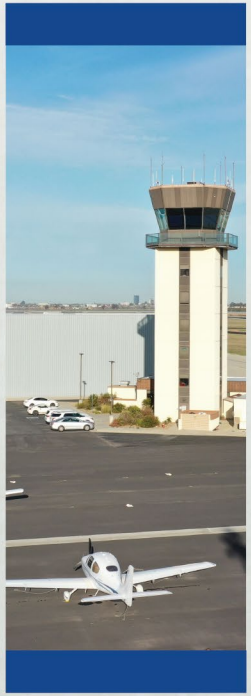
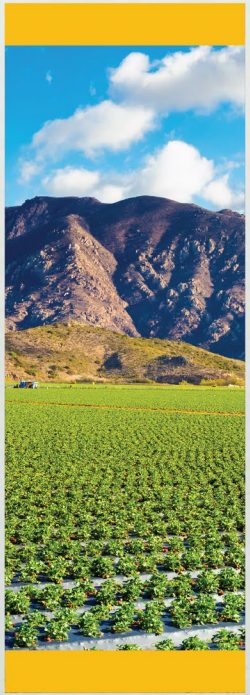
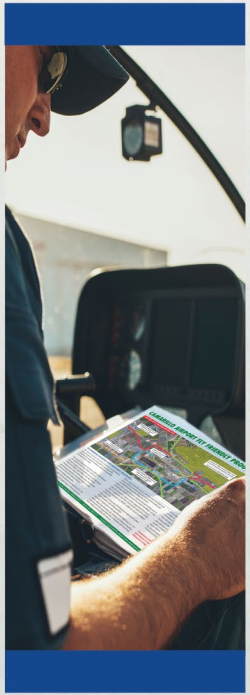
COUNTY of VENTURA

Department of Airports

COUNTY of VENTURA
Department of Airports



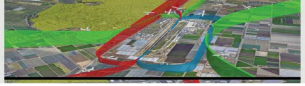




Camarillo Airport

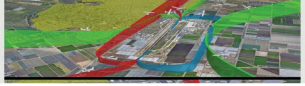
14 CFR Part 150 Noise Compatibility Planning Study Update



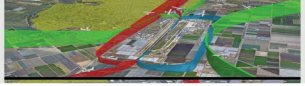


Agenda

1. Welcome and Introductions
    - Keith Freitas, Ventura County Department of Airports
3. Five Key Takeaways for this Meeting
    - Dave Nafie, Ventura County Department of Airports
2. Study Process
    - Kory Lewis, Coffman Associates
4. Noise Exposure Contour Development
    - Kory Lewis, Coffman Associates
5. Noise Impacts
    - Kory Lewis, Coffman Associates
6. Noise Measurement Program
    - Madeline Holliman, Coffman Associates
7. Where Do We Go From Here?
    - Dave Fitz, Coffman Associates
8. PAC Discussion
    - Laura Hernandez, Arellano Associates
9. Adjournment

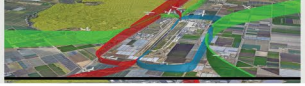


Welcome and Introductions



Five Key Takeaways for this Meeting

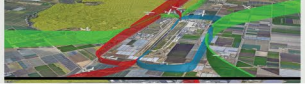




Five Key Takeaways for this Meeting

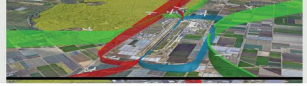
- *Review NEM vs NCP*
- *Review Modeling vs. Measurements*
- *Understand CNEL (Averaged) vs SEL (Measured)*
- *Understand FAA Approvals – Their Limits*
- *Know where we go from here*





Study Process





Project Timeline

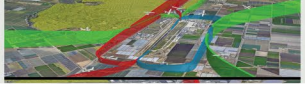
		2023									
		1	2	3	4	5	6	7	8	9	10
NEM	Inventory										
	Aviation Noise										
	Noise Impacts										
NCP	Noise Abatement Alternatives										
	Land Use Alternatives										
	Noise Compatibility Plan										
Public Outreach											
Public Meeting											
Documentation (Draft and Final Reports)				3/20						9/26	DRAFT NEM
Phase		Pre-Work				Study				Documentation	

		2023		2024							
		11	12	1	2	3	4	5	6	7	8
NCP	Noise Abatement Alternatives										
	Land Use Alternatives										
	Noise Compatibility Plan										
Public Outreach											Submit to FAA
Public Meeting											
Documentation (Draft and Final Reports)		FINAL NEM							DRAFT NCP		FINAL NCP
Phase		Doc.		Study				Documentation			

LEGEND

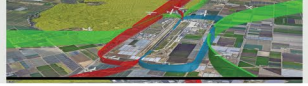
- FAA Approval of Forecasts
- Noise Measurements
- Planning Advisory Committee
- Public Information Workshop
- Aviation & Land Use Technical Conferences
- Public Hearing and/or Information Workshop
- Print/Electronic Document
- **NEM** - Noise Exposure Maps
- **NCP** - Noise Compatibility Plan





Noise Contour Development

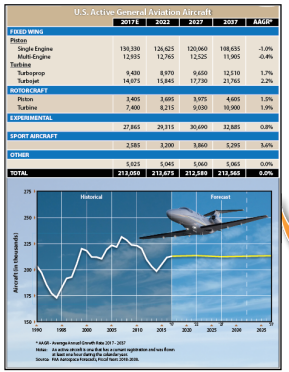




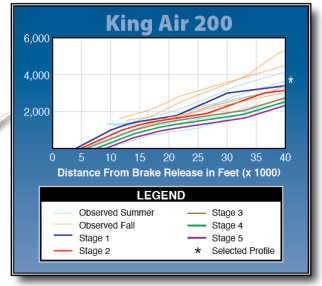
AEDT Process

Flight Tracks

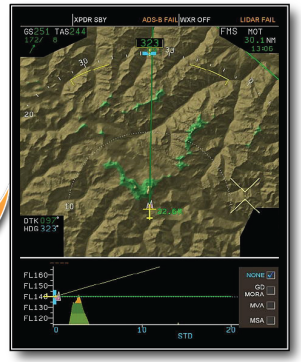
Existing & Forecast Operations/Fleet Mix



Time of Day

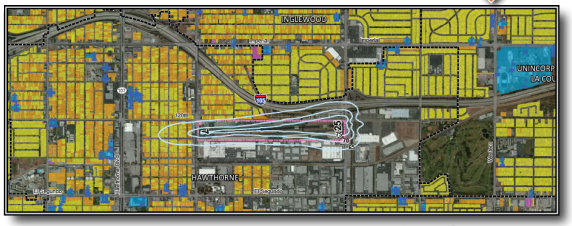


Profile Analysis

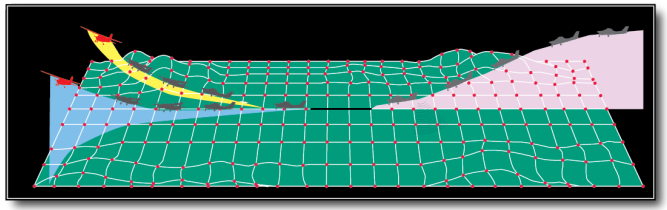


Terrain Data

AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT)

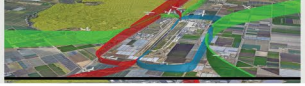


Noise Contours

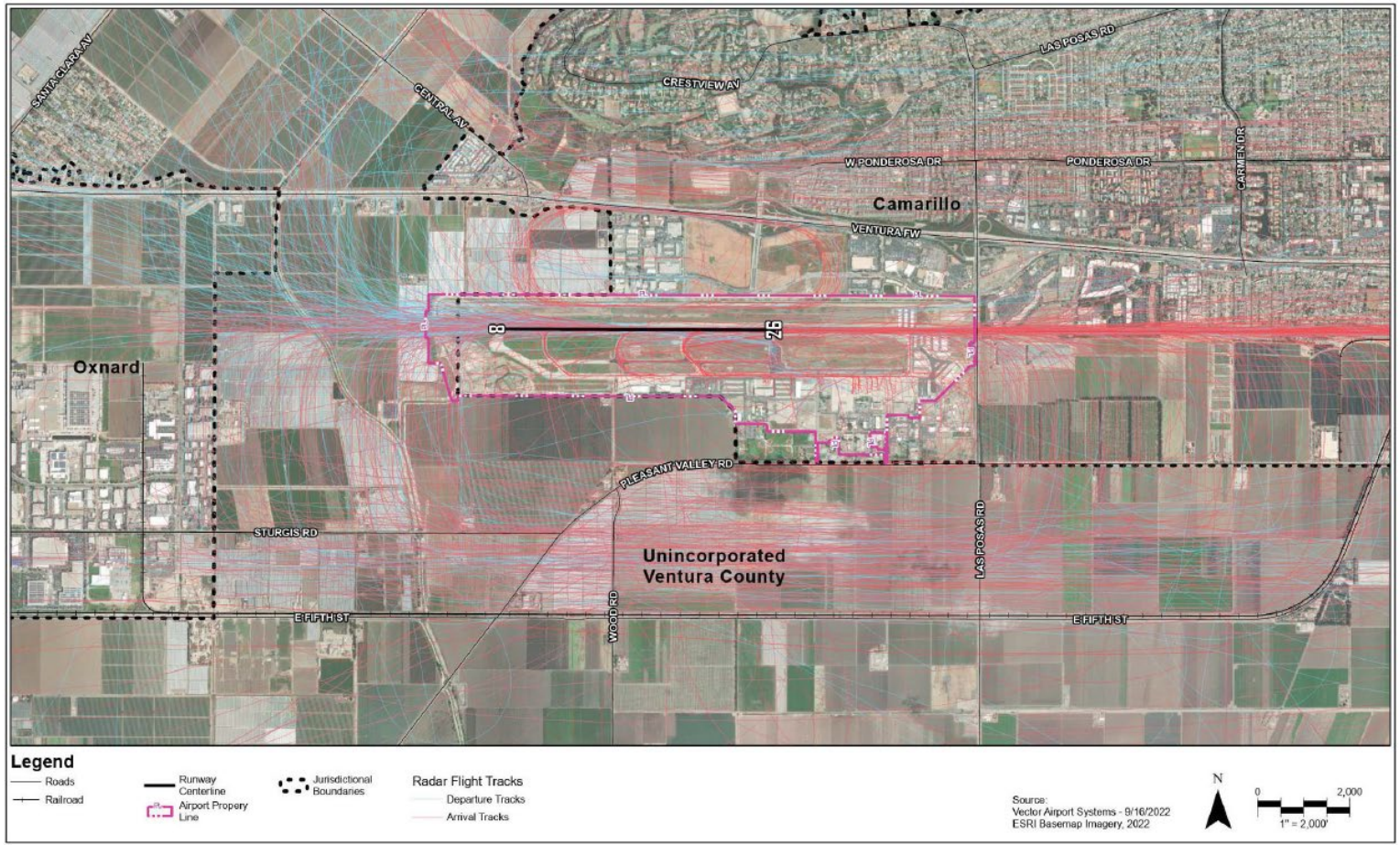


Grid Point Analysis

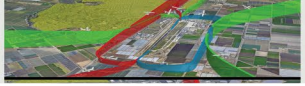




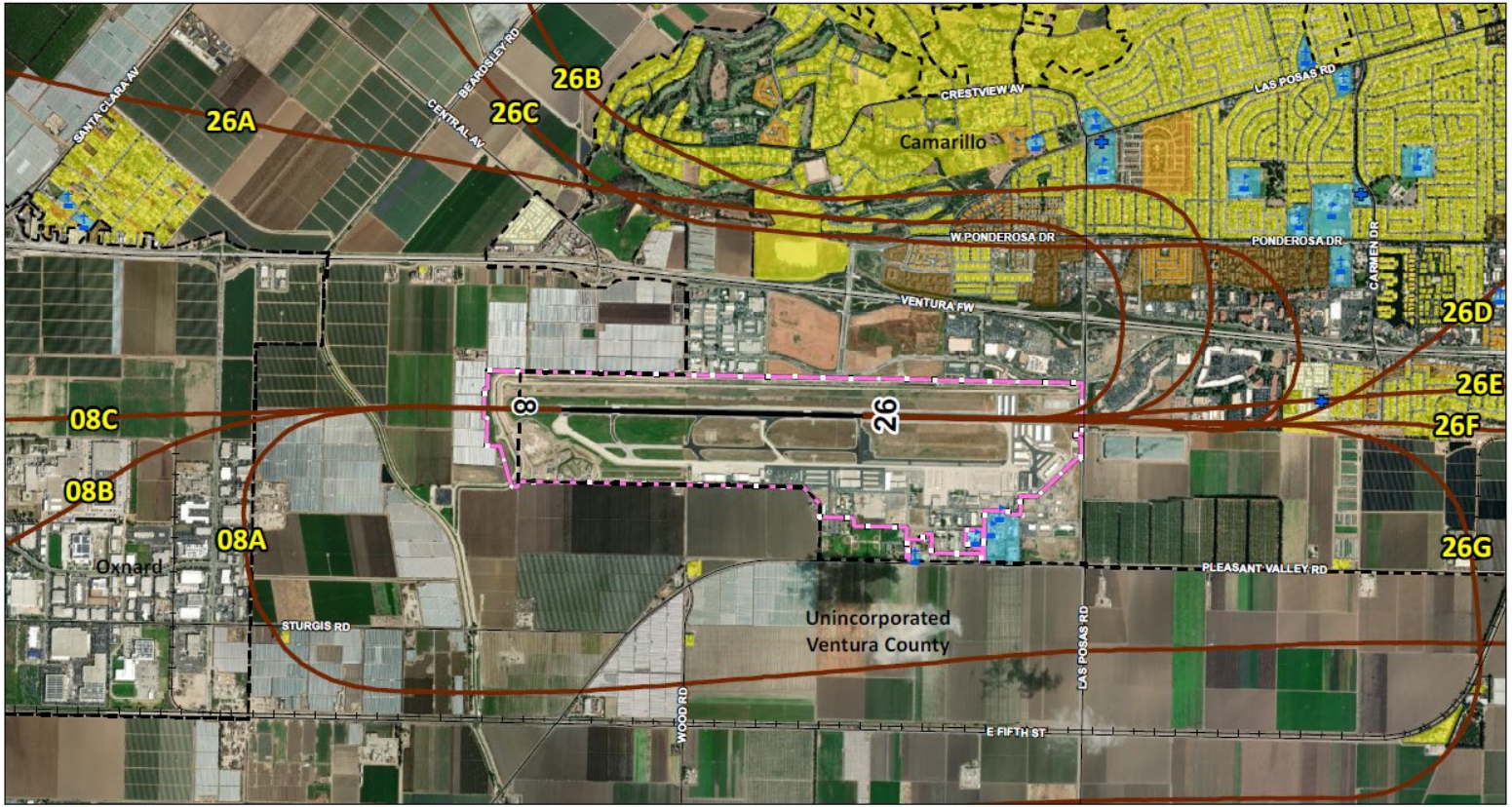
Radar Flight Tracks



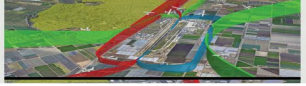




Consolidated Arrival Flight Tracks



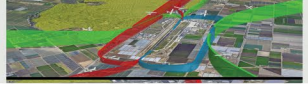




Runway Use

Time of Day



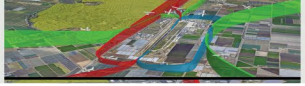


Forecast Summary

	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. Approved 6-1-2023.





Operational Fleet Mix

TABLE 3C | Operational Fleet Mix – Camarillo Airport

Aircraft Type[1]	AEDT Designator[2]	2022 Operations[3]	2027 Operations[4]
GA Itinerant Operations			
Single-Engine Piston, Fixed	GASEPF	30,010	28,259
Single-Engine Piston, Variable	GASEPV	30,010	28,259
Multi-Engine Piston	BEC58P	3,885	3,885
Multi-Engine Piston	PA30	315	315
Helicopter, Small	R44	1,057	1,157
Helicopter, Small	EC130	906	992
Helicopter, Medium	SA365N	1,057	1,157
Single-Engine Piston, Fixed	GASEPF	50,854	50,939
Single-Engine Piston, Variable	GASEPV	50,854	50,939
Multi-Engine Piston	BEC58P	600	600
Helicopter, Small	R44	1,000	1,100
Single-Engine Turboprop (incl. T-6 Texan)	CNA208	200	240
Turbojet	CL600	41	75
Military	CNA208	59	46
	GA Local Total Operations	*103,608*	*103,938*
	Total Operations	**187,076**	**192,538**

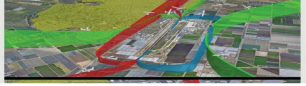
GA = General Aviation

[1] Coffman Associates analysis. No user-defined aircraft or profiles requiring FAA approval were used in the AEDT modeling.

[2] FAA Traffic Flow Management System Counts (TFMSC), Camarillo Airport, Calendar Year 2022

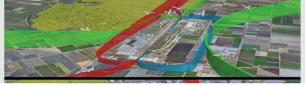
[3] The FAA approved the forecast contained in Chapter 2 – Forecasts, which was prepared as part of the *2022 Camarillo Airport Layout Plan Update and Narrative Report*. (See **Appendix E**.)

[4] Coffman Associates analysis.



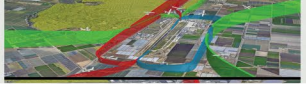
Noise Impacts





The Ventura County Department of Airports recognizes that some community members are disturbed by noise at levels below the FAA guidelines for noise exposure. Additional efforts to evaluate potential options to reduce the effects of noise exposure will be considered as part of the noise abatement and land use alternatives sections of the airport's Part 150 Noise Compatibility Program.





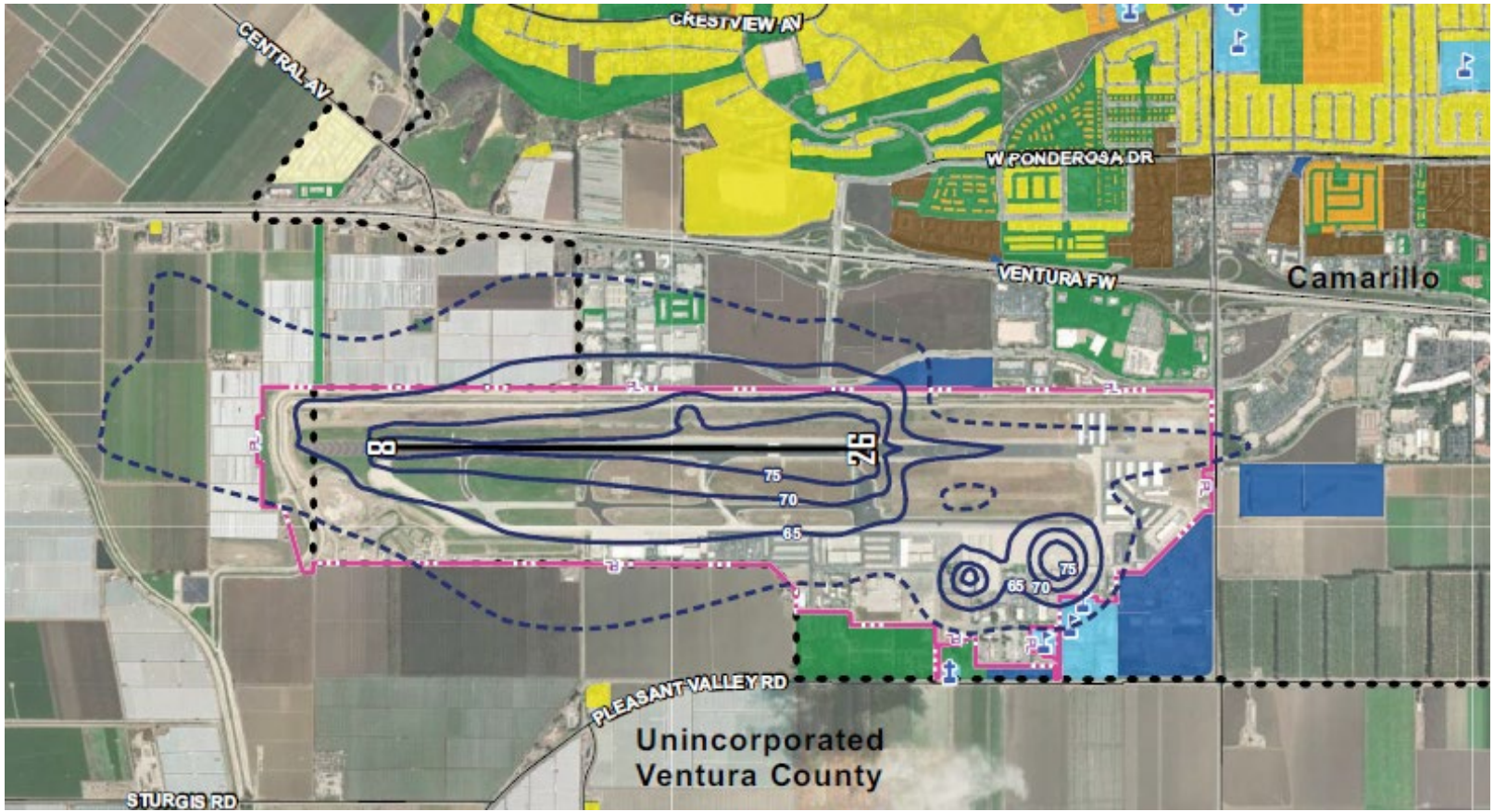
14 CFR Part 150 Noise Compatibility Guidelines

LAND USE	Yearly Day-Night Average Sound Level (DNL) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N[1]	N[1]	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N[1]	N[1]	N[1]	N	N
Public Use						
Schools	Y	N[1]	N[1]	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y[2]	Y[3]	Y[4]	Y[4]
Parking	Y	Y	Y[2]	Y[3]	Y[4]	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail-building materials, hardware and farm equipment	Y	Y	Y[2]	Y[3]	Y[4]	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y[2]	Y[3]	Y[4]	N
Communication	Y	Y	25	30	N	N

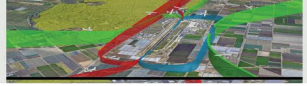
LAND USE	Yearly Day-Night Average Sound Level (DNL) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Manufacturing and Production						
Manufacturing, general	Y	Y	Y[2]	Y[3]	Y[4]	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y[6]	Y[7]	Y[8]	Y[8]	Y[8]
Livestock farming and breeding	Y	Y[6]	Y[7]	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y[5]	Y[5]	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally-determined land uses for those determined to be appropriate by local authorities in response to locally-determined needs and values in achieving noise compatible land uses.

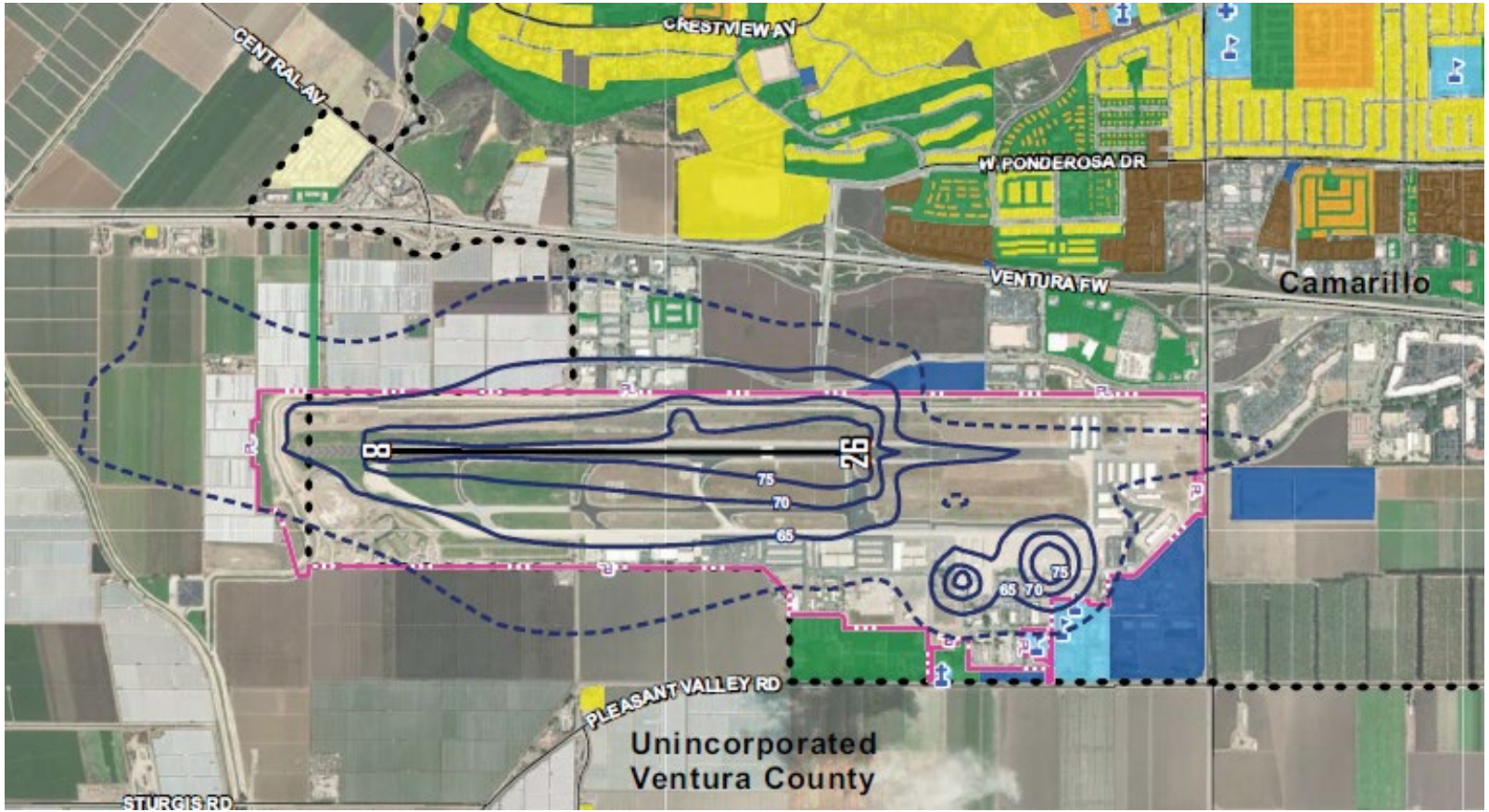
2022 Noise Contours



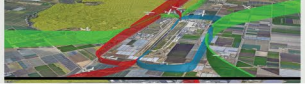




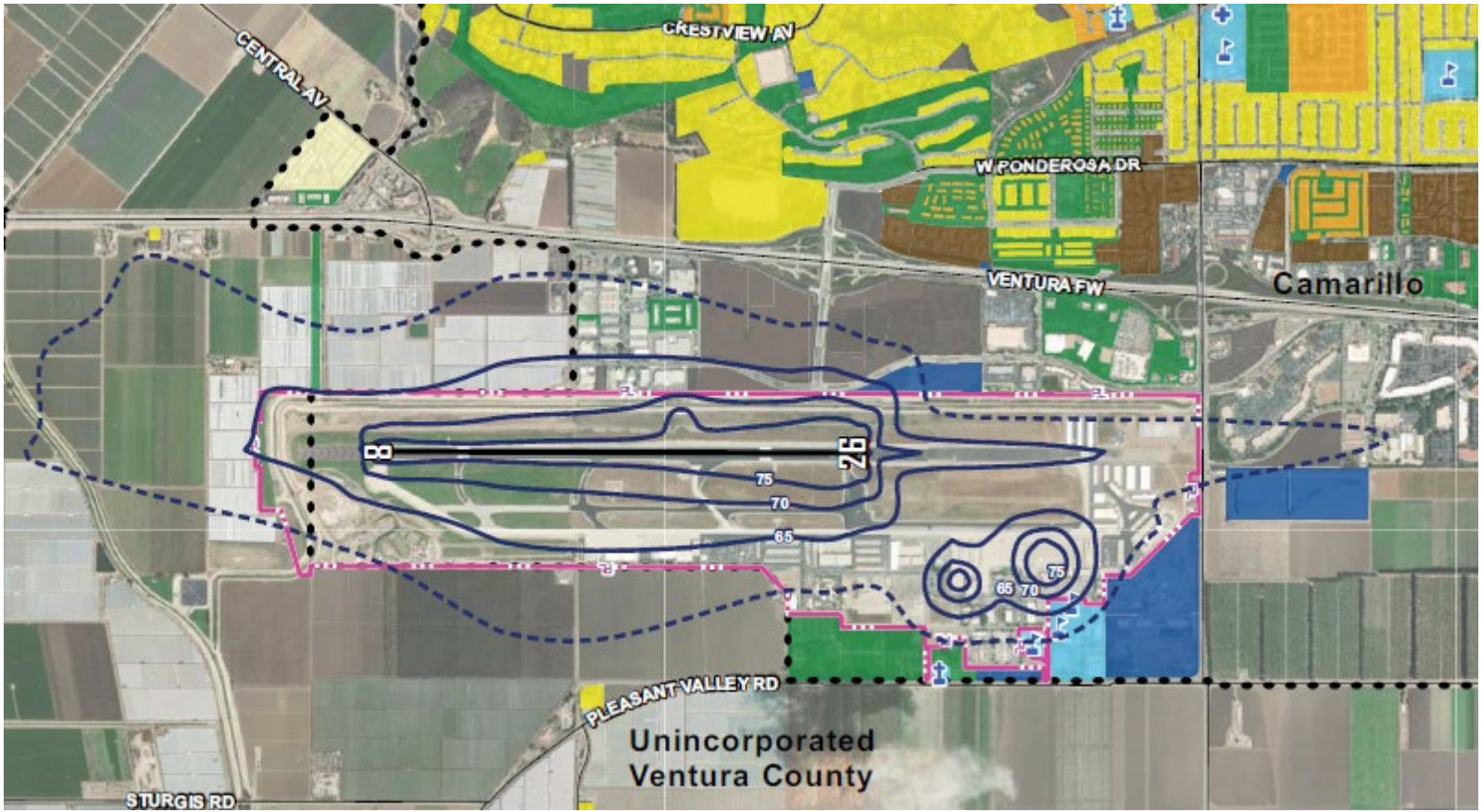
2027 Noise Contours



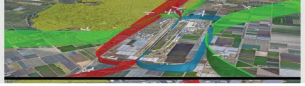




2042 Noise Contours





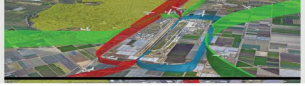


Land Use

TABLE 4B | Land Uses Exposed to 2027 Aircraft Noise Above 65 CNEL – Camarillo Airport			
	Area (Acres)		
	65-70 CNEL	70-75 CNEL	75+ CNEL
Compatible Land Uses			
Airport Property	175.38	97.61	62.95
Agricultural	10.24	0	0
Commercial, Industrial, Transportation, and Utilities	9.65	0	0
Right of Way	8.43	0	0
Undeveloped[1]	11.24	0	0
Noise-Sensitive Land Uses			
Noise-Sensitive	0.60	0	0
Single-Family Residential	0	0	0
Multi-Family Residential	0	0	0
Public Buildings	0	0	0
Public Institutions	1.53	0	0
Historic Properties	0	0	0
Total	**217.07**	**97.61**	**62.95**

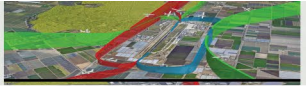
[1] Undeveloped land consists of portions of multiple parcels.

Source: Coffman Associates analysis



Noise Measurement Program





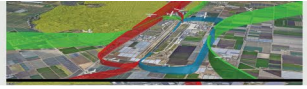
Noise Measurement Program

Successful results include the following:

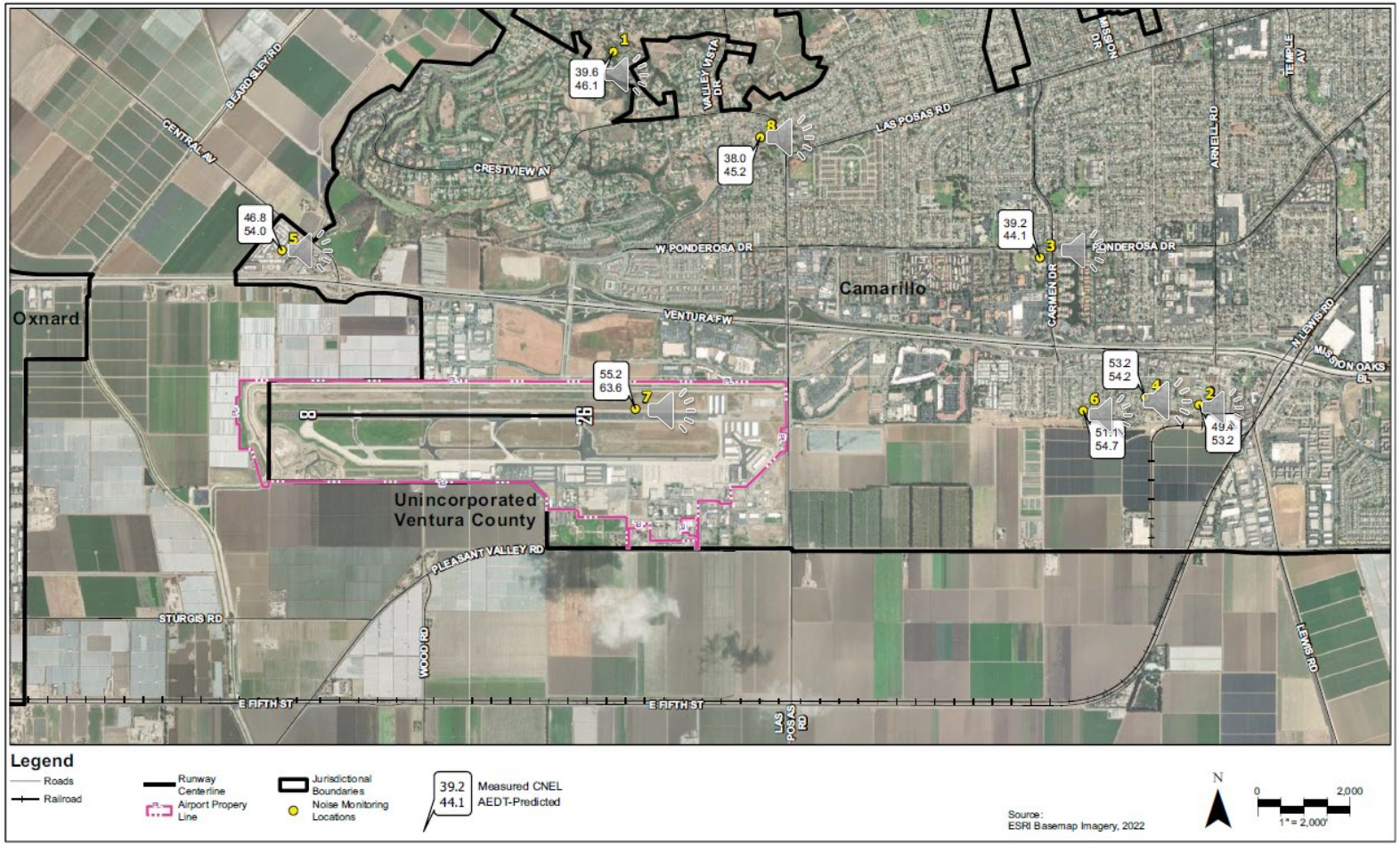
- Noise monitoring was conducted in areas of concern in May, June, July, and August with cooperation from residents.
- Valid data gathered included aircraft events, which were verified through listening to digital recordings. The associated noise levels were used to calculate CNEL values for comparison to the AEDT outputs.
- The CNEL values from the aircraft event data correlate with the modeled values at all locations.
- Determined that no modeling adjustments were needed.

The noise measurement program results were beneficial as a tool for comparison to the AEDT model and the results indicate that the model inputs are accurate for the purposes of this study.

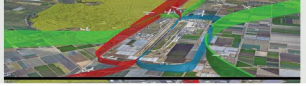




Noise Measurement Program







Noise Measurement Program

TABLE F3 | Noise Measurement Single Event Data Summary
Camarillo Airport

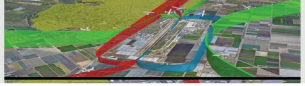
Site/Day	L_{max}	Max Duration (sec)	SOUND EXPOSURE LEVEL EVENT SUMMARY: Below 60 dB	60-70 dB	70-80 dB	80-90 dB	90-100 dB	100+ dB	Aircraft Events
Site 1 – Residence on Avocado Place, Spanish Hills neighborhood, Camarillo									
Day 1	71.4	247.3	131	132	22	0	0	0	148
Day 2	81.0[1]	377.7	113	120	28	2	0	0	98
Day 3	68.1	158.7	0	91	37	1	0	0	22
Day 4	69.1	156.9	0	86	58	3	0	0	43
Site 6 – Residence near Genevieve Circle and Kenneth Street, Old Town, Camarillo									
Day 1	96.5	37.8	0	44	50	27	1	1	74
Day 2	89.3	315.9	0	73	105	34	2	0	92
Day 3	85.0	31.0	0	42	38	20	0	0	59
Day 4	89.8[4]	214.0	169	174	110	29	1	0	354
Day 5	80.6	325.5	118	142	72	29	0	0	221
Day 6	78.3	325.5	176	155	75	28	2	0	198
Site 7 – Camarillo Airport, Runway 26 east end									
Day 1	89.3	344.0	0	8	143	31	12	0	167
Site 8 – Residence near Nancy Bush Park, Spanish Hills neighborhood, Camarillo									
Day 1	89.0[5]	110.2	0	0	17	11	3	0	4
Day 2	73.8	18.3	0	0	12	1	0	0	10

Note: L_{max} and Maximum Duration may be from different events.
[1] Noise value generated by wildlife.
[2] Noise value generated by passing traffic.
[3] Noise value generated by construction.
[4] Noise value generated by resident.
[5] Noise value generated by landscaping.
Source: Coffman Associates analysis

TABLE F3 | Noise Measurement Single Event Data Summary
Camarillo Airport

Site/Day	L_{max}	Max Duration (sec)	SOUND EXPOSURE LEVEL EVENT SUMMARY: Below 60 dB	60-70 dB	70-80 dB	80-90 dB	90-100 dB	100+ dB	Aircraft Events
Site 1 – Residence on Avocado Place, Spanish Hills neighborhood, Camarillo									
Day 1	71.4	247.3	131	132	22	0	0	0	148
Day 2	81.0[1]	377.7	113	120	28	2	0	0	98
Day 3	68.1	158.7	0	91	37	1	0	0	22
Day 4	69.1	156.9	0	86	58	3	0	0	43

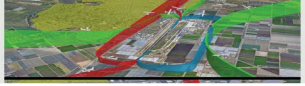




Where Do We Go From Here?

- Finalize and submit Noise Exposure Maps to FAA for Acceptance
- Begin work on the Noise Compatibility Program
  - Noise abatement alternatives
  - Land use alternatives
  - Program management

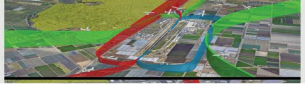




Questions or Comments

Please respond by October 15

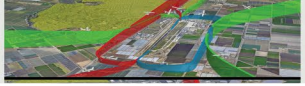




Agenda

1. Welcome and Introductions
    - Keith Freitas, Ventura County Department of Airports
3. Five Key Takeaways for this Meeting
    - Dave Nafie, Ventura County Department of Airports
2. Study Process
    - Kory Lewis, Coffman Associates
4. Noise Exposure Contour Development
    - Kory Lewis, Coffman Associates
5. Noise Impacts
    - Kory Lewis, Coffman Associates
6. Noise Measurement Program
    - Madeline Holliman, Coffman Associates
7. Where Do We Go From Here?
    - Dave Fitz, Coffman Associates
8. PAC Discussion
    - Laura Hernandez, Arellano Associates
9. Adjournment





Mark Your Calendars!

Ventura County Department of Airports
Part 150 Noise Study Community Meetings

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

- Oxnard Airport Part 150 Noise Study:
  September 25th, 2023 • 5:30 p.m. - 7:30 p.m.

Location: Oxnard Performing Arts Center
800 Hobson Way, Oxnard, CA

25 Monday September 2023

- Camarillo Airport Part 150 Noise Study:
  September 26th, 2023 • 5:30 p.m. - 7:30 p.m.

Location: Ventura County Office of Education
Conference and Educational Services Center
5100 Adolfo Road, Camarillo, CA 93012

26 Tuesday September 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.

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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