airport property as the Port stipulates. There are four monitors that record data that should have been used for this study.

I have grave concern about the amount of toxins spewed into the air by aircraft from the Hillsboro Airport. An increase in air traffic translates to more pollution generated. An October 2008 Environmental Protection Agency (EPA) report [1] ranked Hillsboro Airport (HIO) in the top one percent, out of 3,414 GA airports in the nation, in the amount of lead released into the environment. Aircraft at HIO are estimated to have emitted over 0.6 tons of lead in 2002, the most recent year for which estimates are available. HIO, which is owned and operated by the Port of Portland, emits more lead than any other airport in Oregon. According to the EPA, "Children are particularly vulnerable to the effects of lead. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory, and behavior. There is no identified safe level of lead in the body." [10] Friends of the Earth, an environmental group, which in 2006 petitioned the EPA to phase out the use of lead in aviation fuel, issued the following warning:

"... even small discrete doses from aircraft emissions can have long term health and environmental impacts... Piston-engine emissions of lead occur at ground level as well as flying altitude. Lead from this source is thus concentrated near airports and is also dispersed over a large geographic area potentially contributing to higher ambient concentrations in many communities. Numerous groups within the population may be at risk." [11]. Why hasn't The Port of Portland monitored toxins at the Hillsboro Airport? I think they should be required to do so for this environmental assessment.

Also, Toxic chemicals are stored at various manufacturing and high tech locations in Hillsboro and an aircraft accident could have dire consequences for the whole of Hillsboro and Washington County plus the loss of jobs associated with a company being closed down.

The training flights over my home are of a safety concern. Hillsboro Aviation has had numerous accidents or near accidents:

Recent accidents/near accidents are: Oregonlive 2/16/12 A search-and-rescue helicopter involved in a fatal crash Wednesday in northwest Wyoming was registered to <u>Hillsboro Aviation</u>, according to the <u>Federal Aviation</u> <u>Administration</u>. Oregonlive 10/28/11 The fatal midair collision that killed a pilot northwest of Aurora State Airport Tuesday is the second deadly incident in the past two years involving aircraft owned by <u>Hillsboro Aviation</u>. HILLSBORO, Ore. -- A pilot survived a helicopter crash at Hillsboro Airport Wednesday evening without serious injury. Hillsboro Aviation--who owns the Robinson R-22 helicopter--sai a student pilot was flying the chopper behind a jet when he lost control and made a hard landing at around 6 p.m.

Regarding the necessity of this expansion, it is worth noting that according to the Hillsboro Airport General Aviation Minimum Standards <u>http://www.portofportland.com/PDFPOP/GA_HIO_Mnm_Stndrds.pdf</u>

"1.21.1.9 The Port is under no obligation to provide financing and or make any improvements at the airport to facilitate any development or consummate any Airport Agreement or Permit proposed by a current or prospective

Operator or Tenant. The Port is under no obligation to: (a) pursue federal, state, or other funds to contribute to such development or (b) provide matching funds if required to secure such funding."

An expansion of an airport that is in the middle of a city with expected rapid growth is not appropriate nor beneficial to the majority of the residents of Hillsboro and Washington County.

In summary these are my concerns: Noise, air pollution, diminished quality of life due to aircraft operations from the Hillsboro Airport, health problems related to noise and pollution, negative impact because of excessive noise on wild birds and people and decrease in property values.

I request that you withdraw your request to build a third runway and to abandon all flight training originating from the Hillsboro Airport.

	Responses to Ruth Warren Letter emailed and mailed (dated May 12, 2013 received 4- 19-2013)
RWa1	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
	According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
RWa2	As noted in RWa1, the Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. Per the requirements of FAA Order 1050.1E, the evaluations of aircraft noise exposure is conducted using the Day Night Average Sound Level (DNL). The threshold of project-related significant noise impact is based on the use of DNL. As noted in the Supplemental EA, the largest noise exposure contour prepared based on the highest aircraft operational forecast showed that the 65 DNL noise level was confined to airport property. This does not mean that noise does not leave airport property. Rather, FAA considers the 65 DNL as the point where land use incompatibility begins (14 CFR Part 150). The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
RWa3	The Port of Portland maintains an Airport Noise and Operations Monitoring System (ANOMS) that measures sound levels and records audio at four locations near the airport; the sound level monitors are placed in locations with the closest proximity to aircraft flight paths practicable. Given the need to place monitors in proximity to aircraft activity, and availability of open space with feasible access to utilities, it is not always possible to avoid siting monitors near trees and roadways, especially in this region. There may be the perception that monitors do not accurately measure noise because of trees. Trees can be barriers to sound when events travel through 100 feet or more of dense trees; however, the trees in most residential areas are not this numerous and have little effect on sound and the measurement results.
	The monitors at Hillsboro Airport have been sited in accordance with industry standards. Additionally, the ANOMS system has the capability to allow for adjustments in measurement settings that can compensate for the effects of traffic noise. Traffic noise high enough to affect a monitor typically occurs in areas, and at times, when traffic volume is high. At these times, auto traffic noise represents background noise at near constant levels for long periods of time. If aircraft noise events exceed, or peak higher than auto traffic noise, ANOMS will identify those peaks and compare them against aircraft data in the system. It matches location, time, and duration of noise with location, time, and duration of aircraft activity.
	The sound levels referenced by the commenter (60 dB) are not reported in DNL, but rather appear to be single event sound exposure levels.
	The DNL metric represents the overall aircraft noise experienced during an entire (24-hour) day. DNL calculations account for the sound exposure level of aircraft, the number of aircraft operations, and a penalty for nighttime operations. In the DNL scale, each aircraft operation occurring between the hours of 10 p.m. to 7 a.m. includes a sound level penalty to account for

the higher sensitivity to noise in the nighttime and the expected further decrease in background noise levels that typically occur at night. DNL provides a numerical description of the weighted 24-hour cumulative noise energy level using the A-weighted decibel scale, typically over a period of a year.

Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted at the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise.

RWa4 A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies⁴ to more recent studies⁵ indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.

A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:

In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 *Effects of Aircraft Noise: Research Update on Selected Topics*)

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report prepared for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size. See: *The Effect of Airport Noise on Housing Values*, Booz-Allen & Hamilton (1994).

The Summary and Conclusions section of the FAA's 1985 Aviation Noise Effects Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

⁴ FAA's Aviation Noise Effects.

⁵ ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

RWa5	The Supplemental EA was prepared in accordance with FAA Orders 1050.1E and 5050.4B. These orders specify the methodologies that the FAA is required to follow when evaluating project effects under NEPA.
	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase as shown in Tables 6-2 and 6-3.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand Forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25 ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
	An extensive amount of research has been and is being conducted to address lead content in AvGas. This research forms the basis for informing USEPA's decisions concerning the NAAQS.
RWa6	The evaluations documented in the Supplemental EA were conducted in accordance with the requirements of FAA Orders 1050.1E (Change 1) and 5050.4B. FAA guidance does not require the sampling of emissions, as those conditions would only indicate existing conditions, and not conditions associated with a proposed action. Information in the original EA concerning measurements were not the foundation of evaluating project effects; emissions measurement data only characterized past conditions and was not be used to assess future conditions with or without the proposed actions as is required by NEPA.

RWa7	The continuing primary mission of the FAA is to ensure aviation safety and efficiency. Airports and aircraft operators must meet various safety certifications and operating requirements of the FAA. Hillsboro Airport is a safe airport that meets all FAA standards. While aircraft accidents are possible, it is not possible to predict the location and extent of accidents. The Department of Homeland Security (DHS), through the Transportation Security Administration (TSA), protects the nation's transportation systems to ensure freedom of movement for people and commerce. The Port of Portland and the operators at Hillsboro Airport of Airport and the operators at Hillsboro Airport of Airport
	Anport comply with the national DHS security requirements.
RWa8	As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and would be in conflict with Federal law.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.
	FAA's 1985 Aviation Noise Effects notes, "While a significant amount of research has been conducted on the reactions of animals to noise, it has proven difficult to draw any general conclusions on the subject because there is much variability in response both between and within species. Thus, no clear policies or guidelines have been developed concerning noise exposure and animals."

Dowlin, Renee

From: Sent: To: Subject: Gary & Ruth Warren <gary.ruth@gmail.com> Thursday, April 18, 2013 8:11 AM Dowlin, Renee Third runway public hearing on 4/17/13

I sent you an e-mail earlier today and neglected to mention I want it made part of the record:

to Renee



I attended the hearing this evening on the proposed third runway at the Hillsboro Airport. At the end of the hearing I requested the record be kept open to allow for additional time for people to comment on the information presented tonight. The Hearings Officer indicated she did not have the authority to extend the time and you, Renee, indicated you were not willing to do that and announced the record will close Friday, April 19, 2013. I understand that the Attorney for the Port of Portland who was present at the hearing nodded a "no" also.

I and others are disappointed that the public isn't allowed time to respond to testimony presented. I see this as a monumental decision for the folks in the city of Hillsboro and surrounding communities and it seems allowing additional time is not too much to ask.

I want to make sure this becomes part of the record.

Ruth Warren

	Responses to Gary and Ruth Warren Email dated 4-18-2013
RWa9	The public comment period began on March 15 th with the release of the Draft Supplemental EA, and closed on April 19 th (allowing a few additional days more than the typical 30-day comment period.) After considering the issues raised, the FAA and Port determined that there were no specific reasons suggesting the need for additional time in the comment period. Therefore, additional time was not granted.

Comments and Response to Comments Comment File G.4

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	I
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzande	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum		Renee Strong
Megan Granum		Bill Stone

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
All Comments G.2	New York York an
4/1//2013	Jim Lubischer
All Comments G.3	
4/19/2013	Henry Oberneiman
4/1//2013	Howard Radin
4/1//2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comments G.4	
4/17/2013	Martin Donohoe (MaD#)
4/17/2013	Martin Granum (MaGr#
4/19/2013	Matthew Radin (MaRa#)
4/17/2013	Mona Toms (MoT0#)
4/12/2013	Nancy Monroe (NaMo#)
4/19/2013	Patrick Conry (PaCo#)
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone
Comment File G.7	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comments G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer
Comments G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams

Dowlin, Renee

From: Sent: To: Subject: Martin Donohoe <martindonohoe@phsj.org> Wednesday, April 17, 2013 2:04 AM Dowlin, Renee re HIO and EIS - public comment from physician-educator

Ms. Renee Dowlin Senior Environmental Planner Port of Portland P.O. Box 3529 Portland, Oregon 97208

I am writing as a concerned Oregonian, parent, physician, and educator, who frequently sees patients who suffer the adverse consequences of lead and other pollutants, and who lectures locally and nationally about environmental health.

Due to the significant adverse health and environmental impacts associated with the Hillsboro Airport (HIO), I am submitting this testimony to express my opposition to building a third runway at this facility. Even at current levels, the noise and toxic pollutants generated by this airport degrade the environment and pose a significant risk to the health of the community.

HIO is already on record as emitting more lead on an annual basis than any other airport in the state. According to EPA emission estimates, in 2008 HIO released .68 tons of lead into the environment and ranked 21st among nearly 20,000 airports nationwide in lead emissions.i[1] The Draft Supplemental Environmental Assessment (SEA) indicates that by 2021 emission levels could reach 0.9 tons per year (tpy).ii[2] In fact, the proposed third runway will nearly double the capacity of the airport and as a result could potentially increase lead emissions to almost two tons annually.

As pointed out by the Environmental Protection Agency, "Lead emissions to air undergo dispersion and eventually deposit to surfaces. Lead deposited to soil and water can remain available for uptake by plants, animals and humans for long periods of time."iii[3] Given that actual levels of lead in the air, water and soil at and in the vicinity of HIO has never been measured, there is no clear picture of the actual dangers and risks posed by this situation. Until this is known, adding additional operations places innocent people at unnecessary risk.

Lead is a dangerous neurotoxin, especially to children. The adverse impacts have been extensively researched and documented. The Center for Disease Control has concluded, "...because no level of lead in a child's blood can be specified as safe, primary prevention must serve as the foundation of the effort [to eliminate childhood lead poisoning]."iv[4] Lead exposure, even at very low levels, is associated with IQ deficits, learning and behavior problems, miscarriages, birth defects and a host of other maladies. As stated by Nigg et al, "...ADHD, both as a diagnosis and as a symptom dimension, is associated with blood lead levels at low exposure, levels, even below 2.5mcg/dL."v[5]

Recent research now links very low blood lead levels (occurring at typical background exposures) with ADHD. The symptoms of ADHD include extreme hyperactivity, impulsivity, inattentiveness and distractibility. ADHD often co-occurs with conduct and oppositional defiant disorders. Blood lead levels less than 1 mcg/dL, well below the 5 mcg/dL level of concern established by the CDC in 2012, contribute to the development of ADHD. "Blood lead levels from 1 to 10 μ g/dL are associated with lower child intelligence quotient (IQ), weaker

executive cognitive abilities, behavior symptoms of ADHD and diagnosis of ADHD in community surveys."vi[6]

Lead exposure in adults is linked with cardiovascular disease and dementiavii[7] as well as an increase in violent behavior.viii[8]

Noise is also a major concern. The World Health Organization (WHO) acknowledges that, "Severe noise problems may arise at airports hosting many helicopters or smaller aircraft used for private business, flying training and leisure purposes."ix[9]

HIO is primarily a training airport that provides pilot instruction at all hours of the day and night. Training frequently involves flying repetitively at low altitudes within a four to five mile radius of the airport as well as at designated locations within 20 miles of the airport. The noise burden is borne by area residents who are routinely subjected to relentless noise intrusions. Unfortunately, the Port does nothing to effectively mitigate these intrusions.

Per the WHO report referenced above, noise is associated with a number of adverse impacts including but not limited to sleep disturbance, cardio vascular disturbances, interference with spoken communication, disturbances in mental health, impaired task performance, negative social behavior and annoyance reactions.

For these reasons, I urge you to perform a comprehensive environmental impact statement to determine the full impact this expansion may have on the environment as well as the health and well being of the community.

I appreciate your time and consideration.

Sincerely,

Martin Donohoe, MD, FACP Adjunct Associate Professor, School of Community Health Portland State University Member, Social Justice Committee, Physicians for Social Responsibility Member, Board of Advisors, Oregon Physicians for Social Responsibility Senior Physician, Internal Medicine, Kaiser Sunnyside Medical Center http://www.publichealthandsocialjustice.org http://www.phsj.org martindonohoe@phsj.org

i[1]. EPA Memorandum from Marion Hoyer and Meredith Pedde to the Lead NAAQS Docket EPA-HQ-OAR-2006-0735. (11/18/10). Pg. 2-3.

ii[2]. Hillsboro Airport Parallel Runway 12L/30R. Draft Supplemental Environmental Assessment. Prepared for Port of Portland by Barrilleaux, J. and Dowlin R. (3/15/13). Pg. 29.

iii[3]. U.S. Environmental Protection Agency. (October 2008). Lead Emissions from the Use of Leaded Aviation Gasoline in the United States - Technical Support Document. (EPA20-R-08-020). Assessment and Standards

Division Office of Transportation and Air Quality. Pg. 9-10. Available online at http://www.epa.gov/ttn/chief/net/tsd_avgas_lead_inventory_2002.pdf.

iv[4]. Preventing Lead Poisoning in Young Children. A Statement by the Centers for Disease Control and Prevention, (August 2005), pg. 1. Available online at <u>http://www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf</u>.

v[5]. Nigg, JT, Nikolas, M, Knottnerus, GM, Cavenaugh, K, Frederici, K. Confirmation and Extension of Association of Blood Lead with Attention-Deficit/Hyperactivity Disorder (ADHD) and ADHD Symptom Domain at Population-Typical Exposure Levels. J Child Psychol Psychiatry. (January 2010) 51(1): 58-65. Available online at <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2810427/</u>.

vi[6]. Nigg, JT, Knottnerus, GM, Martel MM, Nikolas, M, Cavenaugh, K, Karmaus, W, Rappley, MD. Low Blood Lead Levels Associated with Clinically Diagnosed Attention Deficit/Hyperactvity Disorder and Mediated by Weak Cognitive Control. Biological Psychiatry. V. 63 Issue 3. pgs. 325321. (2/1/08).

vii[7]. Rischetti, Mark. Lead Exposure on the Rise Despite Decline in Poisoning Cases. Scientific American. (2/17/13). Available online at (<u>http://www.scientificamerican.com/article.cfm?id=lead-exposure-on-the-rise</u>.

viii[8]. Drum, Kevin. Criminal Element Lead. The Hidden Villain behind Rampant Crime, Lower IQ's Even Rising ADHD? Mother Jones. January/February 2013). Available online Drum, Kevin. Criminal Element: Lead. The Hidden Villain Behind Rampant Crime, Lower IQ's, Even Rising ADHD? Mother Jones. (January/February 2013). Available online at http://www.motherjones.com/environment/2013/01/lead-crime-link-gasoline.

ix[9]. Noise Sources and Their Measurement. 2.2.2 Transportation Noise Community Health Noise Guidelines, edited by Berglund, B, Lindvall T., Schwela, D. World Health Organization. (1999). Available online at http://www.who.int/docstore/peh/noise/Commnoise2.htm.

	Responses to Martin Donohoe Email 4-17-2013
MaD1	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage hearing loss hyperactivity developmental delays in extreme cases, death
	Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012, a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The USEPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.
	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and

¹ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

	greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
MaD3	The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if the proposed action or its alternatives has the potential to significantly affect the environment. An EIS is prepared if the proposed action or alternatives meet or exceed a significance threshold or if mitigation would not reduce the significant impacts below the applicable thresholds. As the 2010 (original) Environmental Assessment and this Supplemental EA show, the analyses confirm that the proposed action's impacts would not meet or exceed a significance threshold for any of the resource categories; therefore, the preparation of an EIS is not warranted.

COMMENT FORM

Hillsboro Airport

Draft Supp	Diemental Environme Public Hearing April	ental Assessment 17, 2013	t/ EMaGr1
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Name: Martin Address: 4475	Granum SW ZOZR	· Aue 971	907
Return Comments to:	Renee Dowlin Port of Portland Box 3529 Portland, OR 97208	Comments mus later than April 1	t be postmarked 19, 20013

	Response to Martin Granum Comment Form 4-19-2013
MaGr1	Comment noted.

To: Port of Portland

Re: Public Comment – Hillsboro Airport Expansion

My family has lived in Hillsboro for nearly twenty-two years. We live on Arrington road, between Cornell and Jackson School road. Although I was very young when we first moved here, I still remember the way Hillsboro was. A lot has changed in that time, and not necessarily for the better.

I remember when Orenco was a huge expanse of gently rolling hills, streams, and marshes, with stands of pretty wildflowers surrounding towering oaks, dotted with humble farmhouses. I remember when The Fred Meyer grocery store near Cornell and Sunset highway was a verdant wetlands, rife with frogs and herons. The land along either side of Baseline was thick with vegetation, and Douglas fir trees stood tall and proud. On any given day, I could go to one of these areas (my mother often took me for walks) and see hawks, coyotes, muskrat, frogs, snakes, butterflies, and a vast assortment of colorful and plucky insects.

Not anymore.

Housing developments devoured the southern half of the Orenco area, and soon after, the northern half was paved over and filled with fast food restaurants, grocery stores, and strip malls. The wetlands and meadows around Sunset highway were mostly developed, and soon thereafter became degraded by the runoff from the parking lots. Baseline, once a lovely, peaceful road through an area that harkened back to the early days of our town, was packed with housing developments and condominiums, forcing any animals living there to move south or starve. I watched all of this happen, and it made me realize how precious natural spaces are, especially in urban areas.

I really like Hillsboro. If I'm coming down Cornell, towards the airport, I have clear views of the coast range, and the sunsets never fail to disappoint, with some of the most spectacular displays of natural beauty I have seen, anywhere. We still have natural areas to the west, north, and south, and there are still some creeks and woods in our town that have not yet been spoiled by parking lots and concrete. If the Hillsboro airport is allowed to expand, not only would the noise levels skyrocket, but more development would be drawn to the areas around it, which are mostly open space, many still supporting wild animals. These areas would be consumed by light industrial endeavors and other parties interested in taking advantage of the larger airport, and Hillsboro would lose what character it still has, become little more than a beast of burden for the likes of Intel and other corporations, who really care little for what becomes of where we live.

Furthermore, the fuel used by the aircraft that would utilize the larger airport contains lead. Lead is a heavy metal that, when released in the environment, accumulates in the organisms living in it. If a frog eats five grasshoppers, and then a heron eats ten of the frogs, then the heron has *fifty times* the lead content of the grasshopper, which could be

MaRa



enough to cause lead poisoning. Humans are just at much at risk as the animals; if a child absorbs lead from the air, or eats food with lead from aircraft emissions on it, the child will also absorb the lead. In humans, lead poisoning has been shown to cause moderate to severe digestive problems, and severe poisoning can actually affect the brain, causing a breakdown of short-term memory capabilities and other problems. Thus far, the airport and those backing its expansion have almost entirely ignored any of these concerns, all in the name of (what else?) the almighty dollar.

If the airport is allowed to expand, the little land in Hillsboro that is still unspoiled will **K** MaRa3 vanish under the blade of bulldozers, housing values will plummet due to the increased noise levels, and the children growing up here -like I did -will be exposed to undetectable toxic particles in the air.

The Hillsboro airport must not be allowed to expand. It is against the values of Oregonians, and is little more than reckless pursuit of economic gain with little concern as to the opinions of those living here.

Sincerely,

Matthew Jacob Radin.

	Responses to Matthew Radin Letter
MaRa1	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
	According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
MaRa2	The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead. This area is therefore designated as "attainment" for this pollutant and has no history of exceeding the EPA standards. Although measurements have not been conducted immediately adjacent to Hillsboro Airport, measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.
	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage
	 hearing loss hyperactivity developmental delays in extreme cases, death
	Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The EPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.

	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
MaRa3	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ² to more recent studies ³ indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:

In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 *Effects of Aircraft Noise: Research Update on Selected Topics*)

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. One of the often cited reports, a 1994 report (*The Effect of Airport Noise on Housing Values*) prepared by Booz Allen & Hamilton for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size.

The Summary and Conclusions section of the FAA's 1985 *Aviation Noise Effects* Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

The Environmental Assessment and Supplemental Environmental Assessment address the effects of the proposed runway on children's health. As noted the project is not expected to produce significant adverse environmental impacts that would have significant adverse effects on children or other populations. The FAA prepares an Environmental Impact Statement under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if the proposed action or its alternatives has the potential to significantly affect the environment. An EIS is prepared if the proposed action or alternatives meet or exceed a significance threshold or if mitigation would not reduce the significant impacts below the applicable thresholds. As the 2010 (original) Environmental Assessment and this Supplemental EA show, the analyses confirm that the proposed action's impacts would not meet or exceed a significance threshold for any of the resource categories; therefore, the preparation of an EIS is not warranted.

Dowlin, Renee

From: Sent: To: Subject: monatoms@gmail.com Wednesday, April 17, 2013 10:11 PM Dowlin, Renee Hillsboro airport



I live off of Skyline Dr. between Germantown and Cornelius Pass. The aircraft noise is terrible and much of is from the HIIIsboro airport. This is of real concern to me. I have just moved here and I have regrets of doing so because of the pervasive aircraft traffic. I would estimate at the volume of air traffic is 60-70 planes a day and during the night as well. It is not uncommon for me to be woken up at 6am with air traffic noise. An impact study is necessary because it is a very real problem. In fact, it is seldom that I venture outdoors and I don't hear aircraft.

Regards, Mona Toms 15107 NW Red Cedar Ct, Portland, OR 97231

	Responses to Mona Toms Email 4-17-2013
MoTo1	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
	The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if a significant adverse environmental effect would occur. As the 2010 original Environmental Assessment and this Supplemental EA show, significant adverse environmental effects were not identified, and thus, an EIS does not appear warranted.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:22 AM 'Mary Vigilante' Nancy Monroe FW: Hillsboro Airport

From: Nancy Monroe [mailto:nancyfmonroe@gmail.com] Sent: Friday, April 12, 2013 10:43 PM To: Dowlin, Renee Subject: Hillsboro Airport

Dear Ms. Dowlin:

I am responding to the Port of Portland's proposal to build a third runway at Hillsboro Airport. I am opposed to this proposal because your current oversite is sorely lacking and this community doesn't need an increase in problems.

Your Noise Management Office claims to not have jurisdiction over air traffic noise more than five miles from the airport. Yet the Hillsboro Airport training flights which make up 2/3 of all flight operations at this airport, where some pilots in training fly under 2,000 feet - these training flights happen within 20 miles of the Hillsboro airport, We often hear and see small planes over our property.

Noise isn't the only problem. What I didn't know until the April 10 Forest Grove Leader opinion article was the lead danger that general aviation piston engine aircraft produce. The fact that you haven't repsonded to the Oregon Department of Environmental Quality citing of Hillsboro as a priority for air quality testing nor the ranking by the U.S. Environmental protection Agency of Hillsboro Airport being 21st highest in lead emissions out of a field of about 20,000 small airports. I don't understand why you wouldn't want to remedy this. Lead is dangerous to all people but espeically to children (my grandchildren) ,who are on the ground under this threat from above.

Please respond with your plans to remedy this current situation and how you plan to reduce the community threat with your expansion plans at the airport.

Sincerely,

Nancy Monroe 18200 NW Timber Road Forest Grove, OR 97116 nancyfmonroe@gmail.com

	Responses to Nancy Monroe Email 4-12-2013
NaMo1	The Port of Portland does not control the flight of aircraft. As noted in the FAA's 1976 Airport Noise Policy, the Airport Operator provides the airport siting and facilities, and works with the FAA to identify noise abatement flight procedures that FAA can implement and aircraft operators can fly.
NaMo2	The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead. This area is therefore designated as "attainment" for this pollutant and has no history of exceeding the USEPA standards. Although measurements have not been conducted immediately adjacent to Hillsboro Airport, measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.
	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage hearing loss hyperactivity developmental delays in extreme cases, death
	The Centers for Disease Control (CDC) has identified that the current blood lead level of concern in children is 10 micrograms (μ g) of lead per deciliter (dL) of blood (10 μ g/dL); however, adverse effects may occur at lower levels than previously thought. In January of 2012, an advisory panel to the CDC recommended lowering the level that triggers intervention.
	NAAQS are designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the USEPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. <i>Primary standards</i> provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. <i>Secondary standards</i> provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)

In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.

The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].

As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.

The Oregon Department of Environmental Quality (ODEQ) conducts measurements in the area to ensure that the quality of air meets the Federal and state ambient air quality standards. The ODEQ has established an air measurement station within the City of Hillsboro (in 2007 at Hare Field – 1149 NE Grant Street) which replaced a different station in Hillsboro that closed in August 2004. This site measures PM2.5 and PM10. Measurements have not shown an violation of the NAAQS.

Based on a press release/Fact Sheet from ODEQ⁴ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur ..." Reasons given for expanding the data collection at the Hillsboro site include:

- The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation
- Rapid growth of the area
- Air toxics have not been conducted in the area

The fact sheet specifically addresses the issue of measuring lead from Hillsboro Airport. While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study). That study was completed in early July 2013, but further steps by the USEPA have not been announced.

Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.

⁴ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018. The Port of Portland is also working with ODEQ to better understand emissions at Hillsboro and is participating in industry research activities, such as the Airport Cooperative Research Program.
NaMo3	An Environmental Assessment (EA) is prepared to determine if a significant adverse environmental effect would occur. As the 2010 original Environmental Assessment and this Supplemental EA show, significant adverse effects were not identified and thus an EIS does not appear warranted. FAA Orders 1050.1E and 5050.4B define the steps FAA must undertake to complete the environmental review process for projects requiring FAA approval.
	In this case, the process involved the preparation of a detailed Environmental Assessment, which concluded with a "finding of no significant impact," and the project was approved. Because this decision was challenged, and the Court remanded the project for further forecasting, the FAA and Port have completed additional forecasts of potential "induced" demand resulting from a new runway. The environmental effects of these new forecasts were then compared with the environmental impact thresholds of significance contained in Appendix A of Order 1050.1E. If the effects of a proposed project do not exceed these significance thresholds, FAA does not require a sponsor to mitigate impacts, and the FAA issues a finding of no significant impacts (FONSI) supporting project approval. On the other hand, if impacts exceed the threshold(s), FAA can either (a) require the sponsor to mitigate those impacts to a point where they do not exceed the threshold(s) (and still issue a FONSI); or (b) prepare an Environmental Impact Statement (EIS). Upon favorable completion of the environmental determination (e.g., FONSI or EIS), the Sponsor could then proceed to implement the project.

Т
DECLARATION OF PATRICK CONRY

I, PATRICK CONRY, declare as follows:

1. I am a resident of Hillsboro, Oregon in Washington County. I own a house at 5898 SE Woll Pond Way, Hillsboro, Oregon 97123 and have lived at this address full-time for 17 years. My wife also lives at this address.

2. My house is located approximately 2.8 kilometers southeast of the Portland-Hillsboro Airport ("HIO").

3. Airplanes based at HIO use leaded aviation gas ("avgas").

4. HIO is home to at least two flight schools. My home lies directly under the primary flight path of at least one flight school. During an average day, an avgas-burning general aviation aircraft passes over my house every seven to twelve minutes. PaCo1

5. Local flight school pilots tend to fly a low course in order to save fuel, and generally fly approximately 300 feet above my house. Therefore, I often see planes pass overhead and must contend with the great amount of noise they produce as well as the pollution they emit.

6. During the winter, sporadic temperature inversions tend to trap air pollution close to the ground in the Hillsboro area. Under these circumstances, the Oregon Department of Environmental Quality may issue advisories urging citizens to refrain from driving and reduce their use of wood stoves and fire places as much as possible in order to protect the public health. Despite these warnings, I have never observed the flight schools based at HIO reducing the number of their polluting excursions during periods of temperature inversions.

PaCo₂

7. I am aware that research has associated lead with a variety of health problems including, but not limited to, brain damage, learning disabilities, and cancer. I am convinced that lead

emissions from HIO have had and continue to have a deleterious impact on my health and the health of my community.

8. Approximately one year ago I was diagnosed with hairy cell leukemia, a rare blood cancer. The doctor who diagnosed me commented that this disease is frequently seen among those whose job it is to refuel planes and automobiles. It is my understanding that exposure to heavy metals such as the lead and benzene found in general aviation aircraft may increase the risk of developing hairy cell leukemia. I have never worked in an industry that would have exposed me to heavy metals or other potential carcinogens. I do not smoke, rarely drink, and was always a healthy and active person prior to my diagnosis with hairy cell leukemia. I frequently wonder whether pollution from the leaded avgas burned by aircraft flying above my house may be partly to blame for my contracting this rare cancer.

9. In addition to its direct health impacts, aviation pollution has caused significant indirect harm to my family and my community. As a retired real-estate agent, I am aware that the recent build-out of the Hillsboro Aviation flight school has caused homes in my neighborhood to lose 20 percent of their value due to concerns about noise and air pollution. Meanwhile, the noise and pollution generated by overhead aircraft has become so bothersome that my wife and I are no longer able to open our windows or utilize our deck, and we have taken to limiting our walks in the neighborhood park. I also now must repeatedly power wash my deck in order to remove all of the soot that planes drop on it. If it were not for our attachment to our home of nearly two decades and our fear of economic loss, my wife and I would likely sell our house on account of the nuisance posed by aviation pollution, including lead pollution.

10. My concerns about the effects of local aviation pollution on my health and quality of life have compelled me to become involved in a variety of efforts to limit this pollution. For four

years, I was the chairman of my local citizen participation organization, during which time my primary issue of concern was the impact of pollution from HIO on its surrounding community.

11. Last year, my concerns over the increased pollution that were sure to accompany a planned third runway at HIO drove me to become a plaintiff in a lawsuit that successfully halted the construction of the new runway.

12. In February, 2012 I became a member of Friends of the Earth due to my concerns about the health effects of lead emissions from general aviation aircraft that use leaded avgas.

13. The federal government must act to regulate lead emissions from avgas. I have participated in efforts to get the Port of Portland and the Oregon state government to limit aviation pollution in Hillsboro, and they have done nothing. Both the governor and Port Commissioner who appoint Port of Portland officials appear to have no interest in protecting the public from lead emissions from avgas.

14. EPA regulations to limit lead emissions from general aviation aircraft using avgas would directly reduce lead emissions that are known to pose significant health threats. I believe that such regulations would greatly improve the health of my community by reducing rates of developmental disability, cancer, and other diseases associated with lead pollution. Such regulations would also reduce the anxiety that I experience about the effects that lead emissions from avgas may be having on my health and the health of my wife and my community.

15. I strongly support this action by Friends of the Earth. EPA's failure to respond to Friends of the Earth's petition and take action under the Clean Air Act substantially increases the risk of harm to the health of me, my wife, and my community. It also has a detrimental impact on the value of my property. Requiring that EPA act on the petition and determine whether lead emissions from aircraft engines using avgas cause or contribute to air pollution which may

reasonably be anticipated to endanger the public health or welfare would redress this harm by reducing the amount of airborne lead that threatens the health and lives of my family and all Americans who live near airports and under the flight paths of general aviation aircraft that use leaded avgas.

	Responses to Patrick Conry Declaration
PaCo1	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through HIO Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out by the Port through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA with noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
PaCo2	The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead. This area is therefore designated as "attainment" for this pollutant and has no history of exceeding the EPA standards. Although measurements have not been conducted immediately adjacent to the Airport, measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.
	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage hearing loss hyperactivity developmental delays in extreme cases, death
	Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought.

	In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The EPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.
	Lead emissions expected from the proposed project were modeled in the Supplemental EA for all three forecast conditions (Remand, Constrained, and Unconstrained). As shown in the Supplemental EA, only one forecast, the Remand Forecast, was shown to lead to any increase in lead emissions. If the Remand Forecasts are met, we expect the project to increase lead emissions by 0.1 ton per year (for total annual emissions of 0.9 tons per year). When modeled under the other forecast conditions (the Constrained and Unconstrained Forecasts), lead emissions did not increase.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
PaCo3	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 DNL or greater noise contour. Additionally, comparison of older studies ⁵ to more recent studies ⁶ indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive.

⁵ FAA's Aviation Noise Effects.
6 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics.

	 Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>) One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report (<i>The Effect of Airport Noise on Housing Values</i>, by Booz-Allen & Hamilton) prepared for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used at this time to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values of the small sample size.
	The Summary and Conclusions section of the FAA's 1985 Aviation Noise Effects Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
	There have been no tests concerning soot at residences near Hillsboro Airport. Such tests that have been conducted for commercial service airports ⁷ indicates that soot or residue deposited on residences near airports is often organic material or entrained particulates from area roadways.
PaCo4	In 1978, the USEPA established a National Ambient Air Quality Standard for lead. At that time, cars and trucks were the major contributors of lead emissions. Recognizing the effect of lead on people, USEPA set national regulations to gradually reduce the lead content in gasoline. By 1996, EPA promulgated regulations that banned the use of leaded gasoline in highway vehicles. The use of lead to fuel in piston-engine powered aircraft (Avgas) was not banned in this action. See also response PaCo2.
	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify

⁷ FAA, Final Environmental Impact Statement, Seattle-Tacoma International Airport, 1995 and others.

a replacement for 100LL by 2018.

In October 2006, the Friends of the Earth formally petitioned for rulemaking by the USEPA to limit lead emissions from general aviation aircraft. In October 2008, the USEPA strengthened the NAAQs for lead. In April 2010, the USEPA filed their Advance Notice of Proposed Rulemaking (ANPR) on lead emissions from piston-engine aircraft using leaded avgas. At the request of the aviation industry, the EPA extended the comment period. Reflected in the comments on the ANPR, about 75% of the U.S. aircraft fleet are piston-powered aircraft (about 167,000 aircraft) certified to fly on leaded fuel.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Thursday, April 18, 2013 8:22 AM 'Mary Vigilante'; Burk, Terri; Whitlock, Ian FW: Written public comment on the Draft SEA

From: Patrick Dunn [mailto:metta1000@gmail.com] Sent: Wednesday, April 17, 2013 6:02 PM To: Dowlin, Renee Subject: Written public comment on the Draft SEA

Federal Aviation Administration (FAA) c/o Ms. Renee Dowlin Senior Environmental Planner Port of Portland, P.O. Box 3529 Portland, Oregon 97208 April 17, 2013

Dear Officials of the FAA,

Introduction

Please watch this 30 second video that uses the Port of Portland's Webtrak aircraft monitoring system to help you imagine our auditory experience of 15 HIO touch-and-go flights in one 30-minute period (the video's house icon is in the Orenco Station residential community): <u>Touch-and-Go Flights Over Orenco Station</u>

After careful review of the proposed third runway 12L/30R Draft Supplemental Assessment (SEA), a critical piece of information is starkly missing—broad and growing community concerns regarding noise created by flights from Hillsboro Airport (HIO). The document fails to mention the extensive efforts over nearly 2 years by nearby residents, and more recently, the Hillsboro Airport Roundtable Exchange (HARE), to help various stakeholders understand and take effective action to mitigate aircraft noise. Here is a further explanation of the problem and our recommendations.

Statement of the Problem

Repetitive touch-and-go flights, representing over half of HIO operations, overfly surrounding noise sensitive neighborhoods. As of 2010, over 24,000 residents live within 2 miles of HIO and over 56,000 within 3 miles; all are potentially affected by noise from these flights operating in FAA-approved flight patterns. Late night flights by multi-engine planes are particularly a problem, disrupting the sleep of neighbors below. This occurs regularly and the Port's Noise Management Department (NMD) does not have an effective monitoring system to assess noise, altitude and identify offending touch-and-go aircraft. Using this ineffective system, our review of 82 nights from January through April, 2012, shows 9 nights (11%) had sleep-disrupting flights. During these nights, only 12 of the 40 flights that occurred between 10 pm and 6 am could be evaluated; 33% were below 1000' and 58% were below 1100' (the near-by Intel D1X building has a height of 124') at about 1.8 miles due east of HIO. This data under represents the number of offending flights because the altitude monitoring system is inadequate. These aircraft are flying "under the radar," and are louder yet because of their low altitude.





The community concern is that the third runway will allow expansion of current touch-and-go operations leading to yet more noise. That is, not only can the current runways be used as they have been for touch-and-go flights; but that the new runway will allow even more such flights. This could be a "build it and they will come" venture, encouraging yet even more touch-and-go flights adding to the noise problem.

Working Collaboratively to Address the Noise Problem

We have worked extensively and collaboratively with the Port's NMD to address the problem. Unfortunately, touch-and-go flights as shown in the video overfly the same homes repeatedly despite the NMD's best professional efforts to educate pilots, and student pilots and their flight instructors.

Complaints by residents to the NMD have also generally not been helpful. A noise complaint is investigated, offending aircraft possibly identified, yet the NMD seems reluctant to provide direct timely and specific feedback to the pilot and/or company. This and the ineffective noise monitoring system have led to a belief in the community that initiating a complaint to the NMD is not constructive. As such, noise complaint "data" does not accurately reflect the noise problem existing in neighborhoods surrounding HIO. Although we respect the NMD, in the 2 years of their enhanced efforts, nothing has changed. Residents know that general education and their complaints alone are not effective.

One bright light is the new Hillsboro Airport Roundtable Exchange (HARE). HARE was formed in late 2012 in part because of perceptions that community needs were not being represented and addressed adequately by its precursor organization, the Hillsboro Airport Issues Roundtable (HAIR). Noise abatement has been a great priority of the new HARE; in fact one of its' first actions was to develop a subcommittee which has been comprehensively examining the issues about noise, including the potential effects of the third runway. The very fact that HARE (with help from the NMD) is expending substantial resources to address ways to mitigate aircraft noise indicates that this is a significant problem in the community. HARE is just beginning its work; the group's comprehensive and current review deserves consideration by the FAA once it is available. The FAA should note that support for the third runway recorded in previous years by the now defunct HAIR does not represent current community sentiment.

Need for a New Approach to Address Noise

One thing we have learned over the past 2 years is that management of aircraft noise at HIO is complex and engages many stakeholders. Here's our basic understanding:

- The FAA governs the airspace and relies on commercial airport noise standards (i.e., 65 DNL contours). We experience these standards to be ineffective in addressing noise problems from repetitive touch-and-go flights as shown in the video.
- The Port is challenged to serve 2 masters: ensuring HIO's financial success and preserving community livability by limiting adverse environmental effects. The community experiences these dual interests by the Port's self-described "neutral role." This less active approach in providing direct feedback to organizations and offending pilots about noise is different from some similar general aviation airports.
- The City of Hillsboro has encouraged increasingly dense residential development surrounding HIO and yet recently removed its ordinance that could possibly address noise created by HIO aircraft. This action is currently under review by the Oregon Land Use Board of Appeals.
- HARE is an independent advisory body whose recommendations could be effective, yet has no authority to implement needed changes.

Recommendations

With no effective other avenue (yet), this letter is a testament to a struggling effort to make the community's voice heard. The major question is: What can the FAA and the Port do to assure the community that the third runway will help to **lower** the current noise experienced by the community?

The following represent our recommendations to the FAA for your consideration:

• The previously recorded support for the third runway by the now defunct HAIR should not be considered as representing community sentiment. This record should not be included in the FAA's consideration. The FAA should actively seek input from HARE and its Noise Subcommittee before making its decision about the third runway.

• If there is to be a third runway at HIO, unless infrequent prevailing conditions dictate otherwise, the third runway should be the sole runway for all touch-and-go flights (i.e., not a means to expand touch-and-go flights on more runways). A third runway flight pattern radius should be tightened so that there are no residential over-flights. Written agreement by the Port with the public (possibly through HARE or the City) is needed to ensure adherence.

• The Port needs the FAA's help to secure an effective noise, altitude and aircraft identification system to make their efforts in noise management successful.

 Noise issues for general aviation airports which include touch-and-go flights are quite different than noise issues for commercial airports like PDX. This represents an opportunity for the FAA to consider modifying or reviewing its own noise regulations for general aviation airports in densely populated communities to see if alternative flight patterns and other operational procedures could be developed to assist with noise management.

In addition to the above recommendations, work will continue with the Port and HARE to secure a voluntary restriction on late night touch-and-go flights modeled on successful agreements by flight schools at airports similar to HIO.

Without criteria that clearly define runways that can be used for touch-and-go flights, aircraft noise will continue to compromise livability of the surrounding residential community. If aircraft noise becomes louder so will the community voice. We believe our 4 recommendations represent a modest accommodation and strongly recommend that they be adopted by the FAA. Existing interventions (i.e., enhanced education about the "Fly Friendly" program) will not be adequate in providing the needed balance between successful aircraft operations and the livability of our community.

Thank you for your consideration.

Sincerely,

Patrick Dunn Constance Rosson

6735 NE Copper Beech Dr. Orenco Station Community Hillsboro, Oregon 97124 PaDu6

	Responses to Patrick Dunn and Constance Rosson Email 4-17- 2013
PaDu1	Thank you for the video.
PaDu2	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA with noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
	The commenter also expressed concern that the Port's noise office was not tracking aircraft that "fly under the radar". Natural geographic features, as well as man-made objects, represent obstacles to the ability to track the horizontal and vertical position of aircraft to and from Hillsboro Airport reliably for segments of operations where aircraft altitudes are below approximately 1,000' above ground level. By the very nature of touch-and-go training pattern activity, pilots operate the aircraft below 1,000' in the takeoff and landing phase of each circuit. Additionally, given the relatively short distance flown in a touch-and-go operation, and the need to maintain a safe angle of descent, the aircraft will be operated at altitudes that seldom exceed 1,500'. While the specific location of the aircraft in this segment of flight is not tracked by FAA radar, the noise contours prepared for the Environmental Assessment reflect the Port and its consultant's visual observations of aircraft to enable the creation of flight tracks for use in the Integrated Noise Model.
PaDu3	Existing Runway 12/30, the Airport's longest runway, can accommodate all aircraft types currently operating at Hillsboro Airport. It is aligned with the prevailing winds, consistent the Port's noise abatement runway use preferences, and is therefore the most frequently used runway at Hillsboro Airport. Due to its length, Runway 2/20, the Airport's crosswind runway, is used primarily, but not exclusively, by smaller single and multi-engine propeller aircraft.
	A substantial proportion of the activity at Hillsboro Airport consists of pilot training. The Master Plan analysis determined that about 48% of total fixed-wing aircraft activity consists of touch-and-go operations. A touch-and-go consists of an aircraft landing and then rolling down the runway without coming to a full stop prior to taking off. One touch-and-go therefore counts as two operations, a landing and a takeoff. Touch-and-go operations are currently conducted on all runways at Hillsboro Airport.
	The proposed new parallel Runway 12L/30R would reduce traffic on the main runway by accommodating some of the operations that are currently conducted on the existing runway

(Runway 12R/30L). This does not mean that all future operations at Hillsboro Airport will occur on the new runway. The new parallel runway is designed to accommodate the smaller, single engine propeller aircraft that require less runway length than the higher performance aircraft at the Airport. Consistent with the planned use of the runway, the FAA and Port anticipate that over 90% of the aircraft using the new runway will be single engine piston aircraft. The allocation of flight operations between runways is subject to FAA control. There will be some occasion where an aircraft will conduct some flight training from the existing runways, especially during those times when weather and wind conditions dictate the use of the existing crosswind runway.

Estimates of current and future runway use used in the original EA were based on the analyses documented in the Hillsboro Airport Master Plan and were reviewed and approved by the Port's Noise Office and the FAA Hillsboro Airport Air Traffic Control Tower manager. Existing Runway 30L would continue to be the most frequently used runway for itinerant operations but the many of the touch-and-go operations, representing most of the local operations, would use the new runway.

This Supplemental EA is being prepared in response to the decision from the 9th Circuit Court of Appeals. Appendices B, C, and D of the Draft Supplemental EA present forecasts prepared in response to the court decision. These forecasts present forecast conditions through the year 2031. Preparation of the Draft Supplemental EA complied with applicable FAA Orders and guidance implementing NEPA. The orders outline FAA accepted methodologies, methods, models, techniques, and thresholds of significance for the impact assessment and preparation of EA documents based on actions that are "reasonably foreseeable". The FAA does not believe that it is reasonably foreseeable to evaluate activity beyond 2021. Council on Environmental Quality (CEQ) regulations implementing NEPA require that documents address impacts that are "reasonably foreseeable." FAA Order 5050.4B Paragraph 9q defines reasonably foreseeable as:

"An action on or off-airport that a proponent would likely complete and that has been developed with enough specificity to provide meaningful information to a decision maker and the interested public. Use the following table to help determine if an action is reasonably foreseeable."4

Off airport action	On-airport actions
The proponent has committed to completing the proposed action. As a result, the action is or will be the subject of a NEPA document, or a Federal, State, local, or Tribal government permit application or approval and would occur within the same time frames as those evaluated for the proposed airport action.	 The action is included on an unconditionally approved ALP and the proponent has: 1) Committed to complete the proposed action depicted on the unconditionally approved ALP; and/or 2) Developed preliminary design plans for an action in an Airport Capital Improvement Plan and those plans are available for review by interested parties.
Would affect all, some. Or one of the environmental resources that the proposed action would affect.	Would affect all, some. Or one of the environmental resources that the proposed action would affect.
Would occur within the same time frames as the time frames analyzed for the proposed airport action.	Would occur within the same time frames as the time frames analyzed for the proposed airport action.

(footnote 4: Paragraph 905.c(1) and (2) provide definitions of "connected actions" and "similar actions," respectively)

FAA determined that the period through 2021 is reasonably foreseeable for purposes of NEPA and this Supplemental Environmental Assessment. The President's Council on Environmental Quality (CEQ) regulations and FAA guidance require that NEPA documents focus on actions and timeframes that are reasonably foreseeable; i.e. those that are likely to occur or probable rather than those that are merely possible. In the case of time periods, the FAA has typically limited the evaluation to the year of project completion and then five (5) years afterward because this period is reasonably foreseeable. This is shown in the

	Supplemental Environmental Assessment, Chapter 1. The forecasts done for the 2005 Master Plan have not accurately reflected conditions observed only 7 years later; they did not anticipate the turn in economic conditions in 2008.
PaDu4	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
	 The Hillsboro Airport Roundtable Exchange (HARE), formerly the Hillsboro Airport Issues Roundtable (HAIR), is the community's public forum for discussion of news, information, and concerns related to Hillsboro Airport. Members of HARE advise the Port on numerous Airport projects and plans, and focus on all issues surrounding the Airport, including: Airport compatibility and noise
	Wildlife and environmental management
	Airport operations and projects
	Members of the roundtable include citizens from Hillsboro and Washington County, elected officials from local, county, regional, and state jurisdictions, airport tenants, partners, and adjacent businesses, and a representative from the FAA.
	The Port and FAA acknowledge the change in name of the group. In addition, the Port of Portland has noted that the Hillsboro Airport Roundtable Exchange (HAIR) and its predecessor HARE received several presentations about the proposed runway project. While individual members indicated support for the project, the group did not vote to support the project.
PaDu5	The FAA has listened to the opinions of all parties that have comments about the proposed project. Any comments attributed to HARE/HAIR carry no more weight than any other party. The FAA does not specifically seek out individual parties in commenting about the proposed project, but rather opens the comment period to all parties.
	The FAA and Port of Portland do not have the ability under current law to restrict the use of either the existing or proposed runway to exclusive use by touch and go operations. As the Environmental Assessment and Supplemental Environmental Assessment are designed to address existing and future delay and congestion, considering "tightening up the flight pattern" to reduce noise would not achieve the project purpose and need.
	The responsibility for overseeing the activities of an airport noise abatement office rest with the airport operator, the Port of Portland. The Port has implemented a noise monitoring system that uses the FAA's radar data, which is the best available information to track aircraft flight tracks. The FAA is not aware of any systems that would be more effective at tracking noise, altitude and aircraft identification.
	See also response PaDu4.

_	The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained, and Remand Forecast). As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not expected, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour.
PaDu6	As noted in the original EA, the Port of Portland and FAA have considered a wide range of alternatives to addressing the delay and congestion at Hillsboro Airport (the project purpose and need). Alternatives to the development of a new runway were considered in Chapter 3 of the original Environmental Assessment.
	While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and would be in conflict with Federal law. Therefore, as alternatives to meeting the need, these restrictions and noise abatement recommendations were not considered further.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:22 AM 'Mary Vigilante' Steve Gibson FW: Third runway at Hillsboro Airport

From: Gibsons [mailto:sagibson2788@hotmail.com] Sent: Sunday, April 14, 2013 5:31 PM To: Dowlin, Renee Subject: Third runway at Hillsboro Airport

Dear Renee Dowlin –

StGi1

I favor the installation of this runway. My wife & I live in an apartment in Hillsboro while I am on temporary assignment for my employer through the end of September. We enjoy hearing the planes flying around our area. You probably know this airport is a reliever airport for Portland International.

I am a General Aviation (GA) pilot based in Albuquerque, NM, and own half of a small single engine land airplane. I belong to the Aircraft Owners and Pilots Association.

There has been some local press about this third runway installation, and some of it has been negative, especially regarding airplane fuel. Please know that the aircraft industry has partnered with the FAA to find a suitable replacement fuel for 100LL, a.k.a., 100 Low Lead, by 2018. Not included in the press is the fact that the current 100LL fuel has roughly half the lead additive that it did in the 1980s. It is used by *some* of the GA fleet. The FAA established the Fuels Program Office last September to help meet the 2018 goal. Other fuels used by aircraft are automobile unleaded gasoline, and jet fuel, which is a form of diesel with additives for high altitude use.

Aircraft training operations in this area have got to be a plus, providing people who seek a career in aviation with a great start. This type of activity has declined some in Albuquerque, and it has been sad to see it go during the downturn in the economy over the last 5-6 years. I hope it will return stronger than before.

Sincerely – Steve Gibson

	Responses to Steve Gibson Email 4-14- 2013
StGi1	Comment noted.

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:23 AM 'Mary Vigilante' FW: Comment on 3rd runway addition to Hillsboro Airport

From: Walter Hellman [mailto:hellmanw@gmail.com]
Sent: Friday, April 12, 2013 3:51 PM
To: Dowlin, Renee
Subject: Comment on 3rd runway addition to Hillsboro Airport

Ms. Dowlin,

I understand public input is now being taken on the potential addition of a 3rd runway to the Hillsboro airport. I am writing here to submit that input. I am a resident of Hillsboro.

My understanding is that a very large part of the airport's operation comes from flight training. It seems crazy to me that flight training would occur in a crowded metropolitan area when it could be done in a much less crowded area. The convenience of an airport next to population centers is that travellers need to land close to their destination. But aircraft trainees are not travellers.

It is one thing to expect the large concentration of city dwellers to put up with necessary airport noise but it is unreasonable to expect them to do the same for the much larger disruptions coming from the heavy load of touch and go flight training. Having this training in the densely populated city makes no more sense than having a quarry operation there.

I don't know what the approval criteria are for the 3rd runway, but going beyond approval criteria, it will be a public disservice to do anything which will enable this flight training to expand or even continue. Let's have an airport as an airport, not an industrial training center. The increased noise, danger levels from accidents in a crowded area, and pollution that will come from the third runway will be damaging to the city. I request that the 3rd runway not be approved.

Walter Hellman 2451 SE Clover Ct. Hillsboro, OR 97123 503-648-6361

hellmanw@gmail.com

Hillsboro, Oregon U.S.A.

WaHe

	Responses to Walter Hellman Email 4-12-2013
WaHe1	The comment raises questions concerning the use of airspace at and in the vicinity of Hillsboro Airport. The world's navigable airspace is divided into three-dimensional segments, each of which is assigned to a specific class. Most nations adhere to the classification specified by the International Civil Aviation Organization (ICAO) and described below. The designation of an area for the conduct of flight training comes about through local requests.
	The airspace around airports is designated by the FAA as Class A through G.
	• Class A Airspace extends from 18,000' up to 60,000' MSL. It is the most controlled airspace and requires a pilot to carry an Instrument Flight Rating and proper clearance no matter what type of aircraft is being flown.
	• Class B airspace generally extends from the surface up to 10,000 ft. AGL and is the area above and around the busiest airports (LAX, ORD, etc.) and is also heavily controlled. Class B's are designed individually to meet the needs of the airport they overlay. Pilots must also receive clearance to enter the Class B airspace.
	• Class C airspace reaches from the surface to 4,000 ft. AGL above the airport, which it surrounds. Class C airspace only exists over airports, which have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight operations. Class C is also individually designed for airports but usually covers a surface area of about 5 nautical miles around the airport up to 12,000 ft. AGL. At 1,200 ft. the airspace extends to 10 nautical miles in diameter, which continues to 4,000 ft. Pilots, are required to establish two-way radio communications with the ATC facility providing air traffic control service to the area before entering the airspace. Within Class C, VFR and IFR pilots are separated.
	• Class D airspace exists from the surface to 2,700 ft. AGL above an airport and is the airspace designated around Hillsboro Airport. Class D airspace only surrounds airports with an operational control tower. Pilots are required to establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR pilots using this airspace must be vigilant for traffic as there is no positive separation service in the airspace.
	• Class E extends from either the surface or the roof of the underlying airspace and ends at the floor of the controlled airspace above. Class E exists for those planes transitioning from the terminal to enroute and is an area for instrument pilots to remain under ATC control without flying in a controlled airspace. Under visual flight conditions, Class E can be considered uncontrolled airspace.
	Class F is not used.
	• Class G airspace is completely uncontrolled airspace which extends from the surface to either 700 or 1,200 ft. AGL depending on the floor of the overlying Class E.
	These airspace designations are defined by 14 CFR Part 71. Pilots must comply with the requirements of the airspace in which they operate.
	A designated flight training area exists in the vicinity of Hillsboro Airport, as reflected in the airspace and sectional maps submitted by several commenters. This area captures flight training for a number of airports in the greater Portland region. The airspace in the immediate vicinity of Hillsboro Airport is designated as Class D. Northwest of Hillsboro Airport is a flight training area that is designated as Class E airspace that begins at 700 ft. AGL.
	Hillsboro Aviation requested that FAA publish a special notice in the Airport/Facility Directory (A/FD) NW. It was developed in consultation with the FAA to be included in the A/FD in

	order to alert the aviation community to be aware of flight training activities. Historically, this particular area was already in use by the local general aviation community for flight training before the issuance of the special notice. The special notice alerts pilots to increased traffic volumes they may encounter which they might not otherwise expect. The designated area is airspace in which no ATC clearance or radio communication is required for visual flight rules (VFR) flight. The FAA has assigned a frequency to the area that pilots are encouraged to use to provide their own traffic updates to one another; however, they are not required to do so because it is uncontrolled airspace for VFR pilots.
	The "West Practice Area" is not officially designated by the FAA for visual flight training practice maneuvers for all area airports as the FAA does not restrict where pilots can fly under VFR (other than minimum safe altitudes) in that type of airspace (Class E). There are other examples of this type of special notice in many other locations in the country. This area is not designated a special use airspace in which the FAA would control or restrict the traffic like Warning Areas, Prohibited Areas, Restricted Areas, Military Operation Areas, or Class A, B, C, or D airspace.
	14 CFR FAR 91.119 states how low an aircraft may operate. Helicopters are allowed to operate lower than the limits stated as long as they pose no hazard to persons or property on the surface and comply with any routes or altitudes specifically prescribed for helicopters by the FAA. There are no prescribed helicopter routes or altitudes to the west of Hillsboro Airport's airspace. See 14 CFR 91.119 for Minimum Safe Altitudes – http://www.ecfr.gov/cgibin/text-idx?c=ecfr&rgn=div8&view=text&node=14:2.0.1.3.10.2.4.10&idno=14 .
	The FAA has limited control over where VFR pilots fly once they exit airport surface areas such as Hillsboro's. FAA Control Tower staff at Hillsboro query departing pilots regarding intended direction of flight (North, South, East, West) in order to exit Hillsboro Airport's controlled airspace (roughly a 4.2 mile bubble). Many pilots departing Hillsboro Airport prefer not to fly East in order to avoid PDX airspace and the requirements that come with flight through Class C airspace. A pilot flying North of Hillsboro Airport would encounter either PDX arrival or departure traffic and wake turbulence depending on which runways are being used at PDX. Southbound pilots would encounter traffic using the Newburg VOR ⁸ and departures/arrivals from airports such as Starks Twin Oaks, Chehalem, Sportsman, McMinnville, Aurora State, etc. Located generally Westward from Hillsboro Airport is the least dense airspace area where students and instructors can operate while avoiding most of the general PDX/HIO aviation activities.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.
WaHe2	The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as

⁸ VHF omnidirectional radio range (VOR), is a radio navigation system enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if a significant adverse environmental effect would occur. As the 2010 original Environmental Assessment and this Supplemental EA show, significant adverse environmental effects were not identified and thus an EIS does not appear warranted. FAA Orders 1050.1E and 5050.4B define the steps FAA must undertake to complete the environmental review process for projects requiring FAA approval. In this case, the process involved the preparation of a detailed Environmental Assessment, which concluded with a "finding of no significant impact," and the project was approved. Because this decision was challenged, and the Court remanded the project for further forecasting, the FAA and Port have completed additional forecasts of potential "induced" demand resulting from a new runway. The environmental effects of these new forecasts were then compared with the environmental impact thresholds of significance contained in Appendix A of Order 1050.1E. If the environmental effects of a proposed project do not exceed these significance thresholds, FAA does not require a sponsor to mitigate environmental impacts, and the FAA issues a finding of no significant impacts (FONSI) supporting project approval. On the other hand, if impacts exceed the threshold(s), FAA can either (a) require the sponsor to mitigate those impacts to a point where they do not exceed the threshold(s) (and still issue a FONSI); or (b) prepare an Environmental Impact Statement (EIS). Upon favorable completion of the environmental determination (e.g., FONSI or EIS), the Sponsor could then proceed to implement the project.

The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.

The continuing primary mission of the FAA is to ensure aviation safety and efficiency. Airports and aircraft operators must meet various safety certifications and operating requirements of the FAA. Hillsboro Airport is a safe airport that meets all FAA standards. While aircraft accidents are possible, it is not possible to predict the location and extent of accidents.

Comments and Response to Comments Comment File G.5

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	l
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzande	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum		Renee Strong
Megan Granum		Bill Stone

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
Comment File G.2	
4/17/2013	Jim Lubischer
Comment File G.3	
4/19/2013	Henry Oberhelman
4/17/2013	Howard Radin
4/17/2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comment File G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley (BCAc#)
Comment File G.6	Coord Malana
4/19/2013	Sean Maione
Comment File G./	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comment File G.8	Analysis of the "Consul Avietian Convey Depart Consumer," by M. Demar 8, 1
Undated	Lubischer
Comment File G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft
	Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams

655 NW 229th Ave.

Hillsboro, OR 97124

503-693-0610

BCAc1

Ms. Renée Dowlin Senior Environmental Planner Port of Portland, P.O. Box 3529 Portland, Oregon 97208

RE: Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Environmental Assessment Ms. Dowlin and Members of the Port Commission and FAA:

My wife and I own property located about two miles away from the Hillsboro Airport. We have lived in Hillsboro near the airport for the past 23 years. Our property is directly on the approach or take-off path when the wind is from the North or the South respectively. Consequently, we and the value of our property are directly affected by the airport. The airport operations also have direct effects on the neighborhood and the wildlife and crops in the vicinity of the airport.

I am writing to comment on the draft supplemental environmental assessment. I also have some questions to ask that were not addressed in the draft assessment. **Airport Usage**

The surveys of user groups, pilots, and interested businesses demonstrate that the availability of a third runway would increase air traffic. However, one must ask the question if there is truly a need for another airport runway because nearly 60,000 of the annual 200,000 landings and take-offs listed in the supplemental assessment are in fact so called 'touch and go' training landings and take-offs that are performed by student pilots in the helicopter or fixed wing aircraft programs conducted at the airport. Therefore, the predictions for increased usage are a fallacy because the Port of Portland's own data demonstrate the Hillsboro Airport

655 NW 229th Ave.

Hillsboro, OR 97124

503-693-0610

BCAc3

BCAc1

has never met the projected use predicted by the Port in the recent past. Therefore, there is no need for a third runway.

Noise

A 'meta-analysis' is a statistical methodology that examines many studies to determine the statistical validity of a stated effect. Consequently, because a meta-analysis statistically examines many studies to determine statistical significance, it is a very powerful method and tool. In 2004, Dr. Jon P. Nelson (A professor in the Department of Economics at Pennsylvania State University) published a peer reviewed paper in the Journal of Transport Economics and Policy, 38 (1), 1-27, entitled, Meta-analysis of airport noise and hedonic property values: Problems and prospects. In that study, after reviewing 20 previous studies of airports noise and it's effect on property values, Dr. Nelson concluded that airport noise reduced property values by 0.5% to 0.6 % per decibel (dB). In the conclusion to his article, Dr. Nelson noted, "Hence a given property located at 55 dB would sell for about 10 to 12 per cent less if it was located at 75 dB (p.21)."

On a typical Spring, Summer, or Fall day with a prevailing North – Northwest wind, it is difficult to carry on a conversation outside the house because of the number of airplanes that are landing and the consequent noise the airplanes create. I do not know the dB levels but I do know what my ears tell me. With a third runway, this noise will only become more frequent and intrusive into our lives.

Toxic Lead Emissions

Because piston engines on general aircraft still use leaded fuel, there is a cloud of lead toxins surrounding the vicinity of the Hillsboro Airport. This is documented by a 2010 EPA listing of that placed the Hillsboro Airport as the 21st most polluted

655 NW 229th Ave.

Hillsboro, OR 97124

503-693-0610

BCAc4 BCAc5

airport in the country (see EPA study in Appendix). We know the harmful effects (impaired cognition, attention deficit disorder, lower academic learning) that lead has on children but now we are learning that previous lead exposure levels that were thought to be safe were actually too high. We have also learned that lead is increasingly implicated in dementia and Alzheimer cases in our senior population. (see Scientific American article in the Appendix).

Although the EPA says that no level of lead contamination is safe, it sets 0.50 tons per year (tpy) emission level of lead contamination in the air as being a maximum threshold. The 2010 EPA memo listed the Hillsboro Airport with a lead level of .68 tpy. Please note that the supplemental assessment assumes a lead emission level of 0.8 tpy by 2016. This a significant increase in emissions by any measure.

Consequently, the increased airport use that will come with a third runway will have a deleterious effect on my health and the health of my neighbors. The homes and apartments surrounding the airport are filled with children and there are six elementary schools and one middle school within 2 and 1/2 miles of the airport.

655 NW 229th Ave.

Hillsboro, OR 97124

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BCAc4

School	Student Population	Distance to Airport
Brookwood Elem	384	1.9
Eastwood Elem.	497	1.7
Lincoln Elem.	607	1.7
Mooberry Elem.	486	1.4
Orenco Elem.	574	2.5
Poynter Middel School	723	1.3
Total Students	3, 271 Students*	* 15.9% of total students in the entire district

In other words, nearly one in six of all the students enrolled in the Hillsboro Schools are exposed to high levels to toxic lead contamination on a daily basis.

Therefore, I cannot understand how the supplemental assessment claims there is "no significant air quality impacts (p. 30). If you lived here, you would not make the same claim. Obviously the EPA does not agree with the Port of Portland's assessment of lead contamination or it would not have listed the Hillsboro Airport as the 21st most contaminated by lead in the country.

Finally, the assessment concludes that the third runway, "would not be expected to contribute to a significant cumulative impact on wildlife from habitat loss" (p. 37). The report reaches a similar conclusion for the effect on farmland and plants. Yet, how can there be little or no impact if there are such high concentrations of lead and other toxic substances? Within our neighborhood, there is a nesting pair

BCAc6

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Hillsboro, OR 97124

503-693-0610

BCAc7

of red tailed hawks and numerous other birds, small mammals, and even a wandering herd of deer. I have personally seen a pair of bald eagles fly over our house. Within 5 miles of the airport there are numerous fields of crops including berries, fruits, and vegetables. Clearly, the effects of lead and other toxic emissions will have an effect on vegetables, fruit, and the greater environment. Yet, the effects on plants and animals are dismissed as "insignificant" in the supplemental assessment.

The 9th Circuit Court of Appeals asked the Port to consider the "cumulative" impact of the airport expansion. This assessment is deficient because it does not address the issues raised by the court. I cannot find any mention of effect on humans except for noise.

I think it is significant that neither CDM Smith (consultants) nor the Port mention where the data for the noise or air pollution were gathered or when these data were collected. I also note that the Port's supplemental assessment does not even mention or include the EPA memorandum. If the Port wanted a full and open environmental assessment, why didn't the assessment include everyone and organization concerned? Why didn't the assessment include a relevant and recent EPA memo listing Hillsboro as the 21st most lead contaminated airport in the country? For example, was there a citizen survey or any communications with the Audubon Society, the Tualatin Riverkeepers, the Helvetia neighborhood group, etc.? No, there was no contact because the Port did not find that important. How can the Port operate with such impunity and hubris?

Also, I find it curious that the Port would take the time to survey user groups of the airport but did not seek to survey residents in the immediate vicinity of the

BCAc10

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airport. One current aphorism provides a possible reason for the lack of a citizen survey, "Don't seek opinions about what you don't want to hear."

Therefore, because or the noise and air pollution and the reduction in the value of our property, my wife and I oppose the further expansion of the Hillsboro Airport and the third runway project in particular. The world which we inhabit has finite resources and a governmental body should protect the citizens from harm.

Very Sincerely Yours,

teine (' lie

	Responses to Blaine C Ackley Undated Letter with Attachments
BCAc1	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ¹ to more recent studies ² indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>)
	One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report (<i>The Effect of Airport Noise on Housing Values</i>) prepared by Booz Allen & Hamilton for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size.
	The "Summary and Conclusions" section of the FAA's 1985 <i>Aviation Noise Effects</i> Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."
	The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained, and Remand Forecast). As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not expected, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour.
	·

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

	This commenter also expressed concern with the ability to conduct a conversation outside when aircraft are overflying. USEPA's 1974 <i>Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an adequate margin of Safety</i> , notes that noise above 45 dBA can interfere with speech communication. However, as noted, the standard for considering significant aircraft noise, as defined by the 65 DNL, does not occur off- airport property.
BCAc2	There is a misperception that the proposed runway would be used exclusively by touch and go activity. The need for the runway is based on the existing and growing demand for use of Hillsboro Airport's airfield. The proposed new parallel Runway 12L/30R would reduce traffic on the main runway by accommodating some of the operations that are currently conducted on the existing runway (Runway 12R/30L). This does not mean that all future operations at Hillsboro Airport will occur on the new runway or that the use of the runway will be limited to a specific group of users. Touch and goes must be considered as part of the evaluation of capacity, as they equally affect the ability of operations to use the airfield and airspace.
	With forecast increases in activity, delay and congestion is predicted to increase and thus, the proposed project is designed to reduce these effects. The new parallel runway is designed to accommodate the smaller, single engine propeller aircraft that require less runway length than the higher performance aircraft at the Airport. Consistent with the planned use of the runway, the FAA and Port anticipate that over 90% of the aircraft using the new runway will be single engine piston aircraft. The allocation of flight operations between runways is subject to FAA control. There will be some occasion where an aircraft will conduct some flight training from the existing runways, especially during those times when weather and wind conditions dictate the use of the existing crosswind runway.
	Estimates of current and future runway use used in the original EA were based on the analyses documented in the Hillsboro Airport Master Plan and were reviewed and approved by the Port's Noise Office and the FAA Hillsboro Airport Air Traffic Control Tower manager. Existing Runway 30L would continue to be the most frequently used runway for itinerant operations but the many of the touch-and-go operations, representing most of the local operations, would use the new runway.
BCAc3	As documented in Appendix B, C, and D, the Port identified the variables that affect the growth in aviation activity at an airport like Hillsboro. The forecasts indicate the best estimate of the changes in based aircraft that would occur in each timeframe and each forecast without the project and with the project.
	It is not unusual for the level of activity at any airport to vary from year to year. As noted by some commenters, and acknowledged in the Supplemental EA, actual activity levels at Hillsboro Airport were greater in several prior years. However, current activity levels trigger the threshold noted for consideration of additional runway capacity.
	The forecasts in the original Environmental Assessment were updated using new base year data and reflect recent trends in aviation activity.
BCAc4	The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets, and is expected to continue to meet, the NAAQS for lead. This area is therefore designated as "attainment" for this pollutant and has no history of exceeding the USEPA standards. Although measurements have not been conducted immediately adjacent to HIO, measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or

	to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.
	NAAQS are designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the USEPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. <i>Primary standards</i> provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. <i>Secondary standards</i> provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)
	The commenter states "EPA says that no level of lead contamination is safe, it sets 0.50 tons per year (tpy) of lead contamination in the air as being a maximum threshold". This is an incorrect interpretation. The USEPA's national ambient air quality standard is 0.15 ug/m ³ . The USEPA standard for lead that was adopted in 2005 required USEPA to conduct lead ambient air monitors near sources emitting more than 0.5 tpy. Currently USEPA is not conducting measurements near the Airport.
	In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
BCAc5	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:
	 poor muscle coordination nerve damage to the sense organs and nerves controlling the body increased blood pressure hearing and vision impairment reproductive problems (e.g., decreased sperm count) retarded fetal development even at relatively low exposure levels
	In children, lead poisoning can cause:
	 damage to the brain and nervous system behavioral problems anemia liver and kidney damage

	 hearing loss hyperactivity developmental delays in extreme cases, death Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The USEPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS. See also response BCAc4.
BCAc6	An extensive amount of research has been and is being conducted to address lead content in AvGas. This research informs USEPA's decisions concerning the NAAQS.
	The Oregon Department of Environmental Quality (ODEQ) conducts measurements in the area to ensure that the quality of air meets the Federal and state ambient air quality standards. The ODEQ has established an air measurement station within the City of Hillsboro (in 2007 at Hare Field – 1149 NE Grant Street) which replaced a different station in Hillsboro that closed in August 2004. This site measures PM2.5 and PM10. Measurements have not shown an violation of the NAAQS.
	Based on a press release/Fact Sheet from ODEQ ³ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur" Reasons given for expanding the data collection at the Hillsboro site include:
	 The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation Rapid growth of the area Air toxics have not been conducted in the area
	The fact sheet specifically addresses the issue of measuring lead from Hillsboro Airport. While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study).
BCAc7	See also response BCAc4. The region is designated as in attainment for the primary and secondary lead standard, indicating that the quality of the air protects public health and welfare.
BCAc8	In compliance with the Court's remand order, the forecast (and resulting environmental effects) were re-evaluated. A copy of the Court decision is provided in Appendix A. Issues outside of this Court remand were not directly considered. However, this Final

³ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

	Supplemental EA contains responses to all relevant comments. The Court remanded the FAA decision to consider forecast activity issues. The environmental effects of these forecasts are then presented in accordance with FAA Orders 1050.1E (change1) and 5050.4B.
BCAc9	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance. Data used in preparing the Supplemental EA are derived from sources in accordance with industry practices. Sources of data used in the Supplemental EA are noted in the respective sections. For instance, the source of the air emissions inventory is the FAA's Emissions Dispersion Modeling System (EDMS).
	While the FAA and the Port are familiar with many of the resource documents submitted by this commenter and others, FAA Orders 1050.1E and 5050.4B require specific methodologies and approaches to evaluating project effects, which were used in preparing the Supplemental EA. These methodologies have evolved over several decades and often reflect the information noted in research studies. These methodologies are documented in Chapters 5 and 6 in the Supplemental EA.
	According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
BCAc10	Public input has been received in a number of mechanisms. The purpose of the survey was not to seek public opinion about the need for the project, as articulated by the commenter. Rather, the survey of pilots was conducted explicitly in response to comments of the 9 th Circuit Court of Appeals in the remand of the proposed runway project; to determine if the availability of a new runway at Hillsboro Airport might alter the level of activity by that pilot at Hillsboro.
	The purpose of the public hearing was to allow the public to voice its comments about the project and anticipated environmental effects. While the purpose of the hearing is not to specifically obtain input about support or disapproval of the project, the public often articulates those comments when submitting comments about the probable environmental effects of the project.
BCAc11	Mr. Ackley submitted the following documents:
	 Appendix A, "Meta-Analysis of Airport Noise & Hedonic Property Values: Problems and Prospects", Journal of Transport Economics and Policy, Dr. Jon P. Nelson, January 2004
	 Appendix B, United States Environmental Protection Agency National Vehicle and Fuel Emissions Laboratory, November 18, 2010 Memorandum Subject Selection of Airports in the Airport Monitoring Study
	• Appendix C, Scientific American Article from April 9, 2013 Lead Exposure on the Rise Despite Decline in Poisoning Cases.

Comments and Response to Comments Comment File G.6

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript transcript to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	I
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzande	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum Renee Str		Renee Strong
Megan Granum Bill Stone		Bill Stone

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
Comment File G.2	
4/1//2013	Jim Lubischer
Comment File G.3	
4/19/2013	Henry Oberhelman
4/17/2013	Howard Radin
4/17/2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comment File G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone (SeMa#)
Comment File G./	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comment File G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer
Comment File G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams
Mary Vigilante

From:	Dowlin, Renee < Renee.Dowlin@portofportland.com>
Sent:	Friday, April 19, 2013 12:53 PM
То:	'Mary Vigilante'
Subject:	FW: Comments and Supporting Documents for Hillsboro Airport Parallel Runway Draft Supplemental EA
Attachments:	Comments on Hillsboro Airport Third Runway 4.19.2013.pdf; 1. Advanced Notice of Proposed Rulemaking - Fact Sheet - 420f10013.pdf; 2. Advanced Notice of Proposed Rulemaking- 2010-9603.pdf; 3. CDC - lead fact sheet - tp13-c1-b.pdf; 4. FactSheetatMonitorHillsboro.pdf; 5. DEQ Adds Air Toxics Monitor.pdf; 6. AERO AIR AT HIO ERECTING NEW 30.pdf; 7. Aero Air Breaks Ground on New Hangar.pdf; 8. Airports Leaden Fallout May Taint Some Kids.pdf; 9. Connect Oregon Application - A10119 - POP HIO RW-TW D - FTP4.pdf; 10. FOE Petition for Rulemaking - foe-20060929.pdf

1 of 4 from Mr. Malone

From: Sean Malone [mailto:seanmalone8@hotmail.com]
Sent: Friday, April 19, 2013 12:16 PM
To: Dowlin, Renee
Cc: miki
Subject: Comments and Supporting Documents for Hillsboro Airport Parallel Runway Draft Supplemental EA

Dear Ms. Dowlin,

On behalf of Oregon Aviation Watch and Michelle Barnes, please find attached comments on the Draft Supplemental Environmental Assessment for the Hiillsboro Airport Parallel Runway 12L/30R. I will also be attaching 29 supporting documents in pdf format. Please respond that you have received the comments and supporting documents, that you have been able to open the attachments, and that they have been added to the record.

Attached to this email are the comments and supporting documents 1-10.

I have also sent you a hard copy of the comments with a disc that contains the supporting documents via certified, return reciept requested.

Please do not hesitate to ask if you have any questions.

Thank you,

Sean Malone Attorney at Law 259 E. Fifth Ave. Suite 200-G Eugene, OR 97401 ph. 303.859.0403 <u>seanmalone8@hotmail.com</u> SeMa1 Draft

Sean T. Malone

Attorney at Law

259 E. Fifth Ave., Suite 200-G Eugene, OR 97401 Tel. (303) 859-0403 Fax (650) 471-7366 seanmalone8@hotmail.com

April 18, 2013

Via Email and Certified, Return Receipt Mail

Renee Dowlin, Senior Environmental Planner Port of Portland PO Box 3529 Portland OR 97208

Dear Ms. Dowlin,

On behalf of Oregon Aviation Watch, please accept these comments on the Draft Supplemental Environmental Assessment (SEA) for the Hillsboro Airport Parallel Runway 12L/30R. Attached to these comments are a number of supporting documents, and the list of supporting documents can be found at the end of these comments. Please add these comments and the supporting documentation to the record.

Oregon Aviation Watch is a 501(c)(3) non-profit organization whose primary purpose is to research, educate, and advocate on behalf of the public interest and public welfare about aviation issues. The mission of OAW is to enhance and protect the quality of life for Oregon residents by eliminating the adverse impacts of aviation activity. OAW's vision is to achieve a transparent, accountable, and sustainable aviation system that neither disregards nor diminishes the environment, livability, health, or well-being of current and future generations of Oregon residents.

I. Factual Background

A. <u>Remand from the Ninth Circuit Court of Appeals</u>

Petitioners Michelle Barnes, Blaine Ackley, and Patrick Conry challenged the Original Environmental Assessment prepared by the FAA for the Parallel Runway 12L/30R, and the Ninth Circuit granted their petition for review, remanding the matter to the FAA to consider the environmental impacts from the induced demand of aircraft operations from constructing a third runway at the Hillsboro Airport – an issue the original EA failed to address.

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As noted by the Ninth Circuit, the proposed third runway is "a major ground capacity expansion project," and, Ninth Circuit case law indicates that "a new runway has a unique potential to spur demand, which sets it apart from other airport improvements, like changing flight patterns, improving a terminal, or adding a taxiway, which increase demand marginally, if at all." In the words of the FAA, a new runway is "the most effective capacity-enhancing feature an airfield can provide."

B. <u>Hillsboro Airport</u>

The Hillsboro Airport is the busiest general aviation airport in the state of Oregon, and currently the second busiest airport in the state of Oregon. In previous years, the Hillsboro Airport was the busiest airport in the state. As noted below, leaded aviation gasoline (avgas) from instructional flying, air taxi activities, and personal transportation at general aviation airports contains lead, a potent neurotoxin.

According to the EPA, out of 20,000 airports that utilize avgas in the U.S., the Hillsboro Airport is 21st in the nation in lead pollution. In 2008, the Hillsboro Airport emitted 0.68 tons of lead into the atmosphere. As a result of the induced demand, the Hillsboro Airport will likely emit over one ton of lead into the atmosphere over the city of Hillsboro, requiring the airport to abide by lead monitoring requirements. *See* 73 Fed. Reg. 66964 (monitoring required when emissions inventories of 1.0 tpy or more). Of significant concern for the public health and safety, the Hillsboro Airport is surrounded on three sides by residential development. Regardless of whether the airport or the residential development occurred first, the FAA must disclose those impacts from increasing the amount of air toxins and other pollution generated from increased aircraft operations.

The Oregon Department of Environmental Quality (DEQ) recently placed an air toxics monitor in Hillsboro in March 2013, less than one mile away from the Hillsboro Airport. DEQ prioritizes monitoring for air toxics in areas where data indicates that pollutants could be ten or more times above clean air goals, or benchmarks. DEQ acknowledges that Hillsboro is the highest priority for air toxics monitoring statewide, and that it has measured higher levels of particulate pollution in Hillsboro than other parts of the Portland area. The Hillsboro Airport Original EA and the SEA rely on a monitoring station that is 16 miles away from the Hillsboro Airport in Southeast Portland. This monitoring station is closer to Portland International Airport (PDX) and Downtown Portland than it is to the Hillsboro Airport.

The vast majority of flight operations at the Hillsboro Airport are flight training operations, which include (1) touch and goes (a landing practice wherein an aircraft does not make a full stop after a landing, but proceeds immediately to another take-off); (2) flights to designated "high intensity" flight training areas over western Washington County; and (3) flights to other local airports.

SeMa



Because commercial airline fuel and jet fuel do not contain lead, commercial airports do not experience the same significant levels of lead pollution as general aviation airports. General aviation airports also cater to flight training and instruction schools (which comprises the vast majority of aircraft operations at Hillsboro), and flight training generally requires that pilots fly local patterns or fly in high intensive flight training areas. General aviation airports experience continuous flight training and other local general aviation aircraft operations that largely remain in the locale, flying at lower altitudes, whereas commercial airports are generally arrivals and departures that immediately climb to high elevations. As demonstrated in the figure below, GA local traffic and GA itinerant flights, which are largely piston-engine driven aviation aircraft using avgas, dominate the skies above Hillsboro Airport, the City of Hillsboro, and outlying areas.



HIO Airport Operations

C. Lead (Pb)



Though lead has been long since banned from gasoline used in automobiles and other uses, the use of leaded aviation gasoline (avgas) in piston-engine powered aircraft occurs unabated throughout the United States. According to the EPA, there are almost 20,000 airport facilities in the U.S. where leaded avgas is used. Aviation gasoline is utilized in general aviation aircraft with piston engines, which are generally used for instructional flying, air taxi activities, and personal transportation. Lead, however, is not used in jet fuel and most commercial aircraft. Emissions from piston-engine aircraft using leaded avgas comprise approximately half of the national inventory of lead emitted to the air, even more than industrial uses. Between 1970 and 2007, approximately 34,000 tons of lead were emitted into the atmosphere as a result of leaded avgas. Piston engine aircraft are the chief source of lead emissions in the United States, emitting 57% of the 964 tons of lead put into the air in 2008, according to the most recent figures from the National Emissions Inventory. In 2008 alone, aircraft emitted 571 tons of lead, more than doubling lead emissions emitted by industrial processes.

The EPA acknowledges that lead concentrations in air increase with proximity to airports where piston-engine aircraft operate. Lead disperses widely into the environment before settling to soil, water, vegetation or other surfaces. Lead is also removed from the air by rain. Once lead falls onto soil, it sticks strongly to soil particles and remains. Approximately 16 million people live within one kilometer of the approximately 20,000 airport facilities, and over 3 million children attend school within one kilometer of the approximately 20,000 airport facilities. While the U.S. has made improvements in lead concentration in the atmosphere, the same cannot be said for those families living near general aviation airports.

Lead is a neurotoxin, and when emitted into the air it can be inhaled or, after it settles out of the air, can be ingested. Ingestion of lead that has settled onto surfaces is the main way children are exposed to lead originally released into the air. Once in the body, lead is absorbed into the bloodstream and results in a broad range of adverse health effects. Children are particularly vulnerable to the effects of lead. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory, and behavior. There is no identified safe level of lead in the body.

Shortly after lead gets into a person's body, it travels in the blood to the "soft tissues" and organs (such as the liver, kidneys, lungs, brain, spleen, muscles, and heart). After several weeks, most of the lead moves into the bones and teeth. In adults, about 94% of the total amount of lead in the body is contained in the bones and teeth. About 73% of the lead in children's bodies is stored in their bones. Some of the lead can stay in your bones for decades; however, some lead can leave your bones and reenter your blood and organs under certain circumstances (e.g., during pregnancy and periods of breast feeding, after a bone is broken, and during advancing age).

The human body does not change lead into any other form. Once it is taken in and distributed to your organs, the lead that is not stored in your bones leaves your body through the urine or feces. About 99% of the amount of lead taken into the body of an adult will leave in the

waste within a couple of weeks, but only about 32% of the lead taken into the body of a child will leave in the waste. Under conditions of continued exposure, not all of the lead that enters the body will be eliminated, and this may result in accumulation of lead in body tissues, especially bone.

D. <u>Hillsboro Aviation, Inc.</u>

SeMa8

In the words of Max Lyons, President of Hillsboro Aviation, Hillsboro Aviation is "the largest flight training facility for both airplanes and helicopters on the pacific west coast...." Hillsboro Aviation uses piston-engine driven aircraft for its flight training, and, therefore, its operations significantly contribute to the lead exposure in and around the Hillsboro Airport. Mr. Lyons has also stated: "It has been clear to us, that a third runway will help to alleviate much of the congestion that we are experiencing and will allow the airport and it's [*sic*] tenants to continue expanding as the impact of the current recession subsides." As noted in the supporting documentation, Hillsboro Aviation has a longstanding relationship with various Chinese airlines to train its pilots, and Hillsboro Aviation has positioned itself to expand its flight training operations as the aviation industry in China and elsewhere in Asia experiences unprecedented growth.

E. <u>Global Aviation, Inc.</u>

Global Aviation, Inc. also acknowledges that demand will result from increased airport capacity: "The addition of the parallel runway will make Hillsboro more attractive to the type of aircraft that are the focus of Global's business. The excess demand that we anticipate will develop within the next three years partly as a result of the additional airport capacity, is the driving force behind the plans we are making to expand our 63,000 square feet of aircraft hangar space by 50%."

F. <u>Aero Air</u>

Aero Air has recently expanded its hangar at the Hillsboro Airport with a 30,000 square foot hangar. Numerous pilots reported in the survey that they would likely relocate their aircraft to Hillsboro Airport if additional hangar space is available.

II. <u>National Environmental Policy Act</u>

National Environmental Policy Act (NEPA) of 1969 is "our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). Congress passed NEPA "to protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any major federal action." *Lands Council v. Powell*, 385 F.3d 1019, 1026 (9th Cir. 2005). To accomplish this, "NEPA imposes procedural requirements designed to force agencies to take a 'hard look' at

environmental consequences." *Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1300 (9th Cir. 2003).

NEPA requires federal agencies to prepare an EIS before undertaking "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). An EIS must "provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

Under the Council on Environmental Quality regulations implementing NEPA, an agency prepares an EA in order to determine whether to prepare an EIS or to issue a FONSI, the latter of which excuses the agency from its obligation to prepare an EIS. *See* C.F.R. §§ 1500.1-8; *Morongo Band of Mission Indians v. FAA*, 161 F.3d 569, 575 (9th Cir. 1998). Regulations consistent with this approach have also been promulgated by the FAA for the purpose of evaluating FAA actions, including airport developments. *See* FAA Order 1050.1E, *Policies and Procedures for Considering Environmental Impacts* (Mar. 20, 2006).

A. <u>The Proposed Third Runway will have Significant Impacts on the Environment</u>

An EIS must be prepared if "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor. *Ocean Advocates v. U.S. Army Corps of Egn'rs*, 402 F.3d 846, 864 (9th Cir. 2005). To trigger the need for an EIS, a plaintiff need not show that significant effects will in fact occur; "raising substantial questions whether a project may have a significant effect is sufficient." *Id.* at 864-65 (internal quotations omitted). The effects that must be considered are both direct and indirect. 40 C.F.R. § 1508.8. Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id.* at 508.8(b). Indirect effects include growth inducing effects. *Id.* "While 'foreseeing the unforeseeable' is not required, an agency must use its best efforts to find out all that it reasonably can." *City of Davis v. Coleman*, 521 F.3d 661, 676 (9th Cir. 1975).

Determining whether an action "significantly" affects the quality of the human environment, 42 U.S.C. § 4332(2)(C), requires "considerations of both context and intensity." 40 C.F.R. § 1508.27. "Context" is the setting in which the agency's action takes place. *Nat'l Parks* & *Conservation Ass'n v. Babbitt*, 241 F.3d 722, 731 (9th Cir. 2001), *abrogated on other grounds by Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2757 (2010). The significance of an action must

be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole.

40 C.F.R. § 1508.27(a). The Ninth Circuit previously noted that the proposed third runway is a site-specific project, and, therefore, significance must be assessed based on the effects in the locale. As a result of the runway, increased operations, particularly by flight schools and other general aviation aircraft will occur, and that will disperse, settle, and deposit lead over the airport and, most importantly, the residential developments surrounding the airport on three sides. The context of the cumulative effect of lead on children and adults in and around the Hillsboro Airport is significant.

Significance is also analyzed in terms of intensity: "This refers to the severity of impact," and the NEPA regulations identify ten significance factors. *See* 40 C.F.R. § 1508.27(b)(1)-(10). Here, the proposed third runway is significant under the following significance factors:

- The degree to which the proposed action affects public health or safety. 40 C.F.R. § 1508.27(b)(2). As noted above, lead is a well-accepted neurotoxin that disproportionately affects children. Importantly, Duke University studies by Miranda have demonstrated that elevated levels of lead are found in children living in close proximity to general aviation airports, and that even very low levels cause adverse effects to children's neurological development. Clearly, this project will have long-lasting impacts on children and adults in and around the Hillsboro Airport, and this issue must be thoroughly analyzed in an environmental impact statement (EIS).
- Unique characteristics of the geographic areas. 40 C.F.R. § 1508.27(b)(3). This site specific project is surrounded on three sides by residential developments, and the impacts of air toxins and lead will adversely affect those families and children living adjacent to the airport. In light of this well-established impact (*see* Miranda/Duke University studies), the FAA has taken the untenable position that there will be no off-airport impacts. Again, this project will have long-lasting impacts on children and adults in and around the Hillsboro Airport, and this issue must be thoroughly analyzed in an EIS.
- The degree to which the effects on the quality of the human environment are likely to be highly controversial. 40 C.F.R. § 1508.27(b). Impacts to adjacent communities, families, and children from the impacts of lead, air toxins, and noise are controversial in the City of Hillsboro. Here, there exists a dispute as to the size, nature, and effect of the proposed runway as it relates to the impacts of lead and other pollutants on the residents of the City of Hillsboro. These controversial impacts must be thoroughly assessed in an EIS.
- The degree to which the possible effects on the environment are highly uncertain or involve unique or unknown risks. 40 C.F.R. § 1508.27(b)(5). The disproportionate impacts of lead on children are unique risks that exist in close proximity to general aviation airports. Hillsboro Airport is home to the largest flight training school on the west coast, and the Hillsboro Airport emits over 1,000 pounds of lead into the atmosphere. Notably, there are no safe levels of lead. These unique risks to the children and residents of Hillsboro must be thoroughly analyzed in an EIS.



• Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. 40 C.F.R. § 1508.27(b)(7). Throughout the history of the Hillsboro Airport, an EIS has never been prepared, yet the operation of the airport emits significant amounts of lead historically, presently, and will do so into the future. Given the disproportionate effect of lead on children, the past, present, and reasonably foreseeable impacts of lead must be analyzed fully in an EIS. Lead does not break down in the environment, and, therefore, the cumulative and incremental effect of spewing a potent neurotoxin over the skies of the City of Hillsboro must be addressed.

B. Failure to Disclose Environmental Impacts to the Affected Environment

The "Affected Environment" section of the EA is required to identify "those environmental resources the proposed action and its reasonable alternatives, if any, are likely to affect (FAA Order 1050.1E, paragraph 405e)." Under the "socioeconomic impacts, environmental justice, and children's health and safety risks," the agency acknowledges that "the population of the City of Hillsboro, Washington County and the Portland-Vancouver Area is growing faster than was noted in the original Environmental Assessment." The FAA, however, also states that "[d]espite this increased growth rate in area population, the proposed project is not expected to have off-airport effects," and "[a]s described in the Original Environmental Assessment, the project footprint is solely within the airport boundary." The agency's conclusion that a project would not have any off-airport effects is arbitrary and capricious because the impacts from lead and other pollutants are not confined to the project footprint.

The SEA also states that "[t]he original Environmental Assessment noted that no significant adverse socioeconomic impacts or risks to children's health and safety were anticipated due to construction and operation of the proposed project." This statement is false. The original EA did not consider the impacts of operation of the proposed project – this was the essence of the Ninth Circuit's holding. The SEA, however, follows suit and fails to acknowledge impacts from operation of the runway as it relates to the surrounding residential developments. In addition, the SEA again states that "the project would not have off-airport population effects," and "the anticipated project-related effects continue to be confined to the Airport,...." Finally, the SEA disclaims any effects to children: "no resources associated with children would be affected, no further analysis of these factors is required in this Supplemental Environmental Assessment."¹

Here, the SEA does not even disclose that residential homes surround the airport on three sides, and similarly fails to disclose how many people (most importantly children, a segment of

¹ Here, it would appear that the only way children could be impacted by pollution from increased aircraft operations is if the children were playing on the runway, or at least within the airport boundary.



the population that is disproportionately affected by lead) live within a mile of the airport. This information is relevant and significant because of the attached studies from Miranda and Duke University, which demonstrate that children living within close proximity to general aviation airports contain significant concentrations of lead and also demonstrate that small levels of lead have discernible impact on children in end-of-grade testing. The SEA is arbitrary and capricious not only because it ignores the disproportionate impacts to children but also because the SEA takes the untenable position that there would be no off-airport impacts from lead. The Miranda/Duke University studies and common sense dictate otherwise.

C. Failure to take a hard look, adequately analyze, or disclose reasonably foreseeable environmental effects

The FAA acknowledges that the "new forecasts were prepared for the time period through year 2031 as noted in Appendices B, C, and D, as the standard FAA aviation demand planning horizon is the base/current year (2011) plus 20 years." The FAA, however, determined that the "standard FAA aviation demand planning horizon" was not warranted for this particular project: "However, FAA determined that the period through 2021 is reasonably foreseeable for purposes of NEPA and this Supplemental Environmental Assessment." The agency's change in position is not due deference. While the agency has the information for forecasts to 2031, it fails to disclose the impacts from 2021-2031. In all of the EAs and EISs I have reviewed, this is the first time I have seen an agency fail to analyze the impacts based on information contained within the NEPA document itself. This failure to disclose the impacts associated with forecasts for 2031 is arbitrary and capricious.

D. Failure to Consider FAA Order 5090.3C

The FAA relies on a 1983 FAA Advisory Circular 150/5060-5, *Airport Capacity and Delay* (September 1983) to assess ASV, but FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems* (Dec. 4, 2000) also defines ASV. Importantly, FAA Order 5090.3C defines ASV as the average delay per operation as 4 minutes. Here, according to the SEA, the 2011 activity resulted in delays estimated from near 0.5 minute to approximately 1.6 minutes (with average of about 1 minute). By 2021, it is estimated to be from 0.75 minutes to 2.7 minutes (averaging about 1.75 minutes). According to the FAA Order 5090.3C, the Hillsboro Airport has not yet reached ASV – not even close. As noted by the Ninth Circuit, "[w]hether the Master Plan's recommendation for airfield capacity improvements would have been the same had it relied on the ASV definition actually used by FAA Order 5090.3C is not before us." This issue is now before the FAA. The Master Plan's recommendation for airfield capacity improvements would have been far different had the FAA and the Port of Portland utilized FAA Order 5090.3C, and there would be no purpose and need for this project. According to that Order, the Hillsboro Airport has not yet reached ASV, and it will not do so anytime soon.

SeMa14

E. Failure to take a hard look, adequately analyze, and consider impacts from reaching capacity with a third runway



SeMa1

While the FAA acknowledges that a third runway will allow the Hillsboro Airport to accommodate 315,000 operations, the FAA fails to disclose the environmental impacts associated with that capacity, including impacts from lead on children living in close proximity to the airport. By failing to consider the impact from 315,000 aircraft operations, the FAA and the Port of Portland have ensured that these impacts will never be disclosed to the public or analyzed by the agency. The agency's failure to assess this information is arbitrary and capricious and fails to inform the public of the environmental hazards awaiting them from construction of a third runway.

F. Failure to take a hard look, adequately analyze, and disclose impacts to wildlife

According to the Centers for Disease Control, elemental lead cannot be broken down The levels of lead build up in plants and animals from areas where air, water, or soil are contaminated with lead. If animals eat contaminated plants or animals, most of the lead that they eat will pass through their bodies. Here, the FAA has failed to consider these impacts on any wildlife in and around the Hillsboro Airport. After tens of years of dispersing and settling many thousands of pounds of lead in and around the airport, the soil and vegetation are likely contaminated with lead, yet the SEA failed to analyze this issue. This omission is arbitrary and capricious.

G. <u>Failure to take a hard look, adequately analyze, and disclose the cumulative</u> <u>effects of lead dispersion, settling, and deposition</u>

The additional runway will lead to more than 140,000 additional aircraft operations in the years to come.² The SEA fails to demonstrate how many of these aircraft operations would be piston-engine driven aircraft operations, and, therefore, the analysis is not upfront about the impacts of lead on and around the airport. The SEA also fails to disclose the cumulative effect of year after year of depositing thousands of pounds of lead onto and around the airport, particularly the residential development. This failure is significant because there is no safe level

² Table D-4 indicates that in 2014, there would be an additional 7,890 aircraft operations; in 2015, there would be an additional 11,350; in 2016, there would be an additional 11,350. Though the Table D-4 does not disclose additional aircraft operations from 2017-2020, it is reasonable to assume that 11,350 additional operations would occur in these years because Table D-4 includes an additional 11,350 operations in 2021. It is reasonable to assume, based on the projections in Table D-4, that 2022-2025 would include 7,570 additional aircraft operations because 2026 would also have an additional 7,570 operations, and the years 2027-2030 would each have 3,460 additional operations because 2031 is projected to have 3,460 additional operations. Thus, the sum total of additional aircraft operations from the years 2014 through 2031 is 142,490 additional aircraft operations. The FAA fails to disclose the lead impacts and impacts associated with other pollutants from on an additional 142,490 aircraft operations.

of lead in children – not even a hundredth of a microgram. The agency's failure to consider the cumulative impact – including past, present, and reasonably foreseeable impacts – of lead dispersion, settling, and deposition onto and around the airport, including large residential developments, is arbitrary and capricious.

The Port of Portland constructed a taxiway, which the FAA has conceded marginally increases demand at an airport. Here, the FAA failed to disclose the cumulative and incremental impact on demand from constructing the new taxiway and the proposed new runway. This failure is arbitrary and capricious.

H. <u>Failure to Take a Hard Look at Water Quality</u>

SeMa18

According to the Centers for Disease Control, dispersed lead enters rivers, lakes, streams and aquatic life when soil particles are moved by rainwater. Lead from increased aviation activity disperses and settles into McKay Creek watershed, the Glencoe Swale, Dawson Creek, and Dawson Creek watershed. The EA fails to identify the past impacts to water bodies and watersheds as it relates to lead dispersion and settling, and fails to disclose the environmental impact of adding more lead to water bodies.

The EA also fails to disclose impacts on water bodies associated with de-icing at the airport. The Port of Portland owns and operates HIO, a general aviation airport. The airport contains seven drainage basins, and it is situated on high ground between two watersheds. McKay Creek drains the northerly and westerly portions of the site. Dawson Creek serves the southern and eastern portions of the site. Drainages flow into the City of Hillsboro's storm sewer system. Both creeks and the City of Hillsboro's storm sewer system are part of the Tualatin River watershed. De-icing fluid is harmful to fish and other aquatic life. Bacteria break down de-icing fluid, depriving fish of oxygen. Sodium Formate is also used for pavement de-icing. Sodium Formate is a hazardous substance, and it is toxic to lungs and mucous membranes. It is hazardous if inhaled or if it comes into contact with skin or eyes, and very hazardous if ingested. Regardless of whether de-icing will be addressed in a 1200-Z permit, the agency cannot ignore its obligations to take a hard look, adequately analyze, and disclose the impacts on water quality from de-icing fluid.

I. Failure to Consider changes in Businesses and Economic Activity



The SEA fails to consider the potential for induced or secondary impacts on surrounding communities pursuant to FAA Order 1050.1E. Here, Hillsboro Aviation and Global Aviation have expressly stated that they would increase their operations if an additional runway is constructed, but the SEA fails to disclose this information. This demonstrates that the additional runway would induce demand from companies currently operating at Hillsboro Airport. More importantly, Hillsboro Aviation has repeatedly stated that it intends to expand its flight instruction operations if a third runway is constructed. This is significant because flight instructional operations use avgas, which contains lead. According to the survey, numerous



participants are frustrated by the overwhelming number of flight training operations, and Hillsboro Aviation's expansion will only increase lead pollution in and around the airport in the event the third runway is constructed.

The EA concedes that Aero Air expanded its hangar in 2012. Aero Air's new hangar is 30,000 square feet, and, according to Aero Air, "there is a considerable demand for hangar lease customers." Numerous pilots reported in the survey that they would likely relocate their aircraft to Hillsboro Airport if additional hangar space is available. The SEA fails to take into account the additional demand for hangar space combined with the induced demand as a result of a new parallel runway and intention of existing companies to expand operations.

According to the FAA, it is "traditionally assumed that there would be no change in activity with the addition of a new runway at a general aviation airport, as was assumed in the original Environmental Assessment." This assumption, however, was put to rest by the Ninth Circuit:

It strains credulity to claim that increasing HIO's capacity significantly, which in turn would decrease congestion and delay, would have no bearing on the decision of flight schools, the military, emergency medical services, and business and private owners over whether to locate their aircraft at HIO or at other, considerably less busy, GA airports in the area.

Barnes v. US DOT. Hillsboro Aviation credits its expansion to its Chinese clientele, and Hillsboro Aviation has positioned itself to take advantage of the unprecedented growth in the Asian aviation industry. As this industry grows, Hillsboro Aviation will instruct more and more pilots over Washington County and the City of Hillsboro, and the residents of Washington County and the City of Hillsboro, and the residents of Washington County and the City of Hillsboro, and the residents of Washington take a hard look, adequately disclose, or consider the impacts from flight schools and their publicly stated intention to expand if a third runway is constructed.

J. Failure to Consider Airport Tower Closures



The FAA recently announced that it would close a number of airport towers at various airports throughout the country, including four in Oregon: Southwest Oregon Regional in North Bend, Eastern Oregon Regional at Pendleton, McNary Field in Salem, and Portland-Troutdale in Portland. The SEA fails to consider that these closures may result in increased aircraft operations at the Hillsboro Airport given that its tower will continue to be operational.

K. Failure to Disclose Current Emissions Inventory



The SEA relies on a 2007 emissions inventory for the criteria and precursor pollutants, but that information was obtained from a monitoring station more than 16 miles away from the

Hillsboro Airport, which is much closer to PDX. Oregon Aviation Watch questions the accuracy of this monitor.

The SEA states that the "2011 annual aircraft operations were 11% less than the operations evaluated in the 2007 emissions inventory. A new existing conditions (2011) emissions inventory was not prepared for this Supplemental Environmental Assessment since, based on the forecasts performed in response to the Court's remand, the emissions levels would be less than shown in the Original Environmental Assessment." This, however, widely misses the mark. The issue is not whether current aircraft operations are less than in 2007; rather, the issue is whether a monitor 16 miles away from the Hillsboro Airport can even identify emissions from the Hillsboro Airport, especially in light of the fact that the monitor is closer to PDX. Thus, a new emissions inventory based on the recently installed air toxics monitor must be prepared.

L. <u>Failure to insure scientific integrity</u>

For the same reasons cited above, the FAA has failed to ensure scientific integrity in its emissions inventory. Reliance on a monitor 16 miles away from the Hillsboro Airport and closer to PDX fails to ensure the scientific integrity of the Air Emissions Inventory. In the absence of any supporting documentation that an air monitor 16 miles away from the Hillsboro Airport can accurately or adequately identify emissions from Hillsboro Airport, as well as differentiate from PDX, downtown Portland, and other facilities closer to the monitor.

M. <u>Failure to take a hard look, adequately analyze, and disclose information related</u> to lead statistics

Footnote 17 states that "EDMS was used directly for all pollutants except lead (Pb). EDMS does not calculate lead emissions. Rather the fuel use identified by EDMS was used to estimate lead emissions at Hillsboro Airport based on the known quantity of lead content in AvGas." The SEA fails to provide <u>any</u> information to support what the quantity of lead content in avgas is and what number of piston-engine driven aircraft operations occur. In essence, the FAA has failed to heed the Ninth Circuit's direction: "In essence, the agencies would like this court to take their word for it and not question their conclusory assertions in the EA Their word, however, is not entitled to the significant deference that courts give aviation [methodologies] performed by the FAA." Thus, the FAA's failure is arbitrary and caprici

N. Failure to take a hard look, adequately analyze, or disclose baseline data

The FAA's analysis of environmental impacts is fundamentally flawed because the agency failed to take a hard look, adequately disclose, or consider the baseline as it relates to off-airport impacts, emissions inventory, impacts to water bodies and aquatic life, and other environmental factors necessary to take a hard look.

SeMa19

SeMa16

O. <u>Failure to Consider Relevant Factors</u>



The FAA failed to consider numerous, relevant factors in its analysis, including the unique and disproportionate impacts posed by leaded avgas to children that live in close proximity to the Hillsboro Airport; past, present, and reasonably foreseeable dispersion, settling, and deposition of lead in and around the Hillsboro Airport; failure to consider off-airport impacts³; failure to adequately disclose the baseline by relying on a monitor for the emissions inventory that is 16 miles away from the Hillsboro Airport; and other relevant factors identified in throughout these comments.

Conclusion

Based on the foregoing, the SEA is not legally defensible, and, therefore, it must be withdrawn. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sean T. Malone

Jen Malen

Attorney for Oregon Aviation Watch Michelle Barnes

Enclosures:



- 1. Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline Fact Sheet
- Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline; Proposed Rule. Federal Register Vol. 75, No. 81. Wednesday, April 28, 2010.
- 3. Centers for Disease Control Fact Sheet on Lead
- 4. Oregon Department of Environmental Quality Fact Sheet DEQ Places Air Toxics Monitor in Hillsboro

³ Ironically, the FAA claims that there would be no off-airport effects, yet it relies on an monitor that very much off-airport (16 miles away from the airport to establish Hillsboro Airport's emissions inventory). Clearly the agency has found itself in an untenable and contradictory position. In essence, the FAA has arbitrarily delineated the project area.



- Oregon Department of Environmental Quality Press Release DEQ Adds Air Toxics Monitor in Hillsboro
- 6. Aero Air at HIO Erecting New 30,000 S.F. Hangar
- 7. Aero Air Breaks Ground on New Hangar
- 8. Airports Leaden Fallout May Taint Some Kids
- 9. Connect Oregon Application A10119
- 10. Friends of the Earth Petition for Rulemaking (September 29, 2006)
- 11. Miranda et al. The Relationship between Early Childhood Blood Lead Levels and Performance on the End-of-Grade Tests
- 12. Miranda et al. A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Levels.
- 13. Environmental Protection Agency Memo re Selection of Airports for the Airport Monitoring Study
- 14. Fact Sheet Revisions to Lead Ambient Air Monitoring Requirements
- 15. Chiodo et al. Neurodevelopmental effects of postnatal lead exposure at very low levels.
- 16. Low lead exposure harms children: a renewed call for primary prevention. Report of the Advisory Committee on Childhood Lead Poisoning Prevention of the Centers for Disease Control and Prevention
- 17. Article "Sunset for Leaded Fuel" from Spheres of Influence
- 18. Article "The Real Criminal Element" from *Mother Jones*
- 19. Article "Lead Exposure on the Rise Despite Decline in Poisoning Cases" from Scientific American
- 20. FAA list of FAA Contract Tower Closure List
- 21. Press Release "FAA Makes Tower Closing Decision" (March 22, 2013)
- 22. Article "Hillsboro Aviation Prepared to Support General Aviation Growth in China" from *Vertical Magazine*.
- 23. Article "Hillsboro Develops China Clientele" from *Aviation International News* (March 6, 2011).
- 24. Intensive Flight Training in Vicinity of Portland-Hillsboro Airport, Hillsboro OR
- 25. APO Terminal Area Forecast Detail Report for Hillsboro Airport
- 26. Article "The Growth Predicted for China's Aviation Sector is Startling"
- 27. Website Hillsboro Aviation Website
- 28. Sodium Formate Fact Sheet
- 29. Article "Will China Build 82 Unneeded Airports By 2015? You Betcha" Forbes

	Responses to Sean Malone Email 4-19-2013 transmitting Letter 4-18-2013
SeMa1	The Port and FAA appreciate the submission of an extensive listing of published material. This includes:
	 Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline Fact Sheet
	 Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline; Proposed Rule. Federal Register Vol. 75, No.81. Wednesday, April 28, 2010.
	Centers for Disease Control Fact Sheet on Lead
	 Oregon Department of Environmental Quality Fact Sheet – DEQ Places Air Toxics Monitor in Hillsboro
	 Oregon Department of Environmental Quality Press Release – DEQ Adds Air Toxics Monitor in Hillsboro
	Aero Air at HIO Erecting New 30,000 S.F. Hangar
	Aero Air Breaks Ground on New Hangar
	Airports Leaden Fallout May Taint Some Kids
	Connect Oregon Application – A10119
	• Friends of the Earth Petition for Rulemaking (September 29, 2006)
	 Miranda et al. – The Relationship between Early Childhood Blood Lead Levels and Performance on the End-of-Grade Tests
	 Miranda et al. – A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Levels.
	 Environmental Protection Agency – Memo re Selection of Airports for the Airport Monitoring Study
	Fact Sheet – Revisions to Lead Ambient Air Monitoring Requirements
	Chiodo et al. – Neurodevelopmental effects of postnatal lead exposure at very low levels.
	 Low lead exposure harms children: a renewed call for primary prevention. Report of the Advisory Committee on Childhood Lead Poisoning Prevention of the Centers for Disease Control and Prevention
	Article – "Sunset for Leaded Fuel" from Spheres of Influence
	Article - "The Real Criminal Element" from Mother Jones
	 Article – "Lead Exposure on the Rise Despite Decline in Poisoning Cases" from Scientific American
	FAA list of FAA Contract Tower Closure List
	 Press Release - "FAA Makes Tower Closing Decision" (March 22, 2013)
	 Article – "Hillsboro Aviation Prepared to Support General Aviation Growth in China" from Vertical Magazine.
	 Article – "Hillsboro Develops China Clientele" from Aviation International News (March 6, 2011).
	Intensive Flight Training in Vicinity of Portland-Hillsboro Airport, Hillsboro OR
	APO Terminal Area Forecast Detail Report for Hillsboro Airport
	 Article – "The Growth Predicted for China's Aviation Sector is Startling"
	Website - Hillsboro Aviation Website
	Sodium Formate Fact Sheet
	Article – "Will China Build 82 Unneeded Airports By 2015? You Betcha" Forbes
SeMa2	According to the USEPA, and repeated in many of the research documents submitted by commenters, lead poisoning can be a serious public health threat with no unique signs or symptoms. In adults, lead poisoning can cause:

• poor muscle coordination

- nerve damage to the sense organs and nerves controlling the body
- increased blood pressure
- hearing and vision impairment
- reproductive problems (e.g., decreased sperm count)
- retarded fetal development even at relatively low exposure levels

In children, lead poisoning can cause:

- damage to the brain and nervous system
- behavioral problems
- anemia
- liver and kidney damage
- hearing loss
- hyperactivity
- developmental delays
- in extreme cases, death

Recent CDC studies have identified that the current blood lead concern in children is 10µg per deciliter of blood; however, adverse effects may occur at lower levels than previously thought. In January of 2012 a CDC advisory panel recommended lowering the level that triggers intervention, but the CDC has not done so to date. The USEPA considers this and other criteria, in setting or revising the NAAQS (which are reviewed by USEPA on a 5-year schedule). The EPA sets the NAAQS at a level expected to protect public health and welfare with an adequate margin of safety. The FAA uses USEPA's NAAQS to evaluate the effects of project emissions. Washington County is in attainment for all NAAQS, including lead, and the proposed project is not expected to result in a violation of the any of the NAAQS.

While lead is used in the AvGas dispensed by tenants to aircraft at Hillsboro Airport, there is no industry-accepted information to indicate that residents in the vicinity of Hillsboro Airport have been exposed to concentrations of lead from aircraft that would cause the effects noted above.

According to the USEPA web site:

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been from fuels in on-road motor vehicles (such as cars and trucks) and industrial sources. As a result of EPA's regulatory efforts to remove lead from on-road motor vehicle gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline.

The USEPA has adopted NAAQS for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead. This area is therefore designated by USEPA as "attainment" for this pollutant and has no history of exceeding the NAAQS standards. Although lead measurements have not been conducted immediately adjacent to Hillsboro Airport, measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.

NAAQS are designed to protect public health and welfare with an adequate margin of

	safety, as defined by the USEPA. As noted by the USEPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. <i>Primary standards</i> provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. <i>Secondary standards</i> provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
SeMa3	Chapter 6 of the Supplemental EA addresses air quality issues associated with the proposed project.
	In October 2009, the USEPA released the report "Lead Emissions from the Use of Leaded Aviation Gasoline in the United States: Technical Support Document" (EPA420-R-08-020). That report identified Hillsboro Airport as the 30 th highest emitter of lead of the 3,414 general aviation airports considered by the USEPA (Table 1) with 0.6 ton year. This evaluation was performed using the screening methodology used by USEPA in its National Emissions Inventory (NEI).
	As USEPA began to improve upon their understanding of lead from AvGas, they recommended monitoring be conducted at representative airports to confirm the lead identified in the emissions inventory. This study was then referenced as information that USEPA placed in the Lead NAAQS Docket EPA-HQ-OAR-2006-0735. The revised analysis increased the emissions associated with Hillsboro Airport from 0.6 to 0.68 tons per year, placing it as the 21 st highest level of emissions estimated to occur at the General Aviation airports examined. The change in USEPAs estimate of emissions from Hillsboro Airport (and thus where in the list of other airports that it sits) appears to be based on 2009 activity at the airport rather than the earlier 2002 data. Based on these results, the USEPA recommended monitoring at the top 15 airports. Hillsboro Airport is not included in this list of airports where USEPA is conducting monitoring.

	 The USEPA and state and local agencies responsible for air quality conduct air measurements in region. This equipment is sited by the agencies to ensure that the region meets the NAAQS. Based on a press release/Fact Sheet, ODEQ¹ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur" Reasons given for expanding the data collection at the Hillsboro site include: The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation Rapid growth of the area Air toxics have not been conducted in the area
	While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study). That study was completed in early July 2013, but further steps by the USEPA have not been announced.
SeMa4	FAA guidance ² states:
	e. Airport-related hazardous air pollutants (HAPs). The Environmental Protection Agency (EPA) has identified roughly 25 individual HAPs that are associated with emissions from aircraft and airport ground service equipment (GSE). However, EPA does not specify aircraft and airports in the definitions and categories of HAP sources in Section 112 of the Clean Air Act (CAA) ("Hazardous Air Pollutants"). Nor has EPA established standards for HAPs. When compared with existing urban backgrounds, air quality monitoring studies near several large airports have not shown that increased HAP levels occur near those facilities. In fact, only a small percentage of an urban area's overall air pollution is attributable to airport emissions. Nevertheless, due to the emission levels of unburned hydrocarbons and particulates near airports, EPA's National Air Toxic Program notes that airports are complex facilities that emit HAPs.
	 Therefore, to comply with NEPA's disclosure requirements, FAA reports HAPs emissions in its environmental documents for information purposes only. FAA does not use that information to assess human health risks. The responsible FAA official should consider whether 40 CFR Section 1502.22, which addresses incomplete and unavailable information, applies to HAPS emissions for major airport development projects. (1) For major projects normally requiring an EIS (e.g., new airport, new runway, major runway extension), the responsible FAA official should decide, in consultation with Federal, State, and local air quality agencies whether it is appropriate to conduct a HAPs emission inventory. This is, especially so when the action would occur in areas that are classified as nonattainment or maintenance for O3 or particulate matter (PM). (2) As needed, consult APP-400 to determine the HAPs FAA will analyze and the methodology FAA will use to conduct that analysis.
	The original EA and the Supplemental EA examined emissions of lead because of the relatively large amount of general aviation activity using AvGas at the Airport. However, based on the results of the criteria pollutant analysis, the FAA determined that a HAPs evaluation was not warranted; HAPS emissions are usually directly related to emissions of VOCs, and as shown in Table 6-2 and 6-3, VOC emissions would decrease with the proposed action.
	Air measurements were not conducted for the original EA or the Supplemental EA as they

¹ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

² FAA Environmental Desk Reference For Airport Actions; October 2007, Chapter 1 Page 15

	are not required by FAA Orders 1050.1E (change1) or 5050.4B. FAA Orders do not require the sampling of emissions, as those conditions would only indicate existing conditions, and not emissions that would occur in the future with or without the proposed project, a fundamental requirement of NEPA; NEPA requires the disclosure of project-related effects relative to the No Action condition which would not be possible with air measurements.
SeMa5	See response SeMA3. The fact sheet specifically addresses the issue of measuring lead from Hillsboro Airport. While the existing Hillsboro community site may detect lead from avgas used at Hillsboro Airport, a determination concerning whether or not additional airport-related measurements are needed will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study) and determined its next approach to addressing lead from AvGas.
SeMa6	The comment raises questions concerning the use of airspace at and in the vicinity of Hillsboro Airport. The world's navigable airspace is divided into three-dimensional segments, each of which is assigned to a specific class. Most nations adhere to the classification specified by the International Civil Aviation Organization (ICAO) and described below. The designation of an area for the conduct of flight training comes about through local requests.
	The airspace around airports is designated by the FAA as Class A through G.
	• Class A Airspace extends from 18,000' up to 60,000' MSL. It is the most controlled airspace and requires a pilot to carry an Instrument Flight Rating and proper clearance no matter what type of aircraft is being flown.
	• Class B airspace generally extends from the surface up to 10,000 ft. AGL and is the area above and around the busiest airports (LAX, ORD, etc.) and is also heavily controlled. Class B's are designed individually to meet the needs of the airport they overlay. Pilots must also receive clearance to enter the Class B airspace.
	Class C airspace reaches from the surface to 4,000 ft. AGL above the airport, which it surrounds. Class C airspace only exists over airports, which have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight operations. Class C is also individually designed for airports but usually covers a surface area of about 5 nautical miles around the airport up to 12,000 ft. AGL. At 1,200 ft. the airspace extends to 10 nautical miles in diameter, which continues to 4,000 ft. Pilots, are required to establish two-way radio communications with the ATC facility providing air traffic control service to the area before entering the airspace. Within Class C, VFR and IFR pilots are separated.
	 Class D airspace exists from the surface to 2,700 ft. AGL above an airport and is the airspace designated around Hillsboro Airport. Class D airspace only surrounds airports with an operational control tower. Pilots are required to establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR pilots using this airspace must be vigilant for traffic as there is no positive separation service in the airspace.
	• Class E extends from either the surface or the roof of the underlying airspace and ends at the floor of the controlled airspace above. Class E exists for those planes transitioning from the terminal to enroute and is an area for instrument pilots to remain under ATC control without flying in a controlled airspace. Under visual flight conditions, Class E can be considered uncontrolled airspace.
	Class F is not used.
	 Class G airspace is completely uncontrolled airspace which extends from the surface to either 700 or 1,200 ft. AGL depending on the floor of the overlying Class E.

These airspace designations are defined by 14 CFR Part 71. Pilots must comply with the requirements of the airspace in which they operate.

A designated flight training area exists in the vicinity of Hillsboro Airport, as reflected in the airspace and sectional maps submitted by several commenters. This area captures flight training for a number of airports in the greater Portland region. The airspace in the immediate vicinity of Hillsboro Airport is designated as Class D. Northwest of Hillsboro Airport is a flight training area that is designated as Class E airspace that begins at 700 ft. AGL.

Hillsboro Aviation requested that FAA publish a special notice in the Airport/Facility Directory (A/FD) NW. It was developed in consultation with the FAA to be included in the A/FD in order to alert the aviation community to be aware of flight training activities. Historically, this particular area was already in use by the local general aviation community for flight training before the issuance of the special notice. The special notice alerts pilots to increased traffic volumes they may encounter which they might not otherwise expect. The designated area is airspace in which no ATC clearance or radio communication is required for visual flight rules (VFR) flight. The FAA has assigned a frequency to the area that pilots are encouraged to use to provide their own traffic updates to one another; however they are not required to do so because it is uncontrolled airspace for VFR pilots.

The "West Practice Area" is not officially designated by the FAA for visual flight training practice maneuvers for all area airports as the FAA does not restrict where pilots can fly under VFR (other than minimum safe altitudes) in that type of airspace (Class E). There are other examples of this type of special notice in many other locations in the country. This area is not designated a special use airspace in which the FAA would control or restrict the traffic like Warning Areas, Prohibited Areas, Restricted Areas, Military Operation Areas, or Class A, B, C, or D airspace.

14 CFR 91.119 states how low an aircraft may operate. Helicopters are allowed to operate lower than the limits stated as long as they pose no hazard to persons or property on the surface and comply with any routes or altitudes specifically prescribed for helicopters by the FAA. There are no prescribed helicopter routes or altitudes to the west of Hillsboro Airport's airspace. See 14 CFR 91.119 for Minimum Safe Altitudes – http://www.ecfr.gov/cgi-bin/text-

idx?c=ecfr&rgn=div8&view=text&node=14:2.0.1.3.10.2.4.10&idno=14

The FAA has limited control over where VFR pilots fly once they exit airport surface areas such as Hillsboro's. FAA Control Tower staff at Hillsboro query departing pilots regarding intended direction of flight (North, South, East, West) in order to exit Hillsboro Airport's controlled airspace (roughly a 4.2 mile bubble). Many pilots departing Hillsboro Airport prefer not to fly East in order to avoid PDX airspace and the requirements that come with flight through Class C airspace. A pilot flying North of Hillsboro Airport would encounter either PDX arrival or departure traffic and wake turbulence depending on which runways are being used at PDX. Southbound pilots would encounter traffic using the Newburg VOR³ and departures/arrivals from airports such as Starks Twin Oaks, Chehalem, Sportsman, McMinnville, Aurora State, etc. Located generally Westward from Hillsboro

³ VHF omnidirectional radio range (VOR), is a radio navigation system enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

	Airport is the least dense airspace area where students and instructors can operate while avoiding most of the general PDX/HIO aviation activities.
SeMa7	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.
	Efforts to find a safe and cost-effective alternative to leaded aviation gasoline were bolstered by a March 2013 U.S. District Court ruling that the USEPA should not be forced to rush the issuance of its report on the public health effects of lead emissions from general aviation aircraft. The Court finding came in response to the Friends of the Earth's March 2012 lawsuit that sought to force the USEPA to issue an accelerated endangerment finding on GA emissions.
	In its lawsuit, Friends of the Earth claimed the 2015 timeframe "constitute(s) the unreasonable delay by the agency in performing its statutory duty" under the Clean Air Act. The USEPA countered that it needs the extra time to gather evidence on the potential health effects from 100 low-lead avgas (100LL) and to propose new regulatory standards. The U.S. District Court for the District of Columbia ruled that the agency's issuance of an endangerment finding is not mandatory under the Clean Air Act and that the environmental group's efforts to force the issue are out of the Court's jurisdiction.
SeMa8	Mr. Malone requested specific operational characteristics about various users of the Airport (Hillsboro Aviation, Global Aviation, Aero Air, etc.). The Port has produced all available requested information.
	The Supplemental Environmental Assessment was conducted in response to the Court instruction to consider induced demand. The survey undertaken as part of the Supplemental EA effort Remand Forecast was designed to elicit evidence of potential growth of the type suggested by Mr. Malone in paragraphs D, E, and F.
	It is important to note that the operations of all tenants at Hillsboro Airport are included in the FAA Tower counts and represent the total demand for general aviation and flight training services at the Airport. The FAA and Port do not believe that the information requested by commenters about flight training details or data about specific companies is necessary to prepare forecasts for this Supplemental Environmental Assessment. Background data on total flight training is available. For example, Table 3-5 presents data from the Hillsboro Tower on helicopter training operations. Table 5-1 presents forecasts of helicopter training operations. The data for training operations represent the historical and forecast demand, regardless of what company/FBO provides training services. The FBOs at HIQ have been successful in growing their flight school operations because there

is demand for flight training education, not simply because they expand their operations. Therefore, the detail on individual FBOs/flight schools is less important than understanding the overall demand trends for flight training. Even if the data for individual companies was available, forecasting operations by company would be speculative.

The Draft Supplemental EA presented three forecasts of future activity at Hillsboro Airport in the categories of activity that occur at a general aviation airport. Forecasts both with and without the project are projected in the Unconstrained Forecast and Constrained Forecast, respectively. To test the issue raised by the Court (e.g., a survey of pilot opinion), a second "With Project" forecast was prepared, referred to as the Remand Forecast. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast, which already accounts for growth due to demographic and economic drivers.

As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the Court case. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the Unconstrained Forecast.

In addition, CEQ Section 1502.22 acknowledges that during the preparation of NEPA documents there may be incomplete or unavailable information. Based on the guidance in this statute, the Final Supplemental EA will note that information about specific user characteristics requested by many commenters is not available.

The available data about operations at Hillsboro Airport comes from the FAA tower located at the Airport. The level of data provided by the FAA does not provide the individual operators and the number of operations per company. While such data are available for commercial service airports, such as PDX, this detailed information comes from the airlines as a verification of the landing fee calculations, part of their lease agreement. Such information is not required for the substantial amount of operators at Hillsboro Airport. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. Therefore, neither the Port nor the FAA is able to provide a detailed list of operations by operator, as the data are not available. In other requests of some of the commenters, the Port has offered to assist the residents with collecting the data, but there would be a manpower cost for such data collection.

Information is not available concerning the number of flight training operations, nor the number of businesses that are conducting training, or the amount of non-commercial activity for the aircraft under 10,000 pounds as well as aircraft operations exempt from landing fees. These operations are collected in aggregate and are reflected in the past operational activity levels reported on Appendix B, C, and D.

The method of counting traffic used by the Hillsboro Airport Tower differs from that of the HIO Master Plan's definition of "Local Operations". The tower only counts a local operation as one in which the aircraft stays inside the Class D surface area (roughly 4.2 miles surrounding Hillsboro Airport). If a pilot departs Hillsboro Airport and goes West to the "high intensity" training area, that would be counted as an itinerant operation, not local.

A number of companies conduct flight training, including Hillsboro Aviation, TNG Aviation, Aviation NorthWest, Applebee Aviation, Fly Oregon, and Mary A. Schu Aviation. The web

	sites do not indicate the annual operations of these companies. Portland Community College, as noted by one commenter, also provides flight training. The specific aircraft types operated by these companies are not known. However, the aircraft mix operating at Hillsboro Airport is reflected in the data collected from the FAA; the Port and FAA is not able to identify those specifically associated with flight training.
SeMa9	The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if the proposed action or its alternatives has the potential to significantly affect the environment. An EIS is prepared if the proposed action or alternatives meet or exceed a significance threshold or if mitigation would not reduce the significant environmental impacts below the applicable thresholds. As the 2010 Environmental Assessment and this Supplemental EA show, the analyses confirm that the proposed action's environmental impacts would not meet or exceed a significance threshold for any of the resource categories; therefore, the preparation of an EIS is not warranted.
	This Supplemental Environmental Assessment was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration. [655 F.3d 1120 (2011)]. FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues.
	As noted in the Supplemental Environmental Assessment none of the project-related effects rises to the level of exceeding the FAA's thresholds of significance as defined in FAA Order 1050.1E (change1).
SeMa10	This Supplemental Environmental Assessment was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration. [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although this comment appears to fall outside the scope of the Ninth Circuit's remand order, a response is provided.
	FAA's criteria for controversy, found in Order 1050.1E (Para 304i), is as follows:
	"The term 'controversial' means a substantial dispute exists as to the size, nature, or effect of a proposed Federal action. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Opposition on environmental grounds by a Federal, State, or local government agency or by a Tribe or by a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement regarding the effects of a proposed action exists."
	While some local residents have expressed concerns relating to existing airport operations and opposition to the project, concerns have not been expressed by Federal, State, and/or local agencies. Other local residents have expressed support for the project. Further, FAA has received no evidence that a widespread number of citizens have concerns with the environmental effects of the proposed project. The Ninth Circuit rejected an argument that the context and intensity of the proposed project are such that an EIS is required.
	See also response SeMa2 and SeMa3.

	Some comments question the impacts of noise on public health. According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
	The health effects were taken into account when the FAA was required by Congress, through the Aviation Safety and Noise Abatement Act (ASNA) of 1985, to select one metric for describing aircraft noise levels. The FAA selected the use of the Day-Night Noise Level (DNL), which is required for use in FAA NEPA documents. The DNL reflects the Schultz curve, which predicts that approximately 14 percent of the exposed population would be highly annoyed with exposure to the 65 DNL. This annoyance level has been correlated to health effects due to stress; hearing loss would not be expected at sound levels experienced off-airport in the vicinity of the Airport. The Proposed Action would not subject any noise sensitive land uses to exposure of 65 DNL or greater; therefore, no significant project-related noise impacts are expected.
	See also response SeMa9.
SaMa11	Mr. Malone's statement that the Supplemental EA concludes that the project would have no off-airport effects is erroneous. The absence of off-airport environmental impacts pertains to significant aircraft noise (as defined by the 65 DNL) not air quality emissions. Relative to air quality emissions, the analysis shows that the project-related emissions would not adversely affect the ability of the state to meet its requirements to provide clean air, through conformance with the State Implementation Plan (SIP). Under the Clean Air Act, states are required to have SIPs designed to ensure that the National Ambient Air Quality Standards (NAAQS) are achieved. The analysis in the Supplemental EA shows that emissions from the project would not rise to the level that would adversely affect the SIP. Therefore, the proposed project would not be expected to generate emissions that would exceed the NAAQS, which are designed to protect public health and welfare with an adequate margin of safety.
SeMa12	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance. While the conclusions have not changed, the Final Supplemental EA contains additional language in support of the conclusions about Children's Health and Safety Risk.
SeMa13	Appendices B, C, and D of the Draft Supplemental EA present forecasts prepared in response to the court decision. These forecasts present forecast conditions through the year 2031. Preparation of the Draft Supplemental EA complied with applicable FAA Orders and guidance implementing NEPA. The orders outline FAA accepted methodologies, methods, models, techniques, and thresholds of significance for the environmental impact assessment and preparation of EA documents based on actions that are "reasonably foreseeable". The FAA does not believe that it is reasonably foreseeable to evaluate activity beyond 2021. Council on Environmental Quality (CEQ) regulations implementing NEPA require that documents address environmental impacts that are "reasonably foreseeable." FAA Order 5050.4B Chapter 1, Paragraph 9q defines reasonably foreseeable as:

	specificity to provide meaningful information to a decis to help determine if an action is reasonably foreseeable	ion maker and the interested public. Use the following table e."4
	Off airport action	On-airport actions
	The proponent has committed to completing the proposed action. As a result, the action is or will be the subject of a NEPA document, or a Federal, State, local, or Tribal government permit application or approval and would occur within the same time frames as those evaluated for the proposed airport action.	 The action is included on an unconditionally approved ALP and the proponent has: 1) Committed to complete the proposed action depicted on the unconditionally approved ALP; and/or 2) Developed preliminary design plans for an action in an Airport Capital Improvement Plan and those plans are available for review by interested parties.
	Would affect all, some. Or one of the environmental resources that the proposed action would affect.	Would affect all, some. Or one of the environmental resources that the proposed action would affect.
	Would occur within the same time frames as the time frames analyzed for the proposed airport action.	Would occur within the same time frames as the time frames analyzed for the proposed airport action.
	(footnote 4: Paragraph 905.c(1) and (2) provide definition	ns of "connected actions" and "similar actions," respectively)
	The evaluation of operations or enplaneme reasonably foreseeable. FAA determined foreseeable for purposes of NEPA and this President's Council on Environmental Quali that NEPA documents focus on actions an i.e. those that are likely to occur or probabl the case of time periods, the FAA has typica completion and then five (5) years afterward This is shown in the Supplemental Enviror done for the 2005 Master Plan have not a years later; they did not anticipate the turn	nts beyond 2021 would be speculative and not that the period through 2021 is reasonably Supplemental Environmental Assessment. The ty (CEQ) regulations and FAA guidance require d timeframes that are reasonably foreseeable; e rather than those that are merely possible. In ally limited the evaluation to the year of project d because this period is reasonably foreseeable. mental Assessment, Chapter 1. The forecasts ccurately reflected conditions observed only 7 in economic conditions in 2008.
SeMa14	FAA Advisory Circular 150/5060-5 Air methodologies for calculating ASV. The Po in Chapter 3 of the AC, which is appropri- capacity is limiting the operational capabil method is "useful when critical developmen capacity."	port Capacity and Delay defines several rt of Portland used the methodology identified ate under Order 5090.3C for "airports where ity of the airport." Under Order 5090.3C, this at decisions warrant a more precise estimate of
	For a general aviation airport, the ratio of d and forecast percentage of ASV, is the a capacity development against the FAA's p recommends planning development when Purpose and Need for the project is for capacity planning criteria.	emand to capacity, as expressed by the current opropriate metric for evaluating the need for lanning criteria in Order 5090.3C. The Order activity approaches 60% to 75% of ASV. The current airport activity levels exceeding FAA
	The statement in Order 5090.C3 that "An reported in the NPIAS, is the level of an operation is 4 minutes" is relevant to air c estimate ASV, which is permitted by Section ASV analysis conducted for HIO.	nnual Capacity or Annual Service Volume, as nual activity at which the average delay per arrier airports that use simulation modeling to a 3-3(a) of the Order. It is not applicable to the
	The runway project has been proposed in 5090.3C. The Airport's ASV exceeds the 60%	accordance with FAA planning criteria in Order
SeMa15	See earlier response SeMa13.	

	The evaluation of operations or enplanements beyond 2021 would be speculative and not reasonably foreseeable. FAA determined that the period through 2021 is reasonably foreseeable for purposes of NEPA and this Supplemental Environmental Assessment. The President's Council on Environmental Quality (CEQ) regulations and FAA guidance require that NEPA documents focus on actions and timeframes that are reasonably foreseeable; i.e. those that are likely to occur or probable rather than those that are merely possible. In the case of time periods, the FAA has typically limited the evaluation to the year of project completion and then five (5) years afterward because this period is reasonably foreseeable. This is shown in the Supplemental Environmental Assessment, Chapter 1. The forecasts prepared for the 2005 Master Plan have not accurately reflected conditions observed only 7 years later; they did not anticipate the turn in economic conditions in 2008.
SeMa16	Tables 6-2 and 6-3 in the Supplemental EA (and Table 5.7-2 in the original EA) present the effects of the proposed project relative to lead emissions. In the Supplemental EA, when comparing the Unconstrained Forecast (With Project) to the Constrained (No Action), the proposed project would not change aircraft-related lead emissions. When comparing the Remand Forecast (With Project) to the Constrained, the project would increase lead emissions from 0.8 ton to 0.9 ton in 2016, but by 2021, there would be no project –related emissions.
	See also responses SeMa2 and SeMa3.
	As noted earlier, the USEPA has adopted national ambient air quality standards for various criteria pollutants, including lead. This standard is designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. USEPA includes protection of wildlife in the development of standards.
SeMa17	Chapter 6, Section c of the Supplemental EA discusses the cumulative environmental impacts of the project based on the new forecasts prepared for the Supplemental EA. This expands upon the cumulative environmental impact evaluation in the original EA noted in Chapter 6. The effects of lead emitted due to the use of AvGas was considered in both the original EA (see Table 5.7-2) and in the Supplemental EA (see Table 6-2 and 6-3).
	See also response SeMa12.
SeMa18	See response SeMa16. Note that the USEPAs definition of standards designed to protect public health and welfare includes damage would include water and crops.
	The commenter indicated that pollutants from the Airport are discharged to receiving streams. As the Port of Portland has received a modification to its National Pollution Discharge Elimination System (NPDES) permit, which is unrelated to the proposed project, the Chapter 6 <i>Cumulative Impacts</i> in the Final Supplemental EIS reflects that updated analysis.
	The original Environmental Assessment examined the effects of the proposed project on water quality in Section 5.8. The forecasts evaluated in the Supplemental EA that were required by the Court remand, would not affect the results or conclusions in the original Environmental Assessment, and thus, as is noted in Chapter 6 of the Supplemental EA, no additional water quality analysis was conducted.
SeMa19	See also response SeMa8 above.
	The Supplemental Environmental Assessment Chapter 6 Section c discusses the project-

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	related effects on business and economic activity. The cumulative environmental impacts are also discussed in Chapter 6.
SeMa20	At the time the Draft Supplemental EA was released, budget issues at the national level caused the FAA to propose closing a number of air traffic control towers at smaller airports. In Oregon, the FAA had announced closures of towers at the airports in North Bend, Pendleton, Salem, and Troutdale. This was part of what was called "sequestration". Sequestration is a term used to describe the practice of using mandatory spending cuts in the federal budget if the cost of running the government exceeds either an arbitrary amount or the gross revenue it brings during the fiscal year. Sequestration is the employment of automatic, across-the-board spending cuts in the face of annual budget deficits.
	The proposed closure did not mean that the airports themselves would close. Rather, the staffing of the towers would be eliminated, and pilots would be responsible for safe operation to and from these airports.
	The decision to close the towers was made after preparation of the draft forecasts. Subsequent to the release of the Draft Supplemental EA the FAA furloughed air traffic control personal at larger airports, and as a result, Congress intervened to return controllers to work and keep open the Control Towers previously identified for closure. It is not clear how closure of towers in Oregon would affect activity at Hillsboro Airport.
SeMa21	Chapter 5 of the Supplemental EA discusses the FAA's reasons for not requiring the preparation of an updated existing conditions emissions inventory. The original Environmental Assessment (Table 5.7-2) lists the 2007 emissions inventory for all criteria pollutants. As noted in the Supplemental EA, the level of activity in 2007 was 240,735 annual operations. In 2011 the actual level of activity was 214,423. Because activity had decreased 11% between 2007 and 2011, emissions were also expected to decrease. Further, the Unconstrained Forecast for year 2021 at 242,650 annual operations was evaluated in the Supplemental EA and an emissions inventory provided (Table 6-2). For these reasons, the FAA determined that little would be learned from preparing a 2011 emissions inventory. While the new forecasts required a reconsideration of noise and emissions related effects, the scope of the proposed project did not increase.
	See response SeMa3 concerning air monitoring.
SeMa22	See also response SeMa8. The evaluations documented in the Supplemental EA were conducted in accordance with the requirements of FAA Orders 1050.1E (Change 1) and 5050.4B. These methodologies are documented in Chapters 5 and 6 in the Supplemental EA. FAA guidance does not require the sampling of aircraft noise or emissions, as this would only describe existing conditions, and not conditions associated with a proposed action. Information in the original EA concerning measurements was not the foundation of evaluating project effects; emissions measurement data only characterized past conditions and were not be used to assess future "with project" or "without project".
SeMa23	The lead content used in calculating the lead emissions is 0.56 grams of lead per liter of AvGas or 0.0047 pounds of lead per gallon of AvGas. The source of that information is ASTM D910 for 100LL Avgas <u>http://www.aviation-fuel.com/pdfs/avgas100llspecsastmd910.pdf</u> . ASTM International, formerly known as the American Society for Testing and Materials (ASTM), is a globally recognized leader in the development and delivery of international voluntary consensus standards. This lead content was used to estimate the lead emissions

 from the fuel burned of aircraft operating on AvGas. Appendix E has been expanded in
the Final Supplemental EA to include a spreadsheet that identified the aircraft known to
consume AvGas.

Comments and Response to Comments Comment File G.7

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	I
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzande	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum		Renee Strong
Megan Granum		Bill Stone

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
Comment File G.2	line Lubischer
4/1//2013	Jim Lubischer
	Honny Oberholmon
4/19/2015	Henry Oberheiman
4/17/2013	
4/17/2015	Justin St. Clair
4/10/2013	John Soungale Kimberly Culbertson
4/19/2013	Kinde Bernfether
4/10/2013	
4/19/2013	
4/1/2013	G Lynn Hannn Buth Marran
Commont File C 4	Ruth Warren
	Martin Donohoo
4/17/2013	Martin Cranum
4/1//2013	Matthew Dadin
4/19/2013	Mana Tama
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/1//2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	waiter Heilman
Comment File G.5	Plaine C. Ackley
Commont File C 6	bidine C Ackley
<i>4/</i> 19/2013	Sean Malone
Comment File G 7	Sean Maione
4/15/2013	WB White (WBW#)
4/19/2013	Miki & David Barnes (MDB#)
4/19/2013	Miki Barnes Oregon Aviation Watch (OAWa#)
Comment File G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer
Comment File G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft
	Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams

Mary Vigilante

From: Sent: To: Subject: Dowlin, Renee <Renee.Dowlin@portofportland.com> Wednesday, April 24, 2013 10:22 AM 'Mary Vigilante' William White FW: Objections to HIO Expansion

From: W B White [mailto:evermove@cableone.net]
Sent: Monday, April 15, 2013 10:58 AM
To: Dowlin, Renee
Subject: Objections to HIO Expansion

Dear Ms. Dowlin,

Speaking as both a retired airline pilot and a resident of Orenco Station, I have several objections to the planned third runway at Hillsboro Airport.

I object to being continually sprayed with leaden toxic fumes from the low flying Hillsboro Aviation training flights going round and round in the ill conceived HIO traffic pattern. A third runway would only exacerbate this unhealthy situation.

I object to the noise pollution generated by the activity cited above. More runway, more noise.

I object to the lack of a curfew on flying operations at HIO. More runway, less incentive for a curfew.

I object to the lack of any discernible noise abatement procedures at Hillsboro. More runway, less noise abatement possibilities.

I object to the tail wagging the dog situation wherein a small flight training operation can dictate the physical and mental health environment to the surrounding community. Especially when the track record of that operation is somewhat less than sterling.

I suggest that a small auxiliary landing field be found or established somewhere in the area away from the densely populated Hillsboro environs. Let all takeoff and landing practice be conducted at such field and Hillsboro Airport used for departure and arrival only. This practice worked very well in military flight training when I was a flight instructor.

Bottom line......I strongly object to the Port of Portland attempting to shove aside the concerns of the local community in favor of financial gain for a small group.

Therefore I strongly urge you to drop plans for a third runway at Hillsboro Airport.

Respectfully submitted,

William B. White 1828 NE Ashberry Drive Hillsboro, OR 97124

	Responses to WB White Email 4-15-2013
WBW1	As is noted in Chapter 6 of the Supplemental EA, when comparing the Constrained to the Unconstrained Forecast, no project-related change in aircraft noise is predicted. The Supplemental EA also compares the Remand Forecast to the Constrained, and project-related noise increases are expected to be less than the FAA's threshold of significance. Table 6-1 shows that noise levels would be less than evaluated in the Environmental Assessment. When comparing the Remand Forecast to the Constrained, project-related noise could increase by less than 0.2 dBA due to the 11,350 additional operations that would occur with the Remand Forecast.
	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
	The Supplemental Environmental Assessment Chapter 6 addresses the project effects on air quality and noise. As is shown, the proposed project is not expected to produce significant adverse environmental effects and no violations of the National Ambient Air Quality Standards (NAAQS) have been or are expected. The NAAQS are designed to protect public health and welfare.
WBW2	As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise conflicts, it would not address the project purpose and need and would be in conflict with Federal law.
	The Airport Noise and Capacity Act (ANCA) of 1990 restricted local Airport Sponsor's ability to impose a curfew or restrict activity at a public use airport. Restrictions on flight training or required curfews can put an unreasonable burden on interstate commerce (which is an area of regulation reserved for the Federal government), and also results in discriminatory regulation that violates the tenets of the constitution. Airport operators (such as the Port) that accept funds from FAA-administered financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Therefore, these types of

	restrictions cannot be put into place at a public use airport.
	See also response WBW1.
WBW3	As noted in the original EA, the Port of Portland and FAA have considered a wide range of alternatives to addressing the delay and congestion at Hillsboro Airport (the project purpose and need). Alternatives to the development of a new runway were considered in Chapter 3 of the original Environmental Assessment. The Port of Portland and the FAA do not have the authority to require activity to operate at another airport, as suggested. Restrictions on flight training or required curfews can put an unreasonable burden on interstate commerce (which is an area of regulation reserved for the Federal government), and also results in discriminatory regulation that violates the tenets of the constitution. Pilots wishing to operate at Troutdale, or any other airport, are already able to do so if facilities are available at those locations. Thus, other airports are is not an alternative to the need to reduce delay and congestion at Hillsboro Airport.
Received Fa

No. 0525 P. 1

David and Miki Barnes PO Box 838 Banks, Oregon 97106 503-324-0291

April 19, 2013

Ms. Renee Dowlin Senior Environmental Planner Port of Portland PO Box 3529 Portland, Oregon 97208

Dear Ms. Dowlin:

Re: Testimony opposing a third runway at the Hillsboro Airport

We chose to move to our current location in rural Washington County in 2002 Prior to arriving at this decision Miki had represented Washington County on the Port of Portland's Portland International Airport (PDX) Citizen Noise Advisory Committee for approximately 4 years. During this time-frame, despite repeated requests, the Port did nothing to address the numerous daytime and nighttime air traffic noise intrusions including commercial jets, military, general aviation, and helicopters over our home in the Cedar Mill area. At the time PDX was logging around 325,000 operations annually.

In the late 1990's Miki was diagnosed with rheumatoid arthritis, an auto immune disorder that can cause permanent joint damage, chronic pain, and other physical restrictions. Though faced with this challenge, she felt confident that she could manage the illness and possibly go into remission by making life style adjustments including meditation, gardening, reflection, and adequate rest in conjunction with recommended medical care. Sadly, there was rarely a half hour during any given day wherein quiet meditative repose was not interrupted by loud air traffic overflights.

In addition, we were frequently subjected to nighttime awakenings caused by aircraft noise. As a result of the ongoing erosion of our quality of life, our ability to enjoy our home and garden gradually diminished

The unresponsiveness exhibited by the Port of Portland (Port) on this issue and our growing concerns about the long term health impacts coupled with the recognition that trying to engage the Port and the Federal Aviation Administration (FAA) in substantive change amounted to an exercise in futility, we made a decision to find a home in a rural, woodland setting as far away from an airport as we could manage. Our goal was to find a location that would assure access to our jobs and allow us to remain in regular contact with friends and family in the Portland area.

This relocation represented a major investment for us. We sincerely hoped that we could leave behind the burden of dealing with airport issues Before purchasing this property we consulted with the Port of Portland Noise office with which we were well acquainted in light of our numerous efforts to remedy the situation and Miki's position as a CNAC representative. After reviewing the property which is located in unincorporated Banks, the Port noise office staff informed us that we would be subjected to several military flyovers daily and an occasional

> Miki and David Barnes Testimony Opposing Third Runway at the Hillsboro Airport Submitted 4/19/13



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Apr. 19. 2013 3:28PM nike

No. 0525 P. 2

general aviation flight. There was nothing in these dialogues that prepared us for the all too frequent incessant noise that actually did occur.

Please note, we chose a home that was 12 miles from the Hillsboro Airport and 25 miles from PDX. Yet we continue to be negatively impacted by both of these facilities. In addition to flight training and general aviation activity we are subjected to noise from intrusive military jets which are extremely disruptive over our wooded low ambient noise property. Yet the Oregon Air National Guard has consistently refused to more widely disperse these flights, despite our efforts to seek remedy.

Not surprisingly, we experienced profound disappointment and a sense of betrayal given the time, effort and money invested in our move. Had we been informed at the outset that we would be subjected to sometimes near constant aviation noise, we never would have moved to this address. The Noise Office at the Port of Portland is responsible for monitoring noise at all Port of Portland facilities yet does nothing to address our concerns despite repeated phone calls to their noise office, Bill Wyatt (the Director of the Port of Portland), the Governor's office, and various local, state, and federal representatives. In addition, the Oregon Department of Aviation, though it promotes airport expansion and growth, disavows all responsibility for monitoring noise and other adverse impacts of air traffic.

Port staff knew beyond a shadow of a doubt that we had no interest in living under a flight path, let alone a training pattern for flight students and general aviation hobbyists.

Despite our desire to garden, there are many days where we choose to stay indoors due to incessant air traffic noise. In addition, to our great regret, Miki was not able to achieve the state of remission from the rheumatoid arthritis, so longed for. Over the past 10 years she has lost functioning in her hands, feet and neck to the point that on some days gardening is completely out of the question. Medical doctors are recommending surgical interventions to repair damaged joints. Some joints cannot be repaired.

Our hopes for a peaceful, quiet home, a refuge away from the stresses of the world to revitalize and heal, has been under assault for years by the Port of Portland, which appears to care nothing about the health and well-being of people in this community. It is difficult to find even a half hour during any given day to meditate without frequent noise intrusions, often well over 6 to 8 in a single hour, some of which extend for over 20 minutes or more. The aviation noise intrusions are clearly audible inside our home with doors and windows closed.

Constructing a third runway at Hillsboro Airport and increasing operations will only make the problem worse.

We are also extremely concerned about the toxic pollutants being unleashed over neighborhoods, into the air and waterways, and onto precious prime farmland. Many general aviation aircraft use lead based fuel. Lead is a substance which is known to be quite dangerous even in very small doses. The benzene levels throughout the Portland Metropolitan area, which includes Hillsboro, are known to be well above benchmark levels. This is a cancer causing substance that is associated with fuel emissions. In addition there are a host of other toxins emitted by aircraft that pose a significant threat to the environment, contribute to global warming, and compromise the health of area residents. Though motorists are exhorted to minimize fuel usage on behalf of the environment, the Port, FAA and State of Oregon encourage unnecessary and extravagant MDB1



Miki and David Barnes Testimony Opposing Third Runway at the Hillsboro Airport Submitted 4/19/13

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expansions at general aviation airports with linle regard for either long or short term consequences.

Our attempts to seek recourse and mitigation of the noise and pollution have met with flimsy explanations including but not limited to:

- The area over your home is a designated "intensive flight training area." This was apparently done at the request of private flight training businesses. We were never informed of this decision in advance nor were given an opportunity to comment. This "Intensive Flight Training" area is adjacent to HIO and extends over Buxton, Banks, and Manning then west towards Timber. It continues south over Gales Creek, Forest Grove, Carlton and Lafayette. From McMinnville it proceeds east almost to St. Paul then north back to HIO. (See attached).
- The Port Noise office has no jurisdiction over aircraft more than 5 miles from HIO.
- Student pilots have the right decide where they wish to train and practice, the Port has no voice in this matter.
- Hillsboro Aviation in consultation with the FAA decides where student pilots fly.
- Since PDX radar is cut off by the West Hills and HIO has no radar, the Port Noise Office is unable to track aircraft below 2,000 feet.
- The airspace over your home has been designated for visual flight training practice maneuvers.
- There is nothing illegal about what these pilots are doing.

Decisions on behalf of the aviation sector made by the Port of Portland, the FAA and the State of Oregon have undermined the livability, quality of life, and environment to an extraordinary degree.

In light of the Port of Portland, the FAA, and State of Oregon's failure to address the adverse impacts posed by the Hillsboro Airport, we are strongly opposed to the addition of a third runway as well as all further growth at the Hillsboro Airport. If the Port does choose to pursue a third runway, an EIS should be required to address the significant environmental impacts of engaging in this action. In addition, we support and encourage a ban on all flight training in Washington County and a significant reduction in military operations over our home.

Sincerely,

David Barnes and Miki Barnes

Attachments







	Responses to Miki & David Barnes Letter 4-19-2013
MDB1	The Port of Portland and FAA understand that some residents have reported high noise levels and disruptions due to noise. As a result, the Port has implemented over thirty (30) noise management elements from the 2005 Compatibility Study through Hillsboro Airport's voluntary Fly Friendly Program. Outreach to aircraft operators on the program and its importance is carried out through industry web sites, Fly Friendly brochures, posters available for pilot briefing areas, direct meetings with airport tenants and Air Traffic Control, and presentations made in classroom lectures.
	Existing aircraft related noise exposure was defined in the original EA through the use of noise exposure maps or contours. These contours are presented using the 65 Day-Night Average Sound Level (DNL) noise contour metric where 65 DNL represents significant aircraft noise levels. Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of a year that provides for the 65 DNL contour. As noted in the original and Supplemental EA, the 65 DNL aircraft noise exposure contour does not include any noise sensitive uses, as it fall on-airport property. Although the FAA recognizes that noise occurs outside of these contours, the 65 DNL contour has been federally accepted as the level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Noise contour modeling has demonstrated that construction of the parallel runway and subsequent aircraft use of the runway will not result in growth of the 65 DNL contour beyond airport property.
	As is noted in Chapter 6 of the Supplemental EA, when comparing the Constrained to the Unconstrained Forecast, no project-related change in aircraft noise was predicted. The Supplemental EA also compares the Remand Forecast to the Constrained, and project-related noise increases are expected to be less than the FAA's threshold of significance. Table 6-1 of the Supplemental EA shows that noise levels would be less than evaluated in the Environmental Assessment. When comparing the Remand Forecast to the Constrained, project-related noise could increase by less than 0.2 dBA due to the 11,350 additional operations that would occur with the Remand Forecast.
MDB2	See also response MBD1.
	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated environmental impacts, which are not expected to exceed the FAA's thresholds of significance.
MDB3	According to the USEPA web site:
	Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been from fuels in on-road motor vehicles (such as cars and trucks) and industrial sources. As a result of EPA's regulatory efforts to remove lead from on-road motor vehicle gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline.
	The USEPA has adopted national ambient air quality standards (NAAQS) for various criteria pollutants, including lead. The area around Hillsboro Airport currently meets and is expected to continue to meet the NAAQS for lead. This area is therefore designated by USEPA as "attainment" for this pollutant and has no history of exceeding the NAAQS standards. Although measurements have not been conducted immediately adjacent to the Airport,

	measurements elsewhere have not led the USEPA to focus on the area around Hillsboro or to designate the area as non-attainment, nor the State or local air agency to indicate that there are violations of the standard.
	NAAQS are designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the USEPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. <i>Primary standards</i> provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. <i>Secondary standards</i> provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (<u>http://www.epa.gov/air/criteria.html</u>)
	In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
MDB4	FAA guidance ¹ states:
	e. Airport-related hazardous air pollutants (HAPs). The Environmental Protection Agency (EPA) has identified roughly 25 individual HAPs that are associated with emissions from aircraft and airport ground service equipment (GSE). However, EPA does not specify aircraft and airports in the definitions and categories of HAP sources in Section 112 of the Clean Air Act (CAA) ("Hazardous Air Pollutants"). Nor has EPA established standards for HAPs. When compared with existing urban backgrounds, air quality monitoring studies near several large airports have not shown that increased HAP levels occur near those facilities. In fact, only a small percentage of an urban area's overall air pollution is attributable to airport emissions. Nevertheless, due to the emission levels of unburned hydrocarbons and particulates near airports, EPA's National Air Toxic Program notes that airports are complex facilities that emit HAPs.
	Therefore, to comply with NEPA's disclosure requirements, FAA reports HAPs emissions in its environmental documents for information purposes only. FAA does not use that information to assess human health risks. The responsible FAA official should consider whether 40 CFR Section 1502.22, which addresses incomplete and unavailable information, applies to HAPS emissions for major airport development projects.
	(1) For major projects normally requiring an EIS (e.g., new airport, new runway, major runway extension), the responsible FAA official should decide, in consultation with Federal, State, and local air quality agencies whether it is appropriate to conduct a HAPs emission inventory. This is, especially so when the action would occur in areas that are classified as nonattainment or maintenance for O3 or particulate matter (PM).
	(2) As needed, consult APP-400 to determine the HAPs FAA will analyze and the methodology FAA will use to conduct that analysis.
	The original EA and the Supplemental EA examined emissions of lead because of the

¹ FAA Environmental Desk Reference For Airport Actions; October 2007, Chapter 1 Page 15

	relatively large amount of general aviation activity using AvGas at the Airport. However, based on the results of the criteria pollutant analysis, the FAA determined that a HAPs evaluation was not warranted; HAPS emissions are usually directly related to emissions of VOCs, and as shown in Table 6-2 and 6-3, VOC emissions would decrease with the proposed action.	
MDB5	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. While noise is not a Hillsboro Airport Roundtable Exchange (HARE) agenda item, noise office staff regularly participate and attend the meetings. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.	
	that tracks traffic at PDX and Hillsboro Airport. At Hillsboro Airport, terrain hinders the ability of radar to track aircraft at lower altitudes, often requiring a manual process by staff to look and identify what aircraft potentially has caused a specific noise event. When necessary, noise management staff consults with the FAA Air Traffic Control Tower staff to increase staff's situational awareness of aircraft operations and to communicate specifics with stakeholders.	
MDB6	The comment raises questions concerning the use of airspace at and in the vicinity of Hillsboro Airport. The world's navigable airspace is divided into three-dimensional segments, each of which is assigned to a specific class. Most nations adhere to the classification specified by the International Civil Aviation Organization (ICAO) and described below. The designation of an area for the conduct of flight training comes about through local requests.	
	The airspace around airports is designated by the FAA as Class A through G.	
	• Class A Airspace extends from 18,000' up to 60,000' MSL. It is the most controlled airspace and requires a pilot to carry an Instrument Flight Rating and proper clearance no matter what type of aircraft is being flown.	
	 Class B airspace generally extends from the surface up to 10,000 ft. AGL and is the area above and around the busiest airports (LAX, ORD, etc.) and is also heavily controlled. Class B's are designed individually to meet the needs of the airport they overlay. Pilots must also receive clearance to enter the Class B airspace. 	
	 Class C airspace reaches from the surface to 4,000 ft. AGL above the airport, which it surrounds. Class C airspace only exists over airports which have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight operations. Class C is also individually designed for airports but usually covers a surface area of about 5 nautical miles around the airport up to 12,000 ft. AGL. At 1,200 ft. the airspace extends to 10 nautical miles in diameter which continues to 4,000 ft. Pilots are required to establish two-way radio communications with the ATC facility providing air traffic control service to the area before entering the airspace. Within Class C, VFR and IFR pilots are separated. 	
	• Class D airspace exists from the surface to 2,700 ft. AGL above an airport and is the	

airspace designated around Hillsboro Airport. Class D airspace only surrounds airports with an operational control tower. Pilots are required to establish and maintain two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR pilots using this airspace must be vigilant for traffic as there is no positive separation service in the airspace.

- Class E extends from either the surface or the roof of the underlying airspace and ends at the floor of the controlled airspace above. Class E exists for those planes transitioning from the terminal to enroute and is an area for instrument pilots to remain under ATC control without flying in a controlled airspace. Under visual flight conditions, Class E can be considered uncontrolled airspace.
- Class F is not used.
- Class G airspace is completely uncontrolled airspace which extends from the surface to either 700 or 1,200 ft. AGL depending on the floor of the overlying Class E.

These airspace designations are defined by 14 CFR Part 71. Pilots must comply with the requirements of the airspace in which they operate.

A designated flight training area exists in the vicinity of Hillsboro Airport, as reflected in the airspace and sectional maps submitted by several commenters. This area captures flight training for a number of airports in the greater Portland region. The airspace in the immediate vicinity of Hillsboro Airport is designated as Class D. Northwest of Hillsboro Airport is a flight training area that is designated as Class E airspace that begins at 700 ft. AGL.

Hillsboro Aviation requested that FAA publish a special notice in the Airport/Facility Directory (A/FD) NW. It was developed in consultation with the FAA to be included in the A/FD in order to alert the aviation community to be aware of flight training activities. Historically, this particular area was already in use by the local general aviation community for flight training before the issuance of the special notice. The special notice alerts pilots to increased traffic volumes they may encounter which they might not otherwise expect. The designated area is airspace in which no ATC clearance or radio communication is required for visual flight rules (VFR) flight. The FAA has assigned a frequency to the area that pilots are encouraged to use to provide their own traffic updates to one another; however they are not required to do so because it is uncontrolled airspace for VFR pilots.

The "West Practice Area" is not officially designated by the FAA for visual flight training practice maneuvers for all area airports as the FAA does not restrict where pilots can fly under VFR (other than minimum safe altitudes) in that type of airspace (Class E). There are other examples of this type of special notice in many other locations in the country. This area is not designated a special use airspace in which the FAA would control or restrict the traffic like Warning Areas, Prohibited Areas, Restricted Areas, Military Operation Areas, or Class A, B, C, or D airspace.

14 CFR 91.119 states how low an aircraft may operate. Helicopters are allowed to operate lower than the limits stated as long as they pose no hazard to persons or property on the surface and comply with any routes or altitudes specifically prescribed for helicopters by the FAA. There are no prescribed helicopter routes or altitudes to the west of Hillsboro Airport's airspace. See 14 CFR 91.119 for Minimum Safe Altitudes – <u>http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div&&view=text&node=14:2.0.1.3.10.2.4.10&idno=14.</u>

The FAA has limited control over where VFR pilots fly once they exit airport surface areas such as Hillsboro's. FAA Control Tower staff at Hillsboro query departing pilots regarding intended direction of flight (North, South, East, West) in order to exit Hillsboro Airport's controlled

	airspace (roughly a 4.2 mile bubble). Many pilots departing Hillsboro Airport prefer not to fly East in order to avoid PDX airspace and the requirements that come with flight through Class C airspace. A pilot flying North of Hillsboro Airport would encounter either PDX arrival or departure traffic and wake turbulence depending on which runways are being used at PDX. Southbound pilots would encounter traffic using the Newburg VOR ² and departures/arrivals from airports such as Starks Twin Oaks, Chehalem, Sportsman, McMinnville, Aurora State, etc. Located generally Westward from Hillsboro Airport is the least dense airspace area where students and instructors can operate while avoiding most of the general PDX/HIO aviation activities.
R7	The EAA prepares an Environmental Impact Statement (EIS) under certain circumstances as

MDB7 The FAA prepares an Environmental Impact Statement (EIS) under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if a significant adverse environmental effect would occur. As the 2010 original Environmental Assessment and this Supplemental EA show, significant adverse environmental effects were not identified and thus an EIS does not appear warranted. FAA Orders 1050.1E (change 1) and 5050.4B specify the process that FAA follows for compliance with NEPA. In accordance with those orders, the FAA reviewed this Final Supplemental EA. If the environmental impacts exceed the significance thresholds (defined in Order 1050.1E change 1) for any affected resource, the FAA may then recommend the preparation of an EIS. Should the environmental impacts not exceed the significance thresholds for any affected resources; the FAA may prepare a Finding of No Significant Impact (FONSI)/Record of Decision (ROD).

² VHF omnidirectional radio range (VOR), is a radio navigation system enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

Mary Vigilante

From: Sent: To: Subject: Attachments: Dowlin, Renee <Renee.Dowlin@portofportland.com> Friday, April 19, 2013 5:02 PM Mary Vigilante Fwd: HIO Third Runway Testimony Third Runway Questions4-19-13.doc; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: Miki Barnes <<u>miki@psg.com</u>> Date: April 19, 2013, 5:00:05 PM PDT To: <<u>renee.dowlin@portofportland.com</u>> Subject: Fwd: HIO Third Runway Testimony

Dear Ms. Renee Dowlin:



Attached please find an additional testimony submission from Oregon Aviation Watch. It is in the form of questions for which we are seeking answers,

I also sent this communication via certified letter earlier today.

Thank you for your time and consideration.

Sincerely,

Miki Barnes, LCSW President of Oregon Aviation Watch. 503-324-0291

---Miki Barnes miki@psg.com Oregon Aviation Watch PO Box 838 Banks, Oregon 97106 503-324-0291

April 19, 2013

Ms. Renee Dowlin Senior Environmental Planner Port of Portland PO Box 3529 Portland, Oregon 97208

Dear Ms. Dowlin:

Re: Testimony opposing a third runway at the Hillsboro Airport

Oregon Aviation Watch would like to obtain answers to the following questions regarding current activities and future growth at the Hillsboro Airport.

1) The statement below is excerpted from a 9/13/10 brief submitted to the U.S. 9th Circuit Court of Appeals by the FAA in Case No. 10-70718, Barnes et al vs. the USDOT

Granted, some new runways, rather than being aimed at accommodating existing demand pressure, could be aimed at attracting new flights or be at an airport where that would be reasonably foreseeable, and those latter runways would require examining the impacts of those new flights. Cf. Ocean Advocates, 402 F.3d at 870 (distinguishing Morongo and Seattle because they dealt with airport arrival and departure routes rather than ground capacity). But that is not true here. The Hillsboro Airport is a general aviation airport serving private flights, not commercial airlines. Thus, whereas capacity enhancements at a major hub airport like Chicago OHare or Atlanta Hartsfield might enable airlines to schedule an increased number of connecting flights and thus increase demand for the airport, a new runway at a general aviation airport is quite unlikely to create or attract more private aircraft. Indeed, in the Master Plan, the Port considered but rejected the opportunity to significantly expand Hillsboro Airport or to position it to receive new types of commercial or cargo aircraft. SER 471, 474, 476. Instead, it chose to maintain Hillsboros [sic] role as a general aviation reliever airport for the region. SER 476. (Pg. 21)

The Port of Portland made a similar assertion in their 9/13/10 brief on the same case, "The FAA does not anticipate HIO changing from a reliever general aviation airport to a commercial service airport in the future." (Pg. 7.)

Keeping the above statements in mind and based on comments made by John Southgate on behalf of the Hillsboro Chamber of Commerce at the 4/17/13 hearing on the third runway, Oregon Aviation Watch is requesting a complete list of all 25 companies located at the airport and details about their Hillsboro Airport aviation activity including:

• How many based aircraft does each business have at HIO?

Oregon Aviation Watch Testimony Opposing Hillsboro Airport Third Runway Submitted on 4/19/13



- If a third runway is constructed, does the business expect to add additional based aircraft?
- How many operations does each business log per year
- How many additional operations does each business expect to log if a third runway is added?
- A statement on how each business anticipates a third runway would benefit them.
- Do the business plan to ship cargo, if so how much and for what purposes?
- Does the business currently ship cargo via their registered aircraft?
- Does the business contract with other businesses on the airport for this purpose?
- How many of their operations are for pleasure and recreational purposes rather than business?
- Are they aware that both the Port of Portland and the FAA, in their respective briefs, told the U.S. Ninth Circuit Court of Appeals that there are no plans to change HIO to a commercial service airport "or to position itself to receive new types of commercial or cargo aircraft."
- Of these 25 businesses, which ones are providing flight training at HIO?
- Are any student pilots training in larger aircraft such as corporate or commercial jets?

2) At the 4/17/13 hearing on the third runway, Larry Altree, Chair of the Portland Community College Rock Creek Aviation Science program expressed support for an additional runway. OAW would like to obtain information on:

- How many PCC students are training at the Hillsboro Airport?
- How many are from within the U.S.
- How many are from outside the country.
- If from outside the U.S., please specify which countries they are from.
- Do any foreign state owned airlines or privately run airlines or businesses subsidize their education, if so please provide the names of these airlines or businesses.
- How many PCC students are helicopter students? How many are fixed wing?
- Are any student pilots training in larger aircraft such as corporate or commercial jets or commuter and air taxi aircraft? If so are they training out of HIO?
- How much flight time is each pilot required to accrue for certification purposes?
- How many hours of nighttime training is each student required to accrue for certification?
- How many inclement weather hours is each student required to accrue for certification?
- Do all pilots contract with Hillsboro Aviation for flight training?
- Does PCC contract with Applebee Aviation or any other company or private instructor in addition to Hillsboro Aviation for any flight training activity out of the Hillsboro Airport or other nearby airports?
- Do you expect an increase in student pilots in your program if a third runway is constructed? If so, how many?

3) At the 4/17/13 hearing, a number of community members expressed concern about Hillsboro Aviation's flight training business. OAW is requesting the following information regarding this company:

- How many Hillsboro Aviation students are from within the U.S.?
- How many are from outside the country? Please identify which countries they are from. OAW is not asking for individual names, just specific numbers.
- How many PCC students contract with Hillsboro Aviation for flight training? How many are from within the U.S? How many are from outside the country?
- If from outside the U.S., please specify which countries they are from.



- Does Hillsboro Aviation contract with any foreign state owned airlines or privately run airlines or businesses to subsidize student pilot training with Hillsboro Aviation? If so please provide the names of these individual airlines or businesses.
- How many Hillsboro Aviation students are helicopter students? How many are fixed wing?
- Are any student pilots training in larger aircraft such as corporate or commercial jets or commuter and air taxi aircraft? If so, are they flying in and out of HIO?
- How much flight time is each pilot required to accrue for certification purposes?
- How many hours of nighttime training is each student required to accrue for certification?
- How many inclement weather hours is each student required to accrue for certification?
- Does Hillsboro Aviation contract with other companies or private instructors for flight training? If so, please name these business or individuals.
- Does Hillsboro Aviation anticipate an increase in student pilots if a third runway is constructed? If so, how many?
- Does Hillsboro Aviation anticipate an increase in other aspects of its business charter, cargo, aircraft sales, fuel sales, maintenance, etc if a third runway is built?

4) On the subject of military operations:

- Are there any current or future plans to increase military activity at HIO between now and 2031? If so please provide specific data about these plans.
- What types of military flights currently occur at HIO?
- What types of future military operations are under consideration?
- Are there any military based aircraft currently at HIO? If so how many and for what purpose?
- Are there any plans to base additional military operations at HIO in the future?
- Does the Air National Guard or any other U.S. military organization have any plans to relocate or engage in operations at HIO?

Regarding the above questions, please provide actual annual and monthly data starting in 1999 and continuing to the present day. In addition please provide forecasting data extending out 20 years from 2013 onward.

Sincerely,

Miki Barnes, LCSW

This request is submitted by Miki Barnes, President of Oregon Aviation Watch, on behalf of Oregon Aviation Watch.

Attachments

- Oregonian article by Andrew Theen, <u>Standing Room Only Crowd Gives Public Testimony on</u> <u>Proposed Runway Project at Hillsboro Airport.</u> (4/17/13 updated 4/18/13).
- FAA Answering Brief U.S. Circuit Court of Appeals. Case No. 10-70718. Michelle Barnes et al., v. U.S, Department of Transportation, et al. (9/13/13).
- Port of Portland Answering Brief U.S. Circuit Court of Appeals. Case No. 10-70718. Michelle Barnes et al., v. U.S, Department of Transportation, et al. (9/13/13).

	Responses to Miki Barnes, Oregon Aviation Watch Email and Letter 4-19-2013
OAWa1	The Port and FAA appreciate the submission of an extensive listing of published material. This includes:
	 FAA, Airport/Facilities Directory Northwest US, 5 May 2011 (Page 224) OregonLive.com article "Standing room only crowd gives public testimony on proposed runway project at Hillsboro Airport Case No 10-70718 Answering Brief for the Intervenor-Respondent Port of Portland, in the case Michelle Barnes at al (Petitioners) v. US Department of Transportation (Respondent) and Port of Portland (Intervenor-Respondent). Michelle Barnes, Patrick Conry, and Blaine Ackley (Petitioners) v. US Department of Transportation (Respondent) on Petition for Review of an Order of the Federal Aviation Administration, Brief for Federal Respondents.
OAWa2	The Port has produced all available requested information.
Available data about operations at Hillsboro Airport comes from the FAA tower local Airport. These data do not provide the individual operators and the number of oper company, as these operators are not required to report that information information about an individual company's operations is available for commerci- airports, such as PDX, that detailed information comes from the airlines as a verif the landing fee calculations, which is required as part of their lease agreemed information is not required for the substantial amount of operators at Hillsboro Air Port collects some data from aircraft operators that are required to pay landing month; this information consists of total number of monthly operations by those of That information has been provided to various citizens upon their request. Therefor the Port nor the FAA is able to provide a detailed list of operations by operator, as are not available. In other requests of some of the commenters, the Port has offered the residents with collecting the data, but there would be a manpower cost for s collection. Information is not available concerning the number of flight training operations number of businesses that are conducting training, or the amount of non-commerci for the aircraft under 10,000 pounds as well as aircraft operations exempt from lan These operations are collected in accurate and are reflected in the met and and the second terms and terms and the second terms and the second terms and the second terms and terms and the second terms and te	Available data about operations at Hillsboro Airport comes from the FAA tower located at the Airport. These data do not provide the individual operators and the number of operations per company, as these operators are not required to report that information. While information about an individual company's operations is available for commercial service airports, such as PDX, that detailed information comes from the airlines as a verification of the landing fee calculations, which is required as part of their lease agreement. Such information is not required for the substantial amount of operators at Hillsboro Airport. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. Therefore, neither the Port nor the FAA is able to provide a detailed list of operations by operator, as the data are not available. In other requests of some of the commenters, the Port has offered to assist the residents with collecting the data, but there would be a manpower cost for such data collection.
	levels reported on Appendix B, C, and D. The method of counting traffic used by the Hillsboro Airport Tower differs from that of the HIO Master Plan's definition of "Local Operations". The tower only counts a local operation as one in which the aircraft stays inside the Class D surface area (roughly 4.2 miles surrounding Hillsboro Airport). If a pilot departs Hillsboro Airport and goes West to the "high interaction" as one in the two weeks of the surrounding Hillsboro Airport.
	A number of companies conduct flight training, including Hillsboro Aviation, TNG Aviation, Aviation NorthWest, Applebee Aviation, Fly Oregon, and Mary A. Schu Aviation. The web sites do not indicate the annual operations of these companies. Portland Community College, as noted by one commenter, also provides flight training. The specific aircraft types operated by these companies are not known. However, the aircraft mix operating at Hillsboro Airport is reflected in the data collected from the FAA; the Port and FAA is not able to identify those specifically associated with flight training.

the FAA Tower counts and represent the total demand for general aviation and flight training services at the Airport. The FAA and Port do not believe that the information requested by commenters about flight training details or data about specific companies is necessary to prepare forecasts for this Supplemental Environmental Assessment. Background data on total flight training is available. For example, Table 3-5 presents data from the Hillsboro Tower on helicopter training operations. Table 5-1 presents forecasts of helicopter training operations represent the historical and forecast demand, regardless of what company/FBO provides training services. The FBOs at HIO have been successful in growing their flight school operations because there is demand for flight training education, not simply because they expand their operations. Therefore, the detail on individual FBOs/flight schools is less important than understanding the overall demand trends for flight training. Even if the data for individual companies were available, forecasting operations by company would be speculative.

The Draft Supplemental EA presented three forecasts of future activity at Hillsboro Airport in the categories of activity that are standard to a general aviation airport. Forecasts both with and without the project are projected in the Unconstrained Forecast and Constrained Forecast, respectively. To test the issue raised by the Court (e.g., a survey of pilot opinion), a second "With Project" forecast was prepared, referred to as the Remand Forecast. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast, which already accounts for growth due to demographic and economic drivers.

While there are a number of approaches to forecasting, the FAA and Port believe that the approach taken in preparing the Constrained, Unconstrained, and Remand Forecasts are reasonable and specifically address the Court's remand. As documented in Appendix B, C, and D, the Port identified the variables that affect the growth in aviation activity at an airport like Hillsboro. As noted in the appendices, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The forecasts indicate the best estimate of the changes in based aircraft that would occur in each timeframe and each forecast without the project and with the project. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the Court case. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the Unconstrained Forecast. Of those that responded to the survey, only Hillsboro Aviation is conducting flight training. The requested data are not available. However, according to the Hillsboro Aviation's website, the aircraft used for flight training include single-engine piston and turboprop aircraft. Data are not available at the PCC website, in terms of the students taking flying lessons per semester Potential increases, if any, in student training are included in the estimate of induced demand in the Unconstrained or Remand Forecast as this activity is already occurring at the Airport. Thus the Unconstrained and Constrained Forecast included a forecast of current user growth over time.

A list of the services provided at Hillsboro is available at the Port's website. <u>http://www.portofportland.com/HIO_Services.aspx</u>

A number of commenters questioned the country of origin of flight training students. A review of the web indicates that some of the schools have marketed themselves to students from outside the United States. Information about the number of students and the country of origin is not available to the FAA or the Port of Portland.

The specific flight hours and training amount would vary based on the training being sought. According to the Portland Community College. Their Associate of Applied Science Degree (Aviation Science Airplane) requires a total college credit of 90 hours, some credits requiring flight time. In other request of several commenters, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection.

The FAA and Port do not believe that the information requested by commenters about flight training details is important to the forecasting issues raised in the Court remand. The Draft Supplemental EA presented three forecasts of future activity at Hillsboro Airport in the categories of activity that are standard to a general aviation airport. These forecasts note that with the proposed project, activity could be at the Unconstrained Forecast level versus without the project at the Constrained Forecast level. To test the issue raised by the Court (a survey of pilot opinion), a second With Project forecast was prepared, referred to as the Remand Forecast. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the Unconstrained Forecast.

The type of intended flying will influence what type of pilot's certificate is required. Eligibility, training, experience, and testing requirements differ depending on the type of certificates sought. For example, the aeronautical experience requirements for a recreational pilot license are 30 hours of flight time including at least:

- 15 hours of dual instruction
- 2 hours of enroute training
- 3 hours in preparation for the practical test
- 3 hours of solo flight

http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/pilot_handbook/media/PHAK%2 0-%20Chapter%2001.pdf

Eligibility, training, experience, and testing requirements differ depending on the type of certificates sought. Information is not publically available concerning the number of students by the various certificate types.

Information on the future activities of the U.S. military is not publicly available or reasonably foreseeable. The Port of Portland has not received any requests from the military for changes in operations at Hillsboro Airport.

Comments and Response to Comments Comment File G.8

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript transcript to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - WEA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	I
4/18/2013	Dale Feik	
4/7/2013	David Nardone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzande	en	Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum		Renee Strong
Megan Granum		Bill Stone

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
All Comments G.2	
4/17/2013	Jim Lubischer
All Comments G.3	
4/19/2013	Henry Oberhelman
4/17/2013	Howard Radin
4/17/2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/17/2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comments G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone
Comment File G.7	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comments G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer (GASR#)
Comments G.9	
4/27/2013	Art and Joan Dummer
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft Supplemental Environmental Assessment
4/17/2013	OAW Testimony (Barnes) Attach1 Williams

Analysis¹ of the

"General Aviation Survey Report Summary"

(Contained in the <u>Draft Supplemental Environmental Assessment</u>, 3-15-13, Hillsboro Airport Parallel Runway 12L/30R)

by Miki Barnes & James Lubischer, MD

(President and Vice-President of Oregon Aviation Watch, a 501(c)(3) non-profit organization dedicated to reducing the adverse effects of aviation activity.)

The "Draft Supplemental Environmental Assessment" concludes, in part, that if the "Remand Forecasts" occur following construction of a parallel runway at HIO, emissions "would slightly increase...but remain well below the *de minimis* level."² Put another way, the FAA and the Port of Portland purport that aircraft operations directly related to the construction of a new parallel runway ("induced operations") may increase; but the increase in operations would be slight and the associated increase in toxic emissions would also be slight, will be *de minimis*, trifling, nothing to worry about, a level of risk that is too small to be concerned with, a risk that is negligible and too small to be of societal concern.

First, an increase in lead emissions from 0.8 tons per year to 0.9 tons per year³ is not trifling, not too small to worry about, not a negligible risk, not too small to be of societal concern. Lead is a potent neurotoxin. The Agency for Toxic Substances and Disease Registry lists 275 toxic substances on the "Substance Priority List". Arsenic is number one on the list. Lead is number two.⁴ The Centers for Disease Control (CDC) has stated that "…no level of lead in a child's blood can be specified as safe…"⁵ Furthermore, the CDC has stated⁶ that, "…because no level of lead in a child's blood can be specified as safe, primary prevention must serve as the foundation of the effort [to prevent childhood lead poisoning]... Efforts to eliminate lead exposures through primary prevention have the greatest potential for success." Primary prevention means not putting lead into our environment. Rather than increase the lead in our children's environment we should be reducing the lead emitted from non-essential aircraft. Morally, <u>any</u> increase in lead cannot be considered *de minimis*.

Second, the Draft Supplemental Environmental Assessment's conclusions regarding toxic emissions is directly founded on a faulty estimate of "induced operations."⁷ "Based on the survey of aviation users it was estimated that 11,350 additional aircraft operations per year (see Table 3-2) could result from

¹ Italics have been added to this document for emphasis.

² Draft Supplemental Environmental Assessment, p35 "Air Quality".

³ Draft Supplemental Environmental Assessment, p30, Table 6-3, year 2016.

⁴ See Exhibit "1"

⁵ "Preventing Lead Poisoning in Young Children", A Statement by the <u>Centers for Disease Control</u> and Prevention, August 2005, U.S Department of Health and Human Services, Public Health Service, pg 3. [This document was submitted in toto at the public hearing on 4-17-13.]

⁶ "Preventing Lead Poisoning in Young Children", A Statement by the Centers for Disease Control and Prevention, August 2005, U.S Department of Health and Human Services, Public Health Service, p1 & p3. [This document was submitted in toto at the public hearing on 4-17-13.]

⁷ "Induced" operations are operations that are directly attributable to construction of the new parallel runway.

both a potential reallocation of demand in the region and the potential for growth exceeding the organic growth forecast in the Unconstrained Forecasts.^{*8} The 11,350 additional operations per year are included in the "Remand Forecasts.^{*9} The "estimated induced demand" of 11,350 operations is based on the General Aviation Survey (Survey) conducted by the Port of Portland and their "*independent* research *partner*" Riley Research Associates. The Survey (including the Report Summary), however, is fatally flawed. The "estimated induced operations" number of 11,350 is therefore without basis and the conclusions of the Draft Supplemental Environmental Assessment regarding toxic emissions are worthless.

This letter reviews some of the flaws of the Survey and the "General Aviation Survey Report Summary" (Report Summary). Flaws include the following:

1) The Survey was designed by the vested parties.

2) The "Report Summary" includes responses that are not germane to runway use.

3) The Survey included student pilots.

4) The Survey did not capture the number of operations from the primary user of the airport, Hillsboro Aviation.

5) No HIO/TTD/PDX Contact conducts greater than 5% of their total operations as "touch and goes", really?

The Report Summary notes there are <u>no</u> "HIO/TTD/PDX Contacts" (which includes Hillsboro Aviation) that conduct, at HIO, greater than 5% of their total operations as "touch and goes". 6) Only 4 of the 15 "HIO/TTD/PDX Contacts" are appropriate participants for this survey.

7) The Remand Forecasts error in assuming that construction of a parallel runway will preclude use of the existing long runway by single-engine propeller operations.

1) The Survey was designed by parties with a vested interest in the third runway.

Facts: The Survey was designed by the Port of Portland and the Federal Aviation Administration (FAA).¹⁰ Riley Research Associates helped refine the questions¹¹. The preamble of the actual Survey¹² states,

"The Port of Portland owns and operates Hillsboro Airport (HIO), located in Washington County, Oregon. The Port and FAA are currently conducting an environmental review of proposed improvements at HIO, which would include (if approved) construction of a new 3,600 foot long, 60 foot wide, visual flight rules, parallel runway, primarily for small, single-engine propeller aircraft; associated taxiways; future helipad relocation; and associated infrastructure. The purpose of this questionnaire is to assist the FAA in evaluating the impact resulting from the HIO expansion project, and whether or not it changes the nature or magnitude of aviation demand at HIO...If you have any questions, you may contact *our independent research partner*, Riley Research..."

GASR

⁸ Draft Supplemental Environmental Assessment, p11.

⁹ The Ninth Circuit Court remanded the initial Environmental Assessment. The "Remand Forecasts" explore the effects on total airport operations that may not be included in the Unconstrained Forecasts.

¹⁰ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey, p1.

¹¹ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey, p1.

¹² Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey Report Summary "Appendix: Questionnaire", which follows p50 of the Survey "Report Summary".

Comment: The Port and FAA (as well as most of the participants in the Survey) have a vested interest in construction of a new parallel runway at HIO. Relying on a survey designed by interested parties is improper. In this case, it is no secret that requiring an Environmental Impact Statement (EIS) would interfere with the construction of a new runway. Some of the participants in the Survey may have been influenced by the understanding that their answers could affect the estimate of "induced" operations. This could lead to understating possible expected increase use of a parallel runway in an effort to avoid an EIS. Therefore, any conclusions based upon a survey designed by interested parties, should be suspect, if not outright dismissed.

2) The "Report Summary" includes responses that are not germane to runway use.

Facts: The General Aviation Survey "Report Summary" states,

"Q1. At which area airport(s) do you currently base your aircraft (includes both fixed wing *and helicopters*)? (Multiple Responses)"¹³

"...(includes both fixed wing and helicopters)..."14

"Total forecast operations includes all activity using the runway system, as well as helicopter training operations".¹⁵

The "Draft Supplemental Environmental Assessment" states,

"Total aircraft operations include corporate and charter, general aviation, and military operations for fixed-wing aircraft *and helicopters*." ¹⁶

"Data represents total annual operations and not runway operations; total aircraft operations includes the rotary wing aircraft operations that are excluded in the runway operations numbers."¹⁷

The General Aviation Survey "Report Summary" shows 270 "participants" having 68 "mean operations per month".¹⁸

Comment: As noted, the 270 "participants" had 68 mean operations per month, which gives a total of 220,320 HIO operations per year.¹⁹ Since total operations (which includes non-runway rotary operations) at HIO in 2011 were 214,243²⁰ it is evident that the Survey did not limit the operational numbers to relevant runway operations. From this and the quotes above it is evident that the Survey generated and the General Aviation Survey "Report Summary" included data / information for rotary







¹³ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p2.

¹⁴ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p20. following Q15 regarding an increase in operations)

¹⁵ Draft Supplemental Environmental Assessment, p 7, Table 3-1, footnote "c".

¹⁶ Draft Supplemental Environmental Assessment, Appendix D, at D-10, see Note at Table D-4

¹⁷ Draft Supplemental Environmental Assessment, p10, Table 3-2 footnote.

¹⁸ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p8, top table.

¹⁹ 270 "participants" x 68 mean operations per month x 12 months = 220,320 HIO operations per year.

²⁰ Draft Supplemental Environmental Assessment, Appendix B, p3-2, Table 3-1.

aircraft and rotary operators. Inclusion of non-runway helicopter operations and helicopter pilots is inappropriate in trying to estimate the "induced" demand for a third runway. Rotary aircraft only use a runway for "itinerant" operations. Almost all of the rotary operations at HIO are local operations and do not use a runway. Including non-runway rotary operation numbers and responses in the Survey is misleading, confusing and leads to obfuscation. Most importantly, by not instructing the "participants" that the questions apply only to runway use the Survey fails to provide an accurate picture which is needed to estimate an "induced" demand.

That the Port and the FAA understand runway operations do not include local rotary operations is evident in the footnote for Table $3-2^{21}$ and in Table $5-1^{22}$. Nevertheless the Survey's questions are structured so that "non-runway" operations are included. Any conclusions based on the Survey should be dismissed for this reason.

3) The Survey included responses by student pilots.

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Facts: Survey participants included 323 "Pilots"²³ who were, (according to the Draft Supplemental Environmental Assessment and the General Aviation Survey Report Summary) "representative of general aviation pilots"²⁴ and were "registered pilots".²⁵

In the General Aviation Survey "Report Summary" at page 23 a verbatim response from a participant to question "#Q1b" states "*in training*"; On page 24 a verbatim response states "*Student*" to question "#4b" which asked "other use" for the question "Which best describes your primary use of Hillsboro Airport?; On page 27 a verbatim response to question #11 states "*Training now*, but on my way". On page D-3 of Appendix D to the Draft Supplemental Environmental Assessment is the statement, "...the difference is most likely related to duplication in responses by aviation *students...*"

<u>Comment</u>: The General Aviation Survey "Report Summary" states that the Survey was sent to pilots "representative of general aviation pilots" and the Draft Supplemental Environmental Assessment states that the Survey was sent to "registered pilots". Neither the General Aviation Survey "Report Summary" nor the Draft Supplemental Environmental Assessment mentions that flight-training students are included in the Survey but it is evident that flight-training students were included. Inclusion of flight-training student responses in the General Aviation Survey "Report Summary" should disqualify any conclusions based on the General Aviation Survey "Report Summary" as their responses are not representative of Oregon general aviation registered pilots. Students cannot fly on their own (until their first "solo" flight), are unlikely to own aircraft, and the operations they conduct are controlled by their flight school. Furthermore, many of the students at HIO are likely to not live in the Metro area, many are likely not to live in Oregon and many do not even live in the United States.²⁶

²¹ Draft Supplemental Environmental Assessment, p10, Table 3-2 footnote.

²² Draft Supplemental Environmental Assessment, Appendix B, p 5-13.

²³ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", table at bottom, p1.

²⁴ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", pl.

²⁵ Draft Supplemental Environmental Assessment, Appendix D, p D-1.

²⁶ See Exhibit "J". Hillsboro Aviation states on their website that, "...we are one of the largest combined helicopter flight training and airplane flight training schools in the U.S. ...our school has trained thousands of pilots from over 75 countries, and our graduates fly for companies around the world...Organizations and pilots from all over the world choose aur school..."



Because the Survey contains inappropriate student responses it is impossible to accurately predict an "estimated induced demand" upon which to base an estimate of toxic emissions from a parallel runway. The conclusions regarding emissions found in the Draft Supplemental Environmental Assessment must therefore be rejected.

4) <u>The Survey did not capture the number of operations from</u> the primary user of the Hillsboro Airport, Hillsboro Aviation.

Facts: The General Aviation Survey "Report Summary" table for question 5 (a) on page 8 includes information from 270 "Participants". Of these, the 255 "Pilots" indicate they average 70 operations per month at Hillsboro Airport, which would be 214,200 operations per year.²⁷ The General Aviation Survey "Report Summary" table for question 5 (a) on page 8 also shows responses from 7 "HIO/TTD/PDX Contacts" who average 36 operations per month, which would be 252 operations per month or 3,024 per year.²⁸ According to the Air Traffic Activity Data System (ATADS), there were 214,243 operations at Hillsboro Airport in 2011.²⁹

<u>Comment</u>: The responses to question 5 (a) suggest that the 255 "Pilots" account for essentially all operations at HIO, while the "HIO/TTD/PDX Contacts" conduct just 3,024 operations per year. The "HIO/TTD/PDX Contacts" category includes Hillsboro Aviation.³⁰ It strains credulity that the pilots in the "Pilot" category account for essentially all of the operations at HIO and that the 7 "HIO/TTD/PDX Contacts" have only 3,024 operations per year.

Facts: Hillsboro Aviation states on their website that its "school division... is one of the largest combined helicopter and airplane flight training schools in the U.S. and one of the leading flight schools in the world. Our company flies in excess of 63,000 hours annually. We have trained students from over 75 countries, and our graduates fly for companies worldwide. The diversity of our operations and our experience are unparalleled."³¹ "We have over 40 training airplanes, including models such as Cessna 152, Cessna 162, Cessna 172, Piper Seminole and Hawker Beechcraft King Air C90."³² The president of Hillsboro Aviation stated in 2009, "We have become the largest flight training facility for both airplanes and helicopters on the pacific west coast…"³³

Comment: That Hillsboro Aviation is a primary user of the Hillsboro Airport runways cannot be denied. Unfortunately, attempts to obtain exact operational counts or even estimates of Hillsboro Aviation operations have been fruitless. The Port of Portland replies they do not have this information³⁴ and they have given no estimates. The HIO Air Traffic Control Tower Manager replies they do not have this degree of detail for operations at HIO.³⁵ Hillsboro Aviation, citing proprietary reasons, has replied they will not release the number of their operations.³⁶

²⁷ (255 pilots)(70 operations/month/per pilot)(12 months/year) = 214,200 operations per year.

²⁸ (7 pilots)(36 operations/month/per pilot)(12 months/year) = 3,024 operations per year).

²⁹ Draft Supplemental Environmental Assessment, Appendix B, p3-2, Table 3-1.

³⁰ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p44.

³¹ See Exhibit E

³² See Exhibit C

³³ See Exhibit E, Letter to the Executive Director of the Port of Portland.

³⁴ See Exhibit G

³⁵ Personal communication.

³⁶ Personal communication.

Facts: The 10/09 Hillsboro Airport Parallel Runway 12L/30R "Draft Environmental Assessment at page 3-6 states, "Local operations (consisting largely of training activity) currently represent about 68 percent of total operations at HIO."³⁷ "Itinerant" operations also include some flight-training operations.³⁸ On 8-25-06, then Director of Aviation for the Port of Portland Mary Maxwell stated, "We're seeing a lot of development at that airport [HIO]. Next on our plans will be the development of a third runway, which is primarily a shorter runway for training aircraft."³⁹

The following are "verbatim comments found in the General Aviation Survey Report Summary:

"Currently can experience horrible delays [at HIO], e.g. from too many Hillsboro Aviation students."⁴⁰

"Increased safety by separating training from business aircraft operations."41

"The airspace surrounding the airport is also very busy as it's the host to *flight training* operations..."⁴²

"...and the training environment would be even better."43

"HIO already has a lot of traffic and most of that traffic practice takeoff and landings."44

"The biggest problem with HIO is the time it takes from engine-start to getting off the ground. A *training runway* would make it a lot easier to take off without delay."⁴⁵

"I don't like flying out to HIO because of all the student traffic...It seems that Hillsboro is a pilot mill when it comes to cranking out overseas pilots..."

"...due to frequent delays due to all the student traffic."47

"The flight training operations at HIO make it a little bit hectic ... "48

"I try to do so when there is less flight instruction ... "49

³⁷ See Exhibit B which is a copy of page 3-6 of the 10/09 Hillsboro Airport Parallel Runway 12L/30R "Draft Environmental Assessment.

³⁸ Personal communication (6-15-11) with Mr. Joseph Fiala, HIO Air Traffic Control Tower Manager

³⁹ See Exhibit D "A Conversation with Mary Maxwell, Director of Aviation for the Port of Portland."

⁴⁰ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p27.

⁴¹ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p27.

⁴² Drah Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p27.

⁴³ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p27.

⁴⁴ Draß Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p28.

⁴⁵ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p28.

⁴⁶ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p30.

⁴⁷ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p32.

⁴⁸ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p32.

⁴⁹ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p32.



Comment: From the comments above it is apparent that flight training accounts for a lot of HIO runway use. Since "local operations (consisting largely of training activity) currently [2009] represent about 68 percent of total operations at HIO^{*50} it is evident that a large amount, if not the majority, of operations at HIO are flight-training operations. The list of "HIO/TTD/PDX Contacts" at page 44 lists only two contacts who provide flight training, Gorge Winds Aviation (based at TTD⁵¹) and Hillsboro Aviation. Therefore, Hillsboro Aviation is the only flight training company at HIO included in the General Aviation Survey.

The survey is deficient in not searching for and identifying primary users of the HIO runways. The Port of Portland certainly knows that Hillsboro Aviation flight training constitutes a large number, if not the majority of operations at HIO. The Port could easily have structured their survey questionnaire to identify primary users of the HIO runway. The identification of primary users of the HIO runways is critical, as any "estimated induced demand" is likely to hinge on those particular users. Not ensuring that the primary users are included in the survey is a critical mistake and any conclusions based on this Survey are not valid.

Facts: The General Aviation Survey "Report Summary" table for question 5 (a) on page 8 lists only one⁵² "HIO/TTD/PDX Contact" who has "51+ operations / month".

Comment: Question #5 asked: "Approximately how many operations (landings and take-offs) per month do you average at: Hillsboro Airport?" ("5a"). The table, at page 8 of the Report Summary, summarizes the answers using ranges of responses and then giving a percentage of the respondents in each category.

It is unfortunate that the Report Summary did not give the actual number of operations for the one "HIO/TTD/PDX Contact" that responded and was in the "51+" category. Since this category is open ended, the response could have been 51 or the response could have been many thousands. But the table also gives us the mean operations per month for the "HIO/TTD/PDX Contacts" which was 36 operations / month. With this information we can see that the "HIO/TTD/PDX Contacts" account for but 252 operations per month, or only 3,024 operations per year. This is not credible. This number alone should have set off the alarm to the Port of Portland (and to the FAA and Riley Research Associates if they had been apprised of the fact that one company, Hillsboro Aviation, likely conducts the majority of operations at HIO). (Note on page 44 of the General Aviation Survey "Report Summary" that the "HIO/TTD/PDX Contacts" category includes Hillsboro Aviation - the flight training company which claims to be the largest flight training facility on the pacific west coast.⁵¹

In addition, using the information provided in this table for question #5 (a) this one "HIO/TTD/PDX Contact" averages at most 201 operations per month⁵⁴ or about 7 operations per day. Who is this

⁵⁰ See Exhibit B which is a copy of page 3-6 of the 10/09 Hillsboro Airport Parallel Runway 12L/30R "Draft Environmental Assessment.

⁵¹ See Exhibit "A".

^{52 14%} of the 7 participants for this question = 1

⁵³ See Exhibit E, Letter to the Executive Director of the Port of Portland.

⁵⁴ To arrive at a maximum of 201 operations per month for the one "HIO/TTD/PDX Contact" who has "51+ operations / month" please note that the 7 "HIO/TTD/PDX Contacts" averaged 36 operations per month which would give a total of 252 operations per month (7 x 36). To calculate the maximum mean operations per month



"HIO/TTD/PDX Contact"? With such a low number of operations it certainly could not be Hillsboro Aviation. Where is the operations number for Hillsboro Aviation in this survey? This is a glaring deficiency. Hillsboro Aviation (HA) is almost certainly the primary user of HIO. This is no secret even though the Port of Portland is unable and Hillsboro Aviation is unwilling to give out the number of operations for HA despite repeated requests.

Facts: One verbatim comment from a "HIO/TTD/PDX Contact" states, "My company does a large number of operations at the Hillsboro airport and the surrounding airports, but we do not count operations. Instead we count flight hours based from a particular location. Troutdale and Hillsboro airport towers would have more accurate information regarding our operation counts."⁵⁵ [Underline added for emphasis.]

<u>Comment</u>: This comment could only have come from Gorge Winds Aviation or Hillsboro Aviation. They are the only two "HIO/TTD/PDX Contacts" who would count flight hours and who conduct operations at HIO and the "surrounding airports".

Since Hillsboro Aviation accounts for perhaps 80-90% [my estimate] of operations at HIO the responses to question 5 don't lend credence to the survey. To realistically estimate "induced" operations from a third runway at the Hillsboro Airport it is imperative to consider how the number of operations could potentially change for the principal user of the airport, Hillsboro Aviation. The survey fails to do this. For this reason alone the survey cannot be relied upon to make any predictions of "induced" operations from construction of a parallel runway. [Even if the Port suggests that the operational numbers for Hillsboro Aviation were captured in the "Pilots" category, this would only underscore the poor design and interpretation of the Survey.]

To make an informed decision on the possible "induced" increase in operations from a parallel runway at HIO this information is critical as Hillsboro Aviation conducts the majority of operations at HIO. The possibility that Hillsboro Aviation will perhaps double in size is very real. The forecasts presented in the Draft Supplemental Environmental Assessment are based on airport service region, based aircraft forecasts, socioeconomic trends, price of aviation fuel but leave out a forecast that includes the possible expansion of the Hillsboro Aviation flight school. A flight school can double in a matter of months. Take, for example, the Sierra Academy of Aeronautics, a flight school based at Castle Airport, near Atwater, California. Last year Castle Airport had 67,271 operations. According to the Merced Sun-Star, "...that number is fast changing. Airport activity has taken off over the past several months because of the Sierra Academy of Aeronautics, which constitutes about 98 percent of traffic at

for the one HIO/TTD/PDX Contact who had 51+ mean operations per month, first the minimum number of mean operations for the other 6 HIO/TTD/PDX Contacts must be determined. 43%, or 3 "HIO/TTD/PDX Contacts" (43% x 7 = 3), indicate they had 1-5 operations per month so the minimum total operations per month for these 3 would be 3 x 1 operation = 3 operations per month; 14% (1) indicated they had 6-10 operations per month so the minimum for this "HIO/TTD/PDX Contact" was 1 x 6 operations = 6 operations per month; 29% (2) had 21-50 operations per month so the minimum total operations for these 2 would be 2 x 21 = 42 operations per month. So, combined these 6 "HIO/TTD/PDX Contacts" had at a minimum an average of 51 (3 + 6 + 42 = 51) mean operations per month. As noted previously the total operations per month for the 7 "HIO/TTD/PDX Contacts" is 252 (7 x 36 mean operations per month). Subtracting the 51 minimum mean operations per month (of the 6 "HIO/TTD/PDX Contacts" who averaged less than 51 operations per month) from the total of 252 gives 201 maximum mean operations per month for the one (and only) "HIO/TTD/PDX Contact" who had "51= operations/month.

⁵⁵ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p43.

the airport. This year the airport anticipated recording more than 150,000 total operations after the flight school recently almost doubled in size. The academy now had 150 flight students up from 80 last year, as well as 40 employees, up from 20.³⁵⁶

5) No HIO/TTD/PDX Contact conducts greater than 5% of their total operations as "touch and goes", really?



Facts: Not one of the "HIO/TTD/PDX Contacts" that responded to question #6 responded they had over 5% of their total operations as "touch and goes" at HIO.⁵⁷

<u>Comment</u>: In other words, the Report Summary would have us believe there is not one "HIO/TTD/PDX Contact" that conducts greater than 5% of their total operations at HIO as "touch and go" operations. It is inconceivable that Hillsboro Aviation does not have more than 5% of their total operations as "touch and goes at HIO.

IF -- and this is a big if -- **IF** the responses to question #6 of the Survey truly reflect the touch-and-go operations at HIO then the maximum touch-and-goes for the highest using HIO/TTD/PDX Contact, would be 5%, assuming that at least one of these HIO/TTD/PDX Contacts is included in the 1-5% answer, which there must be (see"6" below). As shown previously, the results of the Survey indicate that the maximum mean operations per month by the highest HIO/TTD/PDX Contact is 201 mean operations per month. If this 201 was representative of their total operations then at a maximum of 5% the number of touch-and-go operations at HIO is 10 per month. This number is ludicrous. How can any credence be given to the Draft Supplemental Environmental Assessment conclusions when those conclusions are based on such a misleading survey? (Granted question #8 refers to 1-5% of their "total" operations, not just their operations at HIO, but even if this is taken into consideration the argument still stands.)

The misleading response to question #6 alone should disqualify any conclusions based on the Survey. Simply put, question #6 apparently did not include a response from Hillsboro Aviation and begs the question as to which questions Hillsboro Aviation did respond to and how forthcoming any responses were. Since Hillsboro Aviation is very likely the highest user of the HIO runways, not having their data voids any meaningful conclusions based on the Survey.

6) Only 4 of the 15 "HIO/TTD/PDX Contacts" are appropriate participants for this survey.

Facts: The General Aviation Survey included 14 participants in the "HIO/TTD/PDX Contacts" category.⁵⁸ (Global Aviation is listed with "2" [which would make 15 participants]). Responses to Survey question #1 list 71% [10] of the "HIO/TTD/PDX Contacts" as responding that they base aircraft at HIO.⁵⁹ Responses to survey question #5 list 7 of the "HIO/TTD/PDX Contacts" indicating that they conduct operations at HIO.⁶⁰

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⁵⁶ See Exhibit "F", Merced Sun-Star J-29-13, front page.

⁵⁷ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p9, table at "a Hillsboro Airport (Categorized)".

⁵⁶ Exhibit A and also Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p44.

⁵⁹ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p2.

⁶⁰ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p8

<u>Comment</u>: Only 4 of these 14 participants are appropriate to include in a survey which is trying to provide data with which to estimate "induced" demand from construction of a parallel runway at HIO. The 4 appropriate "HIO/TTD/PDX Contacts" are Global Aviation, Gorge Winds Aviation, Hillsboro Aviation, and Intel.

The other 10 participants are entities that do not conduct aviation operations. These 10 inappropriate participants include: one hotel (BHG Hotels in Hillsboro: probably Comfort Inns across from the airport), 2 car rental companies (Avis Car Rental, Hertz Corporation), an aviation centered school for 5-7th graders (Centers for Airway Science), Boeing, FAA Hillsboro Control Tower HIO, Horizon Airlines, Fliteline Condominium Hangar Owners, Tower Park Condo Hangar [This is more likely Tower Park Condo Association], and Storage Management Solutions (SMS) [This is more likely "Storage Management Systems"]. Please see Exhibit A for details.

The responses to question #1 suggest that there are10 HIO/TTD/PDX Contacts who base their aircraft at HIO but there are only 4 Contacts from this category that are "eligible" to even answer this question. The responses to question #5 suggest that there are7 HIO/TTD/PDX Contacts that they conduct operations at HIO but there are only 4 Contacts from this category that are even "eligible" to answer this question.

Including information submitted from these inappropriate participants is improper and muddles the data. Any conclusions based on the Survey are therefore based on information that, in part, is not representative of the possible users of a parallel runway.

Facts: The "participants" for question #4 include 15 from the "HIO/TTD/PDX Contact" category with 3 (20%) listing "Flight instruction" as their primary use of Hillsboro Airport.⁶¹

<u>Comment</u>: Only 2 of the HIO/TTD/PDX Contacts provide flight instruction (see Exhibit A) therefore the accuracy of the table for question #4 is suspect. This puts the Survey reliability in question, which puts the conclusions based on the Survey in question.

8) The Remand Forecasts error in assuming that construction of a parallel runway will preclude use of the existing long runway by single-engine propeller operations.

Facts: The Draft Supplemental Environmental Assessment states, "The Remand Forecasts incorporates the potential for additional activity related to changes in general aviation uses behavior as a result of the existence and availability of the new parallel runway at Hillsboro and the use of separate runways for single-engine propeller and jet aircraft operations."⁶²

<u>Comment</u>: The assumption that a new parallel runway will result in separate runways being used by single-engine propeller and jet aircraft is wishful thinking and not supported by any facts. While jet aircraft may not be able to use the shorter parallel runway, it does not follow that a new parallel runway will result in small flight training aircraft only using a new parallel runway. To the contrary, it is almost a certainty that both runways will be used by Hillsboro Aviation flight training school as they expand their operations.

⁶¹ Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey "Report Summary", p7.

⁶² Draft Supplemental Environmental Assessment, Appendix D, p D-1

Both the Port of Portland and the FAA have verified that a new parallel runway will not proscribe training aircraft from using the existing runway:

In an email to Dr. Lubischer, Mr. Nagy, general aviation manager for the Port of Portland, has stated, "The allocation of flight operations between runways is subject to FAA control. We expect that flight training for smaller single engine aircraft will be predominately conducted on the new, shorter, parallel runway. However, it will not be restricted to the new parallel runway exclusively. There will be occasions where an aircraft will conduct some flight training from the existing runways, especially during those times when weather and wind conditions dictate the usage of the existing crosswind runway (Runway 2/20)."63

In an email to Dr. Lubischer, Mr. Fiala, HIO Air Traffic Control Tower Manager, has stated, "HIO would not prohibit any specific operation from using any runway specifically based on status (i.e. training, pleasure, charter, etc.). Operationally if an aircraft requires the use of the existing runway, we would honor that requirement. Emergencies, large aircraft, aircraft conducting IFR approaches, and such would more than likely be assigned the existing/longer runway."64

SUMMARY

The Ninth Circuit Court instructed the FAA "to consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 C.F.R." The Draft Supplemental Environment Assessment concludes that the "induced" demand could increase emissions "slightly" but emissions will still be "below de minimus levels". This conclusion is based on an "induced" demand of only 11,350 operations / year.

The estimated "induced" demand of 11,350 operations is based on data generated by the "General Aviation Survey". When carefully examined, the results of the survey, as summarized in the General Aviation Survey Report Summary, present a confusing picture for operations at HIO. Critical elements that should have been included are not evident nor do they seem to have even been considered.

The most important element missing from the survey is any inclusion or consideration of the operations contributed by "one of the largest combined helicopter and airplane flight training schools in the U.S."65, Hillsboro Aviation. The survey results would have one believe that Hillsboro Aviation conducts 7 operations per day. This is ridiculous. Hillsboro Aviation can conduct 7 flight-training operations within a span of 15 minutes on a good, or actually for those below a bad, day.

The toxic emissions, including lead, which will result from the expansion of the Hillsboro Aviation flight training school, will be significant, perhaps even doubling. The Draft Supplemental Environmental Assessment fails to consider this possibility. For this reason and the reasons stated above an Environmental Impact Statement is required to take a hard look at this possibility.

63 See Exhibit G

Julien 4-19-13 SNEMITED VIA Email + CENTIFIED MAIL JRETURN PROP RECEIRT REQUESTED ON Page CO age G.8-13

⁶⁴ See Exhibit H

⁶⁵ Sec Exhibit J

Air Quality Planning

Portland Air Toxics Solutions Project Mo

RENEE DOWLIN TO: PORT OF PORTLAND DRAFT SEA TESTIMONY 4-19-13

I WOULD ALSO SUBALLY THIS INFORMA TON WHICH SHOWS ODEQ'S INITTAL MODELING HAD LEAP CONCENTRATIONS > THAN BENCHMARK. ALSO, THIS SHOWS ODER BACKING OFF THEIR INITIAL ASSESSMENT AFTER CONTACT WITH THE PORT OF PORTAND WHO COMMISSIONED THEIR OWN ANALTSIS J DETENMINED LEVERS WOULD BE BEROW BENEHMARK BECAUSE ESSENTIALLY THE LEAD DISPABUTION IN THEIR MOVEL WAS AT HIGHER ALTITUDES ---- WITHET IS MISSING IS AN UNDERSTANDING THAT FALLS + 15 NOT NECESSARILT BLOWN LEHD Lover ALTITUDES

AWAY FROM HILLSBORD.

pube



State of Oregon

Department of

Environmental

Quality

GAO

United States Government Accountability Office Report to Congressional Requesters

July 2012

GENERAL AVIATION SECURITY

Weaknesses Exist in TSA's Process for Ensuring Foreign Flight Students Do Not Pose a Security Threat

4-19-13 GASR18 TO = RENEE DOWLIN port of portune RE: DRAFT SEA TESTIMONY LIKE TO SUBMIT THIS REPORT. THIS SHOWS THAT THORE ARE THE MINIMAL IF ANY SECURITY MENSURED REQUIRED FOR FLIGHT TRAINING COMPANIES SUCH AS THOSE WHO CONDUCT OPENATIONS AT HID. - THE DRAFT SEA DOES NOT CONSIDER THE ENVIRONMENTAL CONSEQUENCES OF 4 POTENTIAL TERRORIST OF THE MINIMAL, IF ANY, SECURITY AUAILING THEMSELVES THIS IS ESPECIALLY MERSULES AT HID. Accountability * Integrity * Reliability IMPORTAN, DUE TO THE CLOSE APPROXIMATION OF THE INTEL GAO-12-875 FACILITIES WHICH CONTAIN MANY HAZARDOUS CHEMICAES. THANK YOU, LUBISCHER)

JAMES T. LUBISCHER, M.D. PEDIATRICS 20110 S.W. ALEXANDER ALOHA, OREGON 97006

TELEPHONE: (503) 649-5257

4-19-13

RENEE DOWLIN, SENIOR ENVIRONMENTAL PLANNER PORT OF PURTLAND

RE: DRAFT SEA



PLEASE INCLUDE THE ACCOMPANYING ARTICLES IN MY TESTIMONY RELATED TO THE DRAFT SEA FOR A PARALLER RUNWAY AT HID.

A GEOSPATIAL ANALTSIS OF THE EFFECTS OF ANA TION & ASOLINE ON CHILDHOOD BLOOD LEVELS" (THIS SHOWS THAT LEAP 2010 CHILDHOOD BLOOD LEVELS" (THIS SHOWS THAT LEAP 2010 LEVELS IN CHILDREN ANE HIGHER IF THEY LIVE IN PROTINITY TO AN AIRPORT WHENE AVGAS IS USED)
A CONFIRMATION AND EXTENSION OF ASSOCIATION OF BLOOD LEAD WITH ADHD + A DHD SYMPTOM DOMAINS AT POPULATION. OF TYPICAL EXPOSURE LEVELS" BY NIGGATAL (THIS RESERVED SHOWS THAT LEAP CONTRIBUTES TO ADHD AT VERT, VERT LOW BLOOD LEVELS, LEVELS LOWER THAN THE COC'S CURRENT "REFERENCE VALUE" OF 5 49/dL.)
* RECENT DEVELOPMENTS IN LAN LEVEL LEAP EXPOSURE +



INTELECTUAL IMPAIRMENT IN CHILDREN" BY KOLLEL DEC. (THIS ARTICLE CONCLUDES THAT WHILE LEAP CONTRIBUTES TO A LOWENING OF A CHILD'S COGNITIVE ABILITY AT VERY LOW LEVELS THAT CONTRIBUTION IS SMALL BUT AT THE SAME THEE '' EFFORTS MUST CONTINUE TO MINIMIZE CHILDHOOD EXPOSURE".

(4) "A RA TIGNALE FOR LOWERING THE BLOOD LEAD ACTION LEVEL FROM 10 TO 2 Mg/dL" (THIS CONTAINS INFO ON THE ADVENSE EFFECTS OF LEAD IN CHILDREN)

	Responses to Analysis of the General Aviation Survey Report Summary by Miki Barnes and James Lubischer
GASR1	The original EA and the Supplemental EA use the term "de minimis" in the air quality section, as it is the specific term used in the Clean Air Act General Conformity regulations. The significance of this term relates to whether or not a conformity determination is required for federal actions occurring in a non-attainment/maintenance area.
	The Hillsboro Airport is located in an attainment area for lead. Even if the Hillsboro Airport area was designated as non-attainment for lead (meaning that measurements had identified violations of the NAAQS), project-related emissions would be evaluated against the de minimis threshold. To be de minimis, project emissions would need to be less than 25 tons per year: emissions below this level would be considered de-minimis [40CFR Part 93.153].
	As noted earlier, the project related emission would be highest if the Remand forecast were to occur. Under that scenario, the project would result in 0.1 ton of additional related emissions per year, relative to the Constrained Forecast. The USEPA considers emissions less than 25 tons to be de minimis [40CFR Part 93.153]. Because the additional emissions are well below the 25-ton threshold, under the General Conformity regulations, no further analysis would be required. For these reasons, the FAA concluded that there would be no significant risks to children's health and welfare from project-related lead emissions.
	The USEPA has adopted National Ambient Air Quality Standards (NAAQS) for the criteria pollutants, including lead. These standards are set by USEPA and are designed to protect public health and welfare with an adequate margin of safety and with consideration given to sensitive populations. As noted by USEPA:
	"The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of National Ambient Air Quality Standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (hppt://www.epa.gov/air/criteria.html)
	Washington County has been designated by USEPA as attainment for all of the NAAQS and has no history of violating USEPA air quality standards. The area around Hillsboro Airport currently meets, and is expected to continue to meet, all of the NAAQS, including the lead NAAQS. In sum, the USEPA standards are designed to protect all populations, including children, with a margin of safety.
GASR2	The Court required the FAA to examine the possibility that the new runway might "induce" activity not otherwise accounted for in standard forecast methods, and suggested that a general aviation user survey might be an appropriate method. The Court questioned why the Port had not surveyed pilots during the Master Plan. To be responsive to the Court, FAA conducted a general aviation user survey. Primary data from all users—operators of helicopter and fixed-wing aircraft—was important to evaluating potential changes in future aviation activity of all general aviation users.
	Student pilots were not included in the mailing of the general aviation user survey unless they were already a registered pilot.
	The FAA Tower staff at Hillsboro is responsible for counting aircraft operations performed at Hillsboro Airport, both departures and arrivals, and recording operations by type (i.e., air

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	carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information.
GASR3	The Port of Portland retained two firms to assist with the preparation of the forecasts: LeighFisher Associates (who prepared the forecasts) and Riley Associates (who conducted the survey that supports the Remand Forecast). Neither firm has a vested interest in the proposed project, as neither firm is involved in design, construction, or operation of airport facilities.
GASR4	Neither the FAA nor the Port of Portland had communications with the survey respondents. The Port retained an independent survey company to administer the survey, and on-line participants were invited from a broad list of pilots and companies, and phone contacts were chosen at random to maximize the objectivity of the survey.
	See also responses GASR2 and GASR3.
GASR5	The Port retained an independent survey company to administer the survey, and on-line participants were invited from a broad list of pilots and companies, and phone contacts were chosen at random so as to maximize the objectivity of the survey. The FAA and the Port believe that the questions asked in the survey were appropriate to the information being sought for the Remand Forecast. The questions were designed to be clear and unbiased. For example, "Approximately how many operations (landings and take-offs) per month do you average"
GASR6	The commenter appears to be questioning how the survey operations numbers added up. As is noted, a survey question requested the responder to identify the average number of operations they conducted at Hillsboro Airport per month, and then followed up with a second question about other airports in the region. This question received a response by 270 individuals, and they did note an average of 68 operations. While the survey could have been structured to ask pilots for their flight records in support of their answers, the Port anticipated that there would be few responses to such a request. Therefore, the official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the individual survey respondents. The purpose of this question was to gauge whether or not the respondent (an existing HIO user or users of airports in the six county area) anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.
	Helicopter activity at Hillsboro is germane to the capacity of the airfield. The Survey did not distinguish between runway operations and non-runway operations. Stratifying the response in that way was not important to purpose of the surveys, as the Court suggested that the Port should have originally considered surveying pilot opinion as to whether the new runway would change which airport the pilot would use. By including the helicopter responses where pilot opinion said that they would choose to operate at HIO with the new runway, a higher level of "induced activity" is reflected. While the responses by these users were small (less than 4%), the Port and FAA chose to be conservative in responding to the Court suggestion to conduct a survey.
GASR7	The survey did not ask the respondent if they were a student, as such a question was not germane as to whether the construction of the runway would affect their decision to

	operate at Hillsboro Airport. The purpose of the survey, in response to the Court comment, was to determine if pilots thought that they would change where they operate if a new runway was built at Hillsboro Airport.
GASR8	See also Response GASR6. The cited question requests the survey respondents to identify the average number of operations they conduct at Hillsboro Airport per month, and then follows with a second question about other airports in the region. The survey responses are documented in Appendix D. The official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the individual survey respondents. The purpose of this question was to gauge whether or not the respondent (an existing user and users of airports in the six county area) anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.
GASR9	Mr. Lubischer and Ms. Barnes submitted in several letters requests that the Port of Portland report the number of operations by Hillsboro Aviation or other tenants at the Airport. The Port of Portland does not have the resources to collect information about specific general aviation operators at Hillsboro. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. In other requests of many of these individuals, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection.
	It is important to note that the operations of all tenants at Hillsboro Airport are included in the FAA Tower counts and represent the total demand for general aviation and flight training services at the Airport. The FAA and Port do not believe that the information requested by commenters about flight training details or data about specific companies is necessary to prepare forecasts for this Supplemental Environmental Assessment. Background data on total flight training is available. For example, Table 3-5 presents data from the Hillsboro Tower on helicopter training operations. Table 5-1 presents forecasts of helicopter training operations. The data for training operations represent the historical and forecast demand, regardless of what company/FBO provides training services. The FBOs at HIO have been successful in growing their flight school operations because there is demand for flight training education, not simply because they expand their operations. Therefore, the detail on individual FBOs/flight schools is less important than understanding the overall demand trends for flight training. Even if the data for individual companies were available, forecasting operations by company would be speculative.
	Collecting such information would not facilitate an understanding of the activity characteristics of the Airport. It would also not affect the ability to predict project-related activity, such as directed by the Court case. As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the court case. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast even though the FAA and Port believe that it is already included in the Unconstrained Forecast.
GASR10	See also response GASR6. The FAA and the Port do not believe that the survey was "deficient." The survey had a very specific purpose: to pursue the Court's suggestion about surveying pilot opinion as to whether the availability of a new runway at Hillsboro Airport would influence a pilot's decision to operate at Hillsboro rather than another airport in the

	region. Since existing operators are already in place at Hillsboro Airport, anticipated growth by these users is already reflected in the Constrained and Unconstrained Forecast. The survey supported the Remand Forecast that with the new runway, users at other locations would chose to relocate to Hillsboro Airport. Thus, the survey information was added to the Unconstrained Forecast.
GASR11	See also response GASR6. The cited question requests the respondent to identify the average number of operations they conduct at Hillsboro Airport per month, and then follows up with a second question about other airports in the region. The responses are documented in Appendix D. The official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the respondents in this question. The purpose of this question was to gauge whether or not the respondent anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.
	Collecting such information would not facilitate an understanding of the activity characteristics of the Airport. It would also not affect the ability to predict project-related activity, such as directed by the Court case. As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the court case. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast even though the FAA and Port believe that it is already included in the Unconstrained Forecast.
GASR12	The survey respondent was not asked if they fly for a company or for personal reasons. Therefore, it is not possible to determine the identity of the respondent.
GASR13	Since Hillsboro Aviation is an existing airport user, growth in activity by Hillsboro Aviation with the proposed project was anticipated to be reflected in the Constrained and Unconstrained Forecasts. The purpose of the Remand Forecast and associated survey, were to identify users of other airports that might change the airport that they operate if a new runway were completed at the Airport. Therefore, taking a conservative approach, responses to the survey were added to the Unconstrained Forecast to develop the Remand Forecast.
GSAR14	See also response GASR6. The cited question requests the respondent to identify the average number of operations they conduct at Hillsboro Airport per month, and then follows up with a second question about other airports in the region. The responses are documented in Appendix D. The official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the respondents in this question. The purpose of this question was to gauge whether or not the respondent anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.
	Since Hillsboro Aviation is an existing airport user, growth in activity by Hillsboro Aviation with the proposed project was anticipated to be reflected in the Constrained and Unconstrained Forecasts. The purpose of the Remand Forecast and associated survey, were to identify users of other airports that might change the airport that they operate if a new runway were completed at the Airport. Therefore, taking a conservative approach, responses to the survey were added to the Unconstrained Forecast.

GASR15	The cited question requests the respondent to identify the average number of operations they conduct at Hillsboro Airport per month, and then follows up with a second question about other airports in the region. The responses are documented in Appendix D. Therefore, the official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the respondents in this question. The purpose of this question was to gauge whether or not the respondent anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable as noted in response GSAR13 and GSAR14.			
GASR16	Existing Runway 12/30, the Airport's longest runway, can accommodate all aircraft types at Hillsboro Airport. It is aligned with the prevailing winds, consistent the Port's noise abatement runway use preferences, and is therefore the most frequently used runway at Hillsboro Airport. Due to its length, Runway 2/20, the Airport's crosswind runway, is used primarily, but not exclusively, by smaller single and multi-engine propeller aircraft.			
	A substantial proportion of the activity at Hillsboro Airport consists of pilot training. The Master Plan analysis determined that about 48% of total fixed-wing aircraft activity consists of touch-and-go operations. A touch-and-go consists of an aircraft landing and then rolling down the runway without coming to a full stop prior to taking off. One touch-and-go therefore counts as two operations, a landing and a takeoff. Touch-and-go operations are currently conducted on all runways at Hillsboro Airport.			
	The proposed new parallel Runway 12L/30R would reduce traffic on the main runway by accommodating some of the operations that are currently conducted on the existing runway (Runway 12R/30L). This does not mean that all future operations at Hillsboro Airport will occur on the new runway. The new parallel runway is designed to accommodate the smaller, single engine propeller aircraft that require less runway length than the higher performance aircraft at the Airport. Consistent with the planned use of the runway, the FAA and Port anticipate that over 90% of the aircraft using the new runway will be single engine piston aircraft. The allocation of flight operations between runways is subject to FAA control. There will be some occasion where an aircraft will conduct some flight training from the existing runways, especially during those times when weather and wind conditions dictate the use of the existing rosswind runway.			
	Estimates of current and future runway use used in the original EA were based on the analyses documented in the Hillsboro Airport Master Plan and were reviewed and approved by the Port's Noise Office and the FAA Hillsboro Airport Air Traffic Control Tower manager. Existing Runway 30L would continue to be the most frequently used runway for itinerant operations but the many of the touch-and-go operations, representing most of the local operations, would use the new runway.			
	The purpose of the survey was to respond to the comment made by the Court in the Remand. See also response GASR2.			
GASR17	The Port of Portland staff participate in regional activities sponsored by other agencies. As the region began to consider various toxic air pollutants, the Port became involved in the ODEQ Portland Air Toxics Solutions (OPATS) efforts. The Final Supplemental EA (Appendix F) includes a study prepared by the Port of Portland in response to the ODEQs initial evaluation of lead emissions performed in the fall of 2010. The Port of Portland was concerned that the methodology used by ODEQ to assess lead dispersion did not reflect aircraft flight and dispersion. ODEQ relied upon the CALPUFF model (developed by the California Air Resources Board for the dispersal of emissions from point sources) rather			
	than FAA's EDMS/AERMOD model. AERMOD is the model recommended by EPA for near- field lead dispersion analysis and is most often used to assess dispersion over long distances, from tens to hundreds of kilometers. The FAA's model is appropriate in this context because it reflects use of a steady-state plume, which is believed to more accurately represent the emissions associated with aircraft. FAA requires the use of its EDMS model in air quality analyses developed for NEPA documents.			
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	The 2010 Port of Portland study considered 2007 activity levels (at 240,735 annual operations) and evaluated the lead emissions associated with aircraft that operate on AvGas (100LL). Several evaluations were conducted: 1) Use of EDMS, 2) a simplified AERMOD evaluation, and 3) two sensitivity analyses reflecting adjustments in the emission release height and inclusion of ground-based aircraft movement. Both maximum concentrations and average concentrations were identified.			
	The highest concentration of lead emissions was found in the evaluation associated with the ground-based source sensitivity test. In this evaluation lead emissions were estimated to be 0.06567 μ g/m ³ , which is less than 50% of the lead NAAQS. It is important to note that the primary and secondary lead NAAQS are 0.15 μ g/m ³ measured on a 3-month rolling average. The modeled concentration of 0.06567 μ g/m ³ corresponds well to the emission inventory reported in the original EA at 0.622 tons of lead emitted per year. Thus, as the proposed project would result in either no increase in lead emissions, or an increase in lead emissions of 0.1 ton, relative to the No Action Alternative, a NAAQS violation as a result of project implementation is not expected.			
GASR18	The continuing primary mission of the FAA is to ensure aviation safety and efficiency. Airports and aircraft operators must meet various safety certifications and operating requirements of the FAA. Hillsboro Airport is a safe airport that meets all FAA standards. While aircraft accidents are possible, it is not possible to predict the location and extent of accidents.			
	The Department of Homeland Security (DHS), through the Transportation Security Administration (TSA), protects the nation's transportation systems to ensure freedom movement for people and commerce. The Port of Portland and the operators at Hillst Airport comply with the national DHS security requirements.			
GASR19	Mr. Lubischer submitted the following documents in support of the Analysis of the General Aviation Survey Report Summary:			
	 Exhibit A, HIO/TTD/PDX Contacts. Exhibit B section 3.1.3 from the HIO Environmental Assessment, page 3-6 			
	Exhibit C, Hillshoro Aviation Website printout			
	 Exhibit C, Hillsbord Aviation Website printout. Exhibit D, A conversation with Mary Maxwell, Director of Aviation, Daily Journal of Commerce; August 25, 2006. 			
	 Exhibit E, Letter to B. Wyatt (Port of Portland) from M. Lyons (Hillsboro Aviation); November 30, 2009. 			
	• Exhibit F, Solutions Eyed to Keep Castle Airport Tower Operating, Merced Sun.			
	• Exhibit G, Email to J Lubischer from Steve Nagy (Port of Portland), 4-17-2013.			
	• Exhibit H, Email to J Lubischer from James Fiala (FAA); 3-27-2013.			
	• Exhibit I, ATSDR, Priority List of Hazardous Substances that will be the Subject of Toxicological Profiles.			
	• Exhibit J. page from the Hillsboro Aviation web site, ACCSC.			

• Environmental Health Perspectives, A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels; Marie Lynn Miranda; July 2011.
• NIH, Confirmation and Extension of Associated Blood Lead with Attention-Deficit/Hyperactivity Disorder (ADHD) and ADHD Symptom Domains at Population-Typical Exposure Levels; Joel Niggs; January 2010.
• Environmental Health Perspective, <i>Recent Developments in Low-Level Lead Exposure and Intellectual Impairment in Children</i> ; Karin Kroller; June 2004.
• NIH, A rationale for lowering the load lead action level from 10 to 2 ug/dL; Steven Gilbert; September, 2006.
• GAO, Weaknesses Exist in the TSAs Process for Ensuing Foreign Flight Students do not Pose a Security Threat; GAO 12-875; July 2012.
• ODEQ, Air Quality Planning, Portland Air Toxics Solutions Project Modeled Lead Data and the Hillsboro Airport.

Comments and Response to Comments Comment File G.9

This Supplemental Environmental Assessment (EA) was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although many comments received after release of the Draft Supplemental EA appear to fall outside the scope of the Ninth Circuit's remand order, a response is provided.

Appendix G contains each of the communications received during the public comment period. Please note that for those commenters that submitted extensive attachments, those attachments have been reviewed and retained by the FAA and Port of Portland. Those documents, which are not included herein, are noted in the responses and any party interested in obtaining copies of the attachments can contact the Port of Portland for an electronic copy. All documents and emails were forwarded to a central location to facilitate preparation of the responses.

Because of the size of the electronic files, the letters were separated into nine (9) files (i.e., Comment File G.1 through Comment File G.9). Comment identifiers (i.e., PQ#) begin with several letters that create a unique abbreviation of the commenter's name or organization, followed by a sequential number indicating the specific comment. These identifiers are found in the margin of the comment letter, and vertical red lines span the lines of the comment that correspond to the individual response. A comment identifier was placed in the right margin of the comment to indicate the corresponding response. Except in the case of the hearing transcript, responses follow the last page of the comment letter. In the case of the hearing transcript, the responses to all commenters follow the last page of the hearing transcript (found in Comment File G.1).

These include the following commenters:

Comment File G.1

4/17/2013	Andy Duyck	
4/19/2013	Bill Lennox	
4/18/2013	Pamela Treece - EWA let	tter
4/19/2013 #2	Blaine C Ackley	
4/15/2013	Bryan/Robin Pietz	
Undated	Chris & Valeska Arnesen	l
4/18/2013	Dale Feik	
4/7/2013	David Narone	
4/15/2013	Fred Hostetler	
4/18/2013	Gary Warren	
3/25/2013	Greg Driscoll	
April 17, 2013 Public He	aring Transcript	
Wayne Vanderzanden		Miki Barnes
Dan Bloom		Jack Lettieri
Martin Granum	Renee Strong	
Megan Granum Bill Stone		

Larry Altree	Larry Bird
Blaine Ackley	Jim Lubischer
Jim Lubischer	David Barnes
John Southgate	Miki Barnes
Ellen Sanders	Ruth Warren
Sharon Cornish	Brian Hannah
Vernon Mock	Miki Barnes
Ruth Warren	Vernon Mock
Brian Hannah	
Comment File G.2	
4/1//2013	Jim Ludischer
Comment File G.3	User a Oharda larar
4/19/2013	Henry Oberneiman
4/1//2013	Howard Radin
4/1//2013	Justin St. Clair
4/18/2013	John Southgate
4/19/2013	Kimberly Culbertson
4/18/2013	Linda Barnfather
4/19/2013	Linda Beall
4/1//2013	G Lynn Hamm
May 12, 2013 (sic)	Ruth Warren
Comment File G.4	
4/17/2013	Martin Donohoe
4/17/2013	Martin Granum
4/19/2013	Matthew Radin
4/17/2013	Mona Toms
4/12/2013	Nancy Monroe
4/19/2013	Patrick Conry
4/17/2013	Patrick Dunn
4/17/2013	Patrick Dunn, Constance Rosson
4/14/2013	Steve Gibson
4/12/2013	Walter Hellman
Comment File G.5	
Undated	Blaine C Ackley
Comment File G.6	
4/19/2013	Sean Malone
Comment File G.7	
4/15/2013	WB White
4/19/2013	Miki & David Barnes
4/19/2013	Miki Barnes, Oregon Aviation Watch
Comment File G.8	
Undated	Analysis of the "General Aviation Survey Report Summary" by M. Barnes & J. Lubischer
Comment File G.9	
4/27/2013	Art and Joan Dummer (AJD#)
4/17/2013	OAW Testimony in response to the Hillsboro Airport Parallel Runway Draft
	Supplemental Environmental Assessment (OAW#)
4/17/2013	OAW Testimony (Barnes) Attach1 Williams (OAW#)

COMMENT FORM

Hillsboro Airport

Draft Supplemental Environmental Assessment/ Public Hearing April 17, 2013

	and the stating with the	17,2013
Please Print	Port of Portland	April 27 2012
	Box 3628	April 27 2013
*****	Portland Oregon	
~	51200	
	Attention Ponce Devil	
	Attention Renee Dowin	
	Ref Hillsboro Airport Runway addition Our Property at 682 N F 18th Street	on. Hillshare Orecov 07104 i
	feet from the "center line" of the cros from the end.	s runway landing strip and two blocks
*****		EAJD1
*****	Obivously the additions to the airport which our property value decreases. A	are for added value to someone, to According to Websters Dictionay
****	removal of value must be objected to iincluded.	be stealing. U S Constitution is AJD2
******	We hereby are recorded objecting with	
*****	, and to offer and objecting with	iout ample compensation
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	Should compensation not be received. attorney fees however the attorney wis	the value to collect will be the hes to compensate with you if you
** ** ** ** ** ** ** ** ** ** ** ** **	in to use that route.	
	Will expect your review at the May 1 2 duplicated on your page given then.	0113 meeting or my comment form
	Thank You	
Name:	lat demma	
Address:	Art and Joan Dummer.	2000 97124
Deferme Oracia	A design of the second se	

Return Comments to:

Renee Dowlin Port of Portland Box 3529 Portland, OR 97208

Comments must be postmarked later than April 19, 20013

	Responses to Art and Joan Dummer Comment Form
AJD1	It is important to note the purpose of National Environmental Policy Act (NEPA) documentation is to assess and disclose the environmental effects associate with a proposed project, not to prepare a financial cost/benefit of the proposed actions. However, the environmental effects that would be beneficial to the area as it relates to NEPA are of a socio-economic nature, which are discussed in Chapter 5, of the original Environmental Assessment and in Section 6 of the Supplemental Environmental Assessment. The Proposed Action is not expected to significantly change the socioeconomic environment around the Airport. It would temporarily increase jobs during the construction phase and would increase use of local goods and services and would reduce delay and congestion associated with airport activity. This delay reduction could also result in a reduction in aircraft emissions.
AJD2	A limited number of studies have attempted to measure the impact of aircraft noise on property values. No specific studies of the impact of noise at Hillsboro Airport on real property values have been conducted. Studies conducted at other airports have concluded that airport noise has only a slight impact on property values within the 65 Day-Night Noise Level (DNL) or greater noise contour. Additionally, comparison of older studies ¹ to more recent studies ² indicates that the impact was greater in the 1960's, when jet aircraft first entered the fleet, than in the 1980's or 1990's. This presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3 engine technology.
	A 2008 report by the Airport Cooperative Research Program (ACRP) concluded:
	In summary, the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase. Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value." (ACRP Synthesis Report 9 <i>Effects of Aircraft Noise: Research Update on Selected Topics</i>)
	One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. A 1994 report (<i>The Effect of Airport Noise on Housing Values</i> , by Booz-Allen & Hamilton) prepared for the FAA outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, the report recommended that their approach not be used at this time to determine property values due to the small sample size.
	The Summary and Conclusions section of the FAA's 1985 <i>Aviation Noise Effects</i> Report, states "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

FAA's Aviation Noise Effects.
 ACRP Synthesis Report 9 Effects of Aircraft Noise: Research Update on Selected Topics

OAW Testimony in Response to the Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Environmental Assessment (3/15/13)

April 17, 2013

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To: Ms. Renee Dowlin, Senior Environmental Planner, Port of Portland, P.O. Box 3529, Portland, Oregon 97208

Please accept this testimony on behalf of Miki Barnes, LCSW and Oregon Aviation Watch (OAW).

No Current Need for Additional Capacity at HIO

More Operations at HIO in 1989 Than Now

The Hillsboro Airport Parallel Runway 12 L/30R Draft Supplemental Environmental Assessment (SEA) opens with the statement that the 2005 Hillsboro Airport (HIO) Master Plan recommended a new parallel runway to serve forecasted demand.¹

It is noteworthy that there were more runway operations at HIO in 1989 than there are now. Yet the 1990 Hillsboro Airport Master Plan stated that it would not be necessary to plan for operational delays or airport expansions until airport capacity reached 250,000 to 300,000 annual operations. According to the Federal Aviation Administration (FAA) Terminal Area Forecast (TAF) for January 2013, the annual operational count at HIO is expected to remain below 250,000 for the next 28 years, topping out at 246,717 in 2040.²

In addition there were far more based aircraft at HIO in 1990, 341, compared to 257 in $2011.^3$

The 1990 Master Plan "assuming a relatively high proportion of touch-and-go activity" also identified alternatives to adding a third runway by pointing out that the capacity at HIO could "effectively be increased by changes in the Airport's peaking characteristics (e.g., more even spread of operations throughout the day, week, and year, etc.) Such changes would enable the airfield to accommodate at least 300,000 operations per year."⁴

Per the 1990 Hillsboro Airport (HIO) Master Plan,

"...the airport presently experienced some 215,800 aircraft operations in 1989. The Master Plan forecasts project a demand of 278,000 aircraft operations in 2010. The 250,000 to 300,000 capacity of the present runway would therefore be reached near the end of the 20-year Master Plan time frame. Significant operational delays would begin to occur during this period unless additional airport improvements are made. The most effective of such improvements would

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be construction of a parallel runway...This addition would increase the airfield capacity to approximately 400,000 aircraft operations per year."⁵

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In light of the above, it remains unclear as to why subsequent HIO Master Plans totally ignored the 1990 analysis and recommendations by laying claim to the contention that, "Based upon planning guidelines used by the FAA, development of a third runway is presently justified."⁶ In 1995 there were 219,444 total operations at HIO.⁷ It appears that approximately 50,000 of the total were helicopter operations that do not require a runway bringing the count down to 181,000,⁸ so obviously runway capacity remained well below the 250,000 to 300,000 triggering point noted in the 1990 Master Plan. Nonetheless, the 1995 Master Plan gallingly stated that, "The 1990 Master Plan Update also recommended a third runway to the east of Runway 12/30"⁹ while choosing to completely ignore the timing data based on a runway operational count of 250,000 to 300,000.

The deceptive assertion that additional airport capacity was needed continued with the 2005 Master Plan which also opted to disregard the 1990 Master Plan data on airport capacity.

The SEA asserts that the Hillsboro Airport (HIO) third runway expansion, "is needed because activity levels are approaching runway capacity."¹⁰ This statement obviously deserves further scrutiny as it directly conflicts with earlier Port of Portland forecasts.

The 2009 Hillsboro Airport Draft Environmental Assessment (EA) on the Third Runway estimated that Annual Runway Operations at HIO in 2010 would total 196,600.¹¹ It was based on the assumption that there would be a total of 270,300 annual operations in this same year.¹² In fact, the actual 2010 total operational count was 220,213,¹³ more than 50,000 less than anticipated.

The annual runway operations figure is arrived at by subtracting out local helicopter training operations as this type of aircraft does not need a runway. Per the 2009 third runway proposal EA, "Helicopter activity at HIO is forecast to be 88,200 annual operations through the forecast period [until 2025]. Current and projected future helicopter training flights in the local pattern account for nearly 75,000 of these annual operations."¹⁴ Subtracting 75,000 from 220,213 brings us to a total of 145,213 runway operations in 2010.

Moreover, HIO's annual operations have continued to decline. In 2011 HIO logged 214,243 total operations.¹⁵ Subtracting out the revised Supplemental Environmental Assessment (SEA) helicopter operational count in 2011, there were 147,722 runway operations.¹⁶ By 2012 the count dropped even further to 202,967.¹⁷ Of that number 60,853 were helicopter operations¹⁸ thus the actual runway operations for 2012 were 142,114.

Returning to the 1990 Master Plan which stated that the current runway can accommodate upwards of 300,000 operations annually, HIO currently has twice as much runway capacity as it needs.

Again the 1990 Master Plan stated that "...the airport presently experienced some 215,800 aircraft operations in 1989." Minus 12% for helicopter activity in that year,¹⁹ the number drops to 189,684. This is still significantly higher than current annual runway operations which according to the 2013 *Supplemental* Environmental Assessment were 147,722 in 2011 with the expectation that with the unconstrained forecast these numbers would increase to 155,070 in 2016 and 167,090 in 2021.²⁰ Obviously these totals are not even close to the, "250,000 to 300,000 capacity of the present runway."

Clearly, based on assertions made by the Port in earlier master plans, there is no justifiable need for a third runway at Hillsboro Airport.

Please see the analysis from Williams Aviation Consultants for additional information on delay, congestion, and ASV.

Hillsboro Aviation

It is misleading to base future Hillsboro Airport forecasts on personal income and employment analysis largely because the vast majority of HIO flights, perhaps as many as 90%, are on behalf of a single flight training school, more specifically Hillsboro Aviation, which recruits students from around the globe.

Hillsboro Aviation (HA), one of four Fixed Base Operators (FBOs) located at HIO, is a private for-profit company. Their website²¹ states that HA has trained pilots from over 75 countries and also claims to be "...one of the largest combined helicopter flight training and airplane flight training schools in the United States."

HA maintains that it "flies in excess of 63,000 hours annually" which on average translates into more than 7 aircraft in the air simultaneously 24 hours per day, 7 days a week, every single day of the year. The ensuing noise and pollution places a significant burden on the surrounding community and contributes to excessive noise pollution, environmental degradation and the erosion of livability. These impacts will only worsen with the increased capacity that a third runway will provide.

HA reports that it has over 40 training airplanes²² and more than 30 training helicopters²³ as well as an additional fleet of aircraft for the charter, site seeing, fire fighting and cargo transport divisions of their company. The FAA Registry lists 95 aircraft under Hillsboro Aviation, though some have been deregistered.²⁴ Thus, of the 257 aircraft based at HIO in 2011,²⁵ nearly a third are owned by Hillsboro Aviation.

The <u>Why Choose Us?</u> section of their website includes a list of the various organizations and airlines that have made them "a leader in the industry" by choosing to obtain pilot training through their company.

• The Airline Pilot Association of Taiwan chose Hillsboro Aviation as its premier location to train.

Testimony in Opposition to HIO Third Runway Proposal Prepared by Miki Barnes, LCSW and submitted on 4/17/13 on behalf of Oregon Aviation Watch • The Japan Aviation Academy chose Hillsboro Aviation as their exclusive pilottraining school.



- Shanghai Airlines chose Hillsboro Aviation to train its pilots.
- China Eastern Airlines chose Hillsboro Aviation to train its pilots.
- Air China chose Hillsboro Aviation to train its pilots.
- PTES (Cessna's single-engine piston airplane and Robinson helicopter dealer in China) chose Hillsboro Aviation as its U.S. aviation partner.
- Luftfartsskolen School of Aviation in Norway chose Hillsboro Aviation to train its pilots.
- The CAAC (Chinese government) approved Hillsboro Aviation to conduct both airplane and helicopter training.
- Hillsboro Aviation has logged over 1,000,000 flight hours in our 33-year history

It stands to reason that training aircraft will log far more hours than private pilots yet the SEA completely failed to differentiate and analyze the impact of flight training activity at this facility.

Nearly two-thirds – 137,905 – of HIO's total operations for 2011 were categorized as local.²⁷ Per the HIO Master Plan "Local operations are performed by aircraft which: (a) Operate within the local traffic pattern or within sight of the airport; (b) Are known to be departing for, or arriving from, flight in local practice areas located within a 20 mile radius of the airport; (c) Execute simulated instrument approaches or low passes at the airport."²⁸

The Port of Portland 2005 Hillsboro Master Plan reveals that "Future growth in local operations will be driven by training operations at Hillsboro Airport. This will be a function of the businesses on the airport which provide pilot training services."²⁹

Max Lyons, the owner and president of Hillsboro Aviation, has indicated his intent to continue profiting from and growing his business at HIO.

As stated in the SEA, "The original Environmental Assessment noted that the proposed runway project would include the construction of a 3,600 –ft long parallel runway"¹ as well as a number of new taxiways including Taxiway D. In total disregard for the 9th Circuit Court remand of the entire project, the Port moved forward with constructing Taxiway D in 2011. The \$4 Million funding for the taxiway was provided through the

Testimony in Opposition to HIO Third Runway Proposal Prepared by Miki Barnes, LCSW and submitted on 4/17/13 on behalf of Oregon Aviation Watch State of Oregon ConnectOregon funding for non-highway projects. Included in the May 2010 Application Review Packet was a letter addressed to Bill Wyatt, the Executive Director of the Port of Portland, from Max Lyons. It was stamped 11/30/09. In this communication, Lyons stated,



With the tremendous growth that we have seen at the Hillsboro airport, we have been concerned of the airport's ability to continue to service the increased activity over the last 3 to 5 years. It has been clear to us, that a third runway will help alleviate much of the congestion that we are experiencing and will allow the airport and its tenants to continue expanding as the impact of the current recession subsides.

Prior to 2009, over the previous 16 years, Hillsboro Aviation grew at an average of 20% annually. We have become the largest flight training facility for both airplanes and helicopters on the pacific west coast as well as the largest dealer for helicopters in the U.S. Even though we have seen a decrease in business in 2009, we are very hopeful and expect that general aviation will begin to recover in 2011 and 2012.³⁰

In this letter Lyons openly reveals his expectation that the third runway will accommodate future expansion on behalf of his company and other airport tenants.

The quotes discussed above provide credible evidence that Lyons has every intention of expanding his business if a third runway is constructed.

Global Aviation

And he is not alone. Global Aviation Inc. is also a fixed based operator at HIO. A 11/20/09 letter from the Vice President of Global Aviation Inc., Brian Lockhart, to Port of Portland Executive Director, Bill Wyatt expressed support for the HIO third runway proposal and the ConnectOregon III third runway/taxiway D funding request. The excerpt below reveals the intent of this company to expand.

The addition of the parallel runway will make Hillsboro more attractive to the type of aircraft that are the focus of Global's business. The excess demand that we anticipate will develop within the next three years partly as a result of the additional airport capacity, is the driving force behind the plans we are making to expand our 63,000 square feet aircraft hanger space by 50%.³¹

Global Aviation's website claims that their business coordinates domestic and international itineraries and states that it has 5 charter aircraft in their HIO fleet³² though this writer was unable to find a listing for these aircraft in the FAA Registry under Global Aviation.³³

Aero Air



As noted in the SEA, Aero Air. A company which provides a number of services including charter flights,³⁴ completed a hangar extension project in 2012.³⁵ According to the FAA Registry, there are currently 19 aircraft registered to Aero Air LLC.³⁶ The SEA provided no information whatsoever on the number of operations logged by this company nor did it comment on the extent to which the recent hangar expansion might contribute to future growth at HIO.

Premier Jets

Per the Federal Registry, there are 23 aircraft registered to Premier Jets,³⁷ an FBO that offers both charter and cargo services.³⁸ Of the 23 aircraft, 8 are registered to a Hillsboro address and the remaining to a Portland PO Box. Applebee Aviation³⁹ also lists Premier Jets as its business address.

Applebee Aviation, owned by Mike and Jenni Applebee, purchased Apple Valley Airport in 2004. They then proceeded, without obtaining proper permits, to engage in commercial aviation activity including helicopter training and a sightseeing tour business.⁴⁰ This grass airstrip is located approximately 12 miles from Hillsboro in Buxton, Oregon, a pastoral community situated in unincorporated Banks in the foothills of the coastal range. Due to noise, environmental, safety and a number of other concerns, this airport expansion plan met with widespread public opposition. In the ensuing years, multiple Washington County and Oregon Land Use Board of Appeals (LUBA) hearings were held. Defending their livability and quality of life from this aggressive company ultimately cost concerned community residents well over \$100,000 in legal fees.

Throughout the course of these events, Applebee received a number of citations. Even though a 12/20/06 hearings officer denied the application for commercial activity,⁴¹ helicopter noise and concerns about environmental violations⁴² continue to blight the community up to the present day. The SEA did not address the potential impact of Applebee Aviation on the community.

FBO Summary



The above discussion reveals that nearly half the based aircraft at HIO are operated by the four FBOs listed above. Hillsboro Aviation, Aero Air, and Premier Jets have a combined total of 122 aircraft registered to them and Global Aviation advertises five charter aircraft as well, yet the SEA provides no explanation whatsoever about their business usage. Nor are the annual operations by Nike, Intel and other corporate users included. This is a major omission that ultimately renders the SEA survey findings meaningless. To factor in recreational flyers, who most likely log far fewer operations than an aviation business or flight training school, skews the results. Regarding the necessity of this expansion to accommodate the private business interests at HIO, it is worth noting that according to the Hillsboro Airport Minimum Standards Section "1.21.1.9:

The Port is under no obligation to provide financing and or make any improvements at the airport to facilitate any development or consummate any Airport Agreement or Permit proposed by a current or prospective Operator or Tenant. The Port is under no obligation to: (a) pursue federal, state, or other funds to contribute to such development or (b) provide matching funds if required to secure such funding."⁴³

Delay

The SEA stated that HIO "2011 activity resulted in delays estimated from near 0.5 minute to approximately 1.6 minutes (with an average of about 1 minute). By 2021, at the forecast level of activity reaching approximately 94% of ASV, delays are estimated from 0.75 minute of delay to 2.7 minutes (averaging about 1.75 minutes)..."⁴⁴ However, it is important to note that 8/25/11 Ninth Circuit Court of Appeals ruling in Barnes, et al vs. USDOT pointed out that, "As used in the HIO Master Plan, ASV represents a 'reasonable estimate of the maximum level of aircraft operations that can be accommodated at an [airport] in a year' at acceptable levels of service."

Following this statement is a footnote which reads as follows, "ASV has another widelyused definition: the level of delay at which the average delay per operation is 4 minutes."⁴⁵ Indeed, Order 5090.C3 states, "Annual Capacity or Annual Service Volume, as reported in the NPIAS, is the level of annual activity at which the average delay per operation is 4 minutes."⁴⁶ It appears that the HIO Master Plan relied on a 1983 circular instead of the updated Dec. 4, 2000 FAA Order 5090.C3 to arrive at their delay projections.

A second footnote contained in the ruling also addressed this issue:

See FAA Order 5090.3C at 24. That order, however, defines ASV as the level of annual activity at which the average delay per operation is 4 minutes. By contrast, the HIO Master Plan appears to calculate the ASV as the level of annual activity at which the average delay per operation is slightly more than 1.2 minutes.⁴⁷

In any case, the forecasted 2021 delay from 0.75 minute to 2.7 minutes with an average of 1.75 minutes is less than half the average 4 minute delay in the FAA Order 5090.3C. Yet another indication that a third runway is not warranted at this time.

HIO Reliever Airport

The Ninth Circuit Court of Appeals, Barnes et al vs. the USDOT 8/25/11 ruling stated that,

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HIO's role is defined within both state and federal aviation plans. HIO is designated as a reliever airport in FAA's *National Plan of Integrated Airport Systems* (NPIAS). Reliever airports are specially designated to reduce congestion at large commercial service airports by segregating GA aircraft from commercial airlines and air cargo activities. HIO is classified as a reliever for PDX. At the state level, the *Oregon Aviation Plan* prepared by the Oregon Department of Aviation (ODA) classifies HIO as a Category 2, Business or High Activity General Aviation Airport. Neither the NPIAS nor the *Oregon Aviation Plan* anticipate HIO changing from a GA airport to a commercial service airport in the future.⁴⁸

However, there is no congestion to relieve at PDX as operations at this facility and every other commercial airport in Oregon have steadily declined in recent years. PDX which has two parallel runways and a third crosswind runway, logged 216,195 operations in 2012,⁴⁹ roughly 13,000 more than HIO. With three existing runways, PDX has an abundance of excess capacity and could accommodate at least twice as many operations as it currently handles.

Operations at Oregon's Commercial Airports on the Decline

Portland International Airport (PDX) serves as a prime example of the decline in annual operations at Oregon's commercial facilities. The investment of \$6 Million for a PDX North Runway Extension, the \$4.25 Million PDX Deicing project grant, and the \$3.5 Million PDX taxilane grant, all funded via ConnectOregon,⁵⁰ did not prevent this airport from plummeting to an operational count that marks a 27 year low, commensurate with 1985 levels. In 2011 it logged 220,874 operations, 106,000 fewer flights than it did in 1997 when it peaked at an all time high of 327,731.⁵¹

Eugene Mahlon Field, the second largest commercial airport in the state also received money from ConnectOregon - \$4,103,461 for an air cargo facilities improvement project and \$451,111 for a ramp reconstruction.⁵² Even so, its annual operational count plunged by more than 50 percent, from over 161,653 in 1991 to 69,676 in 2011.⁵³

Total operations at Roberts Field in Redmond, a recipient of several ConnectOregon grants - \$1.5 Million for a cargo ramp and development project, \$7.5 Million for a terminal expansion, and \$350,000 for a taxiway and reconstruction project⁵⁴ - tumbled from a high of 94,936 in 2007 to 46,510 in 2011.⁵⁵

Pendleton's Eastern Oregon Regional now logs less than a third as many operations as it did in 1998 when it peaked at 41,214. By 2012 its annual operational count had fallen to 12,221. FAA forecasts expect operations at this facility to drop even further to 11,555 by 2013.⁵⁶

Rogue Valley International in Medford is down from 94,007 total operations in 1992 to 43,422 in 2011. Operations are expected to continue declining over the next few years.⁵⁷



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OAW1

This facility received \$4,760,000 from ConnectOregon for an air cargo expansion project.⁵⁸



Southwest Oregon Regional in North Bend, despite receiving \$10 Million from the Oregon Legislature in 2005 for a terminal and an additional \$624,000 ConnectOregon grant for an air traffic control tower⁶¹, peaked at 57,722 operations in 1999 before dropping to 21,036 operations in 2011.⁶²

Over a four year period from 2007 through 2011 the annual operational count at Salem McNary Airport plummeted from 99,432 to 33,901.⁶³ This represents a drop of more than 63 percent. Operations at this facility are expected to remain on the decline for the next decade. This airport recently lost its designation as a commercial airport and is now classified as general aviation.

Astoria and Newport Airports' aspirations for commercial status were stymied by the loss of a controversial \$3.6 Million ConnectOregon SeaPort Airline subsidy,⁶⁴ which was discontinued due to lack of passengers using the service.

Many Oregon General Aviation Airports Historically Lose Money

Port of Portland Ordinance No. 389-R Section 1.1.6 acknowledges that, "Portland Hillsboro Airport, Portland Mulino Airport, and Portland Troutdale Airport have sustained net losses throughout their respective periods of operation by the Port and have never produced revenues sufficient to offset the Port's operating and capitol costs for aeronautical assets in use at such airports...⁶⁵ The Port has owned and operated the Hillsboro Airport for 46 years, Troutdale Airport for 70 years and Mulino Airport from 1988 to 2007.

A recent revision to the ordinance now states that Hillsboro and Troutdale "have recently produced revenues sufficient to offset the Port's operating costs although not sufficient to offset capitol costs for aeronautical assets in use at such airports..." These capitol costs are significant and typically rely heavily on public funding thus the claim that these facilities are now generating revenue seems spurious at best. In fact, the Final Draft of the 2013 Port of Portland Transportation Improvement Plan includes a number of multimillion dollar projects, totaling out to over \$42 Million for the Hillsboro Airport over the next five to 10 years. All are listed as "unfunded" excepting a \$4 Million Connect Oregon III grant which was disbursed to the Port for Taxiway D even though the entire runway/taxiway project was remanded by the Ninth Circuit Court of Appeals for further environmental review.⁶⁶ That the state funded this project regardless of the court decision strongly suggests that the ConnectOregon program maintains an attitude of utter indifference to established national environmental laws as well as the health and well being of the community.



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The Port also lists more than \$18 Million in unfunded projects for the Troutdale Airport. Thus Hillsboro and Troutdale airports combined top out at over \$60 Million within the next five years. This is a lot of money to invest in historically non-revenue generating facilities that primarily serve the for-profit flight training industry and recreational pilots. Surely public dollars can be spent more wisely.

Despite massive public subsidies the majority of Oregon's airports, most of which serve private aviation related business interests, either fail to generate revenue or chronically lose money. Per the Oregon State Department of Aviation, "Since 2009, over 289 million dollars in FAA funds and over 89 million in ConnectOregon funding have maintained and improved the infrastructure of Oregon airports."⁶⁷ The primary beneficiaries of this lavish 378 million dollar outlay are an affluent few who own and operate their own airports, own private aviation related businesses and flight training schools, individuals and companies who can afford to invest in multi-million-dollar jets, and those with the financial wherewithal to own private aircraft and helicopters worth hundreds of thousands of dollars. In other words, scarce federal and state dollars are routinely funneled into the hands of the top one percent and other high end wage earners while simultaneously and habitually shortchanging education, the environment, social services, health care, high speed rail, the arts, and other worthy programs.

Other airports around the state are also chronically dependent on public handouts. According to the Oregon Department of Aviation (ODA), the ODA owns and operates 28 state airports. All but three of these airports lost money during the biennium ending in June of 2011.⁶⁸

Aurora is listed as being in the black with \$142,108. Of course, no mention is made of the millions in federal and state monies sunk into this, predominantly through-the-fence facility in recent years including a \$2.7 Million ConnectOregon III grant for an air traffic control tower with a federal match of \$673,800,⁶⁹ even though most of the businesses that expect to benefit are not even located on airport property. In addition, \$4,365,089 in FAA AIP funds was dispersed to this facility between 2007 and 2008 for a land acquisition and taxiway relocation project.⁷⁰ Clearly the exorbitant cost of subsidizing this facility, which primarily serves flight training and corporate jet owners, far exceeds the revenue generated.

Environment Pollutants

According to the SEA, "The original Environmental Assessment presented the existing conditions in the form of the 2007 emissions inventory for the criteria and precursor pollutants...A new existing conditions (2011) emissions inventory was not prepared for this Supplemental Environmental Assessment..."⁷¹

This failure to reevaluate the emissions inventory is of grave concern, particularly insofar as the readings of the criteria pollutants contained in the initial environmental assessment relied on a DEQ monitoring station located 17 mile east of Hillsboro in SE Portland⁷² – a

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site that is much closer to PDX than HIO. Given the distance, the data presented hardly seems relevant and serves as yet another example of the Port's failure to take a hard and honest look at the actual impacts of HIO on the community and the environment.

Hillsboro Air Quality and DEQ Monitoring Site

There is serious concern on a statewide level about the air quality in Hillsboro where HIO is located. Indeed a 2/5/13 fact sheet released by the Oregon Department of Environmental Quality (ODEQ) announced its decision to place air toxics monitoring equipment in Hillsboro.

Per the DEQ informational materials on this topic:

Hillsboro is the highest priority for air toxics monitoring statewide. This ranking is based upon the following criteria:

Modeling data

• The 2017 projections from the Portland Air Toxics Solutions model show elevated levels of air toxics caused by high emissions and poor ventilation.

Census data

- Rapid population growth over the last ten years contributes to increased emissions and exposures.
- Compared to other parts of the Portland Metro region, there are higher estimated impacts from air pollution on low income, minority and other sensitive populations.

Monitoring data

- DEQ has never monitored for air toxics in Hillsboro.
- Particulate monitoring predicts potentially high air toxics levels in Hillsboro.⁷³

An ODEQ fact sheet entitled Portland Air Toxics 2017 Modeling Study raises additional concerns about air quality in the region. "The model showed that 8 of the 15 pollutants cause the most risk. These pollutants are 1,3 butadiene, Benzene, Diesel particulate, 15 PAH, Napthalene, Cadmium, Acrolein, [and] Formaldehyde...The largest source of air toxins is gasoline and diesel engines that produce 1,3 butadiene, benzene, ethylbenzene, diesel particulate, arsenic, and chromium."⁷⁴

Lead

Lead is also a major concern. Out of nearly 20,000 airports nationwide, HIO ranks is the top one percent, 21st in the nation in lead emissions.⁷⁵ According to the initial environmental assessment on the third runway, HIO emitted 0.7 tons of lead into the air in 2007.⁷⁶ The SEA indicates that lead emissions are expected to rise to between 0.81 to 0.92 tons per year (tpy) but does not provide clear data on years or timelines in some of the tables provided on this topic.⁷⁷

The majority of flights in and out of HIO are piston engine aiurcraft. Per a recent Environmental Health Perspectives report, "...today piston-engine aircraft are the chief source of lead emissions in the United States, emitting 57% of the 964 tons of lead put into the air in 2008, according to the most recent figures from the National Emissions Inventory."⁷⁸

SEA Tables 6-2 and 6-3 ⁷⁹ both indicate that already high levels of lead emissions will continue to increase at HIO from an estimated 0.7 in 2007 to 0.9 by 2021.

HIO needs to take definitive steps to reduce rather than increase lead emissions. Nearly doubling the capacity at this facility by adding a third runway has the potential to contribute to a near doubling of lead emissions particularly if an existing flight training business expands or an as yet unidentified flight training school moves in.

A Santa Monica Airport lead study reported that, "Four factors were found to most highly influence air lead concentrations: Engine 'run-up' check duration, taxi-out time, fraction of twin-engine aircraft, and lead concentration in the fuel."⁸⁰ The SEA emissions OAW2 inventory discussed in the tables cited above does not include run-ups. As a result, the is a high likelihood that the *SEA* underestimated the actual lead emissions at HIO. Please note that Santa Monica Airport is a general aviation facility that logs less than half as many operations annually than HIO does.

Also of note, after completing a study of airports in 6 North Carolina Counties, Duke University researchers concluded that, "living within 1000 m [2/3 mile] of an airport where aviation gasoline is used may have a significant effect on blood lead levels in children. Our results further suggest that the impacts of aviation gasoline are highest among those children living closest to the airport."⁸¹

Yet the SEA did nothing to measure lead emissions at or in the vicinity of HIO.

Friends of the Earth, an environmental group, which in 2006 petitioned the EPA to phase out the use of lead in aviation fuel, issued the following warning:

"... even small discrete doses from aircraft emissions can have long term health and environmental impacts... Piston-engine emissions of lead occur at ground level as well as flying altitude. Lead from this source is thus concentrated near airports and is also dispersed over a large geographic area potentially contributing to higher ambient concentrations in many communities. Numerous groups within the population may be at risk."⁸²

Lead and Health Impacts

According to the EPA, "Children are particularly vulnerable to the effects of lead. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory, and behavior. There is no identified safe level of lead in the body."⁸³

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Research also indicates that "...once an elevated blood lead concentration has been detected, it is too late to prevent lead's deleterious effects on the developing brain. This fact, plus the very low blood lead levels established to negatively impact development indicate that the only way to prevent childhood lead poisoning is to prevent lead from ever getting into children's bodies."⁸⁴

Estimates indicate "that the U.S. incurs \$43.4 billion annually in the costs of all pediatric environmental disease, with childhood lead poisoning alone accounting for the vast majority of it. This is a very high cost to our society, which include medical costs, disability, education and parental lost work time." ⁸⁵

Over the past 50 years the Centers for Disease Control (CDC) has periodically lowered acceptable blood lead levels for children and has ultimately concluded that, "...no level of lead in a child's blood can be specified as safe."⁸⁶

The Centers for Disease Control Agency for Toxic Substances and Disease Registry (ATSDR) states that:

In adults, about 94% of the total amount of lead in the body is contained in the bones and teeth. About 73% of the lead in children's bodies is stored in their bones. Some of the lead can stay in your bones for decades; however, some lead can leave your bones and reenter your blood and organs under certain circumstances (e.g., during pregnancy and periods of breast feeding, after a bone is broken, and during advancing age).

About 99% of the amount of lead taken into the body of an adult will leave in the waste within a couple of weeks, but only about 32% of the lead taken into the body of a child will leave in the waste. Under conditions of continued exposure, not all of the lead that enters the body will be eliminated, and this may result in accumulation of lead in body tissues, especially bone.⁸⁷

The excerpt below from the National Institute of Health discusses the impacts of lead on the human organism.

Lead is a very strong poison. When a person swallows a lead object or breathes in lead dust, some of the poison can stay in the body and cause serious health problems... it is more common for lead poisoning to build up slowly over time. This occurs from repeated exposure to small amounts of lead. In this case, there may not be any obvious symptoms. Over time, even low levels of lead exposure

can harm a child's mental development. The health problems get worse as the level of lead in the blood gets higher.



Lead is much more harmful to children than adults because it can affect children's developing nerves and brains. The younger the child, the more harmful lead can be. Unborn children are the most vulnerable. Possible complications include behavior or attention problems, failure at school, hearing problems, kidney damage, reduced IQ, slowed body growth...

Symptoms of lead poisoning may include: abdominal pain and cramping (usually the first sign of a high, toxic dose of lead poison), aggressive behavior, anemia, constipation, difficulty sleeping, headaches, irritability, loss of previous developmental skills (in young children), low appetite and energy, and reduced sensations.

Very high levels of lead may cause vomiting, staggering walk, muscle weakness, seizures, or coma.

...Adults who have had mildly high lead levels often recover without problems. In children, even mild lead poisoning can have a permanent impact on attention and IQ.

People with higher lead levels have a greater risk of long-lasting health problems. They must be followed carefully.

Their nerves and muscles can be greatly affected and may no longer function as well as they should. Other body systems may be harmed to various degrees, such as the kidneys and blood vessels. People who survive toxic lead levels may have some permanent brain damage. Children are more vulnerable to serious long-term problems.

A complete recovery from chronic lead poisoning may take months to years.⁸⁸

Recent research now links very low blood lead levels (occurring at typical background exposures) with ADHD. The symptoms of ADHD include extreme hyperactivity, impulsivity, inattentiveness and distractibility. ADHD often co-occurs with conduct and oppositional defiant disorders. Blood lead levels less than 1 mcg/dL, well below the 5 mcg/dL level of concern established by the CDC in 2012, contribute to the development of ADHD. "Blood lead levels from 1 to 10 μ g/dL are associated with lower child intelligence quotient (IQ), weaker executive cognitive abilities, behavior symptoms of ADHD and diagnosis of ADHD in community surveys."⁸⁹ As stated by Nigg et al, "...ADHD, both as a diagnosis and as a symptom dimension, is associated with blood lead levels at low exposure, levels, even below 2.5mcg/dL."⁹⁰

An extensive body of literature now links elevated blood lead levels even in very low amounts with ADHD. The symptoms of ADHD include extreme hyperactivity,

impulsivity, inattentiveness and distractibility. ADHD often co-occurs with conduct and oppositional defiant disorders. Background low-level lead exposure, well below the 5 mcg/dL level of concern established by the CDC in 2012, is associated with ADHD. "Blood lead levels from 1 to 10 ug/dL are associated with lower child intelligence quotient (IQ), weaker executive cognitive abilities, behavior symptoms of ADHD and diagnosis of ADHD in community surveys."⁹¹



Noise

The World Health Organization acknowledges that, "Severe noise problems may arise at airports hosting many helicopters or smaller aircraft used for private business, flying training and leisure purposes."⁹⁴

As noted earlier, nearly two-thirds – 137,905 – of HIO's total operations for 2011 were categorized as local.⁹⁵ Per the HIO Master Plan "Local operations are performed by aircraft which: (a) Operate within the local traffic pattern or within sight of the airport; (b) Are known to be departing for, or arriving from, flight in local practice areas located within a 20 mile radius of the airport; (c) Execute simulated instrument approaches or low passes at the airport."⁹⁶

Approximately two-thirds of the 220,000 operations logged at HIO in 2011, involved "touch and go" maneuvers wherein student pilots repetitively circle within 4 to 5 miles of the airport at an altitude of less than 2,000 feet. "Local operations (consisting largely of training activity) currently represent about 68 percent of total operations at HIO."⁹⁷

Regarding designated locations within 20 miles of the airport, according to a U.S. Airport/Facility Directory, there is an "Intensive Flight Training" area adjacent to HIO that extends over Buxton, Banks, and Manning then west towards Timber. It continues south over Gales Creek, Forest Grove, Carlton and Lafayette. From McMinnville it proceeds east almost to St. Paul then north back to HIO.⁹⁸

The SEA significantly downplays the impact of the aircraft noise generated by aviation activity. Despite numerous complaints, community members who are routinely impacted by HIO generated aviation noise, the SEA maintains that significant noise impacts only pertain to those impacted by the 65 DNL levels which according to the Port is completely located on airport property. The Port historically exhibits a dismissive stance towards community noise concerns. Their attitude of disregard is in conflict with the World Health Organization [WHO] Guidelines for Community Noise which indicates that noise pollution "has profound health implications."⁹⁹

Per the WHO report, "Although everyone may be adversely affected by noise pollution, groups that are particularly vulnerable include infants, children, those with mental or



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physical illnesses, and the elderly. Because children are particularly vulnerable to noise induced abnormalities, they need special protection."¹⁰⁰



The World Health Organization has documented seven categories of adverse health effects of noise pollution on humans. The following excerpt is from a summary of the WHO report.¹⁰¹

1. Hearing Impairment: Hearing damage is related to duration and intensity of noise exposure and occurs at levels of 80 dB or greater, which is equivalent to the noise of heavy truck traffic. Children seem to be more vulnerable than adults.

2. Interference with Spoken Communication: Noise pollution interferes with the ability to comprehend normal speech and may lead to a number of personal disabilities, handicaps, and behavioral changes. These include problems with concentration, fatigue, uncertainty, lack of self confidence, irritation, misunderstandings, decreased working capacity, disturbed interpersonal relationships, and stress reactions.

3. Sleep Disturbances: Uninterrupted sleep is known to be a prerequisite for good physiological and mental functioning in healthy persons. Noise pollution is a major cause of sleep disturbances. Apart from various effects on sleep itself, noise pollution during sleep causes increased blood pressure, increased heart rate, increased pulse amplitude, vasoconstriction, cardiac arrhythmias, and increased body movement. These effects do not decrease over time. Secondary effects include fatigue, depressed mood and well-being, and decreased performance. Combinations of noise and vibration have a significant detrimental effect on health, even at low sound pressure levels.

4. Cardiovascular Disturbances: A growing body of evidence suggests that noise pollution may be a risk factor for cardiovascular disease. Acute exposure to noise activates nervous and hormonal responses, leading to increased blood pressure and heart rate and to vasoconstriction. If the exposure is of sufficient intensity, there is an increase in heart rate and peripheral resistance; an increase in blood pressure, and increased levels of stress hormones (epinephrine, norepinephrine, and cortisol).

5. Disturbances in Mental Health: Noise pollution is not believed to be a cause of mental illness, but it is assumed to accelerate and intensify the development of latent mental disorders. Noise pollution may cause or contribute to the following adverse effects: anxiety, stress, nervousness, nausea, headache, emotional instability, argumentativeness, sexual impotence, changes in mood, increase in social conflicts, neurosis, hysteria, and psychosis. Children, the elderly, and those with underlying depression are particularly susceptible to these effects.

6. Impaired Task Performance: The effects of noise pollution on task performance have been well-studied. Noise pollution impairs task performance, increases

errors, and decreases motivation. Reading attention, problem solving, and memory are most strongly affected by noise. Noise produces negative aftereffects on performance, particularly in children; it appears that the longer the exposure, the greater the damage.



7. Negative Social Behavior and Annoyance Reactions: Annoyance is defined as a feeling of displeasure associated with any agent or condition believed by an individual to adversely affect him or her. Annoyance increases significantly when noise is accompanied by vibration or by low frequency components. The term annoyance does not begin to cover the wide range of negative reactions associated with noise pollution; these include anger, disappointment, dissatisfaction, withdrawal, helplessness, depression, anxiety, distraction, agitation, or exhaustion. Social and behavioral effects are complex, subtle, and indirect. These effects include changes in everyday behavior (closing windows and doors to eliminate outside noises), changes in social behavior (aggressiveness or disengagement), and changes in social indicators (residential mobility, hospital admissions, drug consumption, and accident rates), and changes in mood (increased reports of depression). Noise above 80 dB is consistently associated with decreased helping behavior and increased aggressiveness.

In addition, WHO research indicates that, "Risk for noise-induced hearing impairment may increase when the noise exposure is combined with exposure to vibration or with exposure to ototoxic drugs or chemicals."¹⁰² Ototoxicity is defined as "ear poisoning which results from exposure to drugs or chemicals that damage the inner ear or the vestibulo-cochlear nerve (the nerve sending balance and hearing information from the inner ear to the brain)... Environmental chemicals have long been implicated in ototoxicity. Little research has been done to substantiate their precise effect on ears, but most are associated with hearing disturbances that may be permanent."¹⁰³ Included on the list of environmental chemicals that contribute to ototoxicity are two of the criteria pollutants emitted by HIO aviation activity and discussed in the SEA – lead and carbon monoxide.

Though the Port claims to have four noise monitors¹⁰⁴ located in the vicinity of the airport, the SEA relied on modeling and estimates, rather than actual readings. In addition, a Part 150 noise study has never been carried out at HIO. As a result, the Port's assertion that the entire 65 DNL is located on airport property is in question. It is also of concern that the Port did not address the considerable annoyance factor of student pilots constantly training over the area both close in to the airport and at designated practice areas within a 20 mile radius of HIO.

The addition of a third runway will only increase the frequency and intensity of noise and consequent health impacts on the community.

Santa Monica Airport Health Impact Assessment

The Santa Monica Airport is a general aviation facility that accommodates corporate jets, flight training, and recreational hobbyists. Like Hillsboro, it is located in a populated urban area. As noted earlier, Santa Monica typically logs less than half as many operations annually as Hillsboro does.¹⁰⁵



A 2010 report¹⁰⁶ written by a group of UCLA pediatric residents found significant adverse health impacts associated with this airport. The section below is excerpted directly from the report.

Key Findings

1. Airport operations, particularly jet take-offs and landing, are contributing to elevated levels of black carbon in the area surrounding Santa Monica Airport. Elevated exposure to black carbon is associated with:

- increased rates of respiratory and cardiovascular disease including asthma, bronchitis, and increased risk for sudden death
- irreversible decrease lung function in children
- increased carcinogenic risk

2. Elevated levels of ultrafine particles (UFP) are associated with aircraft operations and jet takeoffs and are found in the area surrounding Santa Monica Airport. Elevated exposure to UFPs are associated with:

- increased inflammation and blockage of blood vessels in mice models
- greater lung inflammation with exposure to UFPs than exposure to larger particulates in rodent models

3. Elevated levels of polycyclic aromatic hydrocarbons (PAH) are found in the area surrounding Santa Monica Airport. Exposure to PAH has been associated with:

- increased carcinogenic risk
- disruption of the hormonal balance in adults.
- reproductive abnormalities with exposure during pregnancy
- lower IQ scores in children.

4. Levels of noise due to plane and jet take-offs from Santa Monica Airport are above Federal Aviation Airport thresholds. Excessive noise is associated with:

- hearing loss.
- higher levels of psychological distress
- impaired reading comprehension and memory among children.

Future Growth Potential With Addition of Runway

The Port of Portland 2005 Hillsboro Master Plan reveals that,

Future growth in local operations will be driven by training operations at Hillsboro Airport. This will be a function of the businesses on the airport which provide pilot training services. The number and type of these businesses through the planning period cannot readily be determined. That will be the function of private business models and business practices. However, considering that historically businesses have been established at Hillsboro Airport that provide pilot training services, it can be expected that these activities will continue in the future.¹⁰⁷

The experience of other airports indicates that flight training can increase unexpectedly and quite rapidly. Castle Airport in California is an elucidating example. Per the FAA forecasting, this facility logged 60,234 operations in 2011 with the expectation that it would level off at around 72,000 annually over the next 28 years.¹⁰⁸

However a recent newspaper report indicates that, "the airport's traffic has grown significantly in the past few months, largely because of Sierra Academy of Aeronautics student pilots. The airport is on target to hit about 120,000 to 150,000 operations by the end of the calendar year, according to county officials."¹⁰⁹ This represents an unanticipated doubling of operations at this facility in the less than a year.

A similar pattern emerged at the Port of Portland owned and operated Troutdale Airport. Like Castle, the Troutdale Airport is on the list selected for tower closure due to sequester cuts and also like Castle, Troutdale experienced a sudden and uncharacteristic increase in operations. According FAA projections, annual operations at this airport were expected to remain below 60,000 until 2020 with a gradual increase to 65,000 by 2040.¹¹⁰ Yet for some inexplicable reason there was a dramatic 35,000 increase from 56,790 operations in 2011 to 91,556 forecast for 2012, the majority of which appear to be local touch and go training flights. The Troutdale Airport and Hillsboro Airport, both owned and operated by the Port of Portland, are heavily utilized by Hillsboro Aviation, a private for-profit international flight training school. It is likely that the increase in operations at Troutdale was on behalf of this company. The 2013 FAA TAF report now expects Troutdale to accommodate upwards of 100,000 operations or more annually over the next 28 years.¹¹¹

These two examples alone demonstrate how suddenly and unexpectedly operations can increase if a flight training business decides to expand or a new tenant moves in.



Cumulative Impacts

Though the Port of Portland has owned and operated the Hillsboro Airport for over 46 years, it has never completed an Environmental Impact Statement, despite multiple expansion projects over this timeframe.

Present

Port expects to begin a \$5.6 million improvement project on a Runway 2/20 Rehabilitation, Relocation, and Taxiway Improvement Project this spring. Despite the hefty use of public monies no environmental assessment on this project was done. There was no public process, hearing, or review prior to contract approval by the Port of Portland Commissioners. No opportunity was ever provided at a Hillsboro Airport Roundtable Exchange (HARE) meeting or any other venue in Washington County to comment or present testimony.

Past

Aero Air completed a hangar expansion project in 2012.¹¹²

Taxiway D was constructed in 2011.113

Taxiway C was extended in 2010.114

In 2012 Port pursued a HIO 1200-Z NPDES Permit allowing the Port and its HIO tenants to use deicing fluid at HIO but refused to answer questions posed by Oregon Aviation Watch (OAW) on this matter or respond to OAW comments on the action.

An Intel expansion project at Ronler Acres mentioned in the SEA does not indicate how or if this development will impact HIO.¹¹⁵

The SEA mentions a Veterans Drive expansion by City of Hillsboro which began in 2011 but does not indicate how this development will impact future HIO growth.¹¹⁶

Future

The 2013 Port Transportation Improvement Plan¹¹⁷ identifies the following projects within the next 5 years. All are listed as unfunded except for the \$4,000,000 received from ConnectOregon for the Taxiway D portion of the third runway proposal.

- HIO Wash Racks (Cost estimate \$620,100)
- HIO Relocate Charlie Pattern Landing Site (Cost estimate \$1,433,100)
- HIO Construct East Access Road (Cost estimate \$1,886,560)
- HIO Reconstruct Runway 2/20. Construct Taxiway Extension (Cost estimate -\$15,391,050)
- HIO Relocate Taxiway C (Cost estimate \$4,512,600)

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- HIO Taxiway to NW Corporate Center (Cost estimate \$1,050,000)
- HIO Construct Runway 12/130R (Cost estimate \$13,000,000)

Within 10 years

• HIO Relocate Taxiway AA (Cost estimate \$4, 700,000)

In addition, a number of letters addressed to Bill Wyatt, the Executive Director of the Port of Portland and submitted to the Oregon Department of Transportation for funding through ConnectOregon III,¹¹⁸ reveal that certain current airport tenants and the local business community anticipate an expansion of operations at HIO. Several allude to freight mobility though the SEA did not acknowledge plans or address the possible impact of moving cargo out of HIO. In fact, the 2005 HIO Master Plan states that,

Air freight is moved by both the passenger air carriers and all-cargo airlines. The cargo handling from the passenger and mixed airlines is only feasible at PDX where the passenger airlines operate...The larger aircraft operated by all-cargo carriers would be prohibited from using Hillsboro Airport, an all-cargo airline that operates a turboprop or piston-powered fleet would be the only type of air cargo operation that could be accommodated at Hillsboro Airport. These aircraft are similar in size to the existing fleet at Hillsboro Airport and could be easily integrated into existing airport operations.¹¹⁹

If this option was under consideration, it should have been addressed in the SEA but was not.

• An 11/13/19 letter from the Greater Hillsboro Area Chamber of Commerce and signed by President Deanna Palm stated,

"The addition of a parallel runway and improvements to a taxiway will better accommodate increased commuter jet traffic. This additional infrastructure will also open up the NE quadrant of the airport for increased development of aviation businesses."¹²⁰

• As noted earlier in this submission, a letter penned by Max Lyons, President of Hillsboro Aviation and stamped 11/30/09 read as follows,

"With the tremendous growth that we have seen at the Hillsboro airport, we have been concerned of the airport's ability to continue to service the increased activity over the last 3 to 5 years. It has been clear to us, that a third runway will help alleviate much of the congestion that we are experiencing and will allow the airport and its tenants to continue expanding as the impact of the current recession subsides. Prior to 2009, over the previous 16 years, Hillsboro Aviation grew at an average of 20% annually. We have become the largest flight training facility for both airplanes and helicopters on the pacific west coast as well as the largest dealer for helicopters in the U.S. Even though we have seen a decrease in business in 2009, we are very hopeful and expect that general aviation will begin to recover in 2011 and 2012."

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- An 11/19/09 letter from the Portland Business Alliance and signed by President and CEO, Sandra McDonough, supports the ConnectOregon funding request stating, "The projects identified by the Port of Portland will make significant improvements to freight mobility, connectivity and productivity..."¹²¹
- The Oregon Business Association in a letter dated 11/16/09 and signed by Chair Daniel Block asserted that the project "will make significant improvements to freight mobility, productivity and have a direct impact to our regional economy."¹²²
- Global Aviation, a current tenant at HIO, also indicated an intent to expand. In a letter dated 11/20/09 company President, Brian Lockhart, stated that, "The addition of the parallel runway will make Hillsboro more attractive to the type of aircraft that are the focus of Global's business. The excess demand that we anticipate will develop within the next three years partly as a result of the additional airport capacity, is the driving force behind the plans we are making to expand our 63,000 square feet aircraft hanger space by 50%."¹²³

Conclusion

For the reasons set forth in this document, Oregon Aviation Watch is opposed to all further growth at HIO. If the Port and FAA do continue to pursue this expansion, we strongly recommend that an Environmental Impact Statement should be prepared to address the environmental degradation and erosion of quality of life due to the Hillsboro Airport.

Attachments

- FAA TAF Detail Report (January 2013).
- Portland-Hillsboro Airport Master Plan Report. September 1990. Pg. 67 and 47.
- Portland Hillsboro Airport Master Plan Update 1995-2015. October 1996. Pg. 3, 37, 38, and 44.
- Portland International Airport Monthly Traffic Report December, 2012: Calendar Year Report.
- Portland International Airport Monthly Traffic Report December, 2010: Calendar Year Report.
- 3/27/13 email correspondence between Jim Lubischer and HIO FAA Tower Manager Joe Fiala on HIO helicopter operations in 2011 and 2012.
- Hillsboro Aviation website printouts.
- FAA Registry Hillsboro Aviation
- ConnectOregon III Application packet letter from President of Hillsboro Aviation, Max Lyons, to Bill Wyatt, Director of the Port of Portland.
- Hillsboro Tribune article by Jim Redden. Airport Fight May Have a Rough Landing. (1/25/13).
- ConnectOregon III Application packet letter from Vice-President of Global Aviation, Brian Lockhart, to Bill Wyatt, Director of the Port of Portland

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- Global Aviation website printouts
- FAA Registry Global Aviation
- Aero Air website printout
- FAA Registry Aero Air
- FAA Registry Premier Jets
- Premier Jets website printouts
- Applebee Aviation website printouts
- Oregonian articles on Apple Valley expansion plans and legal violations
- Washington County Letter to Michael and Jennie Appelebee re: Violation of Conditions of Approval
- Hillsboro Airport General Aviation Minimum Standards. Pg. 15.
- FAA Order 5090.3C. Pg.20.
- ConnectOregon Report
- FAA Terminal Area Forecast for Portland International Airport (January 2013)
- FAA Terminal Area Forecast for Eugene Mahlon Field (January 2013)
- FAA Terminal Area Forecast for Roberts Field in Redmond (January 2013)
- FAA Terminal Area Forecast for Eastern Oregon Regional in Pendleton (January 2013)
- FAA Terminal Area Forecast for Rogue Valley International in Medford (January 2013)
- FAA Terminal Area Forecast for Klamath Falls (January 2013)
- FAA Terminal Area Forecast for Southwest Oregon Regional in North Bend (January 2013)
- FAA Terminal Area Forecast for Salem McNary Airport (January 2013)
- Agenda for the Port of Portland Board of Commissioners Meeting (3/13/13) See agenda Item No. 2 on Ordinance No. 389-R
- 2013 Port Transportation Improvement Plan Drat (1/9/13). Pg. 7, 32-36.
- Oregon Department of Transportation Annual Report (July 1, 2011 Through June 30, 2012)
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- Hagler, Louis. <u>Summary of Adverse Health Effects of Noise Pollution: Based on the</u> World Health <u>Guideline for Community Noise.Pg.1-2</u>.
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- Hillsboro Chamber of Commerce letter to Bill Wyatt included in <u>Hillsboro Airport</u> <u>Proposed Runway 12L/30R and Taxiway D Project</u>. Connect Oregon III Application Review Package. (May 2010).
- Portland Business Alliance letter to Bill Wyatt included in <u>Hillsboro Airport</u> <u>Proposed Runway 12L/30R and Taxiway D Project</u>. Connect Oregon III Application Review Package. (May 2010).
- Oregon Business Alliance letter to Bill Wyatt included in <u>Hillsboro Airport Proposed</u> <u>Runway 12L/30R and Taxiway D Project</u>. Connect Oregon III Application Review Package. (May 2010).
- Global Aviation letter to Bill Wyatt included in <u>Hillsboro Airport Proposed Runway</u> <u>12L/30R and Taxiway D Project</u>. Connect Oregon III Application Review Package. (May 2010)

3. <u>Hillsboro Airport Parallel Runway 12L/30R. Draft Supplemental Environmental Assessment</u>. Prepared for Port of Portland by Barrilleaux, J. and Dowlin R. Appendix B. Pg. 3-10. (3/15/13).

4. Portland-Hillsboro Airport Master Plan Report. Prepared by Hodges & Shutt for Port of Portland. (September 1990). Pg. 67.

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6. Hillsboro Airport Master Plan Final Report. Prepared for Port of Portland by W&H Pacific, Inc. (October 1996). Pg. 3.

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Subject: Oregon Aviation Watch Testimony in Response to the Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental Environmental Assessment (3/15/13)

Prepared by: Williams Aviation Consultants on behalf of Miki Barnes, LCSW and Oregon Aviation Watch

To: The Port of Portland and the Federal Aviation Administration

See attached 7 page report entitled "Analysis: Hillsboro Airport Third Runway Project, Capacity, Delay, Forecast (Airport Service Volume)



Williams Aviation Consultants

Analysis: Hillsboro Airport Third Runway Project, Capacity, Delay, Forecast (Airport Service Volume)

Airside capacity establishes the ability of the existing airfield facilities (runways and taxiways) to accommodate projected aviation activity demand.

The National Plan of Integrated Airport Systems (NIPAS) states, "The performance of the airport system is affected by many factors, including the layout of individual airports, the manner in which airspace is organized and used, operating procedures, and application technology. The concentration of traffic at an airport can result in congestion and delay."

The Airport Operator (AO) takes a very narrow view of the causes of airport delay and could therefore see the only solutions as building a new runway, helicopter landing area with the attendant taxiway.

The danger in focusing on runways and taxiways is that their construction may actually decrease system capacity and efficiency. As a result of unwarranted construction at one airport, other airports may be adversely impacted. In some cases, the ability to increase operations at one airport can result in additional system controls to regulate volume throughout the area or the air traffic system in order to serve the increased demand at the larger airport. The Assessment should consider all factors that impact aviation in order to ensure that the final outcome represents the true aviation need not only for Hillsboro Airport, but for the entire region.

"In 2005, the Port of Portland completed a Master Plan for Hillsboro Airport that evaluated the Airports' capabilities and role, forecast future aviation demand, and developed a plan for the timely development of new or expanded facilities that would enable the Airport to efficiently serve forecast demand. Among the Master Plan recommendations was the development of a new parallel runway because the airfield was operating at close to 100% of the airfield capacity and would exceed airfield capacity in the future, as defined by Annual Service Volume (ASV).1

1 ASV is a reasonable estimate of an airport's annual capacity. It is the annual level of traffic that results in a given level of average delay."

Other airport operators have defined ASV as: "Annual service volume (ASV) is defined as an <u>estimate</u> of an airport's annual operating capacity, which represents its ability to process aircraft activity on a continual basis."

The problem with ASV is that is an estimate. There are no firm guidelines for establishing ASV, and is susceptible to the biases and outcomes desired by the preparer. ASV is acceptable at airports where there is no accurate method of identifying aircraft activity. Hillsboro has an operating control tower from the hours of 0600 - 2200 seven days a week. As such the daily

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traffic count is available and only the operations occurring between 2200 and 0600 should be OAW35 estimated.

At airports with control towers, accurate operations data is available. The actual operating CAW3 capacity can be accurately determined though the development of a baseline model against which future airport demand, capacity and efficiency can be measured and determined. As such individual opinions as to what a pilot, operator, flight school, maintenance activity, etc. is not especially relevant in determining future airport demand based on a set of "what if" questions.

ASV does not provide data that is supportable since it is based on a series of assumptions that have little relationship to actual aircraft operations. In our experience ASV is only used as justification for airport expansion when no other, more precise methods, generate the desired outcome.

"The Court upheld many aspects of the FAA's environmental review, but found in the petitioner's favor with respect to the allegation that FAA had failed to adequately account for the possibility that the proposed new runway might cause an increase in aviation activity at Hillsboro Airport."

Airports reach capacity in two primary ways, an increase in air traffic operations or a reduction in available runways. Airports or controllers can reduce capacity by implementing restrictions on activities or limit the number of aircraft in the traffic pattern, extending the traffic pattern, etc. The only reason to construct additional runways is to increase capacity.

Increased capacity reduces delays. Delays occur or increase when airport infrastructure such as runway and taxiways are not available, there is insufficient ramp space to accommodate aircraft parking, bad weather, or an increase in operations.

It should be noted that delay is only recorded for instrument operations, i.e. aircraft landing or OAW33 departing on an Instrument Flight Rules (IFR) flight plan. As such local and operations conducted under VFR conditions are not used in calculating delay. The main reason for IFR delay is system demand, bad weather, airport closures or flow control etc. which would be under the purview of the FAA's Portland Terminal Approach Control.

It is important to note that FAA data indicated that between the beginning of 1999 and the end of 2012 a total of 66 aircraft were delayed for an average of 28.47 minutes each. Of the 66 aircraft, 60 were delayed awaiting takeoff. In the 14 years of date reviewed, only 2 delays were attributed to runway availability. The majority of delay was caused by volume of aircraft in the airspace used for instrument aircraft operations and the subsequent limitations on additional aircraft allowed into that airspace by the Air Traffic Control system. In our opinion the majority of this traffic volume is aircraft into and out of PDX. (See HIO Delay 1999-2112 attached Exhibits 1 and 2)

The additional runway, will increase the capacity of the airport and the increased capacity will allow and possibly attract additional operations. The addition of the proposed parallel runway will allow all local operations to move to that runway freeing the existing runway to accommodate an increase in operations at least equal to the local operation currently using that OAW39 runway. Based on the number and cause of HIO delays, an additional runway will have almost on impact on delay.

The proposed closure of air traffic control tower(s) by the FAA in locations such as Troutdale can result in the relocation of pilots who prefer to conduct operations while being controlled by OAW41 skilled air traffic controllers.

The National Plan of Integrated Airport Systems (NIPAS) states, "Experience shows that delay increases gradually with rising levels of traffic until the practical capacity of an airport is reached, at which point the average delay per aircraft operation is in the range of 3 to 5 minutes. Delays increase rapidly once traffic demand increases beyond this level. An airport is considered to be congested when average delay exceeds 5 minutes per operation. Beyond this point delays are extremely volatile, and a small increase in traffic, adverse weather conditions, or other disruptions can result in lengthy delays....."

The airport should not try to use VFR operations to support a claim of runway delays. NIPAS is referring to air carrier airports not general aviation airports where the majority of operations are conducted under Visual Flight Rules (VFR).

"FAA Advisory Circular 150/5060-5 g/23/83 states:

1-4. CAPACITY, DEMAND, DELAY RELATIONSHIPS, As demand approaches capacity, individual aircraft delay is increased. Successive hourly demands exceeding the hourly capacity result in unacceptable delays. When the hourly demand is less than the hourly capacity, aircraft delays will still occur if the demand within a portion of the time interval exceeds the capacity during that interval, Because the magnitude and scheduling of user demand is relatively unconstrained, reductions in aircraft delay can best be achieved through airport improvements which increase capacity."

Aircraft delays actually increase when the actual air traffic demand at any given time exceeds the runway capacity. ASV speaks to annual volume and assumes that delays will occur only when that volume is reached or increased.

NIPAS identified several alternative measures to address airfield congestion. According to NIPAS, "The construction of new runways is not the only response to airfield congestion. The continued application of certain measures, termed alternative measures, will help to limit delay without substantial investment."

NIPAS list the following alternatives to runway and taxiway construction.

- Modifying air traffic control procedures.
- Improve the flow of aircraft in terminal and en route areas.
- Free flight in the en route phase of flight.
- New instrument approach procedures for adverse weather.
- New safety and capacity program for aircraft taxiing in low visibility conditions.





- Technology advances in automation, information systems, communications, navigation and surveillance and weather.
- Redistribution of air traffic among airports.
- Reliever airport development. •
- Aircraft substitution and up gauging.
- Aircraft hubs. (banking of arrivals and departures)
- Reduce peaks and valleys in aircraft demand. •
- Pricing incentives.

The above recommendations are appropriate for air carrier airports and for aircraft operating on and IFR flight plan.

Table 3.1 provides data on the airport's existing annual service volume versus projected 2025 annual operations. It should be noted that aircraft remaining in the airport traffic pattern (local air traffic operations, including helicopter operations) should not be counted as operations that OAW43 impact airport capacity. Local training operations can be rescheduled or accommodated at other locations and not allowed to impact other airport operations. Helicopter operations do not require the use of a runway and do not impact airport capacity.

In situations where the proponent attempts to use helicopter operations as a factor in adding to the complexity of the operation due to increased workload, specific helicopter routes that do not interfere with the runway operations can be developed and an separate air traffic control position that controls only helicopters can be established.

The addition of the proposed runway, as previously stated, would allow all local (traffic patient training) operations to use the new runway and the existing runway could accommodate an number of operations equal to the total operations being conducted without the new parallel runway. Note that Table 3-1 does not break out local operations or helicopter operations but lumps all the operations together in order to suggest that the current runways are operating at or near capacity and that the only alternative is to build an additional runway.

TABLE 3-1	
riginal (2016) Environmental Assessment/2005 Hillsboro Master Flan Forecas	st

Year	ASV	Aanual Rasway Operations *	Total Forecast Operations *	Percent ASV ⁴	Average Dehy (minutes)	Total Aircraft Delay (hours/year)
2007	169,000	166,033	240,735	98%	1.2	3,321
1010	175,000	196,600	270,300	112%	1.9	6,200
2012	174,000	203,594	277,294	117%	2.3	7,504
2015	174,000	214,600	288,300	125%	3.6	12,900
2023	171,000	249,300	323,000	146%	6,0	24,990

et men over the forecest period. animum have entirected behoupour training operations.

with chargest in fast and over my an one of the option training anterns = while operations has estimated heatograp training of operations includes all anticity uring the remark present of operations in the second and options in the second and the tem as well as half-optic training operations, in taking to ASV.

Server Original (2010) Final Environm tal Acces ment (Table 1-6)

Table 3-1 states that total delay in 2007 will be 3,321 hours and in 2010 the total will increase to 6,200 hours. FAA OPSNET data reveals that actual delay in 2007 was 0. In 2010 actual delay

OAW40

was 122 MINUTES. In fact the total delay for all 14 years (1999-2012) was 1,819 MINUTES. The table also provides forecast operations. In 2007 the total operations recorded by the FAA was 238,605; very close to the volume forecast. In 2010 the forecast was for 270,300 operations. The FAA recorded 220,213 actual operations. The table forecasts 277,294 operations in 2012. The actual 2012 volume was 202,967. The 2012 forecast delay was 7,804 hours while the FAA recorded an actual delay in 2012 of 482 MINUTES.

Note that the average delay in 2025 is forecast to be 6.0 minutes. The document states, "At <u>air</u> <u>carrier airports</u> the 6.0 minutes of delay consideration of a new runway occurs." Other options are also available at air carrier airports such as a modification of procedures, scheduling, OAW33 airspace design etc. Los Angeles Airport is a prime example of an air carrier airport where flight delays were exceptionally high. The FAA restructured the airspace (Dual CIVIT) and the delays decreased The 6.0 minutes of delay in Table 3-1 would not require a busy air carrier airport to even consider an alternative until somewhere near the year 2025. In our opinion the parallel runway is not required at this time or in the foreseeable future, if valid operational figures of runway use were employed. The Palomar Airport in California accommodates approximately 240,000 operations per year with one runway.

In our opinion a full environmental review should be required, using actual operations from tower logs and the actual capacity of the proposed infrastructure analyzed to show the increases in capacity that the airport owner is understating. Additionally, historical operations years should be shown as in many cases airports were accommodating more operations in the 1990-2001 years then in the years since early 2002.



OPSNET : Delays : Standard Report

From 01/1989	Tu 12/2012	Faciny=HIO
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			System	n imp	act D	eleya									Sya	tem (m	pact D)elaya		
					0	ceume	d At De	lays			By C	lass	•		1-20111711 U	By Ca	rse		Time	
Calendar Year	Facility	Total Ops	Total Delaya	TM: To	Dep	Abm	TMI From	Total Occ At	Dest To Delays	AC	AT	GA	Mil	Wx	Vol	Equip	Rwy	Other	Avg (Min)	Total (Min)-
1999	HIO	56778	0	0	0	Q	Q	0	0	0	۵	۵	0	0	0	0	0	0	0.00	0
2000	HIO	244511	9	4	5	<u>0</u>	<u>1</u>	6	D	Ð	0	9	0	4	0	5	0	0	25.33	228
2001	HIO	235383	2	1	1	<u>0</u>	<u>1</u>	2	1	0	1	1	0	2	0	0	0	0	39.00	78
2002	HIO	223589	4	0	4	0	0	4	4	0	0	4	0	3	0	1	0	0	24.25	97
2003	HIQ	218118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0
2004	НЮ	192853	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.00	0
2005	ню	219227	1	Q	0	1	3	4	3	0	0	1	0	1	0	0	0	0	33.00	33
2006	HIO	211493	2	Q	2	Q	<u>6</u>	8	1	0	2	0	0	2	0	0	0	0	20.00	40
2007	HIO	238605	0	Ũ	0	0	4	4	1	0	0	0	0	0	0	0	0	0	0.00	0
2008	HIO	260957	3	Q	3	0	12	15	9	0	0	3	0	0	1	0	2	0	154.33	463
2009	HIO	222271	2	0	2	Q	8	10	3	0	0	2	0	2	0	0	0	0	21.00	42
2010	HIO	220213	4	0	4	0	2	13	1	0	0	4	0	2	2	0	0	0	30.50	122
2011	HIO	214243	14	£	14	<u>0</u>	17	31	2	0	2	12	0	1	7	0	0	6	21.00	294
2012	но	202967	25	0	25	Q	19	44	0	0	5	20	0	4	15	0	0	6	19.28	482
Sub-Total	for HIO	2961208	66	5	60	1	80	141	17	0	10	56	0	21	25	6	2	12	28.47	1879
Total :		2961208	66	5	60	1	80	141	17	0	10	66	0	21	25	6	2	12	28.47	1879

Kay : Abm = Althome; AC = Alr Carrier; AT = Alr Taxi; Avg = Average; Dep = Departure; Dest = Destination; Equip = Equipment; GA = General Avlabon; Mill = Muldary; Min = Minute; Occ= Occurred; Ops = Operations; Rwy = Runway; TMI = Traffic Management Initiative; Vol = Volume; Wx = Westher. More information about this report.

Report created on Wed Apr 10 16:35:22 EDT 2013 Sources: The Operations Network (OPSNET)

Exhibit 1

OPSNET : Airport Operations : Standard Report

From 01/1059 To 02/2013 | Factor-100

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				filsemit				Local		
Colenda: Year	Fedity	Alt Carrier	Ab Taxi	General Avlation	Mithury	loud	Civil	мпиату	Tolal	Tota Operations
\$990	Ю	D	1,945	87,978	903	90,928	120,015	760	120,781	211,609
1991	HIO	0	3,039	67 479	712	91 230	121,054	499	121,553	212 783
1992	HIO	D	2,699	65,864	706	89 569	109,124	748	109,972	199,441
1993	юю	D	3,112	B6,797	634	80 543	102,812	628	103,260	193,900
1994	HID	D	1,562	87,746	755	92 063	110,523	724	119 247	211,310
1995	HIO	D	3,371	69,467	1,068	93,906	127,233	715	127 946	22\$,854
1996	но	0	4,175	88,148	1.491	93,614	119,630	378	120,009	213,822
1997	O(H)	0	5,631	P5,294	735	102 650	129,381	354	129,745	232,395
1998	HIO	D	5,710	85,619	1 1 3 3	92 462	139,105	599	138 704	231,100
1999	ню	0	6,553	89 386	871	96 810	154,123	624	154.047	251,757
2090	HIO	0	7,230	83,201	1103	81 534	151,645	1,332	152 977	244,51
2001	HO	12	7,931	84,639	873	93 455	141,880	48	141,928	215,383
2092	ню	6	9,078	82,483	426	92 003	131,495	91	131,580	723,589
2003	но	0	9,386	78,942	450	68 778	129,141	199	129,340	218,118
2004	MO	0	6,297	72,444	834	81,565	111.250	18	111,268	192,833
2005	но	D	9,689	68 940	227	76 856	140,311	60	140,371	219,227
2008	ню	0	8,773	65,008	262	74,043	137,421	29	137 458	211,493
2007	HIO	3	6 571	69.755	219	76,548	162 032	25	162.057	238,505
2000	HO OH	0	7.615	76,255	269	84,139	176 701	27	176.618	200 957
2009	HIO	0	5 749	68 724	295	74 758	147 475	25	147,503	272.211
2010	HID	0	5,738	83,619	176	59,533	149.579	1,101	150.660	220,217
2011	ню	4	6,235	89 770	330	76 339	137 822	R2	137.904	214 242
2012	HID	16	6,283	68 695	363	75 378	127 555	34	127,589	202 987
2013	HIO .	0	260	7,478	82	7 840	15 082	4	16,065	23 920
Sub-Total los Hil	0	41	138,843	1,844,834	14,936	1 998,654	3,100,302	9,320	3 109 622	5,108 276
Total:		41	138,843	1,844.834	14,936	1,998,654	3,100.302	9,320	3 109,622	5,108,270

Report created on Yes Apr 10 10:25:54 EDT 2013 Sources. The Operations Network (OPSPEET)

Exhibit 2

	Responses to OAW Testimony in response to the Hillsboro Airport Parallel Runway 12L/30R Draft Supplemental EA
OAW1	Chapter 2 of the Environmental Assessment discusses the project purpose and need. The proposed project is needed to address the current and forecast delay and congestion. The evaluation of delay and capacity at airports has evolved over time with knowledge and experience. Some of these past planning efforts for Hillsboro Airport reflect that evolution in methodology. Each of the prior Master Plan's included an element to forecast future airport activity that included a forecast of the types of aircraft that would be expected to use the Airport. The plan for future facilities is based on the anticipated forecast of activity. The differences in approach between plans reflect the depth of analysis placed on the topic and an evolution in whether or not non-runway operations are reflected in the evaluation of airfield capacity.
	The evaluation conducted in 1990 was based on a generalized methodology. The need for a new runway was not eminent, and thus a more detailed evaluation was not warranted. In 1990, an estimate of hourly operations capacity was prepared and then translated into an annual activity level. Using that old methodology, the capacity was estimated to be approximately 250,000 annual operations. Despite using the more general method, it was noted that the airport would likely need a runway in the future; the 1990 Master Plan (page 67) notes "The 250,000 to 300,000 operations capacity of the present runways would therefore be reached near the end of the 20-year Master Plan timeframe." Since this study was completed in 1990, that would imply the anticipation of runway capacity needs by 2010. However, this conclusion was reached with limited technical analysis, and rather used an approximation for airfield efficiency and capacity.
	Because airport conditions and activity changes, the Port of Portland updated the Master Plan in 1996. Included in the 1996 study was an update to the aviation forecast and the use of more sophisticated evaluation techniques of airfield efficiency and capacity using the ASV methodology. This is not an unusual practice, when an earlier planning effort identified a long- term need; often the evaluation tools become more sophisticated to enable a refinement of the facility needs. The 1996 study used AC 150/5060-6 and the associated ASV methodology. The 1996 study also recommended a third general aviation runway. It noted that the ASV at the time was estimated at 230,000 annual operations. This assessment of ASV was based on the assumption that total airport activity affects capacity. Therefore, the difference between the 1996 and 2005 Master Plan ASV calculation was the inclusion of total activity in the 1996 Master Plan, versus the 2005 Master Plan using just the operations that use the runway. This difference in methodology explains the difference in ASV-related numbers. The resulting capacity numbers are not materially different, when comparing the forecasts; the relationships between total operations to ASV (total operations) is similar to runway operations to ASV (runway operations).
	A comparison can be made of methodologies by using the forecasts from the Supplemental Environmental Assessment. The Constrained and Unconstrained Forecast showed a total operations forecast of 224,260 annual operations in 2016 (of which 155,070 were forecast to be runway operations – See Supplemental EA Table 4-1) with an ASV of 178,000. Based on runway operation ASV, the 2016 forecast would be at 87% of ASV. If comparing total operations to total operations ASV (ASV of 230,000 operations), the 2016 forecast would be at 97% of ASV (224,260 divided by 230,000). The 1996 Master Plan forecast 2015 total operations at 268,781 with the ASV (total operations) of 230,000 (1996 Master Plan Table 1-2 and page 37). Thus total operations would be at 117% of total operations ASV. Using total operations, 60% of ASV (the threshold for planning new runway capacity) would be 138,000 total annual operations. Total operations have been above 60% ASV (total operations) for over 2 decades. As a result,

	when the 2005 Master Plan was prepared, this more refined examination of ASV was determined to be a better prediction of airfield operational efficiency.
OAW2	As documented in Appendices B, C, and D, FAA and the Port have found a strong correlation between personal income and air travel demand, which is why the forecast methodology was designed to use these variables. There is no data to support that "90% are on behalf of a single flight training school" and the FAA and the Port of Portland have no data to support this statement. As noted in the FAA's guidance titled <i>Forecasting Aviation Activity by Airport</i> *, "General aviation activity is largely determined by local population and income levels, the cost of flying, and the number of based aircraft at the airport." *Available at <u>http://www.faa.gov/airports/planning_capacity/</u>
	It is important to note that the operations of all tenants at Hillsboro Airport are included in the FAA Tower counts and represent the total demand for general aviation and flight training services at the Airport. The FAA and Port do not believe that the information requested by commenters about flight training details or data about specific companies is necessary to prepare forecasts for this Supplemental Environmental Assessment. Background data on total flight training operations. Table 5-1 presents forecasts of helicopter training operations. Table 5-1 presents forecast demand, regardless of what company/FBO provides training services. The FBOs at HIO have been successful in growing their flight school operations because there is demand for flight training education, not simply because they expand their operations. Therefore, the detail on individual FBOs/flight schools is less important than understanding the overall demand trends for flight training. Even if the data for individual companies was available, forecasting operations by company would be speculative.
	In other requests of many of these individuals, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection. The FAA does not believe that there is a better or more appropriate way of forecasting activity at Hillsboro Airport, as flight training is based on economic conditions.
OAW3	Mr. Lubischer and Ms. Barnes have submitted requests that the Port of Portland report the number of operations by Hillsboro Air, Aero Air, or other tenants at the Airport. The Port of Portland does not need nor have the resources to collect information about specific general aviation operators at Hillsboro. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. In other requests of several commenters, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection. See also response OAW2
	Collecting such information would not facilitate an understanding of the activity characteristics of the Airport. It would also not affect the ability to predict project-related activity, which is the purpose of the Court-ordered remand. As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the court case. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the Unconstrained Forecast. A number of commenters have submitted requests that the Port of Portland report the number of operations by Hillsboro Aviation or other tenants at the Airport.
	The Port of Portland does not need nor have the resources to collect information about specific

	general aviation operators at Hillsboro. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. The FAA and Port do not believe that the information requested by commenters about flight training details or data about specific companies is important to the forecasting. See also response OAW3. In other request of many of these individuals, the Port has offered to assist these residents with collecting the data, but there would be a manpower cost for such data collection.
	The method of counting traffic used by the Hillsboro Airport Tower differs from that of the HIO Master Plan's definition of "Local Operations". The tower only counts a local operation as one in which the aircraft stays inside the Class D surface area (roughly 4.2 miles surrounding Hillsboro Airport). If a pilot departs Hillsboro Airport and goes West to the "high intensity" training area, that would be counted as an itinerant operation, not local.
OAW4	The Draft Supplemental EA presented the anticipated effects of the proposed project relative to three new forecasts (Constrained, Unconstrained, and Remand Forecast). The environmental consequences of these forecasts are presented in the Supplemental EA in accordance with FAA Orders 1050.1E and 5050.4B. As noted in the Supplemental EA, significant aircraft noise (as defined by the 65 DNL noise exposure contour) is not expected to occur off-airport property. In accordance with Order 1050.1E, project-related significant adverse environmental impacts are not anticipated, as the project is not expected to produce a 1.5 DNL increase to a noise sensitive land use within the 65 DNL contour. Similarly, the analysis shows that the emissions from the proposed action would not be significant.
OAW5	The Supplemental EA evaluated the effects of flight trainings operations as well as non-flight training operations. Data on helicopter training operations are included in the total airport operations for each forecast listed in Table 4-1, which also reports the runway operations separately as those operations were used in the Annual Service Volume (ASV) calculation. Relative to the annual operations counts at Hillsboro Airport, the FAA does not count operations for flight training for fixed-wing aircraft or require individuals or businesses to submit that information.
OAW6	The Port of Portland did not move forward with "total disregard" of the Court decision. The Court remanded the runway decision. However, there were no issues raised with the Taxiway D project, and it was shown to be of independent utility from the proposed runway, and was not the subject of issues raised in the litigation. The taxiway was needed to enable an efficient flow of aircraft through the airfield and would have been needed or undertaken regardless of whether the new runway was constructed. Therefore, the FAA was able to approve the Airport Layout Plan for the taxiway and the State issued monies for construction.
	expended to construct Taxiway D.
OAW7	The Port has produced all available requested information. The available data about operations at Hillsboro Airport comes from the FAA tower located at the Airport. The FAA Tower staff at Hillsboro Airport is responsible for counting aircraft operations performed at the Airport, both departures and arrivals, and recording operations by type (i.e., air carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information. While data concerning operations by individual airline companies is available for commercial service airports, such as PDX, that

	information comes from the airlines as a verification of the landing fee calculations, part of their lease agreement. Such information is not required for the substantial amount of operators at Hillsboro Airport. The Port collects some data from aircraft operators that are required to pay landing fees by month; this information consists of total number of monthly operations by those operators. That information has been provided to various citizens upon their request. Therefore, neither the Port nor the FAA is able to provide a detailed list of operations by operator, as the data are not available. In other requests of some of the commenters, the Port has offered to assist the residents with collecting the data, but there would be a manpower cost for such data collection.
	Information is not available concerning the number of flight training operations, nor the number of businesses that are conducting training, or the amount of non-commercial activity for the aircraft under 10,000 pounds as well as aircraft operations exempt from landing fees. These operations are collected in aggregate and are reflected in the past operational activity levels reported on Appendix B, C, and D.
	The method of counting traffic used by the FAA Hillsboro Airport Tower differs from that of the HIO Master Plan's definition of "Local Operations". The tower only counts a local operation as one in which the aircraft stays inside the Class D surface area (roughly 4.2 miles surrounding Hillsboro Airport). If a pilot departs Hillsboro Airport and goes West to the "high intensity" training area, that would be counted as an itinerant operation, not local.
	A number of companies conduct flight training, including Hillsboro Aviation, TNG Aviation, Aviation NorthWest, Applebee Aviation, Fly Oregon, and Mary A. Schu Aviation. The web sites do not indicate the annual operations of these companies. Portland Community College, as noted by one commenter, also provides flight training. The specific aircraft types operated by these companies are not known. However, the aircraft mix operating at Hillsboro Airport is reflected in the data collected from the FAA; the Port and FAA is not able to identify those specifically associated with flight training.
	As noted earlier, the FAA and Port do not believe that the information requested by commenters about flight training details is important to the forecast analysis required for the Court remand. See also response OAW3. The Draft Supplemental EA presented three forecasts of future activity at Hillsboro Airport in the categories of activity that are standard to a general aviation airport. Forecasts both with and without the project are projected in the Unconstrained Forecast and Constrained Forecast, respectively. To test the issue raised by the Court (e.g., a survey of pilot opinion), a second "With Project" forecast was prepared, referred to as the Remand Forecast. The Remand Forecast is conservative because it adds "induced" activity to the Unconstrained Forecast, which already accounts for growth due to demographic and economic drivers.
	As noted in Appendices B, C, and D, the approach to forecasting project-related activity is largely a function of demographic and economic activity. The Remand Forecast tested the opinion of pilots and was prepared solely in response to the Court case. The FAA and the Port of Portland believe that if the proposed project were to "induce" activity, that level of activity is already captured in the Unconstrained Forecast.
OAW8	In preparing for the survey, the Port of Portland accessed the FAA's database of licensed pilots in the six county area with a current medical card as of January 2012. This list contained approximately 5,100 licensed pilots. Approximately 2,500 names were randomly extracted from the list to receive the link to the survey. This sample size was determined to present statistical confidence in the results. As noted in Appendix D, there were 348 responses to the survey request (100 with based aircraft at Hillsboro Airport, and 248 respondents with based aircraft at

	other airports in the Portland region). In addition to the pilots, businesses were included in the survey (flight schools, FBOs, etc.) contrary to the commenters belief that only recreational pilots were surveyed.
	While the commenter would imply there is a disconnect between the survey and the reporting of activity at the Airport, the FAA and Port do not agree. The purpose of the survey was achieved; to obtain pilot input as to whether their operations base would change with the building of the new runway. Information from that survey was reflected in the Remand Forecast. FAA and the Port believe that induced activity is already reflected in the Unconstrained Forecast.
OAW9	FAA Advisory Circular (AC) 150/5060-5 <i>Airport Capacity and Delay</i> , defines several methodologies for calculating Annual Service Volume (ASV). The Port of Portland used the methodology identified in Chapter 3 of the AC, which is appropriate under Order 5090.3C for "airports where capacity is limiting the operational capability of the airport." Under Order 5090.3C, this ASV method is "useful when critical development decisions warrant a more precise estimate of capacity."
	For a general aviation airport, the ratio of demand to capacity, as expressed by the current and forecast percentage of ASV, is the appropriate metric for evaluating the need for capacity development against the FAA's planning criteria in Order 5090.3C. The Order recommends planning development when activity approaches 60% to 75% of ASV. The need for the project is based on the current airport activity levels exceeding this FAA capacity planning criteria.
	The statement in Order 5090.C3 that "Annual Capacity or Annual Service Volume, as reported in the NPIAS, is the level of annual activity at which the average delay per operation is 4 minutes" is relevant to air carrier airports that use simulation modeling to estimate ASV, which is permitted by Section 3-3(a) of the Order. It is not applicable to the ASV analysis conducted for Hillsboro Airport.
	The runway project has been proposed in accordance with FAA planning criteria in Order 5090.3C. The Airport's ASV exceeds the 60% threshold.
OAW10	Hillsboro Airport serves as a reliever airport to Portland International Airport (PDX). Reliever airports, by function, reduce congestion at commercial service airports in the area.
OAW11	It is not unusual for the level of activity at any airport to vary from year to year. As noted by some commenters, and acknowledged in the Supplemental EA, actual activity levels at Hillsboro Airport were greater in several prior years. However, current activity levels trigger the threshold noted for consideration of additional runway capacity.
OAW12	The commenter raises concerns that general aviation airports are not valuable contributors to their region because they lose money. There are over 19,000 airports, heliports, seaplane bases, and other landing facilities in the United States. Of these, 3,330 are included in the FAA's National Plan of Integrated Airport Systems (NPIAS), are open to the public, and are eligible for Federal funding via the Airport Improvement Program (AIP). FAA has designated Hillsboro as a General Aviation Reliever Airport in the NPIAS. As noted in an FAA report, "general aviation airports form an extensive network and make important economic contributions to society. Many of these aeronautical functions cannot be economically supported at primary commercial service airports" (including, flights for emergency medical services, aerial firefighting, law enforcement and border control, agricultural functions, flight training, time-sensitive air cargo services, business travel, and scheduled services) (<i>General Aviation Airports: A National Asset</i>). Congress, over time, has defined two classes of airports that serve mostly general aviation:

	those that also support limited commercial service and those that help relieve congestion at primary airports. Hillsboro Airport falls into the latter category. Aircraft activity at Hillsboro Airport relieves activity (and congestion) that would otherwise occur at PDX. While there might be a perception that the public property taxes are "subsidizing" these airports, in reality the monies from the AIP are provided by the users of the aviation system and thus would be "subsidized" from within the aviation system by aviation users, not through local property or sales taxes. The proposed improvements at Hillsboro Airport are not funded by State or local taxes on property or income, nor by Federal income tax revenue. Airport improvement projects are funded by Federal aviation excise taxes on aviation users and funds generated by airport sponsors such as the Port of Portland. These funds are, by law, raised for the purpose of improving airport infrastructure and may not be used for other purposes.
OAW13	See response OAW6.
	While most of the project cost is expected to be funded by the FAA's AIP program, the State provided the Port with \$4 million in funding for the proposed project; about \$500,000 was expended to construct Taxiway D. The State of Oregon provided funding for the proposed project prior to the initiation of litigation and the Ninth Circuit's decision. Some of the work funded by the FAA and the State (including a taxiway, etc.) was completed in the 2011 construction season, though no work was done on the proposed new runway. The plaintiffs in the Ninth Circuit litigation did not request an injunction, and none was issued that would have prevented the construction. The State funds have not been completely expended. The Port of Portland will not proceed with the proposed project until the FAA is able to comply with the Ninth Circuit remand, complete the NEPA process, and approve the Airport Layout Plan.
	The proposed improvements at Hillsboro Airport are not funded by State or local taxes on property or income, nor by Federal income tax revenue. Airport improvement projects are funded by Federal aviation excise taxes on aviation users and funds generated by airport sponsors such as the Port of Portland. These funds are, by law, raised for the purpose of improving airport infrastructure and may not be used for other purposes. The proposed project may be funded in part using funds from the state's ConnectOregon program. The ConnectOregon funds are collected by the State through the lottery.
OAW14	The FAA and Port of Portland have prepared the original EA and Supplemental EA in accordance with FAA Orders 1050.1E (Change1) and 5050.4B. These documents have included a detailed review of the environmental effects that completion of the proposed project would have in accordance with the spirit and intent of NEPA.
	The Supplemental EA explains why an updated (2011) emissions inventory was not prepared. As noted, the original EA presented an emissions inventory for year 2008, which had a higher level of aircraft operations than has occurred through 2012. Further, the new forecasts prepared for the Supplemental EA result in less activity in the future, and thus the inventories in the original EA and the Supplemental EA provide sufficient information for the FAA to make a conclusion that the proposed project would not generate significant air emissions.
	The USEPA and state and local agencies responsible for air quality conduct air measurements in region. This equipment is sited by the agencies under specific criteria to determine if air in the region meets the NAAQS and to ensure that actions designed to reduce emissions are achieving their objective. The Environmental Assessment and Supplemental Environmental Assessment did not rely solely on air measurements conducted in the region. Rather, in accordance with FAA Order 1050.1E and 5050.4B, the emissions inventory was prepared specific to activity at Hillsboro Airport with and without the proposed project. The Environmental Assessment discloses the State's monitoring information as context for understanding

	emissions in the area, in accordance with general practices in preparing NEPA documents.
	Based on a press release/Fact Sheet, ODEQ ³ indicates that the agency is placing air toxics monitoring equipment at its Hillsboro site. The Fact Sheet notes that "When higher levels of particulate pollution are measured it indicates an increase chance that air toxics will occur" Reasons given for expanding the data collection at the Hillsboro site include:
	 The 2017 Portland Air Toxics Solutions modeling showed elevated levels caused by high emissions and poor ventilation Rapid growth of the area Air toxics have not been conducted in the area
	While the existing Hillsboro community site may capture lead from avgas used at Hillsboro Airport in its measurements of particulate matter, a determination concerning whether or not additional airport-related measurements will not be made by ODEQ until the USEPA has completed its measurements at 15 other general aviation airports (a national study). That study was completed in early July 2013, but further steps by the USEPA have not been announced.
OAW15	Based on the previously cited ODEQ press release, that agency is placing air toxics monitoring equipment at its Hillsboro site. See also responses OAW14, OAW16, and OAW17.
OAW16	It is unclear from the comment what is considered "does not provide clear data on years or timelines in some of the tables provides on this topic (lead emissions)." Tables 6-2 and 6-3 specifically identify the forecast that is being evaluated, including the year of evaluation (such as 2013, 2016 or 2021) and the level of emissions of lead as reported in tons per year. This is the industry standard approach to presenting emissions inventories.
OAW17	In October 2009, the USEPA released the report "Lead Emissions from the Use of Leaded Aviation Gasoline in the United States: Technical Support Document" (EPA420-R-08-020). That report identified Hillsboro Airport as the 30 th highest emitter of lead of the 3,414 general aviation airports considered by the USEPA (Table 1) with 0.6 ton year. This evaluation was performed using the screening methodology used by USEPA in its National Emissions Inventory (NEI).
	As USEPA began to improve upon their understanding of lead from AvGas, they recommended monitoring be conducted at representative airports to confirm the lead identified in the emissions inventory. This study was then used by the letter cited by the commenter, as information that USEPA placed in the Lead NAAQS Docket EPA-HQ-OAR-2006-0735. The revised analysis increased the emissions associated with Hillsboro Airport from 0.6 to 0.68 tons per year, placing it as the 21 st highest level of emissions estimated to occur at the General Aviation airports examined. The change in USEPAs estimate of emissions from Hillsboro Airport (and thus where in the list of other airports that it sits) appears to be based on 2009 activity at the airport rather than the earlier 2002 data. Based on these results, the USEPA recommended monitoring at the top 15 airports. Hillsboro Airport is not included in this list of airports where USEPA is currently conducting monitoring.
OAW18	The proposed project was shown in the Supplemental EA to increase lead by 0.1 ton per year with only one forecast (Remand Forecast as shown in Table 6-3) relative to the Constrained Forecast (No Action); with the Unconstrained Forecast, the proposed project would not change lead emissions relative to the Constrained Forecast.

³ http://www.deq.state.or.us/aq/toxics/docs/FSatMonitorHillsboro.pdf

OAW19	The USEPA has adopted national ambient air quality standards for various criteria pollutants, including lead. The area around Hillsboro Airport currently, and is expected to continue to, meets the USEPAs National Ambient Air Quality Standards (NAAQS) for lead. Washington County is designated as attainment for this pollutant and has no history of exceeding the USEPA standard. This standard is designed to protect public health and welfare with an adequate margin of safety, as defined by the USEPA. As noted by the USEPA:
	The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings." (http://www.epa.gov/air/criteria.html)
	Piston engine aircraft include a diverse set of aircraft types and engine models and are used in a wide variety of missions/purposes. Lead in the form of tetraethyl lead (TEL) is added to aviation fuel to boost fuel octane, prevent "knock" and prevent valve seat recession and subsequent loss of compression. Lead protects aircraft engines against early fuel detonation, which can cause catastrophic failure. There are two main types of leaded avgas: 100 Octane, which can contain up to 4.24 grams of lead per gallon of fuel, and 100 Octane Low Lead (100LL), which can contain up to 2.12 grams of lead per gallon. The avgas sold at Hillsboro Airport is 100LL.
	Much research in the past two decades has been focused on finding an operationally safe replacement for 100LL. At present, there is no viable drop-in replacement for 100LL. The FAA has established the Fuels Program Office to help meet the Agency's goal of making an unleaded fuel available for the existing fleet of piston engine aircraft. The FAA is working with the US EPA, the aviation industry, fuel producers, academia and other stakeholders to identify a replacement for 100LL by 2018.
	Efforts to find a safe and cost-effective alternative to leaded aviation gasoline were bolstered by a March 2013 U.S. District Court ruling that the USEPA should not be forced to rush the issuance of its report on the public health effects of lead emissions from general aviation aircraft. The Court finding came in response to the Friends of the Earth's March 2012 lawsuit that sought to force the USEPA to issue an accelerated endangerment finding on GA emissions.
	In its lawsuit, Friends of the Earth claimed the 2015 timeframe "constitute(s) the unreasonable delay by the agency in performing its statutory duty" under the Clean Air Act. The USEPA countered that it needs the extra time to gather evidence on the potential health effects from 100 low-lead avgas (100LL) and to propose new regulatory standards. The U.S. District Court for the District of Columbia ruled that the agency's issuance of an endangerment finding is not mandatory under the Clean Air Act and that the environmental group's efforts to force the issue are out of the Court's jurisdiction.
	In June 2013, the FAA asked fuel producers to submit proposals for fuel options that would assist with the transition to an unleaded fuel for general aviation aircraft. The agency said it is committed to the identification of a new unleaded fuel by 2018 that would minimize the impact of replacing 100-octane low-lead fuel for most of the general aviation fleet.
OAW20	The commenter is correct that the emissions modeling did not specifically include aircraft engine run-ups. The FAA requires the use of EDMS to evaluate aircraft/airport emissions, and this model is not enabled to calculate run-up emissions. Research is currently underway to develop ways to capture engine run-ups in emission models; however, an industry-accepted

	approach to such modeling has not yet been adopted.
OAW21	The evaluations documented in the Supplemental EA were conducted in accordance with the requirements of FAA Orders 1050.1E (Change 1) and 5050.4B. FAA guidance does not require the sampling of emissions, as those conditions would only indicate existing conditions, and not conditions associated with a proposed action. Information in the original EA concerning measurements were not the foundation of evaluating project effects; emissions measurement data only characterized past conditions and was not be used to assess future conditions with or without the proposed actions as is required by NEPA.
OAW22	The FAA and Port of Portland have prepared the original EA and Supplemental EA in accordance with FAA Orders 1050.1E and 5050.4B and the Ninth Circuit Court of Appeals' remand order. These documents have included a detailed review of the environmental effects that completion of the proposed project would have in accordance with the spirit and intent of NEPA. As noted, the proposed project is not expected to produce significant levels of air emissions.
	Included in the material reviewed in preparation of the original and Supplemental EA was the air measurements conducted in the region and the USEPAs designation of the area relative to the National Ambient Air Quality Standards. The region is designated as in attainment for the lead standard, indicating that the quality of the air protects public health and welfare.
OAW23	Some comments were received questioning the impacts of noise on public health. According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people, such as hearing loss (not a factor with typical community noise), communication interference, sleep interference, physiological responses, and annoyance. These protections are greater than 65 DNL. As there are no residences exposed to 65 DNL or greater noise levels and the project would not create a significant noise increase, no further evaluation of aircraft noise effects were considered.
OAW24	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated impacts, which are not expected to exceed the FAA's thresholds of significance.
	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. While noise is not a Hillsboro Airport Roundtable Exchange (HARE) agenda item, noise office staff regularly participates and attend the meetings. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
OAW25	The Draft Supplemental EA discusses the specific approach taken to consider noise. The Noise methodology is described on pages 26-28. These evaluations were conducted in accordance with the requirements of Orders 1050.1E (Change 1) and 5050.4B.

	FAA Orders 1050.1E (Change 1) and 5050.4B do not require the sampling of aircraft noise, as those conditions would only indicate existing conditions, and not noise that would occur in the future with or without the proposed project, a fundamental requirement of NEPA. Information in the original EA concerning measurements were not the foundation of evaluating project effects; measurement data only characterized past conditions and was not used to assess future conditions with or without the proposed actions as is required by NEPA.
	While noise monitoring is not required for the EA process, the Port of Portland noise office conducts measurements in the Airport vicinity. Results of those measurements have confirmed that the 65 DNL noise exposure contour stays within the Airport boundary.
OAW26	A number of airports around the US have prepared Part 150 Noise Compatibility Plans that are designed to identify a balanced and cost effective program for reducing aircraft noise exposure. A Master Plan for the Airport, undertaken in 2003, contained analysis and noise contours similar to those traditionally done in Part 150 studies. These contours quantified conditions for existing aircraft activity levels as well as levels forecast for 2025. Based on the noise levels around the Hillsboro Airport, and federal guidelines, there are no land uses that are classified as "non-compatible" in the area. Therefore, a FAR Part 150 study would not likely be supported by the FAA and was not conducted for Hillsboro Airport. However, a compatibility study was completed for the Airport in 2005 that also contained noise contours demonstrating that noise levels of 65 DNL and higher remain on airport property.
	The Port of Portland takes steps at each of its airports to address ongoing noise concerns from nearby residents. In accordance with the principles of FAR Part 150, and as adopted through the recommendations in the 2005 Hillsboro Airport Compatibility Study, the Port works to put in place a balanced and cost effective program. The Port has adopted a voluntary noise management program, called HIO Fly Friendly, designed to reduce aircraft noise and has a noise office staff that tracks progress towards implementation, refinement, and ongoing use of the elements in the program. While noise is not a Hillsboro Airport Roundtable Exchange (HARE) agenda item, noise office staff regularly participate and attend the meetings. The Noise Office staff welcome communications and interactions with neighbors of the Port of Portland airports. Such communications can come in the form of noise event complaints, letters, requests for staff to participate in local meetings, etc. The Port's ability to take other actions, such as those suggested by the commenter, is limited by applicable law.
	The noise analysis prepared for the original and Supplemental Environmental Assessment complied with prescribed FAA practices as specified in FAA Order 1050.1E (change 1). There is no approved, industry accepted methodology to distinguish the noise created by a student pilot from that of a non-student.
OAW27	The Supplemental EA was prepared in accordance with Orders 1050.1E and 5050.4B. The Supplemental EA documents the anticipated impacts, which are not expected to exceed the FAA's thresholds of significance.
OAW28	The Port and FAA appreciate the submission of an extensive listing of published material. This includes:
	• Lidsky, T and Schneider, J. Lead Neurotoxicity in Children: Basic Mechanisms and Clinical Correlates. Guarantors of Brain. (2003).
	• EPA Proposes Rule to Phase Out Lead from Aviation Fuel. Friends of the Earth. (4/22/10).
	 Lead Toxicity. Agency for Toxic Substances and Disease Registry. Case Studies in Environmental Health. (8/15110).

	٠	Preventing Lead Poisoning in Young Children. Centers for Disease Control. (August 2005). Pg. 1.
	٠	Public Health Statement: Lead. Agency for Toxic Substances and Disease Registry. (August 2007).
	٠	Lead Poisoning. Medline. U.S. National Library of Medicine NIH National Institute of Health.
	•	Nigg, JT, K.nottnerus, GM, Martel MM, Nikolas, M, Cavenaugh, K, Kannaus, W, Rappley, MD. Low Blood Lead Levels Associated with Clinically Diagnosed Attention Deficit/Hyperactvity Disorder and Mediated by Weak Cognitive Control. Biological Psychiatry. V. 63 Issue 3. pgs. 325321. (2/1/08).
	•	Nigg, JT, Nikolas, M, K.nottnerus, GM, Cavenaugh, K, Frederici, K. Confirmation and Extension of Association of Blood Lead with Attention-Deficit/Hyperactivity Disorder (ADHD) and ADHD Symptom Domain at Population-Typical Exposure Levels. J Child Psychol Psychiatry. (January 2010) 51(1): 58-65.
	•	Fischetti, Mark. Lead Exposure on the Rise Despite Decline in Poisoning Cases. Scientific American. (2/17/13).
	٠	Drum, Kevin. Criminal Element Lead. The Hidden Villain behind Rampant Crime, Lower IQ's Even Rising ADHD? Mother Jones. January/February 2013).
	٠	Noise Sources and Their Measurement. 2.2.2 Transportation Noise Community Health Noise Guidelines, edited by Berglund, B, Lindvall T., Schwela, D. World Health Organization. (1999). Pg. 7.
	•	Federal Aviation Administration Facility Directory Northwest U.S. Pamphlet. (6/30/11 to 8/25/11). Special Notices: Intensive Flight Training in Vicinity of the Hillsboro Airport. S to NW of the Portland Hillsboro Airport within 25 Nautical Miles at or below 5500 MSL. Pg. 224.
	٠	Hagler, Louis. Summary of Adverse Health Effects of Noise Pollution: Based on the World Health Guideline for Community Noise.
	٠	Hagler, Louis. Summary of Adverse Health Effects of Noise Pollution: Based on the World Health Guideline for Community Noise. Pg .I- 2.
	٠	Adverse Health Effect of Noise. World Health Organization. Pg. 2
	٠	Ototoxicity. Vestibular Disorders Association.
	٠	Correspondence from Steve Schreiber, Port of Portland Director of Aviation to Miki Barnes. (7/7/03).
	٠	Federal Aviation Administration (FAA) Terminal Area Forecast (TAF) for Santa Monica Airport. Detail Report (January 2013).
	٠	Santa Monica Airport Health Impact Assessment (HIA). Written by UCLA Pediatric Residents. (February 2010).
	٠	Federal Aviation Administration. Terminal Are Forecast. for Castle Airport. (January 2013).
	•	Castle Tower on Closure List. Merced Sun Star. (3/22/13).
	•	Federal Aviation Administration. Terminal Area Forecast for Troutdale Airport. (January 2012).
	•	Federal Aviation Administration. Terminal Area Forecast for Troutdale Airport. (January 2013).
	•	ConnectOregon Projects. Available online at
	٠	Hillsboro Chamber of Commerce letter to Bill Wyatt included in <u>Hillsboro Airport Proposed Runway</u> <u>12L/30R and Taxiway D Project</u> . Connect Oregon III Application Review Package. (May 2010).
	٠	Portland Business Alliance letter to Bill Wyatt included in <u>Hillsboro Airport Proposed Runway</u> <u>12L/30R and Taxiway D Project</u> . Connect Oregon III Application Review Package. (May 2010).
	٠	Oregon Business Alliance letter to Bill Wyatt included in <u>Hillsboro Airport Proposed Runway</u> <u>12L/30R and Taxiway D Project</u> . Connect Oregon III Application Review Package. (May 2010).
	٠	Global Aviation letter to Bill Wyatt included in <u>Hillsboro Airport Proposed Runway 12L/30R and Taxiway D Project</u> . Connect Oregon III Application Review Package. (May 2010).
OAW29	It is r level trigg	not unusual for the level of activity at any airport to vary from year to year. Actual activity s at Hillsboro Airport were greater in several prior years. However, current activity levels er the threshold noted for consideration of additional runway capacity.

	The purpose of the project is to reduce delay and congestion at Hillsboro Airport. It is not possible for the Port of Portland, or the FAA to deny access to a public use airport or to require aircraft to operate at another airport. Restrictions on flight training or required curfews can put an unreasonable burden on interstate commerce (which is an area of regulation reserved for the Federal government), and also results in discriminatory regulation that violates the tenets of the constitution. Pilots wishing to operate at Troutdale, or any other airport, are already able to do so if facilities are available at those locations. Thus, other airports are not an alternative to the need to reduce delay and congestion at Hillsboro Airport.
OAW30	The Commenter notes a list of past, present, and future projects at Hillsboro Airport or in the environs. The commenter indicates that the Supplemental EA does not indicate how these projects would impact Hillsboro Airport or growth at the Airport.
	The responsibility of a cumulative impact analysis is to identify how the effects of a proposed project might combine with the known effects of other past, present, or reasonably foreseeable. Table 6-1 in the original Environmental Assessment identified all projects that were considered in the cumulative environmental impact analysis, and identified the "Potential to Contribute to Cumulative Effects." The Draft Supplemental EA noted a few additional projects, but did not include a table similar to that in the original EA. The Final Supplemental EA includes Table 6-4 to be clear about the effects considered and includes all reasonably foreseeable projects listed by the commenter. Because two additional projects were identified after release of the Draft Supplemental, the analysis of cumulative impacts was updated for the Final Supplemental EA. Taxiway AA, mentioned by the commenter, has not been included as it is not reasonably foreseeable.
	Two projects identified by the commenter had not been included in the Draft Supplemental EA but are reflected in the Final Supplemental EA (HIO Taxiway to NW Corporate Center and the NPDES Permit) and updated analysis. The commenter also suggested the need to include the relocation of the Charlie Pattern Landing Pad. However, that project was already addressed in the Supplemental EA as it is part of the proposed project considered in the original EA and also in the Supplemental EA; the Charlie Pad is not included in Table 6-4 of past, present, and future project as it is part of the proposed action being analyzed in this Supplemental EA. The Taxiway to NW Corporate Center is a taxiway connector that would connect the airfield to a future land development parcel (NW Corporate Center). That project might occur in the 2016-2020 period. The past project 1200-Z NPDES permit (a renewal of an earlier permit granted in 1992) requires implementation of a program to manage deicing runoff at Hillsboro Airport. The Port performs pavement deicing at the Airport and in winter of 2012, deiced pavement twice. The Port voluntarily established a monitoring plan and collected samples to better understand runoff water quality. There were no significant levels of biological oxygen demand (BOD) or other contaminants in the runoff associated with the deicing.
	Several tenants have expressed an interest in aircraft deicing. The Port informed these tenants that all deicing runoff from aircraft deicing must be collected and appropriately disposed or could be discharged to the sanitary system subject to Clean Water Services (CWS) requirements, to be negotiated between the tenant and CWS. Hillsboro Aviation submitted an aircraft deicing plan to the Port for approval in compliance with the NPDES, which was approved. The plan calls for Hillsboro Aviation, if conducting deicing, to set-up a temporary aircraft deicing bath and to collect the discharge that would then be trucked off-site.
	The commenter indicates that the amount of improvements in the past, present, and future would warrant preparation of an Environmental Impact Statement (EIS). The FAA prepares an EIS under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if the proposed action or its

	alternatives has the potential to significantly affect the environment. An EIS is prepared if the proposed action or alternatives meet or exceed a significance threshold or if mitigation would not reduce the significant environmental impacts below the applicable thresholds. As the 2010 original Environmental Assessment and this Supplemental EA show, the analyses confirm that the proposed action's environmental impacts would not meet or exceed a significance threshold for any of the resource categories. Therefore, the preparation of an EIS is not warranted.
OAW31	As described in Chapter 4 of the Supplemental EA, the purpose of the project is to reduce delay and congestion at Hillsboro Airport. While various activity restrictions could reduce existing noise conflicts, such restrictions would not address the project purpose and need. Therefore, they are not considered viable alternatives. The Port of Portland is not marketing Hillsboro Airport as a cargo airport. Although the 2005 Master Plan considered the potential for air cargo at Hillsboro Airport, the conclusion was that there was limited potential at the Airport and that the best use of the Airport was to continue its current role as a general aviation/reliever airport. In this role, Hillsboro Airport would help to maintain commercial and air cargo capacity at PDX.
	Hillsboro Airport cannot fully accommodate air cargo due to existing limitations of the pavement strengths and runway lengths although, federal regulations and policy require that the Port allow air cargo operations as long as they are compatible with the Airport's infrastructure and there is space at Hillsboro Airport to support their operation (this would limit turbo prop or piston powered fleet). The Master Plan also states that the initiation of new air cargo activity would be difficult due to such factors as limited market opportunities, lack of suitable facilities, and considerable competition from PDX. If such growth would occur, and additional facilities were needed to serve that activity, the FAA would require the Port to comply with the National Environmental Policy Act (NEPA).
	The letters transmitted by the commenter reflect comments that were received concerning grants from ConnectOregon that the Port was seeking in prior years. None of those grants were directed at marketing the Airport for cargo service, but rather would enable the Hillsboro to accommodate activity that is already operating. In this role as a general aviation/reliever airport, Hillsboro Airport would help to maintain commercial and air cargo capacity at PDX.
	evaluation in the Supplemental Environmental Assessment.
OAW32	The FAA prepares an Environmental Impact Statement under certain circumstances as noted in FAA Order 1050.1E (Change 1). Often an Environmental Assessment (EA) is prepared to determine if a significant adverse environmental effect would occur. As the 2010 original Environmental Assessment and this Supplemental EA show, significant adverse environmental effects were not identified and thus an EIS does not appear warranted. FAA Orders 1050.1E (change 1) and 5050.4B specify the process that FAA follows for compliance with NEPA. In accordance with those orders, the FAA reviewed the Final Supplemental EA. If the environmental impacts exceed the significance thresholds (defined in Order 1050.1E change 1) for any affected resource, the FAA may then recommend the preparation of an EIS. Should the environmental impacts not exceed the significance thresholds for any affected resources; the FAA may prepare a Finding of No Significant Impact (FONSI)/Record of Decision (ROD).
	It is also important to note that this Supplemental Environmental Assessment was prepared in response to an order by the Ninth Circuit Court of Appeals remanding the Hillsboro Airport runway approval decision to the FAA for further consideration [655 F.3d 1120 (2011)]. The Court's mandate was narrowly drawn: FAA was instructed to "consider the environmental

	impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 CFR §1508.8(b)." The Court did not require FAA to examine any other issues. Although this comment appears to fall outside the scope of the Ninth Circuit's remand order, a response is provided.
OAW33	As noted in the original Environmental Assessment, the Port of Portland and FAA have considered a wide range of alternatives to addressing the delay and congestion at Hillsboro Airport. The FAA and Port considered alternatives to the development of a new runway in Chapter 3 of the original Environmental Assessment.
	The FAA uses the ASV as a measure of the efficiency of operations at a general aviation airport. ASV represents the relationship between demand and capacity. When ASV approaches and exceeds 100%, this is an indication that delays and congestion will affect the efficiency of operations at the airport. The methodology for calculating ASV is defined in FAA AC 150/5060-5 <i>Airport Capacity and Delay</i> .
	The runway project has been proposed in accordance with FAA planning criteria in Order 5090.3C. The Airport's ASV exceeds the 60% threshold.
OAW34	The proposed project is not expected to have an adverse effect on other airports. Hillsboro Airport is a reliever airport to PDX and as such, improving the efficiency at Hillsboro Airport helps to ensures that PDX does not receive large amounts of GA activity. Other nearby airports are not expected to be adversely affected by the development of the new runway at Hillsboro Airport.
OAW35	See also response OAW33 above.
	The Federal Aviation Administration uses ASV as a measure of the efficiency of operations at a general aviation airport. ASV represents the relationship between demand and capacity. When ASV approaches and exceeds 100%, this is an indication that delays and congestion will affect the efficiency of operations at the airport. The Port of Portland used the methodology for in Chapter 3 of FAA AC 150/5060-5 <i>Airport Capacity and Delay</i> for calculating ASV.
	Contrary to the comments, there is a strong basis for calculation of ASV. Delay exists when an aircraft is unable to use an airport facility, such as a runway, taxiway, and parking space, due to the presence of another aircraft or a delay in Air Traffic Control Tower (ATCT) clearance. Delay is not unique to specific weather conditions; however, ATCT workload and aircraft spacing during Instrument Flight Rule (IFR) and poor visibility condition (PVC) weather conditions increase the potential for delay. During weather conditions that permit VFR operations, aircraft may be operating according to either VFR or IFR. All aircraft (fixed wing and helicopter) operating at the Airport should be considered during VFR weather conditions. It would be appropriate to disregard VFR operations only when visibility or cloud ceiling drop below VFR minimums, with consideration given to aircraft operating under special VFR.
	FAA AC 5060-5 provides for airport capacity for both IFR and VFR conditions; therefore it is important to include VFR traffic in capacity and delay analysis. Air traffic controllers are not required to provide separation services for VFR aircraft in HIO Class D airspace, but the aircraft still occupy space, and must remain clear of other aircraft. HIO Class D airspace does not have standard aircraft to aircraft separation distances. Responsibility falls on the pilot to maintain adequate separation even in the presence of the ATCT. See 14 CFR 91.3 "The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft."

	Leaving in-air separation to the pilot's discretion causes variable following distances depending on the pilot's skill, level of experience, and familiarity with the aircraft they are operating. The presence of student pilots at Hillsboro Airport may increase runway occupancy time as the student may not be as familiar with aircraft acceleration and braking as a more experienced pilot.
	An aircraft on final approach technically occupies a runway as other aircraft must wait for it to land and exit before they are able to use the runway. A departing aircraft waiting to enter the runway constitutes delay regardless of weather conditions. During periods of high levels of flight training, a departing pilot may be required to wait for several aircraft to land or touch and go before receiving a takeoff clearance.
OAW36	The forecast of activity at Hillsboro Airport was prepared in accordance with the standard practices of general aviation airport forecasting for the Constrained and Unconstrained Forecast. As documented in Appendix B, C, and D, the Port identified the variables that affect the growth in aviation activity at its airport. The forecasts indicate the best estimate of the changes in based aircraft that would occur in each timeframe and each forecast without the project and with the project. The forecasts then rely on historic airport activity counts.
	The FAA Tower staff at Hillsboro Airport is responsible for counting aircraft operations performed at the Airport, both departures and arrivals, and recording operations by type (i.e., air carrier, air taxi and commuter, general aviation, and military) in accordance with FAA Order JO7210.3X, <i>Facility Operation and Administration</i> , effective February 9, 2012. The FAA does not count operations by business or require individuals or businesses to submit that information.
	The forecast of activity at Hillsboro Airport was prepared in accordance with the standard practices of general aviation airport forecasting for the Constrained and Unconstrained Forecast. As a consideration to the Court's suggestion to test pilot opinion, the Remand Forecast relies on a survey of pilots and aviation contacts in the community. The Draft Supplemental EA presented the three forecasts of future activity at Hillsboro Airport (Constrained, Unconstrained, and Remand). As noted in the Draft Supplemental EA, the Remand Forecast was prepared in response to the Court Remand comment about conducting a survey of pilots.
	In preparing for the survey, the Port of Portland accessed the FAA's database of licensed pilots in the six county area with current medical card as of January 2012 in addition to the businesses that were surveyed. This list contained approximately 5,100 licensed pilots. Approximately 2,500 names were randomly extracted from the list to receive the link to the survey. This sample size was determined to present statistical confidence in the results. As noted in Appendix D, there were 348 responses to the survey request (100 with based aircraft at Hillsboro Airport, and 248 respondents with based aircraft at other airports in the Portland region).
	A survey question requested the respondents to identify the average number of operations they conduct at Hillsboro Airport per month, and then followed up with a second question about other airports in the region. This question received a response by 270 individuals, and they did note an average of 68 operations. These responses speak for themselves. While the survey could have been structured to ask pilots for their flight records in support of their answers, the Port anticipated that there would be few responses to such a request because of the effort involved to assemble the information. Therefore, the official records of total activity at the Airport were used as the foundation of the Constrained and Unconstrained Forecast, rather than the memories of the individual survey respondents. The purpose of this question was to gauge whether or not the respondent (an existing HIO user or users of airports in the six

	county area) anticipated that their behavior would change with the availability of a new runway at Hillsboro Airport and the level of activity (relative to their current activity) that they thought the runway might enable.
OAW37	FAA AC 150/5060-5 Airport Capacity and Delay, defines several methodologies for calculating ASV. The Port of Portland used the methodology identified in Chapter 3 of the AC, which is appropriate under Order 5090.3C for "airports where capacity is limiting the operational capability of the airport." Under Order 5090.3C, this specific ASV methodology is "useful when critical development decisions warrant a more precise estimate of capacity."
	For a general aviation airport, the ratio of demand to capacity, as expressed by the current and forecast percentage of ASV, is the appropriate metric for evaluating the need for capacity development against the FAA's planning criteria in Order 5090.3C. The Order recommends planning development when activity approaches 60% to 75% of ASV. The Purpose and Need for the project is for current airport activity levels exceeding FAA capacity planning criteria.
	See also response OAW33.
OAW38	The purpose of the project is to reduce delay and congestion at Hillsboro Airport. It is not possible for the Port of Portland, or the FAA to deny access to a public use airport or to require aircraft to operate at another airport. Restrictions on flight training or required curfews can put an unreasonable burden on interstate commerce (which is an area of regulation reserved for the Federal government), and also results in discriminatory regulation that violates the tenets of the constitution. Pilots wishing to operate at Troutdale, or any other airport, are already able to do so if facilities are available at those locations. Thus, other airports are not an alternative to the need to reduce delay and congestion at Hillsboro Airport.
OAW39	The commenter seems to be referencing FAA OpsNet data that is collected by FAA's Air Traffic Control Tower, and indicates that the OPSNet system should be used as a measure of delay at Hillsboro Airport. Delay reported by OpsNet is done in accordance with FAA Order JO7210.55F <i>Operational Data Reporting Requirements.</i> In accordance with the orders' requirements, OpsNet records delays when an aircraft is delayed 15 minutes or more, generally due to either ATC actions or weather. As such, the OpsNet delay reports represent a subset of the total delays experienced at the airport. Other delays (that are non-reportable in OpsNet) regularly occur at the airport. Delay exists when an aircraft is unable to use an airport facility, such as a runway, taxiway, and parking space, due to the presence of another aircraft or a delay in Air Traffic Control Tower (ATCT) clearance. These factors are discussed further in response 37. For the purposes of airport planning, delay is defined as the "difference between constrained and unconstrained operating time" by AC 150/5060-5 <i>Airport Capacity and Delay</i> . Therefore, the project is proposed to improve the efficiency of the airport by reducing overall delays, not just those recorded in OpsNet.
OAW40	Existing Runway 12/30, the Airport's longest runway, can accommodate all aircraft types currently operating at Hillsboro Airport. It is aligned with the prevailing winds, consistent the Port's noise abatement runway use preferences, and is therefore the most frequently used runway at Hillsboro Airport. Due to its length, Runway 2/20, the Airport's crosswind runway, is used primarily, but not exclusively, by smaller single and multi-engine propeller aircraft.
	A substantial proportion of the activity at Hillsboro Airport consists of pilot training. The Master Plan analysis determined that about 48% of total fixed-wing aircraft activity consists of touch- and-go operations. A touch-and-go consists of an aircraft landing and then rolling down the runway without coming to a full stop prior to taking off. One touch-and-go therefore counts as two operations, a landing and a takeoff. Touch-and-go operations are currently conducted

	on all runways at Hillsboro Airport.
	The proposed new parallel Runway 12L/30R would reduce traffic on the main runway by accommodating some of the operations that are currently conducted on the existing runway (Runway 12R/30L). This does not mean that all future operations at Hillsboro Airport will occur on the new runway. The new parallel runway is designed to accommodate the smaller, single engine propeller aircraft that require less runway length than the higher performance aircraft at the Airport. Consistent with the planned use of the runway, the FAA and Port anticipate that over 90% of the aircraft using the new runway will be single engine piston aircraft. The allocation of flight operations between runways is subject to FAA control. There will be some occasion where an aircraft will conduct some flight training from the existing runways, especially during those times when weather and wind conditions dictate the use of the existing crosswind runway.
	Estimates of current and future runway use used in the original EA were based on the analyses documented in the Hillsboro Airport Master Plan and were reviewed and approved by the Port's Noise Office and the FAA Hillsboro Airport Air Traffic Control Tower manager. Existing Runway 30L would continue to be the most frequently used runway for itinerant operations but the many of the touch-and-go operations, representing most of the local operations, would use the new runway.
OAW41	At the time the Draft Supplemental EA was released, budget issues at the national level caused the FAA to propose closing a number of air traffic control towers at smaller airports. In Oregon, the FAA had announced closures of towers at the airports in North Bend, Pendleton, Salem, and Troutdale. This was part of what was called "sequestration". Sequestration is a term used to describe the practice of using mandatory spending cuts in the federal budget if the cost of running the government exceeds either an arbitrary amount or the gross revenue it brings during the fiscal year. Sequestration is the employment of automatic, across-the-board spending cuts in the face of annual budget deficits.
	The proposed closure did not mean that the airports themselves would close. Rather, the staffing of the towers would be eliminated, and pilots would be responsible for safe operation to and from these airports.
	The decision to close the towers was made after preparation of the draft forecasts. Subsequent to the release of the Draft Supplemental EA the FAA furloughed air traffic control personal at larger airports, and as a result, Congress intervened to return controllers to work and keep open the Control Towers previously identified for closure. It is not clear how closure of towers in Oregon would affect activity at Hillsboro Airport.
OAW42	Delays do occur when annual volume is below the ASV. When ASV approaches and exceeds 100%, this is an indication that delays and congestion will affect the efficiency of operations at the airport. The commenter is correct that delays will increase when the actual demand at any time exceeds runway capacity. For this reason, runway capacity is a specific input to the ASV methodology per Chapter 3 of FAA AC 150/5060-5 <i>Airport Capacity and Delay</i> . This is the methodology used by the Port Portland to estimate ASV for the proposed project.
OAW43	The commenter states, ""Local training operations can be rescheduled or accommodated at other locations and not allowed to impact other airport operations." However, the Airport Noise and Capacity Act (ANCA) of 1990 restricts local Airport sponsors' ability to impose a curfew or restrict activity at a public use airport. In addition, restrictions on operations such as flight training can result in burdens on interstate commerce in violation of the United States Constitution. Airport operators (such as the Port) that accept funds from FAA-administered

financial assistance programs must agree to certain obligations or assurances. For example, Grant Assurance #22 requires that the airport be available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services at the airport. (See 49 USC Section 47107) Consequently, these types of restrictions cannot be put into place at Hillsboro Airport.

The commenter suggests that aircraft remaining in the traffic pattern should not be counted as operations impacting capacity. However, all industry standard activity counting systems treat a landing and a takeoff as an operation. This activity in the pattern affects the ability of other aircraft to use the runway system. Aircraft that remain in the traffic pattern are referred to as local operations. This activity, as well as helicopter operations, impacts the capacity of the airspace around Hillsboro Airport. Aircraft flying "in the airport pattern" will perform touch-and-go operations, or pass over the runway as part of the pattern. When these aircraft are on or over the runway, the runway is not usable by other aircraft. Aircraft waiting to depart or land cannot use the runway until the aircraft in the traffic pattern are clear of the runway. The capacity and delay analysis used in the Supplemental EA complies with AC 5060-5 *Airport Capacity and Delay* Section 2-2.

Helicopter operations do not necessarily use the runways at Hillsboro Airport; however, these aircraft do occupy airspace. 14 CFR Part 91.129(f)(2) states that except when given approval by controllers, pilots must "avoid the flow of fixed-wing aircraft, If operating a helicopter" when operating in Class D airspace. This means that helicopter traffic is unlikely to affect the traffic pattern or itinerant aircraft operations unless Air Traffic Control Tower (ATCT) gives the helicopters permission to enter or cross the fixed-wing traffic pattern.

The commenter also states, "Note that Table 3-1 does not break out local operations or helicopter operations but lumps all the operations together in order to suggest that the current runways are operating at or near capacity and that the only alternative is to build an additional runway." This is inaccurate. In Table 3-1, there is a column for "Annual Runway Operations" which is the local and itinerant operations using the runway, and a "Total Forecast Operations" column which includes the runway operations plus helicopters. The percent ASV uses the Annual Runway Operations number.

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November 8, 2013

Via Email and Certified, Return Receipt Mail

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Dear Ms. Dowlin and Ms. Barrilleaux,

On behalf of Oregon Aviation Watch and Michelle Barnes, this letter provides significant new information related to the preparation of the Supplemental Environmental Assessment (SEA) for the Hillsboro Airport Parallel Runway 12L/30R. Oregon Aviation Watch is a 501(c)(3) non-profit organization whose primary purpose is to research, educate, and advocate on behalf of the public interest and public welfare about aviation issues. The mission of OAW is to enhance and protect the quality of life for Oregon residents by eliminating the adverse impacts of aviation activity. OAW's vision is to achieve a transparent, accountable, and sustainable aviation system that neither disregards nor diminishes the environment, livability, health, or well-being of current and future generations of Oregon residents. OAW has devoted significant time, money, and energy to the issue of lead exposure in children and adults, and OAW is very concerned about the ongoing and cumulative effects from lead emissions at the Hillsboro Airport.

Attached to this letter are the Executive Summary and Chapter 1 of the Integrated Science Assessment for Lead prepared by the Environmental Protection Agency (EPA) in June 2013. Here is the website where the entire Integrated Science Assessment for Lead can be found on the EPA's website: <u>http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=255721#Download</u>. I incorporate the entire document by reference. This document provides significant scientific documentation related to the impacts on health in both adults and children from lead emissions, which are highly relevant to the proposed third runway at the Hillsboro Airport, and the Airport's lead emissions, both as an indirect effect of the construction of the airport but also a cumulative effect – that is, the past, present, and reasonably foreseeable emission of leaded aviation fuel and its deposition in and around the airport and the City of Hillsboro. For example, the attached document demonstrates the effects of lead exposure in children, adults, the ecological effects, hematological effects, effects on physiological stress, community and ecosystem effects, public health significance, lead exposure and neurodevelopmental deficits in children, at-risk populations, and so forth.

This significant new information underscores the clear causal relationship between lead emissions and adverse health impacts, the clear scientific controversy over impacts from lead emissions, and the significant cumulative effect of lead deposition in the environment, especially in the town of Hillsboro, Oregon, as a result of decades of burning leaded aviation fuel at and above the Hillsboro Airport. Please supplement and/or consider these impacts when preparing the SEA for the Hillsboro Airport Parallel Runway 12L/30R. Please respond within 35 days, and inform me whether the agency will issue supplemental NEPA analysis or whether the agency will incorporate its response to these materials within SEA for the Hillsboro Airport Parallel Runway 12L/30R. If the agency does not respond within 35 days, I will treat the agency's inaction as a constructive refusal to supplement the SEA for the Hillsboro Airport Parallel Runway 12L/30R.

National Environmental Policy Act

"The purpose of NEPA is to foster better decision making and informed public participation for actions that affect the environment." *Or Natural Res. Council Action v. U.S. Forest Service*, 293 F.Supp.2d 1200, 1204 (D. Or. 2003) (citing 42 U.S.C. § 4321; 40 C.F.R. § 1501.1(c)). "It ensures that the agency, in reaching its decision will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decision making process and the implementation of that decision." *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, 109 S.Ct. 1835 (1989)). "Stated differently, NEPA's purpose is to ensure that 'the agency will not act on incomplete information, only to regret its decision after it is too late to correct." *Id*.

Significant New Information

"In view of this purpose, an agency that has prepared an EIS cannot simply rest on the original document. The agency must be alert to new information that may alter the results of its original environmental analysis, and continue to take a 'hard look at the environmental effects of its planned action, even after a proposal has received initial approval."" Friends of the Clearwater, 222 F.3d at 557 (quoting Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 374 (1989)); Blue Mountains Biodiversity Project v. U.S. Forest Service, 229 F.Supp.2d 1140, 1148 (D. Or. 2002). Agencies are required to prepare supplements if "the agency makes substantial changes in the proposed action that are relevant to environmental concerns; or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c). "The regulations do not address an agency's obligation to supplement an EA, but Ninth Circuit case law holds that supplementation of an EA may be required when, like with the standard for supplementing an EIS, there have been significant changes in the proposed action." ONRC, 293 F.Supp.2d at 1205 (citing Idaho Sporting Congress v. Thomas, 137 F.3d at 1152). "If there remains major Federal Action to occur, and the new information is sufficient to show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared." Marsh, 490 U.S. at 374.

"It would be incongruous with [NEPA's] approach to environmental protection, and with the Act's manifest concern with preventing uninformed action, for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to the completion of agency action simply because the relevant proposal has received initial approval."

Id. 371. An agency need not supplement an EA or EIS every time a piece of new information comes to light. *Id.* at 373. "To require otherwise would render agency decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made." *Id.* "On the other hand...., NEPA does require that agencies take a 'hard look' at the environmental effects of their planned action, even after a proposal has received initial approval. Application of the 'rule of reason' thus turns on the value of the new information to the still pending decisionmaking process." *Id.* at 373-74.

If the information is relevant to environmental concerns and bears on the proposed action or its impacts, the agency is obligated to issue supplemental NEPA analysis in an EA or an EIS under the CEQ regulations. *See* 40 C.F.R. § 1502.9(c)(1)(ii)); *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 372 (1989); *see also Sierra Club v. Bosworth*, 465 F.Supp.2d 931 (N.D. Cal. 2006) (because the Forest Service bears a continuing duty under NEPA, the Sequoia National Forest was required to supplement its NEPA analysis because of significant new circumstances and information related to Pacific Fisher). The Ninth Circuit counsels in favor of requiring a supplemental NEPA analysis under circumstances such as the instant facts. In *Idaho Sporting Congress v. Thomas,* the court recognized that under NEPA an EIS "must be prepared if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor." 137 F.3d 1146, 1149 (9th Cir. 1998). The court explained that "[t]he plaintiff need not show that significant effects *will in fact occur*, but if the plaintiff raises substantial questions whether a project may have a significant effect, an EIS must be prepared." *Id.* at 1150 (emphasis in original). "This is a low standard." *Klamath Siskiyou Wildlands Center v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006).

In addition, compliance with NEPA is a primary duty of every federal agency, and fulfillment of this vital responsibility should not depend on the vigilance and limited resources of environmental plaintiffs; it is the agency, not an environmental plaintiff that has a continuing duty to gather and evaluate new information relevant to the environmental impact of its actions. *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 559 (9th Cir. 2000). The agency must "take a hard look" at any new information to determine whether supplemental NEPA analysis is required. *Marsh*, 490 U.S. at 385.

Here, Integrative Science Assessment for Lead, prepared by the EPA, raises substantial questions about the significant impact of lead emissions to children and adults in the city of Hillsboro, Oregon, from the Hillsboro Airport. It also demonstrates that the indirect and cumulative effect of lead deposition in the environment will result in significant environmental impacts. For example, the attached document demonstrates the effects of lead exposure in children, adults, the ecological effects of lead, effects on development and reproduction, growth, survival, neurobehavioral effects, hematological effects, effects on physiological stress, community and ecosystem effects, public health significance, lead exposure and neurodevelopmental deficits in children, at-risk populations, and so forth.

Conclusion

In light of the EPA's Integrative Science Assessment for Lead, the FAA must respond to this significant new information. Please respond within 35 days, and inform me whether the agency will issue supplemental NEPA analysis or whether the agency will incorporate its response to these materials within SEA for the Hillsboro Airport Parallel Runway 12L/30R. If the agency does not respond within 35 days, I will treat the agency's inaction as a constructive refusal to supplement the SEA for the Hillsboro Airport Parallel Runway 12L/30R.

Sincerely,

Jen Molen

Sean T. Malone Attorney for Oregon Aviation Watch and Michelle Barnes



{In Archive} Significant New Information for the Hillsboro Airport Paralle Runway 12L/30R Sean Malone

to: renee.dowlin@portofportland.com, Janell Barrilleaux 11/08/2013 04:27 PM Hide Details From: Sean Malone <seanmalone8@hotmail.com> To: "renee.dowlin@portofportland.com" <renee.dowlin@portofportland.com>, Janell Barrilleaux/ANM/FAA@FAA, History: This message has been replied to and forwarded. Archive: This message is being viewed in an archive.

2 Attachments



Significant New Information - Hillsboro Airport Third Runway.pdf Integrated Science Assessment for Lead.pdf

Dear Ms. Dowlin and Ms. Barrilleaux,

Attached please find a letter on behalf of Oregon Aviation Watch and Michelle Barnes notifying the Port of Portland and Federal Aviation Administration of significant new information related to the adverse environmental impacts from lead, which is highly relevant to the potential construction of a third runway at the Hillsboro Airport. Also attached is the executive summary and chapter 1 of the Environmental Protection Agency's Integrated Scientific Assessment for Lead, released in June 2013. Because this constitutes significant new information, the agency must supplement its apparently ongoing analysis for the Supplemental Environmental Assessment for the Hillsboro Airport Paralle Runway 12L/30R. I have also mailed you a hard copy for your convenience.

Please respond to this email, acknowledging that you have received the attachments.

If you have any questions, please do not hesitate to ask.

Thank you,

Sean Malone Attorney at Law 259 E. Fifth Ave. Suite 200-G Eugene, OR 97401 ph. 303.859.0403 seanmalone8@hotmail.com Oregon Aviation Watch PO Box 838 Banks, Oregon 97106 503-324-0291

January 6, 2014

Ms. Janell Barrilleaux U.S. Department of Transportation Federal Aviation Administration Airports Division Northwest Mountain Region 1601 Lind Avenue S.W., Suite 350 Renton, Washington 98055-4056

Dear Ms. Barrilleaux:

On November 8, 2013, Sean Malone, attorney for Oregon Aviation Watch submitted part of the EPA's <u>Integrated Science Assessment for Lead</u> along with the PDF link to this document in an email notice. Included in that correspondence was the following communication from Mr. Malone:

Attached please find a letter on behalf of Oregon Aviation Watch and Michelle Barnes notifying the Port of Portland and Federal Aviation Administration of significant new information related to the adverse environmental impacts from lead, which is highly relevant to the potential construction of a third runway at the Hillsboro Airport. Also attached is the executive summary and chapter 1 of the Environmental Protection Agency's Integrated Scientific Assessment for Lead, released in June 2013. Because this constitutes significant new information, the agency must supplement its apparently ongoing analysis for the Supplemental Environmental Assessment for the Hillsboro Airport Parallel Runway 12L/30R. I have also mailed you a hard copy for your convenience.

More recently, Mr. Malone advised Oregon Aviation Watch to submit the hard copy of this document in its entirety to supplement the partial physical copy provided in the significant new information letter referred to above.

This mailing includes a complete hard copy of the <u>Integrated Science Assessment for Lead</u> as well as a CD containing the document in PDF format.

Thanks you for your time and attention to his matter.

Sincerely,

Mili Bornes

Miki Barnes President of Oregon Aviation Watch

EPA/600/R-10/075F | June 2013 | www.epa.gov



Integrated Science Assessment for Lead



Office of Research and Development National Center for Environmental Assessment, Research Triangle Park, NC Comment File G.10
FAA Response to Supplemental Request from Mr. Sean Malone and Ms. Miki Barnes (President, Oregon Watch)

FAA Response:

On March 15, 2013, the FAA released the Draft Supplemental Environmental Assessment (SEA) for the Parallel Runway 12L/30R project. The SEA responds to a remand order issued by the Ninth Circuit Court of Appeals, instructing the FAA to examine the environmental impact, if any that might result from increased activity associated with a new third runway. The public review and comment period for this SEA began on the release date, March 15, 2013. A public hearing was held on April 17, 2013 and the 30-day public comment period closed on April 19, 2013. The issue of health effects associated with lead was raised both in the oral testimony and in the written comments received. Studies associated with this issue were also submitted for consideration during this period. FAA reviewed and considered all of the information provided in the preparation of the final SEA and in the development of the final decision document. FAA's responses to the comments can be found in Appendix G of the Final SEA.

FAA received a letter dated November 8, 2013 from Sean T. Malone, Attorney at Law, along with a copy of part of the EPA's Integrated Science Assessment (ISA) for Lead, dated June 2013. Mr. Malone asserts in his letter that the "report provides significant new information related to the preparation of the Supplemental Environmental Assessment (SEA) for the Hillsboro Airport Parallel Runway 12L/30R." In addition, Miki Barnes, President of Oregon Watch, submitted the entire ISA to FAA on January 6, 2014. Upon review of the document, FAA determined that the submittal does not provide significant new information that would alter the approach or conclusions undertaken in the lead analysis or FAA's NEPA implementation approach.

The current National Ambient Air Quality Standard (NAAQS) for lead is 0.15 μ g/m³. This standard was finalized on November 12, 2008, following an extensive review and assessment by EPA, with publication of the revised standard in the Federal Register (69 FR 66964). The previous NAAQS for lead had been set at 1.5 μ g/m³ (43 FR 46246, October 5, 1978).

On February 26, 2010, EPA formally initiated its current review of the NAAQS for lead. As part of the science assessment phase of this current NAAQS review, EPA prepared a draft ISA for lead that was released on May 6, 2011, followed by issuance of two subsequent external drafts for review and comment. The Final ISA for Lead was issued in June 2013 and is part of the documentation submitted to FAA by Mr. Malone and Ms. Barnes. It is important to note that the current lead NAAQS assessment is still under review; EPA has not to date revised the lead standard.

Several elements support the conclusion that the information provided by Mr. Malone and Ms. Barnes is not "significant new information" nor does it provide any new information that would change the outcome of the findings of the Supplemental Environmental Assessment or the Record of Decision:

• The ISA is a compilation of published literature and studies for EPA's air quality program and does not present any new reports or studies. "In the ISA, EPA assesses the body of relevant

literature, building upon evidence available during previous NAAQS reviews, to draw conclusions on the causal relationship between relevant pollutant exposures and health or environmental effects." The report will be used by EPA to inform their decisions as they review the air quality criteria for lead as part of the 5-year NAAQS review (which began February 26, 2010) conducted in accordance with Section 109(d)(1) of the Clean Air Act.

- The ISA serves as background information for NAAQS development by the EPA. The Final ISA for lead was issued in June 2013. As explained in the ISA, it provides a "concise review, synthesis, and evaluation of the most policy-relevant science to serve as a scientific foundation for the review of the NAAQS." This process could result in establishment of a revised air quality standard for lead or may result in no changes to the lead standard. This process can take several years. The ISA does not propose a change to the standard.
- The ISA does not have direct relevance to the subject project in that there is no discussion in the report regarding leaded aviation fuel, which is the source of lead at general aviation airports. In addition, the ISA lacks new or relevant information pertaining specifically to the project in that it does not mention airports or Hillsboro Airport.

Appendix H – Port of Portland Certification

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Mission: To enhance the region's economy and quality of life by providing efficient cargo and air passenger access to national and global markets.

October 30, 2013

Honorable Anthony Foxx Secretary U.S. Department of Transportation 1200 New Jersey Ave, SE Washington, DC 20590

Dear Secretary Fox:

This letter is to provide the Department of Transportation with the requisite assurance that the construction of Runway 12L/30R at Hillsboro Airport located in Hillsboro, Oregon ("Airport") will be performed in accordance with 49 United States Code Section 47107(a)(10), which requires an airport sponsor to provide assurance that "appropriate action, including the adoption of zoning laws, has been or will be taken to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations."

The Port of Portland ("Port") owns all land required to complete the runway. Additionally, the current and forecast aircraft noise exposure contours fall completely on land owned by the Port, as defined by the Day Night Average Sound Level (DNL) 65 dBA. Furthermore, the Port, in cooperation with the City of Hillsboro ("City"), has placed restrictions and controls on surrounding land uses in order to ensure compatibility now and into the future.

The Port and City meet quarterly to review all development proposals surrounding the Airport and to share information on upcoming and ongoing capital projects, planning efforts and policy changes. Both the Port and City are committed to minimizing development that is incompatible with airport operations. Avigation easements and noise disclosures now burden surrounding properties. Furthermore, the Port has assisted in drafting and provided support to the City in the adoption of zoning laws and other land use controls that restrict the uses at and surrounding the Airport to ensure compatibility with aircraft operations.

The City's Airport Use ("AU") Zone (Hillsboro Zoning Ordinance, No. 1945: Vol. 1, Section 135A) applies to the Airport property. The specific purpose of the zone is "to encourage and support the continued operation and vitality of the Hillsboro Airport by allowing airport and aviation-related commercial, industrial and recreational uses in accordance with state laws." Oregon Revised Statute 836 requires the Oregon Department of Aviation to establish rules to ensure compatibility on properties surrounding airports. This zone ensures compliance with those rules. The Airport Safety and Compatibility Overlay ("ASCO") Zone is an overlay zone that applies to both the Airport and the surrounding properties. The ASCO zone "supplements the provisions of the underlying zones. The purpose of the ASCO zone is to establish compatibility and safety standards to promote air navigational safety and reduce potential safety hazards for persons living, working or recreating near the Hillsboro Airport, thereby encouraging and supporting its continued operation and vitality." Specifically, "[a]Il uses, activities, facilities and structures allowed in the AU Airport Use Zone shall comply with the requirements of the ASCO Airport Safety and Compatibility Overlay Zone, Hillsboro Zoning Ordinance Section

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PORT OF PORTLAND

Possibility. In every direction.

Secretary Anthony Foxx October 30, 2013 Page 2

135B. In the event of a conflict between the requirements of the AU zone and the ASCO zone, the requirements of the ASCO zone shall control." (AU Zone, Paragraph C). Thus, these zoning ordinances result in restricting uses next to or near the Airport.

Through this letter, the Port offers assurance that zoning and other controls put into place achieve the requisite protection desired by 47107(a)(10).

Please contact my office if there are any questions.

Sincetely, un Arana ٢

Vince Granato Chief Operating Officer, Port of Portland

Appendix I

Notice of Public Hearing and

Availability of the Draft Supplemental Environmental Assessment

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Public Notice Notice of Public Hearing and Availability of Draft Supplemental Environmental Assessment (SEA) for Hillsboro Airport Parallel Runway Friday, March 15
Notice of Public Hearing and Notice of Availability of Draft Supplemental Environmental Assessment (SEA) for Hillsboro Airport Parallel Runway 12L/30R.
The Port of Portland (Port) and the Federal Aviation Administration (FAA) announce that a Draft Supplemental Environmental Assessment (Draft SEA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council of Environmental Quality (CEQ) guidelines implementing NEPA to analyze the potential environmental impacts of constructing a new runway within an existing airfield. The federal regulatory agency with jurisdiction over civil aviation is the FAA, which must review and approve all proposed facilities and development on airport property to ensure compatibility with safe airport operations.
The Port intends to construct a new, parallel general aviation runway at Hillsboro Airport. The Draft SEA describes the likely environmental, social and economic impacts of the Hillsboro Parallel Runway 12L/30R. The Draft SEA will be available for 35 day public comment period from March 15, 2013 through April 19, 2013.
The Port will hold an open house and public hearing April 17, 2013 from 5:30 to 7:30 p.m. at the Hillsboro Civic Center, rooms 113B & C located at 150 E Main Street in Hillsboro. The event will provide interested citizens and community representatives with an opportunity to learn about the results of the Draft Supplemental Environmental Assessment for the new Parallel Runway 12L/30R. The purpose of the public hearing is to provide an opportunity to comment on the Draft SEA. The Port will provide a stenographer to document testimony. There will also be comments on the Draft SEA.
The Draft SEA is available below.
It is also available for review at the following locations: Hillsboro Main Library, 2850 Brookwood Parkway, Hillsboro Shute Park Branch, 775 SE 10th Avenue, Hillsboro Civic Center, 150 E. Main Street, Port of Portland Headquarters, 7200 NE Airport Way, 8th Floor Reception Desk, Portland, Oregon.
For additional information or to receive a CD copy by mail, please email <u>Renee Dowlin</u> , Senior Environmental Planner or call 503.415.6566.

Written public comments on the Draft SEA should be submitted to:

Ms. Renee Dowlin, Senior Environmental Planner, Port of Portland, P.O. Box 3529, Portland, Oregon 97208 or by email to renee.dowlin@portofportland.com. All mailed comments must be postmarked by April 19, 2013. All comments submitted via email must be received by 5 p.m. on April 19, 2013.

Related Links:

Hillsboro Airport Parallel Runway Project Draft Supplemental Environmental Assessment for HIO Parallel Runway

PO Box 3529 • Portland, OR 97208 • 503.415.6000

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