

**Grand Canyon Working Group Meeting  
July 28, 2009  
High Country Conference Center  
NAU Campus  
Flagstaff, Arizona**

**Facilitators: Lucy Moore and Tahnee Robertson**

***Members/alternates Present:***

Bill Austin, US Fish and Wildlife Service  
Roger Clark, Grand Canyon Trust  
Alan Downer/Timothy Begay/Ben Shelly, Navajo Nation  
Lynne Pickard/Barry Brayer, Federal Aviation Administration  
Leigh Kuwanwisiwma, Hopi Tribe  
Steve Martin/Gopaul Noojibail, Grand Canyon National Park, National Park Service  
Doug Nering, Grand Canyon Hikers and Backpackers Association  
David Nimkin, National Parks Conservation Association  
Rob Smith/Jim McCarthy, Sierra Club  
Alan Stephen, Scenic and Grand Canyon Airlines, Inc.  
John Sullivan, Sundance Helicopters, Inc.  
Richard Walema Sr./Rory Majenty, Charlie Vaughn, Hualapai Tribe  
Stacy Howard, Aircraft Owners and Pilots Association  
Richard Martin, alternate for David Yeamans, Grand Canyon Private Boaters Association  
Elling Halvorson, Papillon Airways  
Craig Sanderson, alternate for Cliff Langness, King Airlines, Inc. and Westwind Aviation

***Members Not present***

Katherine Andrus, Air Transport Association  
Mark Grisham, Grand Canyon River Outfitters Association  
Alan Zusman, Naval Facilities Engineering Command

***Meeting Objectives***

- Present sound modeling information.
- Present and obtain feedback on the NPS' two tentative preferred alternatives (Alternatives G and Modified E)
- Provide updates and obtain feedback on other relevant issues

***Welcome and agenda review:*** Facilitator Lucy Moore welcomed the group on behalf of herself and her colleague Tahnee Robertson. Those at the table and in the audience introduced themselves. Lucy reviewed the agenda and format for the day.

### ***Introductory remarks, Co-Chairs***

Steve Martin thanked the group for attending. He emphasized that the purpose of the meeting was to present two potential draft preferred alternatives and hear from stakeholders details on what is feasible and what is not. The Park Service hopes to move forward and issue a draft EIS, which will also be available for comment by the group and others who are interested.

Lynne Pickard remarked that the gathering was like a family reunion in some ways, connecting with people after a long absence. While past the point of seeking consensus, the group has much of value to contribute, she said, as a source of critical information and advice. Although there will be a chance for more formal comment on the Draft EIS later in the process, she looked forward to the day's discussion because of the opportunity for exchanges and useful conversation.

### ***Tribal remarks:***

Ben Shelly, Vice President of the Navajo Nation, asked to address the group and offer guidance about the position of the Navajo Nation. The Navajo Nation, he said, wants some control of airspace over their lands to be able to guide their own destiny. He said the Navajo Nation favors no changes in the current air tour routes, including the access routes onto Navajo land; nor does the Nation support Alternative G. He added that the process has been very educational for tribal representatives, and that he hoped everyone understood the time that was needed for the tribal government to make decisions about their future with respect to overflights. He authorized Timothy Begay of the Navajo Nation Historic Preservation Office to serve on behalf of the Nation in this process. Vice President Shelly asked 1) that a keyhole area near Cameron be allowed for future development of an airport 2) that area known as Snoopy's Nose remain as is for future economic opportunity (and that they withdraw their earlier request for exit/entry routes off Snoopy's Nose), and 3) that the SFRA boundary also remain as is on the east end. The Nation does not support additional curfew hours on the east end and does not support Alternative G as is. Also, do not move Black 4/5 routes as shown in Alternative G, rather keep them the same as in Alternative A. The goal is to achieve the natural quiet balance along with protecting Navajo Nation rights and opportunities. The Navajo Nation is looking at different ways for economic development along their western border with Grand Canyon National Park. The agencies have a federal trust responsibility to help the tribe to move forward.

Charlie Vaughn, Grand Canyon Resort Corporation (Hualapai Tribe) repeated that Hualapai is not a gaming tribe, and that their economic well being depends on access to air tour routes and the freedom to develop tourism. Federal agencies have a trust responsibility, he reminded the group, to insure that their actions do not hurt tribal economic opportunities.

The following website link will take you to a list of the presentations (below) made at the meeting:

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

### ***Presentation on Noise Modeling Results*** (Cynthia Lee, VOLPE)

[handout "Modeling Working Group Presentation: Overview of Grand Canyon Noise Analysis Results" available on the FAA/NPS website at:

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[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

#### Questions and Comments:

*Air Tour Projected Growth:* In answer to a question, Cyndy explained that the air tour growth was assumed to be 1.3% per year, based on industry growth rates developed with FAA and operator input. An operator observed that the interviews and analysis occurred over a year ago, when the number of tours was higher than it is now. He wanted to know if the model had accounted for the significant change in conditions since then. Lynne explained that the analysis is based on the peak day in the summer of 2005, and that the agencies have checked each year in the summer to be sure that these numbers hold true. That check for 2009 has not yet happened, and it may show a significant decline from 2008 which was a banner year.

*Sensitivity to total number of flights:* A participant asked if the analysis included a measure of sensitivity in terms of total numbers of flights. Cyndy answered that looking at the hourly data the routes appear saturated, and that there is little difference between the peak day and other days.

*Factors in substantial restoration:* Cyndy noted that seasonal closures (Dragon and Zuni) will result in a very different noise footprint, with some areas noisier and others quieter. Another important factor is the introduction of quiet technology.

*Data gathering on Navajo land:* Since there are no monitoring points on the Navajo Nation, the model is used to predict aircraft noise.

*Contribution of high altitude commercial flights:* A participant observed that the contribution of high altitude traffic, which is significant, is not included. He asked about the cumulative impact of all aircraft noise and how this will be handled in the EIS. Lynne answered that the cumulative effect of adding in aircraft noise above 18,000 feet will be in the EIS, but with the capacity to isolate different types of noise. Since cumulative effect is the same across all alternatives, this will reveal the differences across alternatives.

*Marble Canyon impacts:* Depending on the routes, there may be more or less noise impact on Navajo land.

#### Other comments

*Air tour flight lists:* A participant asked if the reported number of air tour flights was identical to what is reported for air tour fees. Steve answered no, that the Park Service receives about 70-75% of the fees owed based on reported flights, that the FAA and NPS numbers are not the same. The participant suggested that one outcome of this process should be development and use of one list instead of two.

***NPS Potential Preferred Alternatives G and Modified E:*** (Gopaul Noojibail and Rick Ernenwein, NPS)

Handout: “*Grand Canyon Overflights: Restoring Natural Quiet and Improving the Visitor Experience*” available on the FAA/NPS website at:

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

Gopaul and Rick reviewed the two potential preferred alternatives for the group. They emphasized that no decisions had been made and that the NPS welcomed comments and suggestions for the alternatives. They indicated that detailed information would be the most useful in modifying the alternatives. They summarized principles considered in developing the potential NPS Preferred Alternative:

- Substantially restore the natural quiet and experience of the park
- Provide a quality aerial viewing experience while protecting park resources and minimizing conflicts with other park visitors
- Respond to Tribal requests
- Provide a reasonable opportunity for visitors to experience the Grand Canyon safely by air tours, with reasonable business opportunities for air tour operators

Alternative G resulted in less restoration (less than 65%) than initially anticipated, causing the Park Service to reconsider Alternative E, which they modified to address some of the industry concerns. Rick presented the two draft alternatives.

#### Questions and Comments:

*Threshold number:* NPS staff spoke of “an internal goal of 65%,” which they hoped would be exceeded by one of the alternatives. Some group members felt this violated an agreement within the group that “50% or more” would be the goal, without defining “or more.” Others disagreed. Steve said that the number 65 was based on projections of modeling following the last working group meeting. These projections showed that specific places would become quieter given certain changes. The agency did not change the definition, merely reflected what the modeling would show. Air tour operators pressed for “a magic number”, but Steve responded that the number would be whatever would accomplish the principles stated above – the greatest restoration possible, while maintaining business opportunities and honoring tribal rights.

#### Alternative G

The working group had reached consensus on some of the elements in this alternative, but not all. A summary of Alternative G follows:

- Reduces noise and increases quiet in many parts of Park

- Close to current number and type of opportunities for air tour visitors, but includes some changes to reduce noise impacts
- Requires full conversion to Quiet Technology (QT) in 15 years, with incentives to convert
- Provides at least one hour quiet time before sunset and after sunset every day
- Moves routes away from many sensitive areas
- Increases flight altitudes near North Rim viewpoints
- Increases entry and exit points in the east end
- Modifies allocation system

Rick showed on the map some elements of the alternative:

Includes Dragon dogleg

Increases altitude in Zuni to get above rim

Removes Snoopy's nose at LCR confluence

Quiet technology on Blue Direct South

Greater quiet in Marble Canyon area

New access routes that allow aircraft to go out Zuni and onto Navajo lands, then return and rejoin GC tour routes

#### Questions and Comments:

*Need for more detail:* Members said it was hard for them to comment or offer guidance on the two preferred alternatives without more detail.

*Quiet technology and allocations:* In answer to requests for more detail on quiet technology and allocations, Rick explained that Alternative G proposed new routes and waiver of air tour fees as incentives for quiet technology. A new annual allocation cap for all air tour and air tour-related flights would be set based on peak number of flights flown by each company. As aircraft are converted to QT, the agency would check allocations against noise provisions in the law, and eventually allocations would go down to zero once all aircraft are QT. There are no proposed changes in the West End allocations and the Hualapai exemption.

There was discussion about the number of flights that would form the basis for the allocations. The agency plans to use the flights reported to the FAA – approximately 83,000 flights (air tour and air tour-related) per year. This figure was derived from the maximum number of operations for each operator's highest year during 2004-2006, and did not include exempt flights. An operator observed that some operators are out of business, but the ones remaining in business are hitting their maximum allowable flights. The economic downturn may also have an impact on

those numbers that should be considered. Others pointed out that without allocations it may be hard for air tour operators to plan for the future.

Steve urged operators to help his agency acquire the best possible data on which to base allocations.

### Modified Alternative E

#### *Key provisions*

Those that are the same as Alternative E:

- Provides short loop tour routes, with seasonal shift, for both fixed wing and helicopter (Dragon open Sept 16-June 30, Zuni open July 1 to Sept 15)
- Moves most non-air tour operations outside of park
- Sets a daily cap on operations (364 air tour and related ops)
- Requires full conversion to Best Available Quiet Technology (BAQT)
- Provides 100 minutes quiet time before sunset and 150 minutes after sunrise every day, and only BAQT can fly first 1.5 hours and last 2.5 hours of each tour day.
- Eliminates routes in Marble Canyon

Those that are different from Alternative E:

- Adds a fixed-wing Zuni-Dragon loop route (Black 1A) similar to Alt D (i.e., BAQT fixed-wing only, 25% of the tour day), open year round
- Moves Black 1 and Green 1 routes to west of the Little Colorado River confluence
- Provisions for BAQT would be phased-in
- Air tour allocations could be used anywhere by BAQT, rather than only east or west end, to help meet daily operations cap
- Air tour fees may be reduced or waived for BAQT
- When Zuni is open, helicopters can access Navajo lands and return. When Zuni is closed, limited flights can access Navajo lands but not return
- A limited number of training flights could be conducted on seasonally closed routes to meet training needs for safety
- Mid-day one hour curfew would be eliminated

- Changes near Grand Canyon West made as requested by Hualapai Tribe
- The Fossil Canyon General Aviation Corridor would not be eliminated

Questions and Comments:

*Gains in substantial restoration of natural quiet:* A member questioned the gain in restoration of natural quiet in modified Alternative E, given the fact that the Zuni and Dragon are both open year-round to fixed wing aircraft. Without closing a corridor for at least part of the year, he did not believe any substantial restoration gain could be achieved. Rick answered that three-fourths of every day a corridor would be closed; 25% of the day only QT fixed wing aircraft would fly the long loop over the North Rim using both corridors. GRCA estimates that the level would not go below 70% under the modified Alternative E scenario.

*QT requirements:* Members questioned the validity of requiring Best Available QT rather than QT. They suggested that this exceeds the QT provisions in the law which authorizes the FAA to designate QT by rulemaking and does not speak to BAQT. There is a difference between offering incentives, and requiring a certain technology, they said. NPS acknowledged that some of the provisions in Modified Alternative E may require a change in the law, and they encouraged members to offer opinions on these options.

Operators pointed to the financial burden of converting to QT. A QT aircraft can cost double or more than a standard aircraft, with increased operations and maintenance costs as well. If the standard is BAQT, operators may be required to make costly investments every few years to meet new requirements. Fleets are expected to last 25 years, and business plans depend on that longevity. They urged that the DEIS include a waiver of fees for QT aircraft to help defray these expenses.

Comparison between Modified Alternative E and Alternative G

Rick summarized the agency's comparison of the two alternatives.

- Modified Alternative E is expected to provide greater restoration of natural quiet (greater than 70% of park vs 63%) and more benefits to park resources and ground-based visitor experiences.
- Non-air-tour flights are moved outside the park in Modified Alternative E, but not in Alternative G.
- Both provide high quality aerial viewing experiences.
- Both provide viable business opportunities, with opportunity for similar to current numbers of air tour operations and passengers.

Gopaul said that initial indications are that both Alternative G and Alternative Modified E are feasible in terms of providing opportunities for quality experiences for air tour visitors, and maintaining associated business opportunities. Specifically, Alternative G and Modified

Alternative E would offer close to the current number and type of commercial air tour opportunities. In Alternative G, the initial allocation cap provides opportunity for peak number of operations actually flown per operator (2004-2006) and growth in flight operations is possible for QT aircraft if noise does not increase. Modified Alternative E allows for an increase in the number of air tours from what is currently flown. Specifically, Modified Alternative E would allow for a maximum of 364 flights per day. Peak day 2005 documented 314 commercial air tour flights, leaving a potential for an increase of 50 flights associated with the proposed cap. Importantly, all non-air tour flights could continue at the same levels as are currently being flown, however these flights would be routed outside the park as they do not have a direct connection to visitor experience. He noted that the current annual allocation cap of over 93,000 flights far exceeds data for actual operations (both commercial air tour and all flights) and that there is a discrepancy between the numbers of air tour flights reported to the FAA and those reported to the NPS via fee collection mechanisms. Finally, Gopaul presented visitation statistics that indicate that there are opportunities for air tour business at times outside of the traditional peak months.

#### Questions and comments:

*Threshold number:* Operators repeated their concern with the target percentages reflected in the two alternatives. In the beginning of the process, they felt they were struggling to achieve 50%. When it was discovered that 63% was possible, the number seemed to grow to 70%. To operators, this setting a new arbitrary goal seems unfair. NPS staff answered that the intent was not to set a new goal, but to maximize all four principles listed above.

*Time needed to study alternatives:* Members pointed out that they needed more time to understand and be able to comment on the two alternatives, one of which they had never seen until today in its modified form. Operators noted that operating an aircraft requires a great deal of safety analysis, and that the alternatives presented include subtleties that will have to be studied before comment can be made. NPS staff understood and hoped that those with concerns and suggestions would take the time needed and then comment in writing to Steve Martin with as much detail as possible.

*Harm to air tour business:* An operator clearly objected to the conclusion that the Modified Alternative E provides a high quality air tour. The miles of quality viewing in the tour would be reduced to only five, he said, and that is not acceptable.

Steve emphasized that the goal of the process has always been to achieve the greatest amount of restoration while providing for air tours. The intent was never to have a 50% target, but to provide both certainty and flexibility. The Park Service is currently working on the draft of the Draft EIS, and has put more work into this “draft of a draft” than goes into most final EIS’s. He added that he understands the view of the operators, and that he welcomes the chance to be educated further by them in the next few months. Millions of dollars have been spent to date “stirring the pot,” he said, without a decision to show for it. He urged GCWG members to provide details, numbers, and suggested changes on how these alternatives might impact their interests.

*Tribal consultations:* In answer to a question, Steve affirmed the goal to have, in addition to this working group, continued consultation with the tribes, both individually and as a group. The agency is eager to understand both the economic development needs and the traditional properties protection needs of the tribes.

**Technical Team Report** (Raquel Girvin, FAA and Rick Ernenwein, NPS)

Handout is available on the FAA/NPS website at:

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

Raquel presented the conclusions of the Technical Team:

- Gaps in scientific knowledge pose problems for developing a scientific consensus to identify the best noise metrics and support impact intensity thresholds for the EIS
- Technical Team members did not agree on the use of the proposed set of quantitative impact intensity thresholds, or on any quantitative framework for analyzing impacts. However, they recommended that the EIS could proceed by comparing alternatives using a variety of metrics, and they reached consensus regarding metrics that would provide useful information

The team suggested to the GRCA EIS team the following next steps: 1) develop a systematic strategy for engaging the scientific community, including a wildlife roadmapping workshop and agency support of an independent and authoritative scientific organization to identify the best bases for evaluating noise impacts at present and to recommend research projects that would decisively reduce uncertainties and fill data gaps; and 2) establish an FAA-NPS research steering group, to provide for regular communication about research initiatives and results, identify areas of common research interests, and develop plans for a coordinated research approach, including funding.

Questions and Comments:

A member urged the Technical Team to form an expert panel to address the metrics for evaluating ethnographic resources as soon as possible.

Lynne responded that with respect to noise, there are human and animal reactions to evaluate. It is assumed that this will cover other concerns. She added that there are accepted metrics available now to show levels of noise in different areas, and that these metrics will be useful in decision-making. The agencies are starting a more detailed research program to study the application of other metrics.

The member asked for a definition of “ethnographic resources.” NPS staff responded that they include traditional cultural properties, tribal concerns, sacred places, and various intangible and tangible resources valued by tribes; in looking at the impacts to ethnographic resources, the EIS will include ceremonies and other traditional activities.

**EIS and FAA rulemaking Process/Timelines** (Ken McMullen, NPS, and Tina Gatewood, FAA) presented the following project schedule and Rulemaking timeline:

Presentation with a more detailed FAA rulemaking schedule is available on the website at:

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

July 2009	GCWG Meeting
Dec 2009	Publishing of NOA, mail Draft EIS
Jan/Feb 2010	60-day public review period
Feb 2010	Public meetings in Flagstaff, Phoenix, Las Vegas
Oct/Nov 2010	NOA/FEIS published and document mailed
Jan 2011	Publish Record of Decision

Lynne explained that FAA will be working on the safety and economic parameters in tandem with the development of the preferred alternative to minimize the chances of changes to the preferred alternative during rulemaking. While the rulemaking could change the preferred alternative, she said, the agency will do everything possible to avoid that. The plan is for FAA to have a “ministerial” role in the process; once the recommendation is submitted to FAA, they will respond immediately and send it out for public comment. The rulemaking will not allow “another bite at the apple,” but will only entertain comments on whether or not the proposed rule correctly interprets the preferred alternative.

The anticipated schedule for the rulemaking, following the dates above, is:

Jan 2011	Publish NPRM
Feb-Mar 2011	Comment period
May 2011	Preliminary concurrence on Final Rule (FAA/NPS team)
May 2011	Complete economic evaluation
June- July 2011	Formal FAA final rule review and approval process
August 2011	DOT review
November 2011	OMB review
November 2011	Final Rule issued

**Report of FAA/NPS Quiet Technology Team** (Rebecca Cointin, FAA, and Rick Ernenwein, NPS)

Presentation available on the FAA/NPS website at:

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/arc/programs/grand\\_canyon\\_overflights/documents/presentations\\_from12th.cfm](http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/grand_canyon_overflights/documents/presentations_from12th.cfm)

Rebecca and Rick explained 14 CFR Part 93, which states the requirement for aircraft to be classified as Quiet Technology (QT). QT status is based on a formula that takes into consideration noise certification level and number of seats. FAA Advisory Circular 93-2

Appendix, updated December 2008, contains examples of QT aircraft, including EC130, MD-900 Explorer, Cessna 208, DeHavilland DHC-6-300. Best Available Quiet Technology (BAQT) is not in the FAA Advisory Circular, but is included in several EIS alternatives. The concept of BAQT, as defined by NPS, is the quietest QT aircraft reasonably available commercially, while also meeting performance and other requirements for the application. BAQT will change over time as new technology is put into commercial use, and is to be further defined through this EIS process. The two agencies formed the QT Team to assist with the interpretation of Section 804 of the National Parks Air Tour Management Act of 2000, establish processes needed to implement Section 804, assist in addressing Section 804 provisions and in the variety of ways that Draft EIS alternatives incorporate QT in the ongoing EIS process. The QT team performed a sensitivity analysis for evaluating noise provisions in Section 804. The initial results show that at specific points, substantial restoration of natural quiet does not seem to change much, but even a small change to operations or fleet can alter noise levels. The Team plans to continue its work. In answer to a question, Lynne added that any relief to one operator would have to be available to all.

### **Preparation for Afternoon Workshop**

Denice Swanke, NPS, introduced the Afternoon Open House Workshop. At least one person each from FAA and NPS were assigned to staff each station; other agency management and staff were available to roam. The comments made during the Workshop are included as an attachment at the end of this summary.

Each station included:

- Flipcharts to capture comments
- Comment sheets, including suggestions on the sheets for how to make effective comments
- Posters, maps, and/or handouts

Stations:

**Station #1: Noise Modeling**

**Station #2: Draft Alternatives G**

**Station #3: Modified Alternative E**

**Station #4: Technical Team Issues (Metrics, future research)**

**Station #5: Quiet Technology**

### **Comments at the End of the Meeting from GCWG Members**

*Elling Halvorson:* Elling began by saying that he respected all the opinions expressed during the day. Having not seen these options before, he was not prepared today to make any specific comments, but he said that he would be organizing his thoughts in the coming days. He

anticipated that there were certain elements that would be acceptable, and others that would not work, and that he will say why in each case. He asked for an additional meeting, at which operators could make a presentation.

*Alan Stephen:* Alan concurred with Elling.

*Roger Clark:* Roger praised the Park Service for taking the initiative and putting forth a strong proposal. He said he appreciated the thorough presentation and would need more time to study the elements in order to make specific comments.

*Rob Smith:* Rob echoed the need to look at the details in the alternatives. He added that he appreciated the discussions – at the table, and away from the table. He was encouraged by the Park Service’s Modified Alternative E and felt that it represents “a significant step in the right direction.” This process, he feels, has been a debate between those that want no change, and those that want change. He would welcome the opportunity for further discussion.

*Stacy Howard:* Stacy observed that on the presentation maps the Fossil corridor is closed, but on the powerpoint it is shown open. She assumed that Fossil was remaining open, and wanted to be sure that any information made public would be accurate. [Steve reassured her that the intent for Modified Alternative E was that the GA corridors would remain open, since current use generates little noise.] Like other members of the group, she said that AOPA will need to consider the alternatives from the point of view of operations and safety. She had particular concerns about raising altitudes in Alternative G and potential conflicts with transitioning aircraft. She asked if seasonal closures would apply to GA. [The answer was no.]

*Bill Austin:* Bill passed.

*John Sullivan:* The presentations, said John, raised more questions than answers. He was particularly concerned about Best Available Quiet Technology and the ramifications for his company. Replacing his fleet will cost \$ 30 million. If 6 months later a quieter aircraft comes out, he asked, will my \$30 million be wasted? He also had questions about new allocations. He asked for time to analyze the alternatives and develop a comprehensive analysis and written response. He praised Modified Alternative E for its support for the Hualapai Tribe, and added that “lots of good things are happening” in the West End.

*David Nimkin:* David wanted to thank the Park Service for developing another alternative that works to increase the percentage of natural quiet, while increasing economic viability and visitor experience, as well as responding to the interests of tribes. Although much time and effort have been spent on noise metrics and the soundscape, little has been done on the criteria to assess quality visitor experiences (ground and air tour) and economic viability. He suggested the EIS include a measureable standard for “quality” and “viability.”

*Timothy Begay:* Timothy said he hoped that some of the questions that had been addressed to the Navajo Nation were answered by Vice President Shelly in the morning. The next task for the Navajo Nation, he said, is to look carefully at both Modified Alternative E and G. He would also like to see sound testing on routes over tribal land.

*Craig Sanderson:* Craig expressed frustration over the amount of information presented that differed significantly from the past. The alternatives appear to be a “multitude of ideas that don’t necessarily work together.” He added that the proposals seemed inequitable, asking the air tour industry to give more. He questioned the presentation of the modeling data, which makes it appear that there are significant problems in central canyon and Marble Canyon, where the data was based on a single point. Alt F should be considered; it mainly differs from Alt Q in requiring QT conversion. With QT it shows time audible is reduced by half. For other routes as well, changes to QT would make significant gains toward natural quiet. He argued in favor of keeping the Marble Canyon routes because they are already relatively quiet.

*Doug Nering:* Doug reviewed the Alternatives. Alternative G creates a significant change in air tour routes and receives very little in gain of natural quiet. The original Alternative E created a big gain but he understands why it was unworkable. He supports the seasonal closures in the Modified Alt. E and hopes that there is a way to address the operators’ concerns and get something with seasonality that works for everyone. Doug said that he sees from the modeling that QT actually makes a difference, even for helicopters, which he had doubted before. He urges everyone to pursue QT as part of the solution to a quieter canyon in the future.

*Richard Walema:* Speaking on behalf of the Hualapai Tribal Chairman, Richard thanked John Sullivan for his comments about the Hualapai Tribe and their steps to achieve the goal of full employment for their people. He added that the proposed fly zone is in an area on the south side of the reservation where flights are a disturbance. He asked for more protection from the agencies to restrict flights on the south side to protect areas where prayers and ceremonies take place.

*Lynne Pickard:* Lynne noted that she always learns something from working group meetings. Part of it, she said, is the exercise of having to prepare materials and presentations and explain difficult concepts in ways that are understandable. The feedback and exchange of ideas within the group helps the agencies understand complexities as they continue through the process. She suggested that when the time comes the GCWG will need to be formally disbanded, as a subgroup of the NPOAG. She invited members to comment on when they felt the group should be disbanded or come together again, and suggested that the question might be part of a survey sent to members. Personally, she is “not persuaded the usefulness of this group is exhausted,” and urged participants to remember how difficult communication was prior to the creation of the GCWG.

*Steve Martin:* Steve appreciated the feedback to today’s presentations, and said he is looking forward to receiving more from members as they have an opportunity to study the details more closely. His staff will be putting all their energy into developing the draft EIS for public review. The GCWG process has been “a novel approach” and he is not sure of its usefulness in the future. But again, he urges members to contact his office with their thoughts.

## **Comments from Public Observers**

*Brian Brusa, Maverick:* Brian asked that decision-makers include provisions “now, today” that will help operators who have converted or are going to convert to QT. The waiver of the \$25 fee, he said, “will not put a dent in the \$2 million cost of QT aircraft.”

*Rob Elliot, Arizona Raft Adventures:* Rob said that he supports Modified Alternative E for several reasons. It promises significant improvement in the soundscape, well above the minimal 50%. He asked for more information on the impact of the seasonal closures, including the congestion that might result on the corridor that remained open. He added that he favors closing Zuni on September 15 because of the congruity with the no-motor period on the river. He appreciates the additional quiet at sunrise and sunset, and favors the elimination of Marble Canyon routes. He said that he understood the Navajo concern that tours would be pushed onto reservation land, but felt that this might be the best time to remove the Marble Canyon routes, when there are few of them, and the impact would be minimal on operators. He explained that the Marble Canyon experience is very important for the river experience; solitude and natural quiet are unexpected but found in Marble Canyon and people understand how important the value is to their river experience. It is best if the quiet builds from the first day on the river.

*Dick Hingson, Sierra Club National Parks and Monuments Committee:* From Dick’s perspective, the “incessant sound of motorized man” always constricts and taints the special draw of the canyon, especially in the backcountry. He urged the agency to consider the whole toolbox of possibilities -- shortened routes, seasonality, extended curfews, respite intervals, etc. -- in seeking to restore natural quiet. Quality means more than half the park quiet. He welcomes the NPS return to modified Alternative E which he believes comes much closer to satisfying the original intent of Congress.

*Charlie Vaughn, Hualapai Tribe:* Now a GCRC board member, Charlie continues to have concerns with overflight issues. He sees BAQT as an acronym that threatens to make operators purchase the latest technology whenever it is available, with no regard to the cost. Any restriction to air tours at the West End can have a direct impact on the Hualapai economy. The tribe plans on addressing this issue through the consultation process. Charlie also mentioned ethnography, and that the tribes need to identify their spiritual and sacred site concerns. The intent of the tribe, he added, was never to affect the high altitude flights or the GA flights. Finally, Charlie emphasized that the Hualapai Tribe, like any sovereign Indian nation, is a distinct entity, not simply another interest group, or member of the public. He looks forward to continued consultation with federal agencies.

*Jim McCarthy, Sierra Club and board of GC Hikers and Backpackers:* A mechanical engineer, Jim wrote his master’s thesis on this very issue in 1997. He has a concern with new metrics, which he believes may be diluting well understood audibility criteria. QT, as currently defined by the FAA, he said, will lead to louder aircraft. They may have more seats and carry more passengers, but they will be louder. How will this increased noise be mitigated, monitored and controlled, he asked. Modified Alternative E does not go as far as the environmental community wanted but certainly makes some progress in Jim’s opinion. He had some concerns with unlimited growth of QT in Alternative G.

*John Buch, Maverick:* John informed the group that seasonal shifts and/or closures of routes pose serious safety concerns, as well as added expenses in advertising, educational materials and training pilots. Operators urgently need clarity on quiet technology -- definition, incentives, requirements, etc. John's company has 13 QT aircraft on order, but has put that order on hold given the uncertainty about QT. They are likely, he said, to cancel these orders and go back to regular aircraft and wait clarification. Economics favor non-QT aircraft if there are no incentives for QT which are more expensive to fly. The new introduction of BAQT into the equation only compounds the nightmare. The agency needs to clarify QT so everyone can move forward.

### **Next Steps**

**Lucy will prepare meeting summary within 2 weeks and send to co-chairs for review. Summary will be posted to the website after their review.**

**Tahnee will put an evaluation instrument for this meeting on line, for those present to fill in and submit.**

**Presentation materials will be posted on the website as soon as possible.**

**Those wishing to comment on the two preferred alternatives should do so by August 11, in writing, to Steve Martin, Superintendent, Grand Canyon National Park, [steve\\_p\\_martin@nps.gov](mailto:steve_p_martin@nps.gov)**

**Summary prepared by Lucy Moore. Please contact her comments or questions. 505-820-2166 or [lucymoore@nets.com](mailto:lucymoore@nets.com)**

## **Afternoon Working Session Summary of Flip Chart Comments**

### **Tech Team**

- **Report** availability for distribution
- Definition of “quality of experience” for air tourist (is flying over a particular location an element of the quality?)
- Definition of “economic viability” (is it level of profitability?)

### **QT**

- What reward right now does the air tour company that only flies QTAC currently receive?

### **Noise Model**

- No modeling exists for Alternative E modified
- There should be a stated benefit for each modification (e.g. North Central flight corridor elimination)
- Consider another delineating/division line to separate the north rim canyon area from the rest of the east canyon area
- Modeling does not capture the effects to changes in GA corridors

### **Alternative E modified**

- Navajo: Keyhole, eastside of canyon for airport, 7711 flights from there to L.C.
- Seasonal shifts – time of day – should be 25% in 1 block, 9-12 i.e.
- How to add more helicopters to one route when other is closed – congestion
- Cannot double load on runway and in air – safety issues

- Can be addressed by more stringent number caps when/if safety threshold is needed
- Advertising, brochures, training – all multiplied if seasonal changes
  - Response: RESPITE opportunity is more important!
- Navajo needs Snoopy's nose
- Clear soundscape benefits – not just trade-offs (G)

## **Alternative G**

- Fish and Wildlife provided comments on G. Comments still valid and we can discuss as needed.
- Valuation of flights should be 5 years to include 2007 and 2008
- Concern over re-characterizing allocations to include transportation/repositioning operations
- Fixed-wing concerns – keep Marble Canyon and Snoopy Nose as in Alternative A.
  - Important to provide viewing of LC from both sides of aircraft
  - Turns add different perspectives/angles to view
  - ???Because Marble Canyon is already very quiet, most gain in quiet for significant loss in air tour passenger experience???
- It makes Lake Meade NRA routes to/from Vegas unsafe (aircraft will have to cross going in/out via same route)
- QT - no real benefit to investing in QT