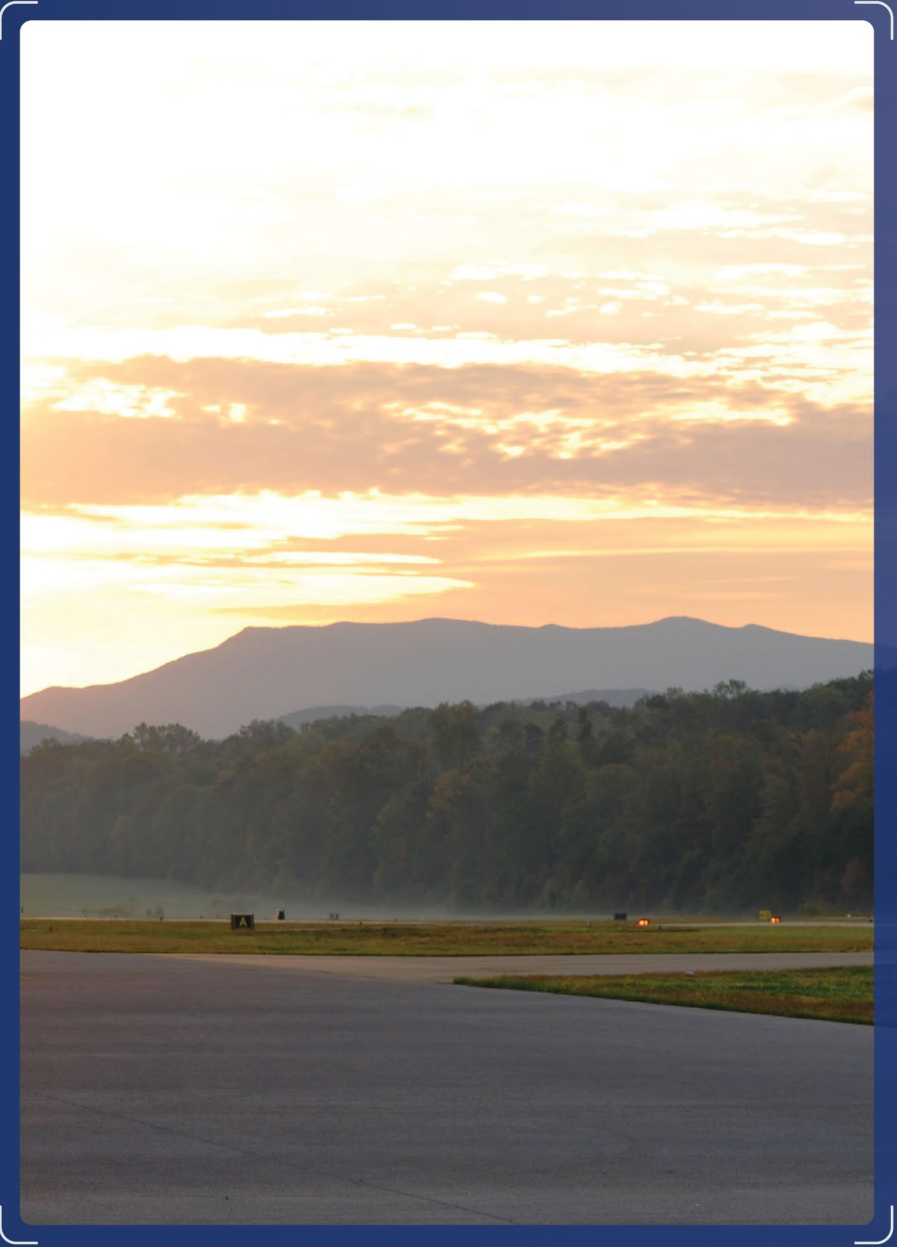




Airport Compatible Land Use Guidebook

Executive Summary



THE TENNESSEE CODE ANNOTATED T.C.A. TITLE 42, CHAPTER 6 **ESTABLISHES THE STATUTORY FRAMEWORK GOVERNING AIRPORT ZONING IN TENNESSEE.** THIS CHAPTER ADDRESSES AIRPORT HAZARDS AREAS AND IS DESIGNED TO PREVENT INCOMPATIBLE LAND USES NEAR AIRPORTS. IT OUTLINES BOTH REQUIRED **THAT LOCAL GOVERNMENTS MUST ADOPT AND ENFORCE** THROUGH AIRPORT ZONING REGULATIONS.

REQUIRED ELEMENTS INCLUDE

- ➔ **ADOPT AIRPORT ZONING REGULATIONS TO AIRPORT HAZARD AREA.**
- ➔ **DIVIDE THE AREA INTO ZONES.**
- ➔ **DEFINE PERMITTED LAND USE(S) IN EACH ZONE.**
- ➔ **ENFORCE HEIGHT RESTRICTIONS TO PROTECT NAVIGABLE AIRSPACE.**

HOW TO ADOPT ZONING REGULATIONS

- ➔ ZONING ORDINANCES
- ➔ LOCAL LAND USE PLAN
- ➔ COMPREHENSIVE PLAN UPDATES

01

Airport Land Use Compatibility Basics

02

Adopting Compliant Airport Zoning Regulations

03

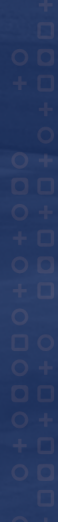
Current Compliance with State and Federal Law

04

Encouraging Community Support

TABLE OF CONTENTS

To inform local government officials of the critical role they play in ensuring that airports and communities are protected with statutorily compliant airport zoning regulations. Such regulations should remain compliant, up to date, and responsive to aviation needs and infrastructure growth.





AIRPORT LAND USE COMPATIBILITY BASICS

What are Zoning Regulations?

- Land use and height restriction regulations are required under Tennessee law (T.C.A. Title 42, Chapter 6) to protect airspace and airport operation. These help prevent incompatible uses near airports.
- Local government are required to adopt and enforce airport protection zoning, including height limits, land-use controls, and safety zone regulations, for airport hazard areas in their jurisdiction.
- Airport compatible development includes land uses that do not create hazards or interfere with airport operations.



Regulatory Basics



Provides regulatory oversight and planning guidance for civil airports.



Supports compatibility by providing regulatory direction, oversight, and funding support for airport development.



Implements and enforces state-mandated airport zoning regulations while guiding community and airport growth in ways that support safety, protect airport operations, and reflect local planning goals.



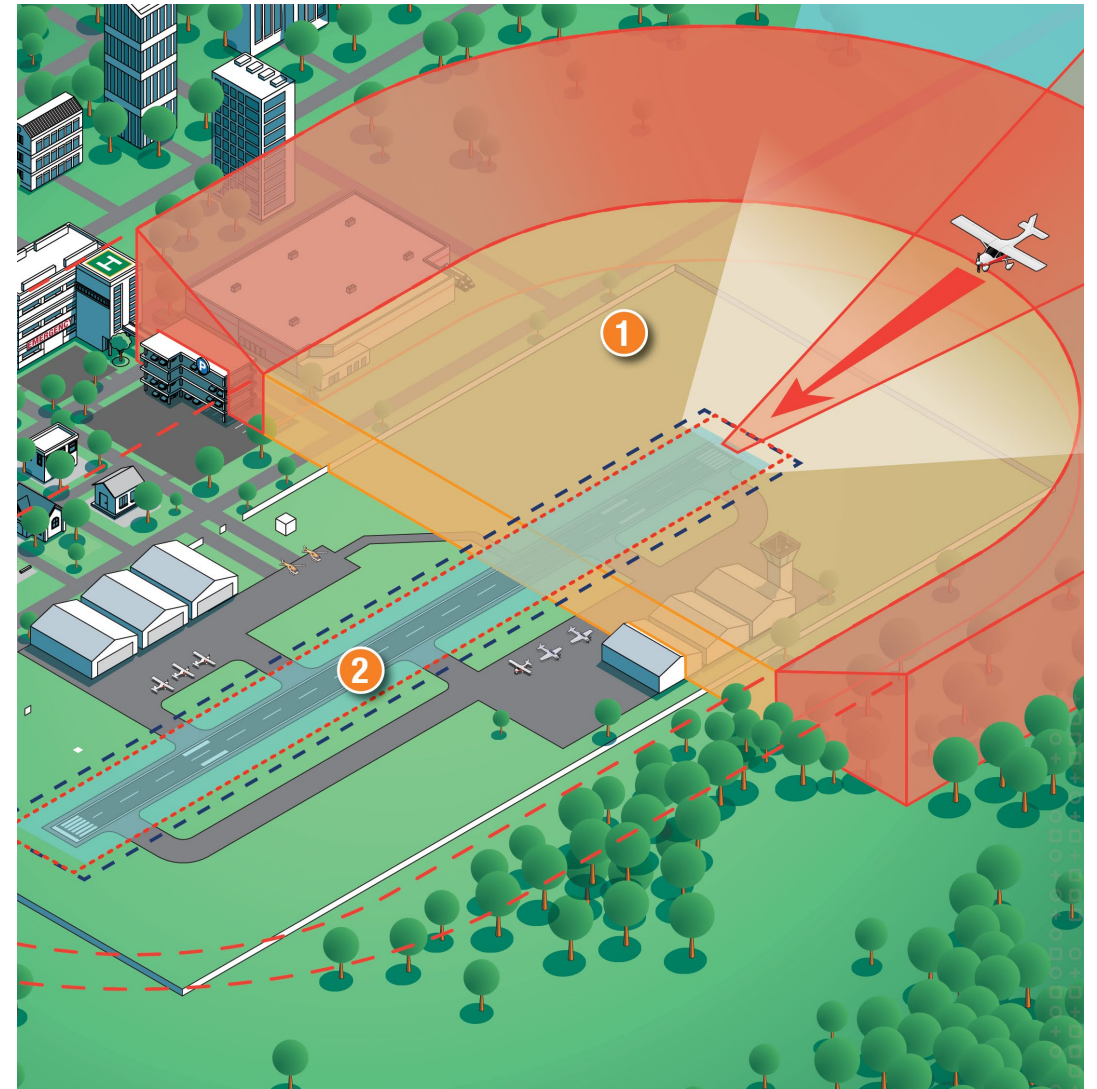
Airport Land Use Compatibility Basics

1. Protected Airspace

Federally required to ensure that buildings, towers, trees, and other features do not interfere with aircraft flight paths.

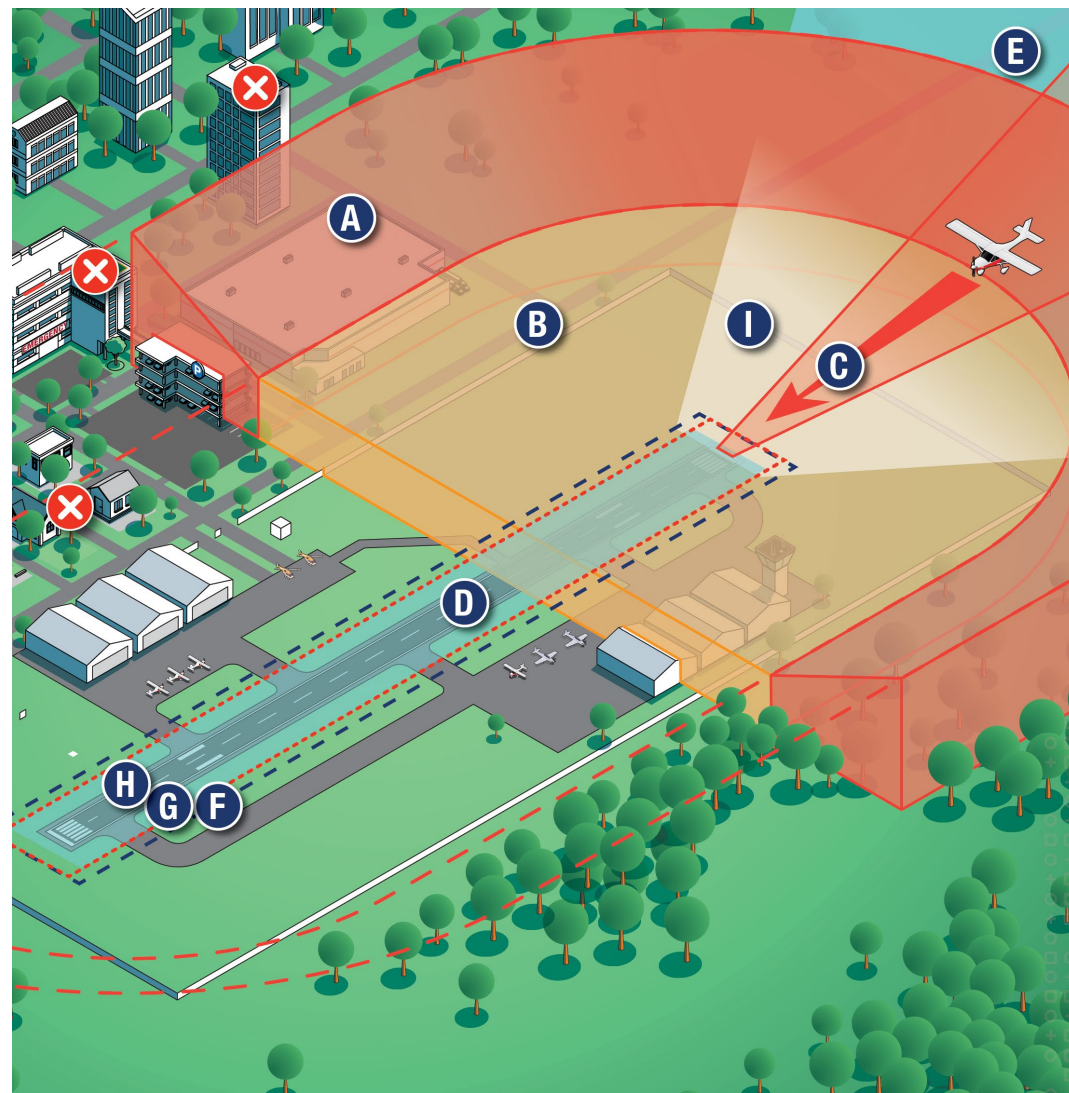
2. Runway Protected Surface

Federally required and defines areas help limit what can be built, placed, or maintained near a runway and reduce potential conflicts between airport operations and nearby development.



Airport Land Use Compatibility Basics

- A** Conical Surface
- B** Horizontal Surface
- C** Approach Surface
- D** Primary Surface
- E** Transitional Surface
- F** Runway Object Free Zone (ROFA)
- G** Runway Safety Area (RSA)
- H** Runway Obstacle Free Zone (ROFZ)
- I** Runway Protection Zone (RPZ)
- X** Incompatible Land Use



Classifications of Land Use



Commercial

Uses which generally involve the sale of products or services.



Residential

Any dwelling used to house people.



Mixed Use

Uses which include a mix of residential and commercial.



Industrial

Uses which include the processing, assembly, manufacturing, and storage of material or finished products.



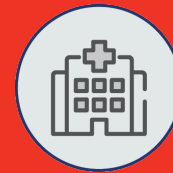
Agricultural

Uses related to crops or livestock farming.



Recreational

Public and commercial land uses that generally take place outdoors.



Institutional

Uses related to education, health care, and religion.



Infrastructure

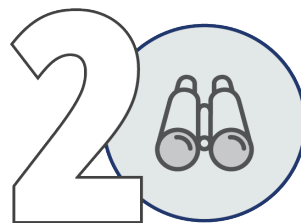
Use of land for public and private utilities.

Characteristics of Incompatible Land Use



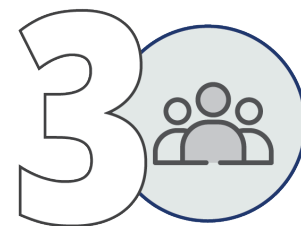
Tall Structures

Obstructions can impact both visual and instrument flight procedures, often requiring adjustments to approach paths and complicate takeoffs and landings.



Visual Obstructions

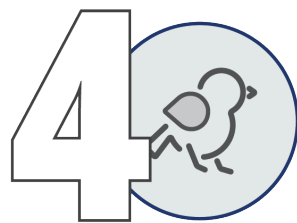
Can interfere with pilot's or air traffic controller's ability to see aircraft, runways, or other critical features.



Population Density

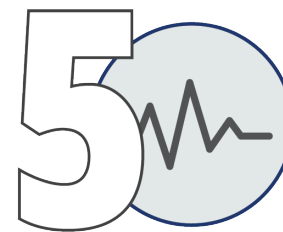
Considered incompatible near airports because it places large numbers of people close to aircraft operations.

Characteristics of Incompatible Land Use



Wildlife Attractants

Considered an incompatible development characteristic because they increase the risk of wildlife strikes, which can damage aircraft and compromise safety.



Noise

Considered incompatible because aircraft operations can create disruptive effects for nearby communities.



ADOPTING COMPLIANT AIRPORT ZONING REGULATIONS

T.C.A Title 42, Chapter 6

Summary

- Establishes the legal framework for protecting airports from incompatible development and airport hazards.

Airport Hazard Areas

Meaning

- Conditions on land or water that can interfere with safe aircraft operations.

Effect

- May block visibility
- Interfere with navigation or communication system



Required Elements

(Chapter 6, Section 42-6-103 (a), TCA)

Adopt airport zoning regulations for any established airport hazard area.

- *"In order to prevent the creation or establishment of airport hazards, every municipality or county having an airport hazard area within its territorial limits shall adopt, administer and enforce, under the police power and in the manner and upon the conditions prescribed in this chapter, airport zoning regulations for such airport hazard area airport zoning regulations for such airport hazard area, which regulations may divide such area into zones"*

Define permitted land use in each zone

- *"within such zones, specify the land uses permitted"*

Enforce height restrictions to protect navigable airspace

- *"prohibited and regulated and restrict the height to which structures and trees may be erected or allowed to grow; provided, that these regulations are solely for the purposes of preventing airport hazards"*



Required Elements

Adopt airport zoning regulations for any established airport hazard area.

Suggestions

Establish hazard area zones; here are 5 recommendations



**Runway Protection
Zone (RPZ)**



Runway Approach



Transitional Surface



Horizontal Surface



Conical Surface



Required Elements

Define permitted land use in each zone.

Suggestions

- Categories land-use types by their level of compatibility with watch suggested hazard area zones.

Land Use	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
	RPZ	Approach	Transitional	Horizontal	Conical
Residential					
Single- Family	✗	✳	✳	✓	✓
Multi- Family	✗	✗	✳	✓	✓
Group Living	✗	✗	✳	✓	✓
Mobile Homes	✗	✗	✳	✓	✓
Hotels	✗	✗	✳	✓	✓
Institutional					
Schools and Educational Facilities	✗	✗	✳	✓	✓
Day Care Facilities	✗	✗	✗	✳	✓
Hospitals	✗	✗	✗	✳	✓
Other Medical Facilities	✗	✗	✳	✓	✓
Religious or Cultural Assembly (Large)	✗	✗	✳	✓	✓
Schools and Educational Facilities	✗	✗	✳	✓	✓
Commercial					
Professional Offices	✗	✳	✳	✓	✓
Shopping Malls	✗	✗	✳	✓	✓
Other Retail	✗	✳	✳	✓	✓
Restaurants	✗	✳	✳	✓	✓
Fairgrounds, amusement parks, theaters, casinos	✗	✗	✗	✳	✓
Arenas, Stadiums, Racetracks	✗	✗	✗	✳	✓
Industrial					
Light Industrial	✗	✳	✓	✓	✓
Heavy Industrial	✗	✗	✳	✓	✓
Waste (hazardous waste, landfills, solid waste transfer stations, commercial composting, underwater wastewater discharge, wastewater treatment)	✗	✗	✗	✳	✳
Agriculture					
General Agriculture	✳	✳	✳	✓	✓
Commercial Livestock Operations	✗	✗	✗	✳	✓
Aquaculture	✗	✗	✗	✳	✳
Resource Extraction					
Mining	✗	✳	✳	✓	✓

✗ Incompatible ✳ Review Required ✓ Compatible ✳ Noise- sensitive Uses

Required Elements

Enforce height restrictions to protect navigable airspace.

Suggestions

- Encourage developers to use the FAA Notice Criteria tool before proposing new construction.
- T.C.A Chapter 6 authorizes local government to limit structure and vegetation height to prevent airport hazards.
- Recommend early coordination with local zoning officials and airport staff to ensure proposed heights meet airport zoning requirements.



Required Elements

Determining If a Structure or Tree Exceeds Height Restriction

Airport zoning regulations should restrict the height of objects and trees.

To determine if height is exceeded, developers are encouraged to use the Notice Criteria Tool (NCT).

- Accessed through the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) website
- Users (developers) will input information to determine if their development requires notice to the FAA (exceeds height)
- If the development does require notice, developers must submit FAA Form 7460-1



Federal Aviation Administration

Obstruction Evaluation
Version 2023-SEP.11

- Home
- FAA OE/AAA Offices
- View Determined Cases
- View Interim Cases
- View Proposed Cases
- View Supplemental Notices (Form 7460-2)
- View Circularized Cases
- Search Archives
- Download Archives
- Download Correspondence
- Circle Search for Cases
- Circle Search for Airports
- General FAQs
- SG FAQs
- Wind Turbine FAQs
- Discretionary Review FAQs
- Notice Criteria Tool
- Distance Calculation Tool

OE/AAA Account

- Login
- New User Registration
- Instructions

Information Resources

- FAA Acronyms
- Forms
- Regulatory Policy

Notice Criteria Tool

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway, etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

*** Structure Type:** SELECT ONE

Please select structure type and complete location point information.

Latitude: Deg M S N

Longitude: Deg M S W

Horizontal Datum: NAD83

Site Elevation (SE): (nearest foot)

Structure Height: (nearest foot)

Is structure on airport: ☒ No ☐ Yes

Submit

Where to Adopt Airport Zoning Regulations

Within local comprehensive plans and municipal zoning codes to ensure they carry the same authority as other land use controls.

Occurs through regular planning channels, where city and county governments update their plans and ordinances to reflect state statutes and FAA guidance.

Resources to Use

- Guidebook and Model Ordinances
- The FAA's Notice Criteria Tool

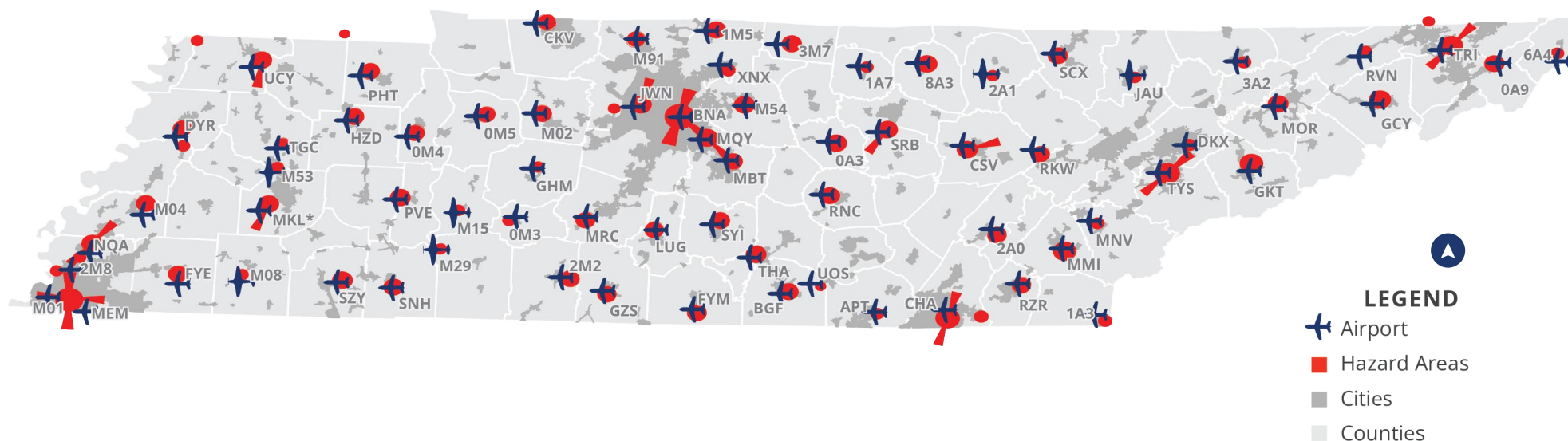




**CURRENT COMPLIANCE WITH STATE AND
FEDERAL LAW**

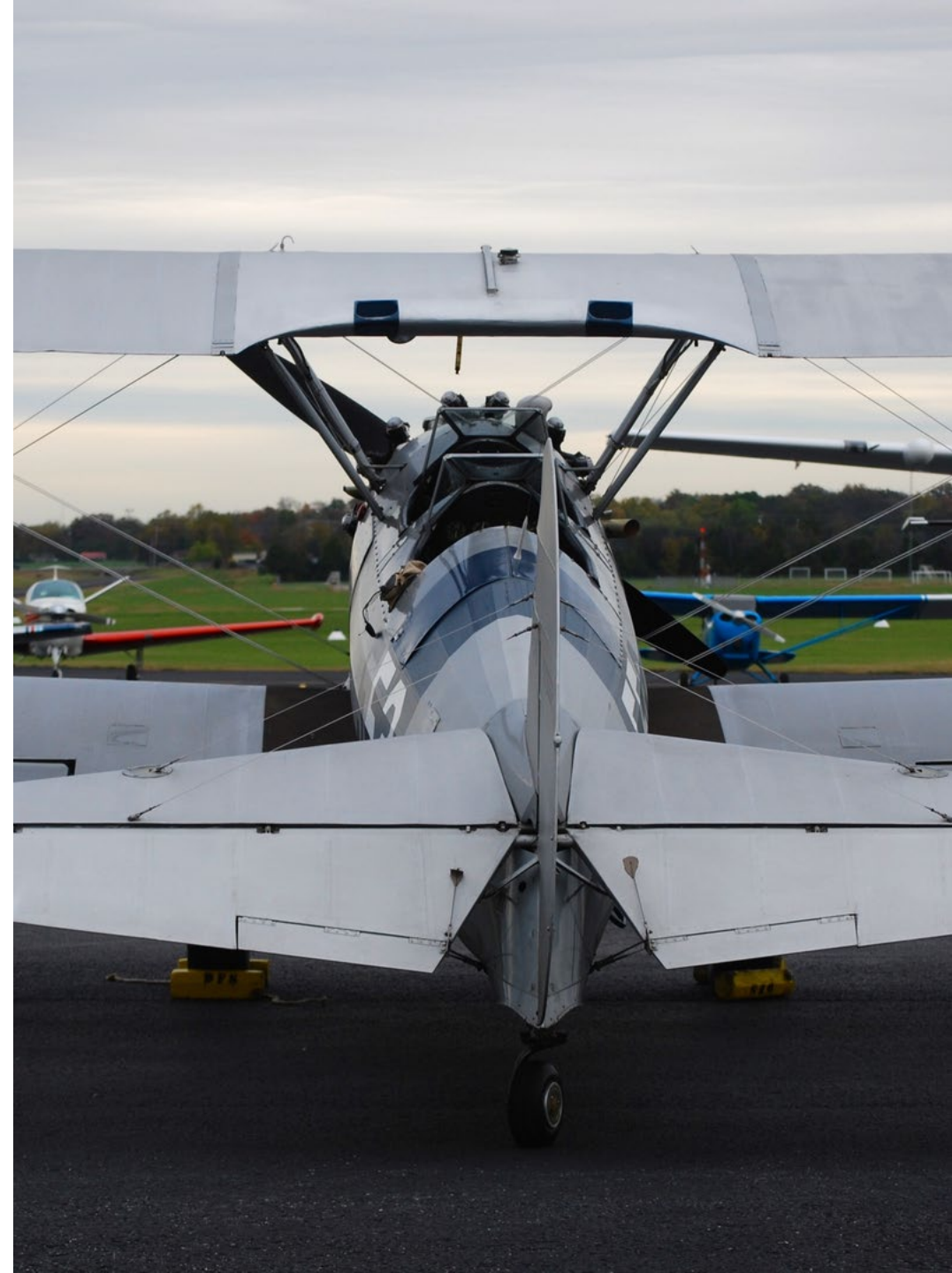
Municipalities and Counties

A recent TDOT Aeronautics Division analysis found that 166 municipalities and counties are required to adopt airport zoning regulations!



Sufficiency Review Includes

- Airport hazard areas can extend across jurisdictional boundaries, including into a jurisdiction without an airport on its own.
- Airport zoning regulations are required for every municipality or county with an airport hazard area, including those without airports.
- To determine which municipalities and counties are required to adopt airport zoning regulations, TDOT Aeronautics Division analyzed which were within airport hazard areas.



Sufficiency Review Findings

166

municipalities and counties that are required to maintain airport zoning regulations

43

municipalities and counties that have adopted airport zoning regulations accessible online

Sufficiency Review Findings

Of these 43...

40

specify permitted heights

37

identify an airport hazard area in their regulation

Sufficiency Review Findings

Of these 37...

36

further divide the airport hazard area into zones

Sufficiency Review Findings

Of these 36...

34

specify the types of land uses that are permitted or prohibited within each zone

Only **30** facilities include airport zoning regulations do all four:

- ➔ Identify an airport hazard area
- ➔ Divide the airport hazard area into zones
- ➔ Specify permitted heights
- ➔ Specify the land uses permitted or prohibited within each zone



ENCOURAGING COMMUNITY SUPPORT

Importance of Encouraging Community Support

- Strengthens relationships between airport facilities and the surrounding community.
- Ensures airport coordination is aligned with local needs and priorities.
- Creates opportunities for the public to understand proposed changes and engage in constructive dialogue with stakeholders.



Common Outreach and Education Methods



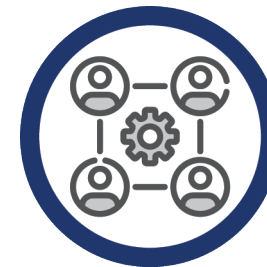
Large-scale Public Meetings can be used when new airports or land use changes occur; they raise awareness, share the project vision, and create space for questions.



Small- Targeted Group Discussions help with individuals or groups directly impacted; they build trust, address specific concerns, and provide tailored education.



Informational Sessions are organized to explain aviation facilities, activities, and initiatives; they encourage dialogue and community feedback.



Interactive Engagement Materials can be used during meetings to foster meaningful participation and strengthen connections between airports and the public.

Questions?

Please contact the
TDOT Aeronautics
Division

Cavan McGee

Senior Technical
Specialist

629-900-5808

Cavan.McGee@tn.gov

