

FAA CENTER OF EXCELLENCE FOR ALTERNATIVE JET FUELS & ENVIRONMENT

NOISE OUTREACH

Project 8

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Opinions, findings, conclusions and recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of ASCENT sponsor organizations.



Motivation

Aircraft noise is a predominant aviation environmental concern of the public. Aviation noise issues can be complex and technical. NoiseQuest is designed to support noise mitigation through information.

NoiseQuest:

- was developed to implement global education and outreach
- is a resource for the public to learn more about aviation noise topics
- is being redesigned to increase accessibility for the mobile user base

Objectives



NoiseQuest is designed to enhance knowledge, raise awareness, and address aviation noise related issues through information that is presented in a meaningful context and is accessible to the general public. The information on the site provides an interactive learning experiences to foster better communications between aviation stakeholders.

Site Usage Most Active



Most Active Countries

NoiseQuest 2016 Users	
Countries (Sessions)	%
United States	51.14%
United Kingdom	9.47%
India	6.45%
Canada	4.07%
Australia	2.93%
Philippines	2.60%
Pakistan	1.19%
Malaysia	1.18%
Netherlands	1.04%
Germany	1.00%

Most Active Site Pages

NoiseQuest 2016 Annual Statistics	
Page Title	Page views
Total	57,643
NoiseQuest: Noise Basics	12,402
NoiseQuest: Community Tools	11,438
NoiseQuest: Noise Effects	10,545
NoiseQuest: About Airports	7,337
NoiseQuest Home	6,591
NoiseQuest: Sources of Noise	5,995
NoiseQuest: NQ Explorer	1,382
NoiseQuest: Research	939
NoiseQuest	498
NoiseQuest: Spotlight	281

- NQ users span the range of computer domains
- Users access NQ from education, government, industry, military, airlines, airports, and public domains, as well as from other countries
- 31,429 Global Sessions in 2016

Site Usage by Device



Device Category	Sessions % of Total	New Users % of Total
Total	31,429	27,323
desktop	21,009 (66.85%)	18,278 (66.90%)
mobile	8,295 (26.39%)	7,322 (26.80%)
tablet	2,125 (6.76%)	1,723 (6.31%)

Device Platform	Sessions	New Users
iOS	5,172	4,397
(not set)	927	833
Android Phones	344	307
Windows Mobile Xbox One	62	50

Mobile Device	Sessions	New Users
Apple iPhone	3,525	3,076
Apple iPad	1,647	1,321
(not set)	927	833
Samsung	306	274
Google Nexus 5	38	33
Microsoft Xbox One	62	50

Site redesign in progress to increase mobile user base



Approach and Accomplishments



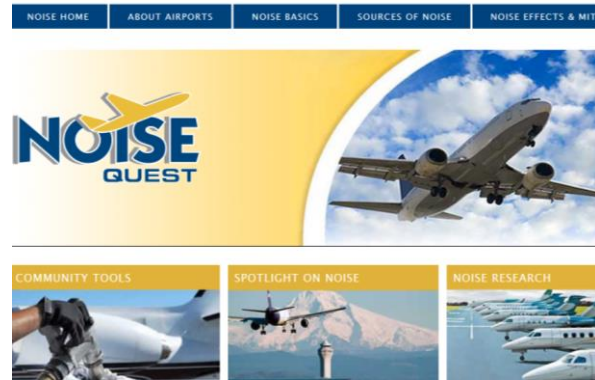
Current Desktop Design

- A review of features on other sites was conducted
- The NASA site utilizes optimized navigation features
- The redesign of NQ used the NASA site as a model
- Sample pages of the mobile friendly site are online at:

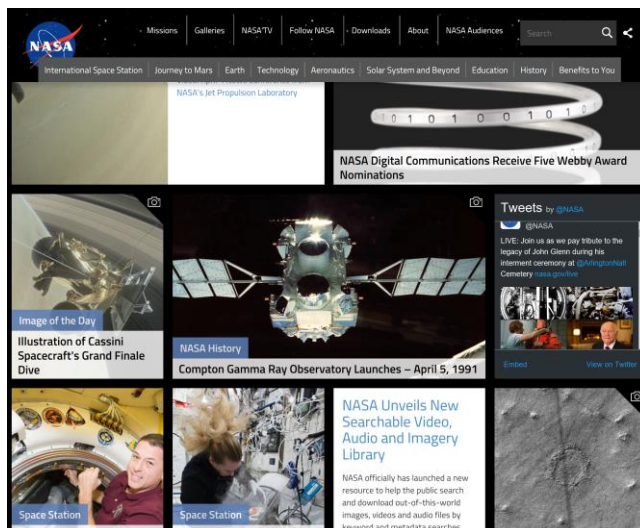
Homepage: www.noisequest.psu.edu/NoiseQuestWebsiteMobile

Secondary page:

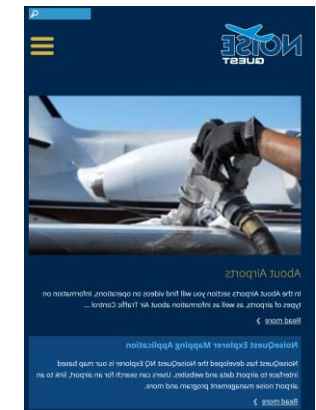
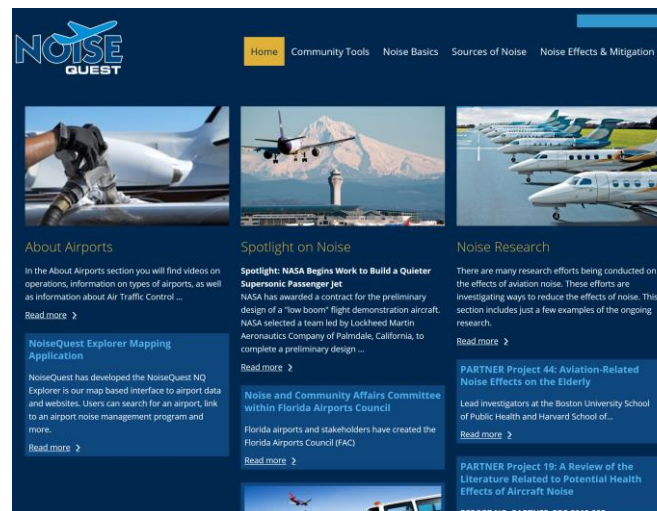
www.noisequest.psu.edu/NoiseQuestWebsiteMobile/aboutairports.html



NASA Homepage

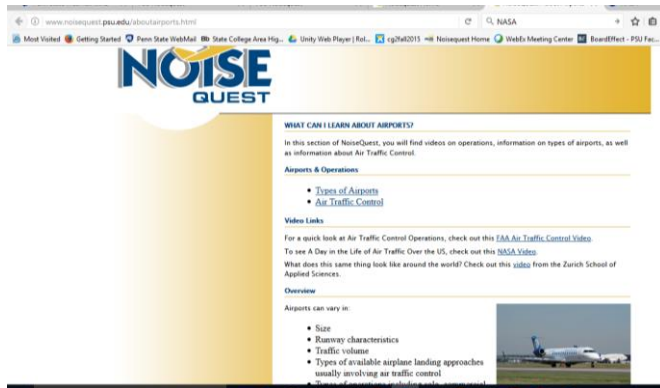


Mobile Friendly Design

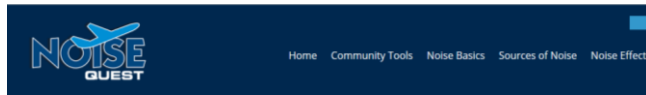


Approach and Accomplishments

Current Desktop Design



Mobile Friendly Design



What Can I Learn About Airports?

In this section of NoiseQuest, you will find videos on operations, information on types of airports, as well as information about Air Traffic Control.

Airports & Operations

- Types of Airports
- Air Traffic Control

Video Links

For a quick look at Air Traffic Control Operations, check out this [FAA Air Traffic Control Video](#).
To see A Day in the Life of Air Traffic Over the US, check out this [NASA Video](#).
What does this same thing look like around the world? Check out this video from the [Zurich School](#) of Applied Sciences.

Overview



Upgrade Navigation and Content based features

1. Ease of navigation
2. Ease of adding additional content
3. Ability to search existing content
4. Menu responds to change in viewing size
5. Video easily resizable

Primary Content Headers

1. NQ Explorer tab added
2. Noise Effects & Mitigation
3. Sources Of Noise
4. Noise Basics
5. About Airports: Change to Community Tools
6. Noise Home

NQ Explorer Mapper Search Function Links

1. Airport site
2. Airport noise management program
3. Local Community Noise organization site
4. Displays contours

NQ Mapper now working with Google Application Program Interface

Approach and Accomplishments



Plans to conduct testing and feedback before rollout

- Ensure site is mobile friendly
- Ensure images and videos can be dynamically scaled

Redesigned site will be reviewed by Advisory Committee members:

- Delta, N.O.I.S.E. organization, Volpe, Port of Portland Noise Analyst

New Content Areas

- NextGen content added under “About Airports”
- Supersonic low boom content under development

Next Content Topics

- Rotorcraft Noise Abatement Procedures and Helicopters
 - Fly Neighborly
 - Fly Quiet



Approach and Accomplishments



The NoiseQuest site was presented at the National Organization to Ensure a Sound-controlled Environment 2016 Policy Summit and Community Involvement Workshop held in conjunction with the National League of Cities, 2016 City Summit, in Pittsburgh, PA on November 16, 2016.

Practical Applications of NoiseQuest:

- Facilitates users ability to readily access aviation noise information
- Provide information on aviation noise related research and events
- Provide centralized web based educational outreach for all communities
- Provides outreach for airports too small to have outreach programs
- Provides additional outreach for airports with an outreach programs
- All U.S. airport sites can be accessed via links from a single site
- NQ Explorer displays noise contours for airports across the U.S.

Summary



Site Redesign underway!

- NQ Mapper now working with Google Application Program Interface
- Plans to conduct testing and feedback before rollout
 - Ensure site is mobile friendly and easy to navigate on all platforms
 - Ensure images can be dynamically scaled (size, orientation)
 - Review and add video content with touch screen compatibility

Ongoing Focus

- Enhance site features
- Expand content areas
- Obtain noise contours

Key Challenges

- Obtaining GIS noise contour data from airport noise managers



Contributors

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