

# Grand Canyon Working Group

## Report of FAA/NPS Quiet Technology Team

Presented to: GCNP Working Group

By: Rebecca Cointin, FAA

Rick Ernenwein, NPS

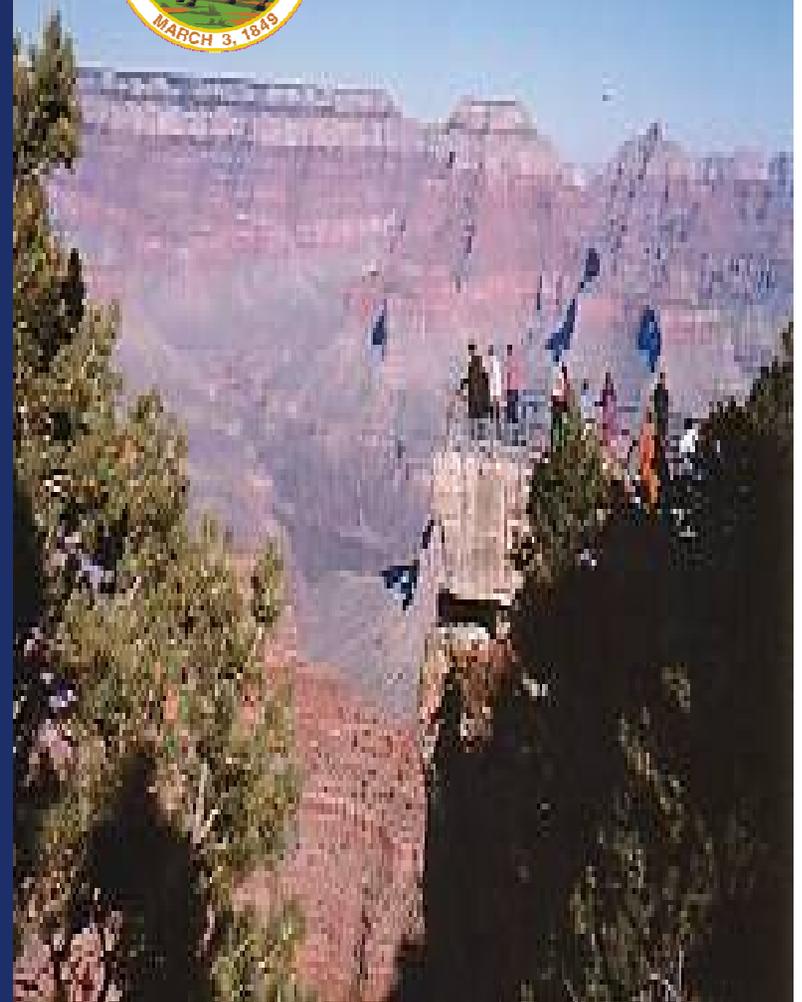
Date: July 28, 2009



Federal Aviation  
Administration



Department  
of the Interior



# What is Quiet Technology (QT)?

- **14 CFR Part 93 clearly states the requirement for an aircraft to be classified as QT**
  - based on a formula that takes into consideration noise certification level and number of seats
  - FAA Advisory Circular 93-2 Appendix which contains QT status was updated December 2008
    - Examples of QT aircraft\*: EC130, MD-900 Explorer, Cessna 208, De Havilland DHC-6-300

\* Refer to FAA AC 93-2 for complete lists of characteristics needed to be considered a QT aircraft



# What is Best Available Quiet Technology (BAQT)?

- **Included in several EIS alternatives**
- **Concept is quietest aircraft reasonably available commercially, while also meeting performance and other requirements for the application**
- **BAQT changes over time as new technology is put into commercial use**
- **To be further defined through this EIS process**



# The National Parks Air Tour Management Act of 2000 States (Section 804):

(c) Operational Caps. – Commercial air tour operations by any fixed-wing or helicopter aircraft that employs quiet aircraft technology and that replaces an existing aircraft shall not be subject to the flight allocations that apply to other commercial air tour operations of the Grand Canyon, **provided that the cumulative impact of such operations does not increase noise at the Grand Canyon.**



# The National Parks Air Tour Management Act of 2000 States (Section 804):

- (d) Modification of Existing Aircraft To Meet Standards. - -  
A commercial air tour operation by a fixed-wing or helicopter aircraft in a commercial air tour operator's fleet on the date of the enactment of this Act that meets the requirements designated under subsection (a), or is subsequently modified to meet the requirements designated under subsection (a), may be used for commercial air tour operations under the same terms and conditions as a replacement aircraft under subsection (c) without regard to whether it replaces an existing aircraft.



# The National Parks Air Tour Management Act of 2000 States (Section 804):

(e) Mandate to Restore Natural Quiet. - - **Nothing in this Act shall be construed to relieve or diminish –**

**(1) the statutory mandate imposed upon the Secretary of the Interior and the Administrator of the Federal Aviation Administration under Public Law 100-91 (16 U.S. C. 1a-1 note) to achieve the substantial restoration of the natural quiet and experience at the Grand Canyon National Park;**



# Agency Response

- **NPS and FAA formed a Quiet Technology Team to:**
  - assist with interpretation of NPATMA Section 804
  - establish processes needed to implement Section 804 provisions
  - assist in addressing Section 804 provisions and the variety of ways that DEIS alternatives incorporate QT in the ongoing EIS process
- **Members of the QT Team:**
  - FAA: Barry Brayer, Rebecca Cointin, Norman Elrod
  - NPS: Rick Ernenwein, Laura Levy, Gopaul Noojibail



# Process

- **As first step, the QT Team agreed to perform a sensitivity analysis for evaluating noise provisions in Section 804**
  - Given the length of time to run full noise studies, full noise runs to complete sensitivity analysis was not practical.
  - The QT Team identified eight location points around the Zuni Point and Dragon Corridors
  - Analyses were done for both percentage increase of QT aircraft above baseline peak day operation levels and replacement of non-QT aircraft to QT aircraft within Zuni Point and Dragon Corridors
  - For areas outside Zuni Point and Dragon Corridors, the sensitivity analysis assumed no change in operations or fleet mix
- **Initial results: at specific points, Substantial Restoration of Natural Quiet does not seem to change much, but even a small change to operations or fleet can alter noise (ex. TAUD, LaEQ12)**



# Next Steps

- **QT team will continue to discuss the interpretation of Section 804**
- **Representatives of the QT Team will be at a workstation in the afternoon and invite working group input on the matter.**

