ESA Airports

8950 Cal Center Drive
Bldg, 3, Suite 300
Sacramento, CA 95826
916.564.4500 phone
916.564-4501 fax

www.esassoc.com

memorandum

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to Catherine Ferrari, OSUA

from Ron Seymour, ESA Airports
Steve Alverson, ESA Airports

subject ESA Airports' Review of OSUA's Aircraft Noise Complaint Process

ESA Airports was tasked with reviewing the process for registering, researching, and responding to aircraft noise complaints at The Ohio State University Airport (OSUA) and providing recommendations on how the process could be improved. We have completed this task and have documented our findings and recommendations in this memo. Overall we found the process and associated policies of the Airport to be acceptable for the task of receiving and responding to complaints. Based on our experience working with other airports around the country, such as Seattle-Tacoma International Airport, Sacramento County Airport System (four airports), and Los Angeles World Airports (three airports), the practices followed by the Airport are very similar and can be considered representative of best practices. In many instances, our findings revealed OSUA goes above and beyond best practices for recording and responding to complaints, especially for general aviation airports of similar size and numbers of operations. Most general aviation airports do not have flight tracking capability for the public to access using the internet and those that do are not as user friendly as the OSUA website. Our findings showed the OSUA website is comparable to the larger air carrier airport websites by offering both flight track analysis capabilities along with the ability to submit a noise complaint over the internet. Many general aviation airports only offer the ability to register a complaint or investigate a flight track, but not both as with the OSUA site. Example sites for comparison to OSUA include:

- sea.webtrak-lochard.com/template/index.html
- www.sacramentotracks.com
- www4.passur.com/teb.html
- www4.passur.com/lax.html
- oak.webtrak-lochard.com/template/index.html
- live.airportnetwork.com/sfo/

While we did find overall OSUA's noise complaint policies and practices meet best practices standards, we did note some areas where we recommend changes to eliminate duplicative efforts and to allow for a more efficient operation of the process. We understand the vendor for AirScene is upgrading the system. Some of the recommendations in this report may be addressed through that upgrade.

Process for Receiving Complaints

The residents in the communities around the Airport have three primary ways they can register a complaint about noise from aircraft operating to and from OSUA: placing a phone call, sending an email, or completing a complaint form on WebScene. Providing three different methods for the public to use for registering complaints is more than what most other airports, many of them much larger and busier than OSUA, offer for their local residents. Most general aviation airports do not record noise complaints and those that do primarily offer only a phone call or sending an email as ways to do so. Offering the public access online to a flight tracking system and noise complaint form is more common at large air carrier airports. Because OSUA offers this type of service, they are offering more than what is typical for a general aviation airport. WebScene also gives the public an avenue to research their concerns and potentially find the answers they are seeking without the need for submitting a question to the OSUA staff. This is a valuable tool and one that the residents around OSUA should take advantage of.

ESA Airports' Recommendations: We have no recommended changes for the phone or email options of submitting complaints. For submitting complaints via WebScene, we have several recommendations regarding the location of the link to WebScene as well as suggested changes to the form on the WebScene site. Accessing WebScene should be more intuitive than it currently is. The access point for WebScene is not located on the home page of the Airport's website, but rather on a secondary page and is identified only as a bolded word (which can be difficult to identify) the user must click on. While the primary purpose of WebScene is to research flight tracks, it does offer a third option for the public to register an aircraft noise complaint. We recommend a direct link to WebScene be placed on the Airport's homepage that will make it easier for the public to locate and access the complaint form. There are also recommendations we have to the form the complainant completes within WebScene to register a noise complaint. The form within the WebScene application lists several choices for the public to choose from to describe the nature of their complaint. Several of the categories are not noise related and others seem to be secondary in importance. We recommend that form be redesigned to be simpler with the following categories and choices:

- Name and address
- Incident date and time
- Complaint (general aircraft noise, low flying aircraft, vibration, frequency, safety concerns, other)
- Aircraft Information (arrival, departure, training, unknown)
- Aircraft type (jet, propeller, helicopter)
- Call back requested (yes or no)
- Comments

The comments section allows for the public to expand on these if necessary to explain that they were awakened by aircraft noise or their conversation was interrupted. If the complainer wishes to expand on what type of aircraft was causing the disturbance, they will have the opportunity to relay that information in the comments section. The reasoning for making the above mentioned changes is to immediately capture the most important aspect of the complaint and to simplify the classification of complaints for both the public and OSUA. This in turn will allow for a more efficient process of tracking complaints. It is important to note the Airport does not have the direct capability to redesign WebScene, but rather must work with the vendor that developed WebScene to request any changes.

Process for Recording Complaint Information

All complaints received by OSUA are entered into the AirScene database. This applies to complaints received by phone, email, WebScene, and walk-in visitors. The primary information recorded in AirScene includes: name, address, date, time of complaint, and nature of complaint. As a first step, phone messages are transcribed verbatim to a Word document to provide a hard copy of the message. Messages received via email or WebScene are printed to provide a hard copy as well. To classify a complaint and describe the nature of the complaint, the Airport has 11 boxes that can be checked in AirScene based on what was stated by the complainant. If needed, all boxes can be checked to adequately capture the nature of the complaint. Many of the complaints received via email contain multiple complaints, often including several days or weeks worth of aircraft incidents. Each of these is entered into the database as individual complaints by OSUA.

After all the information has been entered into AirScene, a Complaint Record & Research Form (CRFF) is completed with the same type of information entered into the AirScene database. The CRFF is then used for researching complaints.

<u>ESA Airports' Recommendations</u>: We recommend the Airport rely more on the use of electronic files versus electronic and hard copies. Complaints received via the phone should not be written up verbatim prior to placing the information into AirScene. Reporting what the complainant says verbatim is not necessary and just presents extra steps in the process for the Airport. Complaints received via the phone should be placed into AirScene directly while listening to the message. The most important pieces of information to capture are the name, address, time, date, location, nature of the complaint, and if a call-back has been requested. In addition, completing a CRFF is a duplicative effort creating for unnecessary work for OSUA staff. If a complaint needs to be researched, there should be a way to identify that on the electronic form in AirScene and that should be used to manage complaints that need to be researched versus those that do not. If it is easier for research to take place with a hard copy of the complaint as a guide, then a copy should be printed from AirScene for that purpose. As with the form on WebScene, we also recommend the simplification of classifying the nature of the complaint within AirScene to just a few categories that more succinctly capture the complaint. Any additional comments can be placed in a comments section of the form on AirScene. Currently the codes for classifying complaints are all placed in one field when saved to AirScene. In addition to simplifying the way to classify complaints, we also recommend the classifications be kept in separate field to allow for easier sorting and reporting of the information. We recommend the following categories for the AirScene Database that captures the initial complaint and allows follow-up through a research process if necessary:

- Name and address
- Incident date and time

- Complaint (general aircraft noise, low flying aircraft, vibration, frequency, safety concerns, other)
- Aircraft Information (user defined - overflight, arrival, departure, training)
- Aircraft type (user defined - jet, propeller, helicopter)
- Comments from complainant
- Call back requested (yes or no)
- System-defined aircraft information (after researching on AirScene – overflight, arrival, departure, training)
- System-defined aircraft type (after researching on AirScene – jet, propeller, helicopter)
- Other (after researching on AirScene – no match, system down, no information available)
- Comments from research
- Resolution (call back completed, completed)

Currently all complaints received are entered in the AirScene database, including those that may contain multiple complaints in one email. We recommend the process of recording all complaints received continue. It is important to continue this process so that information can be obtained regarding the number of overall complaints compared to the number of overall individual complainants. As a policy decision, we recommend the Airport record only one complaint per email or phone call. This practice is used by airports with high complaint volumes and/or limited staff resources and eliminates any confusion on how many complaints the complainant submitted. As we discuss in a later section, however, it is our opinion that not every complaint should be researched.

Process for Researching Complaints

All complaints received by OSUA are researched if time allows. OSUA uses AirScene data to determine the offending aircraft type, the operation type (e.g., arrival, departure, and touch and go), the runway used, and the altitude and ground distance between the disturbance location and the flight path. All attempts are made to find information about the operation in question. If the data are not available in AirScene, OSUA seeks the information from other sources such as Port of Columbus Noise Office and OSUA air traffic control. All information corresponding with the complaint is entered into the comments section of AirScene. In addition, research results are entered into the Noise Complaint Type section of AirScene using 20 different categories to describe what was found through the research. If needed, a screenshot of the flight track is exported from AirScene and pasted into the Complaint Record and Research Form.

<u>ESA Airports' Recommendations</u>: Our review revealed the overall process of researching complaints is more than adequate based on best practices followed at other airports and produces accurate results. As with all tasks, some human error will come into play occasionally, however we found this to be minimal with OSUA and not a significant concern. We were impressed regarding complaint research and how OSUA staff uses all available resources, putting forth additional effort not found at other airports. Most airports will not seek out information

from the FAA or other local airports to identify aircraft operations if the information is not present in their own system.

Currently, OSUA has a goal to research all complaints received. This is not typical of best practices for airport noise abatement offices and tends to require too much allocation of staff resources that could be focused more on the actual noise programs and identifying ways to reduce noise impacts. We recommend OSUA discontinue the practice of researching all aircraft noise complaints received and focus on researching in detail only those complaints requesting a call back or those complaints related to an unusual event. This does not mean staff will not pay attention to the complaints and continue to listen to the local communities' concerns. Complaints not requesting a call-back should be researched on an as needed basis allowing staff to remain vigilant of local concerns. All complaints should be entered into the database and used in trend analyses to determine how aircraft are complying with noise abatement procedures and to identify those areas where noise concerns exist and how that compares with past experiences. Spending time researching complaints for an individual that repeatedly complains about the same type of operation is not typically productive and reduces the time OSUA has to work on ways to reduce noise impacts.

We also recommend OSUA simplify the format for identifying what was found during the complaint research process. As previously mentioned, there are 20 different categories identified for explaining the results of research within AirScene. Several of these categories may be used to describe an operation and all will be placed in a single field within AirScene. Placing all in a single field makes it quite difficult to research past trends and history of complaints. We recommend the simplified fields discussed previously be used to record any information discovered through the research completed and to keep the reporting of those fields separate to allow for more efficient sorting.

We also recommend OSUA limit the number of complaints researched each month for individuals. Most of the staff's time is spent researching complaints, many of which are from individuals whose complaints are consistently regarding the same type of operation. As previously mentioned, OSUA staff's time could be better spent concentrating on evaluating trends in operations and adherence to noise abatement programs. The majority of the public has access to the internet from their homes and, therefore, can access WebScene. With this access, the public can research their complaints and find answers to their questions for as many incidents as they desire. Because of this capability to perform complaint investigation on WebScene, we recommend OSUA limit the number of complaints researched per household to five per month. This number, combined with our earlier recommendation of limiting complaints to one per email or phone call, will still allow complainants to request investigations for unusual events while allowing staff to devote time to other tasks.

One of the primary functions of any noise abatement office is to educate the public on noise programs. It is common practice for airport noise abatement offices to develop education materials to send to first time callers explaining what has been accomplished to date to reduce noise and how existing programs continue to work toward further reductions in noise impacts. We recommend OSUA prepare public education materials on existing programs as well as explaining how to use WebScene to self investigate complaints. In addition, the education piece could explain the Airport's policy on investigating noise complaints and the limit to the number of requests a complainant can make each month. These materials should be sent to any first time caller who asks for a response, as well as be placed on the OSUA website noise page as well.

Process for Responding to Complainants and Completing the Complaint

OSUA staff attempt to contact complainants requesting information within four days of receiving the complaint. The research and results are explained to the complainant and any questions they have are answered. If the complainant wishes to see flight tracks, they can view WebScene or schedule an appointment with External Relations to come into the Airport and view AirScene. If a hard copy of the complainant's research is requested, a summary is exported from AirScene and provided in hard copy. If the complainant cannot be reached after two tries, the complaint is processed as complete. Once completed, the complaint in AirScene is marked as completed and a paper copy of the original submission and CRFF is filed.

ESA Airports' Recommendations: The process followed for responding to the complaints is reasonable, adequate, and consistent with best practices at other airports. If available, OSUA should use AirScene to keep electronic copies of complaints and associated research. If this function is available in AirScene, there would be no need to keep hard copies in files as well. However, if this functionality is not present in AirScene, hard copies of the complaint and any research material and correspondence should be kept in files.

System Accuracy

The primary purpose of a noise complaint system is to provide the local communities around an airport an avenue to ask questions and provide information to the airport administration regarding the noise concerns of the local residents. A noise complaint system is not meant to have pinpoint accuracy or provide the basis of scientific research. As mentioned previously, human error will always be a factor when both the input and output are determined by human interaction. As long as the airport can provide information to the community by way of answering their questions, and as long as the airport can track overall trends in noise concerns, the purpose of the noise complaint system has been fulfilled.

ESA Airports reviewed the accuracy of OSUA's data and record keeping practices relevant to meeting the goals of the noise complaint system stated above. Overall, we found the level of accuracy of the data and record keeping practices to be very acceptable and in keeping with best practices for noise complaint systems. For meeting the purpose of the system, we found the data collection, storage, or reporting were acceptable and in keeping with best practices. There are areas that could use improvement, and we have discussed those in the other sections of this report. The improvements we suggest will allow the OSUA Noise Complaint System to be more streamlined and efficient for both the complainants and the Airport staff. The more streamlined approach should result in more time being available by OSUA to focus on the most important matter facing most airports, identifying ways to reduce aircraft noise impacts and implementing those measures.

Through our review, it came to our attention a local community group had expressed dissatisfaction with the noise complaint system relevant to record keeping and reporting. As part of this evaluation, we reviewed the August 2007 report by the group We Oppose Ohio State Airport Expansion (WOOSE) on complaint data compiled between January 2007 and February 2007 and took their concerns into consideration. Based on our review of the WOOSE report, we would like to offer the following observations and comments on their claims. The WOOSE report identifies discrepancies on a number of specific types of data, which in most cases, we felt were misunderstandings and misinterpretations of the data provided by OSUA, as well as a misunderstanding of the purpose of a noise complaint system in the overall noise abatement plan for an airport. Below are the different areas of concern expressed by the WOOSE document and our associated observations and responses.

1. Missing Complaints – WOOSE indicates the Airport did not record all complaints they received during the dates in question. We found the number of complaints reported missing by WOOSE to be small (2% in January and 8% in February) versus the overall number of complaints. The discrepancies may be explained by complaints submitted after the 30 day deadline from the date of the event, duplicate complaints from individuals regarding the same incident, or complaints about the same issue that occur repeatedly. It is difficult to determine the exact explanation for the "missing complaints" alleged by WOOSE, however the recommendation we made previously in this report to limit complaints to one complaint per email, phone call, or web entry will make it very clear how many complaints are being provided to the Airport and should remove any confusion.

2. High number of error in complaints – The errors reported by WOOSE primarily center around the complaint being incorrectly coded in the complaint system (time, date, and general coding), the altitude of the aircraft being reported incorrectly, and discrepancies in the types of aircraft reported versus researched. While WOOSE may be frustrated with the coding used by OSUA, we did not see the coding system as taking away from the overall value of the information provided by the Airport to the complainant. Research was conducted to answer the complainant's question or concern, and whether the aircraft was at 1,000 feet versus 1,100 feet is not relevant to the purpose of the noise complaint system. Several recommendations we have made in this report will address some of the concerns stated by WOOSE including the simplification of the complaint coding system and researching with the vendor of AirScene the capability to have the system automatically correlate complaints to actual aircraft operations, which would remove some human element and associated mistakes that may occur.

3. Wrong Community Listed for Complaint – The listing of complaints by community has long been a problem with noise complaint systems. Many residents believe they live in one community, when their actual mailing address states another community. We recommend the best way to avoid this confusion is to report complaints by zip code. For a complaint to be recorded in the system, the complainant should be required to provide a zip code. All information presented to the public on complaints should then be categorized by zip code only.

4. OSU Monthly Complaint Reports are Based on Partial Data – OSUA currently reports statistics on complaints received after they have researched the complaints. The WOOSE report claims complaints were not researched and therefore the data being presented is misleading the public. Our recommendation to the Airport is to limit the complaints researched to five per household per month, and change the reporting parameters to report all complaints received each month and eliminate reporting on complaints that were researched. The researching of complaints is meant to provide the individual with an answer to a specific question or concern, it is not meant to serve as a notice to the surrounding community on noise issues of individuals. By simplifying the reporting to cover complaints as they are received, confusion will be minimized and the community groups will be able to see the total number of complaints received regardless of whether they are investigated by OSUA or not.

5. Major Sources of Complaints are Overlooked – The WOOSE report states nighttime and jet operations are understated or not researched and this has misled the public on the noise issues facing the Airport. As mentioned previously, there are many factors involved in determining how the complaints are coded and/or researched. Our recommendations from this report will simplify the process and hopefully avoid these concerns in the future.

6. Aircraft Are Either Unknown or Unidentified – The WOOSE report states the numbers of aircraft that are unknown or unidentified are increasing. AirScene tracks aircraft based on signals from an aircraft's Mode S transponder. Some of the older and/or smaller aircraft are not equipped with a Mode S transponder and consequently their identity is not available in AirScene. We have observed the staff at OSUA puts forth more than what is considered a normal level of effort to investigate unidentified aircraft. OSUA staff often request schedules of the nighttime operators as well as seek information from the Port Columbus noise monitoring system since it is radar based. There are still some aircraft that may not be known, such as military flights, even with data from the Port Columbus aircraft tracking system. While data on some flights may not be available to the public, FAA Air Traffic Control has information for virtually all flights. Even if an operation is labeled as unknown, it is still recorded that a resident was disturbed by an aircraft event.

Summary

Overall we found the processes and associated policies used at the Airport for receiving and responding to noise complaints to be more than adequate and representative of best practices. In many instances, our findings revealed the Airport goes beyond what is considered typical for recording and responding to complaints, especially for general aviation airports of similar size and numbers of operations. While we did find overall the policies and practices to meet best practices standards, we did note areas where we recommend changes. The recommendations include:

- Making WebScene more visible on the Airport's webpage
- Simplifying the form within WebScene for registering complaints
- Eliminating the process of writing up verbatim the noise complaints received via phone
- Eliminating the completion of the Complaint Record and Research Form (CRFF)
- Simplifying the classification of complaints received
- Simplifying the AirScene database
- Eliminate researching all complaints received
- Research in detail only those complaints received requesting a response (limited to five per household per month)
- Simplify the classification of researched complaints
- Limit the number of complaints researched for households to five per month
- Develop educational materials to send to first time callers
- Determine if AirScene has the capability to keep electronic copies of research that can be linked to a specific complaint

- Report complaints received by zip code versus community
- Report monthly statistics based on complaints received versus complaints researched
- One complaint per email or phone call

With these changes, the process for receiving and responding to complaints will increase in efficiency allowing OSUA staff to focus more time and effort on the noise abatement programs. In addition, several of the changes will further the education of the public and point them in the direction of being able to research their questions on their own using the resources available through WebScene.