

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

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SAN DIEGO INTERNATIONAL AIRPORT  
SAN DIEGO, CALIFORNIA

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6/30/2011  
Date

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NONCONCUR

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6/30/11  
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APPROVED

DISAPPROVED

**Record of Approval  
San Diego International Airport  
Noise Compatibility Program Update**

## **INTRODUCTION**

The San Diego International Airport (SAN) 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 three recommended noise abatement elements, three noise mitigation elements, three land use planning elements, and ten program management elements. These measures are summarized in Table 9 and pages 29 through 30 of Section 3.2 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 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 recommendations below 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 recommendations and before the indicated FAA approval, disapproval or other determination does not represent the opinions or decisions of the FAA.

## **NOISE ABATEMENT ELEMENTS**

### **1. Develop and Implement Left Turn "Over-the-Bay" Departure Route.**

**Description:** This measure develops and implements a visual flight rules left turn "over the bay" departure path for Runway 27 with the intended use of aircraft that would normally be directed to a 250-degree heading after takeoff. These aircraft types are limited to single-or twin-engine propeller or turboprops that are now directed to fly a 250-degree heading for traffic spacing considerations. This visual departure measure brings aircraft into the close proximity of North Island Naval Air Station (NZY); it may require an increase in coordination between SAN and NZY. Areas to consider include the frequency of use of this flight procedure, possible delays in departures due to either NZY traffic or Southern California TRACON (SCT) workload, and other airspace issues. (NCP Page 31, Figures 4, 5 & 6 and NCP Table 9).

**FAA Action: Disapproved.** There is no effect or benefit on the Community Noise Equivalent Level (CNEL) 65 dB contour as there is no decrease in the overall affected residential population within this noise contour. In addition, this measure may adversely impact aircraft operational safety and efficiency.

### **2. Encourage the FAA and Airlines Operating at SAN to Use Continuous Descent Approaches for Arrivals to Runway 27.**

**Description:** This measure recommends a Continuous Descent Approach (CDA) or Optimized Profile Descent (OPD) approach procedure for Runway 27 that allows the aircraft to descend from altitude to the runway threshold with minimal changes in engine thrust or power settings. Aircraft on a CDA are generally configured with flaps and landing gear, airspeed, and approach angle not later than five miles from the runway, (NCP Page 39, Figure 7 and NCP Table 9).



**FAA Action: Disapproved for Purposes of Part 150.** The analysis in the NCP does not demonstrate the measure's noise benefits on the 65 dB CNEL contour.

### **3. Maintain Westerly Runway Heading (275-degrees) or 290-degree Heading for Runway 27 Departures Until One and One Half Miles West of the Shoreline, Weather, Airspace, and Safety Permitting.**

**Description:** This measure recommends improving adherence to existing Southern California TRACON (SCT) procedures which maintain aircraft on the Runway 27 departure heading until west of the Pacific Coast. There are two primary departure headings for aircraft departing Runway 27 at SAN: (1) the 275-degree heading and (2) the 290-degree heading. The 275-degree heading departure is detailed in two Standard Instrument Departures (SID), Border Five and Poggi Two (Area Navigation [RNAV] departure), (NCP Page 43, NCP Table 9).

**FAA Action: Disapproved.** The analysis in the NCP does not demonstrate the measure's noise benefits on the 65 dB CNEL contour.

## **NOISE MITIGATION ELEMENTS**

### **1. Sound Attenuate Additional Eligible Non-Residential Noise Sensitive Receptor Buildings.**

**Description:** This measure proposes to sound insulate non-residential noise sensitive buildings (31 total) that include educational facilities, hospitals libraries and places of worship, (NCP Pages 48-50, NCP Table 9 and Table 10).

**FAA Action: 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 element would improve land use compatibility in the vicinity of the airport. Noise level reductions (NLR) must meet guidelines included in the land use compatibility table in Part 150, Appendix A. In order to be eligible for federal funding, the project is subject to compliance with FAA Order 5100.38C, *Airport Improvement Program Handbook*. The FAA's policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998.

### **2. Sound Attenuate Eligible Residential Units.**

**Description:** This measure would continue the existing Residential Sound Attenuation Program (Quieter Home Program). Through January 1, 2009, the Quieter Home Program has completed sound insulation on 900 residential units. There are approximately 10,000 unmitigated residential units that may be eligible within the 65 dB CNEL noise contour. This is a continuation of FAA approved Noise Compatibility Program Element Measure No. 8.2 of the 1998 NCP, (NCP Pages 50-51, NCP Table 9).

**FAA Action: Approved.** Approved for homes constructed before October 1, 1998. The FAA's policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998. 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.



### **3. Sound Attenuate Additional Eligible Residential Units Based on Hill Effects Behind the Start of Takeoff.**

**Description:** This measure recommends that the existing Residential Sound Attenuation Program be expanded to include an additional 173-residential units (single and multi-family) that were not included in the approved NEMs. The Airport Authority believes that the FAA Integrated Noise Model (INM) may under-predict hill side noise impacts. As part of the initial process to develop NEMs, a supplemental measurement program and analysis were conducted on the aircraft noise effects due to the hill behind the start of takeoff and the resulting CNEL contours. The "hill effects" involved the adjustment of the lateral attenuation in the FAA INM due to the hill creating a negative elevation angle to the start of takeoff on the runway. While the FAA understood the need to adjust the lateral attenuation applied in the INM, the FAA disapproved the proposed adjustment to the NEMs. Thus, the hill effects adjustment was not included in the NEM, (NCP Pages 51-52, Figure 10, Table 9, Appendix G and Appendix H).

**FAA Action: Disapproved for Purposes of Part 150 Pending Submission of Additional Information to Make an Informed Decision.** Additional information and analysis is necessary to justify the measure's noise benefits. No new evidence has been provided to change FAA's decision regarding "hill effects" attenuation adjustments to the INM.

## **LAND USE PLANNING ELEMENTS**

### **1. Urge the City of San Diego to Prohibit New Incompatible Land Use Development.**

**Description:** This measure recommends that the Airport Authority continue to urge the City of San Diego and all other jurisdictions to prohibit new incompatible land use development within the SAN environs. This is a continuation of FAA approved Noise Compatibility Program Measure Element No.9 of the 1991 NCP, (NCP Pages 55-56, NCP Table 9).

**FAA Action: Approved.** The Federal government has no control over local land use planning. This measure is within the authority of the San Diego County Regional Airport Authority and local planning jurisdictions.

### **2. Continue to Encourage City Participation in the Compatibility Planning Process.**

**Description:** This measure recommends that in its role as the San Diego County Airport Land Use Commission (ALUC) will continue to encourage City of San Diego participation in the compatibility planning process for SAN and will assist the City in reviewing, and as appropriate, modifying the City's plans, policies and ordinances to best address airport land use compatibility concerns. This is a continuation of FAA approved Noise Compatibility Program Measure Element No.10 of the 1991 NCP, (NCP Page 56, NCP Table 9).

**FAA Action: Approved.** The Federal government has no control over local land use planning. This measure is within the authority of the San Diego County Regional Airport Authority and local planning jurisdictions.

### **3. Continue to Serve as the San Diego County Airport Land Use Commission.**

**Description:** This measure recommends that the San Diego County Regional Airport Authority continue to serve as the San Diego County Airport Land Use Commission. In its capacity as the ALUC, the Airport Authority will pursue preparation and adoption of an Airport Land Use Compatibility Plan (ALUCP) for SAN, will update the plan as necessary in the future, and will



utilize the plan to fulfill its duty to review local agencies' plans and development actions for compliance with noise compatibility, (NCP Page 57, Table 9).

**FAA Action: Approved.** The Federal government has no control over local land uses. This measure is within the authority of the San Diego County Regional Airport Authority and local planning jurisdictions. Amending the ALUCP is within the authority of the land use planning departments and approval does not extend to or necessarily endorse decisions of the ALUC.

## PROGRAM MANAGEMENT ELEMENTS

### 1. Maintain Existing Noise Information Department.

**Description:** This measure recommends that SAN maintain its existing noise information center. The noise information center is now known as the Airport Noise Mitigation Department. It is a vital link between the airport and community on aircraft noise issues. Its principal role is to receive and respond to noise complaints from the public and interfacing with air carrier representatives, the noise impacted community and airport users with respect to aircraft noise issues. This is a continuation of FAA approved Noise Compatibility Program Measures No. 15 and 17 of the 1991 NCP, (NCP Page 57, NCP Table 9).

**FAA Action: Approved.**

### 2. Continue to Maintain and Improve the Aircraft Noise and Operations Monitoring System (ANOMS).

**Description:** This measure recommends that the San Diego County Regional Airport Authority continue to use its Aircraft Noise and Operations Monitoring System (ANOMS). The ANOMS collects noise, aircraft identification, weather and complaint data; and correlates the data to aircraft flight tracks to determine the noise measured from aircraft operations. The SAN system has been upgraded several times since it was originally installed in 1974, (NCP Pages 58-59, NCP Table 9).

**FAA Action: Approved for purposes of Part 150.** This measure would provide data to the airport on existing noise and flight procedures and flight track adherence and implementation, and enable the San Diego County Regional Airport Authority to improve its ability to monitor the effectiveness of its Part 150 Program. Approval of this measure does not obligate the FAA to participate in funding the acquisition or installation of the permanent noise monitors and associated equipment upgrades. Note, for the purpose 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.

### 3. Design and Implement a Fly Quiet Program.

**Description:** This recommended measure is intended to design and implement a Fly Quiet Program through a web-based format to better recognize all airport users (air carrier and general aviation) achievements with all aspects of the SAN noise compatibility measures. Some potential measures include: Current fleet mix by aircraft operator (air carrier, GA operator) vs. ideal fleet mix for SAN; Number of total departures by aircraft operators vs. scheduled operations that may be impacted by the nighttime departure curfew; Number of total departures by aircraft operators vs. number of departures that deviated from IFR departure procedures; Number of total 275-degree heading departures by aircraft operators vs. number of 275-degree heading departures from aircraft likely equipped with satellite-based navigation equipment compared to number of RNAV departures; Number of community complaints in last reporting period by aircraft operator;



Number of flight cancellations by aircraft operator for the sole purpose of compliance to the nighttime curfew.

Another key aspect of the Fly Quiet Program will be to provide noise information to the General Aviation and Military aircraft that occasionally use the airport. Some of the possible ideas will be to expand upon the "pilot information handout" to make it more user friendly, to conduct briefings with pilot and user groups, such as the Aircraft Owners and Pilots Association (AOPA), Helicopter International Association (HIA), and National Business Aviation Association (NBAA), and to upgrade the Authority's website to provide these users with the information on how to use the airport as quietly as possible. This is a new measure that expands upon FAA approved Noise Compatibility Planning Measure Element No. 22 of the 1991 NCP, (NCP Pages 59-61 and Table 9).

**FAA Action: Approved.** This measure is within the jurisdiction of the airport management. This approval does not imply approval of any enforcement actions to ensure compliance with flight procedures by the Airport Sponsor. Any recommended change to existing flight procedures not approved in this NCP and any flight procedures or flight tracks not already in place at SAN are disapproved for inclusion in the handbook. Such changes would need to be separately reviewed, for reasons of aviation safety and efficiency, by the FAA. Noise mitigation measures must be accompanied by an analysis demonstrating their noise benefits. Changes in flight procedures normally also need appropriate environmental analysis. Any new procedures proposed for noise abatement at SAN may not be implemented prior to a study to determine whether they can be implemented safely and efficiently, and whether they are noise beneficial. Wording for publications and signage, and location of any on-airport signage, must be coordinated with the FAA before final issuance. Approval of this measure does not obligate the FAA to participate in funding the acquisition or installation of the permanent noise monitors and associated equipment.

#### **4. Maintain the Airport Noise Advisory Committee.**

**Description:** This measure recommends that the Airport Authority continue to maintain the Airport Noise Advisory Committee. The Airport Noise Advisory Committee has proven to be an effective tool for communicating among the local communities, stakeholders, airport staff, and operators. This has resulted in a better understanding of the airport operations and the noise effects experienced around the airport. This committee is recognized as being essential in the monitoring of various airport noise mitigation efforts as well as bringing the community representatives together to get a broader perspective of the airport's role in the area. This is a continuation of FAA approved Program Element Measure No.14 of the 1998 NCP. This is a combination and update of FAA approved Noise Compatibility Program Measure Element No.14 of the 1991 NCP and No. 14 of the 1998 NCP, (NCP page 61, Table 8 & Table 9).

**FAA Action: Approved.**

#### **5. The Noise Information Officer Will Meet on a Regular Basis with Representatives from Commercial Airlines and General Aviation.**

**Description:** This measure recommends that the Director - Airport Noise Mitigation, meet with airline representatives on a regular ongoing basis to provide information on the noise program at SAN. This education and awareness effort has increased the understanding of the noise effects on the local communities and the actions needed to limit these effects based on airport procedures and use regulations. This is a continuation and update of FAA approved Noise Compatibility Program Measure Element No.18 of the 1991 NCP, (NCP Page 61, Table 9).

**FAA Action: Approved.** This approval does not require representatives to meet.



## 6. Deliver Airport Use Regulations to Each Airline.

**Description:** This measure recommends that the Airport Noise Mitigation Department stay in contact with air carriers through participation at the monthly Station Managers' Meeting and direct contact with the air carrier corporate headquarters staff. These communication paths have proven effective in relating the SAN noise abatement program and receiving input from the air carrier tenants. This is a continuation and update of FAA approved Noise Compatibility Program Measure Element No.19 of the 1991 NCP, (NCP Page 62, Table 9).

**FAA Action: Approved.** This approval does not require air carriers to meet.

## 7. Continue to Provide Noise and Aircraft Operations Information in the Quarterly Noise Reports.

**Description:** This measure recommends that the Airport Authority continue to provide noise and aircraft operations data in the Quarterly Noise Reports. In accordance with the California Noise Standards, Title 21, the Airport Authority regularly prepares and delivers to the State its quarterly noise reports. The quarterly reports contain: Aircraft noise measurement data including quarterly and annual CNEL data; Aircraft operations; Quarterly operations survey over a three-day period; Summary of monthly aircraft noise complaints; Summary of noise complaints for the quarter; Listing of enforcement actions for the time-of-day restriction for operators as recommended by the Curfew Violation Review Panel; Update of the Residential Sound Attenuation Program for in-process and completed residential units; Meeting minutes and current roster of Airport Noise Advisory Committee during the quarter; and Various supporting appendices. Quarterly Noise Reports are posted on the Airport Authority website, [www.san.org](http://www.san.org), and made available for public inspection and review. This extremely detailed data listing provides the public an inside look at the airport's operation with respect to aircraft noise. This is a continuation and update of FAA approved Noise Compatibility Program Measure Element No. 20 of the 1991 NCP, (NCP Page 62, Table 9).

**FAA Action: Approved.** Note, for the purpose 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.

## 8. Cooperate with Public Agencies Concerning Air Service.

**Description:** This measure recommends that the Airport Authority continue to provide the appropriate level of cooperation on any future public studies regarding regional air service.

Potential sites for relocating San Diego International Airport have been under continuous study since 2001. Seventy-two potential sites for relocating San Diego International Airport were evaluated. The Airport Site Selection Program (ASSP) study recommended that a future joint-use airport be developed at Marine Corps Air Station (MCAS) Miramar. This recommendation was presented to the people of San Diego County as a ballot measure for a county-wide (non-binding) vote in November 2006 and did not pass.

In 2007 State legislation was prepared which requires that the Airport Authority prepare and present a Regional Aviation Strategic Plan (RASP). The RASP will identify workable strategies to improve the performance of the regional airport system in San Diego County. The RASP will provide input to San Diego County Association of Governments (SANDAG's) next update of the Regional Transportation Plan (RTP) in 2011. This is a continuation and update of FAA approved Noise Compatibility Program Measure Element No. 23 of the 1991 NCP, (NCP Page 63 and Table 9).

**FAA Action: Disapproved for purposes of 150.** This measure is within the jurisdiction of airport management. The Federal government has no control over local land use planning. This measure is within the authority of the San Diego County Regional Airport Authority and local planning jurisdictions.

#### **9. Revise the Noise Exposure Map.**

**Description:** This measure recommends that the Airport Authority use accurate and up-to-date noise exposure maps in its noise mitigation, noise abatement and enforcement of its Airport Use Regulations, where appropriate. The Airport Authority will compare the FAA approved NEMs on a quarterly basis with the noise exposure contours prepared for and delivered to the state in compliance with its Variance and the Title 21 Noise Regulations. When the size and/or shape of the noise exposure contours have changed substantially, as defined in 14 CFR Part 150, §150.21(d), to reduce or include additional incompatible land uses within the SAN environs, the Airport Authority will update the NEMs to reflect the existing and five-year forecast conditions. In addition, if and when the Airport Authority approves a change to the operations at SAN that likely change the size and/or shape of the noise exposure contours in the future (within the five-year time frame), the Airport Authority will update the NEMs to reflect this expected change to the forecast conditions, (NCP Pages 63-64, 14 CFR 150.21(d), and Table 9).

**FAA Action: Approved.**

#### **10. Revise the Noise Compatibility Program.**

**Description:** This measure recommends that airport management should review the NCP and consider revisions and refinements as necessary. 14 CFR Part 150, Section 150.23(e)(9) states that the NCP must provide for revising the program if made necessary by a revision of the NEMs. Not all revisions require an NCP update; for example, if changes in contour size or shape alter the number of compatible parcels contained within the adopted noise contours but the program is otherwise unaffected, an update of the NEMs may be submitted independent of an NCP update. However, if significant changes are identified that result in a large addition of incompatible land uses, or new elements are required to achieve land use compatibility, a revision to the NCP may be indicated. This is a continuation and update of FAA approved Noise Compatibility Program Measure Element No.24 of the 1991 NCP, (NCP Page 64, Table 9).

**FAA Action: Approved.** This approval does not extend to potential regulatory action affecting general aviation and commuter aircraft operations or to enforcement structures not otherwise specifically approved by the FAA.