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Hazards: Jumbo Jets Can Drown Out Dick and Jane

By Nicholas Bakalar

Children need more time to learn to read and remember less if their schools are near noisy airports, according to a study published on June 4 in Lancet.

By pooling data from more than 2,800 students in 89 primary schools near airports in three countries, researchers concluded that the louder the aircraft noise, the greater the learning deficits.

The airports were in or near Amsterdam, Madrid and London, and the children were ages 9 and 10.

The authors measured noise levels at each school, and administered tests of memory function and reading to students.

After correcting for socioeconomic differences between schools, they found that aircraft noise had a significant negative effect on reading comprehension, causing a delay of as much as two months in some schools.

The effect on memory was smaller, but still significant.

The authors said they were unsure of the reasons for their finding, but they suggested that in learning to ignore the irrelevant noise of the airplanes, students may simultaneously have learned to tune out relevant speech.

Noise may also affect general health or sleep patterns, which can interfere with learning, they said. Whatever the mechanisms may be, the researchers concluded, "Schools exposed to high levels of aircraft noise are not healthy educational environments."

Dr. Peter Rabinowitz, an assistant professor of medicine at Yale who wrote a commentary accompanying the article, said that classrooms should meet the standard for background noise set by the American National Standards Institute: 35 decibels in an empty classroom. He suggests that parent get sound meters and test the rooms.

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