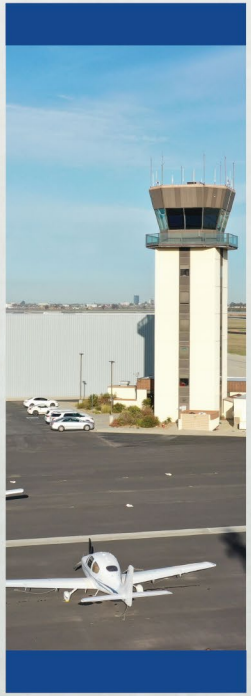
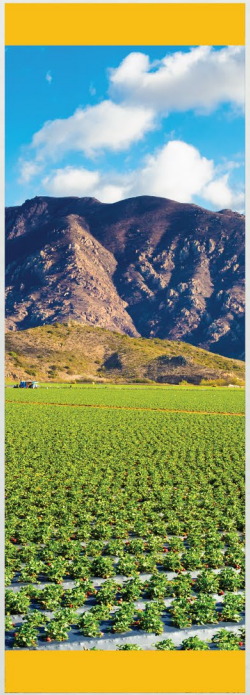
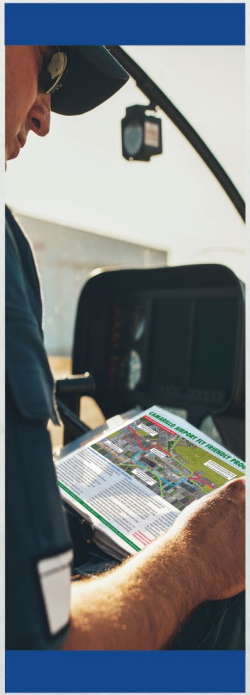
COUNTY of VENTURA

Department of Airports

COUNTY of VENTURA
Department of Airports



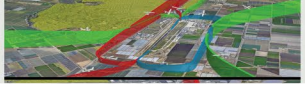




Camarillo Airport

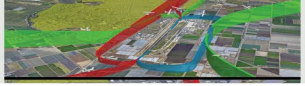
14 CFR Part 150 Noise Compatibility Planning Study Update





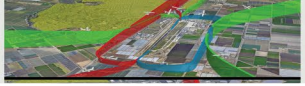
Agenda

1. Welcome and Introductions
    - Keith Freitas, Ventura County Department of Airports
2. Study Process and Proposed Meeting Schedule
    - Dave Fitz, Coffman Associates
3. PAC Roles and Responsibilities
    - Dave Fitz, Coffman Associates
4. Noise Exposure Maps Overview
    - Kory Lewis, Coffman Associates
5. Noise Exposure Maps Inventory
    - Madeline Holliman, Coffman Associates
6. Noise Modeling Overview
    - Kory Lewis, Coffman Associates
7. Operations Forecasts
    - Matt Quick, Coffman Associates
8. PAC Members' Issues Discussion
    - Elsa Argomaniz, Arellano Associates
9. Adjournment



Welcome and Introductions

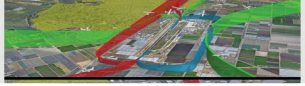




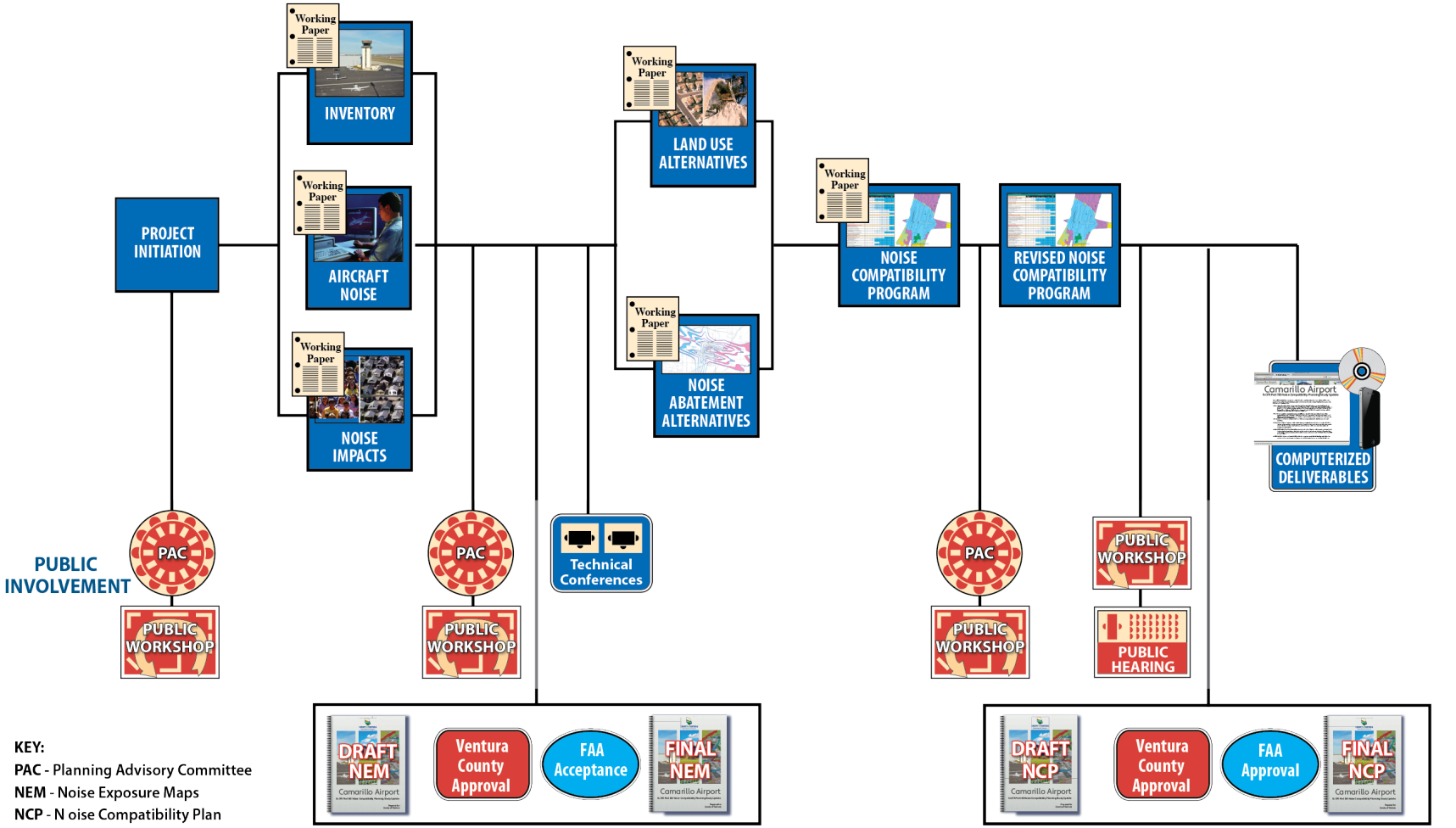
Study Process

Camarillo Airport

14 CFR Part 150 Noise Compatibility Planning Study Update



COUNTY of VENTURA
Department of Airports



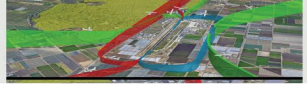
KEY:

PAC - Planning Advisory Committee

NEM - Noise Exposure Maps

NCP - N oise Compatibility Plan





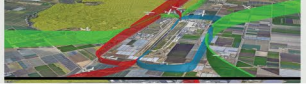
Project Timeline

		1	2	3	4	5	6	7	8	9	10
NEM	Inventory										
NEM	Aviation Noise										
NEM	Noise Impacts										
NCP	Noise Abatement Alternatives										
NCP	Land Use Alternatives										
NCP	Noise Compatibility Plan										
Public Outreach											
Documentation (Draft and Final Reports)									DRAFT NEM		FINAL NEM
Phase		Pre-Work				Study			Documentation		

		11	12	13	14	15	16	17	18	19	20
NCP	Noise Abatement Alternatives										
NCP	Land Use Alternatives										
NCP	Noise Compatibility Plan										Submit to FAA
Public Outreach											
Documentation (Draft and Final Reports)									DRAFT NCP		FINAL NCP
Phase		Study						Documentation			

LEGEND

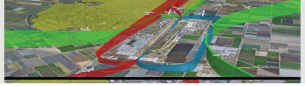
- FAA Approval of Forecasts
- Noise Measurements
- Planning Advisory Committee
- Public Information Workshop
- Aviation & Land Use Technical Conferences
- Public Hearing and/or Information Workshop
- Print/Electronic Document
- **NEM** - Noise Exposure Maps
- **NCP** - Noise Compatibility Plan



PAC Role and Responsibilities

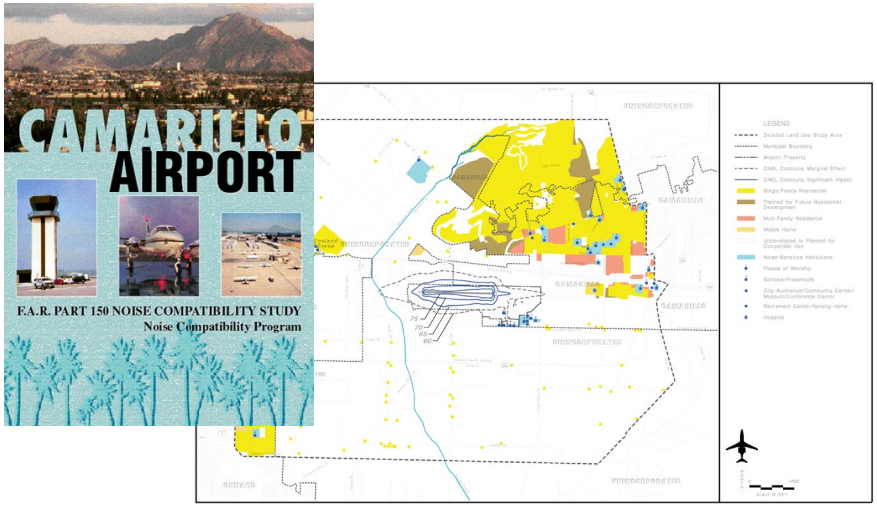
- Sounding Board
- Linkage to the Community
- Resource
- Critical Review

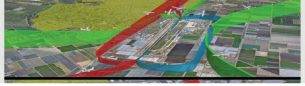




Part 150 History

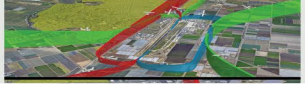
- May 1998 – Noise Exposure Maps completed
- September 1998 – Noise Exposure Maps approved by FAA
- November 1999 – Noise Compatibility Program completed
- May 2001 – Noise Compatibility Program approved by FAA





Noise Exposure Map Overview





A NOISE EXPOSURE MAP:

- Identifies the current and projected annualized aircraft noise levels at Camarillo Airport using the Community Noise Equivalent Level (CNEL) noise metric.
- Identifies measures to reduce the noise impacts within the noise exposure contours from aircraft operating to and from Camarillo Airport through changes in aircraft operations or airport facilities.

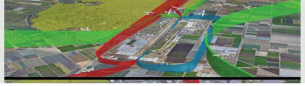
A NOISE EXPOSURE MAP DOES NOT:

- Evaluate aircraft operations from other area airports.
- Consider other types of impacts (air quality, accidents, etc.).
- Use noise metrics other than CNEL to determine noise impacts.
- Provide justification for airport expansion.

A NOISE COMPATIBILITY PROGRAM:

- Encourages future land uses which are compatible with aircraft noise, such as commercial or industrial in undeveloped areas.
- Determines methods to reduce the adverse impacts of noise above FAA thresholds in existing residential areas.
- Establishes a procedure to implement, review, and update the program.





Aircraft and Airspace Regulations

PILOT

- Responsible for safe operation of aircraft in the air and on the ground

FAA

- Establishes airspace - where aircraft may be flown
- Sets aircraft noise standards
- Certifies aircraft and pilots

VENTURA COUNTY

- No control over aircraft in flight
- May establish run-up times and voluntary noise abatement procedures

LAND USE REGULATIONS

VENTURA COUNTY

- Responsible for maintaining a safe airport
- Coordinates with neighboring communities & developers to promote land use compatibility

OTHER MUNICIPALITIES

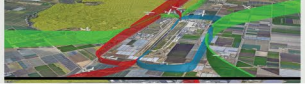
- Promote compatible land use through zoning
- Set noise ordinances, but aircraft are exempt per City of Burbank v. Lockheed Air Terminal (411 U.S. 624 (1973))

UNITED STATES

- Establishes the Part 150 Land Use Compatibility Planning Process
- No land use authority

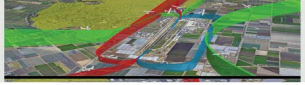
STATE OF CALIFORNIA

- Requires real estate disclosure within the Airport Influence Area (AIA)
- Requires sound insulation for new residential construction within the 60 CNEL noise contours
- Enables local land use planning through adoption of zoning ordinances and a General Plan
- Requires preparation of Airport Land Use Compatibility Plan (ALUCP)



Noise Exposure Map Inventory





Chapter 1 - Inventory Outline

Roles and Responsibilities

- Federal
- State
- Local

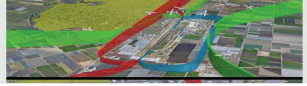
Land Use Policies and Regulations

- Existing
- Zoning
- General Plan

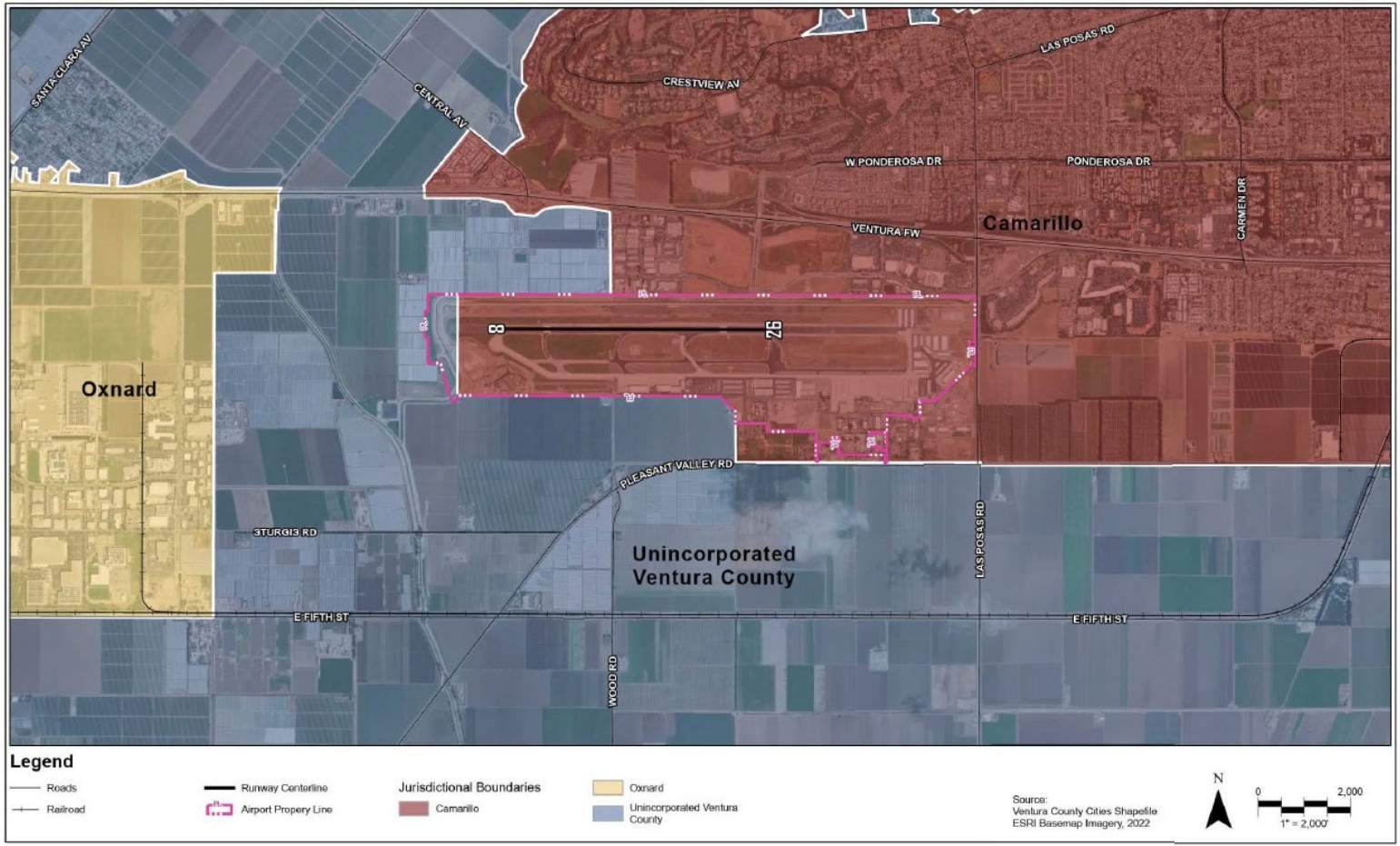
Airport Facility Information

- Airside Facilities
- Landside Facilities
- Voluntary Noise Abatement Procedures

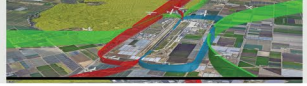




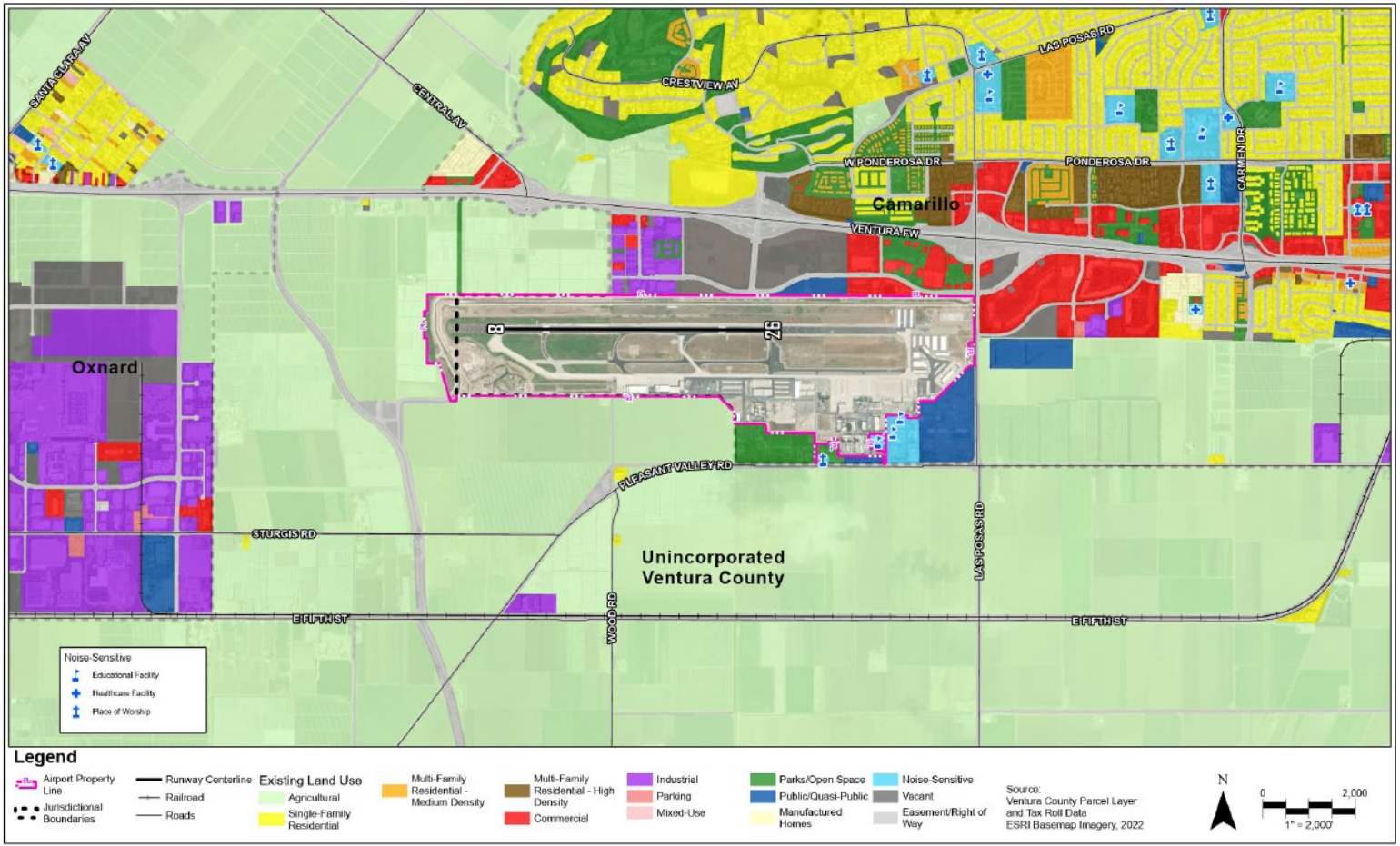
Jurisdictional Boundaries and Study Area



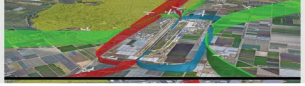




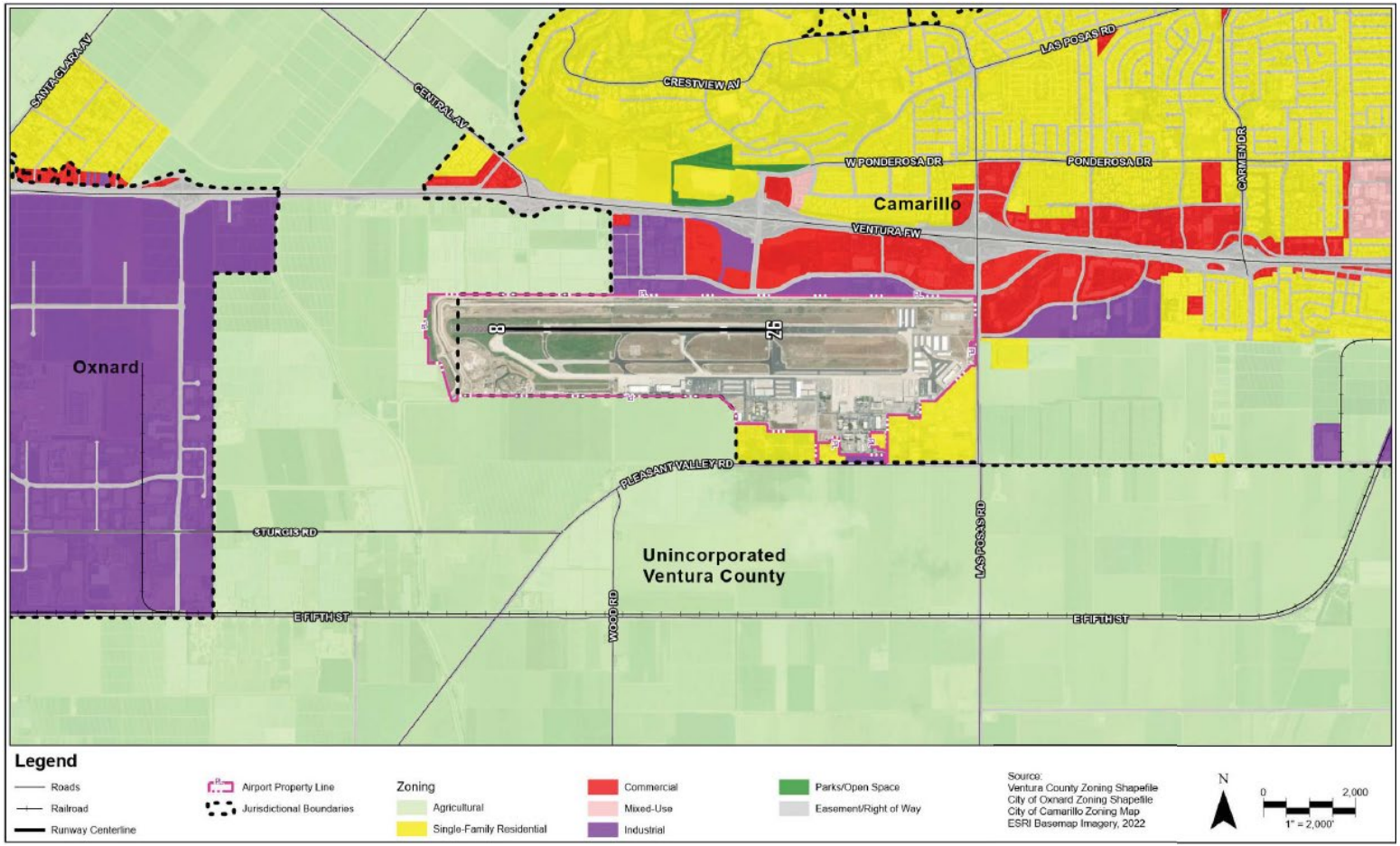
Existing Land Use



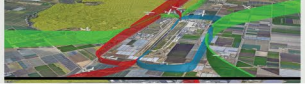




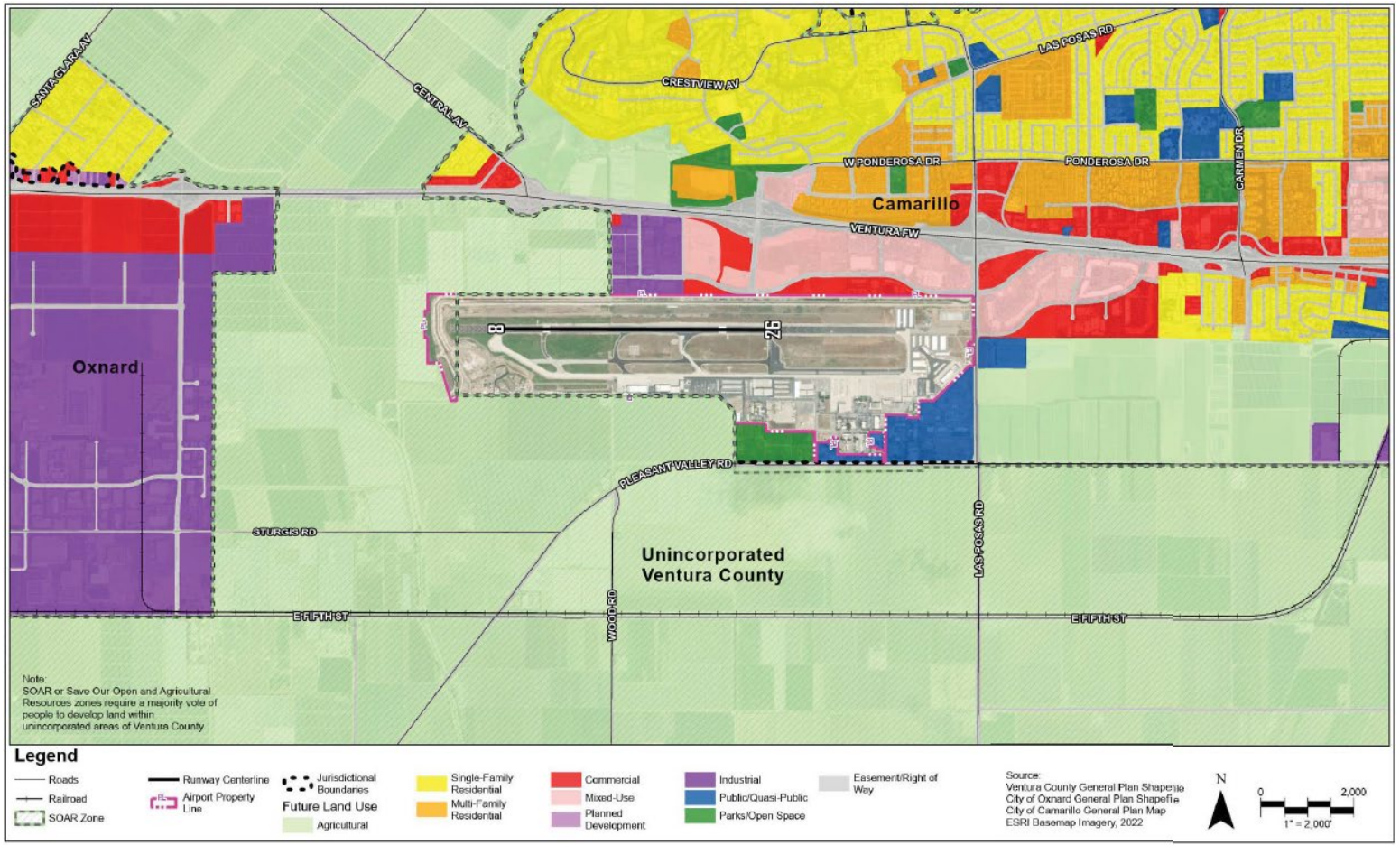
Zoning


SANTA CLARA AV
CENTRAL AV
CRESTVIEW AV
LAS POSAS RD
W PONDEROSA DR
PONDEROSA DR
CARMEN DR
Camarillo
VENTURA FW
Oxnard
08
26
PLEASANT VALLEY RD
STURGIS RD
Unincorporated
Ventura County
LAS POSAS RD
E FIFTH ST
WOOD RD
E FIFTH ST
Legend
Roads
Railroad
Runway Centerline
Airport Property Line
Jurisdictional Boundaries
Zoning
Agricultural
Single-Family Residential
Commercial
Mixed-Use
Industrial
Parks/Open Space
Easement/Right of Way
Source:
Ventura County Zoning Shapefile
City of Oxnard Zoning Shapefile
City of Camarillo Zoning Map
ESRI Basemap Imagery, 2022
N
0
2,000
1" = 2,000'

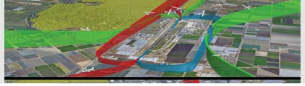




General Plan Land Use

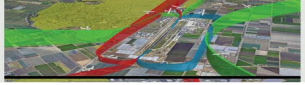




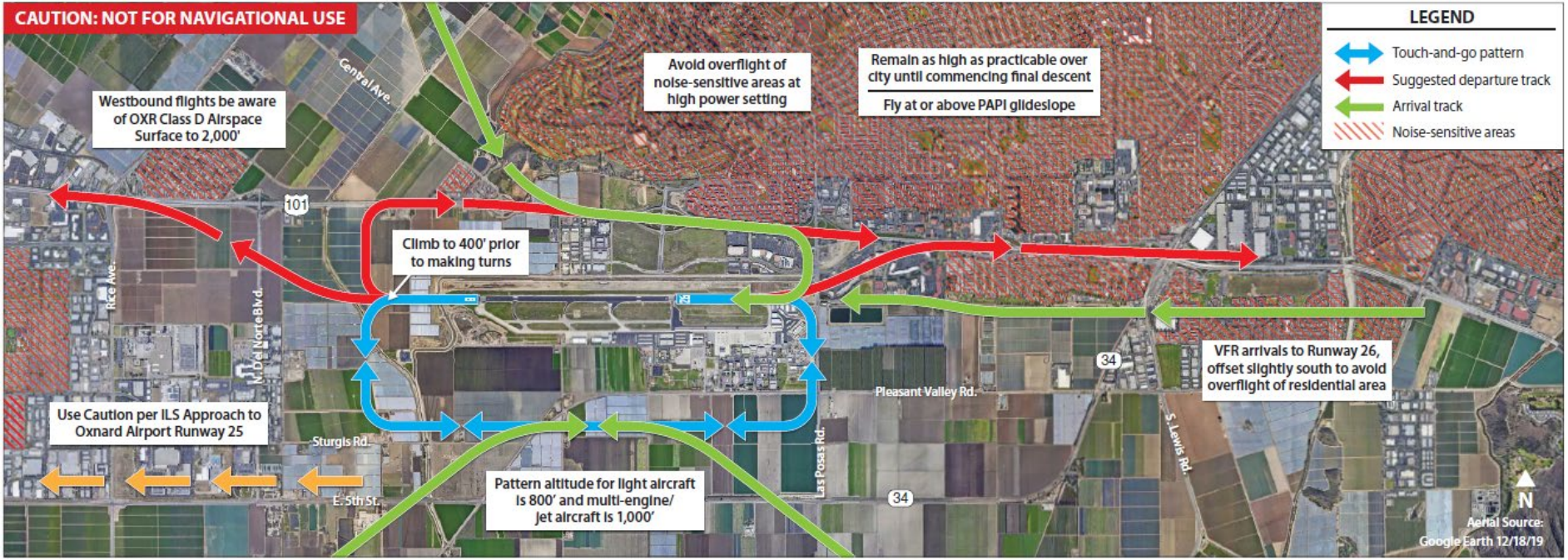


Existing Facilities

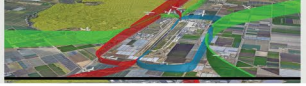




Fly Friendly Ventura County

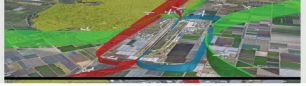


- Pilot Guide updated in 2022
- Distributed to aviation stakeholders, pilots and local flight schools
- Includes voluntary noise abatement procedures
- Available in print and on the Department of Airports website



Noise Modeling Overview

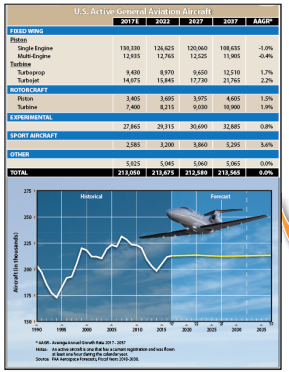




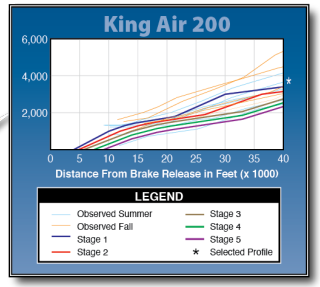
AEDT Process

Flight Tracks

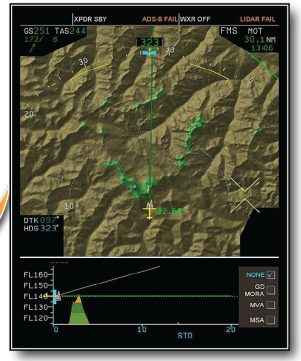
Existing & Forecast Operations/Fleet Mix



Time of Day

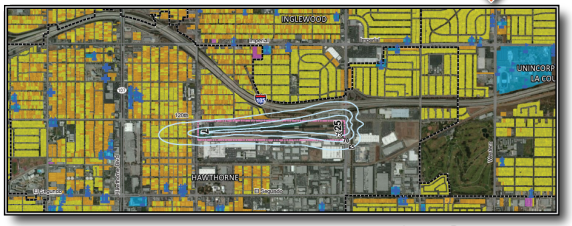


Profile Analysis

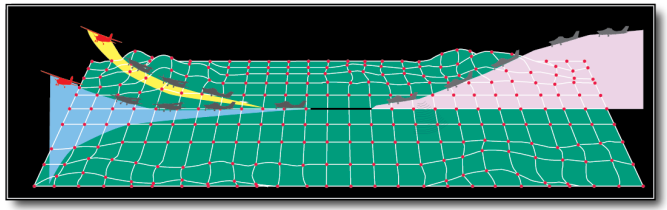


Terrain Data

AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT)

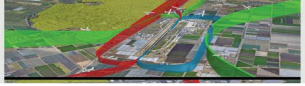


Noise Contours

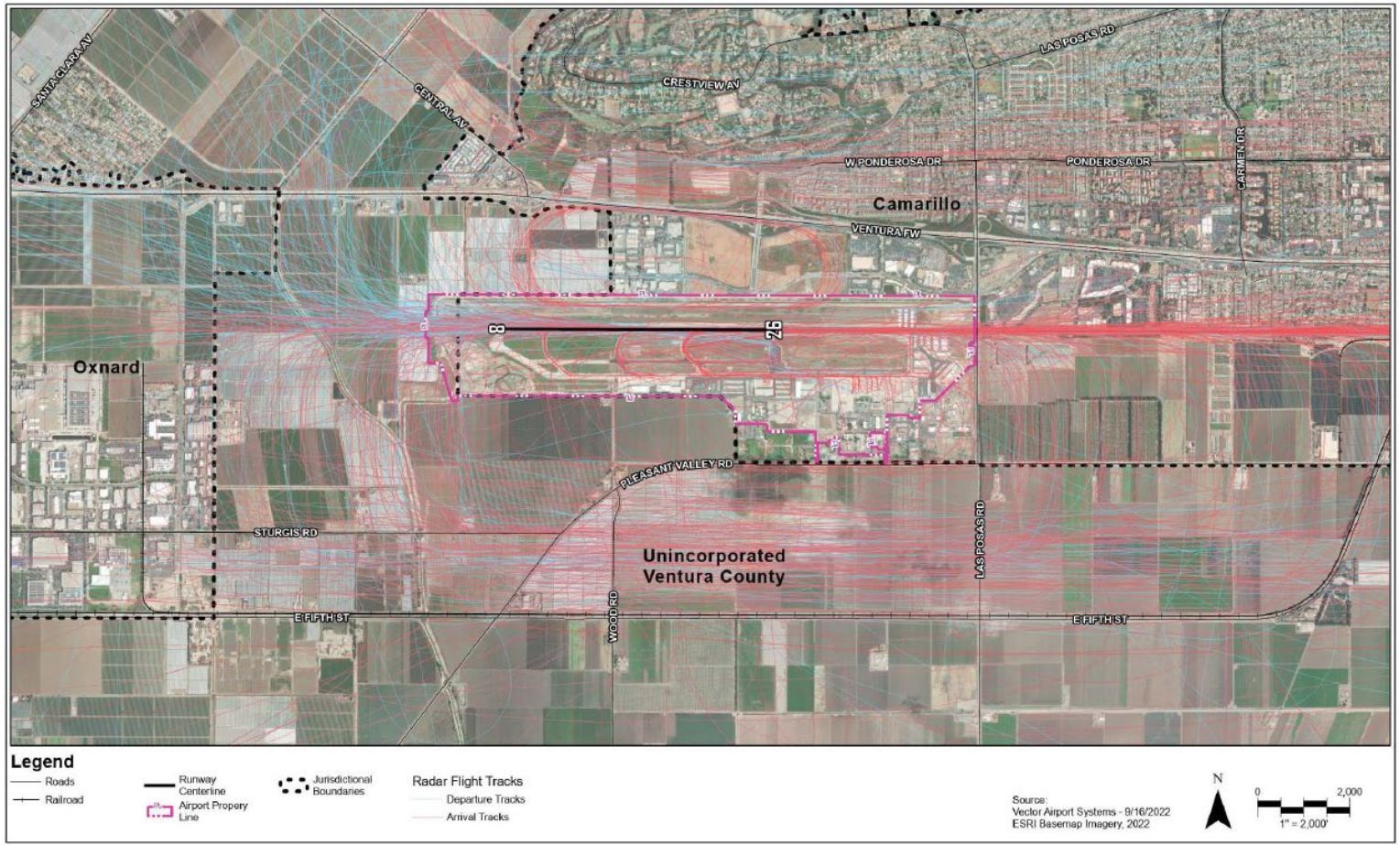


Grid Point Analysis

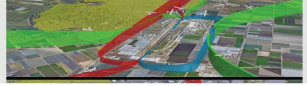




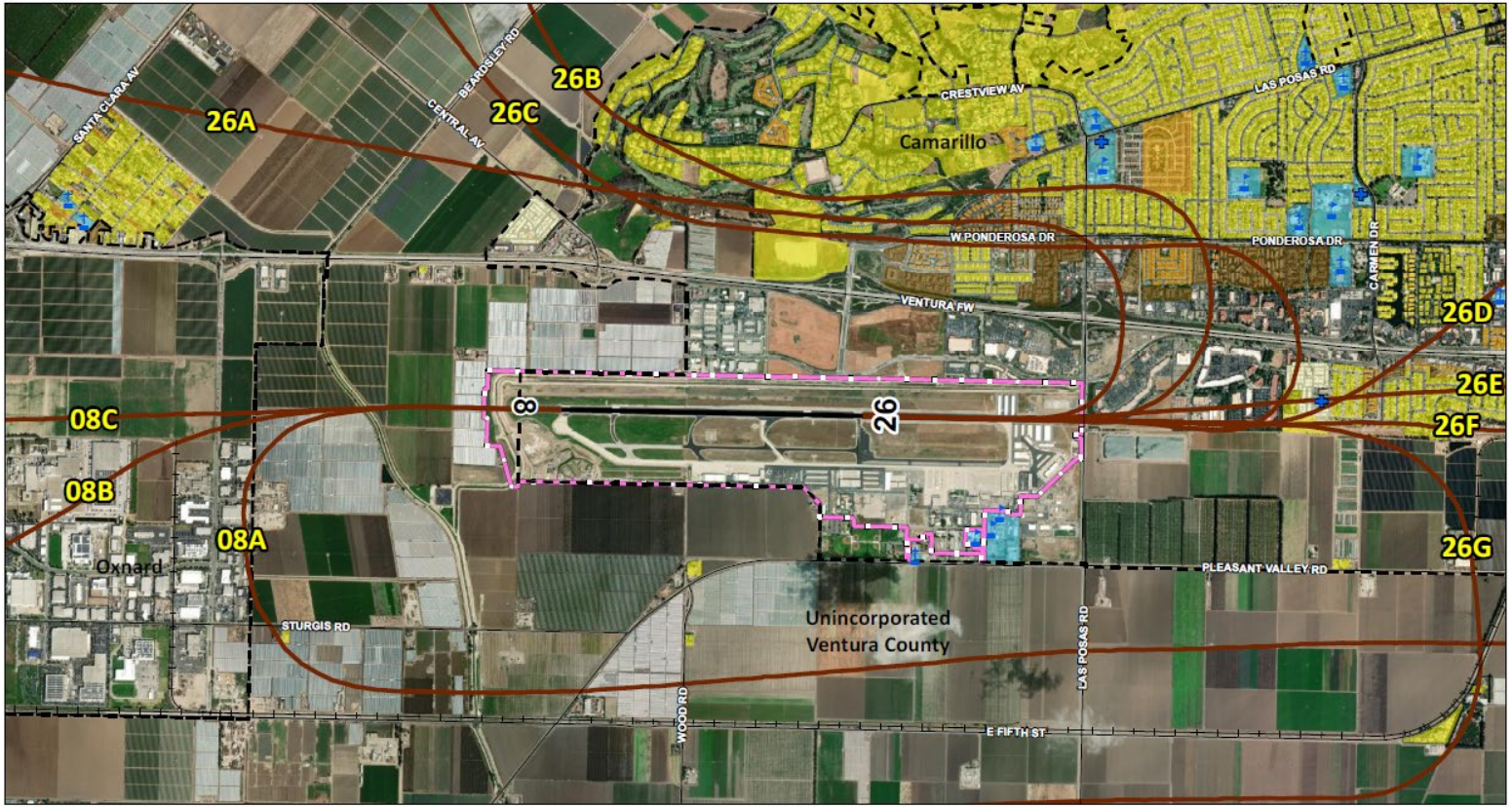
Radar Flight Tracks



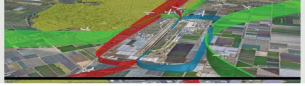




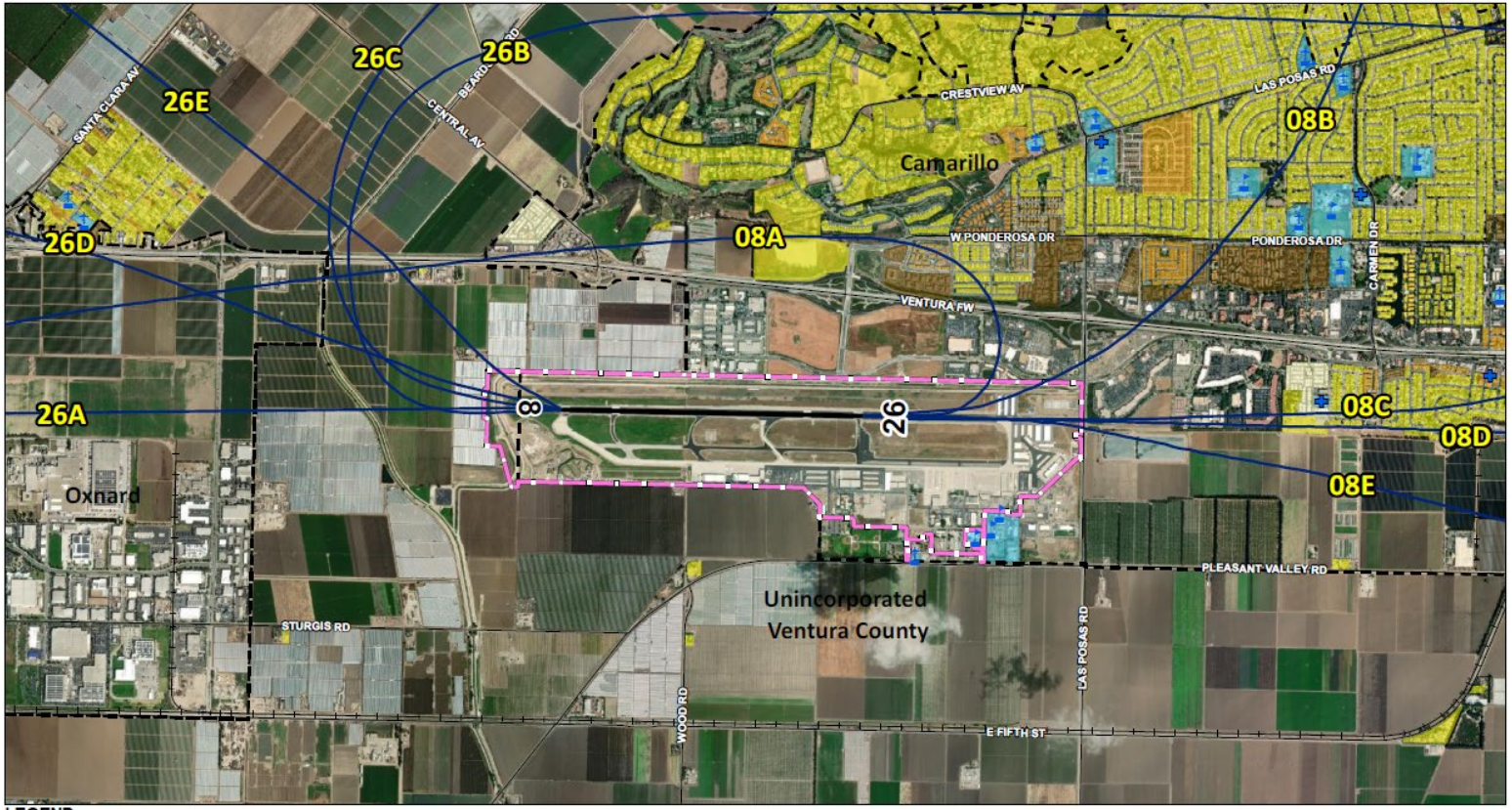
Consolidated Arrival Flight Tracks



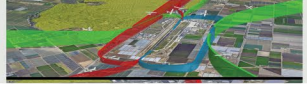




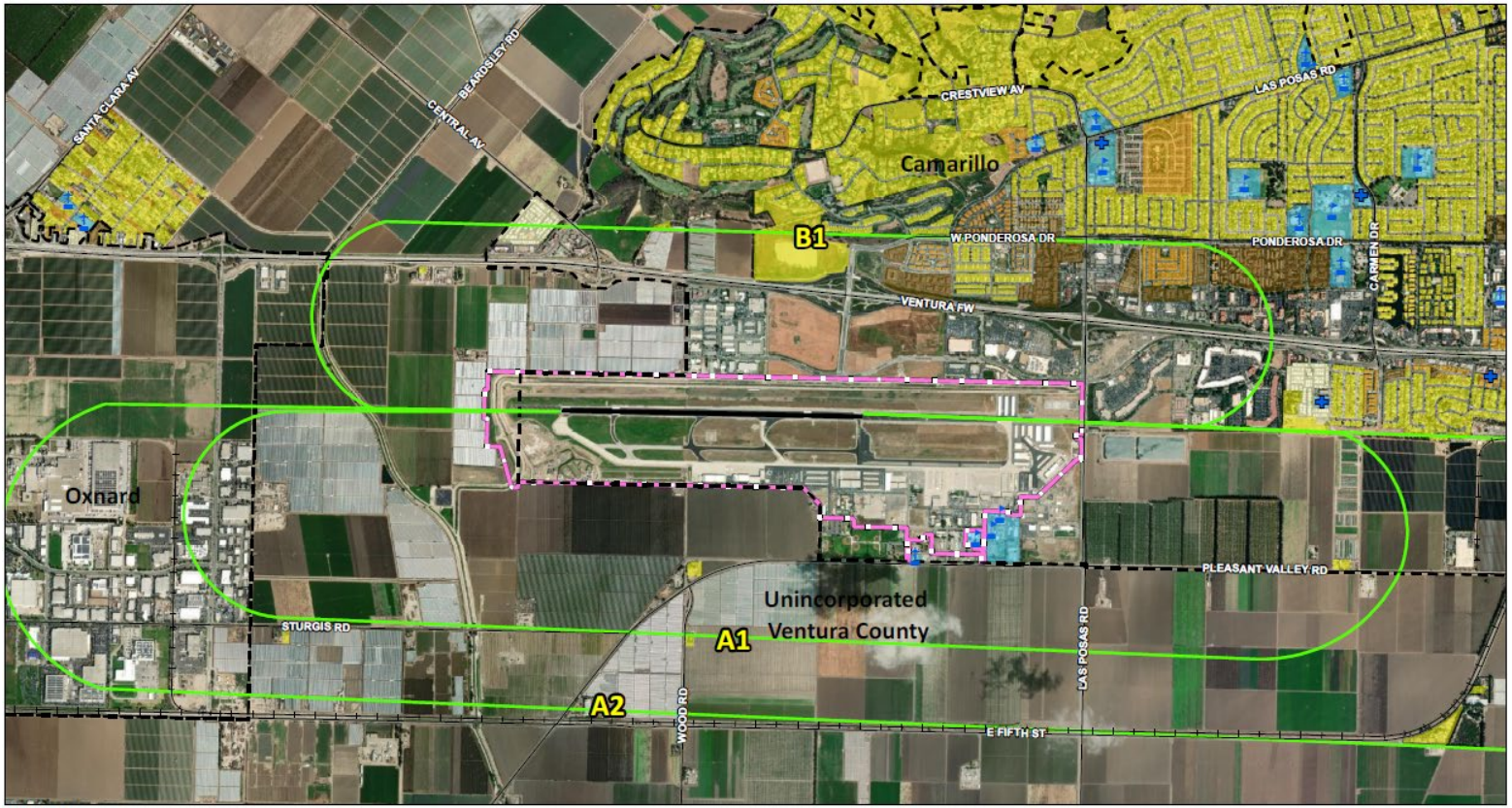
Consolidated Departure Flight Tracks



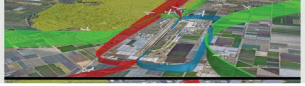




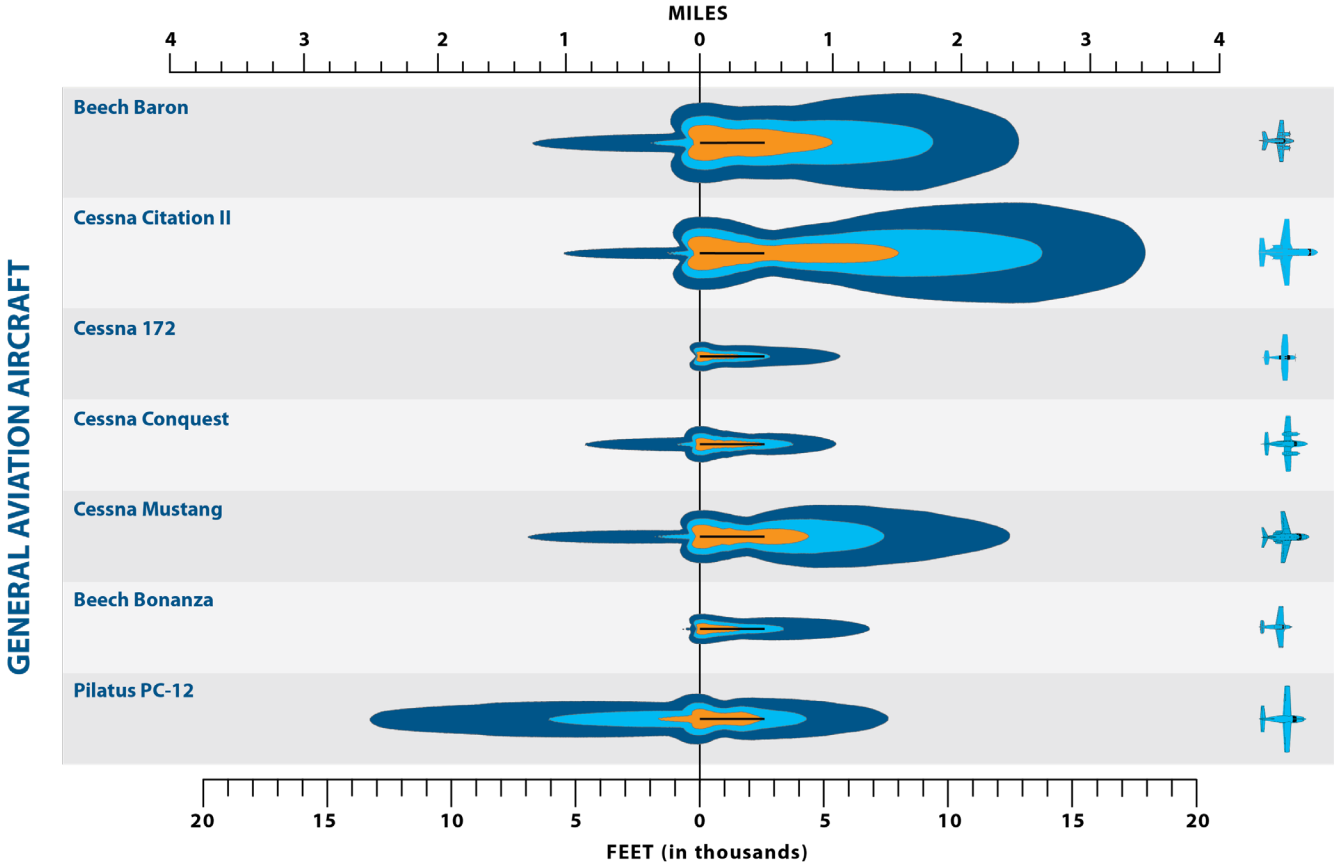
Consolidated Touch and Go Flight Tracks





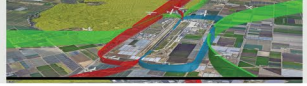


Aircraft Noise Footprint Comparison

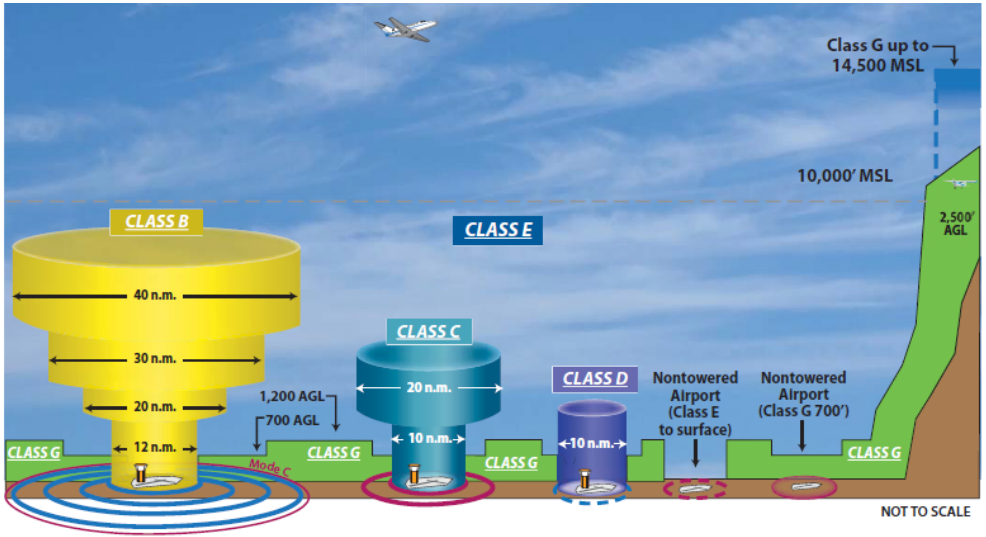


The contours represent sound exposure levels (SEL) of 85, 90 and 95 dB for one arrival and one departure of each aircraft type.
The outer contour represents 85 dB SEL. The inner contour represents 95 dB SEL.





Airspace



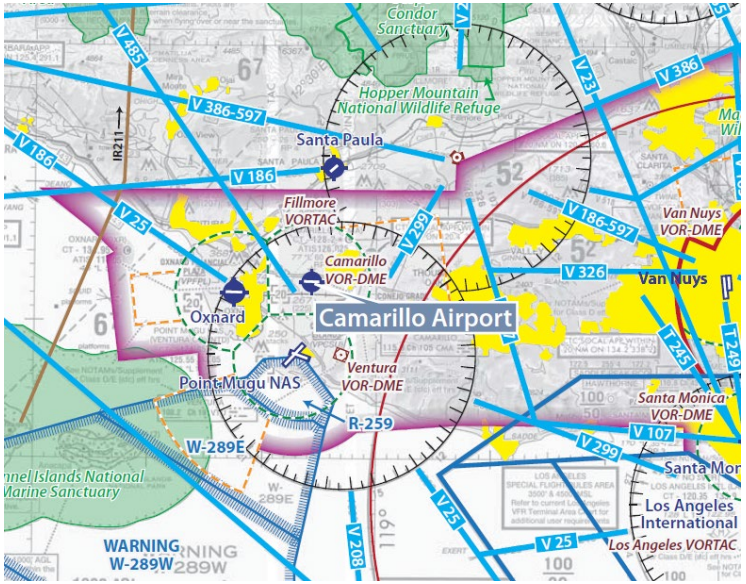
DEFINITION OF AIRSPACE CLASSIFICATIONS

CLASS A Think A - Altitude. Airspace above 18,000 feet MSL up to and including FL 600. Instrument Flight Rule (IFR) flights only, ADS-B 1090 ES transponder required, ATC clearance required.

CLASS B Think B - Busy. Multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports. ADS-B 1090 ES transponder required, ATC clearance required.

CLASS C Think C - Mode C. Mode C transponder required. ATC communication required. Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.

CLASS D Think D - Dialogue. Pilot must establish dialogue with tower. Generally airspace from the surface to minimum 2,500 feet AGL surrounding towered airports.



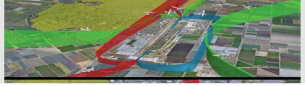
LEGEND

- Airport with hard-surfaced runways 1,500' to 8,069' in length
- Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069'
- VORTAC
- VOR-DME
- Compass Rose
- Class B Airspace
- Class C Airspace
- Class D Airspace
- Class E Airspace
- Class E Airspace with floor 700 ft. above surface
- MODE C
- Victor Airways
- Military Training Routes
- Prohibited, Restricted, Warning and Alert Areas
- Wilderness Areas
- Populated Areas

NORTH

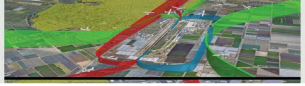
Source: US Department of Commerce, National Oceanic and Atmospheric Administration Los Angeles Sectional Charts, December 5, 2019





Runway Use

Time of Day

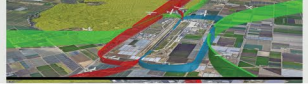


What Makes a Good Noise Monitoring Site?

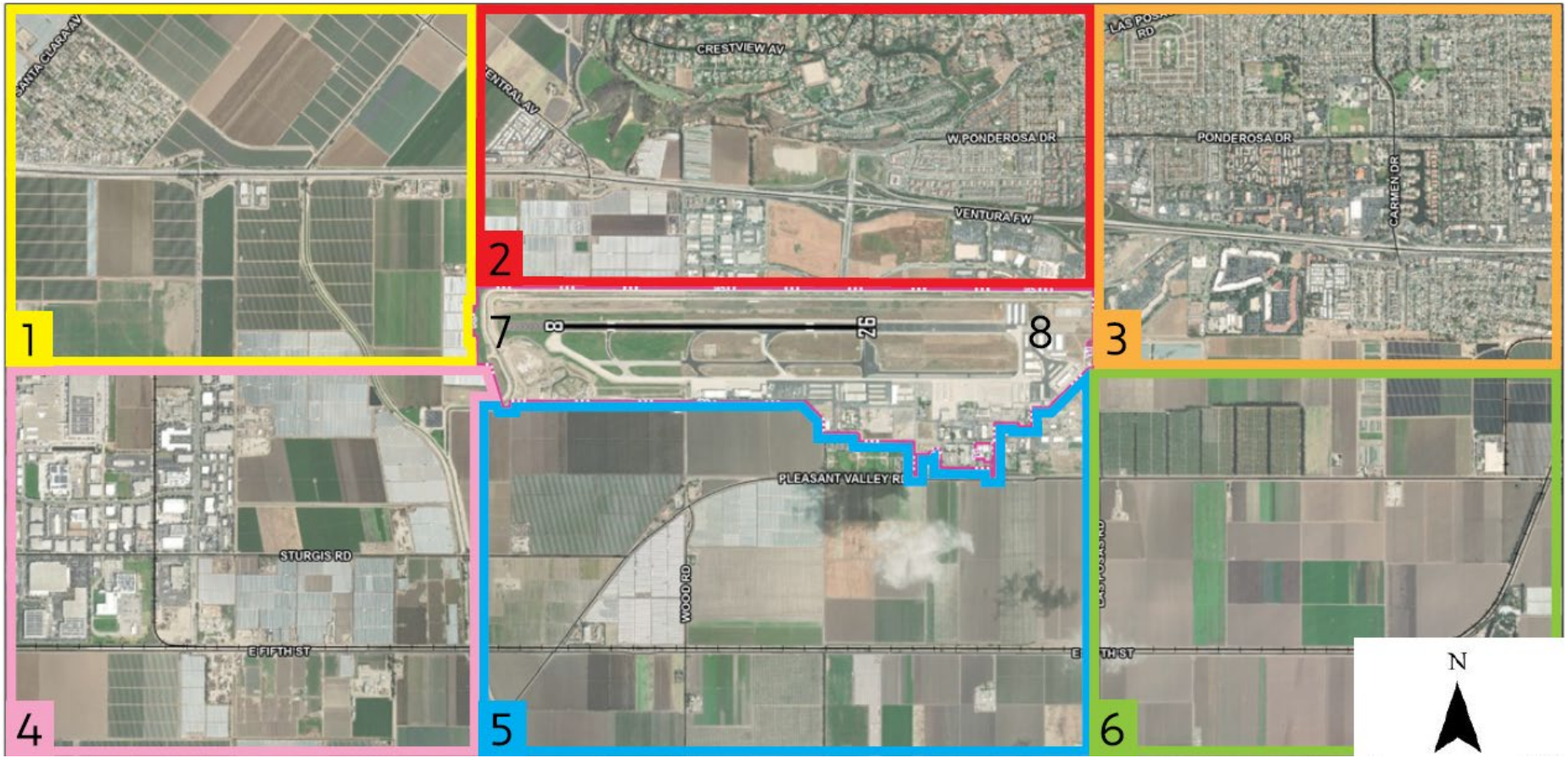
- Located within the airport's FAA-mandated study area
- Unoccupied secured yard or rooftop
- Accessible to researchers 24 hours and 36 hours after installation
- Away from non-aircraft noise sources (i.e. construction sites, mowers, trains, sirens, pets)

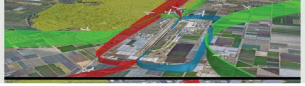
Equipment setup consists of a briefcase-sized box and a camera tripod with a microphone.





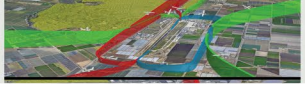
Noise Monitoring Zones





Forecast Discussion





Aviation Demand Forecasts

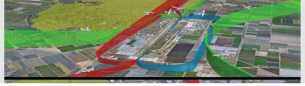
- Developed using FAA-approved methodologies to identify aviation activity measures in order to prepare forecast levels of demand that the airport could experience in the coming years.

- Sources include the *FAA Aerospace Forecasts – Fiscal Years 2022-2042*, the *FAA Terminal Area Forecast*, the FAA *Traffic Flow Management System Count*, airport traffic control tower (ATCT) records, and airport records for based aircraft.

- Aviation demand segments include:
  - Based aircraft
  - Annual aircraft operations
  - Design aircraft

- These demand segments help to identify inputs for modeling aircraft noise (aircraft operations and aircraft fleet mix).



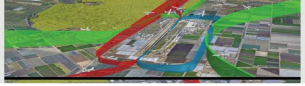


Forecast Summary

	2022	2027	2032	2042
ANNUAL OPERATIONS				
Itinerant				
Air Taxi	3,220	3,578	4,400	5,225
General Aviation	79,760	84,546	88,648	101,181
Military	118	476	476	476
Total Itinerant Operations	*83,098*	*88,599*	*93,523*	*106,882*
Local				
General Aviation	103,490	103,849	105,578	109,201
Military	488	89	89	89
Total Local Operations	*103,978*	*103,938*	*105,667*	*109,290*
Total Annual Operations	*187,076*	*192,538*	*199,191*	*216,172*
Annual Instrument Approaches	*12,465*	*13,290*	*14,029*	*16,032*
BASED AIRCRAFT				
Single Engine	280	285	290	303
Multi-Engine Piston	24	24	24	24
Turboprop	4	8	13	25
Jet	21	31	37	62
Helicopter	21	23	25	30
Total Based Aircraft	*350*	*371*	*389*	*444*

The FAA has oversight responsibility to review and approve the aviation forecasts developed in conjunction with the Part 150 Noise Compatibility Study.





Aircraft Reference Codes

A-I

Aircraft	TDG
• Beech Baron 55	1A
• **Beech Bonanza**	**1A**
• Cessna 150, 172	1A
• Eclipse 500	1A
• Piper Archer, Seneca	1A

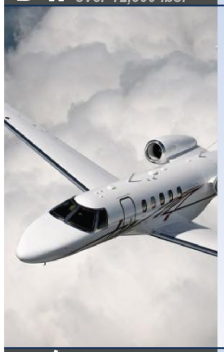
B-I

Aircraft	TDG
• **Beech Baron 58**	**1A**
• Beech King Air 90	1A
• Cessna 421	1A
• Cessna Citation CJ1 (525)	1A
• Cessna Citation 1(500)	2A
• Embraer Phenom 100	1B

A/B-II *12,500 lbs. or less*

Aircraft	TDG
• **Beech Super King Air 200**	**2A**
• Cessna 441 Conquest	1A
• Cessna Citation CJ2 (525A)	2A
• Pilatus PC-12	1A

B-II *over 12,500 lbs.*

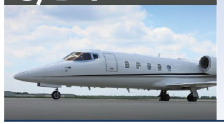


Aircraft	TDG
• Beech Super King Air 350	2A
• Cessna Citation CJ3(525B), V (560)	2A
• Cessna Citation Bravo (550)	1A
• **Cessna Citation CJ4 (525C)**	**1B**
• Cessna Citation Latitude/Longitude	1B
• Embraer Phenom 300	1B
• Falcon 10, 20, 50	1B
• Falcon 900, 2000	2A
• Hawker 800, 800XP, 850XP, 4000	1B
• Pilatus PC-24	1B

A/B-III

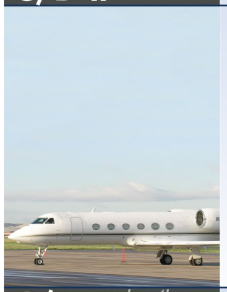
• Bombardier Dash 8	3
• **Bombardier Global 5000**, 6000, 7000, 8000	**2B**
• Falcon 6X, 7X, 8X	2B

C/D-I



• **Lear** 25, 31, 45, 55, **60**	**1B**
• Learjet 35, 36 (D-I)	1B

C/D-II



Aircraft	TDG
• Challenger 600/604/ 800/850	1B
• Cessna Citation VII, X+	1B
• Embraer Legacy 450/500	1B
• **Gulfstream IV**, 350, 450 (D-II)	2A
• Gulfstream G200/G280	1B
• Lear 70, 75	1B
• CRJ 700	2B
• ERJ 175, 195	3
• CRJ 900	2B

C/D-III *less than 150,000 lbs.**

• Gulfstream V	2A
• **Gulfstream** G500, 550, 600, **650 (D-III)**	**2B**

C/D-III *over 150,000 lbs.*

Aircraft	TDG
• Airbus A319-100, 200	3
• Boeing 737 -**800**, 900, BBJ 2 (D-III)	3
• MD-83, 88 (D-III)	4

C/D-IV

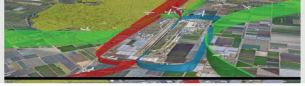
• Airbus A300-100, 200, 600	5
• Boeing 757-200	4
• Boeing 767-300, **400**	5
• MD-11	6

D-V

• Airbus A330-200, 300	5
• Airbus A340-500, 600	6
• Boeing 747-100 - 400	5
• Boeing 777-300	6
• Boeing **787-8**, 9	5

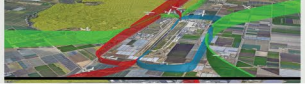
Note: Aircraft pictured is identified in bold type.

*CMA operations are limited to 115,000 lbs. per the 1976 Joint Powers Agreement, except when authorized by the airport director or in case of emergencies.



PAC Member Discussion

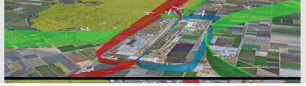




Agenda

1. Welcome and Introductions
    - Keith Freitas, Ventura County Department of Airports
2. Study Process and Proposed Meeting Schedule
    - Dave Fitz, Coffman Associates
3. PAC Roles and Responsibilities
    - Dave Fitz, Coffman Associates
4. Noise Exposure Maps Overview
    - Kory Lewis, Coffman Associates
5. Noise Exposure Maps Inventory
    - Madeline Holliman, Coffman Associates
6. Noise Modeling Overview
    - Kory Lewis, Coffman Associates
7. Operations Forecasts
    - Matt Quick, Coffman Associates
8. PAC Members' Issues Discussion
    - Elsa Argomaniz, Arellano Associates
9. Adjournment





Mark Your Calendars!

Ventura County Department of Airports
Part 150 Noise Study Community Meetings

The first community information meetings for the Part 150 Noise Studies have been scheduled.

- Camarillo Airport Part 150 Noise Study:
  March 20th, 2023
  5:30 p.m. - 7:30 p.m.
- Oxnard Airport Part 150 Noise Study:
  March 21st, 2023
  5:30 p.m. - 7:30 p.m.

20 Monday March 2023

21 Tuesday March 2023

The meetings will feature an open house format with a project overview presentation at 5:30 p.m. and again at 6:30 p.m.

Location: Courtyard by Marriott, Oxnard-Ventura,
600 E Esplanade Dr, Oxnard, CA 93036

Please note that study materials will be available in both English and Spanish. Live interpretation in Spanish and Mixteco will also be available.

For more information visit vcairports.org.

COUNTY of VENTURA
Department of Airports

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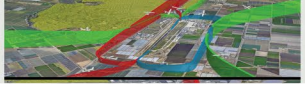
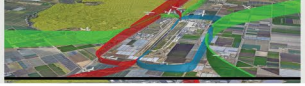
Department of Airports







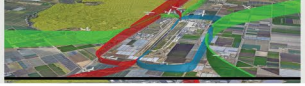
1976 Joint Powers Agreement - City of Camarillo

The following restrictions are listed in the 1976 JPA:

- The airport shall be operated for general aviation purposes only.
  - General aviation includes all business and commercial, training, personal transportation, proficiency, and sport flying not classified as air carrier.
  - General aviation also includes air taxi or charter for revenue on a non-schedule basis and interstate freight-carriers limited to 30 passengers and 7,500 lbs. cargo.
- The airport operating hours will be from 5:00 AM to 12:00 AM.
- The usable runway length shall not exceed 6,000 feet and shall be the most westerly 6,000 feet of the existing runway.
- An aircraft weight limitation of 115,000 lbs. (twin wheel) shall be in effect.
- The airport VFR traffic pattern shall be to the south of the airfield.
- Airport development shall be guided to ensure that residential areas are not exposed to noise levels greater than 60 CNEL average noise and 90 dBA single event noise.

Ventura County Board of Supervisors and City of Camarillo *Agreement Between County of Ventura and City of Camarillo Pertaining to Camarillo Airport Development and Surrounding Land Use* (1976)
Ventura County Board of Supervisors, Ordinance 6506-17*, Hours of Operation (November 1980; rev. 2006)*





Public Comments