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Institute for Research in Construction

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Procedures for Designing and Assessing the Speech Security of Meeting Rooms

Objectives

To develop background information in support of the creation of a Best Practice Guide for Architectural Speech Security.

Background

Public Works and Government Services Canada has asked IRC to carry out background acoustical research in support of a speech security guide for use in its office buildings across Canada. 'Hot spots' — locations in a room where overheard speech sounds are noticeably louder than room average measurements would indicate — are of particular concern.

Outcomes to Date

- A new measure that predicts the audibility and intelligibility of transmitted speech sounds from meeting rooms *(Research Report 171)*
- A validated procedure for evaluating the speech privacy of rooms by measuring the attenuations between room-average sound levels in meeting rooms to spot receiver positions near the outside of these rooms *(Research Report 220)*
- A report describing the statistical distribution of speech levels in meeting rooms and noise levels near meeting rooms *(Research Report 170)*
- Studies to validate listening test results in real rooms as well as the effects of the acoustics of the receiving space on transmitted speech levels *(Research Report 221)*
- A report that describes how to measure the speech security of an existing meeting room, as well as how to design the speech security of new meeting rooms, and in either case to determine the probability of a speech security lapse *(Research Report 187)*

Work Remaining

- A report on the evaluation of procedures to assess 'hot spots' and sound leaks from meeting rooms.
- A study of the effects of the room acoustics of the meeting room on its speech security.

Partners

Public Works and Government Services Canada,
Royal Canadian Mounted Police.

Start/Completion Dates

The project began in 2003 and will be completed in 2008.

Project Manager

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For more information, see http://irc.nrc-cnrc.gc.ca/ie/acoustics/speechguide_e.html

Acoustical measurements help characterize speech privacy issues

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