



Airport Land Use Compatibility Plan (ALUCP) Update

Public Information Meeting #4
June 8 & 9, 2016



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IN ASSOCIATION WITH:
PSM²



Agenda

1. Study Process
2. Noise Complaint Patterns
3. Proposed Overflight Areas (AOA)
4. Proposed Land Use Compatibility Policies
5. Proposed Implementation Steps
6. Questions



Study Process

- Current Airport Land Use Compatibility Plan completed in 1996 & Part 150 Noise Study in 2000
- Maintain compliance w/ State law (ARS 28-8485)
- Planning Advisory Committee (PAC) formed- 4 meetings
- Public Information Meetings- 3 held
- Draft plan & recommendations complete

Project website: <http://www.phxmesagateway.org/landusestudy.aspx>



What the ALUCP is...

- Updated land use compatibility plan for the Airport & adjacent jurisdictions
- Capacity-based approach
- Protection of airspace and capacity while complying with FAA grant assurances
- Allows for compatible development around the airport
- Communication & outreach tool for planned operations growth

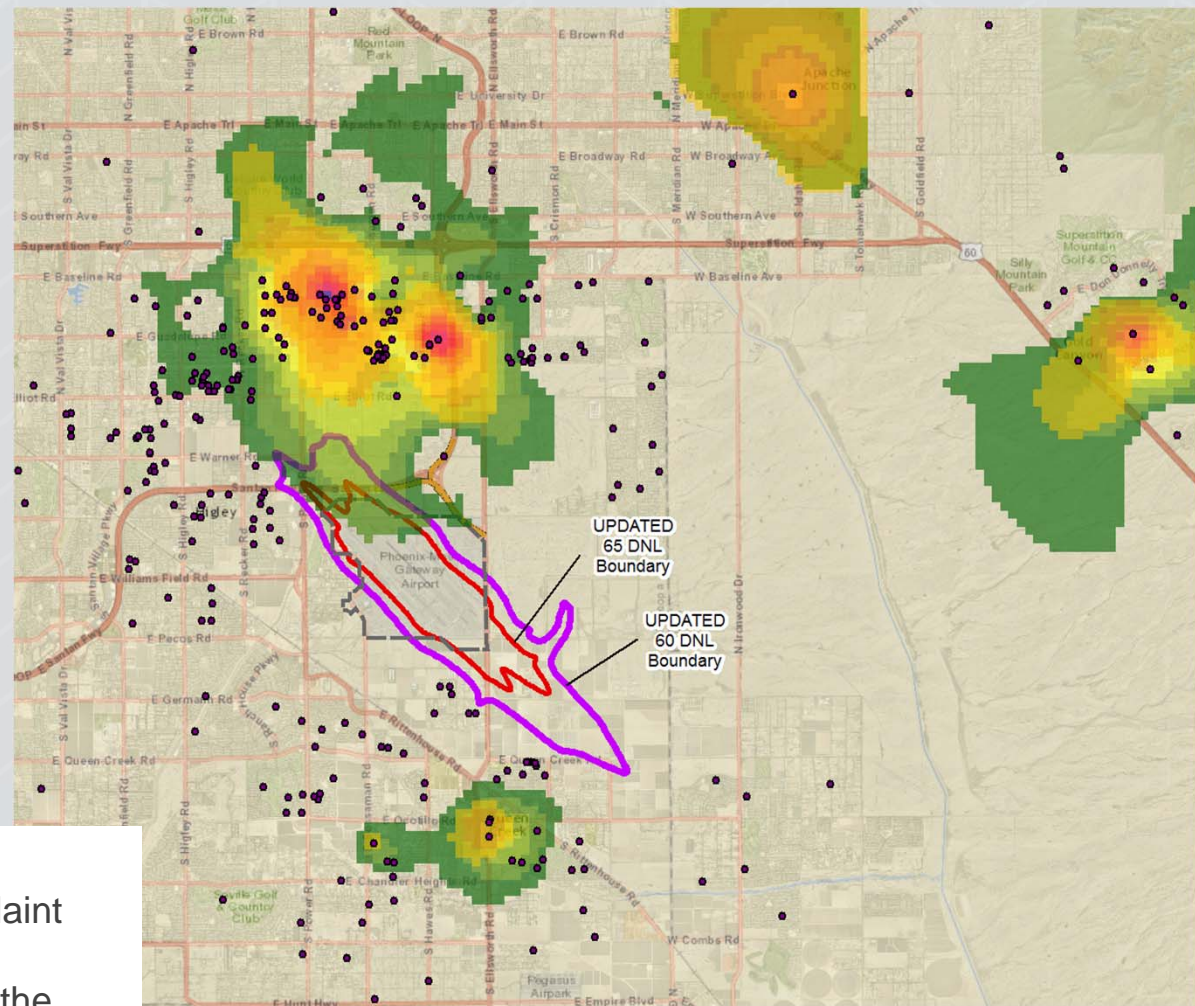


What the ALUCP is not...

- Change to air traffic patterns and flight procedures
- Time-based study
- An impact or restriction to existing uses
- A restriction on proposed/new compatible development

Noise Complaint Density

- 10 years of noise calls (2005-2015)
- 2,400± calls plotted
- Accounts for multiple calls from single locations



Notes:

- Black dots are noise complaint locations
- Colored patterns indicates the density/frequency of complaints



Recap: Annual Service Volume

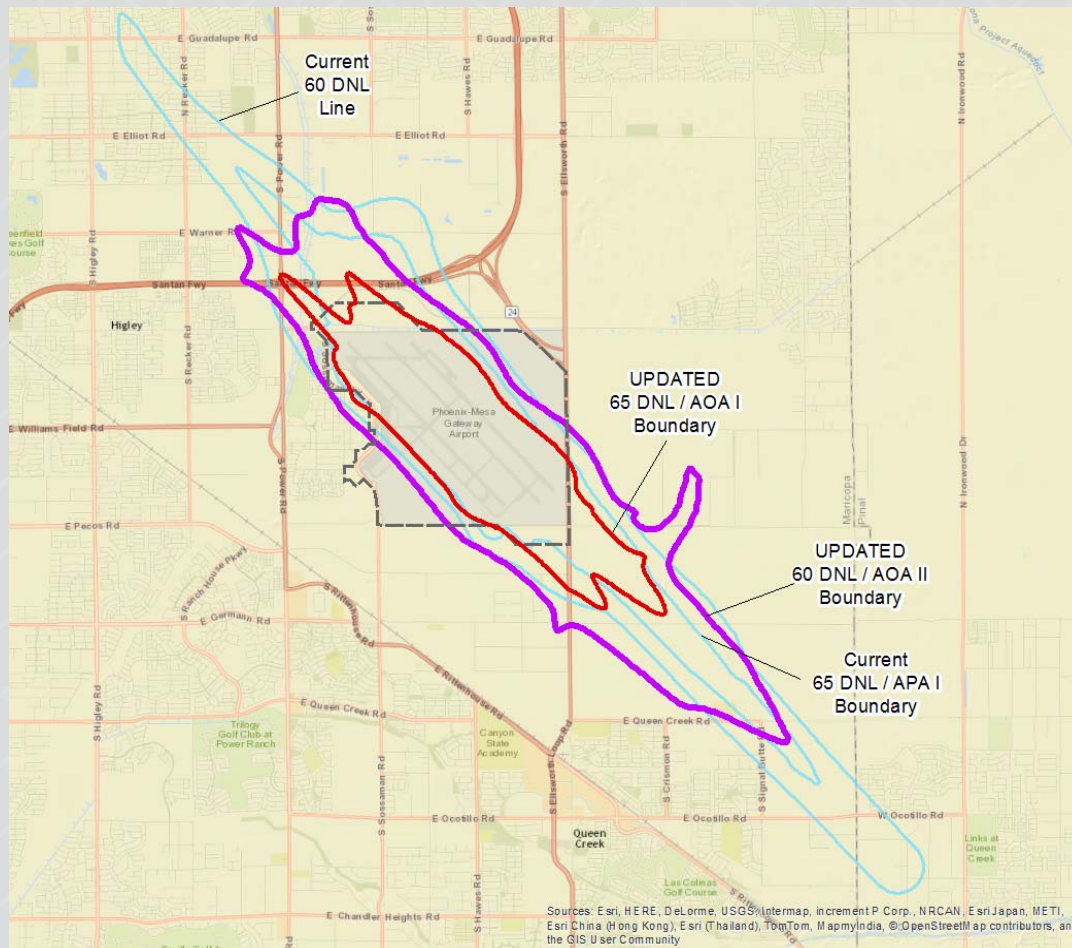
Annual Service Volume (ASV): The annual number of operations that can be accommodated without unacceptable delay (4 to 6 minutes/operation).




USER CATEGORY	OPERATIONS (TAKEOFFS AND LANDINGS)		
	Itinerant	Local	Total
Air Carrier	32,123	0	32,123
Air Taxi	50,819	0	50,819
General Aviation	159,904	247,383	407,287
Military	3,755	4,017	7,772
Total	246,600	251,400	498,000

NOTE: In 2014, the Airport had 225,181 operations.

Source: Analysis by Ricondo & Associates, Inc., October 2015.

Recap: Proposed Overflight Areas I & II



-  Updated 65 DNL (AOA I) Boundary (4± Square Miles)
-  Updated 60 DNL (AOA II) Boundary (9± Square Miles)
-  Current 65 DNL Boundary (6± Square Miles)
- Current 60 DNL Boundary (12± Square Miles)

- Square mile total includes on airport area



Airport Influence Area Indicators

1. Low altitude flight tracks
2. Generalized touch-and-go flight tracks
3. Noise complaint locations
4. 14 CFR Part 77 airspace
5. DNL 55 noise contour
6. FAA-recommended wildlife separation distances
7. Gateway tower controlled airspace
8. Traffic Pattern Airspace (per JO 7400.2K)

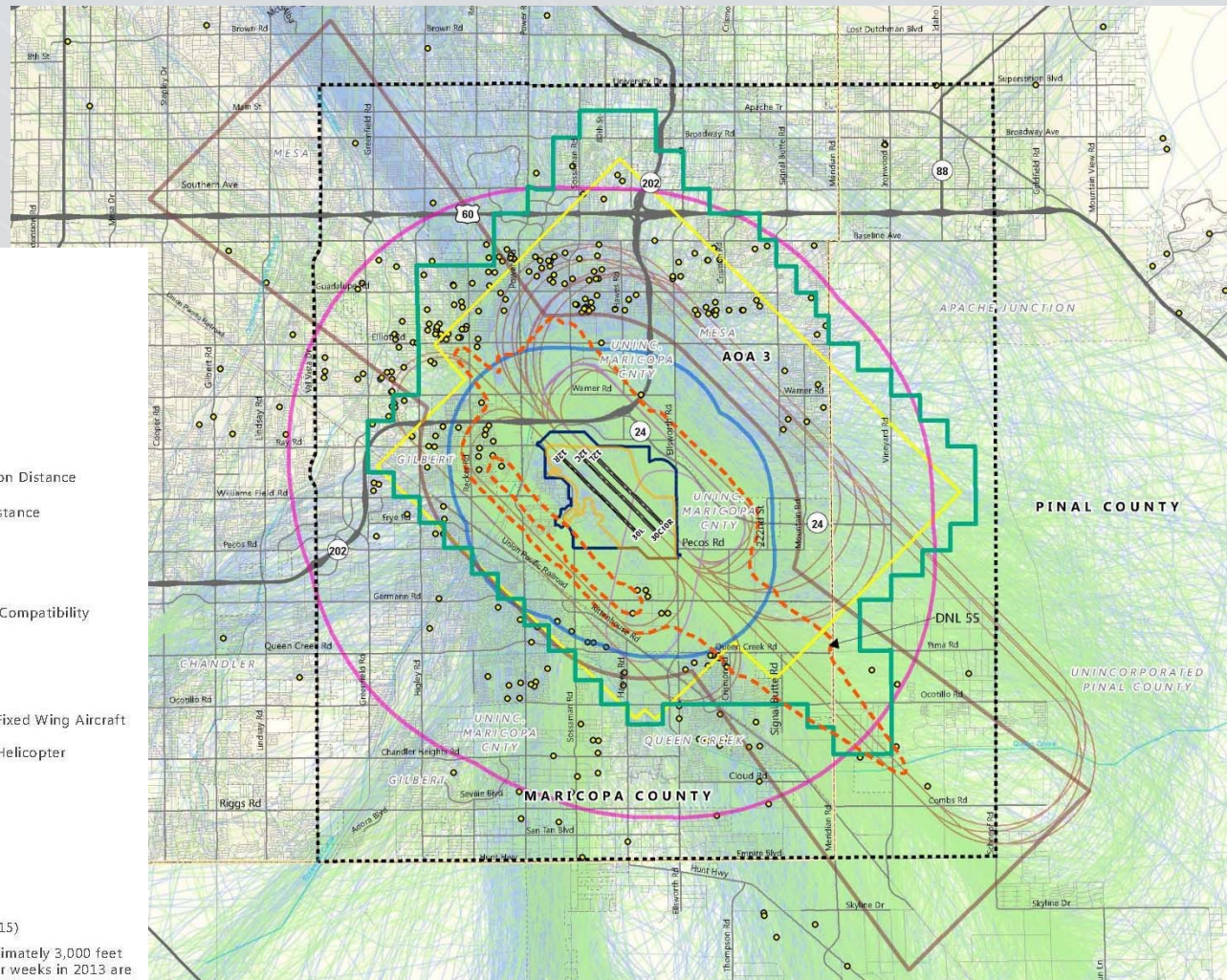


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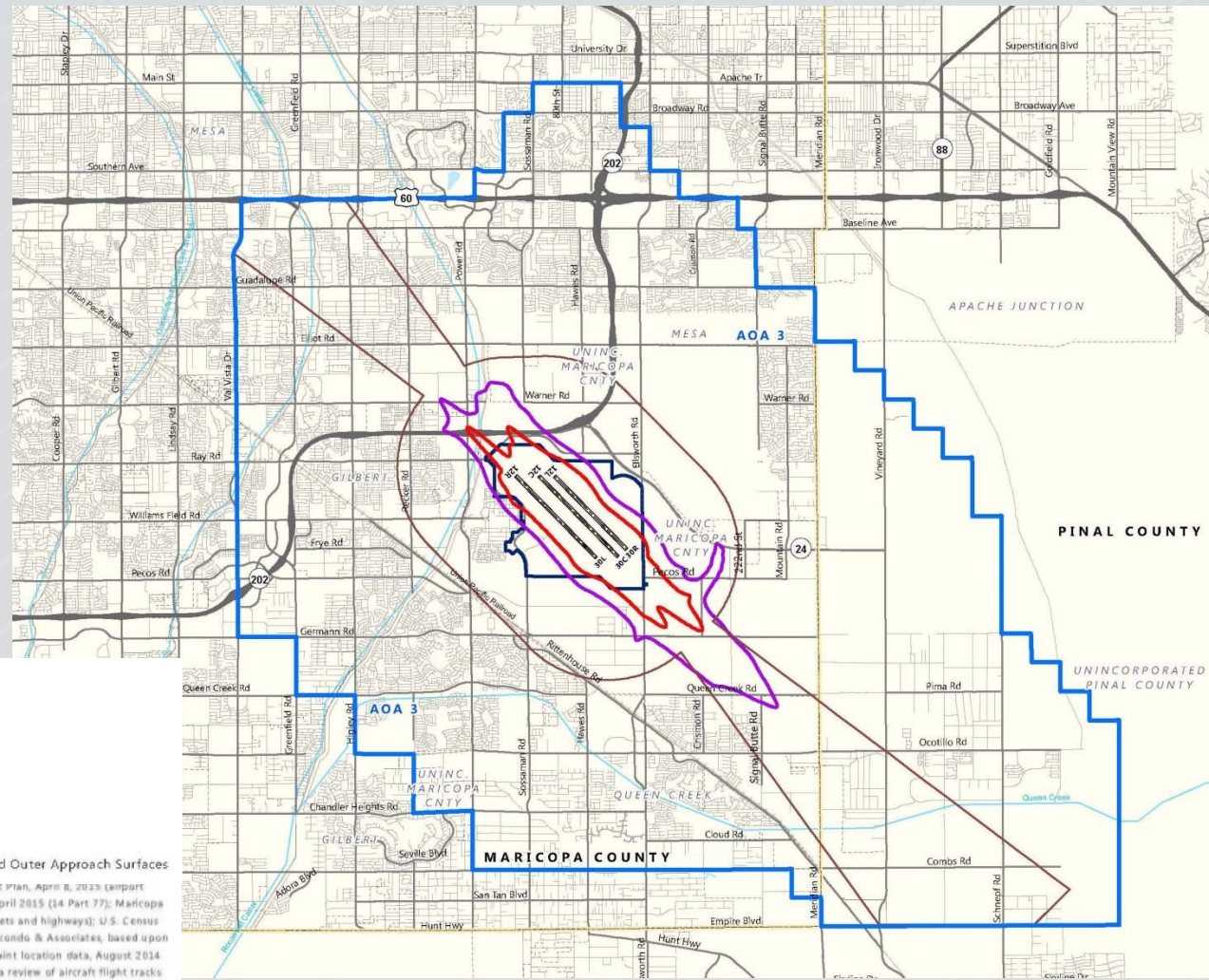
Airport Influence Indicators








- Existing Airport Boundary
- Municipal Boundary
- County Boundary
- ALUCP Update Study Area
- Airport Planning Area and AOA 3
- Air Operations Area
- 10,000 Feet Wildlife Hazard Separation Distance
- 5 Mile Wildlife Hazard Separation Distance
- FAA Traffic Pattern Airspace
- Outer Edge of Part 77 Surfaces
- Projected Noise Exposure (Land Use Compatibility Planning Scenario)
- Arrival Radar Tracks
- Departure Radar Tracks
- Generalized Touch-and-Go Tracks - Fixed Wing Aircraft
- Generalized Touch-and-Go Tracks - Helicopter
- Highway
- Arterial Street
- Local Street
- Railroad
- Waterways
- Noise Complaint Locations (2005-2015)

Note: The radar data represent flights at approximately 3,000 feet or less above the airfield elevation. Data for four weeks in 2013 are depicted - March 10-17, June 9-16, October 13-20, and December 8-15.



Proposed Airport Influence Area – AOA 3

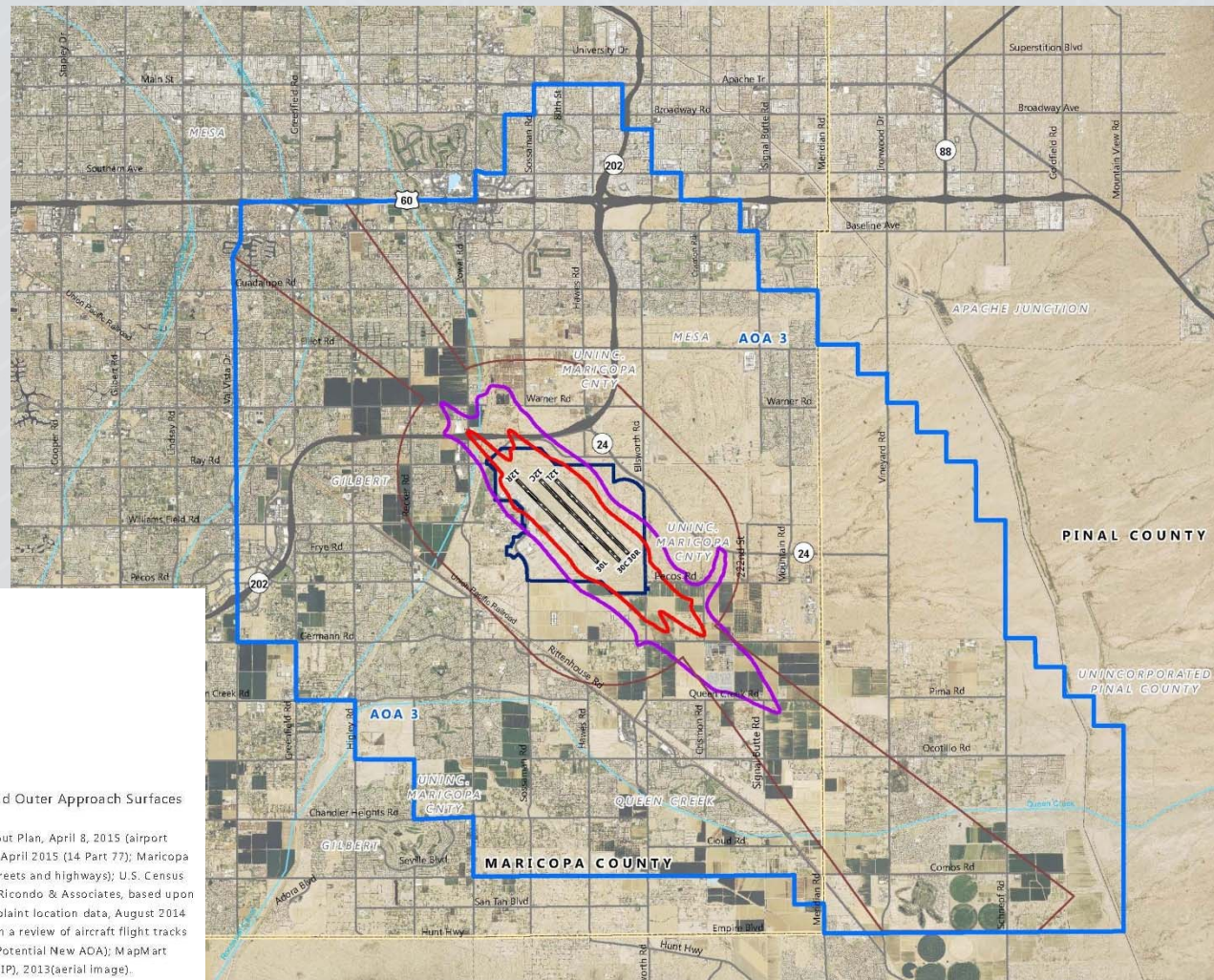









-  Existing Airport Boundary
-  Municipal Boundary
-  County Boundary
-  Updated AOA 1
-  Updated AOA 2
-  Updated AOA 3
-  14 CFR Part 77 Horizontal and Outer Approach Surfaces

SOURCES: Phoenix-Mesa Gateway Airport Layout Plan, April 8, 2015 (Airport property boundary); Airport Airspace Drawing, April 2015 (14 Part 77); Maricopa County Department of Transportation, 2012 (streets and highways); U.S. Census Bureau, 2014 (municipal boundaries, railroad); Ricondo & Associates, based upon a review of aircraft flight tracks and noise complaint location data, August 2014 (Study Area); Ricondo & Associates, based upon a review of aircraft flight tracks and noise complaint location data, December 2015 (Potential New ADA)

PREPARED BY: Ricondo & Associates, Inc., January 2016.

Proposed AOA Boundaries



-  Existing Airport Boundary
-  Municipal Boundary
-  County Boundary
-  Updated AOA 1
-  Updated AOA 2
-  Updated AOA 3
-  14 CFR Part 77 Horizontal and Outer Approach Surfaces

SOURCES: Phoenix-Mesa Gateway Airport Layout Plan, April 8, 2015 (airport property boundary); Airport Airspace Drawing, April 2015 (14 Part 77); Maricopa County Department of Transportation, 2012 (streets and highways); U.S. Census Bureau, 2014 (municipal boundaries, railroad); Ricondo & Associates, based upon a review of aircraft flight tracks and noise complaint location data, August 2014 (Study Area); Ricondo & Associates, based upon a review of aircraft flight tracks and noise complaint location data, May 2016 (Potential New ADA); MapMart Inc., National Agriculture Imagery Program (NAIP), 2013(aerial image).

PREPARED BY: Ricondo & Associates, Inc., May 2016.



Proposed Noise and Public Safety Policies

- Update AOA 1 based on projected DNL 65 contour
- Update AOA 2 based on projected DNL 60 contour
- Prohibit uses involving hazardous substances in AOA 1
- Prohibit highly noise-sensitive land uses in AOA 1 and AOA 2
- Prohibit less sensitive uses in AOA 1; require sound insulation, disclosure, and easements in AOA 2
- Require real estate disclosure for all noise-sensitive uses allowed in AOA 3



Proposed Noise and Public Safety Policies

LAND USE MATRIX

	Overflight Zone/Noise Exposure Range (DNL)		
	AOA 1 65+	AOA 2 60-65	AOA 3 60-APA
Residential			1, 2, 3
Commercial, Office, Service, Transient Lodging			
Hotels, motels	25 ^{1,4}	25 ^{1,4}	1
Retail; professional, personal services; office; auto services; repair services	5		
Indoor recreation, amusements, athletic clubs, gyms, spectator events	5		
Theaters, playhouses, concert halls, performing arts centers		25 ^{1,4}	1
Outdoor sports, entertainment, public assembly, amphitheaters		1, 4	1
Educational, Institutional, Public Services			
Hospitals, other health care facilities			1
Elementary and secondary schools, preschools, day care centers			1
Colleges, universities, trade schools	25 ^{1,4}	25 ^{1,4}	1
Religious facilities; libraries; museums; clubs; lodges		25 ^{1,4}	1
Industrial			
Manufacturing, processing, and assembly -- general	5		
Refining, manufacturing, and storage of chemicals and hazardous materials			
Agricultural			
Transportation, Communication, Utilities	5		
Recreation, Park, Open Space	5		

LEGEND

	Compatible: Use can be allowed.
1, 2, 3, 4, 5	Conditionally Compatible: Use should be allowed subject to stated conditions.
25	Conditionally Compatible: Use should be allowed subject to outdoor-to-indoor noise level reduction of 25 decibels in buildings.
	Incompatible: Use should not be allowed.



Land Use Compatibility Matrix Notes

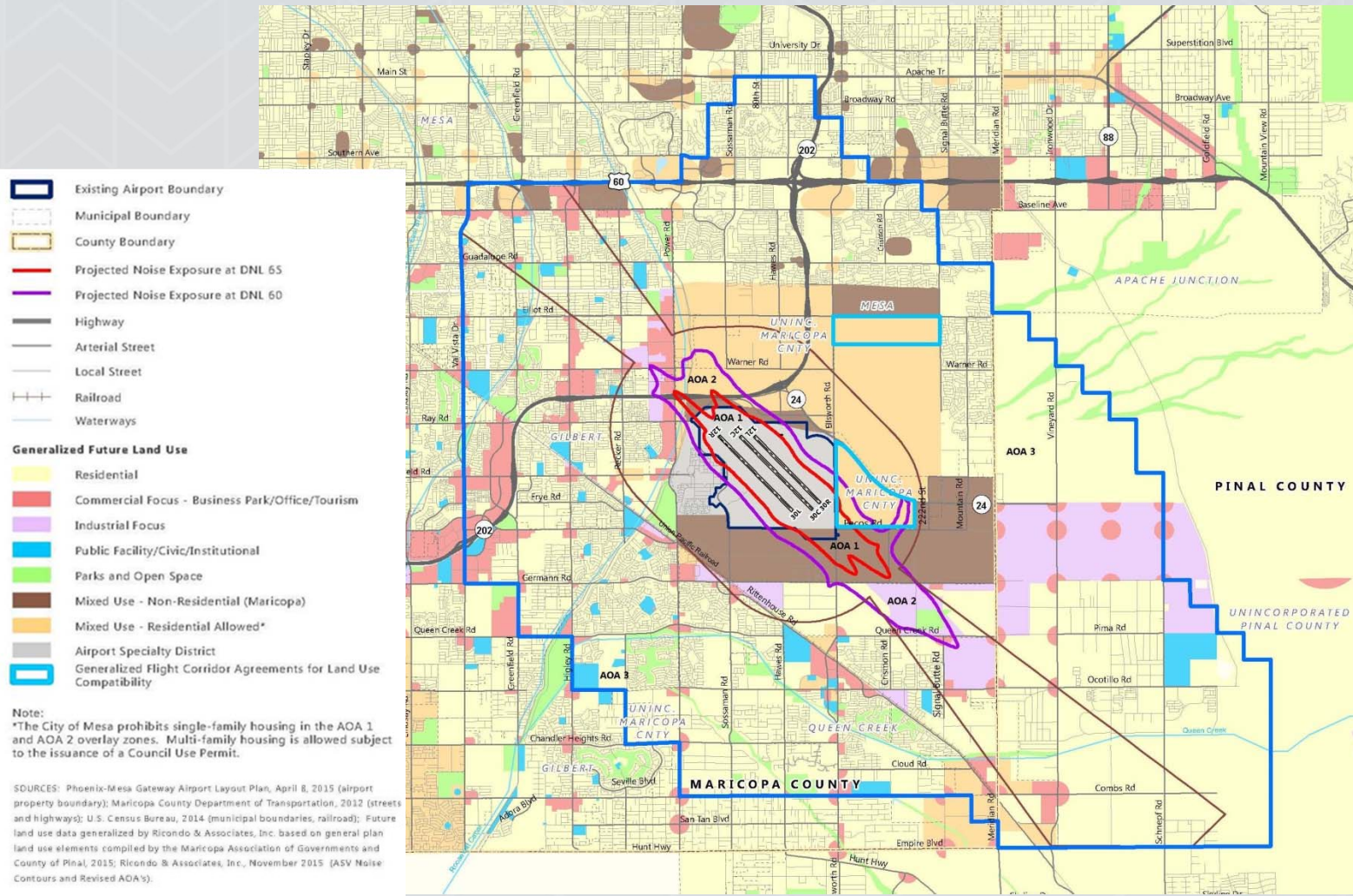
NOTES

- 1 A fair disclosure agreement and covenant should be recorded as a condition of development approval.
- 2 All final plats and public reports filed with the Arizona Department of Real Estate should include a fair disclosure notice.
- 3 Sales and leasing offices for new subdivisions and development projects should provide notice to prospective buyer and lessees that the property is in the APA.
- 4 Avigation easements should be required which acknowledge that an airport is located nearby and aircraft to/from the airport have a right to fly over the property.
- 5 The developer should be encouraged to incorporate features into buildings where people live, work, or are otherwise received to achieve an outdoor-to indoor noise level reduction of 25 decibels.



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Generalized Future Land Use



PREPARED BY: Ricondo & Associates, Inc., November 2015.



Proposed Airspace Protection Policies

- Define critical airspace surfaces (14 CFR Part 77, TERPS, OEI) as maximum height limits
 - Composite critical airspace surfaces map is under development
 - Protects 14 CFR Part 77 obstruction, TERPS required obstacle clearance, and emergency flight procedure (OEI) surfaces
 - PMGAA to work with local governments to adopt composite airspace map upon completion
- Require developers to comply with 14 CFR Part 77 notification requirements
- Prohibit of objects determined by FAA to be hazards to air navigation, even if critical airspace surfaces are not penetrated



Airspace Protection Considerations

- Underlying city base zoning provides protection in most areas
- Until composite airspace surfaces map is adopted, use 14 CFR Part 77 surfaces map

Structure Height Guidance

Height of Critical Aeronautical Surfaces Above Airfield Elevation*

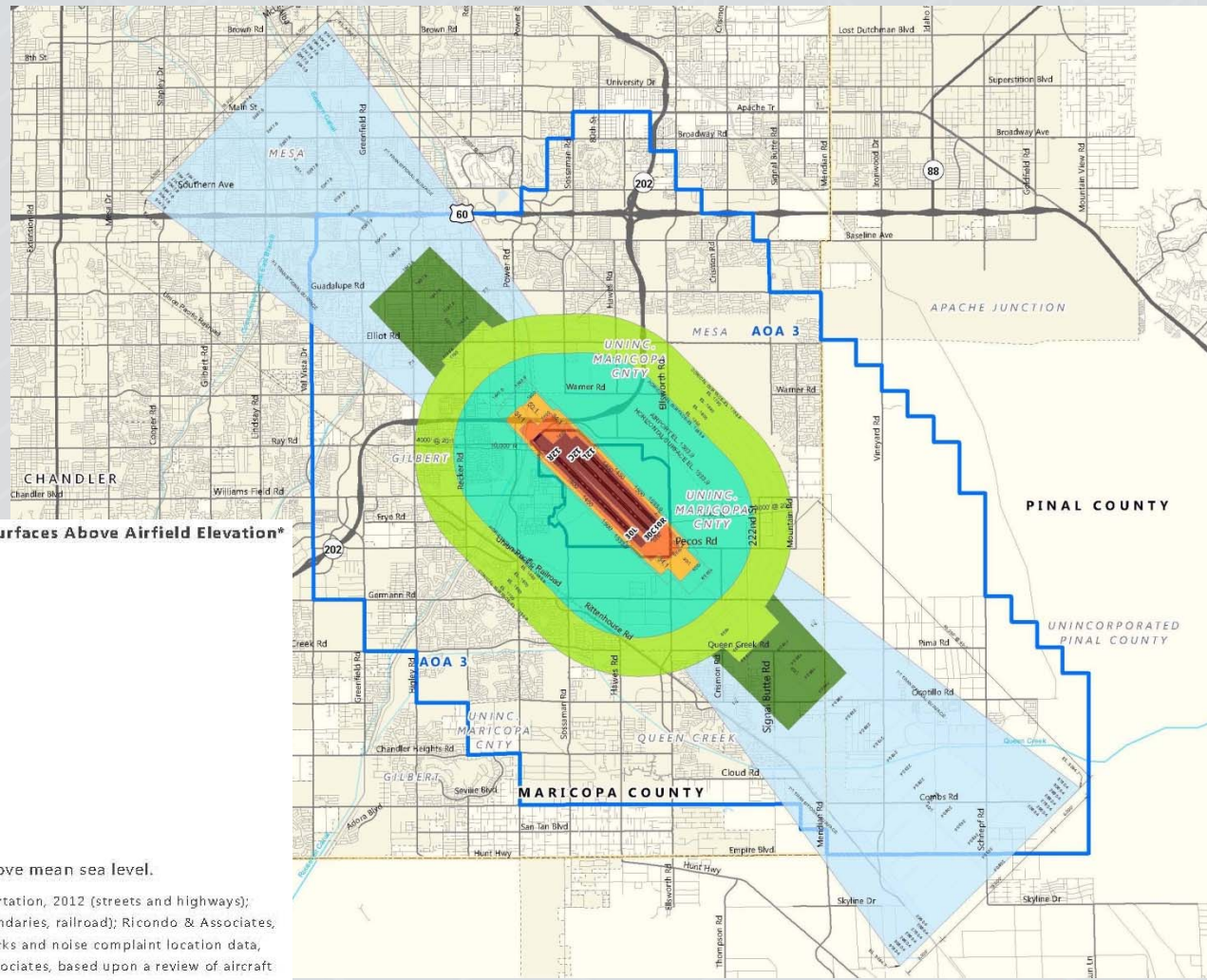


Note:

* Airfield elevation is 1,384 feet above mean sea level.

Maricopa County Department of Transportation, 2012 (streets and highways);
U.S. Census Bureau, 2014 (municipal boundaries, railroad); Ricondo & Associates,
based upon a review of aircraft flight tracks and noise complaint location data,
August 2014 (Study Area). Ricondo & Associates, based upon a review of aircraft
flight tracks and noise complaint location data, May 2016 (Potential New AOA).

PREPARED BY: Ricondo & Associates, Inc., May 2016.



Proposed Flight Safety Policies

- Avoid in AOA 1, AOA 2, AOA 3
 - Glint and glare causing persistent after-image or flash blindness
 - Lighting that can distract pilots or interfere with vision on approach
 - Lights mimicking airport identification and landing lights
 - Dust, smoke, vapor obscuring pilot vision
 - Thermal hazards interfering with aircraft control
 - Electromagnetic interference
 - Bird attractants



Proposed Noise and Public Safety Policies

	Overflight Zone		
	AOA 1	AOA 2	AOA 3
Airspace Protection			
Objects penetrating a critical airspace surface			
Objects determined to be hazards			
Objects not penetrating a critical airspace surface but subject to FAA DNH conditions	1	1	1
Flight Safety			
Glint and glare causing persistent after-image or flash blindness			4
Lighting that can distract pilots or interfere with vision on approach			4
Lighting that can be confused with airport identification and approach lighting			4
Dust, water vapor, or smoke dense enough to impair pilot vision			4
Electromagnetic interference with aviation navigation and communications equipment			
Bird Attractants			
Solid waste landfills			
Trash transfer stations that are not fully enclosed			
Commercial/institutional composting operations that accept food waste			
Stormwater management facilities creating standing water	2	2	2
Wastewater treatment facilities and associated settling ponds			
Wetlands mitigation projects	3	3	3

LEGEND

- Compatible: Use can be allowed.
- 1, 2, 3, 4, Conditionally Compatible: Use should be allowed subject to stated conditions.
- Incompatible: Use should not be not allowed.



Airspace Protection and Flight Safety Matrix Notes

NOTES

- 1 Project sponsor must comply with conditions cited in FAA Determination of No Hazard.
- 2 Permit only when required by other provisions of municipal, county, or state law. Measures must be taken to minimize the risk of attracting birds.
- 3 Permit only where projects provide unique functions that must remain on site or are otherwise directed by state or federal law, state or federal regulatory decision, or court order.
- 4 Most likely to be problematic if located within the area defined by the 14 CFR Part 77 horizontal and outer approach surfaces.



Implementation Documents

- Model avigation easement
- Model fair disclosure agreement and covenant
- Model sound insulation standards
- Model overlay zoning language
- Standard AZ Association of Realtors Residential Sellers Disclosure form



Fair Disclosure Agreement and Covenant

- Original developer enters into agreement with permitting agency to provide a disclosure notice in the listing materials for properties offered for sale
- The agreement becomes a covenant running with the land, requiring future owners to make the same disclosure when they offer the property for sale

Monitoring and Update of ALUCP

- Conditions to monitor
 - Major changes in land development trends revealing shortcomings in land use compatibility policies
 - Significant airspace redesign or changes in flight procedures
 - Significant change in operations or aircraft fleet compared with assumptions in ALUCP's long-term noise exposure
- Future updates shall be coordinated by the Airport with all affected local governments



Next Steps

1. Additional public meetings
 - June 8th- SE Regional Library
 - June 9th- Queen Creek Library
2. PMGAA Board consideration (July 19th*)
3. Height guidance map & overlay completion
4. Record updated Airport Influence Area Map (the APA boundary) with County Recordors (August*)
5. Implementation through City, Town, and County processes (Late 2016-2017*)

* Subject to change