

## **ACOUSTICS2008/173**

### **Overview of revolutionary aircraft for quiet communities workshop**

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At some time in the future, technical advances, environmental imperatives, societal expectations for mobility, and economic drivers will dictate that radically different aircraft will be built and flown. Therefore, aircraft designs will change even if low noise were not one of the environmental imperatives, and acousticians must be aware of the possible directions for aircraft design and the resulting opportunities and challenges for noise control. To address this need, the National Aeronautics and Space Administration sponsored a workshop entitled Revolutionary Aircraft for Quiet Communities in Hampton, VA, 24-26 July 2007. Twenty-six talks covered aircraft design, interior noise challenges, airframe noise, propulsion, and aircraft noise prediction. Revolutionary aircraft will employ dramatically improved materials, propulsion systems, and flow control technology to improve efficiency and enhance mobility. Five hours of discussion surfaced many concerns and recommendations, including the increasing need for acousticians to be involved on highly integrated teams throughout the vehicle design process. Also, other discipline experts participating in aircraft design need some education in acoustics to increase their sensitivity to noise control issues. The National Institute of Aerospace hosted the event, and the Council of European Aerospace Societies and the American Institute of Aeronautics and Astronautics were co-sponsors.