



July 10, 2013

Mr. Michael R. Salamone
Manager, Airport Cooperative Research Program
Keck Center of the National Academies
Transportation Research Board
500 Fifth Street, NW
Washington, D.C. 20001

RE: ACRP Fiscal Year 2014 Problem Statements for Research Consideration

Dear Mr. Salamone:

The Los Angeles International Airport/Community Noise Roundtable (Roundtable) is an organization that consists of local elected officials and staff, representatives of congressional offices, members of recognized community groups, the airlines, the Federal Aviation Administration (FAA), and Los Angeles World Airports. These parties work together to identify noise issues affecting communities surrounding Los Angeles International Airport (LAX) and to seek feasible solutions to reduce noise over those affected communities.

The Roundtable members are optimistic that the research work from the Airport Cooperative Research Program (ACRP) will provide information that is supportive of the Roundtable's mission in achieving aircraft noise reduction at LAX. We understand that the ACRP has received a total of 115 problem statements for research consideration for the fiscal year 2014 program and that 28 of those statements are related to aircraft noise issues. We have reviewed the noise-related problem statements and would like to express our assessment and support of the following 14 statements for ACRP to consider for research selection.

- *Problem Statement # 14-01-11: Community Engagement with NextGen*
This proposed research would develop best practices for FAA and airports to engage the communities with NextGen's airspace procedure development efforts. Currently, community involvement with the NextGen procedure development process is limited and is scheduled near the end of the project cycle with limited opportunities to make adjustment to procedures based on community input. Developing a method that will actively engage the community in the development process would potentially avoid difficulties and delays in the overall NextGen progress and will inspire the FAA to take into account of all community opinions when making refinements to final procedure design. It would also help improve community's understanding of NextGen goals.
- *Problem Statement # 14-01-12: NextGen Primer*
Much of the information about NextGen is geared toward industry experts and not toward airport operators and communities. As such, the public is unaware of the potential benefits and costs associated with NextGen plans and how these plans would

potentially affect communities near airports. This project would produce educational publications designed to raise public awareness of NextGen and would provide the communities with a better understanding of NextGen's plans, goals and major initiatives.

- *Problem Statement # 14-03-11: NextGen Procedure Changes for Airspace and Aircraft Efficiency and Optimization*
This research would produce a report that provides an overview of PBN developments and future capabilities, and describes how airports can engage with the FAA, their aircraft users, and their surrounding communities on PBN deployment. Also, the research will provide suggested guidance on measures and metrics to allow airport operators to assess the potential effects (both positive and negative) that PBN procedures will have on the communities. The end product of this research would encourage the FAA to actively involve airports in the PBN implementation process and in turn will assist the FAA to better recognize the potential noise effects of implementing PBN procedures.
- *Problem Statement 14-03-15 Airport Planning and NextGen*
The purpose of this research is to identify relevant NextGen elements for airport planners to consider incorporating them into airport operations, planning and environmental initiatives. Incorporating NextGen elements into the airport planning process has the potential to increase opportunities for early consideration of noise reduction strategies. It will potentially assist researcher in developing new ways to mitigate aircraft noise by incorporating NextGen technology.
- *Problem Statement 14-02-03: Hard and Soft Ground Sound Absorption methodology for AEDT/INM*
Current AEDT/INM noise modeling methodology only takes into account of "soft" ground sound absorption in the calculation of lateral attenuation. The proposed research will develop a methodology for AEDT/INM that will take into account of the variety of different ground types, including "hard" or reflective ground such as large areas of pavement or water. This methodology will improve the noise modeling capability of the INM/AEDT and allow analysts to more accurately model noise for airports (such as LAX) that have primarily hard surfaces (paved or water) surrounding their runways.
- *Problem Statement 14-02-19: High altitude aircraft noise methodology for AEDT/INM*
Currently, AEDT/INM uses data and noise propagation methods developed for modeling low altitude aircraft operations (below 10,000 feet) to model high altitude aircraft operations. These methods can result in inaccurate predictions of noise due to the different noise characteristics of en-route aircraft operations compared to arrival and departure operations. The proposed research would develop an improved methodology for AEDT/INM that will take into consideration of high altitude aircraft operations; thereby providing a means to fully analyze aircraft noise exposure at greater distances from the airport.
- *Problem Statement 14-02-33: The Effects of Buildings on Airport Noise Contours*
The research will improve the noise modeling capability of INM/AEDT to take into account of buildings near airports. The shielding effect of buildings can reduce noise exposure for communities near an airport; and with the improved capability, analysts can accurately produce noise contours that account for this noise reduction benefit.

- *Problem Statement 14-02-34: Guidance for Modeling Noise for Non-Standard Aircraft Profiles*
This research would provide guidance for analysts in using the INM/AEDT to more accurately model noise of non-standard aircraft profiles such as reduced thrust departures and continuous descent approaches. The research will benefit LAX as it has over 50% of the arrivals using CDAs and would allow the airport to better assess the noise difference between CDA and non-CDA arrival procedures.
- *Problem Statement 14-02-21: Design and Implement a Program to Assess whether Helicopter Noise Annoyance is Significantly Different from Jet Aircraft Noise Annoyance*
Helicopter noise adversely affects many people in the Los Angeles area due to a high level of helicopter activity in the area engaging in various flight operations. The characteristics of jets and helicopters are very different, and this research would determine if human response to helicopter noise is significantly different from those of fixed-wing aircraft. It would provide a better understanding of the helicopter noise annoyance and can potentially assist the FAA to better assess the helicopter noise problems.
- *Problem Statement 14-02-24: Optimization of Aircraft Flight Procedures for Noise Reduction Beyond DNL 65*
This research would develop an objective methodology for analysts to use in evaluating noise benefits of changing flight procedures that may affect areas farther away from the airport. As the FAA is changing and optimizing flight procedures as part of its OAPM program at major airports in the U.S., airport operators need to have an effective tool to evaluate the potential impacts or benefits associated with these changes. The tool will assist airports and FAA in making refinements to final procedure design with the goal of reducing noise exposure for the community.
- *Problem Statement 14-02-26: Energy and Environmental Benefit of Electrified Taxi Options to Airports*
The concept of using electrified taxi options could help airports reduce noise and emission impacts to the communities by removing the need for aircraft main engines to be operating during the majority of taxi-time to and from the runway. The proposed research would examine the potential environmental benefits as well as the potential barriers from using non-engine powered aircraft taxi options at airports. It would assist airports and/or aircraft operators determine the feasibility of using such technology.
- *Problem Statement 14-02-27: Determining Whether Unmanned Aircraft Systems (UAS) Will Have Environmental and Energy Influences at Airports*
UAS is currently being examined for a wide range of applications within the National Airspace System. However, research has not been conducted on the potential environmental effects of this type of aircraft. Researching the potential impacts of UAS prior to its widespread use can be beneficial to the communities, airport operators, and other stakeholders.
- *Problem Statement 14-02-28: Evaluation of Noise Level Reduction Test Methods*
The proposed research should help identify a single testing method to determine the indoor CNEL for residential sound insulation programs. Given that PGL 12-09 requires homes within the 65 CNEL contour to have interior noise levels above 45 CNEL in order

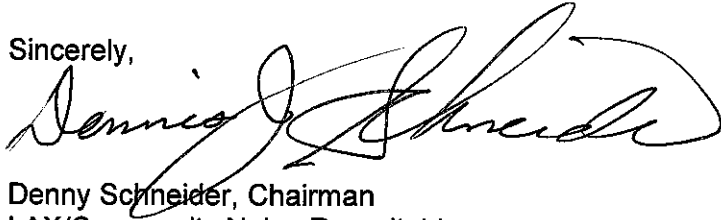
to qualify for federal sound insulation funding, adopting a standard testing method will be critical to residential sound insulation programs moving forward.

- *Problem Statement 14-02-29: Assessing Aircraft Noise Conditions Affecting Student Learning - Case Studies*

The effects of aircraft noise on student's learning continue to be a major concern among communities. The proposed research will conduct classroom observations to determine at what level noise events cause interruptions and affect student and teacher's communication and behavior. It would potentially assist researcher to find ways to mitigate the effects of aircraft noise on student learning.

Thank you for this opportunity to express our interest in ACRP's future research. Please forward this letter to all members of the ACRP Oversight Committee for their consideration. If you wish to contact us for further information, please address your correspondence to the LAX/Community Noise Roundtable, c/o Los Angeles World Airports, 1 World Way, P.O. Box 92216, Los Angeles, CA 90009-2216, Attention: Kathryn Pantoja, or call Ms. Pantoja at 424-646-6501.

Sincerely,

A handwritten signature in black ink, appearing to read "Denny J. Schneider". The signature is fluid and cursive, with a large loop at the end.

Denny Schneider, Chairman
LAX/Community Noise Roundtable