

Natural Soundscapes in the National Park System

Introduction

Director's Order no. 47 (NPS 2000) states:

*A*n important part of the National Park Service mission is to preserve and/or restore the natural resources of the parks, including the natural soundscapes associated with units of the national park system. Natural sounds are intrinsic elements of the environment that are often associated with parks and park purposes. They are inherent components of "the scenery and the natural and historic objects and the wild life" protected by the NPS Organic Act. They are vital to the natural functioning of many parks and may provide valuable indicators of the health of various ecosystems. Intrusive sounds are of concern to the NPS because they sometimes impede the Service's ability to accomplish its mission.

Intrusive sounds are also a matter of concern to park visitors. As was reported to the U.S. Congress in the "Report on the Effects of Aircraft Overflights on the National Park System," a system-wide survey of park visitors revealed that nearly as many visitors come to national parks to enjoy the natural soundscape (91 percent) as come to view the scenery (93 percent). Noise can also distract visitors from the resources and purposes of cultural areas—the tranquility of historic settings and the solemnity of memorials, battlefields, prehistoric ruins, and sacred sites....

Natural Sounds Program Office

Office background and overview.

The National Park Service (NPS) has been working in partnership with the Federal Aviation Administration (FAA) to manage air tours over Grand Canyon National Park as directed by Public Law 100-91, the 1987 National Parks Overflights Act. That act also required a report to Congress on the management of commercial air tours over the remainder of the national

parks. An executive memorandum in April 1996 resulted in establishment of a national parks overflights working group composed of aviation, environmental, and Native American interests. The group's recommendations formed the basis of the National Parks Air Tour Management Act of 2000, which was enacted as Public Law 106-181 on 5 April 2000. The act requires FAA and NPS to cooperatively develop air tour management plans

(ATMPs) for parks where commercial air tour operations exist or are proposed.

The NPS Natural Sounds Program Office was officially established in October 2000 primarily to assist park and regional staffs working with the FAA to develop air tour management plans for the more than 100 parks experiencing commercial air tour operations. ATMPs can be integrated into overall park soundscape management plans and/or park general management plans that address noise intrusions of concern to park management. The intent of such plans is to characterize and protect park soundscapes. In addition, the office provides services such as

- Technical assistance, training, and expertise in baseline acoustical data collection, analysis, and interpretation;
- Assistance in soundscape management planning;
- Assistance in coordinating with the military to prevent or minimize/mitigate intrusive noise from flying over or near parks;
- Coordination with FAA and local officials to mitigate inappropriate sounds to parks from adjacent or nearby airports; and
- Assistance in planning for management of sounds from other activities, such as use of personal watercraft, snowmobiles, and NPS operational aircraft and equipment

Organization and contacts. Our central office is located in Fort Collins, Colorado, where a technical assistance staff has been assembled. We have a liaison office in Lakewood, Colorado, to coordinate with the planning, design, engineering, and contract professionals. The manager of the Natural

Sounds Program Office is Karen Trevino. She can be reached at 1-970-225-3563.

Mission. The Natural Sounds Program Office works to protect, maintain, or restore natural, cultural, and other soundscape resources in parks in a condition unimpaired by inappropriate or excessive sounds. We fulfill this mission by working in partnership with parks and others to increase scientific and public understanding of the value and character of the acoustic environment.

Purpose. The Natural Sounds Program Office functions as a national office that provides advice, guidance, and technical support in characterizing and preserving park soundscapes.

Goal. Our goal is to heighten public and agency awareness of the value and character of park soundscapes so that park resources are preserved unimpaired and visitors can appreciate the full range of park settings and have the opportunity to enjoy tranquility, solitude, and the sounds of nature.

Core values. The office adheres to these values: commitment to the resource—public service; adherence to scientific principles in the decision-making process; respect, patience, and encouragement of co-workers and stakeholders; integrity and honesty; appreciation for diversity in all capacities—in approaches, in thinking, people, etc.; and excellence/innovation (forward-thinking and progressive approaches).

Education Efforts

A variety of educational materials and opportunities are available to assist parks in interpretation, understanding, appreciation, and preservation of park soundscapes and in

becoming familiar with characterizing such soundscapes and determining sound levels, types, and sources. The Natural Sounds Program Office has developed an information card that describes the office's purpose, goal, background, capabilities, organization, and contacts. The card has been distributed at various NPS and interagency meetings and public forums. It is also available on the office website at <ftp://ftp.nps.gov/incoming/soundscape>. In addition, a natural sounds activity card has been jointly developed by the San Francisco Nature Sounds Society and the NPS Natural Sounds Program Office and distributed to numerous park units. This card is designed to enhance visitor enjoyment of natural sounds through active listening and recording of observations. We will continue to work with the Nature Sounds Society and will seek out other grassroots organizations to share our expertise and to enhance their efforts to reach out to local communities on a variety of sound issues.

Staff from the Natural Sounds Program Office collaborated with the Center for the American West and the Natural Resources Law School at the University of Colorado to develop and host "The Silence of the Lands" conference on the CU campus in February 2003. The conference was a forum to discuss natural sounds. Pat Williams, the former U.S. representative from Montana, was guest speaker and several panels of individuals represented various points of views on sound issues. More than 200 students, citizens, government employees, and representatives from various organizations attended the conference. The conference was covered by a variety of media (radio, TV, newspapers), which

made presentations and discussions available to a wider audience. Our office will continue to work with newspapers and other media to heighten awareness of these issues and seek other approaches and solutions.

The Natural Sounds Program Office worked with the U.S. Air Force and National Parks Conservation Association to develop the *United States Air Force/National Park Service Western Pacific Regional Sourcebook*. This sourcebook provides organizational histories, descriptions of decision-making processes, and outlines of agency structures. It also has information on developing relationships at the field level, presents several success stories, and depicts on maps the military overflights in relationship to parks and airbases. A brief synopsis of park units that experience military overflights accompanies the maps. Copies of the sourcebook were sent to relevant parks in the NPS Pacific West Region and those in Arizona in the Intermountain Region. Additional copies can be obtained on the Air Force website at www.afranges.net/sourcebook.html.

Our office will be working with interpretive staffs at a few park units within the next year or so to develop visitor center soundscape exhibits, videos, and brochures. We have developed a PowerPoint presentation that describes the acoustical data acquisition equipment used to characterize park soundscapes and noise intrusions, the acoustical methodology, and the nature and use of acoustical metrics. This presentation will be given by a member of our office to the superintendent and park staff at the initiation of the air tour management plan. A copy will also be posted on the office website.

Over the past few years the office has conducted an NPS national workshop (in Denver) and an Alaska regional workshop on our program. We have given numerous presentations at various conferences (e.g., George Wright Society Conference, National Mountain Conference, HAI Conference, and The Silence of the Lands Conference), ATMP parks, NPS management meetings, and training sessions. We have also actively participated in the U.S. Air Force

Airspace and Range Council meetings to present our office program, to proactively address military park overflights, and to promote the development of relationships between the two organizations. All of these educational efforts have been effective; however, our office will continue to expand the number and type of media utilized to more effectively educate NPS leaders and appropriate employees and to reach out to agencies, groups, and organizations outside the NPS.

References

- FAA [Federal Aviation Administration] and NPS [National Park Service]. 1996. *Additional Transportation Planning to Address Impacts of Transportation on National Parks*. Washington, D.C.: FAA and NPS.
- NPS. 1995. *Report on Effects of Aircraft Overflights on the National Park System*. Washington, D.C.: NPS.
- . 1997. National Parks Overflights Working Group Outline of Recommended Rule. Washington, D.C.: NPS.
- . 2000. *Director's Order no. 47: Soundscape Preservation and Noise Management*. Washington, D.C.: NPS.

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