



# Better Communication to Mitigate Complaints About Aircraft Noise

## *Initiatives at San Diego International Airport*

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**A**irport managers and staff often receive complaints from neighboring communities about aircraft noise and the associated inconveniences. According to the Federal Aviation Administration, aircraft-related noise is the major deterrent for airport expansion. Inviting and understanding community concerns, informing the residents about measures to mitigate aircraft-related noise, and seeking solutions to the issues related to aircraft noise are the ongoing missions of the Airport Noise Mitigation Department at San Diego International Airport (SDIA).

### Problem

Airports across the country are experiencing increases in complaints about aircraft noise from residents outside the federally defined, impacted area, determined by a noise contour of 65 DNL (day-night average noise level). For many in the industry, the inquiries and complaints from stakeholders such as a distance from the airport raise a variety of questions: What is causing these stakeholders to voice concerns about aircraft noise? What is their agenda? What measures do these stakeholders expect the airport to

take? How can airport managers help community stakeholders understand the airport's limitations in mitigating aircraft noise?

The noise mitigation team at SDIA constantly assesses the effectiveness of mitigation and attenuation efforts and searches for new tools that can help manage issues related to aircraft noise to the maximum extent possible.

### Solution

Research conducted under the Airport Cooperative Research Program (ACRP) has identified best practices for airports in communicating with residents affected by aircraft noise (1). The best practices underscore the importance of building relationships with the public; the research presents the outcomes of effective relationships with the surrounding community.

In addition, an ACRP synthesis of airport practice provides airport operators, stakeholders, and policy makers with information about actions that airports take to address aircraft noise outside the 65-DNL contour (2). For example, the airport can provide the community with access to web-based visualizations of flight tracks and can encourage residents to voice concerns, opinions, and suggestions by participating on noise-specific airport advisory committees.

The research provided ideas and direction for communications approaches suitable for airports with differing operational profiles. The publications provided airport managers with insights, ideas, perspectives, and tools to address aircraft noise issues and deal with community concerns about noise impacts more effectively. The research produced an extensive toolkit and a self-assessment instrument to help airport managers evaluate programs, review options for sound attenuation, apply alternative metrics for noise, and deal with community input.

For example, SDIA focused on aircraft operators in implementing a measure to mitigate aircraft noise and to benefit communities that had felt the impacts. Signs posted at each end of the runway (see photo-

San Diego International Airport.



PHOTO: SDIA



Sign at end of runway noting restrictions on takeoffs at night.

graph, above) advise aircraft operators about the noise curfew that prohibits takeoffs during two nighttime periods, based on how noisy the aircraft is. This measure benefits the community most affected by takeoffs late at night.

The ACRP research revealed that a cookie-cutter approach to aircraft noise mitigation is not appropriate—airports must customize approaches to match local conditions. For example, a basic communication approach would be appropriate for smaller airports that have only an airport manager as staff, but medium-size airports can augment the basic guidance by following the suggestions on staffing and communication techniques; and large airports may find suitable ideas for improving techniques or strategies already in place.

### Application

SDIA has implemented several of the research findings to enhance communication with the community, to ensure that measures are taken to deal effectively with aircraft noise issues, and to demonstrate to the community the benefits of airport operations. SDIA also modified its Internet-based flight visualization system to include an integrated, changeable script area, so that staff can update the community about changes in flight patterns, inclement weather, or operational restrictions.

The San Diego County Regional Airport Authority relies on continuous input from an Airport Noise Advisory Committee of 18 members from various political organizations, local residential land use planning areas, aircraft noise technicians, and airport-related professional associations. The committee provides a forum for collaborative discussion of airport noise issues and related matters and for

demonstrating the benefits of the airport to the community.

### Benefits

California airport noise managers also meet regularly to identify and address airport-specific noise issues and to share information, so that new measures that deal effectively with aircraft noise in one community are brought to the larger group's attention.

SDIA considers actions for implementation that have not been previously considered. For example, the modification of the flight visualization system is likely to reduce the aircraft noise-related complaints from the affected community. The advisory committee participants are encouraged to share information from the meetings with their constituents, gaining credibility and support for proactive measures.

The communication efforts and the application of other research findings have contributed to better public understanding of the benefits of airport operations for the community and of the efforts to deal with aircraft noise issues. Airport operations provide opportunities for economic growth and benefits to the neighborhood that are difficult to quantify in dollar amounts—nevertheless, the opportunities greatly affect community prosperity and enhance community–airport cooperation.

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### References

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2. Eagan, M. E., and R. Gardner. *ACRP Synthesis 16: Compilation of Noise Programs in Areas Outside DNL 65*. Transportation Research Board of the National Academies, Washington, D.C., 2009. [http://onlinepubs.trb.org/onlinepubs/acrp/acrp\\_syn\\_016.pdf](http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_016.pdf).

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Suggestions for “Research Pays Off” topics are welcome. Contact G. P. Jayaprakash, Transportation Research Board, Keck 488, 500 Fifth Street, NW, Washington, DC 20001 (202-334-2952; [gjayaprakash@nas.edu](mailto:gjayaprakash@nas.edu)).



ACRP Report 15, *Aircraft Noise: A Toolkit for Managing Community Expectations*, and ACRP Synthesis 16, *Compilation of Noise Programs in Areas Outside DNL 65*, provided best-practice models adapted and applied for community outreach by the noise mitigation department at San Diego International Airport.