



Youngstown ARS

**Military Installation
Sustainability (MIS) Project**

Community Brief



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- Julie Green, Director
 - Trumbull County Planning Commission



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■ Agenda

- JLUS Implementation Overview
- Military Compatibility Area Overlay District / Compatibility Areas
- Comprehensive Plan Military Compatibility Element
- Zoning Overlay District
- Memorandums of Agreement
- Development Coordination Checklist
- Questions

JLUS Implementation Overview

- Youngstown ARS Joint Land Use Study (JLUS) completed 2019
- Recommendations to address military compatibility:
 - Preserve airspace capability
 - Enhance communication and coordination
 - Comprehensive Plan
Military Compatibility Elements
 - Zoning Overlay Districts to minimize impacts



Military Compatibility Area Overlay District

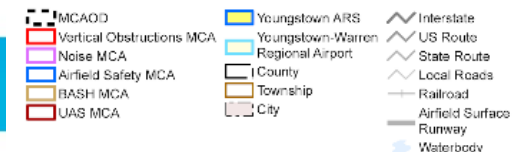
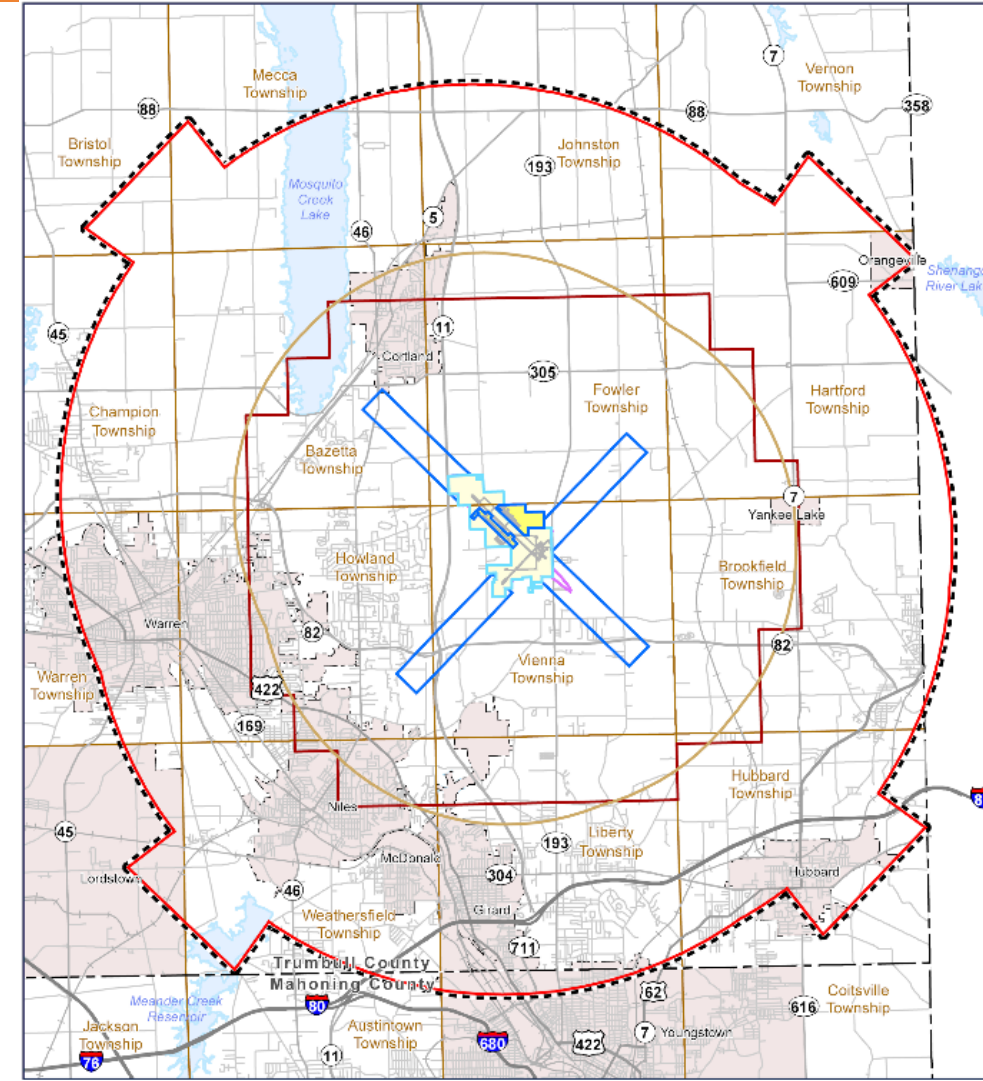


Military Compatibility Area Overlay District (MCAOD)



Youngstown ARS
Military Installation
Sustainability (MIS) Project

- Planning areas where specific compatibility actions can be targeted
- Objectives
 - Promote compatible land uses
 - Maintain Operational capabilities
 - Protect public health, safety, and welfare

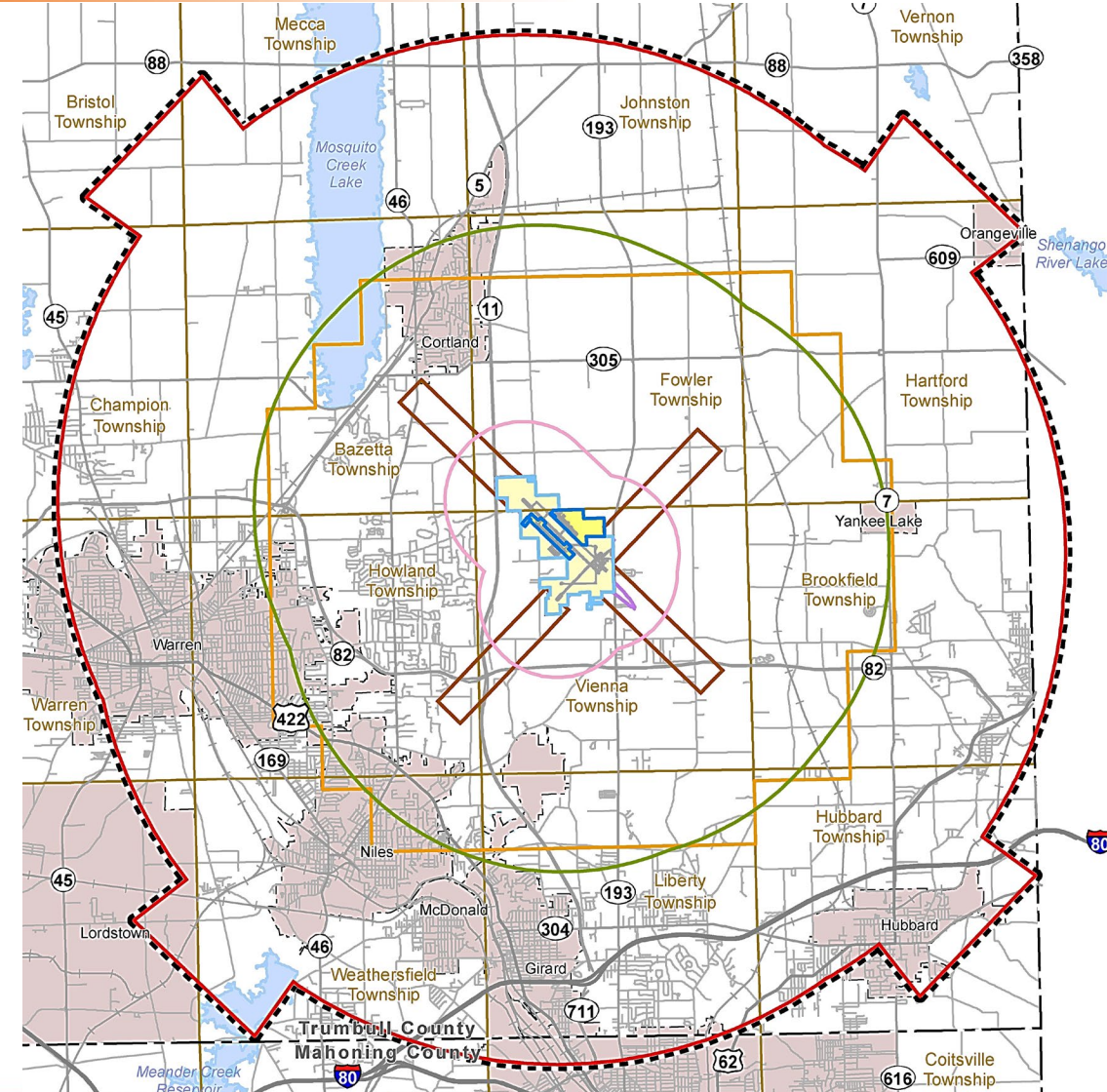


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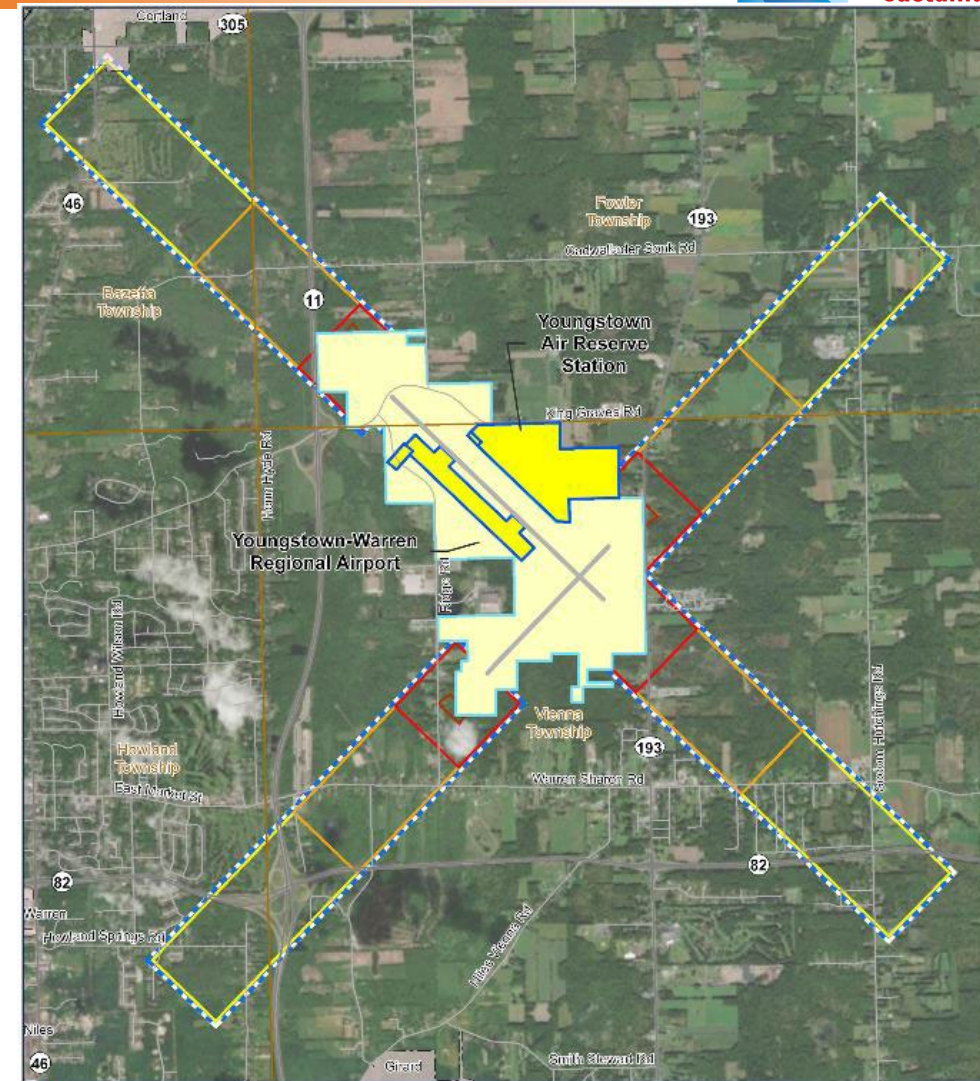
Source: Youngstown ARS, 2017.
Matrix Design Group, 2018.

Military Compatibility Areas

- Military Compatibility Areas:
 - Safety MCA
 - Bird/Wildlife Aircraft Strike Hazard (BASH) MCA
 - Vertical Obstruction MCA

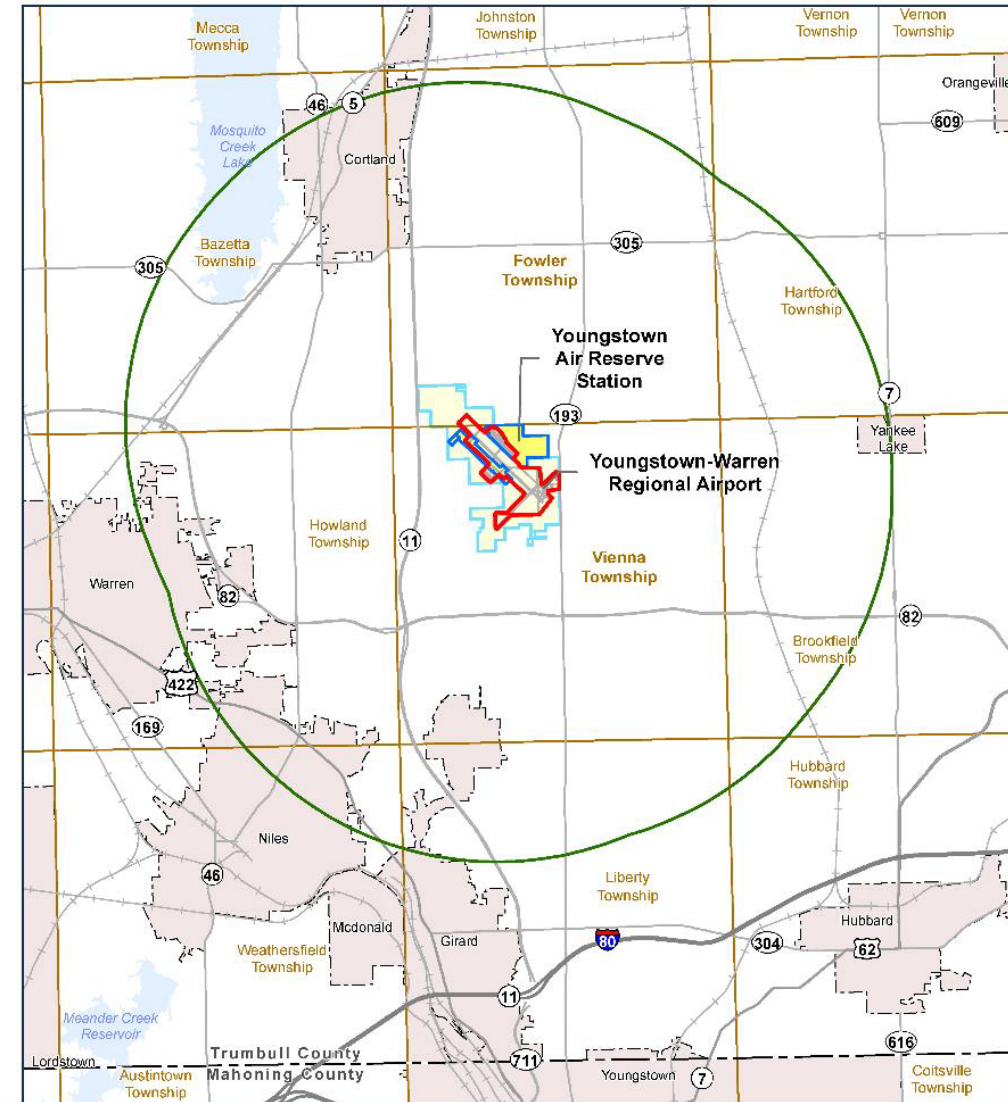


- Areas where higher risk to public safety and concentrations of people
- Regulating land use near military airfields important to minimize damage from potential aircraft mishaps
- DOD has delineated Safety Zones: Clear Zones (CZs) and Accident Potential Zones (APZs) extending from runway ends



Bird/Wildlife Aircraft Strike Hazard (BASH) MCA

- Bird and wildlife can present a hazard to military training and flight operations
- Certain types of land uses attract birds and wildlife such as standing water, open landfills and golf courses
- FAA provides guidance for land uses within 5 statute miles of airfields
- Since 1985, the Air Force has spent more than \$820 million repairing aircraft damaged by collisions with birds

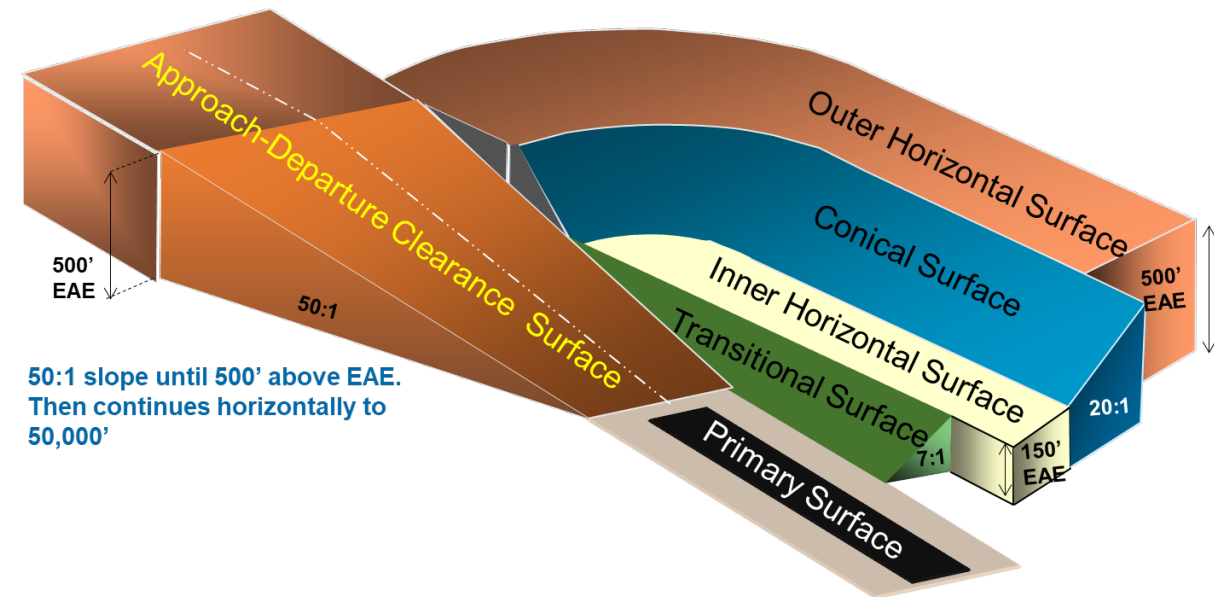


Legend

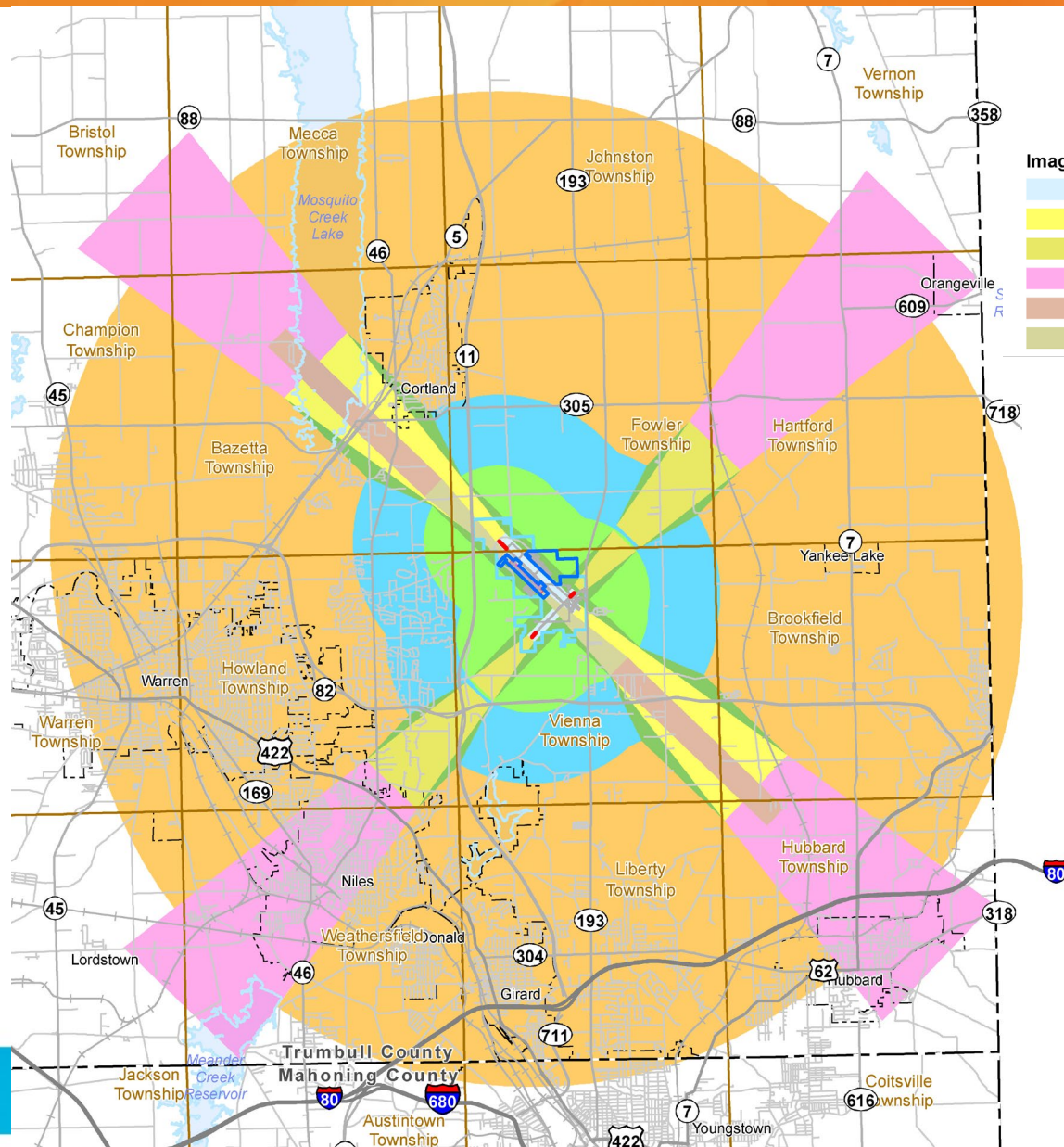
- 5-mile BASH Relevancy Area
- Airfield Operations Area
- Youngstown ARS
- Youngstown-Warren Regional Airport
- County
- Township
- City
- Interstate
- US Route
- State Route
- Railroad
- Waterbody
- Airfield Surface/Runway



- Vertical structures such as buildings, towers, construction cranes and trees that encroach into the navigable airspace used by the military are potential vertical obstructions
- Vertical obstructions can be a flight safety hazard to military aircrews and public on the ground
- Cumulative impact of vertical obstructions can degrade quality of airspace and potentially impact military readiness



Vertical Obstructions MCA



Imaginary Surfaces

- Primary Surface
- Approach/Departure Zone (50:1)
- Approach/Departure Zone (40:1)
- Approach/Departure (Horizontal)
- Approach/Departure (AS-Outer 35:1)
- Approach/Departure (AS-Inner 35:1)

- Inner Horizontal Surface (150 ft)
- Conical Surface (20:1)
- Outer Horizontal Surface (500 ft)
- Transitional Surface (7:1)
- Exclusion Area (AS)
- Runway End Clear Zone (AS)

- Youngstown ARS
- Youngstown-Warren Regional Airport
- County
- Township
- City
- Interstate
- US Route
- State Route
- Local Roads
- Railroad
- Airfield Surface
- Runway
- Waterbody

Comprehensive Plan Military Compatibility Element

- Policies to plan for compatibility for Youngstown ARS
- JLUS Recommendation
 - Comprehensive Plans
 - Military Compatibility Element including compatibility goals and policies
 - Coordination actions
 - Recognition of Military Compatibility Areas:
 - Safety
 - Bird / Wildlife Aircraft Strike Hazard (BASH)
 - Vertical Obstruction

- Compatibility Issue
 - Ensure plans acknowledge needs and military compatibility with YARS
- Adopt Military Compatibility Element
 - Tailored for each jurisdiction to reflect the MCAOD – Overlay District combining MCAs
 - Provide goals, policies, strategies and implementation plan for compatibility planning

- **Military Compatibility Element Organization**
 - Section 1 - Introduction
 - Section 2 – Youngstown ARS Joint Land Use Study
 - Section 3 – Installation Setting
 - Section 4 – Compatibility Planning Issues
 - Section 5 – Implementation Measures
 - Section 6 – Key Terms

- **Military Compatibility Areas**

- Create a Military Compatibility Area Overlay District (MCAOD) to acknowledge Military Compatibility Areas
- Incorporate the MCAOD and MCA boundaries on future land use maps

■ Communication and Coordination

- Integration of radio frequencies used by surrounding communities and Youngstown ARS to improve regional coordination of emergency services
- Coordinate local Fire, EMS and law enforcement services to plan for emergency incidents, including regular meetings for emergency management planning and cross-training opportunities
- Adopt regulations to require and ensure development proposals are reviewed for mission impact including lighting, safety, noise, and vertical obstructions

■ Communication and Coordination

- Develop, adopt and implement a development notification checklist
- Adopt appropriate regulations requiring DoD Siting Clearinghouse review of renewable energy project proposals for military mission compatibility.
- Conduct mutual briefings for information sharing
- Participate in the Air Force Community Partnership Program to pursue and implement mutually beneficial initiatives including public-public and public-private partnerships

- Airfield Safety (where applicable)

- Incorporate compatible land uses, residential densities and nonresidential intensities for land within Safety Zones (CZ, APZs I and II)

- Vertical Obstructions

- Incorporate the Vertical Obstruction MCA in planning documents to regulate the height of structures within Imaginary Surfaces
- Require a determination Finding of No Significant Impact from the FAA subject to the requirements of Part 77 to be submitted with a development application

■ Lighting

- Protect the long-term viability of night training missions from lighting impacts from adjacent development through appropriate regulations

■ Energy Development

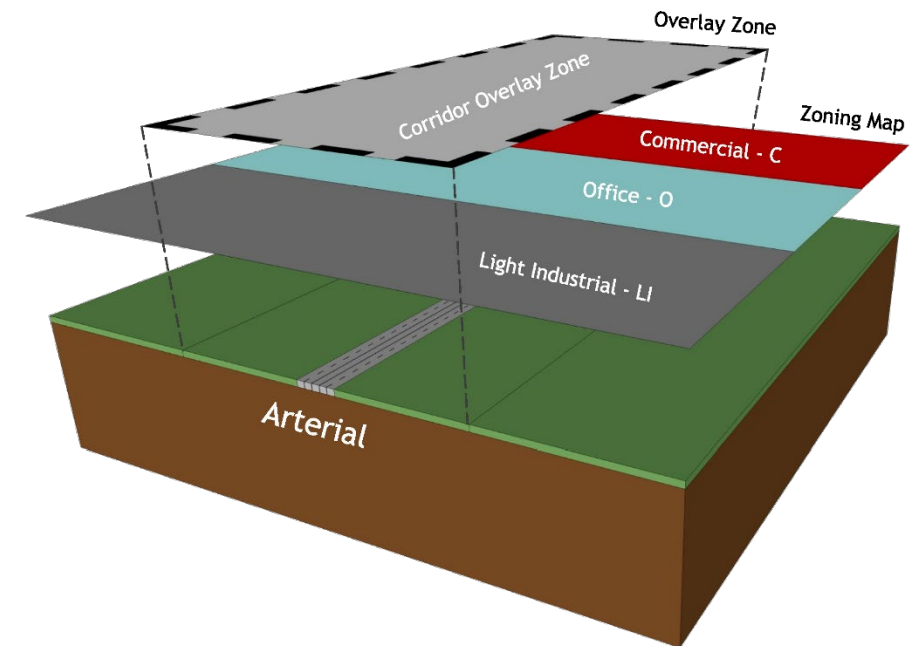
- Adopt appropriate regulations to prevent solar array impacts to pilots' vision during approaches and low-level flight maneuvers
- Require applicants of renewable energy projects coordinate with the DoD Siting Clearinghouse and demonstrate that coordination occurred at the time application submittal
- Require developers of utility-scale to demonstrate the siting of proposed facilities will not produce adverse impacts on military operations using glare analysis tools

- Capital Improvement Projects (CIP)
 - Incorporate military compatibility planning concepts into Capital Improvement Plans / Infrastructure Master Plans for infrastructure extensions and improvements
 - Notify and coordinate infrastructure expansion plans with the YARS Public Works Department and the Western Reserve Port Authority

Military Compatibility Zoning Overlay District

What is an Overlay District?

- Common and effective planning tool
- Flexibility to achieve a vision for a specific geographic area within the existing zoning code
- Enhanced code/standards are placed over (overlay) the existing codes
- Protect and promote desired conditions of the area



Source: ClearZoning, Inc.

What does the Overlay District do?

- Promotes orderly transition between community and military land uses so that land uses are compatible
- Protects public health, safety, and welfare
- Promote awareness of the size and scope of military operational areas to protect these areas separate from the actual military installation (e.g., critical air space)
- Establish compatibility requirements within designated areas

Keep it simple!

What is the Zoning Overlay Amendment?

- General development standards applicable within the MCAOD
- Development standards for each MCA within the MCAOD
- Set of new definitions for compatibility
- Unique to each jurisdiction within the Study Area MCAOD

- **Applicability**
 - Clear Zones (CZs)
 - Accident Potential Zones I and II
- **Development Standards**
 - Uses, densities and intensities follow Table of Land Uses
 - Uses and structures within CZs removed if substantially damaged or destroyed
 - Uses in APZ I and II can be replaced by not expanded

- **Applicability**

- 5-mile (statutory) radius from the airfield for use standards

- **Development Standards**

- Regulations to reduce impacts associated with increased bird and wildlife attractant land uses, activities and / or habitation:
 - Landfills
 - Transfer Stations
 - Water management: Stormwater Detention facilities, settling ponds
 - Golf course water traps

■ Applicability

- Establish maximum heights for structures and buildings to protect airspace associated with operations at Youngstown ARS
- Provide tools for the development community and public to understand maximum heights

■ Development Standards

- Require FAA compliance review with development application for structures >199 feet tall
- Planning staff conduct compliance review for all structures

■ Applicability

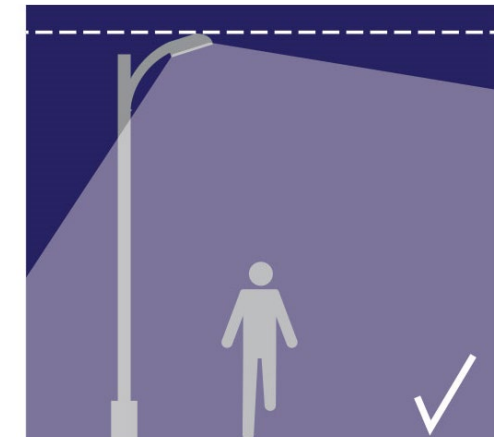
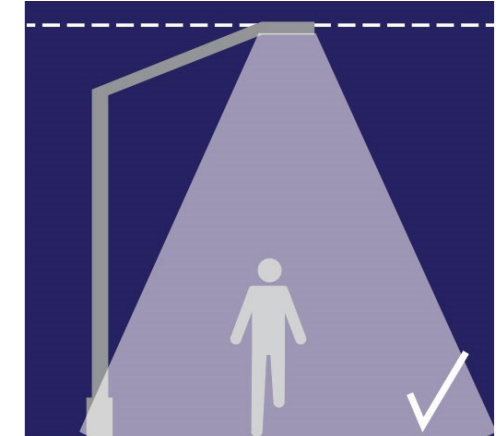
- New development
- Substantial improvement (>50% replacement value)

■ Prohibited Lighting

- Upward directed lighting
- Searchlights for advertising
- Lasers for advertising

■ Development Standards

- Fully-shielded (downward directed) and full cutoff
- LED lighting – Correlated Color Temperature (CCT) of 3000K or less



■ Applicability

- Utility-scale (10 MGW or greater)
- Wind and solar facilities

■ Development Standards

- Applications include an evaluation from the DoD Military Aviation and Installation Assurance Siting Clearinghouse
- Applications include project details: output, height of structures, and construction and any frequencies
- Applications for solar projects include a glare analysis
- Adhere to heights established per the Vertical Obstruction MCA

Memorandums of Agreement

- Coordination protocols between the installation and surrounding jurisdictions
- Timely input on planning actions
- Tailored for each jurisdiction based on **Military Compatibility Areas**
- Timeframes and deadlines for notifications, reviews and responses
- Roles and responsibilities
- Points of Contact
- Procedures for Notification of:
 - Comprehensive Plan Amendment
 - Zoning Resolution/ Ordinance Amendment
 - Rezoning request
 - Conditional Use, Special Use or Variance Request
 - Subdivision Plat
 - Site Development Plan
 - Community Plans and Improvements

Development Coordination Checklist

Development Coordination Checklist

- Tool that can be used for notification to the military
- Tailored for each jurisdiction
- Standardized format to ensure consistency and eliminate interpretation in how, when and where the checklists are applied
- Identify compatibility triggers that may be concerns to the military

Military Compatibility Development Coordination Checklist		
Amendments to a Comprehensive Plan or Zoning Code Regulations		
1A	Has the installation commander been notified of the intent to amend the Comprehensive Plan, Zoning Code regulations, or building codes for land adjacent to the military installation, military range, or military-use civilian airfield?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1B	Has a request been made for the installation commander to provide a written recommendation and supporting facts relating to land use in the area addressed by the proposed amendment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1C	Has a timeframe been established and communicated for a response from the installation commander to the requesting government?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1D	Has the commander been notified that a response is not received within a specified timeframe that the local government may presume implementation of the proposal will not adversely affect the installation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Land Use		
1A	Is the planning action within a 3-mile Coordination Area surrounding a military installation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1B	Does the planning action propose to:	
	Change the zoning map?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Change permitted use of land?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Construct a telecommunications tower, windmill, wind farm or other type of tower?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Approve new major subdivision preliminary plats?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Increase the size of an approved subdivision by more than fifty percent (50%) of the subdivision's total land area including developed and undeveloped land?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1C	If yes to any of the above in 1B, has the public hearing been scheduled?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1D	Has written notice of the proposed action been sent to the military installation by certified mail or by institutionalized process agreed to by the community and military?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1E	Has a response been received from the military installation on the proposed planning action?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1F	For planning actions, such as new development and redevelopment OTHER than those listed in 1B, is it within any of the following areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Clear Zone?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Accident Potential Zone I?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Accident Potential Zone II?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Under a Military Training Route?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Under an airspace Restricted Area?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Under a Military Operations Area?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	High Risk of Adverse Impact Zone?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Range Compatible Use Zone?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Surface Danger Zone	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Explosive Safety Quantity Distance Arcs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Military Compatibility Area Footprint?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1G	Does the development propose:	
	Any impacts that might interfere with safe pilot navigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Any unique electrical requirements that may create interference with navigational signals or radio communications between an aircraft and air traffic control or military radar line-of-sight requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Any unique lighting requirements or lack of requirements that may make it difficult for pilots using an airport to distinguish airport lights from other lights?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Questions?

Thank you!