(Open Access refers to publications that are available online at no cost. Check the publisher's Web site for specific terms of use.)Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 1: Final Report

Aviation noise effects on schools and school children have been well-researched and documented. Recent studies indicate a potential link between aviation noise and both reading comprehension and learning motivation, particularly for those children who are already scholastically challenged. However, there has been little work done on establishing a dose-response relationship between aviation noise and classroom effects. This lack of a reliable dose-response relationship makes the evaluation of aircraft noise on schools and setting policy very difficult. With this background, the objectives of this project were to:1) identify and evaluate conditions under which aircraft noise affects student learning; and 2) identify and evaluate one or more alternative noise metrics that best define those conditions. The project consisted of seven tasks conducted in two phases. In Phase I, a literature search was conducted, leading to the identification of gaps in knowledge relevant to the project objectives. Alternative research plans were designed to fill these gaps and presented to the ACRP Panel for final selection. In Phase II, the research plan was implemented. This final report fully documents the Phase I and Phase II research activities and presents the results of the research analyses. Volume 1 summarizes the literature review, gaps in knowledge and future research, development of alternative research designs, implementation of the research plan, and future research recommendations. Appendices A through G for this report are published separately as Volume 2.

Record URL:
http://www.trb.org/Publications/Blurbs/170328.aspx
(http://www.trb.org/Publications/Blurbs/170328.aspx)

Authors:
Sharp, Ben H
McLaughlin, Donald
Clark, Charlotte
Hervey, Joy

Publication Date: 2014-1

Language

English

Media Info

Media Type: Web
Edition: Contractor's Final Report

Features: Appendices; Figures; Glossary; References; Tables;
Pagination: 71p
Serial:
ACRP Web-Only Document (/Results?q=&serial="ACRP%20Web-Only%20Document")
Issue Number: 16
Publisher: Transportation Research Board
Publication flags:
Open Access (libre) (Open Access refers to publications that are available online at no cost. Check the publisher's Web site for specific terms of use.)

Subject/Index Terms

TRT Terms: Aircraft noise (/Results?q=&datein=all&index="Aircraft%20noise"); Environmental impacts (/Results?q=&datein=all&index="Environmental%20impacts"); Evaluation and assessment (/Results?q=&datein=all&index="Evaluation%20and%20assessment"); Learning (/Results?q=&datein=all&index="Learning"); Metrics (Quantitative assessment) (/Results?q=&datein=all&index="Metrics%20(Quantitative%20assessment)"); Sound level (/Results?q=&datein=all&index="Sound%20level"); Students (/Results?q=&datein=all&index="Students")
Subject Areas: Aviation; Environment; Society; I15: Environment;

Filing Info

Accession Number: 01522132
Record Type: Publication
Report/Paper Numbers: ACRP Project 02-26
Files: TRIS, TRB, ATRI
Created Date: (/edit/1306733)Apr 17 2014 3:18PM

The National Academies of Sciences, Engineering, and Medicine

500 Fifth Street, NW | Washington, DC 20001 | T: 202.334.2000 (tel://2023342000)

(http://www.national-academies.org/)