

DEPARTMENT OF THE INTERIOR

National Park Service

Public Notice: Clarifying the definition of “substantial restoration of natural quiet” at Grand Canyon National Park, Arizona.

AGENCY: National Park Service, Department of the Interior

ACTION: Public Notice: Clarifying the definition of “substantial restoration of natural quiet” at Grand Canyon National Park.

SUMMARY: This notice clarifies the definition used by Grand Canyon National Park (GCNP) for achieving substantial restoration of natural quiet as mandated by the 1987 Overflights Act (P.L.100-91) (Overflights Act). This clarification of the definition is necessary to address current acoustic conditions to comply with the intent of recommendations provided in the 1995 Report to Congress¹, and respond to a 2002 U.S. Court of Appeals decision. The provisions of the Special Flight Aviation Regulation (SFAR) 50-2 have not resulted in substantial restoration of natural quiet of GCNP. Given the volume of high altitude commercial jet and general aviation traffic overflying the Grand Canyon above 17,999 feet Mean Sea Level (MSL) and a recent court decision, the substantial restoration goal as currently defined cannot be attained. This clarification of the restoration definition, while focusing on air tour and air tour related and general

aviation aircraft that are conducting overflights of GCNP at altitudes at or below 17,999 MSL, also incorporates measures to address noise from all aircraft. The 1995 definition of substantial restoration of natural quiet is being clarified to distinguish between aircraft noise generated above and below 17,999 feet MSL. The Special Flight Rules Area (SFRA) ceiling was set at 17,999 MSL to avoid additional requirements, restrictions and regulations that occur at or above 18,000 MSL.

GCNP and the Federal Aviation Administration (FAA) are currently engaged in the preparation of an environmental impact statement (EIS) entitled "Special Flight Rules Area in the Vicinity of Grand Canyon National Park". GCNP, in consultation with the FAA, has determined in the noise methodology section of the EIS that aviation noise above 17,999 feet MSL will be considered as a cumulative impact for purposes of the EIS, and aircraft noise generated at or below 17,999 feet MSL, within the Special Flights Rules Area (SFRA) will be managed to attain the NPS recommendations and meet restoration management objectives consistent with GCNP management direction, 2006 NPS Management Policies, and the 1995 Report to Congress.

The NPS proposes the following clarification to the definition of substantial restoration of natural quiet.

- "a) Substantial restoration of natural quiet at GCNP will be achieved when the reduction of noise from aircraft operations at or below 17,999 feet MSL results in 50% or more of the park achieving restoration of the natural quiet (i.e., no aircraft audible) for 75% to 100% of the day, each and every day; and
- b) The NPS defines the substantial restoration of natural quiet from

all aircraft above 17,999 feet MSL, to mean that there will be an overall reduction in aviation noise generated above 17,999 feet MSL above the park over time through the implementation of measures in accordance with FAA commitments.”

The NPS also clarifies that 50% of GCNP is a minimum in the restoration goal. This includes not only the impacts of aircraft noise on the soundscape but the impact of noise on the visitor experience and natural, cultural and historic resources for the entire park.

The analysis of noise impacts in the overflights EIS will be based on the defined substantial restoration goal, park values and purposes, and the GCNP General

Management Plan land zoning objectives and overall park management objectives.²

NPS has deferred the assessment of aviation safety to FAA’s jurisdiction. Both agencies have agreed to consider the noise from all aircraft in the ongoing EIS and planning process. Further, both agencies have agreed to consider reducing aircraft noise over the park in the future from aircraft operating above 17,999 feet MSL over the SFRA, while removing aircraft operations above 17,999 MSL from direct regulation in this action.

This notice seeks public comment on the clarification of the NPS definition of substantial restoration.

DATES: This notice will be on public review for 30 days, **[INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

ADDRESSES: If you wish to comment, you may mail or hand deliver comments to the name and address below or comment online via <http://parkplanning.nps.gov/grca> (select “Substantial Restoration Clarification”). Comments must be received within 30 days

from the date of this printing. You may also view a copy of this clarification through the Internet at: <http://www.nps.gov/grca/naturescience/soundscape.htm>

FOR FURTHER INFORMATION CONTACT: Ken McMullen, Overflights and Natural Soundscape Program Manager, Grand Canyon National Park, 823 N. San Francisco St., Suite B, Flagstaff, Arizona 86001 National Park Service, Grand Canyon NP, Telephone: (928) 779-2095.

SUPPLEMENTARY INFORMATION

Background

This notice is one of several steps being taken by the Secretary of the Interior (SOI), through the NPS, and the FAA to fulfill the mandate established by Congress in PL 100-91, the Overflights Act, to provide for the substantial restoration of natural quiet in Grand Canyon National Park. Section 3 of the Overflights Act mandated the SOI to submit to the Administrator of the FAA recommendations "regarding actions necessary for the protection of resources in the Grand Canyon from adverse impacts associated with aircraft overflights." The express statutory goal for these recommendations is the "substantial restoration of natural quiet and experience of the park and protection of public health and safety from adverse affects associated with aircraft overflight." The Overflights Act requires the FAA Administrator to adopt the recommendations of the SOI "without change unless the Administrator determines that implementing the recommendations would adversely affect aviation safety."

Congress did not define natural quiet or substantial restoration of natural quiet and, instead, delegated the interpretation of the statute to the Secretary. Under well established rules of statutory construction, the agency's interpretation is given deference so long as it is based on a reasonable construction of the statute. The D.C. Circuit Court of Appeals found that the NPS had reasonable justification for its interpretations of natural quiet and substantial restoration of natural quiet, as set forth in the 1995 Report to Congress. (See *Grand Canyon Air Tour Coalition v. FAA*, 154 F.3d 455 (D.C. Cir. 1998)).

In its 1995 Report to Congress the policy decision of the NPS was that substantial restoration requires that 50% or more of the park achieve natural quiet (i.e. no aircraft audible) for 75 – 100% of the day. The NPS provided definitions of terms used, as well as rationale for its noise impact assessment methods in “Review of Scientific Basis for Change in Noise Impact Assessment Method Used at Grand Canyon National Park,” 2000³. In the review, the NPS defined one parameter of substantial restoration of natural quiet to be “...a threshold not to be exceeded on any given day...”. In 2002, the definition of substantial restoration of natural quiet and the FAA's noise methodology in the 2000 Final Supplemental Environmental Assessment was addressed in litigation before the D.C. Circuit Court of Appeals, in the case *United States Air Tour Association v. FAA*, 298 F.3d 997(D.C. Cir. 2002). In this case, the Court declared that “...the Park Service is entitled to deference for its interpretation of its own definitions.” The Court concluded “...the FAA's use of an “average annual day” for measuring ‘substantial restoration of natural quiet’ appears inconsistent with both the Park Service's definition of the term and with the premise upon which that definition was based.... We must

therefore remand this issue for further consideration". In response to the court decision, the term "the day" was clarified by the NPS in the November 7, 2003 Federal Register Notice (68 FR 63129 - 63130) to mean "each and every day."

The D.C. Circuit Court of Appeals also found that the FAA's noise methodology was flawed because it only accounted for noise from commercial air tours, while ignoring noise from other types of aircraft (commercial jets, general aviation, and military flights). The court further stated that the Overflights Act did not provide any basis for ignoring noise caused by such aircraft and in the absence of any reasonable justification for excluding non-tour aircraft from its noise model, the court concluded that this aspect of the FAA's methodology was arbitrary and capricious and required reconsideration by the agency.

Reasons for the Clarification

Based on the 2002 D.C. Circuit Court of Appeals decision, as well as review of Congressional intent, aircraft noise levels, and national airspace safety and efficiency, this clarification of the restoration definition is necessary to address the noise of all aircraft while distinguishing how the substantial restoration of natural quiet will be achieved at and below 17,999 feet MSL within the Special Flight Rules Area (SFRA) and above the SFRA. The NPS recognizes that due to the impacts of aviation noise on park resources and the visitor experience, even with implementation of quiet technology aircraft, restoration of the natural quiet as defined in the 1995 Report to Congress will not be achieved without reduction of the sounds produced by jet traffic above 17,999.

The 1995 Report to Congress concluded that SFAR 50-2 had not resulted in substantial restoration of natural quiet in Grand Canyon National Park and continued growth in air

traffic may diminish or negate progress to date. The report looked at air tour, military, general aviation and high altitude commercial overflights and found that the major aircraft noise impacts on natural quiet came from air tour activity and high flying commercial jet traffic. Low flying general aviation and military overflights were thought to contribute little to the overall aircraft noise impacts. As discussed in the Report to Congress, high altitude jets were known to be a noise issue that the FAA needed to address. In particular it was recommended in the report that 1) FAA not authorize any deviations from normal high altitude routes for sight-seeing purposes; 2) FAA not authorize deviations from normal flight plans and cruising altitudes over the Grand Canyon for other than safety reasons; and 3) that FAA conduct a study on high altitude commercial jet routes that may also have impacts on natural quiet in the park.

Consequently, subsequent regulations focused on the regulation of air tour and related operations.

In 2005 and 2006, the GCNP initiated a soundscape monitoring and data collection effort to verify the accuracy of the earlier acoustic science and methodologies used since the early 1980's (see discussion in 64 FR 38006 – 38007) and to determine the natural ambient conditions for most of the park area. NPS noise modeling results predicted that over 96% of the park area had aircraft noise audible for over 25% of the 12-hour day; however, there were notable differences between air tour aircraft flying at lower altitudes within the SFRA and high altitude (primarily commercial) aircraft flying above the SFRA. Low flying air tour aircraft generated more noise at ground level, but could meet the threshold of the substantial restoration goal. Higher altitude aircraft generated lower levels of noise at ground level, but produced broader areas of audibility. The broader

geographic coverage of audibility of high altitude aircraft noise made achieving the NPS percentage goals of substantially restoring natural quiet to the Grand Canyon unattainable from a practical standpoint, no matter how few air tour and general aviation operations occurred within the SFAR and over the park. GCNP noise monitoring results in 2005 supported the model predictions. The time jet aircraft (above 17,999 feet MSL) were audible ranged between 22% and 35% of the day at four sites in remote backcountry locations.⁴ These results are similar to those reported by Harris Miller Miller and Hanson, Inc. in 2004 where the average percentages of time high altitude jet traffic were audible was 34.4%.⁵

In 2006, the FAA retained MITRE Corporation CAASD to conduct a study on the feasibility of implementing a flight free zone over the heart of GCNP for flights above 17,999 feet MSL, and adjusting traffic routes that would avoid a large and very important portion of the Grand Canyon. The unpublished study titled "Impact from Restricting Flights From Grand Canyon Airspace"⁶ determined that *"routing of commercial aviation would have a significant impact on the users of the airspace, would add thousands of extra miles and flying minutes to the routes, and safety of the airspace and operation would be negatively impacted through increased complexity and risks."* From the results of the MITRE study, the FAA determined that a flight free zone for high altitude aircraft over the Grand Canyon would adversely affect the safety and efficiency of the national airspace system.

Based on the data provided through the various NPS studies and the MITRE report, the NPS acknowledges that the definition of substantial restoration of natural quiet needs clarification to distinguish the goals within and above the SFRA, while at the same time

considering the noise from all aircraft in order to comply with the Overflights Act and the 2002 D.C. Circuit Court of Appeals decision.

This notice clarifies that through the application of law and policy, the NPS is clarifying that "a) Substantial restoration of natural quiet at GCNP is achieved when the reduction of noise from aircraft operations at or below 17,999 feet MSL results in 50% or more of the park achieving restoration of the natural quiet (i.e., no aircraft audible) for 75% to 100% of the day, each and every day; and b) the NPS defines the substantial restoration of natural quiet, from all aircraft above 17,999 feet MSL, to mean that there will be an overall reduction in aviation noise generated above 17,999 feet MSL above the park over time through the implementation of specific measures in accordance with commitments made by FAA to the NPS. The NPS also clarifies that 50% of the park is a minimum in the restoration goal.

¹ National Park Service, (1995) Report of Effects of Aircraft Overflights on the National Park System, Report to Congress, July 1995,

² National Park Service (1995) General Management Plan for Grand Canyon National Park.

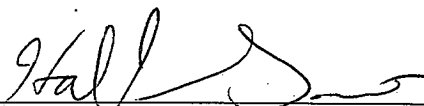
³ National Park Service, (2000) Review of Scientific Basis For Change in Noise Impact Assessment Method Used at Grand Canyon National Park, January 2000

⁴ National Park Service (2007) Report on Winter Ambient Sound Levels in Grand Canyon National Park, Report No. GRCA-07-02

⁵ Ross, J., Menge, C., and Miller, N.P. (2004) Percentage of time jet aircraft are audible in Grand Canyon National Park. Harris Miller Miller and Hanson, Inc., For NPS-HMMH Job No. 295860.044)

⁶ Abrahamsen, T.R., Marani, G.F., and Bearer, R., (2006) Impact on Restricting Flights From Grand Canyon Airspace. The MITRE Corporation CAASD for the Federal Aviation Administration and National Park Service, Report No. F063-B06-050, Presented to the Grand Canyon Working Group, September 2006

DATED: 1/16/08



Hal J. Grovert

Acting Regional Director, Intermountain Region, National Park Service