



## Project 008 Noise Outreach

### The Pennsylvania State University

#### Project Lead Investigator

Kathleen Hodgdon  
Research Associate  
Applied Research Laboratory  
Pennsylvania State University  
ARL North Atherton Street  
P.O. Box 30 (Mail Stop 2210H)  
State College PA 16804-0030  
Phone: 814-865-2447  
Email: kkh2@psu.edu

#### University Participants

Pennsylvania State University

- P.I.: Kathleen Hodgdon Research Associate, Penn State Applied Research Laboratory
- Co PI: Maurie Caitlin Kelly Research Associate, Penn State Institute for Energy and the Environment
- FAA Award No.: 13-C-AJFE-PSU Amendments 7
- Period of Performance: August 18, 2014 to July 31, 2015
- Task(s):
  1. Stakeholders Interactions
  2. Content Development
  3. Site Navigation and Infrastructure

#### Project Funding Level

This project supported the Outreach effort at the Penn State with 30K of FAA funds. Matching funds are as follows:  
Cost share reduction provided by FAA: 20K  
PSU ARL: 11.509K for salary support for content development and stakeholders interactions

#### Investigation Team

Pennsylvania State University

P.I.: Kathleen Hodgdon Research Associate, Penn State Applied Research Laboratory

- Task(s):
  1. Stakeholders Interactions
  2. Content Development

Co PI: Maurie Caitlin Kelly Research Associate, Penn State Institute for Energy and the Environment

Researcher: Bernd Haupt Sr. Research Associate, Penn State Earth & Environment Institute

- Task(s):
  1. Site Navigation and Infrastructure

#### Advisory Committee Members

- Gulfstream Aerospace: Robbie Cowart, Brian Cook
- Palisades Citizens Association: Mat Thorp
- Port of Portland Airport Noise Management: Jason Schwartz
- Volpe-The National Transportation Systems Center: Juliet Page
- Wyle Laboratory: Kevin Bradley, Chris Hobbs

## Project Overview

The Outreach project seeks to improve airport and community interactions by providing information and education on aviation noise topics. Outreach has been implemented through the NoiseQuest website and by direct interactions with stakeholders. The NoiseQuest (NQ) site is located at [www.noisequest.psu.edu](http://www.noisequest.psu.edu). It is an international resource that is designed to implement global education and outreach on aviation noise topics. The NoiseQuest site has grown to present approximately 100 pages of aviation noise information on a diverse set of topics. The PSU Outreach team has continued to expand and enhance the NoiseQuest website.

### Outreach Goals:

1. Enhance global knowledge on aviation noise topics
2. Increase awareness and provide information to address aviation noise related issues
3. Interact with stakeholders to identify new content areas and current noise issues
4. Provide educational information in a format that is accessible to the general public
5. Present information on NoiseQuest in an easily navigated user friendly context

## Task 8.1: Stakeholders Interactions

Pennsylvania State University

### Objective(s)

This task implements a form of interactive outreach, reaching out to airport noise managers and community groups to identify their community based outreach needs, and to obtain data and contributing information to be shared on the NoiseQuest site.

### Research Approach

This task involves interactive outreach with airport noise managers and community groups, to identify topics and to request GIS noise contour data. The site user statistics will be monitored and feedback options will be investigated.

### Stakeholders Interactions

- Contact airport noise managers for GIS noise contour data and recommendations for site content
- Interact on webinars and in email with noise managers or community groups on topics and issues
- Monitor site statistics to glean information that can direct site development and enhancements

### Milestone(s)

We interacted with airport noise managers, stakeholders and community organizations.

We obtained noise contours from SFO and RSW but having difficulty getting airports noise managers to share their GIS data to noise contours on the NQ Explorer.

### Major Accomplishments

We continue to interact with airport noise managers and community groups. Jason Schwartz, from Port of Portland is an active team member and provides ideas and content topics. A webinar was held with the Florida Airports Council Noise and Community Affairs Committee on NoiseQuest and Outreach topics. The committee members indicated that they would work with their noise consultants to obtain the GIS data for additional Florida airports for inclusion on the NQ Mapper function of the NoiseQuest site. The membership is listed below.

Members of Florida Airports Council Noise and Community Affairs Committee:

Jacksonville International Airport, Southwest Florida International Airport, Bartow Municipal Airport, Orlando International Airport, Fort Lauderdale-Hollywood International Airport, Palm Beach International Airport, Naples Municipal Airport, Miami International Airport, St. Pete-Clearwater International Airport, Tampa International Airport, Punta Gorda Airport, Pompano Beach Air Park, Charlotte County Airport, Venice Municipal Airport, Gainesville Regional Airport, Fort Lauderdale Executive Airport, New Smyrna Beach Municipal Airport, Sarasota-Bradenton International Airport, and Orlando Sanford International Airport, as well as representatives from numerous airport planning, engineering, and environmental consulting firms.

Follow on discussions were held with Ian McKay (Project Coordinator (Noise/Airspace) Lee County Port Authority and Vice-Chair Florida Airports Council Noise and Community Affairs Committee) to have them assist us with obtaining additional GIS data from FAC member airports and content for the Spotlight section of the site.

We continue to contact airport noise managers to obtain contours for NQ Explorer and are working to expand our airport noise manager contact list. We have contacted Boeing and N.O.I.S.E. about potential sharing of their contact list for airport noise managers. We obtained noise contours from SFO and RSW but are having difficulty getting airport noise managers to share their GIS data for the NQ Explorer. We continue to monitor site statistics to gain insights on site usage. See Appendix 1 for Site Statistics January to June 2015.

### **Publications**

Content published at [www.noisequest.psu.edu](http://www.noisequest.psu.edu)

### **Outreach Efforts**

We continue to interact with airport noise managers and community groups from across the country. A webinar was held with the Florida Airports Council Noise and Community Affairs Committee on NoiseQuest and Outreach topics.

### **Awards**

None

### **Student Involvement**

None

### **Plans for Next Period**

The team will continue to contact Airport Noise Managers to obtain GIS data of recent noise contours that can be implemented to expand the NQ Mapper feature. The Outreach team members also interact via email and webinars with airport noise managers and members of community noise groups, to discuss topics and to identify site content that will better meet the needs of different stakeholders.

We will continue to monitor site statistics to gain inferences on site usage. To foster more in depth site usage, we will work to get additional stakeholders to link to the NoiseQuest site, and to provide recommendations for content. We will also investigate optimal methods and options for gathering site feedback.

## **Task 8.2: Content Development**

Pennsylvania State University

### **Objective(s)**

This task is focused on identifying and developing content that addresses aviation noise impact and outreach education.

### **Research Approach**

The Outreach team seeks to identify content that presents updates on aviation noise research, addresses noise issues, or meets the educational outreach needs of aviation stakeholders on specific topics.

### **Milestone(s)**

The team maintained existing site areas and added new content.

### **Major Accomplishments**

Site content was updated, with new content added. We added initial content on National Parks and plan to expand the site to include additional information on National Parks. We are still identifying content for broadening information on this topic. We began a review of the site disclaimer with the PSU lawyers and are working to draft a revised disclaimer in the next period of performance. We added content to the Spotlight on the Florida Airports Council. Under Noise Research, we have featured the PARTNER report from Project 44 and are adding the report from PARTNER Project 19. We updated the

Noise Research link to include the list of reports published on the PARTNER website. We are gathering historical noise contours so that we can draft content demonstrating the reduction of noise contours around airports over the past several decades. We are working with Jason Schwartz, Port of Portland to identify new content areas.

We are working with NASA and the NASA sponsored Waveforms Sonicboom Perception and Response Risk Reduction (WSPRRR) team to develop content on supersonics and low boom noise impact. This NASA sponsored team consists of ASCENT Project 8 team members from Penn State, Volpe, Wyle and Gulfstream who are working with NASA team lead APS and Domenic Maglieri at Eagle Aeronautics to formulate a test plan for future low boom community field tests. This team combines ASCENT and NASA researchers to identify and develop the low boom content for the NoiseQuest site.

### **Publications**

Site developed at [www.noisequest.psu.edu](http://www.noisequest.psu.edu)

### **Outreach Efforts**

We develop the Outreach content by reaching out to stakeholders for content ideas and development.

### **Awards**

None

### **Student Involvement**

None

### **Plans for Next Period**

Content Development: The existing site content will be enhanced or expanded. New content topics will be identified and relevant features added to the site. Content is planned for, but not limited to, topics such as information on historical noise contours, low boom noise, Metroplex, or helicopter noise. Other topics will be identified working with stakeholders.

## **Task 8.3: Site Navigation and Infrastructure**

Pennsylvania State University

### **Objective(s)**

Efforts under this task maintain the site architecture and enhance site navigation.

### **Research Approach**

To ensure that the site is accessible to the general public the team works to assure that the information on NoiseQuest is presented in an easily navigated user friendly format. This effort maintains the site infrastructure, implements GIS data as contours in NQ Mapper, and identifies and maintain links to airport, community sites and reference information.

### **Milestone(s)**

The full content on the NoiseQuest site and the NQ mapper were moved to a new server and site functionality was tested after the move.

### **Major Accomplishments**

The site was refreshed and updated to reflect the transition from PARTNER to ASCENT. The ASCENT link was added on each page, and PARTNER was credited for past contributions. Links to the new ASCENT COE were added and the team members were updated. Site navigation features were updated such as the addition of a Search Function. The full content on the NoiseQuest site and the NQ mapper were moved to a new server to comply with new security requirements for operating systems at PSU. Tests of the site navigation were conducted after the move to ensure the integrity of both the content and navigation of the site. Discussions were held to determine what other site features should be implemented in the next performance period. Methods of feedback were discussed and template for an on-line survey was devised for site feedback.

### **Publications**

None

### **Outreach Efforts**

Input from stakeholders is reviewed to identify site features and enhancements. The team works to ensure that GIS data formats provided by airport noise managers are compatible with the site.

### **Awards**

None

### **Student Involvement**

None

### **Plans for Next Period**

The NQ Explorer NQ Mapper feature will continue to support the inclusion of additional airport noise contours. Site features will be updated as identified. New features include, but are not limited to, enhancements such as a Find Airports button with a drop-down airports list of the airports with GIS noise contour data on the NQExplorer, addition of a back button, creation of a site map, and other navigation features as identified working with stakeholders to make the site easier to navigate.

## **Appendix 1. NoiseQuest Statistics January 2015- June 2015**

# of Page Views: 25,453 Avg. Time on Page: 01:24

### **Most Active Countries**

1. United States
2. United Kingdom
3. India
4. Canada
5. Australia
6. Philippines
7. Kenya
8. Germany
9. Malaysia
10. Singapore

### **Most Active States**

1. California
2. Florida
3. Texas
4. New York
5. Illinois
6. Pennsylvania
7. Massachusetts
8. Arizona
9. Virginia
10. Georgia

### **Most Active Metro Area**

1. New York NY
2. Los Angeles CA
3. San Francisco-Oakland-San Jose CA
4. Boston MA-Manchester NH



5. Washington DC (Hagerstown MD)
6. Chicago IL
7. Phoenix AZ
8. Dallas-Ft. Worth TX
9. Minneapolis-St. Paul MN
10. Seattle-Tacoma WA

**Top Sections                      Avg. Time on Page**

- |                              |      |
|------------------------------|------|
| 1. Noise basics-basics       | 2:45 |
| 2. Types of airports         | 2:37 |
| 3. Community tools-FAQ       | 2:36 |
| 4. Community tools-glossary  | 1:25 |
| 5. Noise basics              | 0:41 |
| 6. Noise effects             | 0:51 |
| 7. Sources :helicopter noise | 3:25 |
| 8. About airports            | 0:27 |
| 9. NQ Explorer               | 3:31 |