



The Ohio State University Airport

Newsletter #1  
January 2008

# PART 150 STUDY NEWSLETTER

## Public Open House!

Tuesday,  
February 12, 2008

7 to 9 p.m.

Presentation at 8 p.m.

OSU Airport Hangar 1  
(Entrance next to  
Barnstormer Restaurant)  
2160 West Case Road  
Columbus, OH 43235

## Contact Us!

### Part 150 Study

Learn more about the  
Part 150 Study and leave  
comments any time at [www.  
OSUAirportPart150.com](http://www.OSUAirportPart150.com).

### OSU Airport

2160 West Case Road  
Columbus, OH 43235

[www.OSUAirport.org](http://www.OSUAirport.org)

## OSU AIRPORT KICKS OFF NOISE AND LAND USE COMPATIBILITY STUDY

The Ohio State University has initiated a Federal Aviation Regulations (FAR) Part 150 Noise and Land Use Compatibility Study (Part 150 Study) for its airport.

The Part 150 Study, whose components are set by the Federal Aviation Administration (FAA), will allow the University to address potential noise impacts and develop programs to increase compatibility of land uses around the airport. This compatibility can be accomplished by two primary avenues: noise abatement and land use planning. The following are the key steps in the Part 150 Study process:

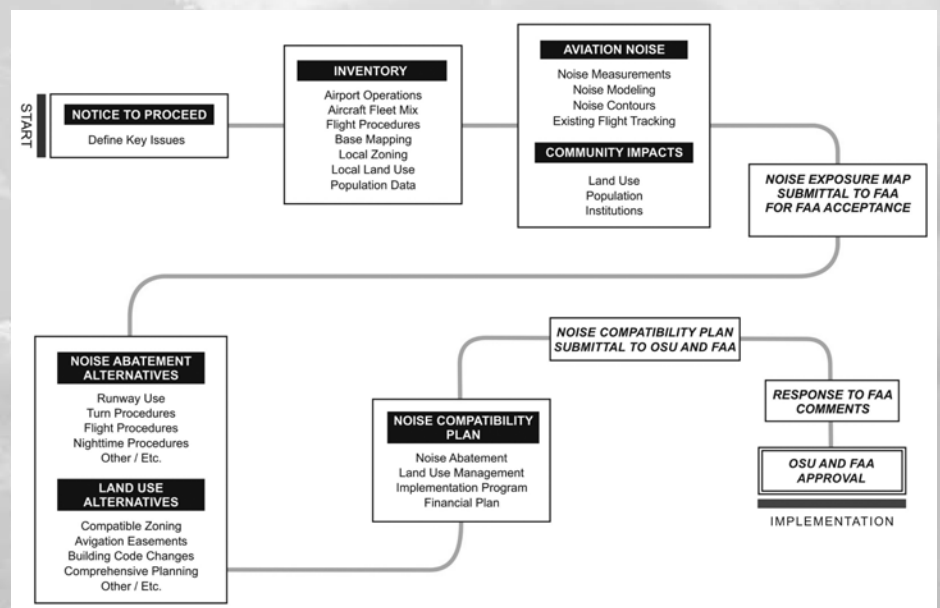
### Step 1: Develop Noise Contour Maps (Fall 2007 – Spring 2008)

Noise contours are developed based on aircraft operations occurring at the airport today, as well as predictions on operations at least five years in the future. The noise contours are lines that depict equal levels of aircraft noise exposure around the airport. These contours are overlaid on updated maps to determine what land uses are present in the highest noise levels around the airport.

Draft Noise Exposure Maps  
for OSU Airport and other key

*continued inside...*

### FAR Part 150 Process



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Part 150 Study information will be shared with the public at an open house from **7 to 9 p.m. on Tuesday, February 12, 2008 at OSU Airport Hangar 1**. This open house will include several information stations, staffed by the consultants conducting the study, to answer questions. There will be a formal presentation at 8 p.m.; otherwise feel free to drop by any time between 7 and 9 p.m.

Based on public input and additional technical analysis, the study team will further refine the noise exposure maps and submit them to the University and the FAA for review and acceptance.

### **Step 2: Evaluate Potential Noise Compatibility Alternatives (Summer – Fall 2008)**

Alternatives to reduce potential noise impacts around the airport may include both aircraft operational procedures as well as land use measures. Typical recommendations may include the establishment of noise abatement flight tracks and working with local jurisdictions to prevent future development in the most noise affected areas. The recommendations for OSU Airport will be specific to the impacts identified in the noise exposure maps.

### **Study Outcome: Noise Compatibility Program (Winter 2008 – Spring 2009)**

The final product is a Noise Compatibility Program (NCP). The

NCP contains noise compatibility measures recommended for implementation. The NCP is reviewed by OSU and the FAA in detail. FAA approval typically takes about 180 days. Those recommendations approved by OSU and the FAA will become eligible for federal funds in the implementation phase.

### **Noise Contour Maps in Development Now**

As described above, the study is currently in step 1, developing Noise Contour Maps for OSU Airport. This is how this occurs:

### **Aircraft Noise Modeling**

The standard methodology for analyzing the noise conditions at airports involves the use of a computer simulation model. The FAA has approved two models for use in preparing noise contours - NOISEMAP and the Integrated Noise Model (INM). NOISEMAP is most often used at military airports, while the INM is most often used at civilian airports like OSU's. The INM version 7.0, the latest version, was developed by the Transportation Systems Center of the United States Department of Transportation at Cambridge, Massachusetts and is undergoing continuous refinement. Airport specific data that is used in the model to develop the noise contours include:

**Daily Operations:** Current and forecast aircraft takeoffs and landings. The total number of aircraft operations over a 12-

month period is used for noise modeling.

**Aircraft Fleet Mix:** The various types of aircraft using the airport now and in the future. Identifying the fleet mix is important because certain aircraft are noisier than others.

**Runway Use:** Wind speed and direction together with runway length are the primary factors that determine which runways are used and how often. Air traffic controllers designate the flow of aircraft arrivals and departures into the wind. Under calm wind conditions, air traffic control has more flexibility to vary the directional flow of aircraft.

### **Flight Corridors and Corridor Use:**

Flight corridors are established for use in the model by obtaining information from the University's flight tracking system and other sources, including Port Columbus International Airport. These corridors represent the paths that aircraft typically follow when approaching or departing the airport.

**Day/Night Use:** Following FAA guidelines, day is defined as 7 a.m. to 10 p.m.; night is from 10 p.m. to 7 a.m. The number of aircraft that use the airport during daytime or nighttime hours is an important factor in the calculation of Day-Night Sound Levels (DNLs). The contribution of each night operation to the total noise exposure is weighted to account for the greater annoyance of noise at night.

## **STUDY TEAM OF NATIONALLY-RECOGNIZED AIRPORT EXPERTS**

The engineering firm of Reynolds, Smith and Hills, Inc. (RS&H) was selected to oversee the OSU Airport Part 150 Study. RS&H, headquartered in Jacksonville, Florida, is one of the airport industry's leading facilities and infrastructure consulting firms. San Francisco-based ESA Airports, one of the top firms for conducting aircraft noise analyses and preparing environmental documentation, will conduct the noise analysis as a subcontractor to RS&H. Local firm Engage Communications is leading the public involvement effort.

# NOISE AND LAND USE: ROLES AND RESPONSIBILITIES

## OSU Airport

OSU Airport's administration is responsible for planning and assisting with implementing actions designed to reduce the effect of noise on residents of the surrounding area. Such actions might include noise abatement ground procedures, land acquisition and other controls that do not discriminate, create an unsafe situation, impede the management of the national air navigation system or interfere with interstate or foreign commerce. Any operational procedure recommended by the airport administration must be approved by the FAA.

## Federal Aviation Administration (FAA)

The FAA's Air Traffic Control is

responsible for the movement of aircraft on both the airfield and in the air and has the authority to implement noise abatement operational procedures which have been recommended by the airport proprietor. Any noise mitigation procedure must be consistent with air safety and all legal requirements.

## Local Governments

Local governments have the responsibility to provide land use planning, zoning and housing regulations that limit land uses near the airport to those compatible with airport operations.

## Pilots

The pilot has the ultimate responsibility for the operation of the aircraft. Although the FAA assigns runways, flight tracks and altitudes, the pilot still maintains

the authority to make the final judgment.

## Air Travelers

Air travelers and shippers generally bear the cost of noise reduction measures through the payment of airline ticket taxes, waybill taxes and passenger facility charges. These funds are used in assisting with the evaluation and implementation of operational procedures and land use mitigation measures.

## Residents and Prospective Residents

Residents in areas surrounding the airport have been providing input regarding noise concerns. They are also encouraged to understand procedures that can and cannot be taken to minimize the effect of aircraft noise.

## NOISE MEASUREMENTS

Noise measurements were conducted for this study from October 18 through October 26, 2007. Seven monitors were used to collect noise measurement data at 13 sites located around OSU Airport during the eight-day collection period. Four sites had noise monitors for seven continuous days. The remaining nine sites each had a monitor for at least 24 continuous hours to capture measurements associated with the changing operational flow of the airport. See [www.OSUAirportPart150.com](http://www.OSUAirportPart150.com) for a map of these locations. Noise measurement data will be presented at the public open house in February.

Data collected from noise measurements is primarily used for information on ambient noise levels around the airport and noise associated with single event operations at a particular location. On site monitoring information also allows the study team to compare single event and cumulative noise levels with noise exposure levels developed by the Integrated Noise Model.

**Contrary to popular belief, noise measurement data is not used to develop the noise contours.** The FAA does not allow noise measurement data to be used this way and sets a strict requirement that only FAA-approved computer models be used for noise contour development.

## NOISE COMPLAINTS

Noise complaints can provide helpful information on noise concerns in the community.

Noise complaint data from OSU Airport, as well as from local jurisdictions and interest groups, is being reviewed to gain a clear picture of local noise issues. As with noise measurements, noise complaint data does not influence the noise contours or their development. Noise contour development is based on operational data only.

## PART 150 STUDY ADVISORY COMMITTEE

A committee representing neighboring municipalities, airport users and other stakeholders has been formed to provide feedback and comment throughout the Part 150 Study. For more information on these meetings, open to the public, see [www.OSUAirportPart150.com](http://www.OSUAirportPart150.com). Membership to the committee is by invitation and includes the following organizations:

### Communities

- City of Columbus
- City of Dublin
- City of Worthington
- Franklin County
- Mid-Ohio Regional Planning Commission
- Northwest Civic Association
- Perry Township
- Sharon Township
- We Oppose Ohio State Airport Expansion (WOOSE)
- Village of Riverlea

### Aviation Industry

- Columbus Regional Airport Authority
- Midwest (OSU) Air Traffic Control Services, Inc.
- Air Traffic Control/Port Columbus
- Aircraft Owners & Pilots Association
- Columbus Flight Watch
- Ohio Regional Business Aircraft Association

### User Groups

- Lab Corp
- MedFlight
- Ohio Highway Patrol
- Cardinal Health
- Worthington Industries Corporate Flight Department
- Personal Aircraft Owners Association, Chapter 9
- OSU Flight Education
- Thrifty Car Rental

### Business

- Columbus Chamber of Commerce

## Get Involved!

Public open houses and a public hearing will be held during the 18-month Part 150 Study. Study progress will be shared during these sessions and the public will be encouraged to provide input. Meeting dates and locations will be published in weekly newspapers, in future editions of this newsletter and at [www.OSUAirport.org](http://www.OSUAirport.org) and [www.OSUAirportPart150.com](http://www.OSUAirportPart150.com).

### More Questions? See the Web Site for Answers!

Part 150 Studies include a number of technical steps including aircraft noise modeling, noise monitoring and measurements and more. For more information on these and other related topics, see [www.OSUAirportPart150.com](http://www.OSUAirportPart150.com).

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