



Special Flight Rules Area in the Vicinity of Grand Canyon National Park

Actions to Substantially Restore Natural Quiet DES 10-60

Draft Environmental Impact Statement Volume Two



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APPENDIX A OVERFLIGHT CHRONOLOGY AND PARK MANAGEMENT LAWS, POLICIES AND REGULATIONS

GRAND CANYON NATIONAL PARK AIRCRAFT OVERFLIGHTS CHRONOLOGY OF SIGNIFICANT EVENTS

Date	Action	Additional Action
Feb 1919	First Grand Canyon air-tour overflight recorded (February)	Grand Canyon National Park created (August)
1926	First Grand Canyon scenic air-tour flights from airstrip near Red Butte	
1927	First air tour company begins operations	
1956	TWA-United mid-air collision over GCNP; 128 fatalities	Lead to establishment of FAA
1967	New Grand Canyon National Park Airport built south of Tusayan (three miles south of park boundary)	
Jan 1975	Grand Canyon National Park Enlargement Act (PL 93-620) passed. Recognized <ul style="list-style-type: none"> • potential for adverse impacts from aviation overflights • natural quiet is a resource or value to be protected. Act required studies on potential significant adverse effects of overflights to natural quiet and experience of the park	
Jun 1986	Mid-air collision between two air-tour flights. 25 fatalities focused national attention on the issue	Led to passage of Public Law 100-91
Mar 1987	Federal Aviation Administration (FAA) publishes Special Flight Rules Area (SFAR) No. 50 to establish special flight regulations in vicinity of Grand Canyon National Park	
Jun 1987	FAA modified SFAR 50 by raising the ceiling to 9,000 feet MSL in SFAR 50-1 . (52 Federal Register 22734)	
Aug 1987	National Parks Overflights Act PL 100-91 passed. Act required <ul style="list-style-type: none"> • Analysis of the nature, scope, and effects of overflights in national park units • Analysis whether SFAR-50 succeeded in substantially restoring natural quiet in the park • Designation of flight free zones except for administrative and emergency operations 	Catalyst for preparation of NPS Report to Congress on Effects of Aircraft Overflights on the National Park System
Jun 1988	FAA publishes SFAR 50-2 (53 Federal Register 20264) to revise flight procedures in Grand Canyon National Park (GCNP) airspace <ul style="list-style-type: none"> • extended the Special Flight Rules Area (SFRA) • prohibits flights below a certain altitude (14,499 ft MSL) • establishes four flight-free zones • sets special routes for commercial sightseeing operators • requires certain terrain avoidance and communications requirements 	
Mar 1994	FAA and NPS jointly issue advanced notice of proposed rulemaking on quiet technology and incentives. (59 Federal Register 12740)	
Sep 1994	NPS submits Report to Congress on Effects of Aircraft Overflights on the National Park System. Report defined "restoration of natural quiet" as 50% or more of the park achieves natural quiet (no aircraft audible) 75 to 100% of the day	Report published July 1995
Jun 1995	FAA published a Final Rule that extended the provisions of SFAR 50-2 to June 15, 1997, pending implementation of the Final Rule adopting NPS recommendations for overflights at Grand Canyon	
Apr 1996	President Clinton issued a Presidential Memorandum directing the Secretary of Transportation to issue proposed regulations for GCNP to appropriately limit sightseeing aircraft to reduce aircraft noise immediately, and further restore natural quiet, as defined by the Secretary of the Interior, while maintaining aviation safety in accordance with the Overflights Act (61 Federal Register 18229)	This memo also required development of a plan to complete restoration and maintenance of natural quiet if the Final Rule did not accomplish the goal.
Dec 1996	FAA publishes (61 Federal Register 69302) Final Rule, Special Flight Rules in the Vicinity of GCNP (SFRA, 14 CFR § 93.301) which establishes <ul style="list-style-type: none"> • seasonal flight curfews for GCNP east end (14 CFR § 93.305) • temporary cap on number of air-tour flights • air-tour operator's reporting requirement • changed airspace routes and altitudes for air tour flights (14 CFR §93.307) 	FAA later delays implementation of airspace route changes and does not implement cap on number of air-tour aircraft
Dec 1996	FAA publishes (61 Federal Register 69334) a Notice of Proposed Rulemaking (NRPM), (Notice 96-15) Noise Limitations for Aircraft Operations in the Vicinity of GCNP, proposal which sought to <ul style="list-style-type: none"> • reduce impact of air-tour aircraft by providing an incentive flight corridor through GCNP for noise efficient (quiet) aircraft • categorize aircraft by noise efficiency • remove aircraft cap for the most noise-efficient aircraft 	FAA later delays focus on development of quiet technology until April 2000
Jan/Feb 1997	FAA sued over December 1996 Special Flight Rules in the Vicinity of GCNP Final Rule implementation. Four groups (Air Tour Coalition, Grand Canyon Trust, Hualapai Tribe, and Clark County Dept. of Aviation) challenged the Final Rule in the Court of Appeals for the D.C. Circuit	FAA is later upheld in court decision
Feb 1997	FAA delayed the effective date for the majority of provisions in the December 1996 Special Flight Rules in the Vicinity of GCNP Final Rule due to safety concerns raised by the operators (62 Federal Register 8862)	This action did not delay implementation of curfew, aircraft cap, or reporting requirements. SFAR 50-2 airspace structure and routes remained in effect until future action
May 1997	FAA published (62 Federal Register 26902) a proposed rule to amend two of the flight free zones to establish two quiet technology incentive corridors (Bright Angel FFZ and National Canyon)	Withdrawn on July 1998

Date	Action	Additional Action
Oct 1997	FAA published a Notice of Clarification and reevaluation of the Final Environmental Assessment regarding the December 1996 Special Flight Rules in the Vicinity of GCNP Final Rule aircraft cap. The environmental assessment accompanying the December 1996 Rule used an incorrect number of 136 aircraft in the analysis. Later data showed that 260 aircraft was the correct number that should have been analyzed	
Jul 1998	After reviewing public comments and consulting with NPS, FAA decided not to proceed with quiet-technology incentive corridors, and withdrew the proposed rule	
Sep 1998	The D.C. Circuit denied the petitioners' challenges to the December 1996 Special Flight Rules in the Vicinity of GCNP Final Rule and upheld the portions of the rule in effect, as well as NPS's definition of "substantial restoration of natural quiet"	
Jan 1999	NPS publishes a Federal Register Notice (64 Federal Register 3969) of agency policy Change in Noise Evaluation Methodology for Air Tour Operations over GCNP . Notice described a two-zone system with different noise thresholds (audibility and noticeability) to be used in modeling amount of substantial restoration achieved. GCNP refined natural ambient sound zones and added to additional zones	Evaluation methodology becomes effective July 1999
Jul 1999	FAA publishes an NPRM (Notice 99-11) to modify GCNP SFRA dimensions that <ul style="list-style-type: none"> • modifies the SFRA's eastern portion and Desert View Flight-Free Zone to extend the boundary five nautical miles east • modifies the Bright Angel Flight-Free Zone to a possible quiet-technology incentive route • provides for an additional route between Las Vegas and Tusayan • and modifies the Sanup Flight-free zone's northern boundary 	
Jul 1999	FAA publishes an NPRM (Notice 99-12) to limit number of commercial air tours in the SFRA by proposing <ul style="list-style-type: none"> • temporary limits (allocations) on number of SFRA air tours to number reported 5/1/97 to 4/30/98 • new definitions for commercial SFRA operations (transportation, training, maintenance, repositioning, and flights serving Grand Canyon West) • no transfer of allocations into either Dragon or Zuni Point Corridors transfer of allocations out of these corridors is permissible • no transfer of allocations from peak to off-peak seasons 	
Jul 1999	FAA releases a Notice of Availability of Routes . Changes include <ul style="list-style-type: none"> • elimination of Blue-1 and Blue-1A routes through National Canyon and Havasupai Reservation • simplifying and shortening west-end routes (Green-4 and Blue-2) • establishing Blue Direct North and Blue Direct South routes between Las Vegas and Tusayan • extending Green-3 and Black-4 routes around Bright Angel and Desert View Flight-free Zones 	
Feb 2000	FAA delays for second time effective date of 14 CFR §93.301, 93.305, and 93.307 (Quiet Technology)	
Apr 2000	FAA publishes a Final Rule, Modification of the Dimensions of the Grand Canyon National Park Special Flight Rules Area and Flight Free Zones (65 Federal Register 17736)	Implementation of airspace and route changes encountered a series of delays, reissuance of modifications, and litigation. A modified route structure implemented April 2001
Apr 2000	FAA publishes a Final Rule (65 Federal Register 17708), Commercial Air Tour Limitation in the Grand Canyon National Park Special Flight Rules Area . The rule <ul style="list-style-type: none"> • changed airspace and routes for air tours • set limitations on number of GCNP air-tour flights (allocations) at 90,000 • added air-tour operators reporting requirements 	This rule went into effect May 4, 2000
Apr 2000	National Parks Air Tour Management Act (P.L. 106-181) passed. §804 of the Act requires FAA "to designate reasonably achievable requirements for fixed-wing and helicopter aircraft necessary... to be considered as employing quiet aircraft technology..."; in addition, Act required a "quiet aircraft technology" definition and creation of incentive routes for quiet aircraft, as long as the routes do not negatively impact substantial restoration of natural quiet, Native American lands, or safety. The Act mandates development of Commercial Air Tour Management Plans (ATMP). Act prohibits a commercial air-tour operator from conducting such tours over a national park or tribal lands, except in accordance with the Act, conditions prescribed for the operator by the FAA administrator, and any commercial air-tour management plan for the park or tribal lands. Finally, Act requires a cooperative relationship between the FAA Administrator and the NPS Director regarding air-tour management planning. Details of a cooperative relationship and the dual-agency process for air tour management planning remain undefined	FAA delays this task and issues an amendment to Notice 96-15 in FR 14715, March 2003. It proposes standards for quiet technology
May 2000	FAA Commercial Air Tour Limitations Final Rule becomes effective	
May 2000	The U.S. Air Tour Association (with seven air tour operators) and the Grand Canyon Trust challenged the two April 2000 Final Rules	
Nov 2000	Implementation of airspace and route changes encountered series of delays, re-issuance of modifications, and litigation. Modified route structure (new routes on west-end and continuation of previous routes on east-end) implemented April 19, 2001	See August 2002 Court of Appeals decision
Mar 2001	NPS and FAA establish the National Parks Overflights Advisory Group (NPOAG) to provide advice, information and recommendations to NPS and FAA on implementation of the National Parks Overflights Act (Quiet Technology in particular)	
Dec 2001	FAA issues a Federal Register Notice extending implementation of east end airspace modification Final Rule (66 Federal Register 63294) until February 2003	Date again delayed by FAA until 2/20/06 (68 Federal Register 9496)

Date	Action	Additional Action
Jan 2002	U.S. Air Tour Association (USATA) challenges two FAA Final Rules issued in 2000 in U.S. Court of Appeals . Environmental coalition led by Grand Canyon Trust was intervener. USATA sought to have flight limitations rule set aside largely for procedural reasons. Environmental coalition asked court to order FAA to follow wording of P.L. 100-91 and allow NPS to define key statutory terms (e.g., to measure substantial restoration of natural quiet on an "any day" rather than an "average annual day"). Suit also asked all aviation noise be considered, not just noise produced by commercial air tours	
Aug 2002	U.S. Court of Appeals rejected challenges brought by the U.S. Air Tour Association, but concluded challenges brought by Grand Canyon Trust raised issues requiring further consideration by FAA. The court ruled that FAA's use of an annual average day for measuring substantial restoration of natural quiet appeared inconsistent with NPS's definition. The court also held that FAA must account for noise from aircraft other than air tours when analyzing environmental impacts	
Jan 2003	Aircraft Noise Model Validation Study released by NPS and FAA to public	Noise Map Simulation Model (NMSIM) NPS model of choice for GCNP
Nov 2003	NPS Federal Register Notices published defining term "the day" and selection of NMSIM as NPS "model of choice" to help determine restoration of natural quiet at GCNP	Federal Register Notice/Vol. 68, No. 216, Nov 7, 2003; pgs 63129-63132
Feb 2004	NPS and FAA meet to begin Alternative Dispute Resolution (ADR) process to resolve/address long-standing issues and improve interagency communication	Lead by U.S. Institute for Environmental Conflict Resolution
Nov 2004	NPS and FAA hold first ADR meeting with stakeholders to introduce process and seek participation.	Determine to arrive at solution to issues
Feb 2005	NPS and FAA hold second ADR meeting to outline process of participant selection, roles, and ADR schedule of progress	Selection of Action Committee composed of NPOAG members and ADR participants, to make recommendations on ADR steps
Mar 2005	Federal Interagency Committee on Aircraft Noise (FICAN) releases Assessment of Tools for Modeling Aircraft Noise in National Parks and designates Integrated Noise Model (INM) 6.2 as the model to be used for assessing aircraft noise at GCNP and parks requiring Air Tour Management Plans	INM 6.2 available 3 to 6 months from FICAN release date (pending funding)
Mar 2005	GRCA Overflights Program begins collecting natural ambient data for use in park INM aircraft-noise modeling. Four vegetation types are sampled which represent 96% of park acreage	Obtaining summer natural ambient data for first INM model run to assess progress on achieving substantial restoration of natural quiet
Mar 2005	FAA issues Final Rule on Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park (70 Federal Register 16084)	Rule sets decibel levels for quiet-technology aircraft, and classifies tour aircraft by noise produced. Identifies which aircraft meet or do not meet GCNP quiet-aircraft technology designation
Mar 2005	NPS and FAA issue notice for Membership in the Grand Canyon Working Group of the National Parks Overflights Advisory Group Aviation Rulemaking Committee	NPS and FAA establish a Grand Canyon Working Group within NPOAG, and ask people to assist /nominate representatives to the ADR working group, and identify NPOAG role in ADR process and conflict-resolution efforts
Jul 2005	First meeting of GCNP Overflights Working Group (NPOAG sub-committee)	Introduced members of working group; discussed meeting protocols and procedures; summarized history and background of GCNP overflights issue; discussed scope of working group and time schedule. Reviewed current efforts on overflights data collection and noise analysis
Aug 2005	Summer natural ambient data collected for analysis and use in upcoming model runs to assess restoration of natural quiet at GCNP	To be presented at next NPOAG sub-committee meeting. Natural ambient data collection continues
Oct 2005	Second meeting of GCNP Overflights Working Group (NPOAG sub-committee)	Review Tribal consultation requirements; field trip to present GCNP sound systems and methods used in natural ambient data collection. Technical presentations on acoustic data collection, use, and analysis and its use in aircraft noise model runs in December 2005. FAA presented air-tour data and selection of Peak Day for December model runs
Nov 2005	NPS submits to FAA summer natural ambient data for use in FAA's INM 6.2 model assessment of aircraft noise; Progress toward restoration of natural quiet at GCNP since enactment of Special Flight Rules Area 50-2 regulations (2000) to be modeled	Modeling of aircraft noise at GCNP to occur in December, with results expected in January 2006
Jan 2006	NPS and the FAA publish a Notice of Intent (71 Federal Register 4192) to prepare this Environmental Impact Statement	

Date	Action	Additional Action
Feb 2006	FAA issues a Final Rule (71 Federal Register 09439) that further delays implementation of airspace and commercial air-tour route changes for the east end	This delay was to allow NPS and the FAA, in consultation with the U.S. Institute for Environmental Conflict Resolution and involved park stakeholders, to consider additional measures to be incorporated into an overflights plan. These measures also address quiet-aircraft technology provisions
Apr 2008	NPS publishes a Federal Register notice (73 Federal Register 55130) clarifying the definition of substantial restoration of natural quiet at Grand Canyon National Park will be achieved when reduction of noise from aircraft operations below 18,000 feet MSL results in 50% or more of the park achieving restoration of natural quiet (i.e., no aircraft audible) for 75 to 100% of the day, each and every day. 50% restoration is defined as a minimum goal	
Feb 2011	NPS anticipates releasing Special Flight Rules Area in the Vicinity of Grand Canyon National Park Draft Environmental Impact Statement	120-day public comment period

1

LAWS, POLICIES, AND REGULATIONS RELEVANT TO GRAND CANYON NATIONAL PARK MANAGEMENT

	Law, Policy, or Regulation (by date)	Acronym	Record	Online Address
1864	Yosemite Act		13 Stat. 325	http://www.nps.gov/history/history/index.htm http://www.gpoaccess.gov/uscode/
1870	Anti-Deficiency Act		31 USC 1341; ch. 251, 16 Stat. 251/ Public Law 97-258	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1872	Yellowstone National Park		30 USC 21-22, 17 Stat. 32	http://www.gpoaccess.gov/uscode/
1872	General Mining Act		30 USC 22 t seq. Ch. 152, 17 Stat. 91	http://www.gpoaccess.gov/uscode/
1890	General Grant National Park and a portion of Sequoia National Park Act		26 Stat. 650	http://www.gpoaccess.gov/uscode/
1893	Presidential Proclamation creating Grand Canyon National Forest and Game Reserve		Proclamation No. 45, 27 Stat. 1064	http://www.gpoaccess.gov/uscode/
1906	Yosemite Act		34 Stat. 831	http://www.gpoaccess.gov/uscode/
1906	Antiquities Act	Antiquities Act	16 USC 431-433; June 8, 1906, ch. 3060, 34 Stat. 225	http://www.gpoaccess.gov/uscode/
1908	Presidential Proclamation creating Grand Canyon National Monument		Proclamation No. 794 (35 Stat. 2175)	http://www.gpoaccess.gov/uscode/
1916	The National Park Service Organic Act	Organic Act	16 USC 1 et seq./Public Law 64-235	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1919	Grand Canyon National Park Establishment Act		40 Stat. 1175	http://www.gpoaccess.gov/uscode/
1920	Mineral Leasing Act		30 USC 181-287, Ch. 85, 41 Stat. 437	http://www.gpoaccess.gov/uscode/
1930	Acquired Lands Mineral Leasing Act		30 USC 301-306; Ch. 307 46 Stat. 373	http://www.gpoaccess.gov/uscode/
1934	Taylor Grazing Act		43 USC §§ 315-316o, June 28, 1934, as amended 1936, 1938, 1939, 1942, 1947, 1948, 1954 and 1976	http://www.gpoaccess.gov/uscode/
1935	Historic Sites Act		16 USC 461-467; Ch. 593, 49 Stat. 666	http://www.nps.gov/history/local-law/FHPL_HistSites.pdf
1946	Administrative Procedure Act	APA	5 USC 551 et seq., ch. 324, 60 Stat. 237	http://www.gpoaccess.gov/uscode/
1947	Federal Insecticide, Fungicide and Rodenticide Act	FIFRA	7 USC 136-136y/Public Law 92-516	http://www.epa.gov/compliance/civil/fifra/index.html
1948	Clean Water Act	CWA	33 USC 1251 et seq.	http://www.gpoaccess.gov/uscode/
1955	Museum Act		16 USC 18f-18f-3, Ch. 259, 69 Stat. 242/Public Law 104-333	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1955	Clean Air Act of 1955 as amended 1963	CAA	42 USC 7401 et seq.	http://www.gpoaccess.gov/uscode/
1958	Fish and Wildlife Coordination Act 1958 and 1980		16 U.S.C. 661-667e	http://www.gpoaccess.gov/uscode/
1963	Clean Air Act as amended 1970, 1990	CAA	42 USC 7401-7671q/Public Law 88-206	http://www.epa.gov/air/caa/peg/
1964	The Wilderness Act	WA	16 USC 1131-1136/Public Law 88-57	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1965	Land and Water Conservation Fund Act	LWCF	16 USC 4601-4-4601-II/Public Law 88-578	http://www.gpoaccess.gov/uscode/
1965	Federal Water Project Recreation Act of 1965, as amended 1974 and 1976		USC 4601-12 et seq.	http://www.gpoaccess.gov/uscode/
1966	Freedom of Information Act	FOIA	5 USC 552/Public Law 89-554, 90-23	http://www.justice.gov/oip/
1966	National Historic Preservation Act of 1966 and regulations implementing NHPA	NHPA	16 USC 470 et seq. 36 CFR Part 800 as amended	http://www.gpoaccess.gov/uscode/

	Law, Policy, or Regulation (by date)	Acronym	Record	Online Address
1968	The National Trails System Act		P.L. 90-543, as amended through P.L. 109-418, December 21, 2006	http://thomas.loc.gov http://www.nps.gov/nts/legislation.html
1968	Wild and Scenic Rivers Act	WSRA	USC 1271 et seq.	http://www.gpoaccess.gov/uscode/
1968	Rights of Way on Tribal Trust Land Act		25 CFR Part 169	
1968	Architectural Barriers Act		42 USC 4151-4157/Public Law 90-480	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1969	National Environmental Policy Act as amended 1975	NEPA	42 USC 4321 et seq./Public Law 91-90	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1970	General Authorities Act		16 USC 1a-1 et seq. Public Law 91-383; 94-458; 95-250	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1970	Occupational Safety and Health Act	OSHA	29 USC 651 et seq./Public Law 91-596	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1970	National Park Service General Authorities Act of 1970 and 1978		16 USC 1a-1	http://www.gpoaccess.gov/uscode/
1971	Protection and Enhancement of the Cultural Environment Act		Executive Order 11593	http://www.archives.gov/federal-register/codification/executive-order/11593.html
1972	Federal Advisory Committee Act	FACA	5 USC App. 1-16/Public Law 92-463	http://www.gsa.gov/faca
1972	Equal Employment Opportunity Act	EEO	42 USC 2000e-16(a)/Public Law 92-261	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1972	Airborne Hunting Act of 1971, as amended		16 USC § 742j-1	http://www.gpoaccess.gov/uscode/
1972	Water Pollution Control Act Amendments (Clean Water Act)		33 USC 1251-1387/Public Law 92-500, 95-217	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1972	Noise Control Act of 1972, as amended		42 USC 4901 et seq.	http://www.gpoaccess.gov/uscode/
1973	National Cemeteries Act		16 USC 2400-2410/Public Law 93-43	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1973	Endangered Species Act	ESA	16 USC 1531 et seq./Public Law 93-205	http://www.gpoaccess.gov/uscode/
1974	Special Recreation Permits and Special Recreation Permit Fees Act		36 CFR 71.10	http://www.nps.gov/fees_passes.htm http://edocket.access.gpo.gov/cfr_2008/julqtr/pdf/36cfr71.13.pdf
1974	Safe Drinking Water Act		42 USC s/s 300f et seq.	http://www.gpoaccess.gov/uscode/
1974	Forest and Rangeland Renewable Resources Planning Acts of 1974 and 1976		16 USC 1600	http://www.fs.fed.us/emc/nfma/includes/range74.pdf http://www.fs.fed.us/emc/nfma/includes/NFMA1976.pdf
1975	The Hazardous Materials Transportation Act as amended	HMTA	49 USC 5010-5127/Public Law 93-633, 101-615, 103-311	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1975	Tribal Law and Order Code		Hualapai Tribal Council Resolution 72-72	
1975	Grand Canyon National Park Enlargement Act		16 USC 228/Public Law 93-620	http://www.gpoaccess.gov/uscode/
1976	Mining in the Parks Act		16 USC 1901-1912/Public Law 94-429	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1976	Federal Land Policy and Management Act	FLPMA	43 USC 1701 et seq.	http://www.gpoaccess.gov/uscode/
1978	Planning, Acquisition, and Management of Federal Space Act		Executive Order 12072	http://www.archives.gov/federal-register/codification/executive-order/12072.html
1978	Redwood Act Amendments in 1978		16 USC 1a-1	http://www.gpoaccess.gov/uscode/
1978	CEQ General Regulations Implementing National Environmental Policy Act		40 CFR Parts 1500–1508	http://ceq.hss.doe.gov/nepa/regs/ceq/toc_ceq.htm

	Law, Policy, or Regulation (by date)	Acronym	Record	Online Address
1978	American Indian Religious Freedom Act	AIRFA	42 USC 1996 et seq.	http://www.gpoaccess.gov/uscode/
1977	Floodplain Management Act		Executive Order 11988	http://www.archives.gov/federal-register/codification/executive-order/11988.html
1977	Protection of Wetlands Act		Executive Order 11990	http://www.epa.gov/OWOW/wetlands/regs/eo11990.html
1977	Exotic Organisms Act		Executive Order 11987	http://www.archives.gov/federal-register/codification/executive-order/11987.html
1978	Federal Compliance with Pollution Control Standards Act		Executive Order 12088	http://www.archives.gov/federal-register/codification/executive-order/12088.html
1979	Archaeological Resources Protection Act	ARPA	16 U.S.C. 470aa-mm/Public Law 96-95	http://www.gpoaccess.gov/uscode/ http://www.nps.gov/history/local-law/fhpl_archsrcsprot.pdf http://thomas.loc.gov
1980	Comprehensive Environmental Response, Compensation and Liability Act	CERCLA	42 USC 13201-13556/Public Law 96-205	http://www.epa.gov/superfund/policy/cercla.htm http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1981	Farmland Protection Policy Act	FPPA	Public Law 97-98	http://thomas.loc.gov
1982	Federal Managers' Financial Integrity Act	FMFI	31 USC 3512(d)/Public Law 97-255, 97-452	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1986	Commemorative Works Act		40 USC 1001-1010/Public Law 99-652	http://www.cfa.gov/about/leg.html http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1987	Aircraft Overflights in National Parks Act		Public Law 100-91	http://thomas.loc.gov http://www.nps.gov/grca/naturescience/upload/PL100-91.pdf
1988	National Park Omnibus Management Act		16 USC 5961(b)	http://www.gpoaccess.gov/uscode/ http://www.nps.gov/gis/data_standards/omnibus_management_act.html
1988	Federal Cave Resources Protection Act	FCRPA	16 USC 4301-4310/Public Law 100-691	http://thomas.loc.gov http://www.gpoaccess.gov/uscode/
1990	Native American Graves Protection and Repatriation Act	NAGPRA	25 USC 3001-3013; Public Law 101-106	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov http://www.nps.gov/nagpra/MANDATES/INDEX.HTM
1990	National Park System Resource Protection Act		16 USC 19jj-4/Public Law 101-337, 104-333	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1990	Pollution Prevention Act		42 USC 13101 et seq.	http://www.gpoaccess.gov/uscode/
1990	Americans with Disabilities Act	ADA	42 USC 12101/Public Law 101-336	http://thomas.loc.gov
1991	Hualapai Constitution, Amended 1991		Public Law 93-560	http://thomas.loc.gov
1992	Energy Policy Act		42 USC 13201-13556/Public Law 102-486	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1993	Government Performance and Results Act	GPRA	31 USC 1115 et seq./Public Law 103-62	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1993	Regulatory Planning and Review Act		Executive Order 12866	http://www.archives.gov/federal-register/executive-orders/1993-clinton.html
1994	Government to Government Relations with Native American Tribal Governments Memorandum		Memorandum for the Heads of Executive Department and Agencies (signed President Clinton April 29, 1994)	http://www.justice.gov/archive/otj/Presidential_Statements/presdoc1.htm

	Law, Policy, or Regulation (by date)	Acronym	Record	Online Address
1994	Environmental Justice Act		Executive Order 12898	http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf
1996	Alaska National Interest Lands Conservation Act	ANILCA	16 USC 3101-3233/Public Law 96-487	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1996	American Indian Religious Freedom Act	AIRFA	42 USC 1996-1996a/Public Law 95-341, 103-344	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1996	Indian Sacred Sites Act		Executive Order 13007	http://www.achp.gov/EO13007.html http://www.nps.gov/nagpra/AGENCIES/EO_13007.HTM
1997	American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and Endangered Species Act		Secretarial Order 3206 (June 5, 1997)	http://elips.doi.gov/app_so/index.cfm?fuseaction=ChroList
1997	Hualapai Environmental Review Code		Hualapai Tribal Council Resolution 50-97	
1998	NPS Concessions Management Improvement Act		16 USC 5951-5966/Public Law 105-391 (title IV)	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1998	National Parks Omnibus Management Act		16 USC 5901-6011/Public Law 105-391	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
1999	Invasive Species Act		Executive Order 13112	http://www.invasivespeciesinfo.gov/laws/execorder.shtml
2000	National Parks Air Tour Management Act		114 Stat. 61/Public Law 106-181 (title VIII)	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov http://www.nps.gov/grca/naturescience/upload/4-106_cong_public_laws.pdf
2000	Department of the Interior's (DOI) National Environmental Policy Act Revised Implementing Procedures (<i>Federal Register</i> , August 28, 2000)		DOI Departmental Manual	http://elips.doi.gov/app_dm/index.cfm?fuseaction=home http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2000_register&docid=00-21245-filed
2000	Consultation and Coordination with Indian Tribal Governments Act		Executive Order 13175	http://ceq.hss.doe.gov/nepa/regs/eos/eo13175.html
2001	Federal Wildland Fire Management Policy			http://www.fs.fed.us/fire/management/policy http://www.nifc.gov/policies/guidance/GIFWFMP.pdf
2001	Migratory Bird Treaty Act (Migratory Bird Guidance)		16 USC 703-711	http://www.gpoaccess.gov/uscode/
2004	Federal Lands Recreation Enhancement Act	FLREA	16 USC 6801-6814/Public Law 108-447	http://www.gpoaccess.gov/uscode/ http://thomas.loc.gov
2006	National Park Service Management Policies		This volume is the basic NPS Servicewide policy document. Adherence to policy is mandatory unless specifically waived or modified by the Secretary, the Assistant Secretary, or the Director.	http://www.nps.gov/policy/MP2006.pdf http://www.nps.gov/policy/mp/policies.html
Directors Orders (National Park Service)				
	Park Planning	DO-2	The National Park Service has several sources of detailed written guidance to help managers make day-to-day decisions. The primary source of guidance is the 2006 edition of <i>Management Policies</i> —the foremost element of the Service's directives system. Other elements include Director's Orders, Handbooks, and Reference	http://www.nps.gov/applications/npspolicy/DOrders.cfm
	Law Enforcement Program	DO-9		
	Conservation Planning, Environmental Impact Analysis and Decision Making	DO-12		
	Environmental Management Systems	DO-13		
	Wildland Fire Management	DO-18		

	Law, Policy, or Regulation (by date)	Acronym	Record	Online Address
	Cultural Resources Management	DO-28	Manuals	
	Wilderness Preservation and Management	DO-41		
	Soundscape Preservation and Noise Management	DO-47		
	Concessions Management	DO-48		
	Special Park Uses	DO-53		
	Implementation of the NPS Organic Act	DO-55		
	Aviation Management	DO-60		
	Natural Resources Protection	DO-77		
	Relationship with American Indian Tribes	DO-71		

APPENDIX B DETERMINATION OF IMPAIRMENT

A determination of impairment is made for each resource impact topic carried forward and analyzed in this Environmental Impact Statement for the Preferred Alternative. The description of park significance in Chapter 1 was used as a basis for determining if a resource is

- necessary to fulfill specific purposes identified in the area's establishing legislation or proclamation, or
- key to the area's natural or cultural integrity or to opportunities for area enjoyment, or
- identified in the area's General Management Plan or other relevant NPS planning documents as being of significance

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The NPS threshold for considering whether there could be impairment is based on whether an action would have major (or significant) effects.

Impairment findings are not necessary for Visitor Use and Experience, Socioeconomics, Public Health and Safety, Environmental Justice, Land Use, or Park Operations because impairment findings relate back to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, and cannot be impaired in the same way an action can impair park resources and values. After dismissing the above topics, topics remaining to be evaluated for impairment include Soundscape, Wilderness Character, Ethnographic Resources, Wildlife, and Special Status Species.

Fundamental resources and values for Grand Canyon National Park are identified in the Foundation Statement (NPS 2010). According to that document, of impact topics carried forward in this Environmental Impact Statement, Soundscape, Wilderness Character, Ethnographic Resources, Wildlife, and Special Status Species are considered necessary to fulfill specific purposes identified in the park's establishing legislation or proclamation; are key to the park's natural or cultural integrity; and/or are identified as a goal in the park's General Management Plan or other relevant NPS planning document.

NATURAL AND CULTURAL RESOURCE TOPICS

Soundscape

Grand Canyon National Park offers excellent opportunities to hear natural sounds including bird calls and sounds of wind and water. These sounds form a rich natural resource important to the park's ecological communities. Today, these natural ambient sounds, often referred to as natural quiet, are threatened as human-produced noises from aircraft overflights intrude into the park's most remote areas.

Natural Soundscapes in remote park areas are necessary to fulfill purposes for which the park was established, and are key to the park's natural and cultural integrity, as well as opportunities for enjoyment of much of the park. The park's natural Soundscape has been recognized for its special qualities and importance to park integrity in legislation (Public Laws 93-620, 100-91 and 106-181) and the park's General Management Plan and Foundation Statement. Protective actions in the Preferred Alternative would generally have only beneficial impacts on Soundscapes. Actions include flight path modifications, reductions in number of hours flown, and conversion to quiet-technology aircraft, each of which will reduce Average Sound Level and Percent Time Audible of noise currently caused by aircraft overflights. Although major beneficial changes in impacts compared to Alternative A (No Action) would occur in many areas due to actions in the NPS Preferred Alternative, major adverse impacts would continue in some areas under and near heavily used air-tour routes. In addition, there are cumulative impacts from other noise sources which, when added to aircraft noise produced as part of the NPS Preferred Alternative, would continue moderate to major adverse in many areas. These other noise sources include other aircraft above and outside the Special Flight Rules Area, and ground-based noise sources such as developed areas (approximately 2% of the park), vehicle use both inside and outside the park, motor use on the Colorado River, and mining activities outside the park. After considering the beneficial as well as adverse effects of the NPS Preferred Alternative analyzed in this EIS, including cumulative impacts, it is the Superintendent's professional judgment that the NPS Preferred Alternative would not result in impairment to park Soundscapes.

Wilderness Character

Nearly 94% of GCNP is proposed for Wilderness designation, and there are an additional seven proposed Wilderness areas in the NPS-managed portion of Grand Canyon-Parashant National Monument (within the Special Flight Rules Area). These lands are managed to conserve natural resources and ecological processes and to provide for use and enjoyment in ways that do not adversely affect these resources and processes.

Elements of Wilderness Character in remote park areas are necessary to fulfill purposes for which the park was established, and are key to the park's natural integrity. Preferred Alternative actions would generally have only beneficial impacts on Wilderness Character because flight path modifications, changes in number of hours flown, and conversion to quiet-technology aircraft would reduce Average Sound Level and Percent Time Audible of noise currently caused by air-tour overflights. Because of these beneficial effects, the Preferred Alternative would not result in impairment to Wilderness Character.

Ethnographic Resources

As identified in the 1995 General Management Plan, Ethnographic Resources in Grand Canyon National Park are necessary to fulfill purposes for which the park was established, and are key to the park's natural integrity.

Under the Preferred Alternative, Ethnographic Resources would continue to be surveyed, inventoried, and evaluated under National Register of Historic Places criteria, and the National Park Service would implement resource management policies that preserve natural resource values and culturally significant character-defining patterns and features of listed, or determined eligible, landscapes and resources. The Preferred Alternative would not lead to increased air-tour or ground-based visitation to cultural and Ethnographic Resources. Due to protective efforts, such as locating air-tour routes away from areas known for cultural and ethnographic importance, the Preferred Alternative would not result in impairment.

Wildlife and Special Status Species

Grand Canyon National Park is a valuable resource for wildlife due to the park's size, elevation range, associated habitat variety, and integrity. Additionally, the Endangered Species Act requires Federal agencies ensure their activities would not jeopardize existence of any endangered or threatened species or result in destruction or adverse modification of critical habitat of such species. Consultation with the U.S. Fish and Wildlife Service and the Arizona Department of Game and Fish identified a number of threatened or endangered species, species of concern, and wildlife that warrants inclusion of this topic in this EIS. Some species on this list were dismissed from detailed analysis because they do not exist in the park or would not be affected by proposed actions. Special Status Species retained for further analysis are the American peregrine falcon, California condor, and the Mexican spotted owl. Implementing the Preferred Alternative would result a range of impacts to park wildlife ranging from imperceptible to beneficial and moderately adverse effects.

Viable Wildlife and Special Status Species populations are necessary to fulfill purposes for which the park was established, and are key to the park's natural integrity. Preferred Alternative actions would have largely beneficial impacts because protective measures such as flight path modifications, changes in number of hours flown, and conversion to quiet-technology aircraft would reduce Average Sound Level and Percent Time Audible of noise currently caused by air-tour overflights. The Preferred Alternative would not result in impairment to these resources due to these protective measures and ongoing monitoring and adaptive management efforts.

CONCLUSION

As described above, adverse impacts anticipated as a result of implementing the Preferred Alternative on a resource or value whose conservation is necessary to fulfill specific purposes identified in park establishing legislation or proclamation, key to park natural or cultural integrity, or to opportunities for park enjoyment, or identified as significant in the park's General Management Plan or other relevant NPS planning documents, would not rise to levels that would constitute impairment.

APPENDIX C SCOPING SUMMARY

BACKGROUND AND DESCRIPTION OF SCOPING ACTIVITIES

The Notice of Intent to Prepare an Environmental Impact Statement (EIS) For Actions to Substantially Restore Natural Quiet to the Grand Canyon National Park and Public Scoping was published in the Federal Register January 25, 2006.

A public scoping letter dated January 25, 2006 was mailed to members of the public identified by the NPS as those who normally receive notification of park NEPA actions. Federal, state, and local governmental agencies, as well as individuals identified by the Federal Aviation Administration as members of the 121-carrier list also received the scoping letter.

A similar notice was then published in three Arizona and one Nevada newspaper between February 3, 2006 and February 8, 2006. A news release was emailed January 25, 2006 on behalf of the NPS to the list of media contacts the agency provided. The same media contacts were emailed a calendar announcement on behalf of the NPS approximately one month later.

Open house public scoping meetings were held February 21, 2006 in Glendale, Arizona; February 22, 2006 in Flagstaff, Arizona; and ; February 23, 2006 in Henderson, Nevada.

The Notice of Intent and additional information provided at the open house public meetings was posted on the Grand Canyon Overflights joint FAA/NPS website:

http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/

A stenographer collected oral comments on the Environmental Impact Statement at the public scoping meetings. Flip charts were available at stations for each of the three meetings to document public comment. Individuals; organizations; Federal state and local agencies submitted written comments on the Docket Management System or directly to Volpe Center. 1267 written and oral comments were received.

SUMMARY TABLE OF COMMENTS RECEIVED

Issue Comments The following public scoping comments highlight issues to be considered in the Environmental Impact Statement Relating to the Substantial Restoration of Natural Quiet at Grand Canyon National Park

CATEGORY	COMMENT
Noise	Noise from Air Tours Does Not Seem to be a Problem / Noise Does Not Bother Me
	a. In no way did I feel the flights were loud or intrusive; the equipment was very quiet.
	b. Noise in the canyon is no longer an issue.
	c. Hiking and ground touring have never been disturbed by aircraft noise.
	d. I am a long time resident inside the National Park and can honestly say that overflight noise has never been an issue with myself or my family.
	e. There is plenty of quiet time after 6pm and on days that the weather is bad and there are no flights.
	f. Planes/Helicopters are not seen or heard in areas where visitors most commonly are.
	g. INM 6.2 does not seem to accurately depict the contribution to noise from just air tours.
	h. When I hiked Bright Angel and Kaibab Trail, the only man-made noise I heard was from high-flying jets and idling diesel engines up in the parking lot of the South Rim (noise was not from air tours).
	Noise from Air Tours is a Problem: Artificial Noise Should be Reduced / Solitude and Natural Quiet Should be Restored
	a. Natural Soundscape is not being preserved; a larger percentage of the Park should attain natural quiet 100% of the time.
	b. I have hiked all throughout the Grand Canyon and the one thing that consistently mars the experience is aircraft noise. One can be enjoying the quiet and after a few minutes, the noise of an aircraft will change what should be a sublime and spiritual moment into a noisy, jarring experience.
	c. The noise pollution created by droning sightseeing helicopter is almost unbearable, especially during peak season.
	d. The areas more disturbed by air tours are the more remote locations; the incessant buzzing of airplanes and helicopters ruin the solitude that should be a reward for the effort to get there.
	e. The wildlife does not "get used to" the noise.
	f. On an 11-day walk between Nankoweap and Bright Angel, I did not see another human being for 6 days but did not experience a day without planes overhead. My right to Natural Quiet was trumped by the air tour operators right to capitalize on the same beauty.
	g. Petition to Restore Natural Quiet: Natural quiet deserves as much protection as the wildlife, rivers, plants, trees, and other park resources have received for generations.

CATEGORY	COMMENT
	h. Control of artificial noise, particularly aircraft noise from low and highflying aircraft is essential to maintaining the Parks natural atmosphere.
	I. On an April 2006 hike of Hermit Trail, in one hour's time, a maximum of 14 minutes was noted during which there was no aircraft.
	j. Aircraft are especially noisy below Phantom in the Dragon route.
	k. The largest issue is the level of noise per air tour visitor; helicopters are the worst violators and their routes could be flown by quieter aircraft.
	l. Help us keep the canyon peaceful and tranquil.
	m. Noise is especially bothersome on Hermit trail and Boucher Trail.
	n. Quiet in the Canyon is important to me because it is hard to find in the rest of the world.
	o. The enactment legislation says the National Park is to preserve and protect <i>the natural resources</i> - all the natural resources. Natural Quiet is one of these resources.
	p. There is value in making the Park accessible but not at a price that sacrifices the important value of solitude
	q. The emotional power of the park is destroyed for extended periods after the actual noise. The integrity of the park is shattered by these intrusions.
	r. Noise modeling from Zion and Grand Canyon national parks indicates long term, major adverse impacts. There will likely be additional benefit representing loudness based, supplemental data, using some appropriate 'Number Above (NA)' thresholds for specific Park sites, along with Lmax levels.
Ground-Based Visitor Experience	Being in the Grand Canyon is a Great Experience / A Place of Peace and Serenity
	a. The Grand Canyon offers me a retreat from a hectic lifestyle and facilitates personal and spiritual growth.
	b. Millions of people who visit the Park's forests and other wilderness areas enjoy the major contrast from their urban/suburban life.
	c. Below the rim, the tiered nature of the Park's geological formations provides a variety of sweeping vistas and exposure to sky above.
	d. Experiencing this wonderful place is not only a visual one; to hear only the sounds of the wind, water, wildlife and occasional human voice is a big part of being touched by its grandeur.
	e. Solitude enhances the feeling of awe in being in this special place.
	f. The Grand Canyon offers incredible vistas, towering forests, and side canyons filled with lush vegetation, gargling streams and the sounds of wildlife.
	g. There is nothing more majestic in nature than the Canyon.
	h. The drones and incessant surges of aircraft motors interrupt contemplative experiences/visitor experience.
	i. Increases or changes in aircraft use associated with the proposed GCNP overflights plan, as well as a number of proposed new or expanded airports, could pose adverse impacts to the natural quiet, night sky, solitude, and visitor experiences in these areas.
	Air Tours Noise Ruins the Experience of the Grand Canyon for Other Visitors
	a. The Grand Canyon is America at its best - except for the airplanes, which spoil the experience for everyone else.
	b. During our backpack trip to the canyon, the overflights were incessant. We noted and were bothered by scenic flights overflying the area as early as 6:30 am.
	c. Backpacking the Boucher Trail was a diminished experience due to the constant drone of aircraft above the trail.
	d. Each pass over the canyon infringes on the solitude and natural ambient of many people on the ground.
	e. Someone's desire to see the whole canyon in rapid succession takes away from the experience of many, some who have planned their trip for a long time.
	f. Overflights destroy the wild and scenic designation of the Grand Canyon.
	g. Low-flying helicopter flights are invasive to hikers and wildlife.
	h. I have quit hiking the trails west of Bright Angel like Bass, Hermit, and Boucher because they are no longer a place to seek quiet and solitude.
	i. The increased overflights noise has significantly diminished our appreciation of the wonder and beauty of the natural environment.
	j. A helicopter hovered approximately 50 ft above our campsite at national Canyon causing excessive noise; It then crossed the river to the National Park side; I believe this is against FAA/NPS rules.
	k. While hiking on one of the side canyon around national canyon and 3 springs Canyon, a helicopter flew about 50 feet overhead; it was intrusive and I feared that the vibration would loosen rocks and allow them to come tumbling down on our party of about 30 people.
	l. On many days of my 13 day rafting trip through the Grand Canyon the constant noise from airplanes and helicopters I was subjected to distracted from my experience of this otherwise wonderful place.
	m. Overflights disturb private boaters experience at Crystal and Lava Falls. The most common annoyance is at Whitmore Wash where commercial outfitters fly customers to Las Vegas to shorten their trip.
	n. We tell people not to hike Hermit and Boucher Trail because it is such an awful noise environment.
	o. While on Hermit trail, Tonto Trail & Bright Angel Trail in December 2005, it was disturbing and interruptive when I was bombarded with the sound of low flying helicopters going from south rim to north rim.
	p. The drones and incessant surges of aircraft motors interrupt contemplative experiences/visitor experience.

CATEGORY	COMMENT
	q. In the cooler months, man-made cirrus haze created by diffused jet contrails is the most noticeable from of air pollution over the Canyon.
	Air Tours are Detrimental to Visual Resources in Grand Canyon
	a. The aircraft cause significant impacts on the parks viewshed through production of contrails. As any serious photographer can tell you, the contrails compromise the viewshed.
Air Tour Visitor Experience *	Taking an Air Tour is a Great Experience
	a. The most amazing thing site I have ever seen. The colors, the size, the shape. I can now see why they call it one of the wonders of the world. Breathtaking!
	b. Flying over the fantastic natural wonder makes you appreciate that we need to protect our environment.
	Air Tours Allow All Visitors to Experience Grand Canyon National Park
	a. Traveling by airplane is less tiring and more accessible for seniors unable to hike into the Canyon.
	b. A disabled friend or relative would not be able to see the Grand Canyon without an air tour.
	c. I challenge the idea that air tours are the only way for the aged or infirmed to see the Canyon; Experiencing the Grand Canyon from within the confines of an aircraft reduces the experience to an entirely visual one. IMAX provides Grand Canyon sights and natural sounds too!
	Air Tours Allow a Different Visitor Perspective of the Grand Canyon; Especially in Places not Easily Reached on Foot or by Car
	a. Air tours are the only way to really appreciate the overall beauty and expanse of the canyon.
	b. The air tour is the only way I will ever see that much of the Grand Canyon.
	c. A flight over the Grand Canyon allows visitors to truly enjoy and marvel at the size, depth, and breath of this magnificent natural wonder.
	d. The aerial view of the canyon seemed much more appealing especially for photography.
	e. To really appreciate the vastness of the Canyon, helicopter flights are a must.
	Air Tours Provide an Educational Experience for Visitors
	a. The helicopter gave a wonderful understanding of the scale and geology of the canyon.
	b. Great information about the history of places in the Grand Canyon.
	It is a Citizen's / Visitor's Right to Select to Experience the Grand Canyon via Air Tour
	a. Future generations should be able to enjoy the sight from the air.
	b. This park doesn't belong to the park Service but to the American people.
	c. The Grand Canyon is one of the wonders of the world; it is my right to see it by air tour.
	d. Stopping air tours would violate the Americans with Disabilities Act.
	Air Tours are a Convenient Way for Visitors to See the Canyon
	a. Helicopter is the most convenient means to have the best view of the Grand Canyon.
	b. We only had one day to explore the canyon and this showed us everything.
Natural Resources	Consider Impacts to Fauna / Flora
	a. Could condors be nesting in a larger area if there were not zones of heavy aircraft noise/use? Might there be more successful nesting within the park?
	b. EIS should include a thorough examination of the impact of aviation noise on birds, mammals, insects, and amphibian populations in Grand Canyon.
	c. Grand Canyon is for animal habitats and communicating with nature.
	d. The distribution of low-flying aircraft affects the distribution of certain animal species, in particular the paragon falcon.
	e. The effects of noise on predator and prey relationship could be more substantial than we think.
	f. Mule deer and bighorn are startled by the noise of helicopters.
	g. Low flying could hurt efforts to reestablish condors in the area.
	h. When California Condors may be nesting and raising young, please consider restricting (or prohibiting) flights and air traffic that might impede the reproductive and recruitment success of these highly endangered birds.
	i. Perhaps Condors would be more successful if busy/noisy corridor zones were eliminated.
	Geological Resources are Important at Grand Canyon
	a. The Park's geological formations provides a variety of sweeping vistas
	b. Little Black Mountain Petroglyph Site is a 200-acre rock site, which was designated in the BLM Arizona Strip District Resource Management Plan and should be protected and preserved.
	c. Air Tours are great for those interested in the geology of the Grand Canyon.
Tribal Concerns	Consider Air Tour Impacts to Tribal Trust Resources and the Cultural, Spiritual, and Economic Condition of the Neighboring Havasupai, Hualapai, and Kaibab Indian Reservations, and Other Tribal Involvement
	a. Continue the Grand Canyon air tour flight allocation exemption for those flights flown under the authority of the Hualapai.
	b. The Hualapai Tribe must be able to continue the management of their air tour enterprise for their economic wellbeing.
	c. As a PhD cultural historian, I feel we need to preserve what native people talk about as 'ten generations out.' That's our heritage and our responsibility.

CATEGORY	COMMENT
	<p>d. Hopi conduct rituals in Grand Canyon and have a cultural connection to the area. The Hopi tribe views the Grand Canyon as a living being and air tours contribute adverse effects with noise and disturbances to visitors. Hopi request resources to conduct study of cultural areas within Canyon that are important cultural and religious sites to the tribe.</p> <p>e. Flights in the Northeast flight corridor affect the tranquility of the Little Colorado River Gorge where the Hopis conduct pilgrimages.</p> <p>f. The Hualapai Tribe must be exempted from any limitations that may arise as a result of proposals, legislation or any other act that may intrude upon the Hualapai tribal sovereignty.</p> <p>g. The Hualapai Tribe's economic development on the western portion of the reservation is crucial to building an independent economy.</p> <p>h. The DEIS should discuss how the development and implementation of actions and mitigation measures associated with the Natural Quiet Plan will be coordinated with Tribes.</p> <p>i. Consider Hualapai Tribe comments at the same level as the comments Federal Agencies submit to the process.</p> <p>j. We [Hualapai Tribe] feel that our comments should be placed along any commentary that the Federal Agencies might submit to the process.</p>
Cultural Resources/ Historic Properties	<p>Protect Historic Properties according to National Historic Protection Act</p> <p>a. Widespread and consistent long-term motorized noise takes a toll on the integrity and conveyance of the properties' historic character, especially the time or timelessness for which specific properties are identified and renowned.</p> <p>b. A proposal to close Hermit Trail so that it may be indefinitely enveloped in noise ignores the importance and applicability of the National Historic Protection Act.</p>
World Heritage Site Status	<p>World Heritage Site Status</p> <p>a. World Heritage Site status is a scoping consideration.</p>
Land Use	<p>Consider Impacts to Wilderness</p> <p>a. I think the Grand Canyon is a great example of wilderness and it needs to be protected and addresses in the EIS.</p> <p>b. In light of the fact that nearly all of Grand Canyon National Park is proposed wilderness and federal regulations require proposed wilderness to be managed as wilderness, I am concerned about the natural quiet in this wilderness setting.</p> <p>c. Natural quiet and natural soundscape are integral to the experience of primeval wilderness character per The Wilderness Act.</p> <p>d. Aircraft and helicopter noise DOES substantially interfere with one's enjoyment of that wilderness experience.</p> <p>e. We continually read of the necessity of wilderness experience for humans to be whole to be adjusted and capable of surviving the stresses of our modern, noise invaded lives. Restoration requires the quietness of wilderness, the experiences which allow one to hear soft noises, to recognize the world around one just from gentle sounds.</p> <p>f. The Park's wilderness areas are a major contrast from their urban/suburban life of visitors.</p> <p>g. The number of flights should be dropped to restore more of a wilderness setting.</p> <p>h. There was a strong public interest in maintaining the Arizona Strip's natural quiet, opportunities for solitude, and other remote, primitive characteristics.</p> <p>Site-specific Areas</p> <p>a. NPS should apply expertise to determine which sites it wants to gain better protection from aircraft noise and visibility.</p>
Safety	<p>Air Tours Create Unsafe Conditions</p> <p>a. The endless flights create danger for us all.</p> <p>b. A majority of aviation mishaps in and around the canyon have been by commercial operators not general aviation.</p> <p>c. Every year there is a report of a crashed tour flight in or around the Canyon; there is difficult topography and turbulent winds for a great part of the year.</p> <p>d. Air tours fly even when wind conditions are unsafe.</p> <p>e. Very low flying helicopters are dangerous to people and wildlife.</p> <p>f. The helicopter tour operations below Grand Canyon West are extreme and unsafe.</p> <p>g. For safety, aircraft should be routed South to North across the Canyon, either returning to their home base by a completely non-Grand Canyon route, or flying south at a significantly higher altitude.</p> <p>h. With respect to air touring, the Grand Canyon is safer and quieter than it has ever been.</p> <p>i. Safety should have been the overriding issue not aircraft sound.</p> <p>Air Tours Make Me Feel Safe</p> <p>a. I have been on the river numerous times as aircraft flew over; I found it somewhat comforting to know that if I had a problem, I might be able to signal them and someone would know that I was there.</p> <p>b. The Grand Canyon sees a lot of hikers each day and helicopters should only be used for emergencies.</p> <p>c. Aircraft overflights in GCNP should be used in search and rescue and fire control.</p>
Economic Impacts Related to Air Tours	<p>Air Tours are a Tourist Attraction and Support the Local Economy</p> <p>a. I work at the Grand Canyon Airlines; so closing the airspace over the canyon would put me out of work.</p>

CATEGORY	COMMENT
	b. Air tours are a great attraction for tourists; Tourists pay for sightseeing trips by air which helps pay for park services.
	c. There is the economic impact that further flight restrictions would have on the many small businesses that depend on the income from flight tours.
	d. The air tour industry has done nothing but compromise and suffer increasing regulations that have put many out of business and made it increasingly difficult for the rest to plan for the future.
	e. Air tour operators generate and contribute about \$375 million for the Southern Nevada economy.
	Socioeconomics
	a. Only the 'elite' can afford to see the Grand Canyon via air tour.
	b. The Hualapai Tribe's economic development on the western portion of the reservation is crucial to building an independent economy.
	c. A recent study by the University of Nevada-Las Vegas estimate that the economic impacts of air touring on southern Nevada exceeded \$374,000,000.

* These comment categories were largely supported by international tourists who took an air tour while visiting GCNP

Process Comments The following comments are oriented to the legislation, regulation, analytical processes, and NEPA-specific processes related to the Environmental Impact Statement Relating to the Substantial Restoration of Natural Quiet at Grand Canyon National Park.

CATEGORY	COMMENT
Air Tour Restrictions Should be Relaxed	Air Tours are Overregulated
	a. I think that air tours are currently over regulated and that the natural quiet has been achieved at the Grand Canyon.
	b. Although some regulation is good, overregulation is counterproductive for everyone. If the public is continually restricted from the beauty of our natural Resources and wonder, so also will the public's concern dwindle?
	c. Increase the availability of air tours.
	d. There should be no restrictions on who is allowed to see this special location in the USA.
	e. At current fuel prices it is extremely expensive to fly around or through the allowed mid-canyon path. Please consider relaxing some of the canyon restrictions.
	f. Even so, many air tour operators continue to invest millions of dollars in quiet technology aircraft to make the Canyon even quieter and yet to see a return on their investment in terms of preferential routes and altitudes, relief from caps and curfews, and other incentives mandated by federal statute in 2000.
	Air Tours Should be Permitted to Offer a Broader Service
	a. The helicopters should be allowed to fly the South Rim to the bottom
	b. The trip could be longer to see more Canyon terrain
There Should be No Change in Air Tour Restrictions and Regulations	Current Restrictions / Regulations are Enough
	a. The current route structure is one which allows those who want to avoid the noise to do so, while still allowing those less physically able to see an aspect of the canyon and to experience more than they would otherwise be able to.
	b. Since 1987 the air tour operators has made a very big improvement with complying and changing to improve the value for the visitors to see Grand Canyon by air. I feel that enough is enough for rules and regulation, any more rules and or regulation would destroy the visitors experience by air.
	c. Public Law 100-91 has been achieved.
	d. Further restrictions are unnecessary.
	e. Let's worry about enforcing the rules, not making new ones.
	f. The Grand Canyon should be enjoyed by all; there exist today more than adequate areas for hikers and campers to find solitude and quiet while in the canyon.
	g. No further restrictions on air tour operations should be implemented unless noise modeling shows that air tour operations are no longer in compliance with the NPS definition of natural quiet.
	h. The Hualapai Tribe must be exempted from any limitations that may arise as a result of proposals, legislation or any other act that may intrude upon the Hualapai tribal sovereignty.
Alternative Proposals	Proposed Management Strategies
	a. A "proactive", common sense, scientifically modeled, constructive approach to "perceived noise" management will ensure that my "right" to enjoy the Canyon from the air will be balanced against my "right" to enjoy "natural quiet" within the Canyon.
	b. I urge an incentive-based approach based on emitted noise, where noisier air tour operators are restricted to narrow operating time windows and flight corridors, while quieter operators have broader access to the canyon's airspace and times of operation.
	c. As an incentive, give air tour operators a rebate on quieter equipment rather than allowing them to fly more.

CATEGORY	COMMENT
	<p>d. The rules limiting the number of flights should be removed and allow a constrained free market system work things out.</p> <p>f. Compliance reporting - recording aircraft with on-board monitoring will improve credibility of flight rules.</p> <p>e. Preserving natural quiet is important and should be part of any Park protection plan.</p> <p>g. Include a market-based option: Identify as many overflight routes as practical (and safe) over the Grand Canyon and auction off the rights to these routes. They could be auctioned off every year or for multiple years. Individuals or groups could buy the rights and preserve natural quiet if they like.</p> <p>h. Determine the total number of air tours the Park can sustain without degrading the natural resource or experience of visitors on the ground; give each operator a percentage of that number.</p> <p>i. Reduce the number of air tours for each operator by 60% - carry only the 40% that are crippled or feeble and "can't" see the Park any other way.</p>
	Reduce Air Tour Flights
	<p>a. Consider an across the board reduction in overflights to the pre-1987 levels as a first step to an 85% of the Park 100% of the time stance.</p> <p>b. Require a cap on the number of air tour businesses, as well as on the number of flights.</p> <p>c. Controlling air access makes sense - eliminating it does not.</p> <p>d. I think that limits on flights are ok due to reduce air traffic congestion.</p> <p>e. Alternatives in the EIS should include elements of previous rulings and existing regulations.</p> <p>f. The number of flights should be dropped to restore more of a wilderness setting.</p> <p>g. The number of permitted overflights should be cut back to the 1987 levels over a period of a few years so the tour companies can plan for this change.</p> <p>h. Grand Canyon National Park should allow 5000 years of precedence (traveling only by foot, mule/horseback) to remain and keep one place in the country to represent what we easily surrender for convenience.</p> <p>i. Alternatives that eliminate noise sources, including high flyers, to substantially restore the natural quiet and the "experience of the park."</p> <p>j. Possible Alternative: Virtual Reality including IMAX film of Grand Canyon and flight simulation apparatus could be used to provide a less impactful substitute.</p>
	Eliminate all Air Tours Over the Grand Canyon
	<p>a. Prohibit all air tours over the Grand Canyon.</p> <p>b. There should be no flights over the Grand Canyon except for essential services.</p> <p>c. Tradition is not a valid reason to continue the air tours.</p> <p>d. Create a flight-free/noise-free zone whose boundaries coincide with Grand Canyon's boundaries.</p>
	Eliminate Helicopters Air Tours Over the Grand Canyon
	<p>a. Eliminate helicopters and require fixed wing aircraft because helicopters are far noisier.</p> <p>b. Elimination of helicopters in favor of fixed wing high capacity tours would be a giant leap toward restoring natural quiet.</p> <p>c. Planes carry more passengers; to maximize the number of passengers and minimize the amount of noise, allow only fixed wing air tours.</p> <p>d. Helicopters should be banned from the Grand Canyon because of the extreme noise level, they have violated NPS airspace, and because they have created extremely unsafe situations.</p>
	Use Seasonal Limitation on Routes
	<p>a. There should be a noise free, reduced flights time of year just like the no motor time on the river. I suggest April and October because they are prime backpacking months but not prime tourist months.</p> <p>b. On the East End, alternate between using only the Dragon route for certain times of the year, and then only the Zuni route during other times of the year, posting this schedule for the public. This will allow visitors to select the time of year or trail system that will not be impacted by air tours.</p> <p>c. Limit flights to the times of the year during which there are relatively few river trips or rim visitors; this would dramatically reduce flights negative impact while retaining that type of visit.</p> <p>d. Use seasonal limits (a month or a couple of months) so people can hike and have a true experience of Grand Canyon National Park without the aircraft noise. Some of these times have to be when it is pleasant to hike and not in winter because there is less noise.</p> <p>e. I would love a seasonal calendar so I could hike without helicopters; I think it would benefit both parties.</p> <p>f. Possible Alternative: '50 percent or more' division of GCNP - Noisy west end of Grand Canyon could be designated as 'quiet' portion for each winter season. High flyers would be reduced over West end. Alternatively, the East End could stay in place year round if necessary for McCarran Airport flight patterns re: West End.</p>
	Consider Low Altitude Air Tours
	<p>a. Do not permit flying below the rim.</p> <p>b. Increase minimum flight height.</p> <p>c. Those who must fly over the Grand canyon should be required to maintain an altitude sufficient to significantly diminish, if not eliminate, the sound heard on the ground.</p>

CATEGORY	COMMENT
	<p>d. Getting the aircraft above the North rim's 8803 feet MSL, their noise will be more easily dissipated by the prevailing winds, as opposed to amplified by the surrounding canyon walls, as happens when flights are below the rim.</p> <p>e. Limiting flights of the Grand Canyon to only higher altitudes (14,500 MSL or above) will force much longer flights for general aviation traffic, wasting energy and money.</p> <p>f. I would like to see low flying aircraft use phased out over time.</p> <p>g. Consider measures to address canyon flights that are occurring below the rim in the Point Imperial area.</p> <p>h. I support the current system but with further restrictions on helicopters coming below the rim.</p> <p>i. With the existing rule we often see aircraft that are potentially flying in the no flight zone. If the ceiling were raised it would be easier to determine if aircraft is at legal altitude.</p>
	Defining Air Corridors
	a. The only flight corridors should be over the cross canyon corridor at Phantom Ranch and at Grand Canyon West.
	b. Flights should be limited to a corridor that approximated the on ground developed corridor (Bright Angle Trail to Kaibab Trail). This has all positive and no negative impacts for the Park. The central corridor is the Park's sacrifice, the area that handles the high volume of people.
	c. The areas least likely to disrupt the natural quiet of the park would be the high use corridor area.
	d. The Whitmore to Bar Ten Ranch helicopter ride can easily be moved downstream to a beach across the river from Hualapai takeout on Park property, or to nearby points upstream between mile 220 and 224.
	e. Flight corridors should not be increased or expanded.
	f. Flights in the Northeast flight corridor affect the tranquility of the Little Colorado River Gorge where the Hopi conduct pilgrimages.
	g. I appreciate the attempts to channel flight traffic from park overlooks.
	h. Move the flight corridor further back from the rim.
	i. Move helicopter operations closer to Diamond Creek and require those that drop below the rim to be notar equipped.
	j. The major concern is the East End tours (Dragon and Zuni corridors), which are audible over a large fraction of the heart of the park, from Saddle Mountain to the Grand Scenic Divide.
	k. Mitigate aircraft noise in the western Grand Canyon by moving West End shuttle routes to the south, out of the park.
	l. Modify entry/ exit points of the Nankoweap Basin and South Rim routes (especially in the Hermit Basin and Grandview camping areas), and eliminate the Nankoweap loop on the Zuni.
	m. There should be a quiet period in Hermit Basin because it is a popular and accessible area.
	n. The places hikers most often go are by reliable water sources; these places should have less air tours over them.
	o. Schist camp near river mile 96 is one of the most peaceful in the canyon. It is directly under a helicopter flyover route, you could move that route downstream two miles over crystal drainage.
	p. Flight paths should be adjusted away from Ten X campground and the Tusayan Ranger District campground to reduce excessive noise from people living and camping in the area.
	q. Please stop the flights at Whitmore Wash and reduce the flights at Crystal and Lave Falls.
	r. Flight corridors constrain the aircraft, not the aircraft noise; normal (non-Quiet Technology) aircraft broadcast their noise 17 miles in all directions. There is no natural quiet whenever flights are operating - most daylight hours for air tours.
	s. Aircraft routes should better conform geographically with NPS management zones and objectives.
	t. Extend the Desert View Flight Free Zone seven miles to the East and to the North to protect the Little Colorado and important Native American Culture sites.
	Morning and Evening No-fly Curfews / Operating Time Window
	a. I appreciate the curfews on flights during dawn/dusk.
	b. Limit the flights to a one to two hour period.
	c. Do not change curfews currently in effect.
	d. Keep existing curfew hours on the East End.
	e. Curfews should be lengthened to give visitors the option to plan their visits to maximize natural quiet conditions.
	f. The DEIS should consider linking the curfew times to the daily sunset and sunrise times rather than to a specific clock. Also evaluate and consider longer curfews (e.g. 2pm-10am) and curfews for the entire park.
	Increase Number of Flight Free Zones
	a. Please designate Grand Canyon's heart of the Park a 'No Fly Zone' at all altitudes.
	b. Restrict air tours to less than a quarter of the canyon; this quarter should be natural quiet at least 75% of daylight hours.
	c. Declare portions of the park (backcountry/wilderness) completely flight free, 100% of the time.
	d. I would like to see the no fly zone extended so the Hermit and Boucher area is quiet.
	e. Raise the ceiling of the flight free zones.

CATEGORY	COMMENT
	f. Large contiguous areas should be assigned as noise free zones. Consider dividing park into two sections along North/South axis. One of the portions (the larger half) could be the relatively 'quiet' portion under the NPS definition. The remaining smaller portion could be the relatively 'noisier' portion.
	g. Possible Alternative: Flight Venue Substitutes - Move away from 'heart of the park' and re-designate the lower 10 percent of park as a national aerial recreation area with possible soundscape relaxed protections. Consider using Glen Canyon as an alternative air tour destination. -
	Quiet Technology Should be Required
	a. I feel that any aircraft flying over the Grand Canyon should be required to use quiet technology.
	b. Establish incentives that would reward the air tour companies who invest in quiet technology aircraft.
	c. The airplanes and helicopters of the Tour Operators can be retrofitted and must be part of the alternatives decision.
	d. Working with the helicopter manufacturers and operators to improve noise abatement of the equipment itself may help.
	e. The DEIS should consider several dates for implementing a rule that would mandate quiet technology in the SFRA.
Legislation	Scope of Public Law 100-91 and SFAR 50-2
	a. The National Parks Overflight Act (Public law 100-91) was accomplished years ago.
	b. Over the years law suits and court decisions have clouded the intent of the Public law 100-91. Perhaps it is time for some new legislation to clarify the intent of the law.
	c. Please reinstate Public Law 100-91 and enforce it.
	d. Unless the legislation considers the fragile nature of the Grand Canyon, there will be rampant disregard for those of us who wish to tread lightly on this resource.
	e. The legislation is discriminatory because it only provides for the assessment of noise associated with aircraft and not general aviation and commercial aircraft, which are major contributors to noise in the Canyon and over the Haulapai Tribe's Grand Canyon West.
	f. Current Overflights regulations are not working; when I visit Grand Canyon I seek the most remote areas of the Canyon and there is noise everywhere.
	g. There is no inherent "right" for an individual to make a living off a national park.
	h. The Overflights Act and the National Parks Air Tour Management Act of 2000 were intended to address the low altitude operations and repetitive noise generated by airs over GCNP and other National Parks.
	i. At no time did Congress intend for all aircraft operations within a block of airspace extending to 20 nautical miles from the farthest edge of the GCNP boundary and at all altitudes, including general aviation (GA), military and commercial overflight activities be included in the equation.
	j. Nor did Congress ever intend for NPS and FAA to consider aircraft flying at or near cruising altitudes over any of our national parks.
	k. The potential negative impacts that such an approach would have on the National Airspace System (NAS) both in terms of efficiency and safety, an particularly if expanded to other units of the National Park System, are enormous and quite frankly unacceptable.
	l. Even if limited to the GCNP, this approach will have national implications. Potential impacts include altering operations at three large and several smaller airports in a several hundred-mile radius of GCNP, not to mention impacts to a major cross-country, high altitude route into the Los Angeles Region.
	m. Potential impacts include altering operations at three large and several smaller airports in a several hundred-mile radius of GCNP, not to mention impacts to a major cross-country, high altitude route into the Los Angeles Region.
	n. This is certainly not the outcome either anticipated or intended when Congress enacted the Overflights Act.
	o. Stop the end runs to Congress to change the Overflights Act or "clarify" it intent to meet the desires of the air tour industry.
	p. Conservation is the fundamental purpose of our national parks, and we citizens support the strongest implementation of substantial restoration of natural quiet.
	q. Efforts must be made to limit the extension of this rulemaking process, and/or the recommendations arising from this process, to other national parks/monuments, wilderness areas or lands under federal management.
	Substantial Restoration of Natural Quiet
	a. If air tour overflights were all that was allowed in the airspace, the goal of achieving substantial restoration would not only have been met but exceeded by some 12 percent on the busiest air tour day in 2005.
	b. Although court decisions have been made in the past to reinstate quiet, the weak definition of "restoration" has not been achieved.
	c. 61.6 percent of the Park has been restored to a state of "natural quiet" more than 75 percent of the time when considering only air tours, and 53.9 percent of the Park has achieved natural quiet more than 75 percent of the time when air tours and air tour related flights are evaluated.
	d. FAA and NPS must undertake strong measures to restore natural quiet to the Grand Canyon.
	e. Little progress has been made over the last decade in meeting the congressional requirement of restoring substantial natural quiet.

CATEGORY	COMMENT
	f. Regulations imposed in 1988 that restricted routes and altitudes have dramatically reduced noise and helped to restore natural quiet.
	g. On an annualized, basis, it is very clear that substantial restoration of natural quiet has been achieved by the air tour operators.
	h. The places where natural quiet can be restored, <i>completely</i> restored, are in the backcountry - away from the rims.
	i. I want noise reduced totally, not substantially.
	j. The NPS has authority to define the terms "natural quiet" and "substantial restoration of natural quiet at GCNP."
	k. In fact, the NPS has refined its definitions on several occasions in the past. So certainly, the NPS has the authority to refine its definitions to more accurately reflect the intent of Congress.
	l. NPS should not change its definition on what constitutes substantial restoration of natural quiet to 1994 levels.
NEPA / Environmental Impact Statement	Environmental Impact Statement Scope
	a. Please change language from 'Aircraft' to 'Airplane, rotorcraft and balloons'. Gliders/sailplanes should be granted exemptions from noise abatement plans for the Grand Canyon.
	b. High Altitude commercial aircraft should not be included in the study.
	c. Scoping meetings regarding the number of high altitude GA overflights was inaccurate and mischaracterized.
	d. All aircrafts, not just tour aircrafts should be considered.
	e. The agencies should not consider any alternative that would impact overflights of GCNP other than low flying air tour operations. This rightfully reflects the intent of congress.
	f. The EIS should address foreseeable cumulative effects from the proposed new or expanded airports in the surrounding region.
	g. The EIS must integrate protection for noise sensitive areas under 49 U.S.C Section 303 (c).
	h. Although the Hualapai area is a sovereign nation, the airspace is still subject to FAA rules; these upper Canyon tours must be shut down. The helicopter tour operations below Grand Canyon West are extreme and unsafe.
	i. "Exempt" operations - what does this mean relative to quiet and the ROD outcome?
	j. Do exempt operations fall under tools that can be influenced by this NEPA GCNP process?
	k. Are NEW high altitude jet routes exempt? E.G. a future regional jet from Flagstaff to Salt Lake City, could it be required to be routed East of Grand Canyon?
	l. Include NPS & research craft (air & water) in studies and analysis regulations.
	m. Monitoring & compliance with altitude regulations on adjacent National Forest.
	n. When arriving at an intractable pass, what value trumps what value? What agency trumps what agency? I'd say safety then resource protection (as in Quiet by enlargement Act) & then economy, jobs, air tour visitors, etc.
	o. Sightseeing tours from aircraft are not appropriate at Grand Canyon. When looking at this issue as solely one of noise reduction, it allows a mix of high altitude to confuse the issue with low flying air tours, which are considerably more evasive to the experience of a person on the ground at Grand Canyon National Park.
	p. The definition of the "day" in determining "day" in the environmental analysis should be 24 hours instead of the time period of 7am to 7pm.
	q. The National Park Service prohibits mountain bikes below the rim, how could it be mountain bikes are considered invasive and helicopters are acceptable?
	r. The Park mandate for preservation supersedes any FAA desire for flights, overflights, or utilization of the Park as an air court.
	s. The Natural Quiet Plan should clearly identify what part of each alternative would result in substantial restoration of natural quiet and should discuss quiet zones throughout the park, as well as incentive programs for air tour operators.
	t. Consider a full range of alternatives to meet the project objective including establishment of quiet zones in sensitive areas, quiet hours throughout the park, and other methods to reduce impacts to natural and cultural resources and the visitor experience.
	u. Quantify or describe the natural, cultural, and visitor experience impacts that would be avoided by each proposed alternative.
	v. Incorporate the analysis of incentive programs in the DEIS; address and quantify the benefits of all potential incentive programs (quiet aircraft technology, avoidance of sensitive areas, etc.) and other creative impact reducing measures; discuss the benefits and negative factors associated with each incentive; and incorporate applicable programs into the Natural Quiet Plan for reducing noise and other impacts where feasible.
	w. Discuss the methodology used to determine the noise and vibration impacts from air tour operations to wildlife and the visitor experience, along with the assumptions used for all analyses.
	x. Identify the baseline noise and vibration impacts that exist within the park in the absence of all air tour operations. These baseline values should then be compared to the noise impacts resulting from air tour operations of each alternative analyzed.

CATEGORY	COMMENT
y.	Identify the baseline noise and vibration impacts that exist within the park in the absence of all air tour operations. These baseline values should then be compared to the noise impacts resulting from air tour operations of each alternative analyzed.
z.	Identify the estimated impacts resulting from each proposed alternative and describe how associated mitigation would reduce the impacts from each alternative.
aa.	Quantify or describe the natural, cultural, and visitor experience impacts that would be avoided by each proposed alternative.
bb.	Present noise and vibration impacts to wildlife with regard to the characteristics of specific species, including habitat, time of exposure, any previous exposures, and other stresses that may be affecting species responses.
cc.	Quantify the benefits to wildlife from any species-specific mitigation measures and present this information in the DEIS.
dd.	The DEIS should discuss how the development and implementation of actions and mitigation measures associated with the Natural Quiet Plan will be coordinated with Tribes.
ee.	Incorporate an alternative based on air tour numbers that pre-date any perceived problem.
ff.	Focus on necessity of protecting natural quiet as a critical resource, rather than the number of noise complaints versus satisfied customers.
gg.	Utilize all available modeling and ambient sound data.
hh.	Scoping information on GA overflight in error
ii.	The use of the 12-hour day (7:00 am to 7:00 pm) unfairly mis-characterizes the impact of air tour noise at Grand Canyon.
jj.	The inclusion of the word "all" to modify "aircraft overflights" represents a substantive change from the original legislative language.
kk.	Restricting commercial overflights is technically challenging and should be left to the expertise and discretion of FAA.
Environmental Impact Statement Process	
a.	The Park is not accomplishing its mission if it permits these flights to continue.
b.	The EIS should redefine "substantial restoration of natural quiet" as part of the Statement of Purpose and Need. This should include reconsideration of each element of the definition, including in particular the threshold of audibility, the use of a peak rather than average day, and the role of visitor disruption. The action alternative should be evaluated against multiple definitions if NPS has not settled on a particular definition.
c.	We request that the FAA and NPS designate the Bureau of Indian Affairs (BIA), Western Regional Office to be a cooperating agency for this project, in accordance with 43 Code of Federal Regulations (CFR) 1501.6 and 1508.5
d.	Visiting Havasupai can be awful if you don't know which days are helicopter days. Make this information available on NPS website.
e.	The NPS should work with the managers of federal areas and jurisdictions adjoining GCNP to coordinate their planning and management efforts.
f.	Clearly identify in EIS what 50 percent or more of the Park will achieve natural quiet for 75 to 100 percent of the day for each alternative.
g.	Establish baseline noise and vibration for the park and compare to impacts from air tour operations for each alternative.
h.	Clearly state in EIS how noise impacts can be avoided for each alternative analyzed.
I.	The Draft EIS should identify all measures to prevent, or avoid significant adverse impacts related to air tours.
j.	Analyze noise, vibration, and possible mitigation for each specific species (including habitat, time of exposure/s, and other stressors).
k.	Use statistical measurement standards that protect natural quiet; do not look for criteria that minimize the impact of noise.
l.	The primary purpose of this EIS should be to develop the best plan to substantially restore natural quiet to GCNP.
m.	Since the Area of Potential Effect includes the Hualapai Reservation, the Hualapai Tribal Historic Preservation Officer must be included as a consulting party. Section 800.3(c)
n.	Consider Hualapai Tribe comments at the same level as the comments Federal Agencies submit to the process.
o.	Companies that repeatedly violate regulations related to crossing the Colorado River and low flights should have the company's license and permits permanently cancelled.
p.	Provide guidance on how we all can enjoy the Canyon in the way that suits our preferences (within reason) and preserve the resource for our children.
q.	I worry that giving air tour operators incentives to use Quiet Technology will give them more accessibility and actually increase noise levels.
r.	I commend the partners for sitting down, now it is time to talk. Please don't get caught up in the definition of "Natural Quiet." The flights are not natural but they need to be included.
s.	Follow the congressional mandate and have quiet in the Park for those visitors in the backcountry, on the South Rim, where they are most impacted by aircraft noise.

CATEGORY	COMMENT
t.	The EIS should study the impact of aircraft on wildlife including the relationship between noise distribution and wildlife distribution.
u.	Study the masking of the noise the predator species make - which affects the ability of prey species to take evasive action to not be eaten.
v.	Concern about the noise metric to describe the required restoration of natural quiet., especially with high altitude flights.
w.	A true quantifiable study of aircraft noise throughout the park is needed to accurately measure the presence of aircraft noise.
x.	Make Noise Analysis results clear; include acronym TA = time audible, use an up or down arrow to indicate if the goal is met or not met.
y.	A number of studies were cited at the public meetings claiming aircraft aren't bothering people - they bother me.
z.	When making management decisions for the park, NPS should only be concerned with protecting the natural and cultural resources of this World Heritage Site.
aa.	Provide a system of penalizing aircraft that fly below the minimum flight altitudes (as is currently observable daily in the Dragon flight corridor).
bb.	The DEIS should evaluate noise budgets as a way of reducing overall noise emissions while allowing some flexibility to the operators.
cc.	The DEIS should evaluate and consider an option that puts aircraft above the local rim, as dictated in the Overflights Act.
dd.	The DEIS should evaluate and consider temporary closures (respites) for all routes in the heart of the park so area is not affected for entire year.
ee.	The DEIS should consider an alternative that will meet the management objectives of NPS 1994 Report to Congress.
ff.	The DEIS should evaluate the significant sites (Point Sublime, the Hermit Trail, etc. under Section 106.
gg.	NPS needs to take a 'hard look' at what constitutes impairment of Grand Canyon soundscape and backcountry visitor experience.
hh.	The DEIS should analyze and consider permanent daily and yearly caps on the number of air tours. Use 1975 and 1987 air tour flights numbers as possible reference number for caps.
ii.	Evaluate all options from a safety standpoint and considering scaling back flights due to safety concerns.
jj.	We need analysis of the economic impacts (such as extending flight time) as a function of movement distance from the park.
kk.	The EIS should provide rigorous analysis of actions to reduce the noise impacts of commercial transport and general aviation high-flying aircraft in the Grand Canyon areas.
ll.	The DEIS should evaluate the descent approach procedures to determine if high flyers can be at lower throttle settings while descending over the park.
mm.	Evaluate cumulative effects to natural quiet, overall park values, and wilderness character of the park.
nn.	The DEIS should analyze impacts and cumulative effects from all forms of aircraft. General aviation may not be a problem now, but future additional flights may eventually cause detrimental impacts.
oo.	DIES should use the audible standard to be consistent with definition of substantial restoration. Half the park lacking natural quiet 25 percent of the day and the other half the park totally without natural quiet is not a substantial restoration.
pp.	The EIS should provide a rigorous analysis of actions to reduce the noise impacts of commercial transport and general aviation high-flying aircraft in the Grand Canyon area. The FAA has not demonstrated that movement of highflying aircraft is not practical. The DEIS should protect "core" of park: Saddle Mountain to Havasu, including the Kanab Basin on the north side of the river.
qq.	The DEIS should consider and evaluate commercial transport and general aviation aircraft separately.
rr.	DIES should use the audible standard to be consistent with definition of substantial restoration. Half the park lacking natural quiet 25 percent of the day and the other half the park totally without natural quiet is not a substantial restoration.
ss.	DEIS graphics should include a wider-scope illustration with regional or full National Airspace System (NAS) 'flight density' or 'flight tracks' maps.
tt.	Site specific, acoustic data should be developed and displayed in a 'user-friendly' manner, on appropriate maps and tables. The GNCP map with 76 location points should be used with site-specific noise analysis.
uu.	DEIS should have energy conservation considerations in analysis to compare vehicles in the Grand Canyon on a per capita basis for each of the following vehicles: Commercial Bus Tour, Private Auto, Helicopter Tour, Fixed-Wing Tour, Walk along rim with a 1-way shuttle for group of 4, and park shuttle bus.
vv.	Any action that arbitrarily 'loosens' the definition of "substantial restoration of natural quiet" can be defined as an 'arbitrary and capricious' act.
ww.	Quiet Canyon Coalition proposal needs to be modeled by INM 6.2 as soon as possible.
xx.	Dual zone concept dividing acoustic zones in part does not correspond to the best available theory/practice and actual Park management zones.

CATEGORY		COMMENT
	yy.	The L50 (nat) is not sufficient, (though clearly better than L50.) L50 (nat) ranges from 4 or 5 decibels too high.
	zz.	2002 Court decision has made high-level, en route aircraft impacts consideration necessary for the cumulative noise analysis. We need specific analysis of appropriate noise reduction or abatement from highflying aircraft for the DEIS.
	aaa.	May take future legislation to address the aviation noise from high or low aviation; the old measured noise levels (1987) are substantially less than current levels of noise from en route aircraft.
	bbb.	In scoping the EIS for GCNP Overflights, it is both unnecessary and ill advised to consider any alternative that will impact the National Air Space.
	ccc.	To put it simply, agencies should not consider any alternative that would impact overflights of GCNP other than low flying air tour operations. The rightfully reflects the intent of Congress.
	ddd.	In addition, we [BLM] request that the DEIS address the proposed new or expanded airports in the region (including St. George, Utah, Cedar City, Utah, Mesquite, Nevada. And Colorado City, AZ) and what flight uses or corridors may exist or become established that would occur both over or near GCNP, as well as those BLM administered areas described above.
	eee.	The DEIS should describe all measures to reduce pollution and protect resources.
	fff.	The DEIS should identify all measures to prevent or avoid, significant adverse impacts of actions related to proposed commercial air tour operations in the park. Mitigation measures identified to address unavoidable impacts should be clearly linked to the impacts they are proposed to mitigate. Where such mitigation measures will have a measurable impact reduction, the DEIS should quantify the environmental benefits.
	ggg.	Specifically, the DEIS should identify how methodologies and measures to minimize environmental impacts will be implemented to facilitate information sharing and minimization of environmental impacts.
	hhh.	The cumulative impact assessment completed for the DEIS should address air tour operations throughout the area surrounding GCNP and how the establishment of the Natural Quiet Plan will affect tribal resources and traditional cultural properties and experiences.
	iii.	"Percent of time audible" is not a meaningful statistic to visitors, whose experience relates to the number of noise intrusions (flights) and the length of quiet periods between them. A more useful statistic would be the average quiet interval between flights (zero, in the case of overlapping flights).
	jjj.	All air tour related flights (repositioning, training, "transportation" flights that look and sound like air tours, etc.) must be counted in the caps. If they are legitimately not air tours, then they should be routed around the SFRA.
	Length of Grand Canyon NEPA process	
	a.	The process is taking too long and costing too much money.
	b.	Implementation of the Overflights Act has been stonewalled for many years by "re-studying" the issue while air tour operators have doubled and redoubled their use.
Grand Canyon Overflights Stakeholder	Stakeholder Perceptions of Agencies and Other Stakeholder Groups	
	a.	The Grand Canyon is owned by everyone. It should not be allowed to be restricted by any one group of people; many of the Uses of Grand Canyon can and should be compatible.
	b.	We need to be tolerant of how the actions of others impact our Grand Canyon experience and respectful of how our own actions may impact the experience of others.
	c.	I feel it is important to consider "visitor equity" between air tour visitors and ground visitors.
	d.	Overflights only serve to add more profit to a handful of airplane services while negatively impacting the over 4 million visitors to GCNP each year
	e.	I fear that air tour operators are confusing 'National Park' with 'Theme park' where people want machine thrills.
	f.	It is clear that FAA does not care to keep noise down.
	g.	FAA and those who profit from flying over in sightseeing are not even accurate in how many flights they report to fly.
	h.	Overflights are the only use in the Park that has not been limited; the continued growth in the number of tours has a detrimental effect on many people that choose to travel through the canyon.
	I.	You would think air tour pilots would be able to divert around campgrounds and show some consideration; sometimes I wonder if they are just trying to advertise their existence.
	j.	National Parks are sustained by tax dollars and are a publicly owned resource. This resource should not be damaged by a few businesses that line their pockets with profits from the exploitation of a public resource and degrade the quality of that resource.
	k.	The air tour industry has given enough. How about the environmental community giving a little. To date they have not given up anything;. Environmentalists should stop being negative.
	l.	Aircraft technology has done more to enhance "natural quiet" than all the efforts of the NPS and Sierra Club combined.
	m.	Commercial Airlines are the largest contributor of noise in the area, followed by the NPS helicopters.
	n.	It seems that aircraft are being singled out as the only source of ambient noise that would be different from natural quiet; what about the tour busses, Harley Davidson groups, and cars.

CATEGORY	COMMENT
	o. The tribal consultation process and the government-to-government consultation must be completed before any NPOAG or subordinate body makes recommendations that may be included in the final EIS.
	p. We [Hualapai Tribe] feel that our comments should be placed along any commentary that the Federal Agencies might submit to the process.
	q. The DEIS should analyze and consider ways of retiring allocations as means of restoring natural quiet.

Air Tours via air tour.

The following public comments highlight support for air tours and the perceived benefits viewing the Grand Canyon

CATEGORY	COMMENT
Air Tours *	Air Tour Support
	a. It would be a great loss to many visitors if this service had to stop.
	b. I fully support Grand Canyon air tours.
	c. Keep the flights, including helicopters, going over the Grand Canyon.
	d. It would be a tragedy to lose flights to the Grand Canyon.
	e. The Air Tour Industry plays an important role in helping visitors experience the Grand Canyon.
	Air Tours Have a Low Impact on the Environment
	a. The air tour was the best way to see the canyon without harming the environment.
	b. Flying over the canyon would have much less impact than hiking, rafting or mule trains.
	c. Does not require any roads and does not cause erosion.
	d. The Environmental Impact has been over exaggerated.
	e. Flying over the Grand Canyon would not affect the wildlife below.
	f. For the short time that a helicopter is over the park, little impact can be done to the area.
	g. I challenge the idea that air tours have a low environmental impact; these visitors are bussed to the South rim to buy trinkets and bussed back to the airport and flown over the Canyon yet again. This means they have had a double or triple negative impact on the Grand Canyon when compared to ground visitors.
	Air Tours Reduce Other Pollutions (automobile traffic, garbage, foot traffic)
	a. Restricting more flights will encourage more destructive ground traffic
	b. Air tours create less traffic congestion and less erosion damage due to vehicles
	c. Air tours are a relatively lower risk of environmental pollution compared to other means of viewing the Canyon.
	d. Air tour travel saves pollution from more cars trying to see the canyon.
	e. No trash is dropped on the grounds and it encourages more people who have difficulty walking to really see the canyon.
	There are More Problematic Uses of the Park than Air Tours
	a. Air tour companies are flying with multiple passengers while visitors on the ground may only be 2 per vehicle.
	b. Visitors in the air cannot pick up souvenirs, destroy trails, leave any trash or harass wildlife.
	c. Air Visitors get to enjoy the Canyon but are less apt to go into the Canyon, thereby controlling safety and reducing trash.
	d. Air tours do not interrupt the quiet any more (normally much less) than the busses and car traffic, people yelling at each other, etc.
	e. Don't regulate the park for noise because of helicopters; regulate the cars, trucks, and buses for their noise and emissions.
	f. Tour busses, Harley Davidson groups and cars with straight pipes have a higher noise impact on the Park than air tours.

* These comment categories were largely supported by international tourists who took an air tour while visiting GCNP

Other Than Air Tours These comments were not specifically regarding air tours, but are related because the issues commented on effect the Grand Canyon Overflights Plan and the associated legislation.

CATEGORY	COMMENT
Other than Air Tours	Intent of Policy
	a. The legislation that is at the center of this issue is discriminatory in the sense that the legislation only provides for the assessment of noise associated with air tour aircraft and not other general aviation and commercial aircraft that fly at higher altitudes.
	b. NPS lacks authority pursuant to the Overflights Act to implement such an alternative such a restriction is within the exclusive jurisdiction and discretion of the FAA; and examination of any such restriction would have to be the subject of a separate airspace study and EIS.
	c. No restrictions on commercial overflights should be included as part of the Proposed Action.
	d. The definition of "natural quiet" used in the NPS sponsored study shows that the high-altitude aircraft noise violates the definition the NPS established for "natural quiet". As a result, high-altitude overflights would be banned. Therefore, such a definition is arbitrary, overly restrictive, exceeds the statutory mandate, and essentially ensures the banning of high-altitude aircraft overflights.
	e. It was never the intent of Congress for NPS or the FAA to consider regulation aircraft, including general aviation, flying at or near cruising altitudes over any of our national parks.
	Route Consideration
	a. Because of the proximity of Special Use Airspace (SUA), reserved exclusively for the activities of the U.S. military, and the confluence of high altitude transcontinental routes in this section of the country, the amount of available airspace is actually quite constrained by safety considerations.
	b. Do not take away any more routes from general aviation.
	c. Close low general aviation corridors through the eastern Flight Free Zones.
	d. Consider Alternatives that will minimize the impact of the noise from jet traffic and general aviation.
	e. To prevent aircraft from evading the purpose of the Flight Free Zones, raise the ceiling of the eastern FFZ's to the SFRA ceiling of 18,000 feet MSL. The Sanup FFS would remain as is (minimum altitude 8000 feet MSL, or about 1500 feet AGL above the rims.
	f. For general aviation, adjust the boundaries of Bright Angel and Desert View FFZ's slightly, to match modified Dragon and Zuni tour routes. Close the Fossil Canyon GA Corridor but retain the Tuckup GA corridor.
	g. For general aviation, retain 4 NM wide GA corridor in the east end, open seasonally, directly over the corresponding seasonal tour route (Dragon and Zuni).
	h. Move jet routes away from the Heart of the Park: about 5 NM outside the Canyon rim or park boundary.
	i. General aviation should not be prohibited from flying over the Grand Canyon area.
	j. In any study of commercial overflight restrictions, at least the following impacts would have to be considered: (i) the myriad impacts at individual airports associated with restricting air routes; (ii) the off-setting environmental impacts, including increased fuel burn and air pollutant emissions and increased noise exposure outside of the Park; and (iii) the impact of connected actions and the cumulative impact of a restriction.
	k. High altitude overflights of the Grand Canyon as it relates to traffic at McCarren International Airport and a proposed new international airport in the Inyanpah Valley.
	l. If aircraft tracking the VORTAC station and air traffic going to the Las Vegas and Las Angeles airports (which go over the canyon), are exempted from the burden of noise reduction faced by the Hualapai Tribe and other air tour operators, it is not assessment of the problem.
	m. In considering LAS and PHX airports, modifications to the routes used to feed their traffic to and from the high altitude regime to the terminal area not only could affect the airports' approach and departure surfaces and routes but also raise the potential for causing separate environmental impacts on populations in the vicinity of those airports at altitudes below 3000 feet.
	n. Any adjustment to the commercial routes at GCNP would have a detrimental effect on the entire national air transportation system.
	o. Creation of "no-fly zones" above portions of Grand Canyon would negatively affect international air services operated by U.S. and foreign carriers that overfly the park, e.g., between Mexico and points in the western United States.
	p. DEIS should evaluate and consider closing several of the general aviation routes.
	q. To attempt to modify high altitude routes in order to remedy a problem caused by low altitude aircraft would clearly disregard Congressional intent.
	Evaluation Tool / Model
	a. While current modeling incorporates all general aviation, military, commercial and air tour operations that are part of the ETMS data, it does not incorporate the general aviation overflights operating under visual flight rules (VFR). It has been impossible to model VFR operations due to lack of radar coverage.
	b. As such, we [BLM] were concerned that the maps and graphics displayed at the Henderson, Nevada scoping open house for this DEIS did not address these proposed new or expanded airports and how their use may contribute to such shifts in commercial air tour uses and corridors.
	c. The Time Audible threshold is much too stringent and deviates from the initial intent of the mandate which was to limit air tour type operations over the national park.

CATEGORY		COMMENT
	Military Flights	
	a.	The DEIS should evaluate and consider methods to eliminate military joy riding and other unnecessary military flights over and near the sensitive Grand Canyon National Park.
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