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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 93

[Docket No. FAA 2003-14715; Notice No. 03-05]

RIN 2120-AG34

Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: This supplemental notice of proposed rulemaking (SNPRM) amends the notice of proposed rulemaking (NPRM) published on December 31, 1996 (Noise Limitations NPRM, 61 FR 69334; Notice 96-15), which proposed to establish noise efficiency limitations for certain aircraft operations at Grand Canyon National Park (GCNP). It proposes standards for quiet technology that are reasonably achievable, as mandated by Congress. The standards for quiet technology proposed in this SNPRM will help the National Park Service (NPS) achieve its statutory mandate to provide for the substantial restoration of natural quiet and experience in the GCNP. To meet this mandate, the FAA is proposing to use a noise efficiency approach (larger aircraft with more passenger seats are allowed to generate proportionally more noise) to define quiet technology. This SNPRM does not require any action by operators, as it is intended solely to make clear what the FAA is proposing as the standard for quiet technology.

DATES: Comments must be received on or before [insert date that is 90 days after date published in the Federal Register].

ADDRESSES: Address your comments to the Docket Management System, U.S. Department of Transportation, Room PL401, 400 Seventh Street, SW, Washington, DC 20590-0001. You must identify Docket Number FAA-2003-14715 at the beginning of your comments.

You may also submit comments through the Internet to http://dms.dot.gov. You may review the entire public docket for this SNPRM at that same site.

You may also review the public docket in person in the Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office is on the plaza level.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas L. Connor, AEE-100, Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591; Telephone: (202) 267-8933.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. The docket is available for public inspection both before and after the closing date for receiving comments. Before taking any final action on this proposal, we will consider all comments made on or before the closing date for comments.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

Availability of the SNPRM

You can get an electronic copy using the Internet by taking the following steps:

(1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) web page (http://dms.dot.gov/search).

(2) On the search page type in the last five digits of the Docket number shown at the beginning of this notice. Click on "search."

(3) On the next page, which contains the Docket summary information for the Docket you selected, click on the document number for the item you wish to view.

You can also get an electronic copy using the Internet through the Office of Rulemaking's web page at http://www.faa.gov/avr/armhome.htm or the Federal Register's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number or amendment number of this rulemaking.

Overview

This supplemental notice of proposed rulemaking (SNPRM) amends the notice of proposed rulemaking (NPRM) published on December 31, 1996 (Noise Limitations NPRM, 61 FR 69334; Notice 96-15), which proposed to establish noise efficiency limitations for certain aircraft operations at Grand Canyon National Park (GCNP). It proposes standards for quiet technology that are reasonably achievable, as mandated by Congress. The standards for quiet technology proposed in this SNPRM will help the National Park Service (NPS) achieve its statutory mandate to provide for the substantial restoration of natural quiet and experience in the GCNP. To meet this mandate, the FAA is proposing to use a noise efficiency approach (larger aircraft with more passenger seats are allowed to generate proportionally more noise) to define quiet technology. This SNPRM does not require any action by operators, as it is intended solely to make clear what the FAA is proposing as the standard for quiet technology. Further, this SNPRM does not relieve operators of the currently established operational limitations. As this SNPRM does not require any immediate action by operators, it has minimal costs or benefits. Any eventual costs and benefits will be assessed in any later rulemaking recommendations of how the quiet technology standards are applied. All decisions about implementing these standards, including possible establishment of quiet technology routes, incentives to encourage adoption of quiet technology, imposition of a phase out of aircraft that do not meet the quiet technology designation or other actions will be dealt with through the advisory group procedures as directed by the National Park Air Tour Management Act. This SNPRM, as it disposes of the comments that the FAA received in

response to the Noise Limitations NPRM (95-15), also offers a short history of the legislative and regulatory actions with respect to air tour operations in the GCNP.

History

Table 1 provides a timeline of events related to the effort to designate quiet technology requirements for commercial air tour operations in GCNP. These events are described in this and succeeding sections.

Beginning in the summer of 1986, the FAA initiated regulatory action to address increasing air traffic over GCNP. On March 26, 1987, the FAA issued Special Federal Aviation Regulation (SFAR) No. 50 (subsequently amended on June 15, 1987; 52 FR 22734) establishing flight regulations in the vicinity of the GCNP. The purpose of the SFAR was to reduce the risk of midair collisions, reduce the risk of terrain contact accidents below the rim level, and reduce the impact of aircraft noise on the park environment.

Table 1. Timeline of Events Related to the Designation of Quiet Technology for Air Tour Operations in GCNP

Year	Month	Event
1987	March/June	The FAA publishes SFAR No. 50 to establish special flight regulations in vicinity of GCNP (52 FR 22734)
	August	Congress enacts National Parks Overflights Act (Pub. L. 100-91)
	December	The DOI transmits "Grand Canyon Aircraft Management Recommendation" to the FAA
1988	May/June	The FAA publishes SFAR No. 50-2 to revise flight procedures in GCNP airspace (53 FR 20264)
1994	March	The FAA and NPS issue ANPRM seeking public comment on quiet technology and incentives (59 FR 12740)
	September	The DOI submits to Congress "Report on Effects of Aircraft Overflights on the National Park Systems"
1995	June	The FAA extends SFAR No. 50-2 until June 15, 1997 (60 FR 31608)
	July	The DOI report to Congress is published.
1996	April	The President publishes a memorandum directing the substantial restoration of natural quiet in GCNP
	July	The FAA publishes NPRM (Notice 96-11) to amend 14 CFR part 93 to codify SFAR No. 50-2 (61 FR 40120)
	December	The FAA publishes final rule to codify SFAR 50-2 into a new subpart U of 14 CFR part 93 (61 FR 69302)
	December	The FAA publishes NPRM (Notice 96-15) on noise limitations for air tour operations in GCNP (61 FR 69334)
	December	The FAA publishes notice of availability of proposed commercial air tour routes (61 FR 69356)
1997	February	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (62 FR 8862)
	May	The FAA publishes NPRM (Notice 97-6) to establish Bright Angel incentive corridor and the National Canyon corridor for air tour routes (62 FR 26902)
	October	The FAA publishes clarification of its reevaluation of the economic and environmental impacts of the final rule published on 12/31/96 (62 FR 58898)
	December	The FAA further delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (62 FR 66248)
1998	July	The FAA withdraws the National Canyon corridor proposal (63 FR 38232)
	July	The FAA also withdraws Notice 97-6, which proposed two quiet technology incentive corridors (63 FR 38233)
	December	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (63 FR 67544)
1999	January	The NPS publishes a notice of agency policy, "Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park" (64 FR 3969)
	February	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (64 FR 5152)
	July	The FAA published an NPRM (Notice 99-11) to modify the dimensions of the GCNP SFRA (64 FR 37296)
	July	The FAA also published NPRM (Notice 99-12) to limit the number of commercial air tours conducted in GCNP (64 FR 37304)
	July	The NPS evaluation methodology becomes effective (64 FR 38006)
2000	February	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (65 FR 5395)
	April	The FAA publishes the commercial air tour limitations final rule (65 FR 17708)
	April	The FAA publishes the airspace modification final rule (65 FR 17736)
	April	Congress enacts the National Parks Air Tour Management Act of 2000 (Pub. L. 106-181, Title VIII)
	May	The commercial air tour limitations final rule becomes effective (14 CFR §§ 93.315, 317, 319, 321, 323, and 325)
	November	The FAA delays the effective date of the airspace modification final rule (65 FR 69846)
2001	January	The FAA delays the effective date of the airspace modification final rule and reinstates portions of SFAR No 50-2 (66 FR 1002)
	March	The FAA and the NPS jointly issue a notice establishing the NPOAG (66 FR 14429)
	March	The FAA delays the effective date of the airspace modification final rule (66 FR 16582)
	April	The airspace modifications final rule becomes effective (14 CFR §§ 93.301, 93.305, 93.307, and 93.309)
	June	The FAA and the NPS announce the National Parks Overflights Advisory Group membership (66 FR 32974)
	December	The FAA delays the effective date of the airspace modification final rule (66 FR 63294)

In August 1987, Congress enacted Public Law (Pub. L.) 100-91, commonly known as the National Parks Overflights Act (or the Overflights Act). The Overflights Act stated, in part, that noise associated with aircraft overflights at GCNP was causing "a significant adverse effect on the natural quiet and experience of the park and current aircraft operations at the Grand Canyon National Park have raised serious concerns regarding public safety, including concerns regarding the safety of park users."

Section 3 of the Overflights Act required the Department of the Interior (DOI) to submit to the FAA recommendations to protect resources in the GCNP from adverse impacts associated with aircraft overflights. The law mandated that the recommendations: (1) provide for substantial restoration of the natural quiet and experience of the park and protection of public health and safety from adverse effects associated with aircraft overflight; (2) with limited exceptions, prohibit the flight of aircraft below the rim of the canyon; and (3) designate flight-free zones except for purposes of administration and emergency operations.

In December 1987, the DOI transmitted its "Grand Canyon Aircraft Management Recommendation" to the FAA. The Overflights Act required the FAA to prepare and issue a final plan for the management of air traffic above the GCNP, implementing the recommendations of the DOI without change unless the FAA determined that executing the recommendations would adversely affect aviation safety.

On May 27, 1988, the FAA issued SFAR No. 50-2 revising the procedures for operation of aircraft in the airspace above the GCNP (53 FR 20264). SFAR No. 50-2 established a Special Flight Rules Area (SFRA) from the surface to 14,499 feet above mean sea level (MSL) in the area of the GCNP. The SFAR prohibited flight below a

certain altitude in each of five sectors of this area, with certain exceptions. The SFAR established four flight-free zones from the surface to 14,499 feet MSL covering large areas of the park. The SFAR provided for special routes for commercial sightseeing operators. These operators are required to conduct sightseeing operations under either part 121 or part 135 of Title 14 of the Code of Federal Regulations (CFR) as specified in their operations specifications. Finally, SFAR 50-2 contained certain terrain avoidance and communications requirements for flights in the area.

In March 1994, the two agencies jointly issued an advance notice of proposed rulemaking (ANPRM) seeking public comment on policy recommendations addressing the effects of aircraft overflights on national parks, including GCNP (59 FR 12740). The recommendations presented for comment included: (1) voluntary measures; (2) altitude restrictions; (3) flight-free periods; (4) flight-free zones; (5) allocation of noise equivalencies; and (6) incentives to encourage use of quiet aircraft technology. In response to the ANPRM, the FAA received 644 comments that specifically addressed GCNP.

A second major provision of section 3 of the Overflights Act required the DOI to submit a report to Congress discussing whether SFAR No. 50 "has succeeded in substantially restoring the natural quiet in the park; and such other matters, including possible revisions in the plan, as may be of interest." The report was to include comments by the FAA "regarding the effect of the plan's implementation on aircraft safety." The Overflights Act mandated a number of studies related to the effect of overflights on parks.

On September 12, 1994, the DOI submitted its final report and recommendations to Congress. This report entitled "Report on Effects of Aircraft Overflights on the National Park System," was published in July 1995. The report recommended numerous revisions to SFAR No. 50-2 in order to substantially restore natural quiet in GCNP. Recommendation No. 10, "Improve SFAR 50-2 to Effect and Maintain the Substantial Restoration of Natural Quiet at Grand Canyon National Park," is of particular interest to this rulemaking. This recommendation incorporated the following general concepts: (1) simplification of the commercial sightseeing route structure; (2) expansion of flight-free zones; (3) accommodation of the forecast growth in the air tour industry; (4) phased-in use of quieter aircraft technology; (5) temporal restrictions ("flight-free" time periods); (6) use of the full range of methods and tools for problem solving; and (7) institution of changes in approaches to park management, including the establishment of an acoustic monitoring program by the NPS in coordination with the FAA. On June 15, 1995, the FAA published a final rule that extended the provisions of SFAR No. 50-2 to June 15, 1997 (60 FR 31608).[1] This action allowed the FAA sufficient time to review the NPS recommendations and to initiate and complete appropriate rulemaking action.

President's Memorandum

The President, on April 22, 1996, issued a Memorandum for the Heads of Executive Departments and Agencies to address the significant impacts on visitor

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[1] The provisions of SFAR No. 50-2 have been extended numerous times (60 FR 31608, 62 FR 8862; 62 FR 66248; 63 FR 67544; 64 FR 5152; 65 FR 5395) with the last extension in January 2001 (66 FR 1002).

experience in national parks. Specifically, the President directed the Secretary of Transportation to issue proposed regulations for GCNP that would appropriately limit sightseeing aircraft to reduce the noise immediately and to further restore natural quiet, as defined by the Secretary of the Interior, while maintaining aviation safety in accordance with the Overflights Act.

Regulations

On July 31, 1996, the FAA published an NPRM (61 FR 40120; Notice 96-11) to reduce the impact of aircraft noise on GCNP and to assist the NPS in achieving its statutory mandate imposed by the Overflights Act to provide for the substantial restoration of natural quiet and experience in GCNP. A final rule was issued on December 31, 1996 (61 FR 69302) to amend 14 CFR part 93 with a new subpart U (Sections 93.301 to 93.317). The amendment adopted the following: (1) modification of the dimensions of the GCNP SFRA; (2) establishment of new flight-free zones and flight corridors, as well as modification of existing flight-free zones and flight corridors; (3) establishment of flight-free periods (curfews) in the Dragon and Zuni Point Corridors; and (4) establishment of reporting requirements for commercial sightseeing companies operating in the SFRA. This final rule also placed a temporary limit on the number of aircraft that could be used for commercial sightseeing operations in the GCNP SFRA. These provisions were to become effective on May 1, 1997. Only the reporting requirements, and aircraft cap were actually implemented. Implementation of the remaining provisions had been delayed.

Additionally, on December 31, 1996, the FAA published an NPRM on Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park

(61 FR 69334; Notice 96-15), and a Notice of Availability of Proposed Commercial Air Tour Routes in the Federal Register (61 FR 69356). These two documents were part of an overall strategy to reduce further the impact of aircraft noise on the park environment and to assist the NPS in achieving its statutory mandate imposed by the Overflights Act.

1996 Proposal for Quiet Technology Designation

In the 1996 NPRM (Noise Limitations NPRM), Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park, FAA proposed to establish noise limitations for certain aircraft operating in the vicinity of GCNP. The proposed aircraft noise limitations rule generally would have required air tour aircraft to be categorized according to each aircraft's noise efficiency. This NPRM sought to reduce the impact of air tour aircraft noise on GCNP and to assist NPS in achieving substantial restoration of natural quiet in GCNP. The 1996 proposal had three parts: (1) provide an incentive flight corridor through the National Canyon for noise efficient aircraft; (2) categorize aircraft by noise efficiency; and (3) remove the aircraft cap for the most noise efficient aircraft.

First, the proposed rule would have implemented incentives to encourage operators to convert to the most noise efficient category of air tour aircraft. The NPRM also provided an incentive route for the use of noise efficient aircraft within the GCNP.

Second, the NPRM proposed to divide air tour aircraft into three categories according to their level of noise efficiency, as measured by the relationship between the certificated noise level of the aircraft and the number of passenger seats on the typical configuration of that aircraft type. The noise efficiency concept was preferred because it encouraged the replacement of a tour aircraft with a larger, more noise efficient aircraft,

which would both reduce the noise of each operation and reduce the number of air tour operations while still accommodating the same number of passengers. Additionally, the NPRM defined the three categories of noise efficiency as, Category A, the least noise efficient; Category B, more noise efficient than Category A; and, Category C, the most noise efficient. The NPRM proposed phasing-out the use of the least noise efficient aircraft.

Third, the NPRM proposed removing the temporary cap placed on the number of aircraft permitted to be used for commercial sightseeing operations in the GCNP for operators using Category C air tour aircraft, the most noise efficient air tour aircraft in GCNP.

The FAA's findings and recommendations were presented in full detail in the publication of the NPRM. Following the publication of the NPRM, as well as a number of other related rulemakings at the end of December 1996, the FAA and NPS jointly agreed that the best approach to substantially restore natural quiet in GCNP was to devote their resources to the development of those final rules that addressed critical near-term needs. Thus, priority was given to the promulgation of final rules on changes to the airspace over GCNP and establishment of operations limitations for air tour flights. The agencies again focused on the quiet technology rulemaking as soon as the airspace and operations limitation final rules were published in April 2000.

Related Federal Rulemaking and Policies since 1996

On February 26, 1997, the FAA published a final rule (62 FR 8862) that amended the effective date of modifications to the GCNP SFRA that were codified in an earlier final rule published on December 31, 1996. This action delayed the effective date for

14 CFR Sections 93.301, 93.305, and 93.307 of the final rule and reinstated portions of SFAR 50-2 and amended the expiration date of that SFAR.[2]

On May 15, 1997, the FAA published an NPRM (62 FR 26902; Notice 97-6), which proposed to amend two of the flight-free zones within the GCNP by establishing two corridors through the flight-free zones. The first corridor through the Bright Angel Flight-Free Zone would have been an incentive corridor to be used only by the most noise efficient air tour aircraft. The second corridor in the Toroweap/Shinumo Flight-Free Zone through the National Canyon area would have created a marketable air tour route in the central section of the Park while addressing some concerns of the Native Americans.

After implementation of certain provisions of the final rule, the FAA discovered that it had underestimated the number of commercial air tour aircraft operating in GCNP in 1995. The FAA reevaluated the economic and environmental analyses completed for the final rule in light of this new information and determined that the changes were not of such magnitude as to affect the Agency's position on the implementation of the final rule. On October 31, 1997, the FAA published a notice of clarification (62 FR 58898) to set forth its reevaluation of the economic and environmental impacts associated with the Special Flight Rules in the Vicinity of Grand Canyon National Park (GCNP) Final Rule, published on December 31, 1996.

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[2] The effective date for 14 CFR Sections 93.301, 93.305, and 93.307 was delayed by subsequent amendments (62 FR 66248; 63 FR 67544; 64 FR 5152; 65 FR 5395; 65 FR 69846; 66 FR 1002, 66 FR 16582) until finally becoming effective on April 19, 2001.

On July 15, 1998, the FAA published an SNPRM (63 FR 38232) to the Noise Limitations NPRM published on December 31, 1996, removing from consideration two sections that proposed to establish a corridor in the Toroweap/Shinumo Flight-Free Zone through the National Canyon area as an incentive route for quiet technology aircraft. The FAA, in consultation with the NPS, removed these two sections from the NPRM because comments submitted by the air tour operators, the environmentalists, and the Native Americans led the two agencies to conclude that the National Canyon air tour route was not a viable option. At the same time, the FAA withdrew NPRM Notice 97-6, which had proposed quiet technology incentive corridors in the Park (63 FR 38233) – Bright Angel and the National Canyon corridors.

On January 26, 1999, the NPS published for comment a public notice of agency policy, "Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park" (64 FR 3969). This noise assessment methodology became effective on July 14, 1999 (64 FR 38006). The new policy adopted refinements to NPS' noise evaluation (i.e., impact assessment) methodology for air tour operations over GCNP. Specifically, the refinements adopted a two-zone system for assessing impacts related to substantial restoration of natural quiet at GCNP. In Zone One, encompassing about one-third of the Park's area, the threshold of noticeability previously used in noise modeling for environmental analyses related to GCNP air tours remains unchanged (i.e., the level at which people, otherwise preoccupied, would notice the noise, determined to be the average A-weighted natural ambient level plus 3 decibels(dB)). In Zone Two, encompassing about two-thirds of the Park's area, the threshold for the onset of impact is audibility (i.e., the level at which aircraft can begin to be heard by people with normal

hearing, determined to be 8dB below the average A-weighted natural ambient level at GCNP). Because the noise model used to assess air tour overflight noise in the park is based upon A-weighted data, the adjustments of +3 and –8 dB are the respective conversion factors related to the thresholds of noticeability and audibility in terms of the noise frequency on the one-third-octave band.

On July 9, 1999, the FAA published two NPRMs. One proposed to modify the dimensions of the GCNP SFRA (64 FR 37296; Notice 99-11); the other (64 FR 37304; Notice 99-12) to limit the number of commercial air tours that could be conducted in the GCNP SFRA and to revise the reporting requirements for commercial air tours in the SFRA. A final rule on the latter proposal was published on April 4, 2000 (65 FR 17708). The rule temporarily limits commercial air tours in the SFRA at the level reported to the FAA by the operators for the year May 1, 1997–April 30, 1998 (the base year), pending implementation of the comprehensive noise management plan. During the implementation of the commercial air tour limitation, the FAA and the NPS will collect further information regarding commercial SFRA operations and aircraft noise in GCNP. The NPS and the FAA will use the information collected during this time to determine whether the "substantial restoration of natural quiet" had been achieved at GCNP. In the event that the agencies determine that the statutory goal is not met through the various noise mitigation techniques adopted, the FAA and NPS will need to take further steps to achieve the substantial restoration of natural quiet. The commercial air tour limitation replaced the aircraft cap set forth in §93.316(b).

On April 4, 2000, the FAA also published a final rule (65 FR 17736) again modifying the airspace in the SFRA. This rule went into effect on April 19, 2001.[3]

The National Parks Air Tour Management Act of 2000

The National Parks Air Tour Management Act of 2000 (the Air Tour Act) was enacted on April 5, 2000, as Title VIII of Public Law 106–181 (Pub. L. 106–181). The Air Tour Act applies to ''commercial air tour operations'' occurring over a unit of the national park, or within ½ mile outside the boundary of any national park, or tribal lands within or abutting a national park. Section 804 of the Air Tour Act states that "within 12 months after the date of its enactment [April 5, 2000], the Administrator shall designate reasonably achievable requirements for fixed-wing and helicopter aircraft necessary for such aircraft to be considered as employing quiet aircraft technology for purposes of this section." If the Administrator determines that it is not possible to make such designation before April 5, 2001, the Administrator shall transmit to Congress a report on the reasons for not meeting such time period and the expected date of such designation. Additionally, Congress mandated that once such a designation had been made, those commercial air tour operators who employ quiet aircraft technology shall not be subject to the commercial air tour operations flight allocations at GCNP, "... provided that the cumulative impact of such operations does not increase noise at Grand Canyon." Finally, the Air Tour Act also directs that the Administrator, in consultation with the Director and the advisory group, shall establish, by rule, routes or corridors for commercial air tour

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[3] The effective date for the airspace modification rule was delayed by subsequent amendments (65 FR 69846; 66 FR 1002; 66 FR 16582) until becoming effective on April 19, 2001.

operations by fixed-wing or helicopter aircraft that employ quiet aircraft technology at Grand Canyon National Park, "... provided that such routes or corridors can be located in areas that will not negatively impact the substantial restoration of natural quiet, tribal lands, or safety."

National Parks Overflights Advisory Group (NPOAG)

On March 12, 2001, the NPS and FAA in accordance with the Air Tour Act, invited persons interested in participating on the NPOAG to send a letter to the FAA by April 2, 2001 (66 FR 14429). The NPOAG membership was announced on June 19, 2001 (66 FR 32974).

In accordance with the Air Tour Act, the advisory group will provide advice, information, and recommendations to the Administrator and the Director—

(1) On the implementation of this title [the Air Tour Act] and the amendments made by this title;

(2) On commonly accepted quiet aircraft technology for use in commercial air tour operations over a national park or tribal lands, which will receive preferential treatment in a given air tour management plan;

(3) On other measures that might be taken to accommodate the interests of visitors to national parks; and

(4) At the request of the Administrator and the Director, safety, environmental, and other issues related to commercial air tour operations over a national park or tribal lands.

The Air Tour Act also requires FAA to consult with the advisory group and the NPS on the establishment of routes or corridors for commercial air tour operations by fixed-wing and helicopter aircraft that employ quiet aircraft technology for--

(1) tours of the Grand Canyon originating in Clark County, Nevada; and

(2) 'local loop' tours originating at the Grand Canyon National Park Airport, in Tusayan, Arizona.

GCNP Aircraft Noise Model Validation Study

The noise modeling used in all of the GCNP environmental documents to date, remains the best science currently available and produces results consistent with available data. However, as noise modeling is a constantly evolving technology, both agencies are committed to making appropriate adjustments to the approaches and methodologies as new knowledge or science becomes available. In 1999, the NPS and the FAA jointly funded a noise model validation study to determine the degree of accuracy and precision of existing computer models. This study compares the existing candidate models for assessing air tour noise exposure with noise measurements taken in GCNP.[4] The ongoing noise model validation effort is part of the FAA and NPS commitment to work cooperatively to meet the mandated goal of a substantial restoration of natural quiet in GCNP. The final results of this project, when they become available, could have an

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[4] The candidate models being validated are:

1. The FAA's Integrated Noise Model, which has been modified to address air tour aircraft noise exposure in GCNP and is referred to as the GCNP Integrated Noise Model (GCINM).
2. The National Park Service Overflight Decision Support System (NODSS) designed and programmed specifically for park applications to consider audibility, significant changes in terrain elevation, and shielding due to terrain.
3. NOISEMAP Simulation Model (NMSIM) developed by the US Air Force and the National Aeronautics and Space Administration (NASA) to simulate aircraft single event noise levels.

effect on both the determination of substantial restoration of natural quiet already achieved and the evaluation of alternative means of implementing quiet technology.

As part of the Noise Model Validation Study efforts, the agencies jointly formed the Technical Review Committee (TRC) to review and comment on various technical issues that may arise related to the measurement, quantification and analysis of soundscapes. The TRC is composed of eight acoustics and statistical experts from academia, private companies, and government agencies.

Environmental Review

In accordance with FAA Order 1050.1D, Appendix 4, Paragraph 4.j, the FAA has determined that this proposed rulemaking is categorically excluded from environmental review. The proposed rulemaking establishes quiet technology designations for air tour aircraft operating in GCNP. It does not impose a phase-out or any alteration of any air tour operator's fleet of aircraft. In addition, the proposed rulemaking does not lift the operations limitation, alter any flight corridors through the Park, or make any change to the SFRA. Finally, the FAA notes that this proposed rulemaking has no impact on substantial restoration of natural quiet at GCNP and environmental and economic impacts will depend upon other future incentives yet to be defined. Accordingly, this proposed rulemaking will not individually or cumulatively have a significant effect on the human environment.

Consultation with Affected Indian Tribes

Six Native American communities represented by eight separate tribal governments have ancestral ties to the Grand Canyon. Three of these communities have reservations that border the GCNP, the Navajo Nation to the east, and the Havasupai and

Hualapai Tribes to the south. The Department of Transportation (DOT), FAA, DOI, NPS, Advisory Council on Historic Preservation (ACHP), Bureau of Indian Affairs (BIA), and Arizona State Historic Preservation Officer (SHPO) have consulted with these tribes, on a government-to-government basis, according to the provisions of the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the Council on Environmental Quality regulations and other applicable laws and Executive Orders.

In accordance with Section 106 of the NHPA, the FAA issued a Determination of No Adverse Effect to the Traditional Cultural Properties (TCPs) for all of the tribes and/or nations, except the Hualapai Tribe, for the April 2000, rulemaking actions associated with the SFRA in the vicinity of the GCNP. As to the Hualapai Tribe, the FAA along with the NPS, the Advisory Council on Historic Preservation, the Hualapai Tribal Historic Preservation Officer (THPO) and the Hualapai Department of Cultural Resources signed a Programmatic Agreement on January 24, 2000, related to Section 106 compliance and their TCPs.

Due to new safety concerns raised by the Air Tour Operators related to the route and airspace modifications on the East End of the SFRA, only those modifications from west of the Dragon Corridor were implemented on April 19, 2001. In accordance with Section 106 of the NHPA, if modifications are proposed for the East End commercial air tour routes and airspace to address the new safety concerns, the Navajo Nation and the other interested Native American tribes, specifically the Hopi Tribe and Pueblo of Zuni will be notified.

Public Input

The FAA has reexamined the Noise Limitations NPRM in light of the direction provided in Section 804 of the Air Tour Act. The mandate requires the Administrator to designate reasonably achievable requirements for airplanes and helicopters necessary for such aircraft to be considered as employing quiet aircraft technology for purposes of this section of the Act. The proposed quiet technology designations require air tour aircraft to be categorized according to each aircraft's noise efficiency. The eventual goal is to assist the NPS in achieving its statutory mandate imposed by Public Law 100-91 to provide for the substantial restoration of natural quiet and experience in the GCNP. This proposed rulemaking is related to and consistent with other rulemaking actions being implemented by the FAA concerning the GCNP.

In addition, the SNPRM does not propose to implement the provision of the National Parks Air Tour Management Act of 2000 that would permit lifting the cap on commercial air tour operations in the Park. The implementation of any quiet technology incentive flight corridors and the removal of operations limitation for quiet technology aircraft will be the subject of future rulemaking as the FAA, in consultation with the NPS, works with an advisory group composed of representatives of general aviation, commercial air tour operations, environmental concerns, and Indian Tribes.

The SNPRM also disposes of the comments that were received in response to the Noise Limitations NPRM (61 FR 69334). That NPRM proposed to establish noise limitations for certain aircraft operated in the vicinity of GCNP. The Noise Limitations NPRM had three parts: (1) establish incentive flight corridor through the National

Canyon; (2) categorize aircraft by noise efficiency; and (3) remove the aircraft cap for the most noise efficient aircraft.

Interested persons were invited to participate in the rulemaking action by submitting written data, views, or comments. The comment period for the NPRM closed March 31, 1997. The comment period for the draft Environmental Assessment also closed on March 31, 1997. In response to the NPRM the FAA received 107 comments. All comments received were considered before issuing this SNPRM. An analysis of the comments not previously addressed in other rulemakings is provided below. The FAA responses take into account related Federal actions since 1996.

Commenters include air tour operators and their representatives, environmental groups, sightseeing organizations, Native American tribes, pilots and pilot associations, and individuals. Most commenters do not support some or all aspects of the proposal. Generally, air tour operators who do not currently operate quiet aircraft are against a phase-out of noisier aircraft as proposed in 1996; one Native American tribe was against the proposal in the Noise Limitations NPRM to reintroduce a flight route through the National Canyon; while environmental organizations argue that by itself the Noise Limitations NPRM would not adequately restore the natural quiet to GCNP.

1. General Comments on Proposal

The FAA received a number of general comments on the NPRM, including comments related to statutory issues, procedural complaints, and environmental concerns. Eagle Canyon Airlines (Eagle) (54), Vision Air (Vision) (61), and King Airlines, Inc. (King) (56) state that the Noise Limitations NPRM failed to identify the basis for the FAA's statutory authority for the proposed rulemaking.

These commenters state that the Overflights Act gave the FAA the legal authority to issue SFAR 50, but not to take further action beyond that. These commenters also state that the FAA's reliance on its general authority, as stated in the FAA Act, for the Noise Limitations NPRM is misplaced. The FAA Act of 1958 does not give the FAA authority to protect "environmental values" or to promulgate a noise management plan, according to these commenters.

The Helicopter Association International (HAI) (63) states that the proposals are arbitrary and capricious because unbiased data demonstrate that natural quiet has been restored at GCNP and air tour aircraft currently operating at GCNP are fully certificated by the FAA and in compliance with all applicable FAA safety and operating regulations.

The General Aviation Manufacturers Association (GAMA) (64) states that the NPRM does not contain the necessary scientific data or substantiation to prove that the proposal will accomplish its goal. GAMA believes that basing a rulemaking on a broad and indefinite range of terms and objectives, such as "interference" or "annoyance" of visitors and "substantial restoration of natural quiet," is subjective and arbitrary. GAMA fears that introducing noise limitations and forced attrition for aircraft presently operating in the vicinity of GCNP could be the beginning of a process that could progressively tear down the entire U.S. aviation system. GAMA believes that, if FAA's strategy were applied to the vast holding of federal lands, federal parks, state lands and state parks, it would severely impact the use of general aviation aircraft and some commercial airliners as well.

Twin Otter (45) believes that quiet technology is the solution to the problem of achieving substantial restoration of natural quiet to the GCNP. However, the alternative,

caps, curfews, and more limitations on how air tours can be conducted, is totally unacceptable.

Lake Mead Air (26, 53) suggests that protecting the park experience from noise will be more effectively accomplished by routing traffic away from the park visitors than by use of quiet technology and altitude.

Clark County Department of Aviation and the Las Vegas Convention and Visitors Authority (Clark County) (62) believe that the piecemeal nature of the FAA's Grand Canyon rulemaking makes it impossible for the public to meaningfully comment on the proposals. Clark County suggests that the FAA propose its entire Grand Canyon strategy--flight-free zones, tour routes, quiet aircraft requirements, and other measures--as one package, so that the public can determine the overall program.

The United States Air Tour Association (USATA) (60) states that all of the various regulatory actions being implemented by the FAA should be combined into a single rulemaking effort to ensure that all the relevant issues are addressed as an integrated whole.

Bell Helicopter Textron (91) and the Professional Helicopter Pilots Association (85) believe that there are substantial issues in controversy in this proposal, which should necessitate the use of negotiated rulemaking by means of the Aviation Rulemaking Advisory Committee (ARAC) process.

The Sierra Club, Angeles and Grand Canyon Chapters (38, 75, 76), opposes the permissive growth of the air tour industry in the GCNP. The level of flight operations should be reduced to the 1975 levels.

The Sierra Club, Grand Canyon Chapter, believes that the Noise Limitations NPRM can be part of an acceptable plan, but would not by itself substantially restore natural quiet at GCNP. The proposal would not bring GCNP into compliance with the Overflights Act, nor would it bring the park into compliance with the management objectives of the GCNP General Management Plan. Furthermore, the proposal would not implement the actions directed by President Clinton in his Earth Day memorandum (April 1996). The Overflights Act directs the FAA to implement the recommendations of the NPS, revised only for safety. The FAA has ignored the law in this regard and continues to promote the air tour industry.

FAA Response

The Overflights Act charged the FAA, in concert with the DOI, to enact rulemaking and take what action is necessary to substantially restore the natural quiet and experience of our national parks, and to protect the public health and safety from adverse effects associated with overflights. This mandate granted the FAA with the necessary authority to promulgate any rule recommended by the NPS to effect the substantial restoration of the natural quiet and experience provided the FAA did not have any safety concerns. The practical effect of this second requirement is to ensure safe overflight of the GCNP by air tour aircraft.

With the enactment of the Air Tour Act, the FAA has the authority to "preserve, protect, and enhance the environment by minimizing, mitigating, or preventing the adverse effects of aircraft overflights on public and tribal lands." See Section 802 of the Act. Thus, it is clear that the FAA has the authority to promulgate these rules. Additionally, in accordance with the Air Tour Act, the FAA has established the NPOAG

to provide advice and counsel on the implementation of quiet aircraft technology at GCNP.

The FAA notes that in order to accomplish the goal of substantial restoration of natural quiet, it is necessary to proceed with different types of regulations: (1) those rules restricting airspace and limiting where air tour flights may go; (2) those rules limiting the number of air tours; and (3) those rules limiting the noise generated by air tour aircraft. It is for this reason that the FAA has adopted rules to enhance flight-free zones, modify the route structure, and limit the number of air tours in GCNP.

2. Natural Quiet

A number of commenters address the question of whether the proposals would contribute to the substantial restoration of natural quiet in the GCNP. Grand Canyon Trust (Trust) (72) makes the following general observations:

(1) Whatever regulatory scheme is ultimately implemented, that scheme must comply with the Overflights Act, and NPS, not the FAA, must determine whether and when natural quiet is substantially restored.

(2) The FAA must implement rules that immediately restore natural quiet to the canyon.

(3) The proposed rule must be substantially revised and strengthened because it will permit an immediate degradation of natural quiet.

(4) Any revisions to the proposed rule will have to include an immediate conversion to the quietest aircraft and a cap on the number of tour operators at well below the 1987 level.

The Sierra Club, Grand Canyon Chapter (76), states that the detectability level for defining natural quiet should be less than 5, rather than 17, which is used by NPS. The higher criterion shows an unrealistic prevalence of natural quiet. Furthermore, the definition of "substantial restoration of natural quiet" is flawed. A more appropriate definition would require natural quiet all of the time in most of the park, and would require natural quiet most of the day in the rest of the park. Congress mandated action to restore natural quiet and to reduce negative impact from aircraft. The FAA and NPS policy of ignoring the effects of all aircraft except tour aircraft is inappropriate.

HAI (63) states that banning some aircraft is not necessary to achieve "restoration of natural quiet" in GCNP, even when natural quiet is measured in the terms used by the NPS. HAI points out that the FAA's Draft Environmental Assessment (DEA), which accompanied the Noise Limitations NPRM, states that natural quiet at GCNP is within one percent of the NPS's goals without the imposition of any aircraft ban. HAI also believes that, in estimating aircraft operational and performance data, the FAA used inaccurate data and incorrect assumptions, thereby substantially overestimating the sound generated by the aircraft used in tour operations at GCNP. HAI further states that the FAA substantially underestimated the degree to which natural quiet has been restored under SFAR 50-2, and that, if the impact of aircraft overflight sound is measured in terms of visitor experience at GCNP, the data demonstrate that natural quiet has been restored to the Park. HAI believes that the FAA's aircraft sound prediction model substantially underestimates ground attenuation effects and that FAA estimates of ambient sound at GCNP are unrealistically low.

Bell Helicopter Textron (91) states that the ambient noise projections assigned to different areas of the Park are unrealistically low. This has the resultant effect of greatly overstating how long the aircraft's sound is detectable. Equally as damaging as this unrealistic projection is the assumption that there is no lateral attenuation of aircraft sound in the Grand Canyon. Such false assumptions understate the substantial restoration of natural quiet that currently exists in the GCNP.

Clark County (62) comments that the FAA has provided no adequate basis to demonstrate the reasonableness of the defined "natural quiet" goal. Further, the FAA's "time audible" metric does not reasonably measure natural quiet. Clark County also states that the models used to estimate aircraft audibility have not been adequately explained and may overstate the extent to which aircraft can be heard.

FAA Response

Since the issuance of the Noise Limitations NPRM, the NPS published a public notice of agency policy (64 FR 3969) titled *Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park.* Comments to this notice were solicited and addressed by NPS. The policy refined the NPS' noise evaluation (i.e., impact assessment) methodology for air tour operations over GCNP. Specifically, the refinements included a two-zone system for assessing impacts related to substantial restoration of natural quiet at GCNP.

The ongoing noise model validation effort is also part of the FAA and NPS commitment to work cooperatively to meet the mandated goal of substantial restoration of natural quiet in GCNP. The noise modeling used in all of the GCNP environmental documents to date, is the best science currently available. However, as noise modeling is

a constantly evolving technology, both agencies are committed to making appropriate adjustments to the approaches and methodologies as new knowledge or science becomes available.

With regard to the ambient noise database and the lateral attenuation calculation, the GCNP aircraft noise model validation project will address these facets. All existing evidence, including field measurements, support both the choice of an ambient noise level data file for the Park and the decision to suppress INM's lateral attenuation algorithm for GCNP noise modeling. In accordance with the Air Tour Act, the implementation of quiet technology is part of the Advisory Group consultative process. The FAA and NPS recognize that conversion to quiet technology aircraft in the GCNP will not likely result in achieving complete substantial restoration of natural quiet at GCNP.

3. Native American Tribal Concerns

The Hualapai Tribe (52) states that it supports the use of quiet technology and generally supports the NPRM with the following exceptions: (1) the FAA has failed to consult with the Hualapai Tribe on a government-to-government basis as required by federal law; (2) the multiple rulemakings published by the FAA on the GCNP make the comment process more cumbersome, more expensive, and obscures the cumulative impact of the respective parts of the rulemakings; (3) there has been a double standard with respect to testing noise impact since no on-the-ground noise testing and modeling has been undertaken with respect to the Hualapai Reservation, in collaboration with the Tribe; (4) the FAA needs to look at alternatives to quiet technology such as location of air tour routes and caps; (5) there need to be "Tribal Flight Free Zones" to protect cultural resources and practices, natural resources, and tourism industry, as well as limitations on

the number of NPS flights over the Hualapai Reservation; (6) the FAA should delegate to, or share with, the Hualapai Tribe oversight authority to make sure that the quiet technology rules are being complied with over the Reservation; and (7) there should be an exemption from quiet technology requirements for tribal administrative flights, analogous to the NPS exemption, to avoid burdening the Tribe's sovereign authority to run its own government and administer its lands.

FAA Response

The FAA has been consulting with the Hualapai in accordance with the provisions of the President's April 24, 1994, memorandum on Government-to-Government Consultation with Native American Tribes, and Section 106 of the NHPA. The FAA has had numerous meetings with representatives of the Tribe's natural resources and cultural resource agencies since 1996. Additionally, the Hualapai have been part of the FAA and the NPS ongoing discussions with the other individual tribes. The Hualapai have also commented on several issues that have been addressed in previous rulemakings and were a cooperating agency on the February 2000 Final Supplemental Environmental Assessment (FSEA). The FAA responded to Hualapai comments similar to those noted above in the 2000 FSEA. See Appendix G of the FSEA.

The FAA has moved forward to implement recommendations from the NPS after completing a safety review of the NPS recommendations. This is consistent with the provisions of the Overflights Act. In each rulemaking the FAA attempts to outline the rulemaking history and economic impact. Some of these recommendations that have been finalized in the last two years are consistent with the Hualapai's comments on

revising air tour routes and adopting limitations on the number of air tours in GCNP. See 65 FR 17708 and 65 FR 17736.

In accordance with Section 106 of the NHPA, the FAA issued a Determination of No Adverse Effect to the Traditional Cultural Properties (TCPs) for all of the tribes and/or nations, except the Hualapai Tribe, for the rulemaking actions associated with the SFRA in the vicinity of the GCNP. As to the Hualapai Tribe, the FAA along with the NPS, the Advisory Council on Historic Preservation, the Hualapai THPO, and the Hualapai Department of Cultural Resources signed a Programmatic Agreement on January 24, 2000 related to Section 106 compliance and their TCPs. The FAA notes that the United States generally supports leaving the skies open to aviation, with exceptions primarily for safety and security reasons. Flight-free zones were created in GCNP to help NPS achieve substantial restoration of natural quiet, pursuant to the mandates of the Overflights Act.

The FAA notes that the sole purpose of this rule is to define quiet technology. This rule contains no specific requirements for operators to convert to quiet aircraft. Thus, the question of which entities are responsible for oversight of this rule is not relevant.

In response to the request for an exemption to conduct administrative flights, the FAA reiterates that this and other rulemakings affect only flights satisfying the definition of a commercial air tour operation contained in 14 CFR §93.303. Moreover, this rule does not phase out aircraft that are not designated as quiet technology.

4. Classification of Aircraft by Noise Characteristics

A number of commenters address the issues related to classification based on aircraft certification, as well as the three categories of aircraft classification contained in the Noise Limitations NPRM.

Lake Mead Air (26, 53) believes that the standard for quiet aircraft should not be linked to the Aircraft Noise Certification provisions prescribed in 14 CFR part 36, and listed in AC 36-1F, since it is possible for aircraft to be reconfigured and flown differently than AC 36-1F. The FAA should make sound measuring equipment available at Las Vegas and Grand Canyon for determining actual flyover sound levels in the tour "cruise configuration." If Category A aircraft can be retrofitted to Category B it should be encouraged since such a conversion would be more easily implemented than direct conversion to Category C.

Clark County (62) states that the NPRM will unreasonably and arbitrarily burden air tour operators and the Las Vegas tourist economy. However, if the FAA based its categorization of aircraft on noise performance, rather than on certification, and provided options for compliance flexibility, there would be significantly less burden on tour operators, airborne visitors, and the economy of the Las Vegas area. Clark County states that it conducted a study of actual ambient and aircraft noise in GCNP in an attempt to validate FAA's methodology and found that using certification data, as a basis does not accurately represent aircraft noise levels in the GCNP, because it does not account for actual atmospheric and operational conditions in the GCNP. As a result, the FAA has placed aircraft in the noisier A or B categories that should belong in the B or C categories. Clark County states that the NPRM provides no means for operators to comply with the

performance standards through the use of retrofitted equipment, quiet operating procedures, or other enforceable steps to reduce noise. This is at odds with the federal government's increasing attempt to use performance standards and provide compliance flexibility to reduce regulatory burden.

An airline transport pilot (40) states that the noise propagation of a propeller driven airplane is largely dependent on the design and speed of its propeller. Design and speed are responsible for a greater share of the decibel level discernible in the hearing range than exhaust output, wing shape, loading of the airplane, cowl and airframe vibration, or accessory operation (e.g., flap extension, gear drag and parasitic friction). Since the design and speed factors affect all aircraft operating in the Grand Canyon a simple change, for example, operating a Cessna 207 at 2300 RPM instead of 2400 or 2500 RPM, can affect whether an aircraft should be placed in one category or another, if the categories are defined by noise values.

Lake Mead Air (26, 53) states that the decibel range for quiet Category C helicopters starts at 80 dB whereas the fixed-wing threshold is 69 dB. If 80 dB meets Category C standards for helicopters it should also meet Category C standards for fixed-wing.

Eagle (54) states that its F27 aircraft would not be covered under the NPRM. Size (48 passenger), noise tests, and decibel adjustments do not take the F27 into consideration.

Professional Helicopter Pilots Association (85) states that the existence of aircraft capable of achieving the lower sound levels is still in the developmental stage such that only one manufacturer has any such helicopters available which have the performance

capability for air tour operations. As a result the NPRM is premature and should not be implemented until technology improves.

The Grand Canyon River Guides (GCRG) (50) state that helicopters, which are generally accepted to be the most obnoxious of aircraft and carry fewer people, should not fall into Category B, but should be put into Category A.

Twin Otter (45) states that it is appropriate to take into account both the flyover sound level and aircraft passenger seating capacity in establishing which models qualify as Category C aircraft because a single Vistaliner replaces two flights with the nine passenger Cessna 402/Piper Chieftain, nearly three flights in the seven passenger Cessna 207 and four flights in the 4-5 passenger Bell Jetranger.

Twin Otter adds that the Beechcraft C-99 and the Piper Chieftain could be retrofitted with four bladed props, as have the Vistaliners, thus converting them to Category C aircraft.

Air Vegas (57) believes that its 15 Beechcraft C-99 aircraft should be deemed Category C since it utilizes the same basic power plant, the PT-6, as the Caravan and the Vistaliner, and has been modified for sightseeing operations to include extra windows. The average price for these aircraft, configured to meet Air Vegas specifications, is in excess of $1,300,000. These aircraft are adequately available and have proven to be cost effective. Furthermore, the FAA studies, which placed the Beechcraft C-99 into Category B, were based on max RPM level 2200 RPM. If the RPM is reduced to 1900 (a reduction of 14 percent), there is an equal reduction of 14 percent in the dB level of the propeller, thus 68.2 dB. Air Vegas operations specifications require pilots to maintain propeller RPM at 1900 and with this power setting a Beechcraft C-99 is well below the

Category C cutoff of 78 dB for a 15 passenger aircraft. Air Vegas believes there should be an incentive for decreasing the percent of time audible for the aircraft. Because of the higher speeds achievable by the Beechcraft C-99, as compared to the Vistaliner, the C-99's have an impact for less time.

Scenic Airlines (74) states that the deHavilland DHC-6-300 Twin Otter with quiet propellers and the Cessna 208 (A & B models) must be classified as quiet aircraft technology (Category C). Furthermore, in developing Sound Exposure Level (SEL) dB limits, consideration must be given to the speed of an aircraft. Since disruption of natural quiet is measured in terms of "Time of exposure" the faster of two aircraft with the same dB output should be shown as the quieter.

The Grand Canyon Trust (72) states that by defining the aircraft categories in terms of sound exposure level per passenger seat, the FAA obscures the fact that some Category C aircraft (e.g., the Vistaliner) are noisier than some Category A or B aircraft. The Trust further states that unless a cap is established on the number of operations Category C can fly, ultimately there will be no advantage to conversion to certain Category C aircraft. Therefore, the Trust's additional comments assume that such a cap will be implemented.

Clark County (62) states that the FAA should set default noise levels and GCNP noise categories for the aircraft operating in GCNP using methodologies that accurately reflect conditions in GCNP and should validate the noise levels through field-testing. If this were done, some aircraft, such as the Beechcraft C-99 would actually meet Category C standards.

Eagle (54), King (56), and Vision (61) state that the FAA's formulation of the aircraft categories in the NPRM is arbitrary and capricious for the following reasons:

(1) The FAA fails to justify its placement of the dividing line between categories and has not consulted operators on this issue before establishing the categories.

(2) Use of part 36 test results is not appropriate.

(3) The proposed 4-dB distinction between Category A and Category C is inappropriate since it attempts to draw distinctions that cannot be discerned by most humans.

(4) Distinctions between categories fail to account for the effect of speed on aircrafts' "noiseprint."

(5) Tests that serve as a certification basis do not simulate actual operating conditions.

(6) Categories discriminate against propeller-driven airplanes.

(7) Proposed Category C could be met by only two types of existing aircraft, one of which is unavailable while the other is prohibitively expensive.

Bell Helicopter Textron (91) states that the FAA's noise analysis incorrectly assumed that there is no lateral attenuation of aircraft sound. The effect of this false assumption is great considering that if the sound exposure levels attributed to aircraft were even 5 dB less, then up to six additional aircraft would be in compliance with the proposed Category C noise efficiency criteria.

FAA Response

While this SNPRM replaces the three noise efficiency categories proposed in the Noise Limitations NPRM, the currently proposed quiet technology designation is based

upon the same rationale and criteria. The FAA criteria for "reasonably achievable" quiet technology requirements include what is technologically practicable, economically reasonable, appropriate to the aircraft type design, and, in the final analysis, environmentally beneficial. The FAA also set forth the following attributes for any quiet technology designation. Specifically, the designation should:

- Be based on aircraft noise certification (14 CFR part 36);
- Judge fixed- and rotary-wing aircraft on a common basis;
- Correlate with aircraft performance and operation at GCNP;
- Offer basis for incentives; and
- Be manageable

Noise levels obtained from aircraft noise certification represent the highest quality of data available. The flight tests are conducted under controlled conditions with an FAA representative or designee in attendance to witness the test setup and test activities. Data obtained during these flight tests are corrected to standard reference conditions as prescribed in 14 CFR part 36. The certification tests are designed to acquire noise levels representing the noisiest flight configurations for small propeller-driven airplanes and helicopters. FAA believes that this is appropriate for the GCNP situation as the certification flight configurations are also the noisiest configurations that could be used over the park. Thus, the sightseeing aircraft can be judged equally, fairly, and without the concern that the noise levels are undervalued.

The airport community has many years of experience using the certificated noise levels. FAA publishes these levels in Advisory Circular (AC) 36-1, "Noise Levels for U.S. Certificated and Foreign Aircraft." The current version of this AC is 36-1G, dated

August 27, 1997. These data have been used to establish use restrictions, curfews, and noise budgets at some airports in the country. The certificated noise levels are not only available in the advisory circulars, which are updated and published periodically, but the levels are readily available to the aircraft owners from aircraft flight manuals (AFM).

The quiet technology designation based on certificated noise levels is proposed not only because of the long-standing precedent, but also because it eliminates the need for someone to make such measurements in the field. Years of experience with using data obtained from airport noise monitoring systems have shown that noise levels obtained under uncontrolled conditions are highly variable. This problem can only be overcome by obtaining very large samples of measured data to reduce the statistical uncertainty. Thus, FAA believes that a quiet technology designation based on measured data taken at GCNP would be economically unreasonable and susceptible to statistical error.

Unfortunately, there is no single method applicable to all aircraft for determining the certificated noise level. Depending on date of application for type certificate and whether the aircraft is a helicopter or small propeller-driven airplane, the noise level could have been obtained from one of four different tests. With measurements taken for different flight operations, at three different altitudes, and in three different units of noise, it is not possible to directly compare certificated noise levels obtained for helicopters with those of small propeller-driven airplanes. As reported in the study, "Methodology to Categorize the Noise Efficiency of Air Tour Aircraft in GCNP," FAA developed a procedure for: (1) extrapolating from the controlled conditions of a certification test to the operating conditions at GCNP and (2) converting levels to a common noise unit, thus

making it possible to judge airplanes and helicopters on a common basis under conditions that pertain to air tour operations over GCNP. As a result of the study, FAA found that it is possible to extrapolate from the certification conditions applicable to helicopters and small propeller-driven airplanes to produce a consistent set of noise levels under conditions similar to those at GCNP.

FAA finds that the noise efficiency concept, which was proposed in the Noise Limitations NPRM and re-proposed in this SNPRM, albeit modified to designate quiet technology, exhibits all of the desired attributes for the quiet technology designation. The concept is technically sound as it takes into account aircraft design, flight configuration, acoustic characteristics, productivity, and economic reasonableness. As the concept is based upon the certificated noise levels, the FAA is able to judge the noise of the commercial sightseeing aircraft consistently, fairly, and without the additional cost and technical problems found in field monitoring. In concert with related actions with respect to the airspace and air tour operations, the quiet technology designation can be an effective means toward substantially restoring natural quiet at GCNP.

The FAA notes that this SNPRM is essentially a definition of quiet technology taking into account the technological capabilities of aircraft available in the used marketplace, including the existence of aircraft type design modifications to reduce noise levels. As this action merely defines quiet technology but does not impose any requirements, the FAA does not expect any economic impact on the operators of GCNP air tours. The FAA seeks comments before moving to future related rulemaking in consultation with the NPS and in coordination with an advisory group composed of

general aviation, commercial air tour operations, environmental concerns, and Native American interest.

5. Phase Out of Less Noise Efficient Aircraft

A number of commenters addressed the proposal to phase out noisier aircraft to further reduce noise impacts in GCNP. As described in the Noise Limitations NPRM, less noise efficient aircraft would have been gradually phased out starting in the year 2000 with the phase out of Category A aircraft and continuing through to the end of 2008 at which point all Category B aircraft would be phased out and only Category C aircraft would remain. The phase out would have limited future use of less noise efficient aircraft in GCNP and would also have provided an incentive for the use of the most noise efficient aircraft.

This SNPRM only proposes to define the quiet aircraft technology designation. The quiet technology designation is predicated on the notion that the use of larger, relatively quieter aircraft (on a per seat basis) is helpful in reaching the goal of substantial restoration of natural quiet through a combination of reduction of noise at the source and reduction in the number of tour operations. Under the provisions of Section 804 of the Air Tour Act, all incentives to replace current aircraft with those satisfying the definition must be recommended by the NPOAG. Thus, any proposals to encourage the transition to quiet technology will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG.

6. Removal of Temporary Cap

A number of commenters addressed the proposal to remove the cap on air tour aircraft for all Category C aircraft. This change was proposed as an incentive for conversion to noise efficient aircraft.

Since the Noise Limitations NPRM, the FAA has issued a final rule that replaced the cap on the number of air tour aircraft with an operations limitation on the annual number of commercial air tour operations in the GCNP SFRA (65 FR 17708). Thus, a discussion of the comments on the removal of the air tour aircraft cap is irrelevant. The Air Tour Act provides that "Commercial air tour operations by any fixed-wing or helicopter aircraft that employs quiet aircraft technology and that replaces an existing aircraft shall not be subject to the operational flight allocations that apply to other commercial air tour operations of the Grand Canyon, provided that the cumulative impact of such operations does not increase noise at the Grand Canyon." (See Section 804(c) of the Act; emphasis added). As discussed below, the FAA does not foresee at this time that the operations limitations would be lifted in any meaningful way since once commercial air tour operations increased, noise would increase, even if all operators used quiet technology aircraft.

As documented in the February 2000 FSEA accompanying the commercial air tour limitation final rule, only 44 percent of the Park (on an annual average day) achieved substantial restoration of natural quiet upon implementation of the air tour limitations and changes to routes and airspace adopted in April 2000. The FAA and NPS note that this percentage may change once the revised east end routes are adopted and implemented. The FAA has evaluated whether the designation of quiet technology requirements,

contained in this SNPRM, will enable the FAA to relieve commercial air tour operators from the present commercial air tour operations limitation. More specifically, the FAA conducted studies to determine the extent to which use of quiet technology aircraft could possibly enable air tour operators to increase operations without increasing cumulative noise levels at GCNP pursuant to Section 804 of the Air Tour Act.

The FAA test was conducted by assessing the sensitivity of the 25% TA_{12hr}[5] contour to increases in quiet technology aircraft operations using the GCINM. The 25% TA_{12hr} contour has been the measure used in the environmental assessments associated with all GCNP SFRA rulemaking to assess progress towards the goal of substantial restoration of natural quiet. The particular GCNP air tour scenario chosen for this test was the preferred alternative of the February 2000 FSEA that accompanied the April 2000 final rules (65 FR 17708 and 65 FR 17736). Two separate runs of the GCINM were performed; airplane operations on Zuni Reverse and helicopter operations on the Green 1 loop. The analysis found that adding less than four annual airplane operations or three annual helicopter operations would increase the 25% TA_{12hr} contour area by 0.01 sq. mi.

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[5] The time above (TA) metric provides the duration that aircraft related noise exceed specified sound threshold. For assessment of aircraft noise in GCNP, the $\%TA_{12h}$ represents the percentage of time aircraft are audible during the 12-hour daytime period of primary visitor activity. The 25 $\%TA_{12h}$ contour (the area where aircraft are audible greater 25% of the time) measures the extent that the criterion for substantial restoration of natural quiet is met. When the 25 $\%TA_{12h}$ contour for a particular alternative occupies less than half of the area of GCNP then that alternative has achieved substantial restoration of natural quiet at the Park.

FAA chose a hundredth of a square mile as the threshold of significance because contour areas in the GCNP EA documents have been reported to that significant digit.

The above result supports the FAA's preliminary finding that aircraft that meet the quiet technology designation operating without operations limitation will likely cumulatively increase noise in the GCNP. Given that the Air Tour Act only provides relief from the operations limitation when the cumulative impact of such operations does not increase noise at GCNP, the FAA would likely be unable to remove the commercial air tour operations limitation. Removal of the operations limitation will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG as directed by the Air Tour Act.

7. Other or Alternative Incentives

A number of commenters responded to the FAA's request for comments regarding alternative or additional incentives for operators to convert to noise efficient technology.

Lake Mead Air (26, 53) states that with the conversion to "quieter aircraft" several companies will not be able to meet the standard and will sell or close. Other incentives for quiet aircraft technology should be considered such as tax credits or subsidies, for example the FAA could pay the air tour operators not to fly Category A aircraft, similar to soil banks. Furthermore, more noise efficient aircraft should be phased in rather than phasing out the less noise efficient aircraft.

Twin Otter (45) states that it is an oversight that the FAA has not provided for a quiet aircraft corridor in the eastern section of the canyon. Twin Otter then comments on routes proposed in 1996 that are no longer part of this rulemaking.

Twin Otter recommends the following additional incentives for Category C aircraft: (1) lift the aircraft cap immediately on the number of Category C aircraft that may be operated; (2) eliminate the curfew for Category C aircraft, and if this is not possible, then permit Category C aircraft to operate one hour before and one hour later than curfew hours for conventional aircraft (official sunrise at GCNP is two hours earlier than the curfew permits for most of the summer); (3) roll back the overflights fee for Category C aircraft as an additional incentive; and (4) require helicopters to fly at the highest possible altitude in the Zuni Corridor so that airplanes can conduct tours at a lower altitude and establish the lowest airplane tours in the Zuni for Category C qualifying aircraft.

Grand Canyon Airlines (GCA) (46) supports the concept of the proposed amendment to part 93. GCA also believes that the FAA needs to provide quiet aircraft incentive routes in the eastern region. Category B helicopters are permitted to operate at the lowest possible altitude in the eastern region and they are even encouraged to fly in the most sensitive Dragon Corridor with the lowest altitudes and shortest direct routes. This makes the airplane Category C air tours less attractive than the noisier Category B helicopters in this region. To correct this disparity the Category C aircraft should be given the lowest possible routes in the eastern region. GCA makes the following recommendations: (1) provide a Category C incentive route over the existing Black 1 route; (2) minimize advantages to Category B helicopter routes by creating new Category C routes that provide superior tour features; (3) waive overflight fees to Category C aircraft; and (4) eliminate caps and curfews on Category C aircraft.

Papillon (55) also supports the timeframe for transition to quiet technology and the guidelines for qualifying aircraft as quiet technology, but recommends 35 dB as the threshold of substantial natural quiet for the GCNP. The following incentives for quiet technology should be implemented for Category C aircraft only: (1) eliminate the GCNP overflight fee; (2) create a route across the North Rim (through the Bright Angel Flight-Free Zone); (3) permit Category C aircraft to use alternate routes that may enter flight-free zones to show specific landmarks; (4) establish new curfews of one hour after sunrise and one hour before sunset; and (5) restore the two-way helicopter loop in the Zuni Corridor.

An individual commenter (68) states that more incentives need to be utilized to help air tour operators convert to quiet technology. This commenter suggests the following incentives: (1) waiving overflight fees and park admission fees for passengers; (2) offering and approving low-cost government loans and tax credits; and (3) establishing new quality view corridors through which only Category C aircraft could fly at lower altitudes.

Scenic Airlines (Scenic) (74) states that while 75 percent of the passengers it flew in 1996 were flown in Category C aircraft about one half of its air tour fleet are Category A aircraft. While Scenic would like to convert these Category A to Category C, it must be provided with incentives, in the form of privileges that operators and passengers can value, before it would voluntarily do so. Operators have only invested in Category C aircraft in the past based on the promise by the NPS that they will be rewarded in the future. If no such rewards materialize there will be a disincentive to convert to Category C's in the future.

Scenic states that the following Category C incentives should be provided: (1) a route through the northern portion of the expanded Bright Angel Flight-Free Zone using the existing Black 1A and Green 1A (SFAR 50-2); (2) a route along the current Brown 3 (SFAR 50-2) departure which goes through the northwest corner of the Toroweap Flight-Free Zone; (3) waiver of curfews in Dragon and Zuni corridors to extend the hours of operation to Daylight hours; (4) waiver of overflight fees; (5) investment tax credits; and (6) low cost government loans.

AirStar Helicopters, Inc. (AirStar) (84) states that the following incentives for transition to noise efficient aircraft should be considered: low cost loans, overflight fee rebates or investment tax credits. AirStar also states that it has already begun the transition to quiet technology.

The Grand Canyon Trust (72) proposes the use of Dragon and Zuni Corridors as quiet aircraft incentives routes for Category C aircraft only.

FAA Response

This SNPRM only proposes to define quiet aircraft technology. Under the provisions of Section 804 of the Air Tour Act, all incentives to replace current aircraft with those satisfying the definition must be developed through the consultative process with the NPOAG. Thus, proposals to encourage the transition to quiet technology will be addressed in subsequent FAA rulemaking. The NPOAG will provide advice and recommendations on, among other things, the establishments of routes and corridors for the operation of quiet technology aircraft for tours originating in Clark County, Nevada and for "local loop" tours originating at the GCNP Airport in Tusayan, Arizona. The FAA notes that Section 804(b) of the Air Tour Act allows such incentive routes

"provided that such routes or corridors can be located in areas that will not negatively impact the substantial restoration of natural quiet, tribal lands, or safety."

8. Draft Environmental Assessment (DEA)

In 1996, the DEA analyzed a different Federal action than is now proposed by the FAA. Therefore, the FAA is not pursuing completion of that NEPA document for this SNPRM and the comments received on the DEA are no longer relevant.

Rather, in accordance with FAA Order 1050.1D, the FAA has determined that this proposed rulemaking is categorically excluded from environmental review under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA). The proposed rule is categorically excluded under FAA Order 1050.1D, Appendix 4, Paragraph 4.j, which covers regulations "excluding those that if implemented may cause a significant impact on the human environment." Unlike the DEA completed with the Noise Limitations NPRM, this proposed rulemaking simply establishes quiet technology designations for air tour aircraft operating in GCNP. It does not impose a phaseout or any alteration of any air tour operator's fleet of aircraft. In addition, the proposed rulemaking does not lift the operations limitation, alter any flight corridors through the Park, or make any change to the SFRA. Finally, the FAA notes that this proposed rulemaking alone has no impact on substantial restoration of natural quiet at GCNP and environmental and economic impacts will depend upon other future incentives yet to be defined. Accordingly, this proposed rulemaking will not individually or cumulatively have a significant effect on the human environment.

Potential Further Action

As proposed, the FAA would designate a standard for quiet technology that would apply to certain aircraft in commercial air tour operations over GCNP. Under the provisions of Section 804 of the Air Tour Act, the implementation of quiet technology will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG. The NPOAG will provide advice and recommendations on, among other things, the establishments of routes and corridors for the operation of quiet technology aircraft for tours originating in Clark County, Nevada and for "local loop" tours originating at the GCNP Airport in Tusayan, Arizona. The FAA notes that Section 804(b) of the Air Tour Act allows such incentive routes "provided that such routes or corridors can be located in areas that will not negatively impact the substantial restoration of natural quiet, tribal lands, or safety." Since the ultimate objective is to determine the role of quiet technology in achieving substantial restoration of natural quiet, the FAA is requesting specific comments to address quiet technology within the context of the implementation issue:

1. How reasonable is the noise efficiency approach (larger aircraft with more passenger seats are allowed to generate proportionally more noise) to define quiet technology and how appropriate is the use of certificated noise level as the basis?
2. What provisions should be made for changes in technology that result in source noise reduction and/or increased noise efficient aircraft designs?
3. What economic and operational incentives should be considered in order to achieve the transition to quieter aircraft and how should the quiet technology designation be used in the establishment of the incentives?

4. Should incentives include a "flexible" cap that would permit increasing operations of aircraft based upon the acquisition of leading edge noise efficient technology by operators?
5. Should growth be tied to an incentive system for existing operators to convert their fleet to quiet technology?
6. What operational limitations (phase-out, expanded curfews, noise budgets, quota system, etc.) should be considered and how should the quiet technology designation be used in the setting of the limitations?

ECONOMIC SUMMARY

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. And fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by state, local or tribal governments, in the aggregate, or by the private sector, of $100 million or more, in any one year (adjusted for inflation).

However, for regulations with an expected minimal impact the above-specified analyses are not required. The Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the proposal does not warrant a full evaluation, a statement to that effect and the basis for it is included in proposed regulation. Since this SNPRM serves only to refine the quiet technology definition applied to air tour aircraft operating in GCNP developed in the Noise Limitations NPRM, and removes all compliance requirements proposed in that NPRM, the expected outcome is to have a minimal impact.

The SNPRM retains the "noise efficiency" concept defined by the relationship between the certificated noise level of an aircraft and the number of passenger seats on the typical configuration of that aircraft type as initially proposed in the Noise Limitations NPRM. However, the three principal rulemaking elements of 61 FR 69334 have been eliminated. The SNPRM replaces the three noise efficiency categories that were proposed in the Noise Limitations NPRM and proposes to temporarily continue to rely on the designation of quiet technology aircraft, those that were formerly described as Category C. Furthermore, the SNPRM does not propose any phaseout of air tour aircraft that do not comply with the Category C quiet technology designation. Nor does it include any incentive flight corridors through the park as proposed in December 1996. Finally, as noted above, the SNPRM does not lift the operations limitation on commercial air tour operations conducted in the Park that has replaced the 1996 aircraft cap for those aircraft meeting the Category C noise efficiency standard.

Therefore, this SNPRM is essentially a definition of quiet technology and has negligible economic impact on the operators of GCNP air tours. The FAA seeks public comment before moving to future FAA rulemaking in consultation with the NPS. Future rulemaking would be coordinated with an advisory group composed of representatives of general aviation, commercial air tour operations, environmental concerns, and Native American interests.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a

regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

This action merely defines quiet technology but does not impose any requirements. Therefore, the FAA does not expect this rule to impose any cost on small entities. Consequently, the FAA certifies that the rule will not have a significant economic impact on a substantial number of small air tour operators.

International Trade Impact Analysis

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

In accordance with the above statute, the FAA has assessed the potential effect of this proposed rule to be minimal and, therefore, has determined that this rule will not result in an impact on international trade by companies doing business in or with the United States.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104-4 on March 22, 1995, is intended, among other things, to curb the practice of imposing unfunded Federal mandates on state, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in a $100 million or more expenditure (adjusted annually for inflation) in any one year by state, local, and

tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action."

This proposed rule does not contain such a mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

Federalism Implications

The regulations herein would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12866, it is determined that this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Consultation with Tribal Governments

Executive Order 13084 provides for consultation and coordination with Indian tribal governments in certain circumstances that are set forth in the executive order. We have discussed above the ways in which we have consulted with Indian tribal governments about this proposed rule and taken their concerns into account. The FAA determined that additional consultations were not necessary because the proposed rule is required by statute and would not impose any substantial direct compliance costs on the communities of Indian tribal governments.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (Pub. L. 104-13), there are no requirements for information collection associated with the SNPRM.

List of Subjects in 14 CFR Part 93

Air traffic control, Airports, Navigation (Air), Reporting and record keeping requirements.

The Amendment

For reasons set forth above, the Federal Aviation Administration proposes to ~~amends~~ part 93, in Chapter I of Title 14, Code of Federal Regulations, as follows:

JMA 3/19/03

PART 93--SPECIAL AIR TRAFFIC RULES AND AIRPORT TRAFFIC PATTERNS

1. The authority citation for part 93 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40106, 40109, 40113, 44502, 44514, 44701, 44719, 46301.

2. Section 93.303 is amended by adding a definition. ~~revised to add the definition to read as follows:~~

JMA 3/19/03

§ 93.303 Definitions.

* * *

Quiet technology aircraft means an aircraft that is subject to §93.301 and has been shown to comply with the noise limit specified in appendix A of this part.

* * *

3. Appendix A is added to read as follows:

APPENDIX A TO PART 93- GCNP AIRCRAFT QUIET TECHNOLOGY DESIGNATION

This appendix contains procedures for determining the quiet technology status for each aircraft subject to section 93.301 determined during the noise certification process as

prescribed under part 36 of this chapter. Where no certificated noise level is available, the Administrator may approve an alternative measurement procedure.

1. Aircraft Noise Limit for Quiet Technology

A. For helicopters with a flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix H of 14 CFR part 36, the limit is 80 dB for helicopters having two or fewer passenger seats, increasing at 3 dB per doubling of the number of passenger seats for helicopters having three or more passenger seats. The limit at number of passenger seats of three or more can be calculated by the formula:

EPNL(H) = 80 +10log(# PAX seats/2) dB

B. For helicopters with a flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix J of 14 CFR part 36, the limit is 77 dB for helicopters having two or fewer passenger seats, increasing at 3 dB per doubling of the number of passenger seats for helicopters having three or more passenger seats. The limit at number of passenger seats of three or more can be calculated by the formula:

SEL(J) = 77 +10log(# PAX seats/2) dB

C. For propeller-driven airplanes with a measured flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix F of 14 CFR part 36 without the performance correction defined in Sec. F36.201(c), the limit is 69 dB for airplanes having two or fewer passenger seats, increasing at 3 dB per doubling of the number of passenger seats for airplanes having three or more passenger seats. The limit at number of passenger seats of three or more can be calculated by the formula: LAmax(F) = 69 +10log(# PAX seats/2) dB

D. In the event that a flyover noise level is not available in accordance with Appendix F of 14 CFR part 36, the noise limit for propeller-driven airplanes with a takeoff noise level obtained in accordance with the measurement procedures prescribed in Appendix G is 74 dB for airplanes having two or fewer passenger seats, increasing at 3 dB per doubling of the number of passenger seats for airplanes having three or more passenger seats. The limit at number of passenger seats of three or more can be calculated by the formula: LAmax(G) = 74 +10log(# PAX seats/2) dB

Issued in Washington, DC on MAR 18 2003

Paul R. Dykeman
Acting Director, Office of Environment and Energy

Certified to be a True Copy