

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
RECORD OF APPROVAL  
14 CFR PART 150  
NOISE COMPATIBILITY PROGRAM UPDATE**

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**KONA INTERNATIONAL AIRPORT AT KEAHOLE**

**KEAHOLE, NORTH KONA, HAWAII**

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Regional Counsel, AWP-7

4/19/2011  
Date

✓  
CONCUR

                      
NONCONCUR

*[Signature]*  
Manager, Airports Division, AWP-600

4/20/11  
Date

✓  
APPROVED

                      
DISAPPROVED

**Record of Approval  
Kona International Airport at Keahole  
Noise Compatibility Program Update**

**INTRODUCTION**

The Kona International Airport at Keahole (KOA) Noise Compatibility Program (NCP) Update describes the current and future noncompatible land uses based on the parameters as established in Title 14, Code of Federal Regulations (CFR), Part 150, *Airport Noise Compatibility Planning*. The noise compatibility program includes one recommended noise abatement element, eight land use management elements, and three program management elements. The measures are summarized on Pages 7-14 and 7-15; Table 7D of the NCP.

The approvals listed herein include approval 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 Title 14, CFR, Part 150. The approvals do not constitute decisions to implement the proposed actions or a commitment by the FAA to provide federal financial assistance for these actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

The NCP Update makes recommendations for land use measures to improve existing noise-sensitive land use impacts and prevent future impacts. These recommendations include preventing new noise-sensitive development near the airport at the Part 150, 65 dB Day/Night Average Sound Level (DNL) noise contour threshold, as well as including the 60 and 55 DNL noise contours for State of Hawaii purposes. The State of Hawaii uses the 55 and 60 DNL noise contours as a planning level for noise sensitive land uses. Table 7A shows the State of Hawaii land compatibility uses and that residential land uses are not compatible at the 60 DNL contour and above. As discussed in the NCP Update there are no current or future non-compatible land uses within the 65 DNL noise contours.

As discussed in Chapters Five and Six, and detailed in Appendix C of the NCP Update, the current NCP (referred to as the 1999 NCP) recommended one noise abatement, one noise mitigation, and three program management measures to improve airport noise compatibility within the airport vicinity. The NCP Update evaluated the effectiveness of the 1999 plan's measures to determine their effectiveness under the present conditions. Based on this evaluation, the following measures were removed from the KOA NCP Update:

**Noise Abatement Measure: Nighttime Preferential Use of Runway 35 and use of Golf intersection for nighttime Runway 17 departures** - The preferential Runway 35 nighttime runway use program was not approved by the FAA and was not implemented by the Hawaii State Department of Transportation, Airports Division (DOT-A). As indicated in Chapter Five, the nighttime preferential runway use program and intersection departure procedure recommended in the 1999 NCP are not necessary at this time because there are no noise-sensitive land uses currently located south of the airport within the noise exposure contours that would benefit from this runway use program.

**Noise Mitigation Measure: Sound attenuation treatment of impacted residences or noise sensitive development** - The 1999 NCP recommended that HDOT-A initiate an application to the FAA for grant monies which would be used to provide sound attenuation treatment for noise sensitive structures if future airport improvements are predicted to result in new incompatible land uses within the 60 DNL contour. The FAA disapproved this measure pending the submittal of additional information to make an informed analysis.

Presently the West Hawaii Exploration Academy (WHEA) is located within the current and five-year 65 DNL noise exposure contours located makai (towards the ocean) of the airport. The FAA determined that WHEA was not eligible for funding from the noise set-aside portion of the Airport Improvement Program (AIP) and airport revenue for sound insulation or relocation of facilities and trailers may not be used due to the structure of sub-leases they currently have with the State of Hawaii. This school also has plans to relocate outside the 65 DNL noise exposure contour. As there are currently no eligible noise-sensitive land uses within the noise exposure contour, this measure will not be pursued.

**Program Management Measure: Publication and implementation of an informal preferential runway use program-** The preferential Runway 35 nighttime runway use program was not approved by FAA and was not implemented by the DOT-A. The preferential runway use program is not being carried forward in this update due to the lack of benefit this program would provide. Therefore, a program management measure to implement a preferential runway use program is not necessary. The 1999 NCP also recommended an annual noise monitoring program. This measure has been replaced with a new measure to install a permanent noise monitoring system.

The recommendations below summarize, as closely as possible, the KOA recommendations in the NCP Update and are cross-referenced to the program. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval or other determination, do not represent the opinions or decisions of the FAA.

## **NOISE ABATEMENT ELEMENT**

### **1. Pilot education program.**

**Description:** The pilot education program includes informing the aviation community about noise-related issues and to encourage the use of good neighbor policies such as Aircraft Owners and Pilots Association (AOPA) noise awareness steps. (NCP Study, Chapter 7, Page 7-3)

**FAA Action:** Approved. The pilot education program would provide noise-related information to both aircraft operators and the community.

## **LAND USE MANAGEMENT ELEMENTS**

### **1. Maintain established communication process between DOT-A, Hawaii County, and Hawaii State Land Use Commission.**

**Description:** This is an existing measure from the 1999 NCP, (2<sup>nd</sup> element under Program Management Elements), which will be retained in the new NCP. This measure retains the process for coordination between the DOT-A, Hawaii County, and the State Land Use Commission regarding development, land reclassifications, and rezoning proposals near the airport to make DOT-A staff aware of these projects. DOT-A staff currently provide comments on planning actions within the airport vicinity. Continued coordination would ensure that airport staff and planning staff have the opportunity to comment on projects and their potential impact on compatible land use development. (NCP Study, Page 7-4)

**FAA Action:** Approved. The Federal government has no authority regarding local land use planning efforts; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of DOT-A, Hawaii County and the State Lands Use Commission.

## **2. Amend Environmental Quality Section of Hawaii County General Plan.**

**Description:** This NCP measure recommends that DOT-A encourage Hawaii County to revise the Environmental Quality section of the *Hawaii County General Plan* to include additional policies related to airport land use compatibility. Specifically, land use compatibility thresholds, based on the DOT-A compatibility guidelines shown in Table 7A should be incorporated into the document. This table, along with a reference to the Part 150 study and any future updates, would provide further guidance for establishing airport land use policy regulations for the county. (NCP Study, Pages 7-4 and 7-5)

**FAA Action:** Approved. The Federal government has no authority to control local land use planning; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

## **3. Establish an Airport Influence Area for Kona International Airport.**

**Description:** This measure recommends that an Airport Influence Area (AIA) be used to define the area within which land use compatibility policies would apply. Establishing an AIA based on the airport's noise exposure, operating characteristics and future runway facilities would be useful for encouraging compatible land use near KOA. Recognizing that the purpose of defining an AIA is to promote compatible land use development and acknowledging that land development is a high consequence event which is costly and difficult to reverse, the AIA should be based on a "worst-case" scenario.

A critical consideration in determining the boundaries of an AIA is the location of generalized flight tracks in the vicinity of the airport. The location of flight tracks, based on radar flight track data for KOA, is depicted on Exhibit 7A. As indicated on the exhibit, approaching and departing aircraft routinely fly over areas adjacent to the airport. The AIA, shown on Exhibit 7A, encompasses areas affected by overflight activity and much of the area affected by the 2013 noise exposure contours. As shown in the exhibit, the 2013 60 DNL noise contour extends beyond the AIA to the north and south, while the AIA is wider to the east and west.

Establishing an AIA for KOA would allow Hawaii County to determine the geographic extent of airport land use compatibility policies and provide a defined boundary that is easily understood by the public. The AIA will be used as the minimum geographic extent for the policy recommendations included in the Land Use Management portion of this plan. (NCP Study, Page 7-6)

**FAA Action:** Approved. The Federal government has no authority to control local land use planning; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

## **4. DOT-A should encourage Hawaii County to adopt an airport compatibility checklist for discretionary review of projects within the vicinity of the airport.**

**Description:** This measure recommends that a checklist for discretionary project review that relates to airport land use compatibility be adopted by Hawaii County to make recommendations and decisions regarding development near the airport. A checklist addressing the following criteria should be considered:

- a. Advise airport management of development proposals that include noise-sensitive uses within the airport vicinity.
- b. Require issuance of avigation easements and fair disclosure notices in the appropriate zones.
- c. Determine the sensitivity of the subject land use to aircraft noise based on their location within the overlay zones or noise contours.
- d. Locate noise-sensitive public facilities outside the 60 DNL noise contour and away from aircraft approach paths whenever possible.

e. Discourage the approval of rezonings, exceptions, variances, and conditional use permits which introduce noise-sensitive development within each jurisdiction's adopted noise compatibility threshold. (NCP Study, Page 7-6 and 7-7)

**FAA Action:** Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

#### **5. Maintain compatible zoning designations within the 2013, 60 DNL noise contour.**

**Description:** To prevent the encroachment of non-compatible land uses, this measure recommends that DOT-A encourage Hawaii County to discourage re-zoning parcels within the 2013, 60 DNL noise contour to designations that would allow noise-sensitive development. The State of Hawaii has adopted a recommended land use compatibility table, which indicates that noise-sensitive land uses are not compatible with airport noise and should be prohibited within the 60 DNL noise contour. (NCP Study, Page 7-5)

**FAA Action:** Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

#### **6. Require the dedication of noise and aviation easements through the subdivision approval process.**

**Description:** This measure recommends that DOT-A encourage Hawaii County to revise its existing subdivision regulations to require a noise and aviation easement as a condition of subdivision approval for those areas within the airport vicinity. These regulations would apply only to those proposed development projects located within the AIA identified on Exhibit 7A. Subdivision regulations can help reduce the risk of potential noise damage suits by requiring, as a condition of subdivision approval, the dedication of noise and aviation easements and non-suit covenants in high noise areas. Aviation easements serve notice that property is subject to aircraft noise which may, at times, infringe on a resident's enjoyment of property and may, depending on the degree of acoustic treatment of the dwelling and the individual's sensitivity to noise, affect their well-being. The easement should state clearly that noise levels might increase in the future and that flight patterns or operating times might change. A noise and aviation easement often includes a covenant waiving the property owner's right to sue the airport proprietor for disturbances caused by aircraft noise. A sample noise and aviation easement can be found in Appendix I. (NCP Study, Pages 7-7 and 7-8)

**FAA Action:** Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

#### **7. Adopt fair disclosure regulations to notify property owners of the noise generated by aircraft operations.**

**Description:** Fair disclosure regulations are intended to ensure that prospective buyers of property are informed that the property is or will be exposed to potentially disruptive aircraft noise. At the most formal level, fair disclosure can be implemented through regulations requiring the seller and agent to provide a notice of aircraft noise exposure on the real estate listing sheet and at the time that a sales contract is executed. In addition, any easements should be revealed at the time of closing. This measure recommends that DOT-A encourage Hawaii County to adopt fair disclosure regulations to notify new property owners of the noise generated by aircraft operations within the AIA as illustrated on Exhibit 7A. Fair disclosure is currently required under Hawaii Revised Statute Chapter 508D-15 for areas within the boundaries of the airport's noise exposure maps. This measure expands the area

subject to these requirements. A sample fair disclosure statement can be found in Appendix I, Implementation Materials. (NCP Study, Pages 7-8 and 7-9)

**FAA Action:** Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

### **8. Adopt an airport noise overlay zone.**

**Description:** This measure recommends that DOT-A encourage Hawaii County to adopt an Airport Noise Overlay Zone based on the State of Hawaii Land Use Compatibility Guidance presented in Table 7A and the 2013 Noise Exposure Map. Airport compatibility overlay zoning is intended to provide an additional layer of special purpose regulations to address specific environmental conditions or problems by setting performance standards to protect the public. Overlay zoning involves the creation of one or more zoning districts that supplement the regulations of the general purpose zoning districts. The zones would be based on the airport's 2013 Noise Exposure Map and the State of Hawaii's land use guidelines which indicate the type of land uses permitted within each noise contour range and also specify noise level reduction standards for building structures within the airport vicinity. (NCP Study, Page 7-9)

**FAA Action:** Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Implementation of this measure is considered to be within the authority of the DOT-A and Hawaii County.

## **PROGRAM MANAGEMENT ELEMENTS**

### **1. Monitor implementation of the Part 150 Noise Compatibility Program.**

**Description:** This measure recommends that DOT-A monitor compliance with the Noise Abatement and Land Use Elements. This measure was included as part of the 1999 NCP (3<sup>rd</sup> element under Program Management Elements) and is being retained in this NCP. (NCP Study, Pages 7-9 and 7-10)

**FAA Action:** Approved.

### **2. Update Noise Exposure Maps and Noise Compatibility Programs.**

**Description:** This measure recommends that DOT-A review the NCP and consider revisions and refinements as necessary. A complete plan update will be needed periodically to respond to changing conditions in the local area and in the aviation industry. This can be anticipated every seven to ten years. An update may be needed sooner, however, if major changes in the noise conditions or surrounding development occur. Proposed changes to the NCP should be reviewed by the FAA and all affected aircraft operators and local agencies. Proposed changes should be submitted to the FAA for approval after local consultation and a public hearing in compliance with Part 150. Even if the NCP does not need to be updated, it may become necessary to update the *Noise Exposure Maps (NEM)*. Part 150 requires the NEM to be updated if any change in the operation of the airport would create a substantial, new non-compatible use. The FAA interprets this to mean an increase in noise levels of 1.5 DNL or more, above 65 DNL, over non-compatible areas that had formerly been compatible.

**FAA Action:** Approved.

### **3. Acquire and implement noise monitoring system.**

**Description:** This measure recommends that DOT-A install a permanent noise monitoring data collection system for KOA. Residential development pressure south of the airport is increasing. The Shores at Kohanaiki development is under construction and the O'oma Beachside Village is going through the approval process. The noise monitoring system would serve the following primary purposes:

- To measure aircraft noise levels before and after residential construction occurs.
- To monitor noise levels for comparison with the noise exposure contours developed with the Integrated Noise Model (INM).
- To provide data to assist in investigating and responding to noise complaints.
- To aid in the development of quarterly noise reports. The system could also be used as an educational tool to provide demonstrations to the public of typical noise conditions at the airport.

The system should include at least six permanent noise monitors, a central computer server for storing data, and related software. The six monitors should be placed around the airport, two on airport property, and the remaining four should be placed off airport property. Suitable sites should be selected to monitor noise from approaches and departures along runway centerline and flight paths used by aircraft. (NCP Study, Page 7-11)

**FAA Action:** Approved. Note, for the purpose of aviation safety, this approval does not extend to the use of the monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds.