

memorandum

date January 14, 2009

to Part 150 Advisory Committee, OSU Airport FAR Part 150 Study

from Ron Seymour, ESA Airports
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subject Input on Noise Compatibility Program (NCP) Measures to be Reviewed

During the course of the Part 150 Study, the RS&H Team has solicited input and received feedback from residents in the vicinity of OSU Airport on concerns regarding operational noise, land use, and the administration of the Airport's in-house noise program. The RS&H team has reviewed the public input, input from the Part 150 Advisory Committee, suggestions from OSU Airport, and industry best practices to identify specific measures that could be evaluated for potentially addressing each of the measures identified. The current phase of the Part 150 is focused on evaluating these potential measures. The measures to be reviewed are presented below in three categories: abatement, mitigation, and administrative.

We invite you to review these categories and specific measures, and to advise us by January 31, 2009 if there are any additional noise abatement, mitigation or administrative measures that should be evaluated in this Part 150 Study. Please e-mail your suggestions to Marie Keister. Upon receipt and review of your suggestions, the RS&H Team will make appropriate adjustments to this list and proceed with reviewing each proposed measure. A memo summarizing the results and recommending the most viable NCP measures will be distributed to the Part 150 Advisory Committee for your review and input this spring.

Abatement (Airport and Aircraft Operational Measures)

While each resident may describe his or her operational noise concerns in a unique way, virtually all concerns can be grouped into six overall categories: training activity, jet operations, helicopter operations, departure flight tracks locations, arrival flight track locations, and nighttime operations. In addition, the FAR Part 150 guidelines list several measures that are required for review in a Part 150 Study. All of these measures, which are listed below, are grouped according to each of the six categories identified above as well as the requirements of the FAR Part 150 guidelines. The measures reviewed and recommended under this section will be the responsibility of The Ohio State University and/or the FAA to implement.

Training Activity

- Review pattern altitude to determine if a change would be beneficial.
- Review pattern location to see if a different pattern would be beneficial, including staggering the downwind portion of the pattern.
- Review pilot training techniques for potential improvements.

Jet Operations

- Review use of Continuous Descent Approach (CDA) for Runways 9R/27L and 9L/27R.
- Review use of technology for approach assistance (Global Positioning System (GPS), Instrument Landing System (ILS), etc.). Technology may help pilots in maintaining consistent altitudes on arrival.
- Review use of noise barriers and/or ground run-up enclosures to address noise from the use of reverse thrust, engine maintenance run-ups, and the use of APUs while on the ramp.
- Review policy regarding head-to-head operations (aircraft arriving and departing in the same direction), especially during the nighttime hours.
- Review preferential runway system to determine if use of certain runways has more noise benefits, including rotational use of runways.
- Review Close-in versus Distant Noise Abatement Departure Profiles.
- Review pilot procedures on arrival and departures related to turns (i.e., bank angle).
- Consider the establishment of a Noise Budget (allowance of noise for each operator).

Helicopter Operations

- Review helicopter arrival and departure corridors to determine whether optimal locations are being used.
- Review helicopter published procedures.

Departure Flight Tracks

- Review pilot procedures for propeller aircraft related to propeller power and pitch settings.
- Review use of SR 315 for routing of departures to the north.
- Review use of Area Navigation (RNAV) overlay procedures.
- Review departure headings to determine if optimal path is being used for noise abatement that meets Air Traffic Control (ATC) operational and safety requirements, including location of turns.
- Review use of a scatter/fan pattern for departures to the east.

Arrival Flight Tracks

- Review pilot procedures for propeller aircraft related to propeller power and pitch settings.
- Review side-step approach to Runway 27R.
- Review use of SR 315 for routing of arrivals from the north.
- Review use of RNAV overlay procedures.
- Review arrival procedures to determine if optimal path is being used for noise abatement that meets ATC operational and safety requirements, including location of turns.
- Consider published visual approach procedures.

Nighttime Operations

- Review preferred runway use program at night.
- Review head-to-head operations at night.
- Review departure paths for nighttime operations.
- Review arrival paths for nighttime operations.

FAR Part 150 Required Measures for Review¹

- Review curfews.
- Review noise related landing fees.
- Review limits on the number of operations.
- Review limits on the types of aircraft operations.

The noise abatement alternative evaluation process will consist of an overall review of each specific measure to assess its potential for reducing noise exposure over noise sensitive land uses. Those measures found to warrant further analysis will proceed to the technical analysis phase.

Mitigation (Off-Airport Land Use Compatibility)

Mitigation addresses those measures that can be implemented to reduce the amount of non-compatible land uses around the OSU Airport. While an airport can control the use of the land it owns, the local jurisdictions must recognize the presence of the airport and adopt land use controls to protect their residents. Mitigation alternatives are divided into two categories: corrective changes and preventive changes. Corrective changes apply to those non-compatible land uses within the 65 DNL contour. Preventive changes apply to areas beyond the 65 DNL contours. The measures reviewed and recommended under this section will be the responsibility of The Ohio State University and/or local jurisdictions to implement.

Corrective Changes

- Review potential property acquisition for parcels within 65 DNL
- Review potential sound insulation for parcels within 65 DNL
- Review potential avigation easements for parcels within 65 DNL

Preventive Changes

- Review existing Airport Environs Overlay (AEO) zone as adopted by the City and County
- Review building codes for local jurisdictions
- Review land use plans for local jurisdictions
- Review zoning codes for local jurisdictions

Administrative (Noise Program Management)

Administrative measures are necessary for an airport to successfully implement its noise mitigation program. The measures reviewed and recommended under this section will be the responsibility of The Ohio State University to implement.

- Review noise compatibility program management
 - Review organization of Airport and Noise Abatement Program
 - Review noise abatement function at Airport

¹ It is important to note that the measures required for review were developed in 1979 when FAR Part 150 was enacted. This was before Congress passed the Airport Noise and Capacity Act in 1990, which limited airport proprietors' ability to enact mandatory access restrictions in return for a phase out of older noisier jets, which were operated primarily by airlines. The more restrictive measures required to be reviewed under FAR Part 150 now require an additional and separate FAR Part 161 Study to be undertaken because they limit access to airports. A FAR Part 161 Study is required for mandatory restrictions that limit access to an airport. The FAR Part 161 must demonstrate the noise benefit resulting from the restriction is greater than the economic impact of the restriction. FAR Part 161 Studies are warranted when all noise abatement and land use measures have been implemented by an airport proprietor and there are still noise impacts within the 65 DNL contour. Since 1990, only one FAR Part 161 study has resulted in restrictions on aircraft operations and only after many years of study and litigation against the FAA. Therefore, those measures requiring a FAR Part 161 Study will be reviewed in the NCP document, but will not be analyzed in detail and will not be carried forward as a recommendation.

- Review public involvement related to the noise compatibility program
 - Review outreach to local communities
 - Review outreach to pilots and users of the Airport
 - Review establishment of user group related to noise
- Review noise and flight track monitoring system
 - Review system for functionality
 - Review system for need of upgrades
 - Review system for need of additional operating components (i.e., portable monitors, permanent monitors, receipt of FAA data, etc.)
- Review process for updating noise program

Conclusion

As discussed at the last Part 150 Advisory Committee meeting and open house, there are several criteria that will be used for reviewing NCP measures at OSU Airport. These measures should:

- Be part of a balanced and cost effective program for reducing noise without limiting airport utility, aviation efficiency, or adversely impacting safety.
- Improve the overall noise environment, while not shifting noise from one community to another.
- Provide the highest priority to those measures that reduce the highest noise levels affecting the greatest number of people, without adversely affecting one community over another.
- Be technically and legally feasible, and approved by the FAA (flight procedures) and local governments (land use measures).
- Not include any measures that are subject to a FAR Part 161 evaluation.

Please let us know if we have missed anything or if you would like to suggest additional measures. Again, we request your comments be submitted to Marie no later than January 31, 2009. Any additional measures received will be added to this document and forwarded back to the Part 150 Advisory Committee for their reference.