

**RECORD OF APPROVAL
COLUMBIA METROPOLITAN AIRPORT
COLUMBIA, SOUTH CAROLINA**

The approvals listed herein include approvals of actions that the airport recommends be taken by the Federal Aviation Administration (FAA). It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. The FAA has provided technical advice and assistance to the airport to ensure that the operational elements are feasible (see 14 CFR 150.23(c)). These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of measures in this ROA will be subject to applicable environmental or other procedures or requirements, including section 106 of the National Historic Preservation Act (NHPA).

The operational and land use control measures below summarize as closely as possible the airport operator's recommendations in the Noise Compatibility Program (NCP) and are cross-referenced to the program. The statements contained within the summarized operational and land use control measures and before the indicated FAA approval, disapproval, or other determination do not represent the opinions or decisions of the FAA.

OPERATIONAL MEASURES

OC-1. Flight Track Modifications-Arriving Turbojet and Heavy Turboprop Aircraft

When air traffic, weather, and safety conditions permit, arriving heavy turboprop and turbojet aircraft should be aligned with the runway centerline approximately 3 to 4 miles from the runway end for Runways 11, 29, and 5. This measure is to adjust aircraft flight tracks to reduce the areas that would be exposed to aircraft overflights, especially those operations at low altitudes. The benefits from implementation include a reduction in low altitude close-in approach turns over noise sensitive uses, including Three Fountains, Cedar Estates, and South Congaree. While there would be no change in the size of the noise contour as a result of implementation of this measure, this will help expose a smaller population to individual overflight events that were consistently noted in public meetings as creating significant adverse reaction by area residents. The procedure also places arriving aircraft over airport property to the greatest extent possible. These procedures could be formalized in the form of a published approach procedure that standardizes the specific elements of the procedures, such as in the form of a Standard Terminal Arrival Route (STAR). (NCP, pages 4-8, and 68-69; Figures 5-2 (from Volume Two, 2-5, 7-2 and 7-3)

FAA Action: Disapproved for purposes of Part 150 pending submission of additional information to make an informed analysis. There is insufficient

information to determine the number of persons benefited (either by changes to the DNL noise contour or appropriate supplemental metric showing dB noise reduction), versus people that may be newly added due to changes in flight tracks.

OC-2. Flight Track Modifications-Departing Turbojet and Heavy Turboprop Aircraft

When air traffic, weather and safety conditions permit, turbojet and heavy turboprop aircraft, including military C-17 and C-130 aircraft, departing Runway 29 should maintain runway heading and not initiate turns until after crossing Old Barnwell Road. Turbojet and large turboprop aircraft departing Runway 11 should not initiate turns until crossing Interstate 26. Departures on Runway 23 should maintain runway heading one mile beyond the southern end of Runway 23. The procedure has the aircraft gaining altitude over airport owned property to the greatest extent possible prior to initiating turns. This results in a reduction in low altitude close in departure turns over noise sensitive uses including the residential concentrations of Three Fountains, Cedar Estates, and South Congaree. This will help expose a smaller population to individual overflight events that were consistently noted in public meetings as creating significant adverse reaction by area residents. (NCP, pages 8-11 and 69-70; and Figures 7-3 and 7-4)

FAA Action: Disapproved for purposes of Part 150 pending submission of additional information to make an informed analysis. There is insufficient information to determine the number of persons benefited (either by changes to the DNL noise contour or appropriate supplemental metric showing dB noise reduction), versus people that may be newly added due to changes in flight tracks.

OC-3. Noise Abatement Departure Profile (NADP)

Turbojet aircraft departing Runway 5 and 23 should utilize the “Close-in” NADP. Benefits relate to reduction in noise from aircraft departures within the communities located in close proximity to the ends of runway 5-23, including Churchill Heights to the north and residences situated in the vicinity of Pine Street to the south. (NCP, pages 11-13, and 70)

FAA Action: Approved as an informal, voluntary measure when air traffic and airspace safety and efficiency and weather conditions permit. Appropriate use of NADPs have been shown to be noise beneficial.

OC-4. Nighttime Runway Use Modifications Subject to Airfield Enhancements

To establish a nighttime noise abatement preferential runway use program, it is recommended that a full-length parallel taxiway south of Runway 11-29 be approved as an eligible item by the FAA specifically to reduce noise impacts on the sensitive communities located within the 65 DNL contour immediately north of Runway 5-23. Design and construction costs will be determined subject to the approval of this item as

part of the NCP. (NEM, Figures 5-11 and 5-12; NCP, pages 13-14, 18, and 71; Figures 7-5A, 7-5B, and 7-6)

FAA Action: Disapproved for purposes of FAR Part 150. The NCP does not provide noise benefit information on the nighttime preferential use of Runway 11. The graphics referenced are not sufficient to demonstrate a noise benefit. (Different land use base maps, scales, and graphics were used to compare information, making it difficult to determine the required information.) Additional information on the location of homes and the number of persons benefited, and whether there would be newly impacted noise-sensitive areas, is required. The FAA notes that construction of a full parallel taxiway was proposed on the Airport's master plan for other purposes.

OC-5. Military Flight Training Noise Reduction

(a) It is recommended that the Airport request that military touch and go operations be voluntarily reduced, eliminated, or limited to daylight hours. (b) If the flight training cannot be eliminated altogether, the Airport should provide to the operators of these aircraft the location of noise sensitive uses surrounding the airport. This should help the military operators to conduct training in such a manner that noise sensitive areas are avoided to the extent that it is technically feasible. (c) This procedure would reduce the number of large military aircraft operating training patterns over residential areas during day and nighttime hours. (NCP, pages 18-19, and 72)

FAA Action: Disapproved pending submission of additional information to make an informed analysis. (a) There is no evidence of contact with the military to determine their willingness to carry out this measure on a voluntary basis, as proposed. (Part 150.23(c)) (b) There is no information on where noise sensitive uses would be located in any printed handout information. The extended flight tracks at OC-1 and OC-2 are not approved in this Record of Approval due to insufficient analysis. (c) There is no information on the number of homes/noise-sensitive sites currently within, versus removed from, the flight track corridors as a result of this measure or other noise metric benefits.

OC-6. Construction of Ground Run-up Enclosures to Reduce Engine Maintenance Noise

Given the routine nighttime maintenance at Columbia Metropolitan Airport, it is recommended that a pen type enclosure be approved as an eligible item by the FAA and that the final decision on whether to construct such an enclosure be made by the Airport following an analysis of the associated costs and benefits, as 54 homes and 125 people will benefit from this measure if implemented. (NCP, pages 21-26, and 72-73; Figures 7-7, 7-8, and 7-9)

FAA Action: Approved for further study. The study should include information on speech interference and sleep disturbance, and should show benefits in terms of numbers of homes or other noise-sensitive sites benefited versus newly disturbed by the relocation of ground run-ups and aircraft taxiing to a proposed new location. If the study

demonstrates, from the cost/benefit analysis, that a pen type enclosure would be beneficial to the surrounding airport community, the Airport may recommend construction of the enclosure in a supplement or amendment to this NCP.

OC-7. Public Relations Programs

This measure is designed to improve communication about the NCP programs to the general public and to those pilots operating at Columbia Metropolitan Airport: 1. The Airport should continue to update the noise information on the Airport's Internet Site and to include information about the current noise complaint procedures; 2. The FAA should approve the purchase of three portable noise monitors. These would be used to monitor aircraft noise at the request of citizens, elected officials, airport tenants or other reasons. Some monitoring may involve indoor-outdoor attenuation information where 2-3 monitors may be needed simultaneously; and, 3. The Airport should purchase and install lighted noise abatement procedure reminder signs at each runway end (a total of four signs). This is to inform airport users regarding the recommendations of this study. Sample language may include "please follow noise abatement procedures." (NCP, pages 27-29, and 73)

FAA Action: Approved. Eligibility for Federal funding of three portable noise monitors will be determined at the time of application. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds and shall not be used for mandatory enforcement of any voluntary measure. Noise abatement procedure reminder signs must not be construed as mandatory air traffic procedure. The content and location of airfield signs are subject to specific approval by appropriate FAA officials outside of the FAR Part 150 process and are not approved in advance by this determination.

LAND USE MEASURES

LU-1. Comprehensive Planning

Airport staff should strive to be an active participant in the comprehensive planning process for nearby jurisdictions. It is recommended that this Part 150 Study, including its implementation recommendations, either be referenced in each jurisdiction's comprehensive plan or specific elements of the FAR Part 150 be incorporated into the plan to provide the basis for other land use management approaches. During the comprehensive planning process, the determination of future land uses should consider the 2007 noise exposure map developed in this study. (NCP, pages 34-36 and 77-78)

FAA Action: Approved. This is within the authority of the local land use jurisdictions; the Federal government does not control local land use.

LU-2. Discretionary Project Review

The use of discretionary project review of development, rezoning, subdividing, special use, conditional use and variance requests is recommended for implementation by nearby jurisdictions. The Airport staff should work with local permitting, zoning, and planning bodies to assist in the evaluation of noise impacts on projects under review. A detailed checklist will be developed for project reviews. (NCP, pages 36-37, and 78-79)

FAA Action: Approved. This is within the authority of the local land use jurisdictions; the Federal government does not control local land use.

LU-3. Noise Overlay Zoning

In the vicinity of Columbia Metropolitan Airport, it is recommended that each jurisdiction without noise overlay zoning (Springdale, Pineridge, South Congaree, West Columbia, and Cayce) implement a noise overlay zone, like Lexington County's modified noise overlay zones at pages 40-42. The Lexington County zones use the NEF metric. NEF 40 is equivalent to DNL 65, NEF-30 is equivalent to DNL 55. Lexington County should revise its current "Noise Overlay Zone." (NCP, pages 38-42, and 79-80; Figure 8-2)

FAA Action: Approved. This approval is limited to potential noncompatible land uses within the 2007 and 2022 DNL 65 dB and higher noise contours depicted on the accepted NEMs. The Federal government has no authority to control land use. The local governments have the authority to implement this proposed land use measure. Note that while FAA once used the NEF noise metric, FAA has adopted the DNL metric. Therefore, the NEF metric is a local standard. Outside the DNL 65 dB contour, FAA as a matter of policy encourages local efforts to prevent new noncompatible development immediately abutting the DNL 65 dB contour and to provide a buffer for possible growth in noise contours beyond the forecast period.

LU-4. Compatible Use Zoning

All jurisdictions should monitor zoning within the 65 DNL contour and in areas off the ends of runways for roughly one mile which are subject to significant arrival and departure overflight activity and prevent any rezoning that allows development of incompatible uses, mainly residential uses, schools, churches, hospitals, nursing homes, auditoriums, and concert halls. A further recommendation included the Airport entering into discussions with the Town of South Congaree to request that they consider expanding the existing commercial node at the intersection of Edmund Highway and Pine Street towards the north along Pine Street and Edmund Highway. These proposed measures would require Airport staff to monitor zoning in nearby areas and to continue to work with officials from all six jurisdictions previously identified in this Study. (NCP, pages 42-44, and 80-82; Figures 2-6 and 9-1; Table 8.2)

FAA Action: Approved. The Federal government has no authority to control land use. The local governments have the authority to implement this measure. This Part 150 program is limited to potential noncompatible land uses within the DNL 65 dB and higher noise contours. Outside the DNL 65 dB contour, FAA as a matter of policy encourages local efforts to prevent new noncompatible development immediately abutting the DNL 65 dB contour and to provide a buffer for possible growth in noise contours beyond the forecast period.

LU-5. Zoning Changes, Residential Density

It is recommended that residential densities be addressed by adjusting individual residential densities in current zoning ordinances if the noise overlay zoning is not enacted. Where vacant land is partially within the DNL 65 dB, and the parcel extends beyond that contour, it is recommended that compatible uses be developed within the DNL 65 dB, and that residential, or public use, or other uses incompatible with higher noise levels be built in the lesser noise contour (Planned Unit Development). This could be extended to areas located beneath and within one-half mile either side of the extended runway centerline out to a distance of one to one and one-half miles from the end of a runway. In combination with the noise overlay zoning recommendation, areas within the NEF-30/DNL 55 dB to DNL 65 dB, it is recommended lower density noise-sensitive development occur within the areas impacted by the 2007 noise contour (from 10 units per acre to 4 units per acre). Consideration should be given to the potential use of cluster development techniques where appropriate in these same areas and where community support exists. If noise overlay zoning is not implemented, this should be incorporated into existing zoning near the airport for areas inside the 2007 55 DNL contour. (NCP, pages 44-46, and 82.)

FAA Action: Approved. This approval is limited to potential noncompatible land uses within the 2007 and 2022 DNL 65 dB and higher noise contours depicted on the accepted NEMs. The Federal government has no authority to control land use. The local governments have the authority to implement this proposed land use measure. This Part 150 program is limited to potential noncompatible land uses within the DNL 65 dB and higher noise contours. Note that while FAA once used the NEF noise metric, FAA has adopted the DNL metric. Therefore, the NEF metric is a local standard. Outside the DNL 65 dB contour, FAA as a matter of policy encourages local efforts to prevent new noncompatible development immediately abutting the DNL 65 dB contour and to provide a buffer for possible growth in noise contours beyond the forecast period.

LU-6. Environmental Zoning

It is recommended that the Airport support local jurisdictions in the continued use of environmental controls to limit development in nearby environmentally sensitive areas; this primarily includes the floodplain and wetland areas in Lexington County, and South Congaree and Pine Ridge. (NCP, pages 47-48, and 83)

FAA Action: Disapproved for purposes of FAR Part 150. The NCP describes this as an environmental protection measure, not a noise mitigation measure. Part 150 is strictly

a noise compatibility program, not a broader environmental program. Existing controls appear to prohibit development in these areas for other reasons.

LU-7. Subdivision Regulation Changes

As a measure to ensure future land development compatibility, subdivision regulations should require a statement be recorded on the subdivision plat that identifies the potential for aircraft operational activity and possible noise impacts for plats that fall within the 55 DNL or higher on the 2007 NEM or NEF 30 if noise overlay zoning is implemented. It is recommended that the Airport encourage and work through local jurisdictions to consider noise impacts when parcels are being proposed for subdivision. (NCP, pages 48-49, and 83-84)

FAA Action: Approved. This approval is limited to potential noncompatible land uses within the 2007 and 2022 DNL 65 dB and higher noise contours depicted on the accepted NEMs. The Federal government has no authority to control land use. The local governments have the authority to implement this proposed land use measure. This Part 150 program is limited to potential noncompatible land uses within the DNL 65 dB and higher noise contours. Note that while FAA once used the NEF noise metric, FAA has adopted the DNL metric. Therefore, the NEF metric is a local standard. Outside the DNL 65 dB contour, FAA as a matter of policy encourages local efforts to prevent new noncompatible development immediately abutting the DNL 65 dB contour and to provide a buffer for possible growth in noise contours beyond the forecast period.

LU-8. Dedicated Noise and Avigation Easements

Noise and avigation easements are recommended as a condition of approval for rezonings, subdivision plats and issuance of building permits on existing zoned and platted property for incompatible residential properties and other noise sensitive uses inside the 2007 65 DNL or within the proposed Airport Noise Overlay Zoning areas. An executed easement is also recommended for any approved zoning variance request that creates a noise incompatibility. (NCP, pages 49-50, and 84)

FAA Action: Approved. This approval is limited to potential noncompatible land uses within the 2007 and 2022 DNL 65 dB and higher noise contours depicted on the accepted NEMs. FAA's policy is that new noise sensitive land uses should be prevented from developing around airports. In cases where prevention is not feasible because the airport sponsor does not control land uses, they should be rendered compatible with noise exposure levels through measures such as avigation easements during construction. Additionally, the FAA published a policy [See 63 F.R. 16409-16414, dated April 3, 1998] stating it will fund only preventive mitigation after October 1, 1998. No remedial mitigation would be available for new noise-sensitive structures built after October 1, 1998.

LU-9. Fair Disclosure Regulations

It is recommended that the Airport undertake an informal disclosure program including mailing a realtor notification brochure, publishing results of this Study in local media, and placing copies of this Study at each jurisdiction's administrative office. This program should include information related to the South Carolina Residential Property Condition Disclosure Act. (NCP, pages 51-52, and 84-86; and, Figure 9-2)

FAA Action: Approved.

LU-10. Fee Simple Acquisition Program

This Study identified two parcels: Parcel A and B (south of Runway 5) as candidates for voluntary acquisition. Parcel A (4.9 acres) has one residential structure. Parcel B is 55 acres and has no noncompatible land uses. (NCP, pages 52-56, and 87; and, Figure 8-3)

FAA Action: Disapproved for purposes of FAR Part 150, pending submission of additional information to make an informed analysis. There is insufficient evidence these parcels are likely to be developed incompatibly. Other measures in the NCP are intended to reduce the likelihood of incompatible development on vacant parcels. It is noted Parcel A is not located within the current conditions DNL 65 contour, and Parcel B is partially impacted by the DNL 65 dB noise contour but its current use is compatible with the airport. The need for this property as part of a future runway extension project may be evaluated outside of the FAR Part 150 process.

LU-11. Voluntary Soundproofing Program

Soundproof residences and public use buildings on a voluntary basis (where it is cost effective and technically feasible) and it is recommended that in exchange for the property owner executing a noise and aviation easement. Soundproofing program would be based on 2002 NEM until activity meets 2007 NEM forecasts (map dates represent years 2006 and 2011 respectively per sponsor letter dated 03/21/06). The incompatible areas (including 18 private residences and a commercial day care center) within the 2002 NEM 65 DNL contour should be considered for participation in a federally funded, voluntary soundproofing program. It is recommended that in exchange for soundproofing that the property owner execute a noise and aviation easement. This easement could also be signed in lieu of having improvements made to the home or building on the property. Executing an aviation easement would not be a mandatory requirement of the soundproofing program. A homeowner eligible for the program (within the DNL noise contour) would be permitted to sell a noise and aviation easement to the Airport Sponsor instead of participating in sound attenuation, should they choose not to participate or if their residence does not qualify for participation in the program. (NCP, pages 58-63, and 88-89; and, Figures 8-4, and 8-5)

FAA Action: Approved. The voluntary sound insulation within the DNL 65 dB noise contour is approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding. This includes a determination of which NEM applies at the time of grant application, and evidence the day care manager holds good title to the building proposed for sound attenuation. Provisions will be included in the scope of work to allow eligible homeowners to sell an easement to the airport sponsor should they not choose sound insulation program or if their residence does not qualify. The FAA's policy is that no structures built after October 1, 1998, are eligible for Federal funding for remedial mitigation (see FAA policy at 63 FR 16409).

LU-12. Noise and Avigation Easement Purchase

It is recommended that the Airport undertake the acquisition of avigation easements in the 2007 noise impact area as a secondary measure to provide those property owners who may not qualify or opt to not participate in the soundproofing program with an option as well as providing the airport with the protection afforded by the easement with non-suit covenant. (NCP, pages 63-64, and 89)

FAA Action: Approved. This approval is limited to potential noncompatible land uses within the DNL 65 dB and higher noise contours. **Disapproved for purposes of Part 150 with respect to Airport Improvement Program (AIP) Funding outside the DNL 65 dB noise contour.** Section 189 of Public Law 108-176, Vision 100-Century of Aviation Reauthorization Act, December 12, 2003, specifically prohibits FAA approval of Part 150 program measures that require AIP funding to mitigate aircraft noise outside DNL 65 dB (through Fiscal Year 2007). Section 189 does not preclude the use of airport revenue outside DNL 65 dB. Mitigation within the 2007 NEM 65 dB noise contour area is subject to a showing the NEMs are applicable at the time of grant application. Provisions will be included in the scope of work to allow any homeowner eligible for the program to sell a noise and avigation easement to the Airport Sponsor should they choose not to participate in the sound insulation program or their residence does not qualify for participation in the program. Also, the FAA's policy is that no structures built after October 1, 1998, are eligible for Federal funding for remedial mitigation (see FAA policy at 63 FR 16409).

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