

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Natural ambient monitoring and noise source characterization for Glacier National Park

Discipline: Interdisciplinary
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 9/30/2009 - 12/31/2011
Funding Amount: \$37,620

Investigators and Agency Representative:

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Project Abstract: The National Parks Air Tour Management Act of 2000 (NPATMA) requires that the NPS develop and implement Air Tour Management Plans (ATMP) to develop acceptable and effective measures to mitigate or prevent significant adverse impacts, if any, of commercial air tour operations upon the natural and cultural resources and visitor experiences in applicable national park units. Parks that currently have air tour operations or requests for air tour operations over the park and/or within one-half mile of the park boundary are required to complete an ATMP. In 2004, there were seven commercial air tour providers registered with the Federal Aviation Administration (FAA) operating in excess of 1700 flights over Glacier National Park annually.

The project will characterize acoustical conditions in Glacier National Park and provide modeling results to evaluate potential management actions, to support the analysis of cumulative effects for the Air Tour Management Plan.

Potential Tasks

1. Analyze previously collected acoustical data from Glacier National Park to characterize natural ambient sound levels.
2. Identify and characterize all noise sources.
3. Collect and analyze data regarding the mix of vehicle types on the roads and the speeds of those vehicles.
4. Correlate the traffic count data with the noise data to characterize the noise source levels for each class of vehicles.
5. Develop acoustical models that map noise sources for existing conditions and a range of possible management actions.
6. Develop criteria for assessing the cumulative impacts of all noise sources, especially the effects of other noise sources in combination with air tour noise.
7. Provide advice and guidance to Natural Sounds Program and Glacier Park staff, including support for possible development of ATMP and NEPA documents. Support for other planning activities may also be required.
8. May accompany senior staff in representing the park on NPS task forces, interagency working groups, or other appropriate teams. May assist in making related presentations in parks or at technical meetings. Attends management and technical conferences, usually with senior planners, for the purposes of exchanging information and advocating for park stewardship.

Outcomes with Completion Dates:

Acoustical monitoring data will be analyzed and compiled into reports suitable for distribution. Electronic copies of the raw acoustical data and associated metadata, along with acoustical reports and briefing materials will be provided.

Due Date for Final Report and/or Final Products: 31 October 2011

Keywords: soundscapes, acoustic monitoring, National Parks Air Tour Management Act of 2000 (NPATMA), Air Tour Management Plans (ATMP), Glacier National Park, Colorado State University