

Analysis<sup>1</sup> of the

**“General Aviation Survey Report Summary”**

(Contained in the Draft Supplemental Environmental Assessment,  
3-15-13, Hillsboro Airport Parallel Runway 12L/30R)

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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.”<sup>2</sup> 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 year<sup>3</sup> 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.<sup>4</sup> The Centers for Disease Control (CDC) has stated that “...no level of lead in a child’s blood can be specified as safe...”<sup>5</sup> Furthermore, the CDC has stated<sup>6</sup> 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, any 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.”<sup>7</sup> “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

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<sup>1</sup> Italics have been added to this document for emphasis.

<sup>2</sup> Draft Supplemental Environmental Assessment, p35 “Air Quality”.

<sup>3</sup> Draft Supplemental Environmental Assessment, p30, Table 6-3, year 2016.

<sup>4</sup> See Exhibit “I”

<sup>5</sup> “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, pg 3. [This document was submitted in toto at the public hearing on 4-17-13.]

<sup>6</sup> “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.]

<sup>7</sup> “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.”<sup>8</sup> The 11,350 additional operations per year are included in the “Remand Forecasts.”<sup>9</sup> 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 no “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).<sup>10</sup> Riley Research Associates helped refine the questions<sup>11</sup>. The preamble of the actual Survey<sup>12</sup> 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...”

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<sup>8</sup> Draft Supplemental Environmental Assessment, p11.

<sup>9</sup> 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.

<sup>10</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey, p1.

<sup>11</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey, p1.

<sup>12</sup> 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)”<sup>13</sup>

“...(includes both fixed wing *and helicopters*)...”<sup>14</sup>

“Total forecast operations includes all activity using the runway system, *as well as helicopter training operations*”.<sup>15</sup>

The “Draft Supplemental Environmental Assessment” states,

“Total aircraft operations include corporate and charter, general aviation, and military operations for fixed-wing aircraft *and helicopters*.”<sup>16</sup>

“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.”<sup>17</sup>

The General Aviation Survey “Report Summary” shows 270 “participants” having 68 “mean operations per month”.<sup>18</sup>

**Comment:** As noted, the 270 “participants” had 68 mean operations per month, which gives a total of 220,320 HIO operations per year.<sup>19</sup> Since total operations (which includes non-runway rotary operations) at HIO in 2011 were 214,243<sup>20</sup> 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

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<sup>13</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p2.

<sup>14</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p20, following Q15 regarding an increase in operations)

<sup>15</sup> Draft Supplemental Environmental Assessment, p 7, Table 3-1, footnote “c”.

<sup>16</sup> Draft Supplemental Environmental Assessment, Appendix D, at D-10, see Note at Table D-4

<sup>17</sup> Draft Supplemental Environmental Assessment, p10, Table 3-2 footnote.

<sup>18</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p8, top table.

<sup>19</sup> 270 “participants” x 68 mean operations per month x 12 months = 220,320 HIO operations per year.

<sup>20</sup> 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<sup>21</sup> and in Table 5-1<sup>22</sup>. 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.

**Facts:** Survey participants included 323 “Pilots”<sup>23</sup> who were, (according to the Draft Supplemental Environmental Assessment and the General Aviation Survey Report Summary) “representative of general aviation pilots”<sup>24</sup> and were “registered pilots”.<sup>25</sup>

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*...”

**Comment :** 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.<sup>26</sup>

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<sup>21</sup> Draft Supplemental Environmental Assessment, p10, Table 3-2 footnote.

<sup>22</sup> Draft Supplemental Environmental Assessment, Appendix B, p 5-13.

<sup>23</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, table at bottom, p1.

<sup>24</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p1.

<sup>25</sup> Draft Supplemental Environmental Assessment, Appendix D, p D-1.

<sup>26</sup> 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 our 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) The Survey did not capture the number of operations from 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.<sup>27</sup> 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.<sup>28</sup> According to the Air Traffic Activity Data System (ATADS), there were 214,243 operations at Hillsboro Airport in 2011.<sup>29</sup>

**Comment:** 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.<sup>30</sup> 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.*”<sup>31</sup> “*We have over 40 training airplanes, including models such as Cessna 152, Cessna 162, Cessna 172, Piper Seminole and Hawker Beechcraft King Air C90.*”<sup>32</sup> 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...*”<sup>33</sup>

**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 information<sup>34</sup> 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.<sup>35</sup> Hillsboro Aviation, citing proprietary reasons, has replied they will not release the number of their operations.<sup>36</sup>

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<sup>27</sup> (255 pilots)(70 operations/month/per pilot)(12 months/year) = 214,200 operations per year.

<sup>28</sup> (7 pilots)(36 operations/month/per pilot)(12 months/year) = 3,024 operations per year).

<sup>29</sup> Draft Supplemental Environmental Assessment, Appendix B, p3-2, Table 3-1.

<sup>30</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p44.

<sup>31</sup> See Exhibit E

<sup>32</sup> See Exhibit C

<sup>33</sup> See Exhibit E, Letter to the Executive Director of the Port of Portland.

<sup>34</sup> See Exhibit G

<sup>35</sup> Personal communication.

<sup>36</sup> 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.”<sup>37</sup> “Itinerant” operations also include some flight-training operations.<sup>38</sup> 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.*”<sup>39</sup>

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.*”<sup>40</sup>

“Increased safety by *separating training* from business aircraft operations.”<sup>41</sup>

“The airspace surrounding the airport is also very busy as it’s the host to *flight training* operations...”<sup>42</sup>

“...and the *training* environment would be even better.”<sup>43</sup>

“HIO already has a lot of traffic and *most of that traffic practice takeoff and landings.*”<sup>44</sup>

“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.”<sup>45</sup>

“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*...”<sup>46</sup>

“...due to frequent delays due to *all the student traffic.*”<sup>47</sup>

“The *flight training operations* at HIO make it a little bit hectic...”<sup>48</sup>

“I try to do so when there is less *flight instruction*...”<sup>49</sup>

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<sup>37</sup> See Exhibit B which is a copy of page 3-6 of the 10/09 Hillsboro Airport Parallel Runway 12L/30R “Draft Environmental Assessment.

<sup>38</sup> Personal communication (6-15-11) with Mr. Joseph Fiala, HIO Air Traffic Control Tower Manager

<sup>39</sup> See Exhibit D “A Conversation with Mary Maxwell, Director of Aviation for the Port of Portland.”

<sup>40</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p27.

<sup>41</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p27.

<sup>42</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p27.

<sup>43</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p27.

<sup>44</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p28.

<sup>45</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p28.

<sup>46</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p30.

<sup>47</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p32.

<sup>48</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p32.

<sup>49</sup> 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”<sup>50</sup> 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 TTD<sup>51</sup>) 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 one<sup>52</sup> “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.<sup>53</sup> )

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 month<sup>54</sup> or about 7 operations per day. Who is this

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<sup>50</sup> See Exhibit B which is a copy of page 3-6 of the 10/09 Hillsboro Airport Parallel Runway 12L/30R “Draft Environmental Assessment.

<sup>51</sup> See Exhibit “A”.

<sup>52</sup> 14% of the 7 participants for this question = 1

<sup>53</sup> See Exhibit E, Letter to the Executive Director of the Port of Portland.

<sup>54</sup> 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.*”<sup>55</sup> [Underline added for emphasis.]

**Comment:** 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

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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.

<sup>55</sup> 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.”<sup>56</sup>*

**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.<sup>57</sup>

**Comment:** 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.<sup>58</sup> (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.<sup>59</sup> Responses to survey question #5 list 7 of the “HIO/TTD/PDX Contacts” indicating that they conduct operations at HIO.<sup>60</sup>

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<sup>56</sup> See Exhibit “F”, Merced Sun-Star 3-29-13, front page.

<sup>57</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p9, table at “a Hillsboro Airport (Categorized)”.

<sup>58</sup> Exhibit A and also Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p44.

<sup>59</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p2.

<sup>60</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p8

**Comment:** 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 5-7<sup>th</sup> 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 are 10 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 are 7 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 muddies 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.<sup>61</sup>

**Comment:** 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.”<sup>62</sup>

**Comment:** 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.

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<sup>61</sup> Draft Supplemental Environmental Assessment, Appendix D, General Aviation Survey “Report Summary”, p7.

<sup>62</sup> 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).”<sup>63</sup>

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.”<sup>64</sup>

## 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.*”<sup>65</sup>, 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.

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<sup>63</sup> See Exhibit G

<sup>64</sup> See Exhibit H

<sup>65</sup> See Exhibit J