



## National Parks Overflights Advisory Group Meeting and Field Trip SUMMARY REPORT

Meeting - Tuesday, September 18, 2018  
Field Trip - Wednesday, September 19, 2018

**Hilton Garden Inn**  
1340 West Warm Spring Rd.  
Henderson, Nevada 89014

**ACTION ITEMS** for the National Park Service (NPS) and Federal Aviation Administration (FAA), aka “the Agencies”

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1. Send information about the FAA Reauthorization Act of 2018 as it relates to NPATMA. (NOTE: the bill was signed by the President on October 5. It does not contain the transportation route amendment.) Send the update to NPOAG.
2. Send guidelines out to NPOAG about restrictions on members being registered federal lobbyists.
3. Send link out to NPOAG with the Glacier Air Tour Noise Modeling Report, when available.
4. Email out the Whitlow opinion that discusses how IOA is not a property right. - **COMPLETE**
5. Continue exploring use of Commercial Use Authorization (CUA) as part of compliance of Agreements.
6. Continue to pursue NPATMA and Air Tour Management Agreements (Agreements) handbooks and provide an update at the 2019 meeting.
7. Email out Flight Standard Information, 8900.1  
(<http://fsims.faa.gov/PICResults.aspx?mode=EBookContents&restricttcategory=all~menu>) - keep NPOAG informed about updates from FAA. - **COMPLETE**
8. Provide ADS-B update (Phase 3 of pilot study) for next meeting.

**SUGGESTIONS FOR CONSIDERATION** for the Agencies

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1. Review Glen Canyon/Rainbow Bridge Air Tour Management Agreement in approximately one year to see how it is working.
2. Request to create a separate reporting bar chart to show annual trends that does not include New York Harbor Parks.
3. Request to see the closest approach to Muir Woods and a map of where the flights are traveling.
4. Request for more frequent updates, beyond what is currently provided annually, regarding operator-specific data for Hawaii Volcanoes, Great Smoky Mountains, and Glacier.
5. Consider providing different (not specified) information in the annual reports to show a clearer picture of tour flight activity.
6. Consider not using tail numbers in reporting when aircraft are added and deleted so frequently.
7. Consider increasing public involvement in Agreement processes and in follow-up meetings. Specifically, in reference to including the public in follow-up meetings with operators about the Glen Canyon/Rainbow Bridge Agreement.
8. Consider geofencing with ADS-B technology.
9. Consider future focus on verification of self-reported data gathering (accuracy and completeness).
10. Consider providing Grand Canyon “spiked wheel” 2015, 2016, 2017 comparison by 12/31/18



11. Recommend FAA and NPS resolve NEPA issues to allow ATMPs as a viable air tour management option.
12. Consider using NPOAG more in advising NPS/FAA on their priorities in air tour management.
13. Consider “Day of Quiet” in national parks every week.
14. Proposal to meet on a nine-month or bi-annual meeting cycle and hold longer meetings but still avoid June-August.
15. Many of the issues discussed at this meeting are the same issues that have been discussed for many years but have seen little progress. Explore methods and ideas to increase efficiency and completion of issues related to NPATMA implementation.
16. Consider further discussion about how drones fit into the airspace over NPS units as a topic.
17. Location/Timing considerations for next meeting:
  - a. Alexandria, VA
  - b. Atlanta, GA (in coordination with Heli Expo, March 2019)
  - c. Jackson Hole
  - d. Hawaii
  - e. Denver or Fort Collins
  - f. Any park in the Agreement process/under discussion, such as Acadia
  - g. Consider timing with an Agreement milestone or at the front end of a process to help provide guidance.
18. Consider issue-specific NPOAG subcommittees.

## **APPENDIX LIST**

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**Appendix 1:** Attendees List and Sign-In Sheet

**Appendix 2:** NPATMA Proposed Amendments

**Appendix 3:** HAI Helicopter Noise Abatement Techniques Overview

**Appendix 4:** Tracking Aircraft Over NPS Units: A Proof of Concept Study Presentation

**Appendix 5:** Interim Operating Authority Cleanup Presentation

**Appendix 6:** Notice of Final Opinion on the Transferability of Interim Operating Authority Under NPATMA (Whitlow Opinion)

**Appendix 7:** Written Public Comment from Friends for a Quiet! Glacier

## **DAY ONE**

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### **Introduction to the People and Purpose of NPOAG**

**Tamara Swann (FAA), Keith Lusk (FAA), Vicki Ward (NPS), Bryant Kuechle (TLG)**

**Welcome:** Tamara Swann, FAA Western-Pacific Region Deputy Regional Administrator, recognized and applauded partnerships among National Park Overflights Advisory Group (NPOAG), public attendance, and specifically Keith Lusk, FAA Special Programs Office Project Manager, for his continued participation with which he brings a wealth of historical knowledge. She thanked everyone for attending and hoped for a great meeting.



**Introductions, Logistics, Ground Rules:** Bryant Kuechle, facilitator from The Langdon Group (TLG) prompted introductions of everyone around the table and members of the public in chairs along the room perimeter. Matt Zuccaro, Helicopter Association International Affiliate/NPOAG Member, had the flu and apologizes for not attending, but joined by phone. Martin Begaye, Navajo Parks Department Affiliate/NPOAG Member had a conflict and was unable to call in. *See Appendix A for a complete list of attendees.*

Bryant reviewed ground rules, requesting that for an effective meeting everyone please value the diversity of the group, be respectful, let everyone speak, and be mindful of agenda timeframes. If NPOAG members had questions or comments, Bryant asked that they stand their name tags on end for him to call on. Bryant then reviewed the agenda and highlighted the designated public comment period at the end of day, reiterating that the public sign up beforehand to give three to five minutes of comment.

**Chair and Co-Chair Updates:** Keith Lusk started by thanking Alan Stephen for the tour of Grand Canyon Airlines facility tomorrow, and then gave an overview of NPOAG. The National Parks Air Tour Management Act (NPATMA) was passed in 2000, with amendments in 2012. NPATMA required NPOAG to be assembled as a balanced advisory group comprising representatives from general aviation, commercial air tour operators, environmental interests, and Indian tribes. FAA and NPS are ex officio members of NPOAG. The chairmanship rotates annually between FAA and NPS. In 2018, the FAA, specifically Keith Lusk, is the chair. NPOAG advises the Agencies on implementation of NPATMA, quiet technology issues, measures that are taken to accommodate the interests of visitors to parks, and anything requested by the Agencies. Terms of NPOAG members are three years and guidelines exist to prevent members from being registered federal lobbyists. Open seats are advertised in the Federal Register. Currently, one Tribal Representative seat is open and has been posted on the Register. Three positions—Alan Stephen, Melissa Rudinger and Martin Begaye—expire soon, and the Agencies have already received interest from people wanting to fill them. Additionally, in summer and fall 2019, respectively, Rob Smith's and Matt Zuccaro's seats will become open. NPOAG meets at least once a year with additional phone calls as needed. The meetings can be via telcon or in-person and are open to the public, per the Charter. Meeting minutes are approved by the Agencies and NPOAG before being made public.

**Agency Priorities:** Vicki Ward thanked Tamara Swann for attending and shared that Karen Trevino and Ray Sauvajot send their regrets that they couldn't attend due to other meetings in Washington, D.C. They both stated that NPOAG is still a priority for NPS.

Tamara Swann first acknowledged Dan Elwell, acting FAA Administrator and Carl Burluson, acting Deputy Administrator, for their work. The Regions and Center Operations (ARO) the organization Tamara and Keith work under, has been shifted within the FAA framework to the organization responsible for Policy, International Affairs, and Environment and Energy, which is more in line with where air tour management planning should belong. The current Western-Pacific Regional Administrator, Dennis Roberts, is retiring soon, and Tamara will fill his role until the vacancy is filled. The regional office will backfill an open position that will provide additional resources, allowing Keith to focus more time on air tour management planning activities.

Funding for the FAA will last through September 30, 2018; however, this is familiar territory. The FAA has received numerous extensions since 2009. Keith wrapped up FAA's priorities by acknowledging Tamara's key role at FAA, especially in their regional office relocation in Los Angeles this year.

Vicki discussed the nomination of the new NPS Director. David Vela, Grand Teton National Park Superintendent, was nominated by President Trump in late August 2018 to fill the NPS Director role.



This is scheduled to be confirmed by the Senate soon. Before Grand Teton, David worked in D.C. as the NPS Associate Director for Workforce, Relevancy and Inclusion and prior to that was the Southeast Regional Director.

NPS's key focuses are in line with the Organic Act and protecting federal lands for future generations to enjoy. Additionally, some of NPS's primary focus is on addressing maintenance backlog; youth involvement, such as the program to get every fourth grader to a national park for free; and putting processes in place to address sexual harassment.

The Natural Sounds and Night Skies Division (NSNSD) will continue to move forward to implement the NPATMA. Amendments to NPATMA regarding "transportation routes" specifically in the Hoover Dam/Lake Mead area are currently in the proposed FAA Reauthorization Act (S.1405). Neither FAA nor NPS proposed the amendments. (Note: the proposed changes in transportation routes were not included in the final bill that passed and was signed by the President October 5).

Conversation between Alan Stephen and Rob Smith about how transportation flights over Lake Mead to the Grand Canyon are considered "transportation routes" and not included in Interim Operating Authority (IOA). Operators developed an agreement as to how they fly from Boulder City area to Grand Canyon. Each operator has their own altitudes and routes yet have common training documents and understanding of the rules. Rob wanted to know why everyone is flying over the Hoover Dam. The reasoning was that flight traffic flow is regulated and that this path makes sense as a transportation route to the Grand Canyon. Alan also mentioned that if they weren't flying over Lake Mead and the Dam, they'd need to fly further south near Lake Havasu, and that transportation routes can't always be straight for safety reasons—emergency landing spots need to be available. This conversation was added to a list to discuss later in the day as time allowed. Yet overall, it was unclear to everyone the purpose of redefining the term 'transportation route' in NPATMA. *See the proposed amendments in Appendix 2.*

## **Air Tour Reporting**

### **Brent Lignell (NPS)**

Brent discussed how the 2017 Annual Air Tour Report is now being published as an NPS Natural Resource Report, which includes a different format from the old report. The new document format aligns with all other resource reports that the NPS Natural Resource Stewardship and Science Directorate develops and are publicly available, citable, and peer reviewed. All NPOAG members were given the opportunity for peer review and four NPOAG members provided input. Moving forward, annual reports will not need to be peer reviewed annually, so in future years it is anticipated to be completed earlier. The peer review feedback themes included transparency about the data and issues, missing data, and a need to define the report scope better for an overall understanding of the goals for the report. Brent thanked everyone for their input.

Brent then reviewed and highlighted report themes but did not drill into specific data. The report is publicly available. Highlights, suggestions and conversations about the report included:

- The current system-wide IOA is 187,132 annual tours, which reflects the revocation of 47,234 IOA from 32 air tour operators in 2016 and 2017, who had expired certificates or were no longer in business.
- 49 operators are currently authorized to conduct commercial air tours over units of the national park system.
- 26 parks need an ATMP or Agreement—23 units with more than 50 tours and 3 units where NPS has withdrawn the exemption.



- 52 parks qualify for exemption with less than 50 tours.
  - This is not a final exempt list, just analysis based on 2017 data. NPS will talk to parks about their interest in withdrawing from an exemption.
- Office of Management and Budget (OMB) approval of the current air tour reporting form for data collection expires in December 2018. Keith submitted it for another three-year extension. It has not yet been approved by the OMB.
- Recommendation from NPOAG Members to include a specific list in the annual report about which parks are now managed under an Agreement or ATMP.
- Dick Hingson commented that he sees a red flag with Muir Woods. Why does it seem that in general flights are increasing over the park? He does understand that there is discrepancy in how many of them are tour flights. Keith responded that in late 2016, they met with tour operators who said they were not flying over Muir Woods, and when the ATMP was under development in 2011 only one operator reported flying over the park unit. It seems that there is discrepancy about what is considered Muir Woods in advertising flights to the public and where the actual park boundary is. Dick would like to see the closest approach to Muir Woods and the flight paths over the park. This conversation was added to a list to discuss later in the day as time allowed.
- 192 quarterly reports and two annual reports were expected for 2017 from the 49 total operators. 172 were received overall (90%). Some reports were missing from high-profile parks, such as Glacier, Great Smoky Mountains and Hawaii Volcanoes.
  - Dick wanted to know why these high-profile and need-to-be-protected parks are missing reports and which operators didn't submit them. NPS and FAA would have to determine whether or not the information is proprietary. Dick will submit written inquiry about the subject, if needed.
  - Over half the reports were late, but on-time submittals did increase throughout the year.
- Les Blomberg commented that the compliance report completeness isn't great. More information than a general tour description along with the aircraft make and model of aircraft would be helpful to know. Brent said that greater detail is gathered when a planning process occurs but not before, and for the purpose of this annual Air Tour Report, that level of detail would not be included.
- A table showing tour trends from 2013-2017 was added at request of peer reviewers. The table shows a big change due to New York City restrictions and activity at Lake Mead when Rogers Helicopters exited the air tour business 2.5 ago.
  - Comments were made that they'd like to look at these trends on a park-by-park or region-by-region basis rather than grouped together where abnormal trends, such as the New York restrictions, skew the results.
- Dick Hingson asked why the IOA for Lake Mead decreased so much. Keith Lusk explained that operators initially thought they needed a Lake Mead allocation when traveling for transportation to the Grand Canyon. Alan confirmed that there was a lot of confusion when NPATMA first was established about who needed IOA and what was considered transportation versus an air tour.
- The template for Commercial Air Tour Reporting Data is included at the end of the report. In the proposed 2019-2021 reporting template, tail numbers will be collected, which have been found useful for linking flights to other air data. Alan commented that he is not sure how having a one-time snapshot from knowing the tail number will benefit the process; planes are added and deleted regularly, and the reports are updated, at most, quarterly. Additionally, tail numbers are difficult to see, problematic planes would be hard to identify.



- Rob Smith commented that the IOA needs to be cleaned up. Excessive unused IOA creates a disincentive for developing agreements. The possibility that the FAA and NPS will pursue an ATMP if an Agreement fails or noise impacts are deemed too high at current levels provides an incentive for air tour operators to pursue an Agreement. If ATMPs are not an option, this creates an incentive for operator to keep IOA and not pursue an Agreement. When the operators have so many IOA that isn't being used, he thinks it will be hard to reflect reality and make a plan to move forward. This topic is on the agenda to be discussed at 1:30 p.m. with updates from the 2017 NPOAG Meeting.
- Dick Hingson brought up an example regarding the lack of detail required in the reporting template: how can IOA at Glacier be cleaned up without more information? Keith responded by saying that Glacier is developing a back-country management plan for which FAA and NPS have collected more information on operator routes.
- Dick Hingson also asked whether there was a higher level of information from Bryce yet; Keith responded that there is not.

## **Fly Neighborly**

### **Vicki Ward (NPS)**

Vicki Ward introduced the Helicopter Noise Abatement Techniques presentation and its presenters (on the phone), Amanda Rapoza and Juliet Page, from the Department of Transportation Volpe Center. The Helicopter Association International sponsored the specific program, and the presentation is a condensed version from what has been given at other conferences, such as HeliExpo in February 2018. She mentioned that the program seems like a great opportunity to learn and potentially be used as part of an Agreement. *The presentation is available in Appendix 3*, and the highlights are listed below:

- Fly Neighborly began in 1982 by pilots for pilots to provide data, operational design and public communication tools to support positive relationships relating to site-specific flights and scenarios.
- Materials were updated in 1996 and 2006 and again soon, as a lot is changing.
- Operator trainings include a web-based course, forums at HeliExpo, including a NASA simulator in 2019, and an upcoming Auditory Techniques Training.
- Pilots currently get no real-time noise feedback, Fly Neighborly is hoping to get Auditory Techniques web-based training in the future, where operators can simulate a flight with a noise overlay to understand the effects on the ground. They have found that what is happening on the ground is often counterintuitive.
- Many agencies offer a similar Noise Abatement Techniques Training (NASA, FAA, Volpe Center and Army), which shows a heat map of higher noise (red) vs. lower noise (blue) as the pilot flies. The heat map show "circles" on the ground, which are high-fidelity acoustic sensors.
- The condition of the currently tested area for the training was over open field "soft." Different tests were completed in different locations, but primarily in open fields. In 2019 more tests with larger helicopters will be done.
- A Fly Neighborly Tips Poster is available at 24"x36" or letter size to display.
- The Fly Neighborly committee meets monthly, the first Thursday at 3 p.m. ET by telecom. Openings are available, and they'd like people from the Tour community to participate. The committee does outreach, education, and research.



Overall, the purpose of this presentation is to discuss how the Fly Neighborly's goals and outcomes can be applied to air tours over parks and NPS administrative helicopter use based on local constraints (terrain, weather, passenger viewing, prescribed routes, etc.). It also aims to be able to provide guidance for specific parks and situations. They have already done a real-world test in the Hamptons (New York), which proved to be an eye-opening learning experience.

Les Blomberg asked about what kind of improvements they are seeing. The response was that the proof varies depending on various technical factors, but that pilots are understanding how they are affecting on-the-ground noise, which is improving scenarios.

Rob Smith asked about whether they get less complaints: they don't have data on a specific area yet, and some complaints seem to be perception based as much as noise-level based. The FAA is currently exploring this more; however, there have been positive responses when pilots tell the public, via community meetings, about their efforts to mitigate the noise. Going into the community with Fly Neighborly's "I Fly Quiet" program has helped operators more so than reducing noise.

Bob Castillo (FAA) asked whether new aircraft with sound cancelling abilities have been tested: no, the goal is to train operators on how to fly to reduce noise.

Vicki thanked Amanda and Julia and looks forward to working with everyone, and potentially more park locations and operators in the future. (Some of these techniques have been used in Grand Tetons).

## **Break**

### **Voluntary Agreements**

**Keith Lusk (FAA), Vicki Ward (NPS)**

#### **Glen Canyon/Rainbow Bridge Update**

Keith Lusk discussed that the Air Tour Management Agreements for Glen Canyon/Rainbow Bridge are now complete. The signing ceremony was at the park headquarters in March 2018, which was a well-attended milestone for everyone after the almost five-year process. Four out of the seven operators who participated in the process signed the Agreement at the meeting, and three others were mailed in after. The last one was received in June 2018. The other active operator has not signed because they feel like they aren't being fully accommodated and don't like the direction of the Agreement. They went to congressional offices to find a legislative route around the Agreement, but that tactic didn't work. After being routed to NPS headquarters for signature, Dennis Roberts, Western-Pacific FAA Regional Administrator signed the Agreements in July 2018. The next step will be to update the operating specifications. The first meeting since the signing between staff, operators and the Agencies will be in November 2018, after the busy summer season to see how things went, opportunities for improvement, and modification needs.

Dick Hingson asked whether the public can be a part of this process and noted that it seems like the public has been dropped out of the process. Keith said that the public did review and comment on the proposed Agreement, but he is open to asking the Agencies about including the public more in the future.

Rob Smith mentioned that the final operator needs to sign the Agreement before this park can be considered 'finished' with this Agreement process. The Agencies hoped that by having the other seven operators sign that they would too but understand that having operators who work around the restrictions is a problem.



Les Blomberg asked what the benefits are to being a part of the Agreement. Alan Stephen responded: Certainty, the guidelines shape their routes and schedules, but he thinks that enforcement is critical. Eric Lincoln added that relationships with the park is another selling point. Everyone agreed that there will always be some operators that disregard the rules, but that the Agencies need to help with enforcement.

Rob Smith asked what the lessons learned were and what factors the Agencies see as the key to getting the operators to approve the Agreement. Keith said that having willing people on both sides, NPS and operators, in this scenario was key. Both came to the table with an open mind and willing to give and take and develop relationships without preconceived notions. By accommodating eight Native American Tribes with restricted flight times and months for air tours at Rainbow Bridge and by addressing wildlife and wilderness area needs, the operators understood that the Agencies were trying to do the right thing for the park and were willing to listen and participate. Alan complimented NPS for listening and working with everyone. He also suggested that the situation be reviewed in a year or two to evaluate how the Agreement is working.

### **Prioritizing Future Voluntary Agreements**

**Mount Rushmore and Badlands** - ATMPs and Environmental Assessments (EAs) were started on these two top ten parks over a decade ago.

Mount Rushmore (MORU) has seasonal flights, due to weather, that start near Memorial Day each year. Total IOA is 5,608 IOA and 3,749 was used in 2017. A new entrant operator was denied a request for IOA and the ability to fly over the park. This operator is flying outside park and ½ mile buffer boundaries. The park superintendent is interested in a Voluntary Agreement. The Agencies will meet with the park in fall 2018 to create a timeline.

Badlands (BADL) has far fewer flights (1,194) than IOA (4,117). An air tour agreement process was previously started at BADL, but then the focus shifted to developing Agreements at two parks in Florida. The Agencies are now circling back to Badlands with more meetings in next few months.

**San Francisco Bay Area** – This area includes several parks--Golden Gate National Recreation Area, Point Reyes National Seashore, Muir Woods National Monument and San Francisco Maritime National Historical Park--with two operators, one seaplane and one helicopter. An ATMP was started in 2010 and a lot of work on the development of alternatives was completed during that process. In 2016, the Agencies gathered flight path information from the operators, and the parks are still exploring options: maybe a combination of voluntary surrender, since operators say they are not flying over Muir Woods, and an Agreement for where the operators do the bulk of the tours – Golden Gate National Recreation Area. The voluntary surrender process needs to take place first, then the parks may be willing to move forward. The timeframe for the surrender process is unknown.

**Acadia (ACAD)** – Some preliminary work was done for an Agreement in 2013, but then the park became exempt. The park is still interested in working with operators, but some discrepancy between the park boundary on the aeronautical chart and on-the-ground fee area boundary exists. The exemption would need to be withdrawn by NPS in order to do an Agreement.

**Hawaii Volcanoes (HAVO)** did complete the initial stages of the ATMP process. In 2005, the environmental analysis was switched from an EA to an Environmental Impact Statement (EIS). Public comment on draft alternatives took place in 2011, and then the process was placed on hold in 2012 when NPATMA was amended with air tour agreement and reporting provisions. The Agencies participated in a meeting with the Hawaii Department of Transportation (HDOT) and the Hawaii Helicopter Association in 2017 in Honolulu to discuss how to work with the community on air tour issues outside HAVO. HDOT is developing a community working group to address noise impacts from air tours between the Hilo airport



and the park. The outcomes from this group may inform an agreement process. NPS is supporting FAA in moving forward; there is not a defined timeline.

**Haleakala (HALE)** – The community is not as concerned about Haleakala as Hawaii Volcanoes, but the park superintendent is considering an Agreement.

**New York** area operators reported that air tours have reduced by over 50% and are currently using only 1/3 of their IOA. The restrictions that led to the decline were done independent of the Agencies.

**Glacier (GLAC)** – Noise modeling was conducted to inform a backcountry management plan. This required technical assistance from NSNSD. They reached out to operators to map all routes on paper maps, then they digitized the routes and modelled the information to identify noise impacts.

Dick Hingson asked when the report is due and how an interested person would get to see the report. Adam Beeco responded that the report will be ready by the end of 2018 for the public to see. It will be posted on the NPS's Integrated Resource Management Applications (IRMA) website, which he will send the link to.

The **Lake Mead (LAKE)** superintendent recently retired, so any consideration of an agreement process is currently on hold.

NSNSD is reaching out to regional park offices to gauge interest of other parks in developing agreements in next several years. They are also formally reaching out to 10 to 15 parks that are not in the top 10 list, to see if they want Agreements.

## LUNCH

### Update on Air Tour Management at Hawai'i Parks

**Keith Lusk (FAA), Eric Lincoln (NPOAG Member)**

The NEPA process for an ATMP was initiated in 2004, then put on hold in 2012. In 2016, there was substantial concern from elected officials and local communities impacted by noise as helicopters fly from Hilo Airport to HAVO or to where lava is actively flowing outside the park. Due to this concern, FAA and NPS held meetings in March 2017 to listen to issues about air tours. Vicki Ward, Karen Trevino, Dennis Roberts, and Keith Lusk met with many groups, including elected officials, Hawaii Helicopter Association (HHA), Hawaii Department of Transportation (HDOT) and NPS, about working with operators and the community. On August 14, 2018, HDOT held a community meeting in Hilo to listen to residents and discuss next steps in addressing air tour noise. Next HDOT will develop a community working group with residents, air tour operators, and FAA as a technical advisor. HDOT will lead the roundtable discussions to shape an agreement. [A video from the community meeting posted on Big Island Video News website was shown: [www.bigislandvideonews.com/2018/08/16/video-passions-flare-at-tour-helicopter-noise-meeting/](http://www.bigislandvideonews.com/2018/08/16/video-passions-flare-at-tour-helicopter-noise-meeting/).]

Eric Lincoln noted that he has been flying for 33 years in Hawaii and for 50 years overall, and that some community members were making threats of violence against HDOT, FAA and operators. The operators have won international awards for doing good things in communities, and the community and leaders are sharing misinformation about the situation, which he does not think helps. The volcano activity is a world event that is immediately impacting 3,000 people: it moved nine miles in two days, created more than two miles of new shoreline and has taken over 800 homes in three months. He stated that developing rules that restrict the helicopters to high altitudes or always over the water will not work and concluded that communication needs to happen without emotional outrage to be effective.



## **Tracking Aircraft Using ADS-B (See the presentation in Appendix 4.)**

### **Adam Becco (NPS)**

The use of ADS-B to track aircraft is an NPS pilot study to test the technology's effectiveness in tracking air tours. The overall goal is to use the technology in the future in NPS areas to more accurately track overflights. ADS-B is a real-time location identifier with both sending and receiving capabilities. Starting January 2, 2020, when operating in the designated airspace, aircraft must be equipped with ADS-B Out (sending) avionics.

The objectives of Phase I were purely proof of concept and to test the design and engineering. The first test took place at HALE between March 1 and 15, 2018. Terrain limited the technology's effectiveness, and an observatory blocked the signal in some locations. The battery size and solar panel combination also negatively affected results. Not all flights were picked up; only 68 out of the reported 150 flights were logged. However, HALE is not ADS-B designated airspace, which means a pilot doesn't have to have ADS-B turned on to be picked up (requirement does not go into effect until January 1, 2020). Additionally, ADS-B signals are transmitted on two frequencies, but unit was only picking up one frequency, and the exceptionally rainy weather may have affected the results since the solar panels didn't receive enough sunlight.

The second test of Phase I took place in HAVO from February 19 through August 3, 2018. This period was longer than originally planned, because the volcano erupted, and the equipment could not be retrieved. Three hundred and twenty-eight unique helicopter tours were detected, and terrain shielding is thought to have prevented more flights from being logged. Adam noted that HAVO would need to have multiple units to get full park coverage around the terrain.

For Phase II of the study the objective was to explore the effectiveness of using ADS-B at MORU to track air tours and to test the improvements made to the unit since Phase I. The system improvements included lowering the electronic temperatures, connecting it directly to a power source (rather than solar panel), and collecting signals from both broadcast frequencies. The ADS-B tracking unit was placed in a location with a 360-degree view (behind the monument heads) from June 4 to July 29, 2018. Very little data was lost during this test. Overall several findings were observed: exact routes and altitude of specific flights; high variability of 'routes' (perhaps better described as corridors); responsiveness of changes in travel patterns due to environmental changes or regulations; and differences in routes between operators. The biggest issue was that the unit turned upside down and the antenna broke during a storm. Overall Adam would like to use multiple units at parks to get better spatial coverage and full data.

### **Questions and responses from the group:**

- Unit cost – Each unit costs \$150. The time to build is the biggest expense.
- Connecting the data to computer – At this time the units don't connect to computers directly. An SD card is taken from the units, then downloaded. The long-term goal would be to get the information via WIFI, depending on remoteness of location
- Eric Lincoln suggested trying geofencing to catch applicable information.
- Melissa Rudinger noted that if aircraft is equipped with ADS-B, it must be in transmit mode at all times. The problem is that some aircraft may not need to be equipped with it for where they fly.
- John Eastman asked how this study is relevant to NPOAG and addressed the operators to ask if this is something they'd be willing to use to help NPATMA implementation. The group acknowledged that not all parks have airspace designation that require ADS-B, but that it is a tool that could be used in an Agreement to show compliance.



## Updates on Action Items from 2017 NPOAG Meeting

**Keith Lusk (FAA), Vicki Ward (NPS)**

### Interim Operation Authority Clean-up Process

Keith Lusk reviewed the reduction in IOAs and operators: There were 300,000 IOA and 78 operators on the original IOA list published in the Federal Register in 2005. Then the FAA removed IOA from operators without current operating certificates. By 2016, 25 operators had been removed and the total IOA was reduced by 37,000. In 2017, six more operators and 11,500 IOA were taken off the list.

Next the Agencies reviewed the air tour reporting data from 2013-2017, identifying operators who have not reported any air tours for parks for which they have IOA. Many have reported no tours where they have IOA for multiple parks. *See more detailed information in Appendix 5.* Letters are being sent to 20 operators to ask if they will voluntarily surrender unused IOA, and if not, whether they plan on conducting air tours in the future and what happened to make their plans change.

The group discussed whether IOA is linked to an operating license or a business. Alan Stephens said that Kent Stephens (FAA) in Washington ruled that IOA is linked to an operating license rather than a business status. He also said that they have a company that hasn't recorded flights in past five years at eight or nine parks, but that they are keeping the IOA to keep the possibility of flying there in the future. He noted that business models change, and they would never want to give up an IOA.

Rob Smith noted that some operators have surrendered 9,000 IOA and asked whether they are worth anything to anyone. He thought it would make sense for an operator to keep IOA and questioned why a business would want to surrender it. Vicki Ward said that tracking the flight and operator information is a burden to the agencies and less IOA would reduce need for outreach to operators regarding reporting and the need to complete agreements. It might also be a burden to operators to continue filling reports when they never fly tours.

Dick Hingson commented that over time IOA may just die because they aren't property rights. Keith Lusk said that the only way to acquire IOA is to buy the whole company, including assets and liabilities of a company. The Whitlow opinion published in the Federal Register addresses this topic and states that IOA cannot be transferred (*see Appendix 6*).

Alan Stephens stated that allocations are transferable if all parties have entered into an Agreement that allows transfer of allocations (Note: IOA is 'set aside' after an Agreement is signed. A set number of allocations is established in an Agreement). The Whitlow opinion does not address allocations within the context of an Agreement. Only two parks have agreements that allow transfer of allocations between operators participating in the agreement.

The group turned to the FAA attorney, Michael Fineman, to help everyone understand the topic more clearly. Michael said that generally IOA is NOT transferable unless the business is entirely purchased.

### Enforcement and Compliance Progress

The FAA and NPS met in Washington D.C. in May 2018 with one of the main topics focused around compliance and enforcement of IOA. One of the current challenges is that many reports are submitted late, and a few reports are never submitted. Educating operators about the importance of submitting timely and accurate is an ongoing process.

Dick Hingson commented that there are no penalties for late submittals and that there should be, especially if it is consistent. Keith Lusk said that their strategy is to educate and find a remedy on case-by-case basis.



Monica Buenrostro commented that each of the FAA’s principal operations inspectors (POI) is responsible for their operators. They look at each case individually and, if repeated or intentional noncompliance occurs, there are civil penalties (fines), but not ones specific to air tours.

John Eastman asked how the FAA identifies false information when the data are self-reported. Monica said that lots of documentation is required for any aircraft. Operators could lie about their information, but it would be identified by the POI. John wanted to know why they aren’t being penalized if information can be tracked. Keith said that it depends on whether the operator was flying in airspace that requires reporting or not. John concluded that this seems like an opportunity to enforce and work as a group to identify noncompliance.

Vicki Ward stated that some of the terms of Agreements aren’t safety related and may not be a high priority for enforcement by FAA given limited available resources. NPS has the authority to issue commercial use authorizations for visitor services that (1) are determined to be an appropriate use of the park; (2) will have minimal impact on park resources and values; and (3) are consistent with the purpose for which the park unit was established. Terms of CUAs are enforced by NPS using an education and progressive enforcement approach which is similar to FAA’s “compliance philosophy.” In May 2018, NPS began exploring the idea of using a CUA as a mechanism for compliance and enforcement of the non-safety terms of an Agreement by NPS. NPS discussed this option with a U.S. Department of the Interior (DOI) solicitor and the NPS commercial-use office, who think the idea is possible. The NPS needs to explore how graduated compliance would work. For example, how would someone be penalized if in noncompliance with an Agreement? This concept is in the early stages and the Agencies are continuing discussions.

Les Blomberg stated that there is no sense of completeness or accuracy in the reporting process, and there doesn’t seem to be a way to assess whether the report is accurate when self-reporting of flights is based on trust.

Brent Lignell asked why people would want to over or under report. John responded that theoretically he would under report his IOAs to be able to say that there is growth potential in selling his business but acknowledged that this perspective is very cynical. Alan added that operators keep hundreds and hundreds of records and have no reason to report inaccurately. He doesn’t even think to skew the information, but there is no way to audit the tours, unless someone follows each operator to confirm or deny the reporting.

### **Grand Canyon QT Incentives Analysis/SRNQ**

Vicki Ward discussed that there is a requirement for the Agencies to provide incentives for operators who use quiet technology (QT) at the Grand Canyon. Three have been provided to date:

- 1) reduction of air tour fee from \$25 to \$20 for QT air tour operations,
- 2) distribution of allocations previously held by the FAA to operators using QT aircraft and
- 3) seasonal relief from air tour allocations for QT aircraft in the Dragon and Zuni (D-Z) Point corridor. This was implemented in 2015 and currently only applies to the first quarter (January 1 – March 31), in which QT air tours do not need to use an allocation, while non-quiet technology air tours are still required to use an allocation.

The maximum cumulative air tour noise threshold,  $L_{Aeq, 12 \text{ hour}}$ , is 58.1 decibels and is calculated from the projected full use of D-Z corridor air tour allocations in 2012. Based on reported air tours in 2017, the



$L_{Aeq, 12 \text{ hour}}$  is 58 dB, just 0.1 below the maximum threshold. Quiet technology use is high in the first quarter; however, the proportion of QT flights decreases in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters. The intent was to extend the incentive into the 4<sup>th</sup> quarter if the number of QT flights decreases the cumulative air tour noise over the entire year. Since the cumulative noise is increasing, the agencies aren't going to extend the QT incentive to the 4<sup>th</sup> quarter currently.

Rob Smith asked what is wrong with an incentive to say, if you don't go to QT, you don't fly here? The response was that by 2027 all flights will have to have QT; the incentives now are to prompt operators to do it earlier.

Dick Hingson would like to see 365 days of data with the spike wheel diagram of busiest days for three years, 2015-2018, to show the substantial restoration of natural quiet trends. Vicki confirmed that the NPS is working to get the information available to the public. This will most likely be completed through the NPS making the report a formal Natural Resource Report and posting it on a public facing website called the Integrated Resource Management Applications Portal.

### **Status Update on NPATMA Handbook and Agreements Handbook**

A few ideas for handbooks were presented last year to the NPATMA and Voluntary Agreement Handbooks. The enforcement and compliance sections of the handbooks have been stalled because of the current focus to make improvements to this area. Additionally, other focuses took priority in the last year, so the handbooks are not finished.

### **Public Comment**

Members of the public were given the opportunity to use two to five minutes each (based on the number of commenters) to address NPOAG and the Agencies. Written comments were also accepted though none were given at the meeting. One written comment was submitted after the meeting (*Appendix 7*).

One comment from Frank Bettman, of Black Hills Aerial Adventures and affiliated counsel: Frank wants to comment on compliance, business planning, trouble with interpretation (definitions/regulatory scheme), and transfer of IOAs. This all started when they were interested in acquiring Badger Helicopters, a company that was essentially dead on its heels from compliance problems. They couldn't just acquire certifications or IOAs, and there is a big difference between assets and company acquirement. Once a company's shares are acquired you ARE the company, who you don't know and who may have tax problems, money judgement issues, etc. But you need to acquire IOA, so you take on the unknown – is that realistic? He came into the meeting not knowing what to expect, but the information today and presentations have been very helpful in getting him up to speed; thank you to everyone. One element seems to be missing, the private sector. They need more emphasis to help streamline problems and answer the transferability question and revocation definition. Separate certifications and IOA. There needs to be methods by which they can comply. Incentivize and motivate private companies to do the right thing. Have enforcement for operators who are gaming the system, that don't have certifications and IOA, cheaters. How can we monitor this? Who can? How do the private companies enforce this? They can't. He likens this to municipal planning: in Rapid City if you don't like the city permits, you sneak outside the limits but are still close enough that you still get all the perks without the rules. The City then made changes so that within three miles of the jurisdiction you must apply to the rules. Maybe a scenario like this can be applied to this group's scenarios.

### **Break**



## NPOAG Input

Bryant asked for member remarks, considering NPOAG's role in advising FAA and NPS on their priorities in air tour management. He then reviewed the action items and topics that were postponed earlier in the day to keep the conversation and schedule on track.

- Alan Stephen commented that the spiked wheel was initially created in 2005 to identify the busiest days for each year after the Agencies had been collecting data since 1998. It is a big deal to analyze the busiest day each year because that day shifts. Dick Hingson would still like to see the comparison so that people can learn from it with all the other parks that are being assessed. Eventually he would like to see the spiked wheel graphic for all the parks.

Bryant prompted the conversation again by asking for topics to consider now or for future NPOAG meetings:

- Alan Stephen does not want cutbacks in number of flights allowed. He likes the fixed number of flights per operator. He questioned whether there would ever be a need to reduce flights through an ATMP and, if so, how the cutbacks will be implemented. He wondered, if cutbacks were required, would the cut backs be proportional across the board. Keith responded by saying that if this ever happened, how cut backs are determined would be open for discussion.
- Les Blomberg would first like to focus on accuracy and completeness of what is reported. What is actually occurring is fundamental to making policy. The second thing he would like the committee to consider, as he comes from a Sabbath-abiding tradition, is a noise sabbath. This would be one day per week that you can go to a park and not hear noise.
- John Eastman wants to make sure that the group does not give up on the ATMP process. He understands why they've pivoted away from it with intentions to reach Agreements (FAA/NPS) but would like to continue to advance and narrow in around NEPA documents that need to be signed to reach an ATMP. He would also like the Agencies to use NPOAG as a sounding board for advancing and wants to move beyond the issues of ambiguity in reporting.
- John Eastman also would like to identify what the issues are – the FAA's response to the Hawaii lawsuit brought light the challenges in the agencies have in trying to align their policies in order to complete a NEPA document. The Agencies had different positions on issues and he would like to find out areas where NEPA guidelines have wiggle room to align.
- Les Blomberg wants to second John's thoughts. He doesn't see that the incentives for operators to enter an Agreement are very compelling, which explains why the processes are moving slow. He thinks that once ATMPs are an option, people will come to the table.
- Rob Smith would like to focus on enhancing citizen involvement and Agreements. The public owns the parks, and the resources at stake need to be represented by people/public who own them.
- It was mentioned that the manufacturers should be invited to NPOAG as they can make aircraft quieter. Alan responded saying that they communicate with manufacturers about the needed technology.
- The group would like additional input and follow up from last year's action items.
- John Eastman asked what the next step is for ADS-B. Adam Becco responded: In Phase III the intent is to improve spatial coverage, test multiple units at a single park, increase the amount of data, and comparisons to earlier phases. They would like to test at a large park with terrain changes, varying weather, access to power, and at a park that is willing to help and send someone



out to collect the data. They'll probably test at two parks at one time. By this time next year, Phase III will be completed.

- Melissa Rudinger is curious if there is any interest in commercial drone use as a discussion topic for NPOAG. The group confirmed that drones are safety hazards, hard to control and monitor. NPS has a recreational ban on drones; however, Adam has seen them twice at Mount Rushmore and the owners are hard to track. If you are standing on park land you can't fly drones, but NPS does not regulate airspace, so drones operated from off-site over the park can't be enforced by NPS.
- Melissa Rudinger informed the group that there is a drone advisory committee that established a policy that requires all drones to have remote ID chip in the future, so that you can instantly identify the owner. This policy is five to seven years out, and legacy drones would still be in existence.
- Alan Stephen shared that drone lobbyists are as powerful and well-connected as the NRA.
- Les Blomberg would like the group to meet more frequently and for longer each time, so that it doesn't feel rushed.
- Dick Hingson would support Les's comment. He would also like to support NEPA conformance problems between the FAA and NPS. Maybe the group can go through this line by line, section by section, if the Agencies are serious about making progress on the issue.
- Matt Zuccaro on the phone said that he is looking for a much faster rate of completion and problem solving between the NPS and FAA. He heard very little today that he thought was new.
- The group was asked about conference calls as an appropriate venue for meetings. Everyone agreed that calls are fine, but logistically complex for all the time zones and not as effective as face-to-face meetings. Alan doesn't like one a year, but he appreciates that the Agencies need time to report on what is new.
- Alan added that finding common ground among the Agencies is tough, and he thinks they have irreconcilable differences.
- Location/Timing considerations for next meeting:
  - Alexandria, VA (Matt indicated HAI has facilities, offered to host meeting)
  - Atlanta, GA (in coordination with Heli Expo, March)
  - Jackson Hole
  - Hawaii
  - Any park in the agreement process/under discussion – timing with a kickoff (Acadia?)
  - Denver or Fort Collins
  - Consider timing with an agreement milestone or at the front end of a process to help provide guidance.
- Consider issue-specific NPOAG subcommittees
- 8900 guidance – Flight Standards Informational Manual (FSIM) is being revised by Monica Buenrostro and her team now. Current version doesn't include anything about voluntary agreements (or reporting or exempt parks). The first section was drafted and reviewed by NPS; Section 2 and 3 are still being drafted. A link to the document will be emailed out when it is available.

## NPOAG 15 Year Review



### **Bryant Kuechle (TLG)**

#### **What is it? How can you help?**

Bryant is coming in as neutral third party to assess the NPOAG. He will ask questions to understand and analyze what has been accomplished and where the group is heading. The goal is to identify opportunities and/or barriers to success that benefit future members and the Agencies. The process is anonymous, and no interview responses will be linked to any specific person. Bryant will develop a report of themes and suggestions for improvement that will be shared and discussed at the 2019 NPOAG meeting.

### **DAY TWO**

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NPOAG and the Agencies were provided the opportunity to tour the Papillon/Grand Canyon/Scenic Airline facilities, and NPOAG members had the opportunity to take a quick (about 12 minute) flight over Lake Mead National Recreation Area. NPS and FAA officials did not participate in the 12-minute helicopter tour. The group left the hotel lobby approximately 8:15 a.m. and arrived back about noon.



## **APPENDICES**

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**Appendix 1:** Attendees List and Sign-In Sheet

**Appendix 2:** NPATMA Proposed Amendments

**Appendix 3:** HAI Helicopter Noise Abatement Techniques Overview

**Appendix 4:** Tracking Aircraft Over NPS Units: A Proof of Concept Study Presentation

**Appendix 5:** Interim Operating Authority Cleanup Presentation

**Appendix 6:** Notice of Final Opinion on the Transferability of Interim Operating Authority Under NPATMA (Whitlow Opinion)

**Appendix 7:** Written Public Comment from Friends for a Quiet! Glacier



## Appendix 1: Attendees List and Sign-In Sheet

<b>Agency Personnel</b>		
<b>Name</b>	<b>Title</b>	<b>Agency</b>
Adam Beeco	Social Scientist and Overflights Planner	NPS
Brent Lignell	Overflights Planner	NPS
Vicki Ward	Overflights Program Manager	NPS
Ashley Pipkin	Natural Sounds and Night Skies Biologist	NPS
Keith Lusk	Program Manager, Special Programs Office	FAA
Tamara Swann	Western-Pacific Region, Deputy Regional Administrator	FAA
Michael Fineman	Senior Attorney, Airports and Environmental Law Branch	FAA
Robert Castillo	Aviation Safety Inspector	FAA
Monica Buenrostro	Aviation Safety Inspector	FAA
Sara Porsia	Trial Attorney	Department of Interior
<b>NPOAG Members</b>		
<b>Name</b>	<b>Affiliation</b>	
John Eastman	Jackson Hole Airport Board	
Melissa Rudinger	Aircraft Owners and Pilots Association	
Les Blomberg	Noise Pollution Clearinghouse	
Rob Smith	National Parks Conservation Association	
Dick Hingson	Sierra Club	
Alan Stephen	Grand Canyon Airlines	
Eric Lincoln	Blue Hawaiian Helicopter	
Matt Zuccaro (phone)	Helicopter Association International	
<b>Members of the Public</b>		
<b>Name</b>	<b>Organization</b>	
Jake Tomlin	Grand Canyon Scenic Airlines	
Frank Bettmann*	Black Hills Aerial Adventures	
Geoff Edlund	Papillon Helicopters	
John Becker	Papillon Helicopters	



Michael Jacob	Black Hills Aerial Adventures, South Dakota
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\*Signed in to provide public comment.



National Parks Overflight Advisory Group Meeting

September 18, 2018 Henderson, NV



NAME	ORGANIZATION / ASSOCIATION	PHONE	EMAIL
1 Adam Beero	NPS	970-267-7177	adam-beero@nps.gov
2 Keith Lusk	FAA	424 405 7012	keith.lusk@faa.gov
3 John Eastman	JHAP	307733 0406	JOHN@TETON.COM
4 Vicki Ward	NPS	970-267-2117	Vicki_ward@nps.gov
5 Michael Fuleman	FAA	470 363-8661	MICHAEL.FULEMAN@FAA.GOV
6 Brent Lignell	NPS	970.225.3580	brent_lignell@nps.gov
7 Tamara Swann	FAA	424-405-7000	tamara.a.swann@faa.gov
8 Melissa Rudinger	AOPA	301 514 0923	melissa.rudinger@AOPA
9 Robert Castillo	FAA PAI	702) 617-8529	robert.castillo@FAA.GOV
10 Jake Tomlin	GRAND CANYON SCenic AIRLINES	702-817-2829	Jake@flygcsa.com
11 Frank Bettmann	BLACK HILLS AERIAL ADVENTURES	605-348-8662	fbett@caol.com
12 Les Blomberg	NPC	802 277 1714	les@nps.org
13 Geoff Folunp	PAPILLON HELICOPTERS	206-683-7705	geoffepapillon.com
14 Rob Smith	NPLA	206-903-1125	rsmith@nplca.org
15 Monica Buerosoto	FAA	210-860-1513	monica.c.buenrostro@faa.gov
16 Sara Porsia	<del>FAA</del> SOL	510-295-9665	Sara.Porsia@Sol.doi.gov
17 Dick Hngson	Sierra Club	928 699 8366	d.hngson@sierraclub.org
18 John Becker	Papillon Helicopters	928 606-6143	John@papillon.com
19 Mark Stephyen	GCA	202 628 3318	clark.stephen@papillon.com
20 Eric Lincoln	Blue Hawaiian Helicopters	808-280-1242	ericlincoln@bluehawaiian.com



National Parks Overflight Advisory Group Meeting - PUBLIC COMMENT

September 18, 2018 Henderson, NV



NAME	ORGANIZATION / ASSOCIATION
1 <i>Michael Jacob</i>	<i>Black Hills Aerial Adventures, South Dakota</i>
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## Appendix 2: NPATMA Proposed Amendments

Current language:

49 United States Code Section 40128

(f) Lake Mead. - This section shall not apply to any air tour operator while flying over or near the Lake Mead National Recreation Area, solely as a transportation route, to conduct an air tour over the Grand Canyon National Park. For purposes of this subsection, an air tour operator flying over Hoover Dam in the Lake Mead National Recreation Area en route to the Grand Canyon National Park shall be deemed to be flying solely as a transportation route.

Proposed language:

FAA Reauthorization Act of 2017

S.1405, Section 5002.

“(f) TRANSPORTATION ROUTES.— (1) IN GENERAL.—This section shall not apply to any air tour operator while flying over or near any Federal land managed by the Director of the National Park Service, including Lake Mead National Recreation Area, solely as a transportation route, to conduct an air tour over the Grand Canyon National Park.”

(2) EN ROUTE.—For purposes of this section, an air tour operator flying over the Hoover Dam in the Lake Mead National Recreation Area en route to the Grand Canyon National Park shall be deemed to be flying solely as a transportation route.”



### **Appendix 3: HAI Helicopter Noise Abatement Techniques Overview**



Fly Neighborly

# Helicopter Noise Abatement Techniques

Amanda Rapoza and Juliet Page

# Overview

- ❑ HAI Fly Neighborly Program
- ❑ Operator Training
- ❑ HAI Fly Neighborly Committee Activities
- ❑ Application of Fly Neighborly

 Fly Neighborly

# HAI Fly Neighborly Program

- ❑ Fly Neighborly program began in 1982; HAI initiative
  - Fly Neighborly committee established
  - Fly Neighborly guide, pilot training CD produced; updated in 1993 and 2006

## Guiding Principles

- ❑ Flight Test Validation - Physics and modeling must be validated
  - Improves confidence by researchers and stakeholders / public
  - Allows for a broad variety of analyses, operational design, public communication tools
  - Site-specific modeling possible for many scenarios
- ❑ Operational Training - Guidance for operators must be:
  - Readily available and understandable
  - Practical to implement
  - Flight-tested
  - Adaptable for site-specific needs
  - Incorporated into basic flight training



# Operator Training

## FAA-WINGS Training

- ❑ Web-based training for WINGS credit  
<https://go.usa.gov/xQPCW>

## HeliExpo Forums

- ❑ HeliExpo 2017: Basic training course
- ❑ HeliExpo 2018: Up-to-date course content
- ❑ HeliExpo 2019: Up-to-date course content,
  - Show floor booth - NASA simulator with noise exposure overlay

## Auditory Techniques Training (*In progress*)

- ❑ Web-based interactive Fly Neighborly guidance and training
  - Training tool for operators to adapt flight procedures within their specific environment
  - Tool will give operators the ability to listen to the flight from the ground
  - Develop an understanding of noise mechanisms and flight conditions to be avoided

# Sample of Operator Training Slides

- *See HAI Fly Neighborly Training slides*

# Fly Neighborly

## Helicopter Noise Abatement Recommendations

### Level Flight:

- ✈ Accelerations are quieter than decelerations
- ✈ Straight flight is quieter than turning flight

### Turning Flight:

- ✈ Turning away from the advancing blade (especially when decelerating) is quieter than turning into the advancing blade
- ✈ Level turns are quieter than descending turns

### Descending Flight:

- ✈ Straight-in flight is quieter than turning flight
- ✈ Steeper approaches are quieter than shallow approaches

### Decelerations:

- ✈ Level flight decelerations are quieter than descending or turning flight decelerations

### Maneuvering:

- ✈ Smooth and gentle control inputs are quieter than rapid control inputs

These recommendations are flight tested and scientifically vetted by the U.S. Department of Transportation and NASA to support Fly Neighborly Goals.

Take the Fly Neighborly training at: <https://go.usa.gov/xQPCW>

*Fly Neighborly procedures/recommendations should be executed in the safest manner possible and followed only to the extent that safety is not compromised.*



## Fly Neighborly Tips Poster

- Available for distribution
  - 24 X 36 poster
  - Letter-size flyer
- Rotor Daily, HAI, and operator organizations are distributing

# HAI Fly Neighborly Committee Activities

- ❑ Committee Meets 1st Thursday of every month, 3 pm ET (by telecom)
- ❑ Committee Membership – openings are available
- ❑ Current Activities
  - Outreach
    - Assist with HeliExpo training, local outreach opportunities, pilot seminars
  - Education
    - Online webinars
    - Updates to training materials
  - Research
    - Future flight testing of additional helicopters (S-76, NASA/FAA-Volpe)
  - Application (*see next slides*)

# Application of Fly Neighborly in Commercial Operations

- ❑ Goal: To understand the limitations and practical impediments to adoption of fly neighborly techniques
- ❑ Work with individual operators and organizations to develop site-specific, realistic noise abatement procedures based on local constraints (weather, air traffic, prescribed routes)



# Application of Fly Neighborly in Parks

- ❑ Goal: To understand the limitations and practical impediments to adoption of fly neighborly techniques in the Park setting
- ❑ Work with NPS and individual operators to develop site-specific, realistic noise abatement procedures based on local constraints (weather, prescribed routes, passenger viewing)
- ❑ Develop NPS / air-tour-specific version of FN training
  - Develop park/location-specific acoustic animations, cockpit overlay videos
  - Training most effective with relevant, situation-specific materials
  - Include guidance for application to Parks



#### **Appendix 4: Tracking Aircraft Over NPS Units: A Proof of Concept Study Presentation**

National Park Service  
U.S. Department of the Interior  
Natural Sounds and Night Skies Division



# Tracking aircraft over NPS units: A proof of concept study

Adam Beeco and Damon Joyce

# Automatic Dependent Surveillance-Broadcast (ADS-B)

- Real-time location identifier (lat, long, altitude) application for pilots and controllers alike that allows 'see and be seen' features
  - Aircraft with ADS-B Out push out a signal that other pilots and air traffic controllers can see.
  - Aircraft with ADS-B In can receive a signal from all other pilots in that area.
- Starting January 1, 2020:
  - when operating in the designated airspace, aircraft must be equipped with ADS-B Out avionics that meet the performance requirements of 14 CFR § 91.227
  - Aircraft not complying with the requirements may be denied access to this airspace

# Automatic Dependent Surveillance-Broadcast (ADS-B)

- Other information we get from ADS-B units includes
  - HexID
  - Date and time
- Hex ID allows us to retrieve information from the FAA Releasable Aircraft Database, including
  - Tail Number
  - Aircraft model and type
  - Aircraft owner

# Objectives of Phase I

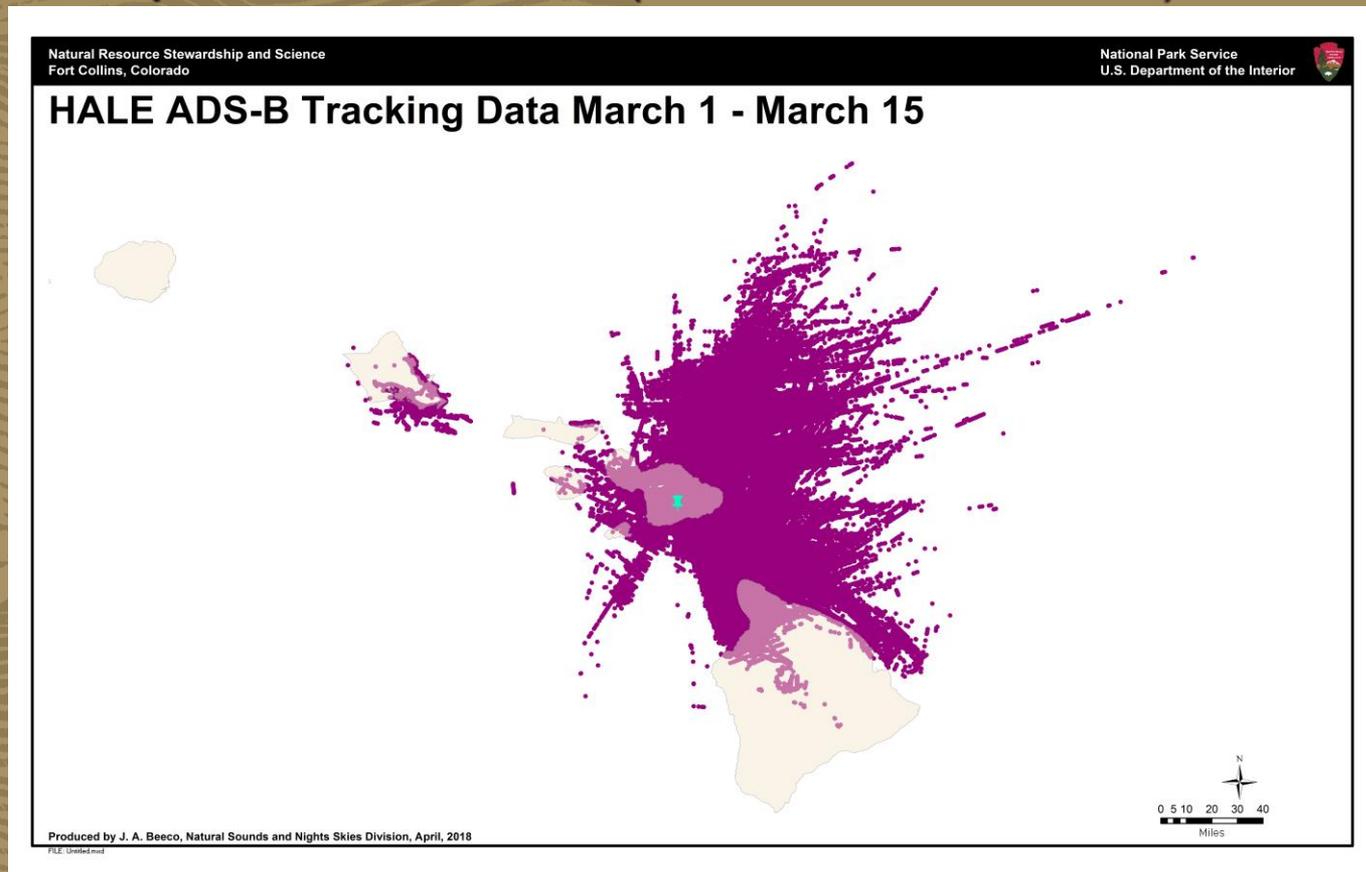
- Purely proof of concept
- Testing design and engineering
  - Electronics' temperatures
  - Area of coverage
  - Building and terrain shielding
  - Pairing with solar panels
  - Collected only 1090MHz

# Photos of Deployed ADS-B Unit



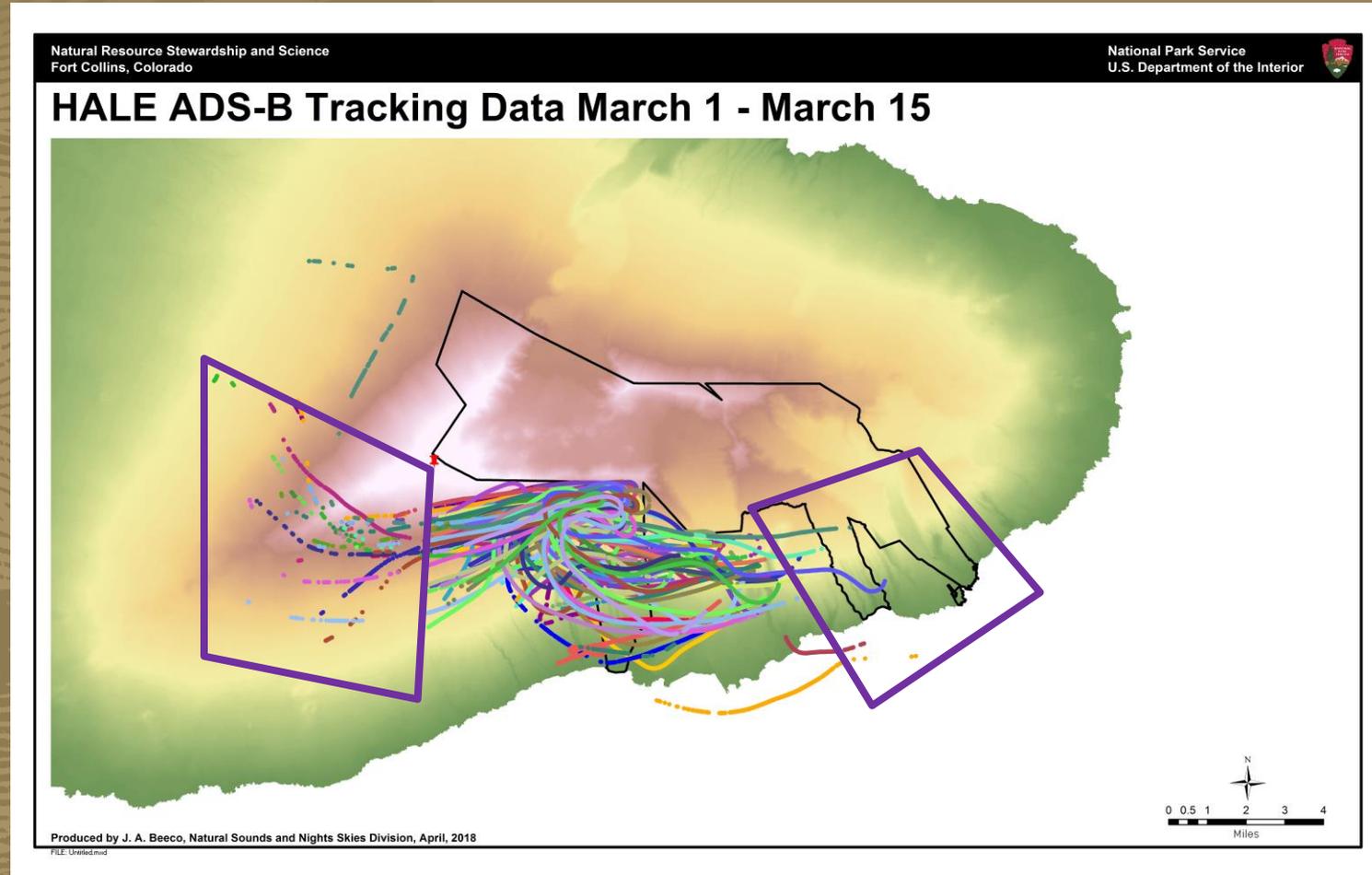
# HALE – Raw Data

- Total number of data points - 531,139
- Furthest point – 225 mile (195 nautical miles)



# HALE - Findings

- N = 42,032 data points, 68 unique air tours

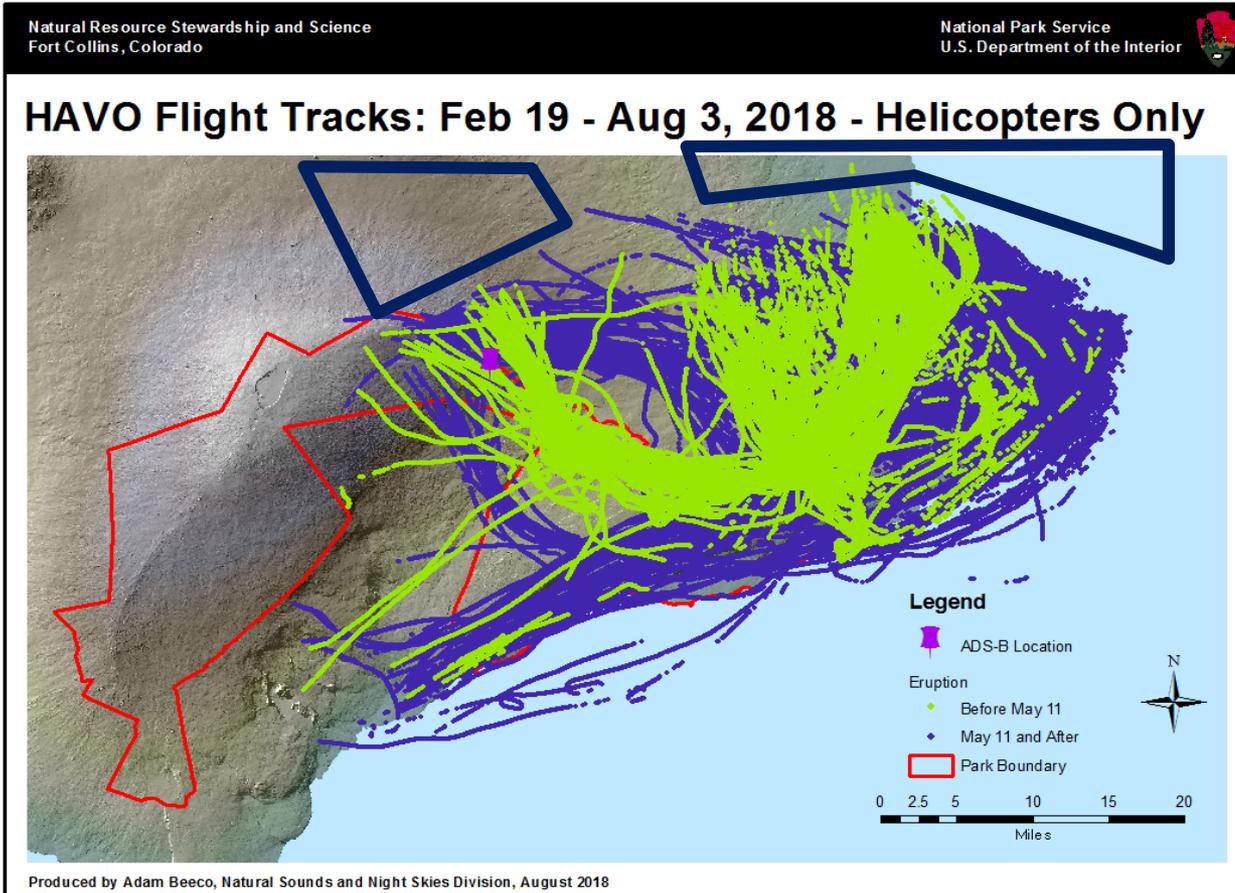


# HALE – Site Specific Findings

- Unit Performance Issues – mainly due to solar panel and battery combination
- March 1 – March 15
  - 531,139 raw data points
  - Cleaned data – 42,032 data points, 68 unique air tours
  - March 5<sup>th</sup> was busiest day with 13 flights
- Not picking up all flights?
  - 150 air tours were reported for this time period
- No fixed wing tours were captured
- Two primary owners
  - 8 different tail numbers
  - 3 different models
- 3 miles wide 'route'
- None go into crater

# HAVO - Findings

- N = 328 unique air tours



# HAVO – Site Specific Findings

- Unit Performance Issues – mainly due to solar panel and battery combination
- February 19 – August 3, 2018
  - Active for a total of 164 days
  - Data was only collected on 103 days (due to failures)
  - The unit was active more than 50% of daytime hours (0600-1900) on 77 days
- 328 unique helicopter air tours
- Not picking up all flights?
  - $(328/77)*365 = 1554$
  - Reported flights = 16,520 (2017)
- Only 1 fixed wing tour was captured
- Three different owners
  - 12 different tail numbers
  - 5 different models
- Air tour patterns changed after eruptions – avoiding the TFR

# Objectives of Phase II

- Explore the effectiveness of using ADS-B at MORU to track air tours
- Test the continued improvements made to the NSNSD ADS-B tracking unit
  - Designed to lower electronic temperatures
  - Connects directly to power
  - Collects both 1090MHz and 978MHz frequencies

# Photo of Deployed ADS-B Unit at MORU



EXPERIENCE YOUR AMERICA

# Looking at Panorama View – Results in no or very little loss of data

North

East

South

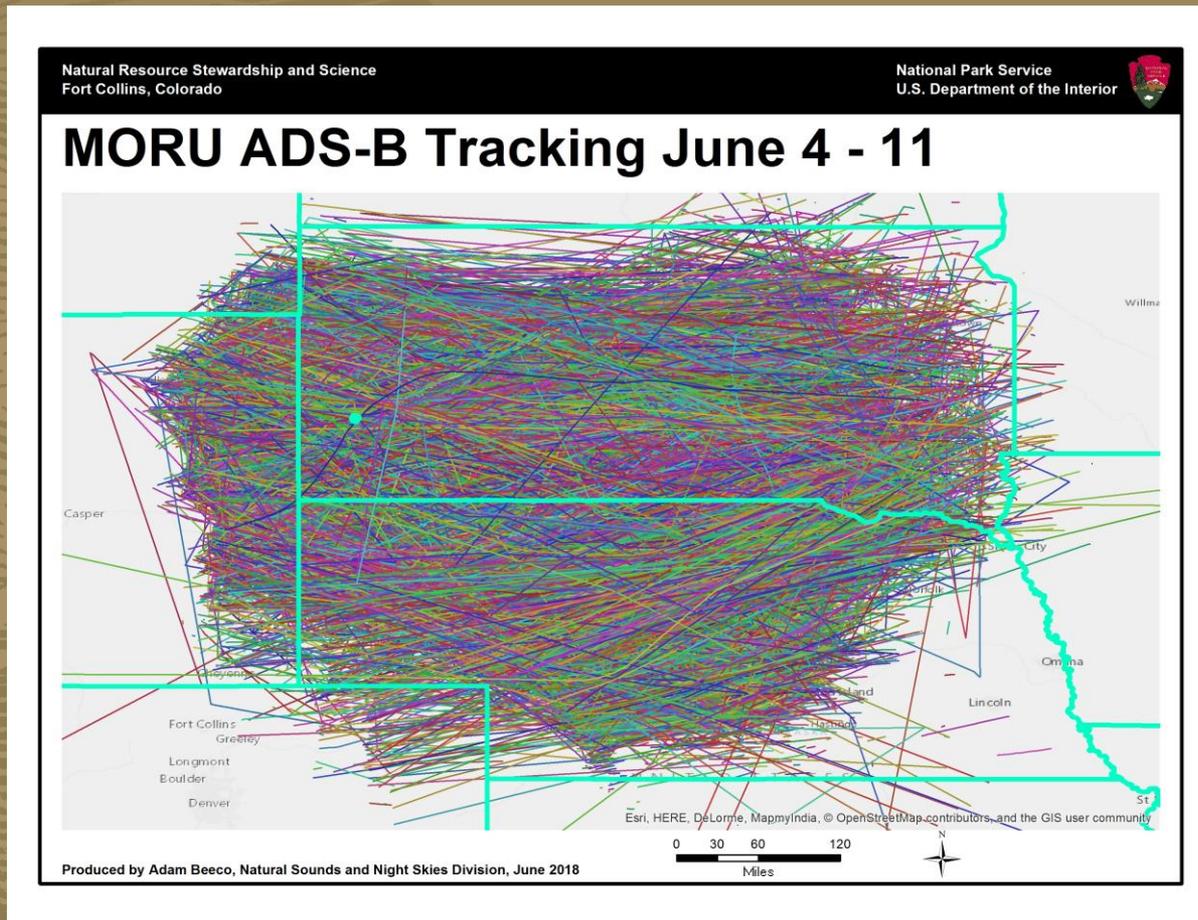
West



EXPERIENCE YOUR AMERICA

# MORU – Overall Data

- Furthest point – 350 miles (304 nautical miles)
- 5,842 unique flights



# MORU - Findings

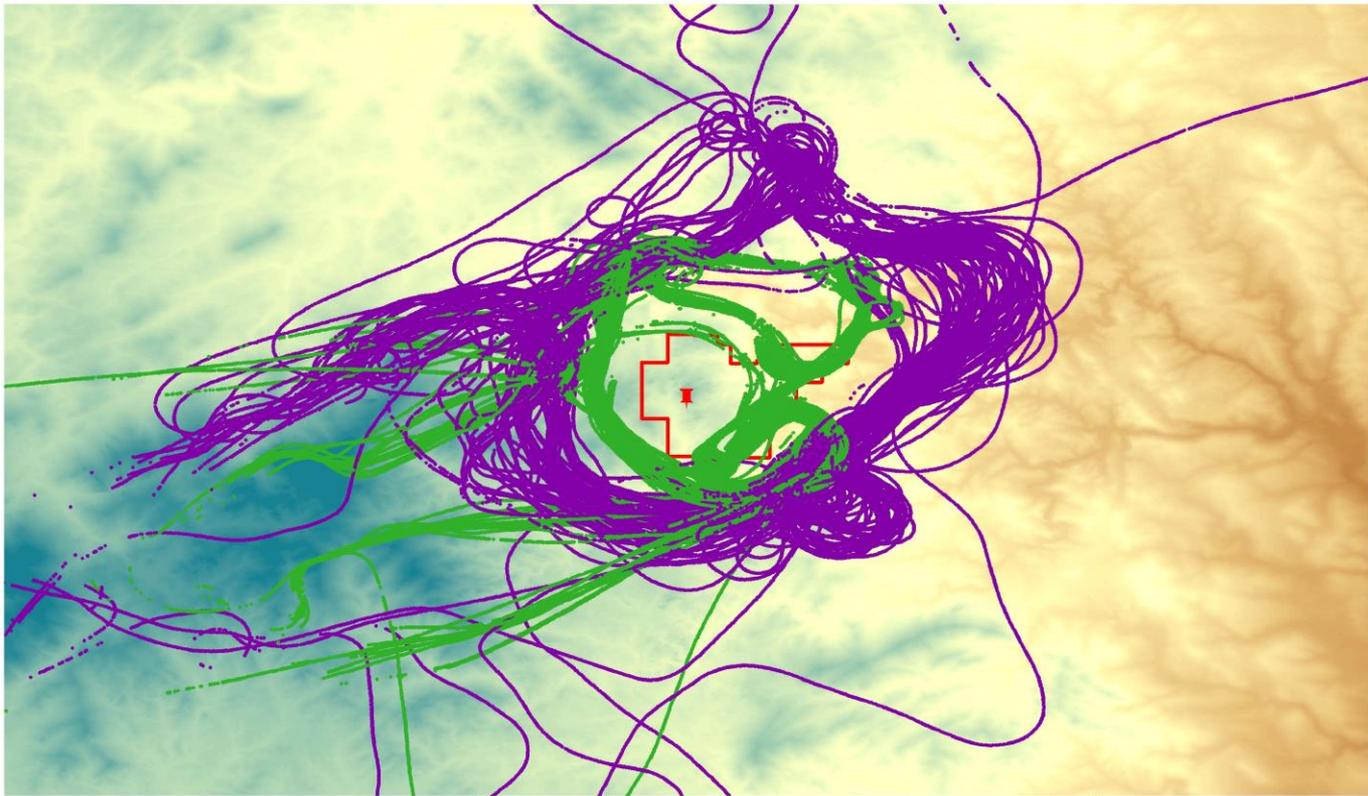
- Total of 35 days captured between June 4 and July 29

Natural Resource Stewardship and Science  
Fort Collins, Colorado

National Park Service  
U.S. Department of the Interior



## ADS-B Tracking - 35 Days Between June 4 - July 29, Heli Only



Produced by Adam Beeco, Natural Sounds and Night Skies Division, August 2018

# MORU – Site Specific Findings

- Total of 35 days captured between June 4 and July 29
- The ADS-B Unit gets a clear view of aircraft
  - Captured 269 helicopter air tours
    - Only captured two aircraft – different owners
    - Six tours a day from the same aircraft was common
- Different operators have different travel patterns
- Storm on July 3 damaged unit (broke antenna), did not collect data from July 4<sup>th</sup> – July 9<sup>th</sup>
  - Unit was set back up (still damaged, but repositioned on July 10<sup>th</sup>) – unsure how this limited data collection July 10<sup>th</sup> through July 29<sup>th</sup>
  - Antenna was replaced on July 30

# Overall Findings

- Air Tour Travel Patterns
  - Exact routes and altitude of specific flights
  - High variability of 'routes' which are perhaps better described as corridors
  - Responsiveness of changes in travel patterns due to environmental changes or regulations
  - Differences in routes between operators
- Need better spatial coverage
  - X, Y, and Z
  - Multiple units at a single park

# Natural Sounds and Night Skies Division

[www.nps.gov/nsnsd](http://www.nps.gov/nsnsd)

970-267-7177



National Park Service  
U.S. Department of the Interior

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## **Appendix 5: Interim Operating Authority Cleanup Presentation**

# National Parks Air Tour Management Program



Federal Aviation  
Administration



National Park  
Service

## Interim Operating Authority Cleanup



Presented to: NPOAG, Henderson, NV

By: FAA and NPS

Date: September 18, 2018

## Interim Operating Authority Cleanup

- Original IOA list in 2005 Federal Register notice listed 78 operators, with over 300,000 IOA
- 1st step was to clean up list by removing operators no longer having operating certificate
- Approximately 25 operators were identified as having IOA but lacking an active Part 135 operating certificate, most had voluntarily surrendered their certificate
- Resulted in approximately 37,000 IOA taken off the records in 2016
- Two additional reviews yielded another 6 operators with approximately 11,050 IOA taken off the records in 2017



## Interim Operating Authority Cleanup

- **Current, ongoing effort to see if air tour operators reporting no tours over a park unit for which they have IOA, will voluntarily surrender their IOA**
- **A review of operators who have not flown a tour(s) over a national park unit(s) in the last 5 years (2013-2017) for which they have IOA finds:**
  - 20 Operators
  - Covering 47 National Park Units
  - Approximately 12,600 IOA
  - 2 Operators at 3 Park Units Account for Approximately 9,600 IOA



## Interim Operating Authority Cleanup

- **Of the 20 operators:**
  - 9 had no tours over just 1 park unit where they held IOA
  - 3 had no tours over 2 park units where they held IOA
  - 2 had no tours over 3 park units where they held IOA
  - 2 had no tours over 5 park units where they held IOA
  - 1 had no tours over 11 park units where they held IOA
  - 1 had no tours over 13 park units where they held IOA
  - 1 had no tours over 19 park units where they held IOA
  - 1 had no tours over 21 park units where they held IOA



## Parks Units and # of Operator with no Tours

Parks with No Tours Flown by at Least 1 Operator	# of operators
Arches National Park (ARCH)	5
Big Bend National Park (BIBE)	1
Bryce Canyon National Park (BRCA)	4
Canyon De Chelly National Monument (CACH)	3
Canyonlands National Park (CANY)	4
Capitol Reef National Park (CARE)	3
Cedar Breaks National Monument (CEBR)	4
Death Valley National Park (DEVA)	4
Devils Tower National Monument (DETO)	1
Dry Tortugas National Park (DRTO)	1
Fort Bowie National Historic Site (FOBO)	1
Fort Davis National Historic Site (FODA)	1
Glen Canyon National Recreation Area (GLCA)	2
Golden Spike National Historic Site (GOSP)	1
Grand Teton National Park (GRTE)	3
Great Sand Dunes National Park and Preserve (GRSA)	1
Guadalupe Mountains National Park (GUMO)	1
Haleakala National Park (HALE)	1
Hawaii Volcanoes National Park (HAVO)	4
Hohokam Pima National Monument (PIMA)	1
Hooverweep National Monument (HOVE)	2
Lake Mead National Recreation Area (LAKE)	3
Mojave National Preserve (MOJA)	1
Montezuma Castle National Monument (MOCA)	3



## Parks Units and # of Operator with no Tours

Parks with No Tours Flown by at Least 1 Operator	# of operators
Mount Rainier National Park (MORA)	2
Muir Woods National Monument (MUWO)	1
Natural Bridges National Monument (NABR)	3
Navajo National Monument (NAVA)	3
North Cascades National Park (NOCA)	1
Organ Pipe Cactus National Monument (ORPI)	1
Petrified Forest National Park (PEFO)	2
Pipe Spring National Monument (PISP)	2
Point Reyes National Seashore (PORE)	1
Rainbow Bridge National Monument (RABR)	1
Rio Grande Wild and Scenic River (RIGR)	1
Saguaro National Park (SAGU)	2
Salinas Pueblo Missions National Monument (SAPU)	1
Sunset Crater Volcano National Monument (SUCR)	3
Timpanogogs Cave National Monument (TICA)	1
Tumacacori National Historical Park (TUMA)	1
Tuzigoot National Monument (TUZI)	2
Walnut Canyon National Monument (WACA)	2
Wupatki National Monument (WUPA)	2
Yellowstone National Park (YELL)	1
Yosemite National Park (YOSE)	1
Yucca House National Monument (YUHO)	1
Zion National Park (ZION)	5



## Interim Operating Authority Cleanup

- In process of sending out letters to the 20 air tour operators having no air tours (2013-2017) at a national park(s)
- Asks for response within 30 days





**Appendix 6:** Notice of Final Opinion on the Transferability of Interim Operating Authority Under NPATMA (Whitlow Opinion)

Suite 805, Washington, DC 20036; telephone (202) 833-9339; fax (202) 833-9434; Web site <http://www.rtca.org>.

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee (Pub. L. 92-463, 5 U.S.C., Appendix 2), notice is hereby given for a Special Committee 207 meeting. The agenda will include:

- March 8:
  - Opening Plenary Session (Welcome, Introductions, and Administrative Remarks).
  - Review of Meeting Summary.
  - Review of workgroup leader meetings.
  - Workgroup Reports.
    - Overview.
    - Workgroup 2: System Performance Requirements.
    - Workgroup 3: Subsystem Functional Performance Requirements.
    - Workgroup 4: System Verification and validation.
    - Workgroup 5: Biometrics.
    - Workgroup 6: Credentials.
    - Workgroup 7: Perimeter.
  - ICAO Update.
  - Closing Plenary Session (Other Business, Establish Agenda, Date and Place of Following Meetings).

Attendance is open to the interested public but limited to space availability. With the approval of the chairmen, members of the public may present oral statements at the meeting. Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on February 6, 2007.

**Francisco Estrada C.,**

*RTCA Advisory Committee.*

[FR Doc. 07-627 Filed 2-12-07; 8:45 am]

**BILLING CODE 4910-13-M**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### **RTCA Special Committee 135: Environmental Conditions and Test Procedures for Airborne Equipment Joint With EUROCAE Working Group 14**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of RTCA Special Committee 135 meeting joint with EUROCAE Working Group 14.

**SUMMARY:** The FAA is issuing this notice to advise the public of a meeting of

RTCA Special Committee 135: Environmental Conditions and Test Procedures for Airborne Equipment joint with EUROCAE Working Group 14.

**DATES:** The meeting will be held March 13-15, 2007 starting at 9 a.m.

**ADDRESSES:** The meeting will be held at Hotel Paradou, near Eurocopter Sausset-les-Pins, France.

**FOR FURTHER INFORMATION CONTACT:** Due to the particular organization of this meeting please make your booking and provide information on your stay to Marc Poncon as soon as possible at [marc.poncon@eurocopter.com](mailto:marc.poncon@eurocopter.com).

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., Appendix 2), notice is hereby given for a Special Committee 135 meeting joint with EUROCAE Working Group 14. The agenda will include:

- March 13-15.
  - Chairman's Opening Remark, Introductions.
  - Welcome from EUROCAE WG-14 Chairman.
  - Approval of Summary from the Forty-Eighth SC 135 Meeting and Sixtieth WG 14 Meeting.
    - RTCA Paper No. 023/SC135-659.
    - EUR 396-06/GT 14-127.
  - Review Change Proposals for First Draft of DO-160F/ED (draft section on RTCA Web site).
  - Review Schedule to Release DO-16-ED14 F.
  - Closing Plenary Session (New/Unfinished Business, Date and Place of Next Meeting).

Attendance is open to the interested public but limited to space availability. With the approval of the chairmen, members of the public may present oral statements at the meeting. Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on February 5, 2007.

**Francisco Estrada C.,**

*RTCA Advisory Committee.*

[FR Doc. 07-628 Filed 2-12-07; 8:45 am]

**BILLING CODE 4910-13-M**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### **Notice of Final Opinion on the Transferability of Interim Operating Authority Under the National Parks Air Tour Management Act**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of final opinion.

**SUMMARY:** This notice sets forth the FAA's final opinion on the transferability of interim operating authority under the National Parks Air Tour Management Act.

**FOR FURTHER INFORMATION CONTACT:** James W. Whitlow, Deputy Chief Counsel for Policy and Adjudications, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3773.

**SUPPLEMENTARY INFORMATION:** This notice sets forth the FAA's final opinion on the transferability of interim operating authority.

On April 5, 2000, Congress passed the National Parks Air Tour Management Act (Act). The Act set up a process by which the FAA and the National Park Service (NPS) would work together to establish air tour management plans for all units of the national park system and abutting tribal lands having commercial air tours. On October 25, 2002, the FAA published a final rule in 14 CFR part 136, National Parks Air Tour Management (67 FR 65662), pursuant to a mandate specified in the Act. This final rule completed the definition of "commercial air tour operation" by establishing the altitude (5,000 feet above ground level) below which an operator flying over a national park for the purpose of sightseeing is classified as a commercial air tour operator. The rule also codified provisions of the Act in the FAA's regulations at 14 CFR part 136.

Under the Act, the air tour management plan (ATMP) process is initiated when a commercial air tour operator files an application for operating authority with the FAA to conduct commercial air tours over a national park or abutting tribal land (49 U.S.C. 40128(a); 14 CFR 136.7). Once an application is filed, the FAA, in cooperation with the Director of the National Park Service, must develop and implement an ATMP for the park or abutting tribal land. Operators conducting commercial air tours over a unit of the national park system or abutting tribal land during the 12 month period prior to adoption of the Act are

classified under the Act as existing commercial air tour operators (49 U.S.C. 40128(f); 14 CFR 136.3). These existing operators are eligible to receive interim operating authority (IOA), under conditions set forth in the Act. IOA allows these operators to continue conducting commercial air tours over the parks or tribal lands pending completion of the ATMP. With a few limited exceptions, no other operators are permitted to operate pending completion of the ATMP.

Since the Act did not directly address the issue of IOA transferability, the FAA must determine whether allowing transferability of IOA from one operator to another is consistent with the Act's provisions and overall goals. By notice published in the **Federal Register** on June 28, 2006, the FAA solicited comments on a draft opinion that concluded permitting the transferability of IOA is neither consistent with provisions of the Act nor its overall goals. On July 26, 2006, the FAA extended the comment period to September 13, 2006.

The FAA received six comments in response to that notice. The majority of commenters raised two common points. First, because of the amount of time it takes to complete an ATMP, failure to allow free transferability of IOA will inevitably result in an overall reduction of the number of air tour flights available to the public. Secondly, allowing the transfer of IOA among existing and new operators would not increase the overall number of potential IOA at a park and is fully consistent with the intent of Congress.

The FAA acknowledges that, if IOA is not transferable, the number of air tours at a park may be reduced if an air tour operator goes out business without a successor purchaser. It must also be acknowledged, though, that Congress clearly intended IOA to be temporary in nature and severely limited FAA and NPS' ability to grant increases of IOA to existing operators or new entrants. The statutory scheme for IOA as expressed in the Act does not support the concept that Congress intended to allow the free trafficking in IOA. It cannot be presumed that, while Congress authorized FAA and the NPS to reduce, or even eliminate IOA prior to the implementation of an ATMP, it intended to preserve the existing level of air tours by permitting unrestricted transfer of IOA.

Some commenters argued that the transferability mechanism for Grand Canyon should serve as a model for IOA. Others requested that, if it is decided IOA is not transferable, that decision should not apply to operating

authority (OA) granted under an ATMP. If IOA were transferable, then the Grand Canyon transfer mechanism in 14 CFR 93.321 could serve as a model; however, Grand Canyon's transfer mechanism was created by regulation under different statutory authority. It does not serve as a precedent for the transferability of IOA. On the other hand, this opinion only addresses the transferability of IOA. Transferability of OA will be covered separately, as part of the ATMP process.

After due consideration of the comments received, the FAA issues the following final opinion on the transferability of IOA.

*Opinion:* Congress required ATMPs to be established over units of the national park system and abutting tribal lands to ensure that the agencies analyze the environmental impact of commercial air tours upon such land and "develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tour operations upon the natural and cultural resources, visitor experiences and tribal lands" (49 U.S.C. 40128(b)(1)(B); 14 CFR 136.9(a)). Under the Act, commercial air tours are not permitted until an ATMP is completed for the park, unless the operator is an existing air tour operator as defined in the Act and receives IOA, has received authority to operate under part 91 with a letter of agreement from the Administrator and the NPS superintendent for that national park unit (49 U.S.C. 40128(a)(3); 14 CFR 136.7(g)), or has received authority to operate as a new entrant prior to the completion of the ATMP (49 U.S.C. 40128(c)(3)(C); 14 CFR 136.11(c)).

Congress set up the IOA process as a way of ensuring that those commercial air tour operators conducting commercial air tours over national parks at the time of Act's enactment would not be put out of business while the FAA, in cooperation with NPS, analyzed the environmental impact of the air tours on the national park unit and developed an ATMP. The IOA then ends 180 days after the ATMP is adopted.

IOA is granted to specific operators over specific parks. Those operators who conducted commercial air tour operations in the 12 months preceding enactment (April 5, 2000) over the particular units of the park system for which they are applying for authority qualify for IOA. Those operators receive an allocation equal to the number of operations they conducted in the 12 month period preceding enactment, or an average, based on the three years preceding enactment. Thus, under the

terms of the Act, only existing operators initially qualify for IOA.

Additionally, a particular operator's IOA may not exceed the number of allocations earned by that operator for a calendar year, unless it was increased pursuant to the Act's provisions, which require concurrence between the FAA and NPS. The FAA and NPS may grant such increases under limited circumstances, and the allocations involved in the increase are not subject to sale. The FAA, in cooperation with NPS, may grant IOA to a new entrant air tour operator only if the FAA determines the authority is necessary to ensure competition in the provision of commercial air tour operations over the park or tribal lands.

Given the specificity of the IOA authority and the limitations placed on that authority, FAA has concluded that Congress did not intend for the operators to possess it as a valuable right to be bought and sold. IOA was designed as a temporary solution to allow operators already conducting air tours at the time of the enactment of the Act to continue to operate pending completion of the ATMP, or new entrants to begin operation to ensure competition. If FAA were to conclude that IOA can be transferred, then operators could grow an existing business by adding IOA allocations to their current allotment from other operators and new entrants could obtain IOA allocations and start operations without FAA and/or NPS approval. Such an interpretation would be inconsistent with the overall structure of the Act.

In consideration of the foregoing, it is the opinion of the FAA that IOA is not transferable.

Issued in Washington, DC, on February 7, 2007.

**James W. Whitlow,**  
*Deputy Chief Counsel.*

[FR Doc. 07-625 Filed 2-12-07; 8:45 am]

**BILLING CODE 4910-13-M**

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## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

[Docket No. FHWA-2007-26977]

#### Agency Information Collection Activities: Notice of Request for Extension of Currently Approved Information Collection

**AGENCY:** Federal Highway  
Administration (FHWA), DOT.

**ACTION:** Notice of Request for Extension  
of Currently Approved Information  
Collection.

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**Appendix 7:** Written Public Comment from Friends for a Quiet! Glacier

**To: National Parks Overflights Advisory Group**  
**From: Friends for a Quiet! Glacier**

**September 18, 2017**

I am writing on behalf of Friends for a Quiet! Glacier – a Coalition of 32 organizations representing millions of members and National Park visitors in support of restoring and preserving the natural soundscape in Glacier National Park.

We write to request NPOAG advise the FAA that Glacier National Park be restored as a top priority to complete an ATMP per NPATMA. Especially, given that Glacier was identified as a priority in the first Congressional hearings on National Park overflights in 1987 (National Parks Overflight Act PL 100-91 passed. Glacier has also been on the NPS priority list for resolution of this issue since 1994 (in NPS Report to Congress, <http://www.nonoise.org/library/npreport/intro.htm>).

Two decades ago Glacier National Park's General Management Plan determined tour overflights were increasingly and significantly affecting the park experience for the majority of the visitors. This was thoroughly studied and vetted through the public process and supported by a Record of Decision. From the NPS perspective and majority public opinion, scenic tours then, and today are determined to adversely impact the natural resource of the natural sound experience in the Nation's only International Peace Park, a World Heritage Site, and Bioserve. Considerable tax payer money was spent to begin the 2003-4 Air Tour Management Plan in Glacier. There was never any question about the intent to phase out and retire commercial scenic overflights. Glacier stands by their decision and is ready to put it in action as was intended by the law.

To that end, we have tried to carry the message to the public, to this Advisory Board and the agency heads, that there are three things at work in Glacier National Park:

- 1) The disproportionate number of people causing noise/pollution/disturbance adversely impacting the experience for the large number (majority) of visitors. Accessibility - everyone who visits the Park has access to the view and the experience on Going-to-the-Sun Road by car, shuttle, or bus. And because of the commercial air tours, everybody who visits Glacier National Park has to endure the noise of the helicopters servicing a very few. Glacier permits use of flights for administrative purposes only when no other options exist. Emergency including fire flights are not subject to the same restrictions. Every flight is reviewed and is subject to environmental compliance.
- 2) Glacier is 95% defacto Wilderness. Director's order #41 states that defacto Wilderness be managed as Wilderness. The Director's Order, dated May 13, 2013, defines the number one NPS role and responsibility as "Visitor and Resource Protection".
- 3) This is a noise and visual pollution issue, not an aviation issue.

Glacier National Park has maintained since 2003 it is ready to proceed with development of an air tour management plan, through the NEPA process, that analyzes alternative ways to phase out air tours in the park in accordance with the 1999 GMP decision. It began this process in earnest at that time. In August 2004 FAA thwarted further efforts to complete the plan, agreement was not reached with FAA as to how to proceed with the range of alternatives. FAA indicated they would consult with their solicitors. To date, the park has not been contacted. Glacier was determined to phase out air tours as overflights were damaging the natural resource the NPS is charged to protect for present and future generations.

In the meantime, there appears to be no recourse for IOA safety and advisory enforcements. As one example, FAA Advisory Circular 91-36D, the subject of which is Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas, requests pilots to fly no less than 2,000 feet above ground level over parks and wilderness areas. Yet, operators in Glacier are frequently (and even more so in 2018) observed by Park staff and visitors, operating below 2,000-feet. In contacting FSDO with complaints, we have been told repeatedly by FAA, 'it's just an advisory, operators don't have to observe it.' This attitude is clearly demonstrated by some operators posing both safety hazards and adverse impacts to visitors.

It is unclear how Glacier National Park can have been on the table so long and at the same time under the rug with no action taken to relieve the situation. The five operators combined, in the 13 years of temporary permissions (IOA) to fly over the Park, have never flown the combined number of tours they claimed to be conducting in 2005. The directive in that year was for operators to submit a number of flights occurring then, not pad the number for future growth. Additionally, implicit in the term "interim" is that it is temporary.

Allowing operators to use IOA indefinitely defeats the whole purpose of NPATMA. The 2012 amendment did nothing in Glacier to alleviate the problem. If the purpose of operators submitting reports was to better document what operators were doing, the purpose has not been served in Glacier. In the GAO-06-263 NPATMA Study that was done because of concerns that "noise from air tours over national parks could impair visitors' experiences and park resources." No change is apparent in Glacier in all these years.

Before the wildfire season claimed the skies (e.g. three of the last four years, have reduced the scenic flight season by almost a month), the operator tours were increasing in intensity and frequency (the difference between 2013 and 2014 was 175% increase). According to predictions, wildfire season is here to stay. That means an even shorter season for an even greater number of people to share the Park. In Glacier and similar parks, scenic helicopter overflights allow a small fraction of air tourists to impose manmade noise on the majority of visitors in the natural soundscape, completely ignoring the intent of NPATMA. Instead, millions of dollars of taxpayer money have been spent to prevent Glacier from achieving one of its primary stewardship responsibilities to protect and respect the Natural Sounds in a Wilderness National Park —Quiet.

NPATMA has become unacceptably undermined and unreasonably delayed for more than a decade. The NPS Organic Act; and corresponding DOT Act Sec. 4(f); The National Parks Overflight Act of 1987 Public Law 100-91 SECTION 1 and (Appendix D) and the Park Protection Act, all give NPS regulatory authority to protect natural quiet in national parks. NPS Director's Order 41 on Wilderness Stewardship asserts air tours are inconsistent with preservation of wilderness character.

**NPATMA grants National Parks the authority to advise the FAA on resource protection and give the NPS the authority to amend the IOA, including to the point of restriction, on the merit of resource protection and adverse impact to visitors and wildlife.** Since the process began, there have been considerable resources invested in completing Glacier's Ambient Sound Levels in Glacier National Park, report published in 2016 available to the public. (Report date 9-2009, U.S. DOT/FAA, Baseline Ambient Sound Levels in Glacier National Park).

In addition, Air Tours may be more appropriately judged against the National Parks Omnibus Management Act of 1998 (PL. 105-391), with reference to Air Tours “necessary and appropriate” criteria mandated for considering commercial activities and that they should not “unduly conflict with other park uses and activities.” Glacier determined 15 years ago in their GMP that Air Tours impair park resources (natural sounds) and they conflict with people seeking solitude.

As stated in the literature, an ATMP requires the Operators, FAA, and NPS, to abide by and provide for the management of air tours to protect park resources and visitor experience, without compromising aviation safety.

An agreement can specify air tour routes, the number of flights, timing of flights, type of aircraft, and other parameters, including no tours at all.

We would like to see FAA acknowledge and proceed on Glacier recognizing there are some Parks like Glacier, where there is no level of acceptable scenic tours; that there can be and should be some Quiet Parks. If this is not so, what is the purpose of the FAA/NPS Memorandum of Understanding?

The following facts also support the need to complete Glacier’s ATMP:

- Section 49 U.S.C §40128(d) requires that each commercial air tour operator, whether they operate under an ATMP, a voluntary agreement, or IOA, submit a report to both the FAA and NPS on the number of commercial air tour operations over each park they operate at and “such other information” as the agencies request (since 2013). From these public reports it is known that:
  - ***In the 4 years of data to date, 98% of the commercial overflights in Glacier National Park took place in 2nd & 3rd Qtr. AND the majority of those flights took place in 3 months, not 6, amplifying negative impact at peak visitation (when 94% of visitors are present, per <https://www.nps.gov/subjects/sound/airtours.htm>). Now with wildfires 3 out of the last 4 years, limiting the majority of the tours to 2 months – both still spanning 2 quarters, the misrepresentation of impact is even more exaggerated.***
  - ***Further, the method of reporting in the reported commercial Air Tours Report does not separate or group the National Park by ‘Unit’ definition (e.g. National Park, Wilderness, Recreation Area or National Monument). If the Park Units are grouped in this way, Glacier has the 5<sup>th</sup> highest tour numbers for units of the National Parks category. National Parks, and especially Glacier, as de facto Wilderness Park are more adversely impacted with entire ecosystems affected by noise pollution than some of the other units coming before it on the list based solely on annual quantity of flights.***

***Characterizing Commercial Tour Operation priorities by an annual tally greatly obfuscates the unique nature of Glacier National Park. What is magic about selecting the top 9 parks and 93% of tours to evaluate priority? NPOAG needs to evaluate priority based on traffic over the months flown, placing Glacier as a top priority for another very unique reason.***
- Because of the unique nature of the season in Glacier, this number has far greater consequences and adverse impacts than the "quantity" of annual flights reveals. The number of commercial overflights has increased drastically in the first three years of required reporting and is at the expense of the Glacier National Park natural sound resource visitors seek and wildlife requires.

- In a 1996 memorandum to DOT, DOT/FAA were directed to advance Glacier (by reference) as one of the established NPS priorities [Federal Register Volume 61, Number 81 (Thursday, April 25, 1996)] [Pages 18229-18230].
- From the Federal Register Online via the Government Publishing Office [[www.gpo.gov](http://www.gpo.gov)] [FR Doc No: 96-10369]. In 2002, Glacier remained among the first ATMPs planned to be completed by 2004– 16 years ago.
- The Interim Operating Authority permits were intended to be temporary, until an ATMP was in place. According to the Federal Register they are based on self-reported unverified submissions. The number of flights operators claimed in Glacier in 2005 is nearly double what was actually flown in 2016.
- The Reported Commercial Air Tours Report does not separate the National Park Units by "kind" (*Wilderness Parks, National Park; Recreation Area, or Monument*). Glacier NP is defacto Wilderness (to be managed as Wilderness).
- Over the years NPOAG has provided guidance that can be applied directly to Glacier National Park.
  - There are clear statements in 2005 from NPOAG meeting minutes that Glacier was well on its way to being among the first Parks to complete an ATMP.
  - In NPOAG Meeting of November 2009, where Glacier is mentioned multiple times as in need of ATMP, it is reiterated that it is among the first identified to Congress- “first in line.”
  - NPOAG minutes from the 2011 meeting clearly state prioritizing the parks was an issue that needed to be addressed.
  - Those recommendations pertaining to Glacier were:
    1. *Push through “signature” parks that have had the most work invested to date*
    2. *Be disciplined and focus scarce resources: look for groupings or categories of parks that have similar attributes such as sites of military battlefields (Little Big Horn), cultural sites, national recreation areas; or sites that have similar sound attributes (for example Arches/Canyonlands). Develop ATMPs that can set a precedent for addressing attributes in these categories. Suggested categories include: Quiet – Natural experience; National recreation areas; Cultural; Tribal.*
    3. *Consider that there has to be a resource protection benefit to opting out of developing an ATMP if exemptions are allowed.*
    4. *Refrain from starting and then stopping the development of an ATMP. Finish the ones that you have started.*
    5. *Consider the number of parks on the list and consider taking some off the list to accomplish more in a short period of time.*
    6. *Consider historical context for public and congressional interest (Bryce, Glacier, Zion).*
    7. *Consider if the Park is “ready” (General Management Plan (GMP) completed, staffing capacity and monitoring capacity). (Note: Glacier has been “ready” since 2003 when substantial preparation had already been accomplished).*
    8. *Consider if there is a GMP update getting underway at the park and if the ATMP process can be expedited by using public process for both. (Note: Considerable work and expense was undertaken to develop an ATMP by FAA in Glacier in 2003-4, and Glacier National Park had completed and stands by their commitment in their 1999 General Management Plan supported by EIS, Record of Decision, multiple public meetings and public comment periods.*

**On the importance of Quiet to the visitor:**

During Oversight Hearings in 2002 on Air Tours and National Parks to the Senate Aviation Subcommittee of the Committee on Commerce, Science and Transportation testimony -- the committee was reminded that "since its establishment, Glacier has been a symbol of wild land values: the sounds and fragrances of Nature among magnificent peaks, lakes, creeks, and a unique flora and fauna. The NPS has characterized Park wilderness, exemplified by Glacier, as 'solitude, and the music of stillness.'"

Further, there is new research published from FAA/NPS that helicopter noise is significantly *more* adverse to visitor enjoyment than the same dose of fixed wing noise. See recent EIS for Glen Canyon NRA on ORV Management, Figure 40 on page 326 of the new Glen Canyon NRA's ORV Management FEIS.

Glacier is also one of only a handful of National Parks abutting Tribal Lands, making the sensitivity and importance of an ATMP more compelling and urgent.

**On the importance of Quiet to the wild:**

Noise levels during peak periods in a high air traffic corridor in the Yellowstone backcountry, for example, were elevated by up to 5 decibels. The result is as much as a 70% reduction in the size of area in which predators can hear their prey (p 11 NPS Sound Interpretive Handbook taken from (Barber, J. R., Fristrup, K. M., Brown, C. L., Hardy, A. R., Angeloni, L. M., & Crooks, K. R. (2009). Conserving the wild life therein: Protecting park fauna from anthropogenic noise. *Park Science*, 26(3), 26–31)

There is new importance given to ***impairment*** in context of the broader, cautionary scope/range of *unacceptable*. (2006 Management Policies). Including, wilderness character disturbance/incompatibility (see DO 41 on Wilderness Stewardship, revised in 2013).

We understand that NPOAG has been given the task of compromising disparate agencies with no common goal. But given the special circumstances in Glacier National Park –an international peace park with an administrative commitment for Quiet, that has been supported within the NPS and the public with a General Management Plan in place for 18 years –we implore NPOAG, FAA and NPS NSNS to finalize the protection of quiet in honor of the ‘peace and quiet’ people seek when visiting a National Park like Glacier—as Congress intended, for today and for future generations.

Sincerely,

**Mary T. McClelland, Coordinator**  
**(815) 482-7404**

**On behalf of Quiet! Glacier Coalition**

ACOUSTICAL SOCIETY OF AMERICA  
 ALLIANCE FOR THE WILD ROCKIES  
 AMERICAN PACKRAFTING ASSOCIATION  
 CENTER FOR BIOLOGICAL DIVERSITY  
 CONSERVATION CONGRESS  
 EARTHWISE PRODUCTIONS  
 FLATHEAD AUDUBON SOCIETY  
 FRIENDS OF THE WILD SWAN  
 GLACIER PARK FOUNDATION  
 GLACIER TWO MEDICINE ALLIANCE  
 GREAT OLD BROADS FOR WILDERNESS  
 GRINNELL FAMILY ASSOCIATION OF AMERICA  
 HEADWATERS MONTANA  
 LATINO OUTDOORS  
 LEAGUE OF WOMEN VOTERS OF ESTES PARK  
 LEAGUE OF WOMEN VOTERS OF MONTANA  
 MONTANA ECOSYSTEMS DEFENSE COUNCIL  
 MONTANA WILDERNESS ASSOCIATION  
 NATURE SOUNDS SOCIETY  
 NATIONAL PARK CONSERVATION ASSOCIATION  
 NORTH FORK PRESERVATION ASSOCIATION  
 ONE SQUARE INCH OF SILENCE FOUNDATION  
 RESTORE THE NORTH WOODS  
 SIERRA CLUB  
 S.P.E.C.I.E.S.  
 SWAN VIEW COALITION  
 WILD MOUNTAIN ECHOES  
 WILD SANCTUARY  
 WILDEARTH GUARDIANS  
 WILDERNESS WATCH  
 WILDWEST INSTITUTE  
 YELLOWSTONE SAFARI COMPANY

