Give the “All Clear” - Hazard Zoning at General Aviation Airports

Tuesday, December 10, 2019
2:00-3:30 PM ET
Learning Objectives

At the end of this webinar, you will be able to:

• List hazard zoning practices
• Apply strategies to enhance airport land use compatibility planning
• Describe how airports are implementing such strategies
• Utilize communication and education tools in the guidebook to promote local outreach programs
Joshua Abramson
Cypress Technology LLC

- 15 years experience as airport manager
- Vice Chairman of Small Community Air Service Working Group
- Chairman ACRP Synthesis Selection Committee
- ACRP volunteer since 2010
Five Ways to Get Involved!

1. Join the ACRP IdeaHub community
2. Volunteer for a project panel
3. Prepare a research proposal
4. Answer an ACRP survey
5. Apply the research results

Visit us online: www.trb.org/ACRP
Today’s Speakers

Maranda Thompson and Stephanie Ward, Mead & Hunt
and
Mihir Shah, Arora Engineers

Presenting

ACRP Report 206:
Guidebook on Effective Land Use Compatibility Planning Strategies for General Aviation Airports
Guidebook on Effective Land Use Compatibility Planning Strategies for General Aviation Airports

Mead & Hunt
Diana E. Fainberg Associates
Arora Engineers
Presenters

Maranda Thompson, Mead & Hunt (Principal Investigator)

Stephanie Ward, Mead & Hunt

Mihir Shah, Arora Engineers
ACRP Report 206 Oversight Panel

Jeffrey L. Bilyeu, Texas Gulf Coast Regional Airport (Chair)
David W. Fitz, Coffman Associates
Shelley Lamar, Aerotropolis Atlanta Alliance
Thomas F. Mahoney, Massachusetts DOT
Gary P. Mascaro, City of Scottsdale – Scottsdale Airport
Kay L. Thede-Hughes, Clapsaddle-Garber Associates
Holly Cyrus, FAA Liaison
Christine Gerencher, TRB Liaison
Marci A. Greenberger, ACRP Project Manager
Focuses on effective airport compatibility planning practices

Incorporates research findings from literature review, state aviation survey, and interviews of select general aviation airports and land use professionals

Identifies successful planning strategies for key stakeholders

Includes toolkits to promote effective compatibility regulations

Published December 2019
Research Objective

Evaluate the **effectiveness** of Airport Compatibility Zoning for General Aviation Airports
Research Approach

Literature Review
- National resources (ACRP Reports, FAA/State Guidance)
- State AZO laws
- Local AZO regulations

Industry Interviews
- Cross-Section of Airports

Industry Review
- Draft Guidebook
Research Findings: State Role

Does involvement by state aviation agencies in local compatibility influence success?

→ Best Practices
  - State-level compatibility standards
  - State oversight

→ Common Challenges
  - Rigid enforcement
Is airport compatibility zoning the best method for regulating land uses around GA airports?

- **Best Practices**
  - Airport overlay zoning
  - Airspace protection (minimum)
  - Noise and safety (recommended)

- **Common Challenges**
  - Inconsistent
Are local agencies adopting and implementing airport compatibility regulations? If not, why not?

- Common Challenges
  - Inconsistent / Outdated
  - Not Needed (no compatibility issues)
  - Not Understood
  - Community Opposition

- Best Practices
  - Education / Training
  - Relationships / Outreach
Is regular outreach important?

Airplane icon

Common Challenges

- Inconsistent
- Not needed or understood
- Community opposition

Arrow icon

Best Practices

- Regular communication
- Education
- Relationships

Diagram:

Who
Airport Manager, Planning Director, & Elected Officials

What
Airport Land Use Compatibility Regulations

Why
Achieve Airport Land Use Compatibility

Communication
Education
Outreach
Premise of Guidebook: Communication

Strategies by key stakeholders

✈️ State aviation officials
✈️ Airport manager/sponsor
✈️ Community planning/decision body

Toolkits

✈️ Self-assessment checklist
✈️ Educational brochure
✈️ Presentation template
Strategies for States: Overview

Provide Oversight

- Varies based on state laws & regulations
- Local ordinance review, guidance, and approval
- Strategic outreach, education, and training
- Formal state-led Airport Zoning or Commission (if applicable)

Monitor Activity

- Priority Rating Model
- FAA Form 7460 Monitoring

Provide Tools

- Publish Guidance
- Online Tools
Strategies for States: Case Study #1

Case Study: Kentucky Airport Zoning Commission

- Kentucky Revised Statutes (Chapter 183)
- Kentucky Administrative Regulations (Chapter 50)

State Implementation

- State permit
- Aeronautical study
- Land use factors beyond airspace & obstructions
Case Study: South Carolina Aeronautics Commission

- Statewide Land Use Challenges
- South Carolina Title 55
- Compatible Land Use Evaluation (CLUE) Tool
The Problem

- Local ordinances based on 1980s-era FAA Model
- Many incomplete, outdated, and poorly enforced
- SCAC had limited leverage
- Encroachment worsened as growth accelerated

The Solution

- SC law covering aviation (Title 55) included enabling of airport zoning; mandatory language not politically viable
- Solution was to provide a notification and comment provision, providing a mechanism for local planners and SCAC to communicate airport land use compatibility matters, regardless of ordinances
- Added provision for state to use legal action to abate imminent hazards
Updated SC Title 55

- SCAC must develop and provide maps of airport safety and land use zones to local jurisdictions located near a publicly-owned airport
- Local jurisdictions must notify SCAC of land use changes in these zones
- SCAC must respond to these changes

State Implementation Goals

- Develop a web-based mapping program that:
  - Meets Title 55, Section 55-13-5 provisions
  - Outlines safety and land use zones
  - Provides a mechanism for SCAC land use review
  - Applicable to a wide audience
Strategies for States: Case Study #2 (continued)

CLUE Tool Benefits

- Initial auto-evaluation of actual proposed uses and permit applications
- Complements local zoning ordinances and FAA 7460s
- Assists planning officials in issuing permits
- Provides efficiency and clarity
- Cuts out guess-work
Strategies for Airport Sponsors: Overview

**Airport Sponsor**
- Understand organization’s structure
- Recognize the need to plan
- Encourage collaboration
- Provide transparency

**Airport Manager**
- Spearhead compatibility efforts
- Be the trusted advisor
- Develop relationships
- Garner support for the airport
Frederick Municipal Airport, Maryland

- Successful collaboration
- Airport Master Plan Update
- Airport land use compatibility issues addressed
- Airport overlay zoning initiated concurrently
Strategies for Airport Sponsor: Case Study #4

Truckee Tahoe Airport, California

- Community outreach
- Formal committee to represent impacted communities
- Regular communication and education (pilots and residents)
Strategies for Land Use Professionals: Overview

**Planning Department Staff**
- Understand the issue
- Assess current regulations
- Involve airport management
- Promote airport compatibility

**Elected Officials**
- Find mutual goals
- Adopt compatibility regulations
- Implement compatibility regulations

---

**Airport Master Plan**
- **Geographic Scope:** On Airport Property
- **Purpose:** Guide Development of Airport Facilities

**Comprehensive Plan**
- **Geographic Scope:** Within City Limits and Sphere of Influence
- **Purpose:** Guide Land Use Development

**Airport Compatibility Zoning**
- **Geographic Scope:** Within Airport Influence Area
- **Purpose:** Promote Airport/Land Use Compatibility
Northeast Philadelphia Airport, Pennsylvania

- Finding mutual goals
- Economic vitality and preservation of commercial and industrial uses

Strategies for Land Use Professional: Case Study #5
What can I do?

**State Aviation Official**
- Promote enactment of effective compatibility laws
- Provide guidance and tools
- Support local compatibility efforts

**Airport Professional**
- Spearhead local airport compatibility initiatives
- Build relationships with key stakeholders

**Land Use Professional**
- Be an advocate for airport compatibility
- Involve the airport in local planning efforts

**All Key Stakeholders**
- Understand the issue
- Communicate, educate, and conduct stakeholder outreach regularly
- Use ACRP Report 206 as a resource
FOR ADDITIONAL INFORMATION

Maranda Thompson
Maranda.Thompson@meadhunt.com

Stephanie Ward
Stephanie.Ward@meadhunt.com

Mihir Shah
mshah@aroraengineers.com
Today’s Speakers

• Joshua Abramson, *Easterwood Airport*, jdabramson@gmail.com

• Maranda Thompson, *Mead & Hunt*, maranda.thompson@meadhunt.com

• Mihir Shah, *Arora Engineers*, mshah@aroraengineers.com

• Stephanie Ward, *Mead & Hunt*, stephanie.ward@meadhunt.com
ACRP is an Industry–Driven Program

- Managed by TRB and sponsored by the Federal Aviation Administration (FAA).
- Seeks out the latest issues facing the airport industry.
- Conducts research to find solutions.
- Publishes and disseminates research results through free publications and webinars.
Other Ways to Participate

Become an Ambassador. Ambassadors represent ACRP at events and conferences across the country!

Sponsor or become an ACRP Champion. The champion program is designed to help early- to mid-career, young professionals grow and excel within the airport industry.

Visit ACRP’s Impacts on Practice webpage to submit leads on how ACRP’s research is being applied at any airport.

Visit us online: www.trb.org/ACRP
Additional ACRP Publications Available on Today’s Topic

Report 27: Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources; Volume 2: Land Use Survey and Case Study Summaries

Report 38: Understanding Airspace, Objects, and Their Effects on Airports

Report 44: Guidebook for the Preservation of Public-Use Airports

Report 113: Guidebook on General Aviation Facility Planning

Report 168: Runway Protection Zones (RPZs) Risk Assessment Tool Users' Guide

Report 176: Generating Revenue from Commercial Development On or Adjacent to Airports


Legal Research Digest 5: Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions

Legal Research Digest 14: Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace

Legal Research Digest 15: Compilation of State Airport Authorizing Legislation
Upcoming ACRP Webinars

January 27, 2020
Turning Your Aviation Research Question into a Problem Statement

Stay Tuned for More Information on ACRP’s 2020 Webinar Series!
TRB turns 100 on November 11, 2020

Help TRB:
- Promote the value of transportation research;
- Recognize, honor, and celebrate the TRB community; and
- Highlight 100 years of accomplishments.

Learn more at
www.TRB.org/Centennial

MOVING IDEAS: ADVANCING SOCIETY—100 YEARS OF TRANSPORTATION RESEARCH

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

TRANSPORTATION RESEARCH BOARD