

**RECORD OF APPROVAL
HARRISBURG INTERNATIONAL AIRPORT
NOISE COMPATIBILITY PROGRAM**

INTRODUCTION

The Harrisburg International Airport, Middletown, Pennsylvania, Noise Compatibility Program (NCP) describes the current and future noncompatible land uses based upon the parameters established in 14 Code of Federal Regulations (CFR) Part 150, *Airport Noise Compatibility Planning*. The program recommends a total of ten measures to prevent the introduction of additional noncompatible land uses and to reduce the effect of the noise generated at the airport. The recommendations include one noise abatement measure, six land use measures, and three program management measures. The recommended program measures are described in Chapter 4 of the *Part 150 Noise Compatibility Study*, and summarized in Table 1 on Pages 6 through 9 of *Addendum 1* to the NCP.

The measures are identified below by program element and referenced to the NCP by page number. Each element summarizes as closely as possible the airport operator's recommendations as found in the NCP. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval, or other determinations do not represent the opinions or decisions of the FAA.

The approvals listed herein include FAA approvals of actions that the Susquehanna Area Regional Airport Authority (SARAA) has recommended be taken. It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. These approvals do not constitute a commitment by the FAA to provide federal financial assistance for these projects. Later decisions concerning possible implementation of the actions may be subject to applicable environmental or other procedures or requirements.

1 - NOISE ABATEMENT ELEMENT

1. Encourage noise-attenuating standards in airport development (Appendix E, page E-21 and Chapter 4, page 4-7 of NCP study, and Addendum 1, Page 10)

Description: This measure recommends consideration of the noise reduction benefits in the design and location of structures built on the airport through the overlapping of structural footprints between on-airport sources and off-airport impacted areas. Properly located, the height, materials, shape, and location of structures could effectively reduce ground noise for the communities nearest the airport by up to 8 to 10 decibels (dB).

FAA Action: APPROVED. This measure encourages developers to consider airport noise-land use compatibility when planning the placement and materials for new structures on airport property. Placement of new buildings on the airport property must not penetrate 14 C.F.R. Part 77 surfaces. When a property owner chooses the location, height, materials, etc. of any new

buildings it proposes to construct, it would not involve the use of Federal financial assistance.

2 - LAND USE ELEMENT

1. Amend local comprehensive plans by adopting the Part 150 Noise Compatibility Plan as their noise compatibility elements (Appendix F, Chapter 4, pages 4-8 to 4-10, Exhibit 4-1, and Addendum 1, Page 11)

Description: This measure recommends that the Future (2010) NEM 65+ DNL noise contour be incorporated into local comprehensive plans. A comprehensive plan establishes goals, objectives, and policies for the future development of a community. Comprehensive plans reflect the values of the community and serve as a guide for decision-making. These plans usually include specific recommendations and policies that are used to guide future land use decisions and capital investment strategies in the community. Because a community's goals and priorities may change over time, comprehensive plans should be periodically reviewed and updated.

The activities that occur in one community may directly or indirectly impact neighboring jurisdictions. This is particularly true for communities near airports, where the airport operations often impact areas beyond the boundaries of the host community. A community's comprehensive plan should identify to what extent these operations may impact its jurisdiction and residents. Based on the findings, objectives and policies should be defined in the plan to assure compatibility with airport operations and implement strategies to avoid or mitigate aircraft noise impacts to residents.

This measure would provide awareness to local planners and the community of potential aircraft noise impacts and over flights. It would provide information to planners and community leaders as decisions are being made about land use and future development. The measure also provides the opportunity for the airport sponsor to work with local planners to ensure compatible development.

FAA Action: APPROVED. The Federal government has no authority to control local land use; the local governments of Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough have the authority to implement this measure.

2. Adopt guidelines for discretionary review of development projects (Appendix F, Chapter 4, page 4-11, and Addendum 1, Page 14)

Description: This measure recommends that the local governments provide SARAA an opportunity to review and comment on applications for variance, conditional use, rezoning, and subdivision plan approval. This special notification requirement is not intended to apply to simple applications for building and zoning permits and occupancy certificates. This measure may help prevent future development of incompatible land use within the Future (2010) NEM/NCP 65+ noise contour.

FAA Action: APPROVED. The Federal government has no authority to control local land use; the local governments of Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough have the authority to implement this measure.

3. Adopt noise overlay zoning to prohibit development of selected noise-sensitive land uses within the Future (2010) NEM 65+ DNL noise contour (Appendix F, Chapter 4, pages 4-12 to 4-17, Exhibit 4-2, and Addendum 1, Page 15, Table 2 on Page 18)

Description: This measure recommends that the local governments adopt noise overlay zoning, which would establish special standards within noise-impacted areas to help mitigate the problems caused by aircraft noise. These provisions would supplement the standards of the underlying zoning classifications and would apply only to new development. This measure prevents new future incompatible development in the 65+ DNL noise contour.

SARAA would encourage the adoption of noise overlay zoning by Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough, all of which would lie partially within the Future (2010) NEM 65+ DNL noise contour. The outer boundary of the overlay district would be based on the 65 DNL noise contours of the Future (2010) NEM, with adjustments made to follow the nearest roadway boundaries.

Within the noise overlay zoning districts, the Part 150 Land Use compatibility guidelines would be modified as shown in **Table 2 of Addendum 1, Land Use Compatibility Standards Harrisburg International Airport - Airport Noise Overlay Zones.**

Within the Aircraft Noise Overlay Zone 1 (AC-1), corresponding to the 65 DNL noise contour, the ordinance would prohibit all mobile homes, hospitals, nursing homes, amphitheatres, resorts, and group camps. Sound insulation would be required for new residential units built within the 65 DNL noise contour, as described in Table 2. AC-1 complies with the Part 150 guidelines for land use within the 65 DNL noise contour. To provide flexibility in the administration and enforcement of a noise overlay zone, Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough should work with SARAA to define the overlay zones using legal boundaries, such as roadways.

FAA Action: APPROVED. The Federal government has no authority to control local land use; the local governments of Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough have the authority to implement this measure.

FAA's policy is that new noise sensitive land uses should be prevented from developing around airports or, in cases where prevention is not feasible, they should be rendered compatible with noise exposure levels through measures such as sound insulation during construction. While the FAA prefers no new noise-sensitive development, in cases where the airport sponsor does not control land uses, sound attenuation for new construction would provide compatibility with the airport. Part 150 provides that, where the community determines that residential or school uses must be allowed in the 65 DNL db contour, measures to achieve outdoor to indoor noise level reductions (NLR)

of at least 25 dB and 30 dB should be incorporated into building codes. (14 C.F.R. Part 150, Table 1).

4. Encourage local jurisdictions not to allow an increase in residential density in the residential or agricultural zoning districts within the Future (2010) NEM 65+ DNL noise contour (Appendix F, Chapter 4, page 4-18, and Addendum 1, Page 21)

Description: In order to minimize the potential number of people exposed to aircraft noise in the future, this measure recommends that SARAA encourage the local jurisdictions not to permit zoning changes that would allow a higher density of residential development in residential or agricultural zoning districts within the Future (2010) NEM 65+ DNL noise contour.

FAA Action: APPROVED. The Federal government has no authority to control local land use; the local governments of Dauphin County, Lower Swatara Township, Londonderry Township, Highspire Borough, Royalton Borough, and Middletown Borough have the authority to implement this measure.

FAA's policy is that new noise sensitive land uses should be prevented from developing around airports or, in cases where prevention is not feasible, they should be rendered compatible with noise exposure levels through measures such as sound insulation during construction. While the FAA prefers no new noise-sensitive development, in cases where the airport sponsor does not control land uses, sound attenuation for new construction in lower density residential districts would provide compatibility with the airport. Part 150 provides that, where the community determines that residential or school uses must be allowed in the 65 DNL db contour, measures to achieve outdoor to indoor noise level reductions (NLR) of at least 25 dB and 30 dB should be incorporated into building codes. 14 C.F.R. Part 150, Table 1.

5. Develop and implement a voluntary residential acquisition program within the Future (2010) NEM 65+ DNL noise contour (Appendix F, Chapter 4, pages 4-19 to 4-21, Exhibit 4-3, and Addendum 1, Page 22)

Description: This measure recommends acquiring homes within the Future (2010) NEM 65+ DNL noise contour on a voluntary basis, removing the structures, and having the local land use jurisdictions change the land use designations of the acquired properties to one that is compatible with airport operations.

Participation in this program would be voluntary on the part of the property owner and would be dependent upon FAA and SARAA funding availability. SARAA would coordinate the assessment and inventory of the incompatible property. Acquisition programs under FAR Part 150 are regulated by 49 CFR Part 24, *Uniform Relocation Assistance and Real Property Acquisition Regulations For Federal and Federally Assisted Programs*, and FAA Order 5100.37A, *Land Acquisition and Relocation Assistance for Airport Projects*.

Participation in this program would remove approximately 41 housing units (approximately 90 residents) that are impacted by the Future (2010) NEM 65+ DNL noise contour. There are two voluntary acquisition areas. Area A, south of Keystone Avenue in Middletown Borough, includes a total of 34 homes, 17 of which lie within the 65 DNL of the 2010 NEM/NCP. The other 17 were included in an effort to create logical boundaries, i.e., where a residential block

was partially within the contour, the entire block was included in the program. The second voluntary acquisition area, Area B, included 7 residences in Royalton Borough and Londonderry Township. All 7 of these homes are within the 65 DNL of the 2010 NEM/NCP. The zoning on the properties would be changed from residential to a zoning district compatible with airport operations.

The Borough of Highspire was invited to participate in this mitigation measure. However, in a letter dated June 15, 2005, the Borough of Highspire indicated it would not change the land use designations of any acquired property in its jurisdiction, making implementation of the measure in the Borough of Highspire infeasible. Part 150 requires an indication of feasibility that the measure can be implemented (150.23(e)(8)), and that agencies with responsibility for carrying out measures have indicated a willingness to do so (B150.7(c)). FAA and SARAA concurred with the Borough of Highspire's request to be removed from the voluntary acquisition program because this measure includes a requirement that the land use zoning be changed, once the homes are purchased, to be compatible with airport operations (see detailed analysis of this measure in Appendix F, pp F-17 through F-22). SARAA held a public hearing to notify the residents of this action. Accordingly, the airport sponsor's voluntary acquisition program does not include potentially eligible properties located within the Borough of Highspire.

FAA Action: APPROVED.

The Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act must be followed.

Participation is based on the FAA's Mitigation Policy, which states that:

Beginning October 1, 1998, the FAA will approve remedial noise mitigation measures (sound insulation, acquisition, purchase assurance, etc.) under Part 150 only for incompatible development that exists as of that date. Incompatible development that potentially may occur on or after October 1, 1998, may only be addressed in Part 150 programs with preventive noise mitigation measures (land use controls—comprehensive plan, zoning regulations, subdivision regulations, building code, etc.).

The FAA has determined that its preferred option is to select one prospective date nationwide as the effective date for this final policy rather than to implement it based on an individual airport's part 150 activities, either maps or program. A specific date will ensure nationwide application on a uniform basis and provide a more timely implementation than prospective airport-by-airport implementation dates.

Participation eligibility will be based upon whether a residence was constructed before or after October 1, 1998.

6. Initiate a formal study to evaluate the noise levels at various churches located within the Future (2010) NEM/NCP 65+ DNL noise contour for eligibility for sound insulation (eligibility based on FAA funding criteria) (Appendix F, Chapter 4, pages 4-22 to 4-23, and Addendum 1, Page 25)

Description: This measure recommends that formal steps be taken to address potential noise impacts to churches resulting from daytime (in particular Sunday morning and evening, and Wednesday evening) aircraft operations. A formal study would be conducted to evaluate the noise levels at the following churches: Full Gospel Church of God at 14 Ann Street, Highspire First Church of God at 115 Second Street, Highspire United Methodist Church at 170 Second Street, and St. Peter's Lutheran Church at 240 Broad Street, Highspire. In order to more accurately assess the impact of aircraft noise on these churches, the study would focus on the aircraft events occurring during typical church service hours. The results of the analysis *could* lead to recommendation for the sound insulation of some or all four of the churches (or not). Additionally, the results of the study would allow SARAA to determine if further churches need to be evaluated should the airport's noise contours change in the future.

The *Airport Improvement Program Handbook* (FAA Order 5100.38C, Chapter 812.d.) states that churches, when recommended for sound insulation by an airport sponsor in an FAA-approved NCP, are eligible for sound insulation. AIP further states that the sound insulation of churches should be evaluated on a case-by-case basis involving consultation with the FAA Airports Financial Assistance Division (APP-500) and Planning and Environmental Division (APP-400). This consultation process and evaluation will take place prior to implementing sound insulation at a church. A signed avigation easement would be required prior to the sound insulation.

Sound insulation consists of increasing the exterior-to-interior noise attenuation characteristics of a structure, i.e., reducing the level of noise intrusion from aircraft over flights and ground operations. There are several basic ways in which this can be accomplished, and variations of each would occur on a structure-to-structure basis (i.e. acoustical windows, acoustical doors, ventilation systems, additional roof/attic/wall insulation, etc.).

FAA Action: APPROVED FOR STUDY. If the study demonstrates that some or all of the churches would qualify for sound attenuation, the SARAA may recommend attenuation in a supplement or amendment to this NCP.

3 -PROGRAM MANAGEMENT ELEMENT

1. Establish a Noise Abatement Advisory Committee (Chapter 4, page 4-24 and Addendum 1, Page 27)

Description: This measure recommends the creation of a Noise Abatement Advisory Committee. Using the Part 150 Planning Advisory Committee (PAC) as a basis of membership, SARAA would request additional volunteers or appointments from local municipalities within the area affected by operations at the airport to serve on a continuing Noise Abatement Advisory Committee (NAAC). The purpose of this committee would be to maintain regular communication and exchange of ideas between the airport and surrounding communities, to enhance community understanding of the constraints on airport users and operators, to serve as a vehicle for disseminating information regarding the NCP to the community, and to assist with implementation of land use measures. The committee would be advisory in nature and chaired by

SARAA's Director of Aviation or his designee. SARAA's Marketing and Public Relations Department would provide administrative services. The committee would meet quarterly, or as necessary at its convenience.

FAA Action: APPROVED.

2. Establish a pilot/community awareness program (Chapter 4, page 4-25 and Addendum 1, Page 28)

Description: A pilot and community awareness program would be designed to deliver information prepared by SARAA's Marketing and Public Affairs Department to both users and neighbors of the airport. Communications to the community would carry messages of anticipated changes in the nature or character of noise in the environs, based on construction or other actions that may produce noticeable differences between normal and abnormal conditions. These messages could be distributed through a developing mailing list of interested neighbors, beginning with the membership of the NAAC and attendees at public workshops held during the Part 150 Study, through press releases, and through other means of direct communication.

Communications with air traffic controllers, pilots, and air carriers would be intended to inform them of the noise-sensitivity of various areas around the airport and to request their consideration in using quiet flying techniques over those areas. Additionally, printed materials may be produced for posting or distribution in crew lounges or potentially as insertable plates for the Jeppesen charts used by all commercial pilots. The specific form of such materials would become a responsibility of SARAA's Marketing and Public Affairs Department. This measure, while providing no improvement to land use compatibility, would provide for improved communications between the airport and neighboring communities and would reduce the impact of unexpected changes regarding airport operations. It would also help explain the expected length of time that changes might be in effect.

FAA Action: APPROVED.

3. Update the Noise Exposure Maps and Noise Compatibility Program (Chapter 4, page 4-26 and Addendum 1, Page 29)

Description: This measure recommends the review and revision of the Noise Exposure Maps (NEMs) and Noise Compatibility Program (NCP) as appropriate. The measure provides for continuing planning and care in assuring the greatest compatibility between the airport and its environs. The NEMs are likely to become outdated and will need to be brought current periodically. The NEMs should continue to be updated at least every five years to consider changes in traffic and traffic flows, as well as updates of the noise modeling software.

The NCP should be updated as necessary to reflect larger changes in the nature of aircraft noise surrounding the airport. Should any development that would enlarge the area of incompatible use exposed to aircraft noise above 65 DNL be proposed, such as runway realignments or significant modifications to ground facilities, the NCP should be updated prior to the implementation of those improvements. A full update may not be required, but rather a targeted assessment of the changes occasioned by specific development projects may

suffice to bring the NCP to currency and to qualify additional areas for NCP programs, if appropriate. After five years, if such changes occur, or if the number and character of operations changes significantly, the NCP should then be updated.

A qualified planning consultant should be retained by SARAA to conduct the NEM update and the NCP update, separately or together.

FAA Action: APPROVED.

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