INTRODUCTION

The Riverside Municipal Airport (RAL) Noise Compatibility Program (NCP) describes the current and future noncompatible land uses based upon the parameters as established in FAR Part 150, Airport Noise Compatibility Planning. The program recommends seven (7) noise abatement measures, three (3) land use management measures, and four (4) program management measures. These measures are summarized in Table 6C, pages 6-17 and 6-18 of the NCP.

The approvals listed herein include 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 FAR Part 150. The approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

The measures are identified below by program elements 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 Description of element and before the FAA approval, disapproval, or other determination, do not represent the opinions or decisions of the FAA.

NOISE COMPATIBILITY PROGRAM MEASURES

1 - NOISE ABATEMENT ELEMENTS:

1.1 Continue designation of Runway 09-27 as the preferential runway. (Page 4-4 and page 6-2)

Description of element: Runway 09-27 is currently designated the calm wind runway and the airport operates in a west flow configuration approximately 85 to 90 percent of the time. Since Runway 09-27 is the longest of the two runways it is the primary runway and receives the majority of the aircraft operations. Wind coverage for Runway 09-27 is 97% versus 86% for Runway 16-34. Based on the housing patterns around the airport, the most open and least populated area lies immediately north of the airport. While Runway 16-34 is aligned with this compatible area, its short length of 2,850 feet and its narrow width of 50 feet precludes it from being used by the majority of traffic at Riverside. Additionally, the constraints imposed by the location of Central Avenue and Arlington Avenue make it cost-prohibitive to extend Runway 16-34. A review of the residential development patterns off of the ends of Runway 9-27 shows that the residential development on the west side is further from the airport than the development to the east. This confirms that the current preferential flow to the west puts most of the noise over the open areas along Van Buren Boulevard rather than over the residential areas immediately east of the airport.
**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

1.2 Continue IFR departure turns over the Santa Ana River for Runway 27 IFR departures. (Page 4-5 and 6-2)

**Description of element:** This procedure is currently utilized at Riverside and applies to all instrument flight rule (IFR) departures from Runway 27. The majority of jet and heavy turboprop aircraft at Riverside depart under IFR. This procedure ensures that the noisiest departures are routed away from the residential areas west of the airport and over the undeveloped area along the Santa Ana river. An advisory sign currently exists at the departure end of Runway 27 advising pilots to utilize this turn out procedure.

**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

1.3 Continue the use of helicopter training pattern procedures north of the airport. (Page 4-28, Exhibit 4H, and 6-3)

**Description of element:** This procedure establishes a training area immediately north of the airport over the commercial areas between Central Avenue and Jurupa Avenue. The training pattern is kept west of the residential areas immediately east of Fremont Street. This provides a large training area for helicopters without overflights of residential areas. This area is currently being used by the City of Riverside Police Department for their helicopter training.

**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

1.4 Encourage the use of AOPA Noise Awareness Steps and NBAA noise abatement departure and arrival procedures. (Page 4-11 and 6-3)

**Description of element:** The Aircraft Owners and Pilots Association (AOPA) and the National Business Aircraft Association (NBAA) both encourage quiet and neighborly flying by distributing generalized noise abatement procedures. While the NBAA provides specific thrust management procedures for turbojet aircraft, the AOPA provides a number of general recommendations for propeller aircraft. The procedures should be identified in a pilot guide that is distributed by airport management and the FBOs. Signs should be posted at each runway end requesting pilots to use noise abatement procedures.

**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval. Signs must not be construed as mandatory air traffic procedures. The content and location of airfield signs are subject to specific approval by appropriate FAA officials outside of the Part 150 process and are not approved in advance by this determination.

1.5 Encourage the use of the Sears store as a visual fix for Runway 27 VFR approaches. (Page 4-7 and 6-5)

**Description of element:** Neighbors have complained about very short approaches to Runway 27 as aircraft are turning final west of Hillside Avenue. This pattern leaves less than 2,000 feet for a
stable final approach and creates unnecessary single event noise occurrences. The identification of a visual reference point such as the Sears store on Arlington Avenue could be used to ensure longer straight-in approaches. The airport management should publish this procedure in a pilot guide.

**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

**1.6** Require that propeller aircraft conducting pre-flight run-ups on Taxiway C, at the end of Runway 27, be oriented to a 315 degree heading whenever possible. (Page 4-19, Exhibit 4-C, 4-27, Exhibit 4G, and 6-5)

**Description of element:** Aircraft orientation is a significant factor contributing to the noise pattern generated by aircraft run-up operations. Since pre-flight run-up noise is a significant concern to those residents close to the end of Runway 27, an aircraft orientation that minimizes the run-up noise impacts should be established. Analysis indicates that orienting the nose of the aircraft to approximately a 315 degree heading for the pre-flight run-up would minimize the noise exposure over the largest portion of residential development in the area. The airport management should establish this as part of the airport rules and regulations. The procedure should be identified in a pilot guide that is distributed via the airport management and the local FBOs.

**APPROVED** as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

**1.7** Construct noise barrier southeast of the Runway 27 threshold. (Page 4-9, Exhibit 4B, 4-24, Exhibit 4F, and 6-6)

**Description of element:** A noise barrier constructed along the airport property line, southeast of the Runway 27 threshold, would reduce noise impacts in the nearby residential area by as much as 9.5 dB and remove 28 homes from the 65 CNEL contour. This barrier would be a concrete block wall 10 feet tall and about 1,100 feet long.

**APPROVED.** This approval is subject to a confirmation of the noise benefit of a barrier for the targeted residential area at the time of implementation, as described in the NCP.

**2 - LAND MANAGEMENT ELEMENTS:**

**2.1** Amend General Plan to establish airport noise compatibility standards. (Page 5-6 and 6-10)

**Description of element:** The City of Riverside should amend their General Plan to include the following noise compatibility standards:

a. Establish the 2004 baseline noise contour as the worst case noise impact area.

b. Maintain the existing compatible General Plan land use designations within the 60 CNEL.

c. Where noise-sensitive development is permitted within 60 CNEL, require easements and disclosure covenants.
d. Where noise-sensitive development is permitted within 60 CNEL, require sound insulation.

e. Where noise-sensitive development is permitted within the 60 CNEL, encourage building design and site planning for noise attenuation.

**APPROVED:** Amendments to the General Plan are within the authority of the City of Riverside. These amendments would reduce intrusion of incompatible land use around the airport. The FAA believes that the prevention of additional residential land uses within the CNEL 65dB contour is highly preferred over allowing such uses even at lower densities and combined with sound attenuation. The airport operator and local land use jurisdiction are urged to pursue all possible avenues to discourage new residential development within these levels of noise exposure.

**2.2 Designate land on the east side of Hillside Avenue (on runway centerline) for open space on the General Plan. (Page 5-6, 5-9, Exhibit 6D, and 6-11)**

**Description of element:** A 4.5 acre tract of undeveloped land lies less than 2,000 feet east of the end of Runway 09-27. The southern portion of the property is in the 60 CNEL noise contour. In addition, the majority of this property is covered by the Riverside County Airport Land Use Commission's designated Extended Touchdown Zone and Inner Safety Zone. Given the noise and potential safety concerns at the property, it is inadvisable to develop it for residential use as currently zoned. The property should be redesignated on the General Plan as open space. The City should acquire the land and reserve it for approach protection or a neighborhood park, with the southern part kept clear of any obstructions.

**APPROVED:** This amendment to the General Plan is within the authority of the City of Riverside. The amendment would reduce intrusion of incompatible land use around the airport.

**2.3 Promote informal means of providing fair disclosure of potential noise impacts in airport area. (Page 5-20 and 6-12)**

**Description of element:** Part of Land Use Measure 2.1, the need for fair disclosure of potential noise impacts to buyers of property in the airport applies to new development. More could be done to ensure that buyers of previously developed property are aware of potential noise issues before they commit to buying property, such as voluntary informal fair disclosure.

**APPROVED:** This measure is considered to be within the authority of the City of Riverside to enact a program of informal fair disclosure procedures.

**3 - PROGRAM MANAGEMENT ELEMENTS:**

**3.1 Maintain system for receiving and responding to noise complaints. (Page 6-14)**

**Description of element:** This existing noise complaint response system should be continued. The airport staff should record complaints on forms designed for that purpose. The complaint should be investigated as necessary and the person complaining should be given response. A summary report should be compiled at least annually and provided to the Airport Commission for their review. Complaint patterns will be evaluated by airport management and if possible seek corrective action.

**APPROVED**

**3.2 Publish a pilot guide. (Page 6-14)**
Description of element: A pilot guide explaining the noise abatement procedures should be published. This pilot guide should include a chart and/or aerial photo base showing the recommended final approach fix for Runway 27 visual approaches and the helicopter traffic patterns. Before printing, it should be reviewed by the Airport Commission, Airport Traffic Control Tower (ATCT) management, and local airport users, including FBOs.

APPROVED: Approval of language is subject to separate FAA Air Traffic approval and is not approved in this Record of Approval.

3.3 Review Noise Compatibility Plan implementation. (Page 6-15)

Description of element: The airport management should maintain communications with the City of Riverside Planning Department to follow their progress in implementing the land use management element. The Airport planning staff should periodically contact the ATCT and users to continue to monitor compliance with the Noise Abatement element. It may be necessary to arrange for periodic noise monitoring, modeling, or flight track analysis to study future issues.

APPROVED

3.4 Update Noise Exposure Maps and Noise Compatibility Program. (Page 6-15)

Description of element: The Airport Authority should continue to review the Noise Compatibility Program and consider revisions and refinements as necessary on an ongoing basis. This can be anticipated every five to eight years to respond to changing conditions in the local area and in the aviation industry.

APPROVED