

**FEDERAL AVIATION ADMINISTRATION
RECORD OF APPROVAL
FAR PART 150 NOISE COMPATIBILITY PROGRAM
SPIRIT OF ST. LOUIS AIRPORT
CHESTERFIELD, MISSOURI
NOISE COMPATIBILITY PROGRAM**

INTRODUCTION

The Spirit of St. Louis Airport (Airport), Chesterfield, Missouri, Noise Compatibility Program (NCP) recommends a total of thirteen elements to improve the compatibility between aircraft operations and noise sensitive land uses in the area, including seven elements to abate aircraft noise, two elements for land use management, and four elements for program management and administration. The recommended program measures are summarized on Pages H.5 through H.32 of the NCP.

This study is an update to the approved 1989 FAR Part 150 Study, which resulted in a Record of Approval that approved 17 out of 18 measures submitted. All approved measures contained in the 1989 Record of Approval are to remain in effect, except as amended. The 1989 Record of Approval is in Appendix Nine.

The approvals listed herein include approvals of actions that the Saint Louis County 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. These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation may be subject to applicable environmental or other procedures or requirements. Approval does not constitute a commitment by the FAA to financially assist in implementing the program, nor is it a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA. Eligibility for federal funding of measures that are determined in this Record of Approval to meet the approval criteria of 150.33 will be determined at the time the FAA receives an application for funding, using the criteria in the most current version of FAA Order 5100.38, Airport Improvement Program Handbook.

The following program elements summarize as closely as possible the Airport operator's recommendations in the noise compatibility program and are cross-referenced to the program. The statements contained within the summarized program measures and before the indicated FAA approval, disapproval, or other determination do not represent the opinions or decisions of the FAA.

NOISE ABATEMENT ELEMENT

1. **Extend Arrival Path in East Flow. (Page G.22, Figure G16 on Page G.23 and Pages H.6 and H.7)**

Description: This measure recommends that the Airport work with the FAA Air Traffic Control Tower to develop a voluntary extended approach path procedure. This recommendation focuses on extending the aircraft arrival tracks to the Airport during east flow conditions to a point approximately 4 miles west of the Airport. This would put the aircraft higher (approximately 2,200 feet). This is the existing voluntary procedure, which is flown by most based aircraft. Currently, transient aircraft arriving from the south/southwest/southeast make early turns closer to the Airport resulting in a short final approach to the Airport.

FAA Action: Approved as a voluntary measure only. These procedures appear to apply to all aircraft at all times and are general “good-neighbor” guidance to pilots of these aircraft types. Approval of specific language for inclusion or amendment to FAA tower procedures is subject to separate FAA approval.

2. **Extend Arrival Path in West Flow. (Page G.22, Figure G17 on Page G.24 and Page H.8)**

Description: This measure recommends that the Airport work with the FAA Air Traffic Control Tower to develop a voluntary extended approach path procedure. This recommendation focuses on extending the aircraft arrival tracks to the Airport during west flow conditions to a point approximately 4 miles east of the Airport. This would put the aircraft higher (approximately 2,200 feet). This is the existing voluntary procedure, which is flown by most based aircraft. Currently, transient aircraft arriving from the south/southwest/southeast make early turns west of the Mall resulting in a short final approach to the Airport.

FAA Action: Approved as a voluntary measure only. These procedures appear to apply to all aircraft at all times and are general “good-neighbor” guidance to pilots of these aircraft types. Approval of specific language for inclusion or amendment to FAA tower procedures is subject to separate FAA approval.

3. **Extend Departure Path in East Flow. (Page G.25, Figure G18 on Page G.26 and Pages H.9 and H.10)**

Description: This measure recommends that the Airport work with the FAA Air Traffic Control Tower to develop a voluntary extended departure path procedure. This recommendation has aircraft depart on runway heading until reaching 2,100 feet or 4 miles from the Airport before any southern turn. This is an existing voluntary procedure flown by most based aircraft but some transient aircraft departing southward occasionally make early turns closer to the Airport resulting in lower over-flights of the communities.

FAA Action: Approved as a voluntary measure only. These procedures appear to apply to all aircraft at all times and are general “good-neighbor” guidance to pilots of these aircraft types. Approval of specific language for inclusion or amendment to FAA tower procedures is subject to separate FAA approval.

4. Extend Departure Path in West Flow. (Page G.25, Figure G19 on Page G.27 and Pages H.11 and H.12)

Description: This measure recommends that the Airport work with the FAA Air Traffic Control Tower to develop voluntary extended departure path procedure. This recommendation has aircraft depart on runway heading until reaching 2,100 feet or 4 miles from the Airport before any southern turn. This is an existing voluntary procedure flown by most based aircraft but some transient aircraft departing southward occasionally make early turns closer to the Airport resulting in lower over-flights of the communities.

FAA Action: Approved as a voluntary measure only. These procedures appear to apply to all aircraft at all times and are general “good-neighbor” guidance to pilots of these aircraft types. Approval of specific language for inclusion or amendment to FAA tower procedures is subject to separate FAA approval.

5. Implement North Turn Procedures. (Pages G.30, Figure G22 on Page G.31, Figure G23 on page G.32, Figure G24 on Page G.33, Figure G25 on Page G.34, Pages H.13 through H.15, and Figure H3 on Page H.14)

Description: This measure recommends allowing departing aircraft to turn to the north versus making the extended right turn when departing to the east, when conditions allow. Currently, when operations at the Airport dictate an east flow, those aircraft departing for northern destinations are required to turn to a 150-degree heading, then continue to make an extended right turn to a 270-degree heading. This procedure is used due to the close proximity of Lambert International Airport’s airspace to Spirit. If aircraft depart in a northern direction on a standard departure, it would penetrate Lambert’s airspace. This action was developed with cooperation from the local Terminal Radar Approach Control (TRACON).

FAA Action: Approved as a voluntary measure only. An environmental analysis is required to determine any environmental impacts. The early turn procedure could only be used when airspace concerns and other conditions allow it to be used. Approval of specific language for inclusion or amendment to FAA tower procedures is subject to separate FAA approval.

6. Extend North Runway to the West for a Total of 6,600 Feet in Length and Adopt Voluntary Nighttime Preferential Use Program for North Runway. (Pages G.12, G.30, and G.35, Figure G14 on Page G.18, Figure G15 on Page G.19, and Pages H.16 and H.17)

Description: This measure recommends extending the north runway to the west to a total length of 6,600 feet and implements a nighttime preferential use program for the runway. Airport management commissioned a feasibility study to evaluate extending the north runway so that more based and transient aircraft could utilize the runway. The study issued a report, *North Airfield Runway Requirements, Runway 8L-26R*, in July 2002. Even though the physical length of the runway would be 6,600 feet, the take-off length available for Runway 26R would be 5,900 feet and for Runway 8L it would be 5,800 feet. This is due to existing constraints and the use of declared distances in determining usable runway length. The north runway is the preferential use runway for jets at night. If the north runway was extended, more jets could operate on the runway.

FAA Action: Disapproved for the Purposes of Part 150. This measure is disapproved due to a lack of demonstrated noise benefit to noncompatible land uses exposed to noise levels of DNL 65 dBA. The future noise exposure map (2009) does not show any noncompatible land use areas within the DNL 65 dBA noise contour that would receive a benefit from this measure. FAA recognizes that the existing preferential nighttime runway use is being used on a voluntary basis; and as such, a disapproval due to lack of noise benefit information would not prohibit a continuation of this practice.

7. Conduct Site Selection Study and Construct Ground Run-Up Enclosure (GRE). (Pages G.3 and G.12, Figure G9 on Page G.13, Figure G10 on Page G.14, Figure G11 on Page G.15, Figure G12 on Page G.16, Figure G13 on Page G.17, and Pages H.18 and H.19, Appendix 8)

Description: This measure recommends that the Airport conduct a site selection study for a ground run-up enclosure and construct such a facility if a feasible location is identified. Jet aircraft presently perform run-ups on the designated apron (Echo) and taxiway (Delta), restricted between 10 pm and 7 am. Sound Exposure Level (SEL) contours were developed for this action and showed that significant noise reduction could be achieved through the use of such a facility. The noise associated with the GRE is approximately 10dBA for most business jets, which occurs over residential development.

FAA Action: Approved. This measure has demonstrated noise benefits through the use of supplemental metrics.

LAND USE MANGEMENT ELEMENT

1. Sound Attenuate Eligible Existing Homes Within the 65 DNL. (Pages H.20 and H.21) (Note: This element is referred to as Recommendation 2 on Page H.5)

Description: This measure recommends that the Airport voluntarily purchase or sound attenuate those single family homes within the 65 DNL noise contour. The sound attenuation would reduce inside noise levels that would result in the houses being

considered as a compatible land use. As a consideration for such sound attenuation, the Airport would receive a noise easement from the homeowner.

FAA Action: Approved. Approximately two homes would be eligible.

2. Recommend Jurisdictions Implement Land Use Controls. (Page G.22, Pages H.22 and H.24, Figure H4 on Page H.23) (Note: This element is referred to as Recommendation 3 on Page H.5)

Description: This measure recommends that the Airport recommend and coordinate with local jurisdictions to amend existing land use controls to: adopt an Airport Influence Zone defined by the horizontal surface of Part 77; require notice to potential purchasers of residential property within Airport Influence Zone; require granting of aviation easements for all development within Airport Influence Zone; prohibit new noise sensitive uses within the 60 DNL unless sound attenuated with aviation easements; sound attenuate sleeping areas of fire stations within Airport Influence Area; and prohibit new residential structures, schools, places of public assembly and any compatible use which may produce smoke, glare, or electrical transmissions that would interfere with aircraft operations along the extended centerline of the runways for a distance of 10,000 feet and 250 feet each side of the extended runway centerline.

FAA Action: Approved, except height restrictions, which are addressed at 14 CFR Part 77. FAA's decision not to include the height restriction portion of this element in this Part 150 approval does not indicate FAA's disapproval of the measure for Part 77 purposes or reflect on the effectiveness of the height restriction for purposes of aviation safety. The federal government has no authority to control land use. The local government has the authority to implement this measure.

PROGRAM MANGEMENT AND ADMINISTRATIVE ELEMENTS

1. Development/Implementation of Fly Quiet Program. (Pages G.20 and G.21 and Pages H.25 and H26)

Description: This measure recommends that the Airport's voluntary Fly Quiet Program be continued and modified to:

- Monitor adherence to ideal noise abatement flight tracks,
- Evaluate success of operators in following recommended procedures,
- Monitor late night departure procedures,
- Quantify runway use, and
- Establish goals

As part of the Fly Quiet Program, a Fly Quiet Brochure will be developed to explain the voluntary noise abatement procedures.

FAA Action: Approved as a voluntary measure only.

2. Operations Review and Part 150 Updates. (Pages H.27 and H.28)

Description: This measure recommends that Airport management undertake a yearly review of the aircraft types and numbers along with the actual number of operations occurring at the Airport and determine if they are consistent with the projections in the FAR Part 150 document. FAR Part 150 defines the level of change necessary to trigger a revision to the Noise Exposure Map to be when a change in operations results in an increase in the yearly day-night average sound level of 1.5 DNL or greater in either an area which was formerly compatible but is hereby made non-compatible or a land area that was previously determined to be non-compatible and whose non-compatibility is not significantly increased.

FAA Action: Approved. This measure is associated with, and will monitor success of, other measures contained in the NCP and approved in this record of approval.

3. Establish Follow-Up Noise Issues Committee. (Page G.21 and Pages H.29 and H.30) (Note: This element is referred to as PMAE Recommendation 12 on Page H.29)

Description: This measure recommends that the Study Advisory Committee, or a portion thereof, should remain in place subsequent to the completion of the FAR Part 150 Study and meet on a quarterly basis to discuss noise abatement issues at the Airport. In addition, the Committee can help develop and modify the Fly Quiet Program as needed.

FAA Action: Approved. This measure is associated with, and will monitor success of, other measures contained in the NCP and approved in this record of approval.

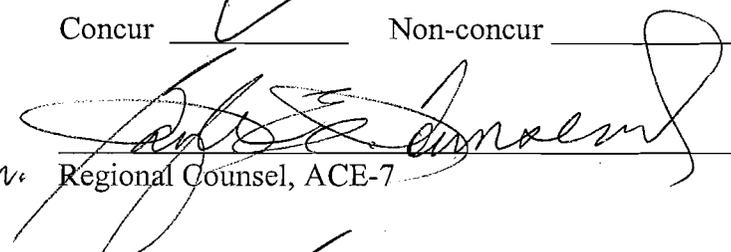
4. Install Flight Tracking and Noise Monitoring System. (Pages H.31 and H.32)

Description: This measure recommends that the Airport purchase and install a flight track/noise monitoring system. This system would monitor aircraft noise levels, monitor flight track conditions and track noise complaints.

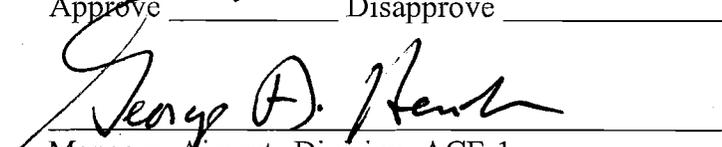
FAA Action: Approved. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any preset noise thresholds and shall not be used for mandatory enforcement of any voluntary measure.

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Concur Non-concur

for  Date 4-6-07
Regional Counsel, ACE-7

Approve Disapprove

 Date 4/6/07
Manager, Airports Division, ACE-1