



**COUNTY** *of* **VENTURA**

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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. Key Takeaways for this Meeting

- **Dave Nafie, Ventura County Department of Airports**

### 3. Study Process

- **Kory Lewis, Coffman Associates**

### 4. Review of Noise Exposure Maps and Impacts

- **Kory Lewis, Coffman Associates**

### 5. Review of Chapter 5, Noise Abatement Alternatives

- **Kory Lewis, Coffman Associates**

### 6. Review of Chapter 6, Land Use Alternatives

- **Madeline Holliman, Coffman Associates**

### 7. Review of Chapter 7, Noise Compatibility Program

- **Kory Lewis, Coffman Associates**

### 8. Approach Analysis and Next Steps

- **Dave Nafie, Ventura County Department of Airports**

### 9. PAC Discussion

- **Stacey Falcioni, Arellano Associates**



## Welcome and Introductions





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## Key Takeaways for this Meeting





## Key Takeaways for this Meeting

- *Review NEM impacts and status*
- *Detail FAA's "laundry list" of NCP techniques*
- *Understand FAA approvals and their limits*
- *Explain local measures not included for FAA review*
- *Know where we go from here*



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## Study Process






## Study Progress

### NEMs

<u>2022</u>	October	Part 150 Noise Compatibility Study began
<u>2023</u>	March	First Public Workshop - Inventory and Forecasts
	May-Aug	Community Noise Measurements
	September	Second Public Workshop - Aviation Noise and Noise Impacts
	December	Noise Exposure Maps submitted to FAA for review

### NCP

<u>2024</u>	June	Community Listening Session and Technical Conferences
	October	Third Public Workshop – Noise Abatement Alternatives, Land Use Alternatives, Noise Compatibility Plan

Public Involvement Throughout (focus groups, outreach, change in meeting format)



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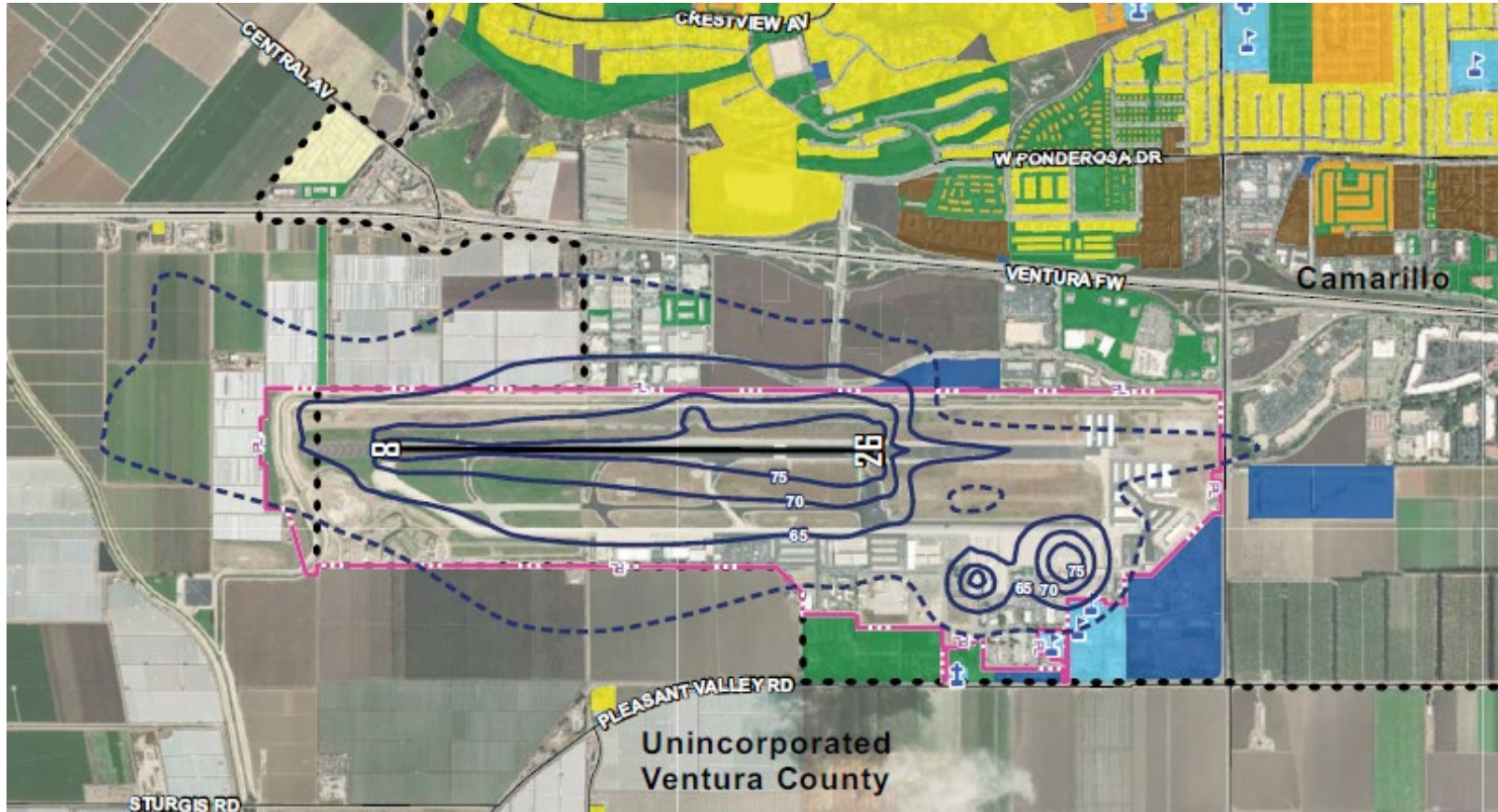
## Status of Noise Exposure Map Document

- Public comment period was advertised following the September 2023 meetings.
- Draft NEM was submitted to FAA ADO in December 2023.
- Minor revisions to the chapters were required to meet FAA guidelines.
- Submitted to FAA for LOB review in August 2024.



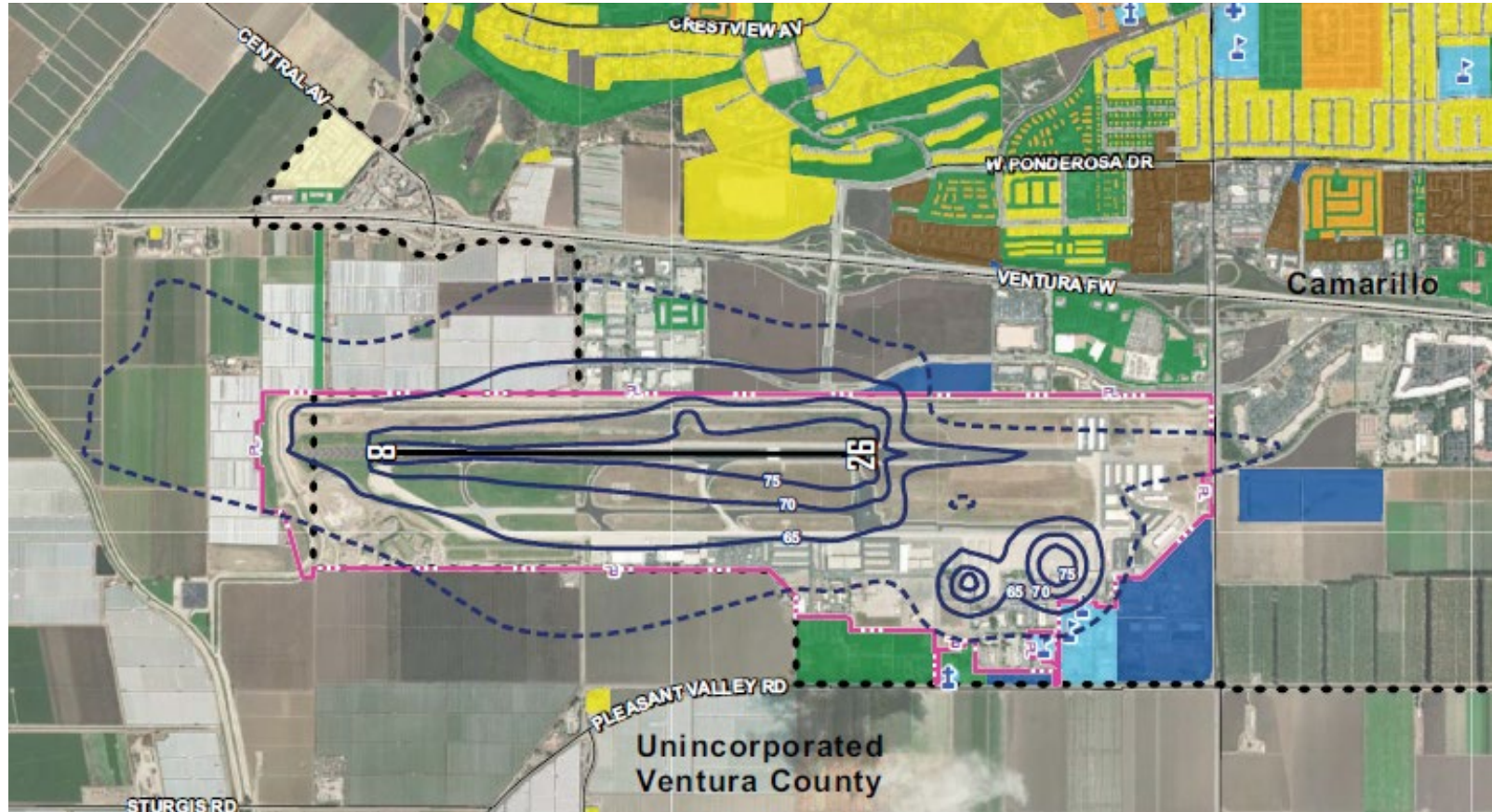


## 2022 Noise Contours



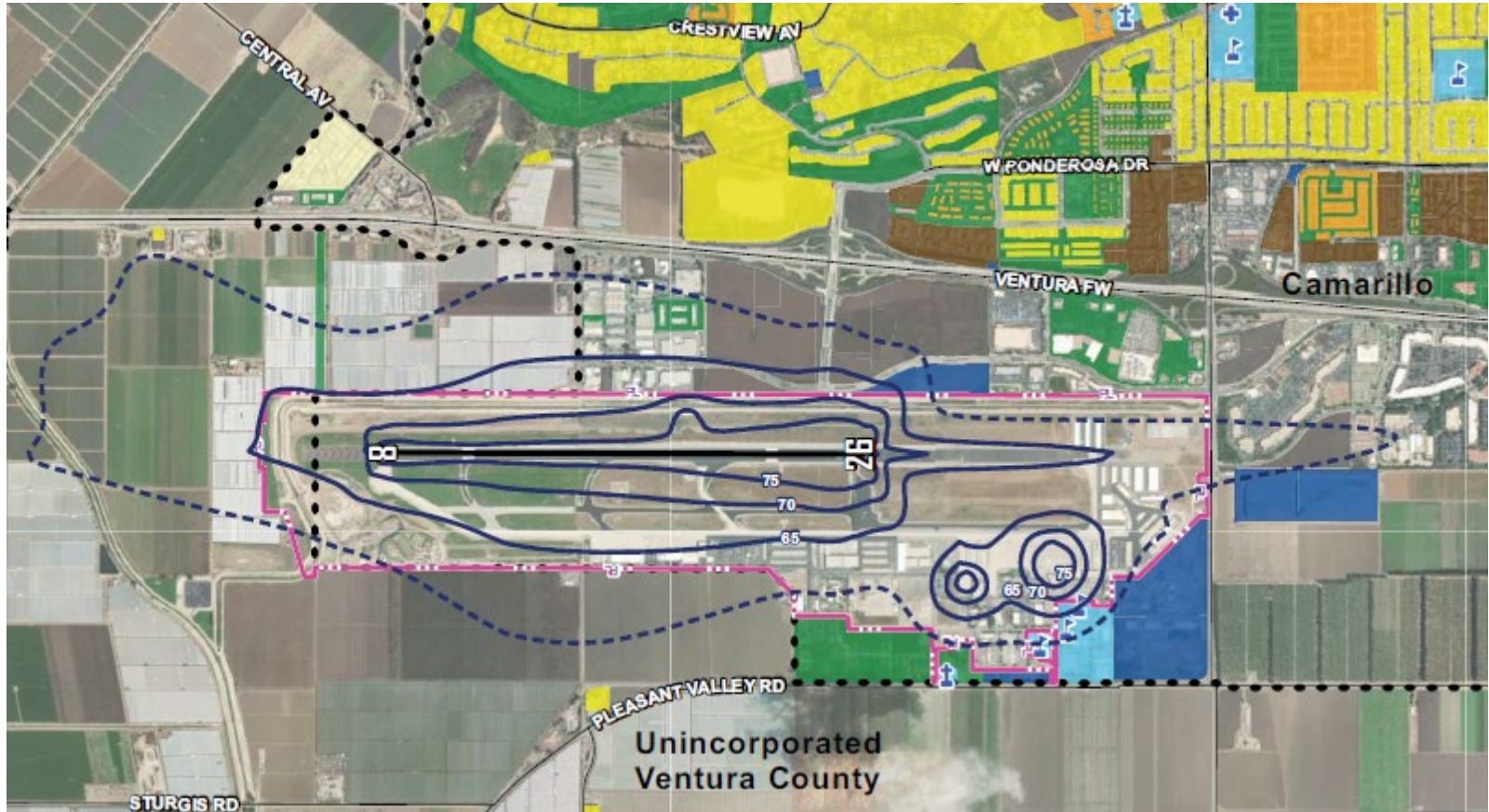


## 2027 Noise Contours





# 2042 Noise Contours





The Ventura County Department of Airports recognizes that some community members are disturbed by noise at levels below the FAA guidelines for noise exposure.

The Department of Airports is committed to using this Part 150 Noise Compatibility Study as an opportunity to evaluate potential options and take reasonable action that will reduce the effects of noise exposure and ensure compatibility with future development.





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## Alternatives Evaluation

### Chapter 5 Noise Abatement

Runway Use and Flight Routing, Airport Facilities, Operational Procedures, Regulations

### Chapter 6 Land Use

General Plan, Zoning, noise and aviation easement purchase

### Chapter 7 Recommended NCP

Summarizes measures recommended for FAA review and those to be implemented locally

## Community and Stakeholder Input

### Listening Session

A Listening Session was held in June 2024 to gather the public's ideas to be considered

- 72 attendees, 81 suggestions
- Examples include curfews, fees, monitoring, reporting

### Technical Conferences

Technical Conferences were held to evaluate all of the alternatives and suggestions



## FAA's Evaluation of Measures

- FAA policy and direction for reviewing Part 150 Noise Compatibility Studies have changed since the prior plan was adopted in 1999.
- FAA asks: Will it reduce Part 150 impacts within the 65 CNEL noise contour?
- “Lanes” Reminder: **NEW** access restrictions require approval under Part 161 regulations. There have been no approvals under Part 161.
- The 1976 JPA is “grandfathered”, but may not be amended, including to increase its restrictions.



# Exhibit 5B: Runway Use and Flight Routes

## Runway Use and Flight Routes



Preferential Runway Use



Departure Turns/Route



Traffic Pattern Changes



Visual Approach Procedures



Instrument Approach Procedures

### How Do They Help?


Shift noise from noise-sensitive area...




to noise-compatible area




### Will These Options Work for Camarillo Airport?

 <ul style="list-style-type: none"> <li>✓ Wind conditions favor Runway 26</li> <li>? Other Runway use options</li> </ul>	 <ul style="list-style-type: none"> <li>✓ GPS approach to Runway 8</li> <li>New IFR approach procedures for Runway 26</li> </ul>
 <ul style="list-style-type: none"> <li>✓ Runway 8 - Follow Highway U.S. 101</li> <li>✓ Runway 26 - Clear Departure end of runway and reach 400' before turning</li> <li>? New departure turns/routes</li> </ul>	 <ul style="list-style-type: none"> <li>✓ Left traffic - Runway 26</li> <li>✓ Right traffic - Runway 8</li> <li>? Traffic pattern changes</li> </ul>
 <ul style="list-style-type: none"> <li>✓ Runway 26 - VFR arrivals offset slightly south to avoid overflight of residential area to the east</li> <li>? IFR approach procedure to Runway 26</li> </ul>	



# Exhibit 5C: Facilities Development

## Facilities Development



Runway Lengthening



New Runways



Displaced/Relocated Thresholds



Acoustic Shielding

## How Do They Help?

Shift noise from noise-sensitive area...




to noise-compatible area




## Will These Options Work for Camarillo Airport?



✗ CMA runway length is limited to 6,000 feet by 1976 JPA.



✗ New runway for noise abatement unlikely to be supported or approved by FAA.



✗ The 1976 JPA restricts the CMA runway to the most westerly 6,000' of the existing runway.




✗ Nearest noise-sensitive areas are located to the north and south of Runway 26.




## Exhibit 5E: Aircraft Operating Procedures


### Aircraft Operating Procedures




Reduced Thrust Takeoffs




Thrust Cutbacks After Takeoff




Maximum Climb Departures



Minimum Approach Altitudes




Approach Profiles








Limitations on Reverse Thrust on Landing

### How Do They Help?

Reduce overall noise energy from the airport



### Will These Options Work for Camarillo Airport?

	<p><input checked="" type="checkbox"/> Reduces safety margin</p>		<p><input checked="" type="checkbox"/> Current voluntary noise abatement procedures:</p> <ol style="list-style-type: none"> <li>1. Fly at or above PAPI glide slope on final approach</li> <li>2. Utilize low energy approaches</li> </ol>
	<p><input checked="" type="checkbox"/> Manufacturers provide suggested thrust cutbacks after takeoff to reduce noise and fuel consumption</p> <p><input checked="" type="checkbox"/> Mandated thrust cutbacks are problematic to get approved and enforce</p>		<p><input checked="" type="checkbox"/> Non-standard approach procedures reduce safety margins.</p>
	<p><input checked="" type="checkbox"/> Use best rate of climb when departing any runway</p> <p><input checked="" type="checkbox"/> Climb to 400' prior to making turns</p>		<p><input checked="" type="checkbox"/> Fixed runway length eliminates this measure</p>



## Exhibit 5F: Airport Restriction and Regulation

### Airport Restriction and Regulation



Curfews



Noise Based  
Landing Fees



Capacity  
Limitations



Aircraft Type  
Restrictions



Ground/  
Training Activity  
Restrictions

### How Do They Help?

Reduce overall noise  
energy from the airport



### Will These Options Work for Camarillo Airport?



✓ No aircraft departures  
between 0000-0500  
without prior approval  
from the Airport Director



✓ No aircraft departures between  
0000-0500 without prior approval  
from the Airport Director



✓ Weight limitation of 115,000 lbs  
(twin wheel) according to the  
1976 JPA



✗ FAA approval of additional airport restrictions and regulations is unlikely because there are no noise-sensitive residential land uses within the 2027 65 Community Noise Equivalent Level (CNEL) noise exposure contours



## Noise Abatement Measures to Be Carried Forward For NCP Consideration – Table 5B

Measure	Description
Fly Friendly Program Information	Continuing distribution of <i>Fly Friendly</i> program information brochures and maintenance of on-airport noise abatement signage.
Pilot Meetings	Holding meetings with pilots and students to discuss safety and noise abatement issues.
Homeowner Outreach	Establishing communication with the public about noise issues; meeting with homeowner groups to discuss various noise-related issues.
Real Estate Outreach	Establishing a real estate agent outreach program to educate real estate agents and potential home buyers about Oxnard Airport operations and its presence in the community.
Public Outreach	Hosting airport open house events to allow the public to visit the airport and learn about its operations.



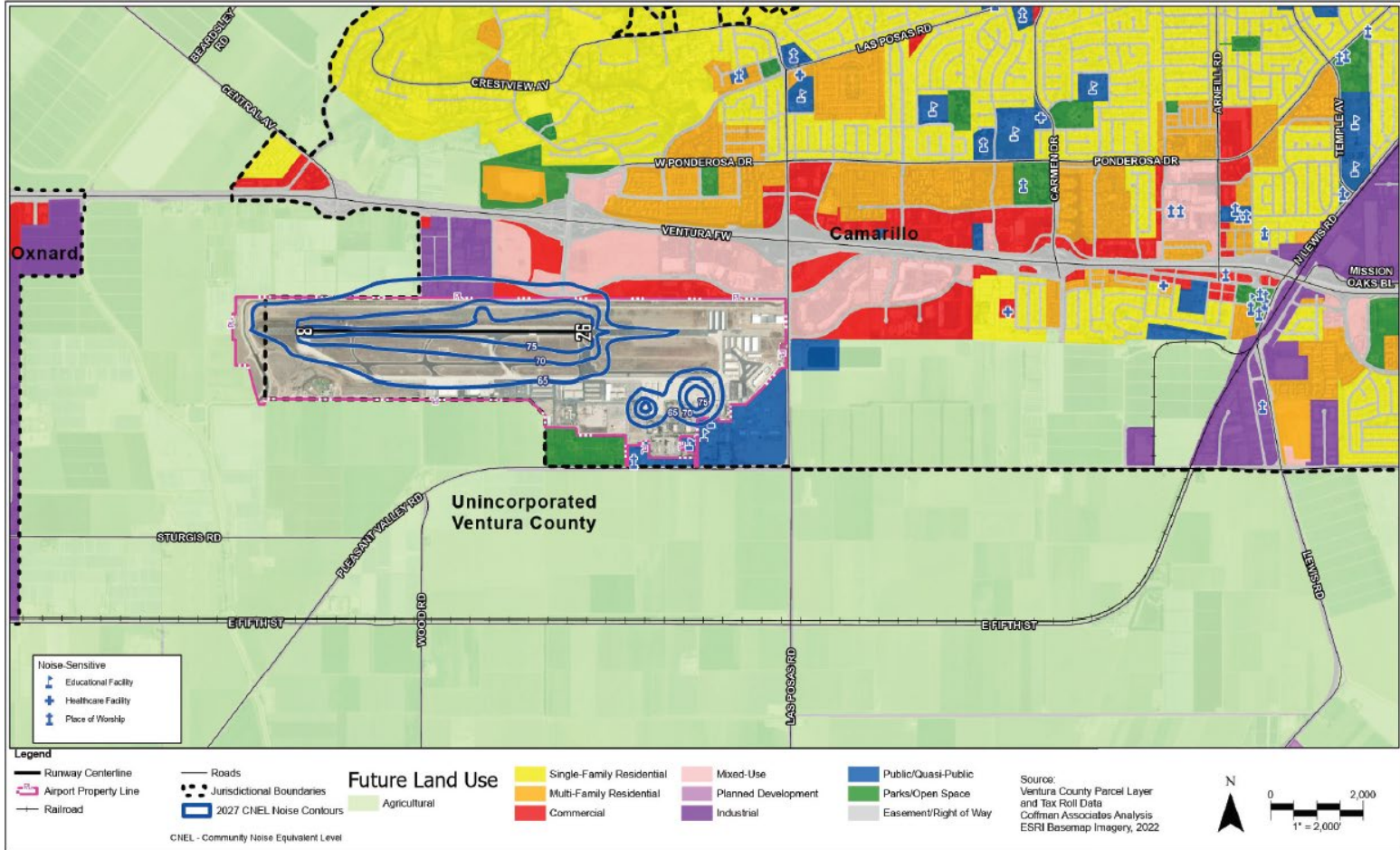


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## Exhibit 6A: General Plan with 2027 Future Noise Contours





## Land Use Management Measures to Be Carried Forward For NCP Consideration – Table 6C

Measure	Description
Update General Plan Policies	Add policy to monitor and update the Part 150 Study. Establish aviation noise threshold for compatibility.
Update General Plan Map	Incorporate noise exposure contours as part of General Plan map.
Adopt Compatibility Checklist	Could consider adopting an airport land use compatibility checklist for review of development projects within the airport vicinity.
Revise Building Code	Require attainment of the CNEL 45 dB interior noise level for construction of new habitable spaces as an addition to an existing property.
Capital Improvement Programming	Establish communication process between local public works departments and airport staff to share information regarding major public improvements.



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Noise Abatement Measures to Be Relocated Table 7C

Prohibit Formation Takeoffs

North traffic to files along U.S. Hwy. 101

Aircraft > 80,000 pounds to land on Runway 8 and depart on Runway 26 when safe

Require aircraft > 80,000 pounds to approaches from the southeast over farmland

If Submitted today:

“Disapproved for the Purposes of Part 150”

Runway 26 arrivals to make base leg turn west of Las Posas Road

Promote use of AOPA’s “Noise Awareness Steps.”

**Voluntary Measures Now found in Fly Friendly VC Flexible – Responsive – No Need to Wait for FAA**

overflights

Runway 26 departures fly west and north of City when turning right.

Advise departures on Runway 8 to make right turns to avoid overflights of the City.



## Summary of Measures

FAR Part 150 now only allows FAA to review Measures that mitigate noise within the 65 CNEL contour. In the 2024/25 NCP, Noise Abatement measures from the 1999 NCP are now implemented within the Fly Friendly VC program.

Category	1999 NCP	Disapproved If Reviewed Today?	2024/25 NCP	
			For FAA Review Table 7B	Not for FAA Review Table 7D
Land Use	1	1	3	1
Program Management	5	1	3	0
Noise Abatement	14	14	0	14



These recommended measures to be reviewed by FAA and included in the NCP would be implemented in collaboration with the City of Camarillo and VCTC in their role as the Airport Land Use Commission.

Implementation	2024/25 Draft NCP – Reviewed By FAA – Table 7B		
	Land Use Management	Cost	Responsibility
Next Update	1. Update General Plan policies and map	Administrative	City of Camarillo and Airports
1-5 Years	2. Adopt compatibility checklist criteria	Administrative	City of Camarillo and Airports
1-5 Years	3. Update noise contours in the Ventura County ACLUP	Administrative	VCTC, acting as Ventura County ALUC



These recommended measures to be reviewed by FAA and included in the NCP would be implemented by the Department of Airports. The VNOMS system is among measures already implemented.

Implementation	2024/25 Draft NCP – Reviewed By FAA – Table 7B		
	Program Management	Cost	Responsibility
Now/Ongoing	1. Continue Airport’s noise complaint handling system (VNOMS)	\$35,000 annually	Department of Airports
At Normal 10-15 Year Interval	2. Update Noise Exposure Maps and Noise Compatibility Program	\$600,000	Department of Airports
Now/Ongoing	3. Monitor implementation of the Part 150 NCP	Administrative	Department of Airports





## 2024/25 NCP Measures Outside of FAA Review – Table 7D Approved and Implemented Locally

Implementation	Measure	Cost
Now/Ongoing	1. Dedicate a full-time staff person to manage and lead the noise abatement program.	\$190,000 annually
Now/Ongoing	2. Develop and distribute noise mitigation materials to local pilots, flight schools, and businesses.	\$5,000 per update
Now/Ongoing	3. Update pilot publications to include current noise mitigation information. (Includes radio broadcasts)	\$1,000 per update
Now/Ongoing	4. Purchase new flight tracking systems to assist with identifying and tracking aircraft operations. (VNOMS).	\$35,000 annually
Now/Ongoing	5. Meet with local pilots, flight schools, and businesses regularly to communicate noise mitigation information and progress.	\$500 annually



## 2024/25 NCP Measures Outside of FAA Review – Table 7D Approved and Implemented Locally

Implementation	Measure	Cost
Now/Ongoing	6. Continue outreach events to allow the public to visit the airport and learn about its operations.	Administrative
Consultant Under Contract	7. Evaluate changes to jet approaches into CMA to help mitigate noise. (Approach Analysis by LEAN)	\$268,400
1-5 Years	8. Educate real estate agents and potential homebuyers about Camarillo Airport operations and its presence in the community.	Administrative
As Needed	9. Evaluate noise monitoring.	\$10,000 to \$60,000
1-5 Years	1. Encourage a full update to the 2000 Ventura County Airport Land Use Compatibility Plan. (Land Use)	Administrative



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## Camarillo Airport Approach Analysis

- 1) Responds to suggestions received at the Listening Session
- 2) Requested to expedite this task
- 3) Initiated in August 2024 – ahead of the completion of the Part 150 Study
- 4) Selection of consultant included stakeholder participation
- 5) Process involves robust public involvement



## Camarillo Airport Approach Analysis

- 1) Analysis of a new charted visual flight procedure for use to Runway 26.
- 2) Analysis of a new instrument approach to Runway 26 from the east.
- 3) Analysis of potential modifications to Runway 26 visual glide slope indicator.
- 4) Analysis of instrument procedure changes to increase nighttime arrivals from the south and west.
- 5) Consideration for Localizer Performance with Vertical Guidance (LPV) approach to Runway 8.
- 6) Development of community flight procedure package (CFPP) for community member assessment of the alternatives.



## Next Steps

**October '24**

- Chapter 5 - Noise Abatement Alternatives
- Chapter 6 - Land Use Alternatives
- Chapter 7 - Noise Compatibility Plan



**April '25**

- Public Hearing on Noise Compatibility Program



**Nov '24 — Jan 25**

- Prepare Draft Noise Compatibility Program Document (NCP)



**May — June '25**

Approval Process Steps:

- Aviation Advisory Committee
- Airport Authority
- Board of Supervisors
- Submit to FAA





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## PAC Member Discussion





## Questions or Comments

*Please respond by October 25*





## Mark Your Calendars!

### Ventura County Department of Airports Part 150 Noise Compatibility Program Meetings



Community meetings to present the draft Noise Compatibility Plans (NCP) for each airport have been scheduled.

#### **Camarillo Airport Part 150 Noise Study**

Monday, October 7th, 2024  
6:00 p.m.

**Location:**

Ventura County Office of Education (VCOE)  
Conference and Educational Services Center (Salons B & C)  
5100 Adolfo Road  
Camarillo, CA 93012



#### **Oxnard Airport Part 150 Noise Study**

Tuesday, October 8th, 2024  
6:00 p.m.

**Location:**

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



The Ventura County Department of Airports will be hosting a question & answer meeting regarding the recommended measures the airports will be undertaking in the draft NCP. All interested Ventura County Residents are encouraged to attend.

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](http://vcairports.org).



# Community Meeting tonight, beginning with a presentation at 6:00 PM in this room.

## All are welcome!



**COUNTY *of* VENTURA**

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Department of Airports

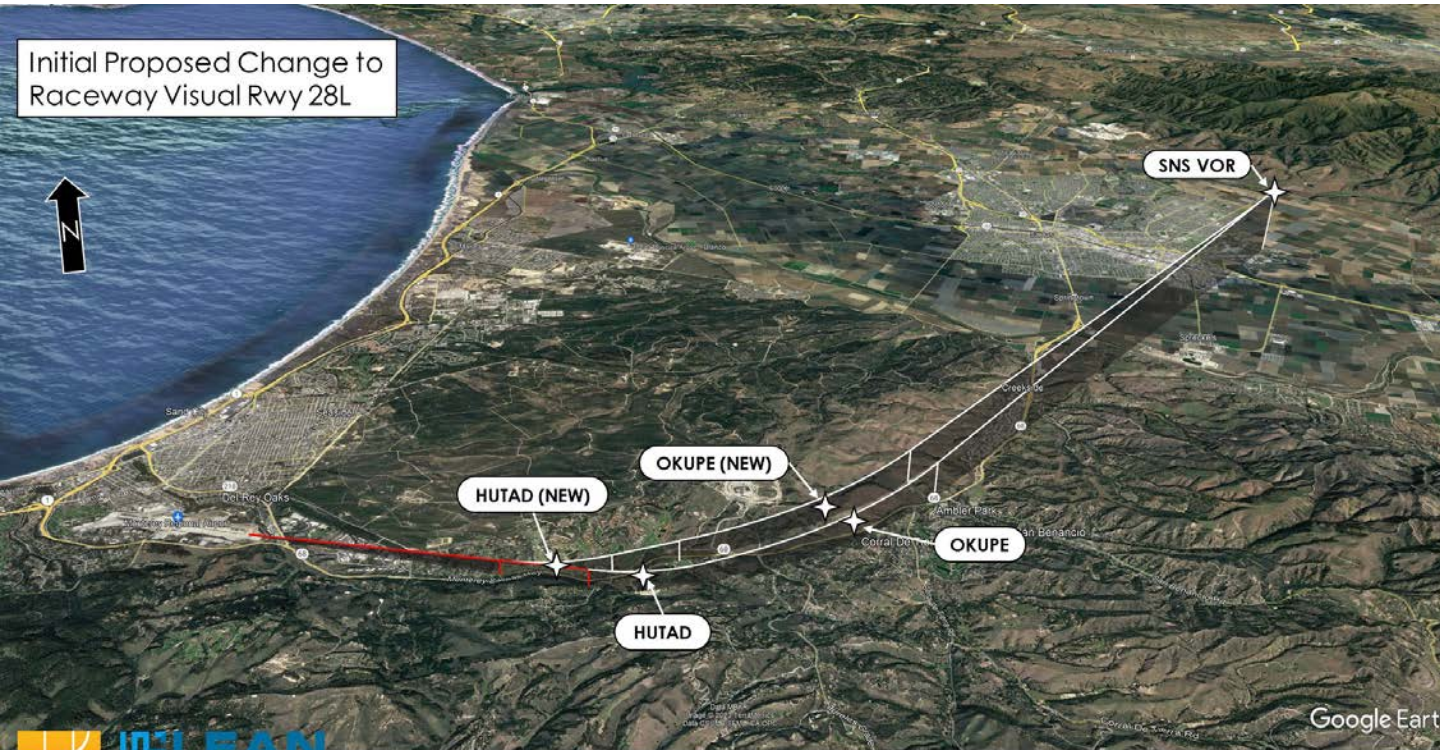


## Opportunities for Noise Abatement to Explore

1. New Charted Visual Flight Procedure (CVFP)
2. Instrument approach procedure changes east of KCMA
3. Visual Glide Slope Indicator (VGSI) changes
4. Increased utilization of Runway 8 at nighttime



# 1. CVFP Example



Initial Proposed Change to Raceway Visual Rwy 28L

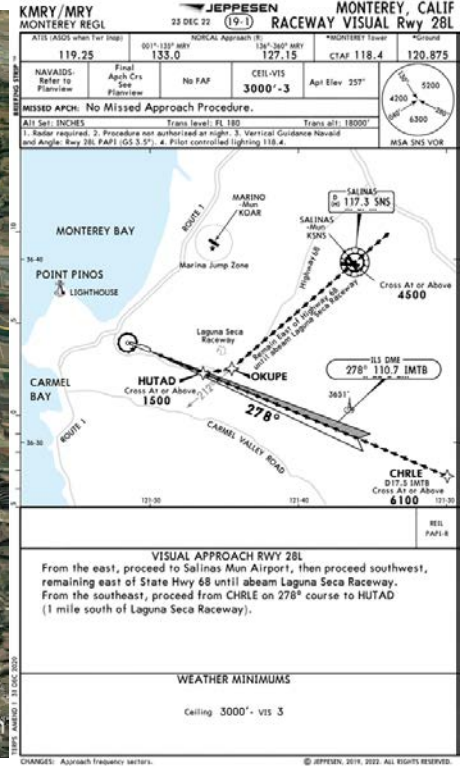
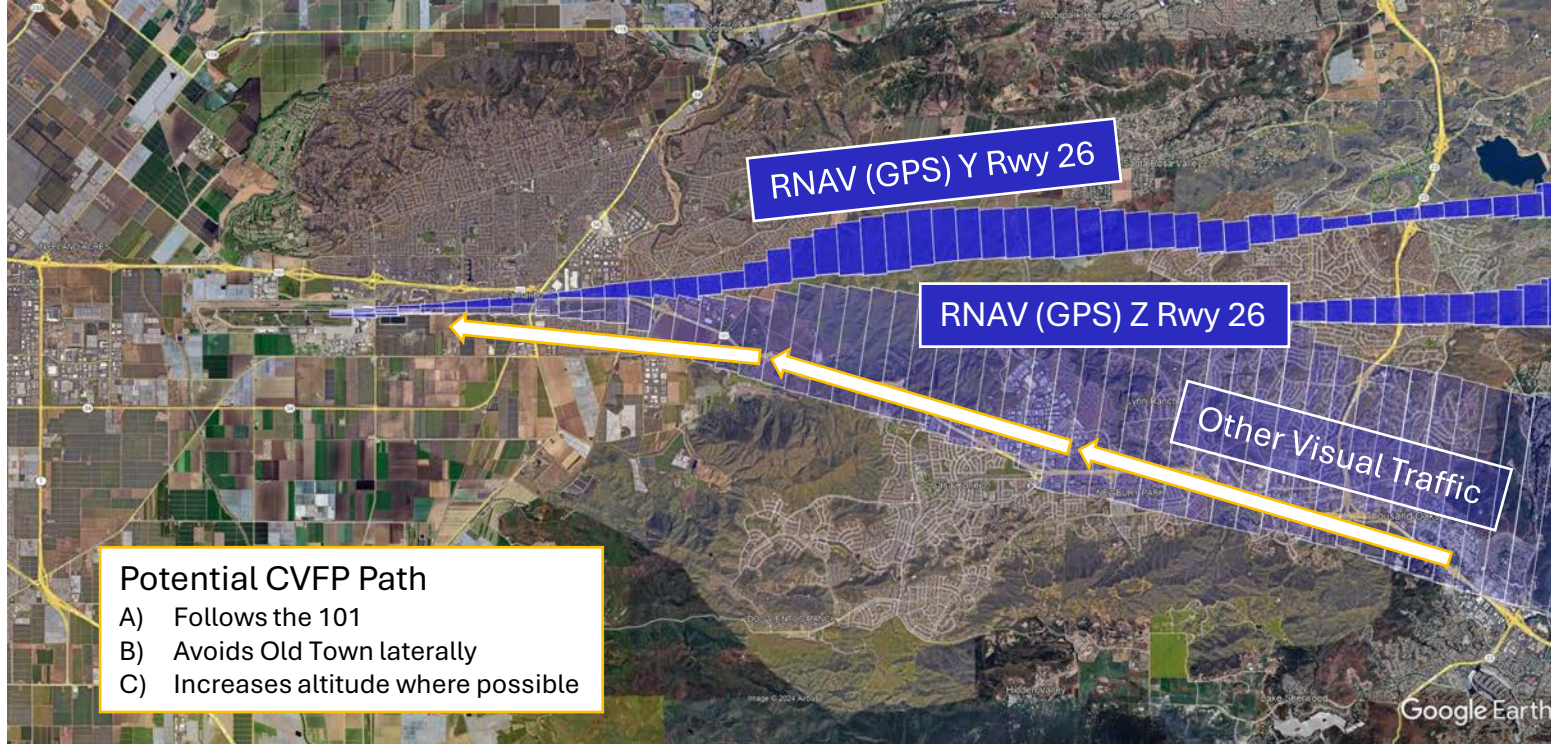


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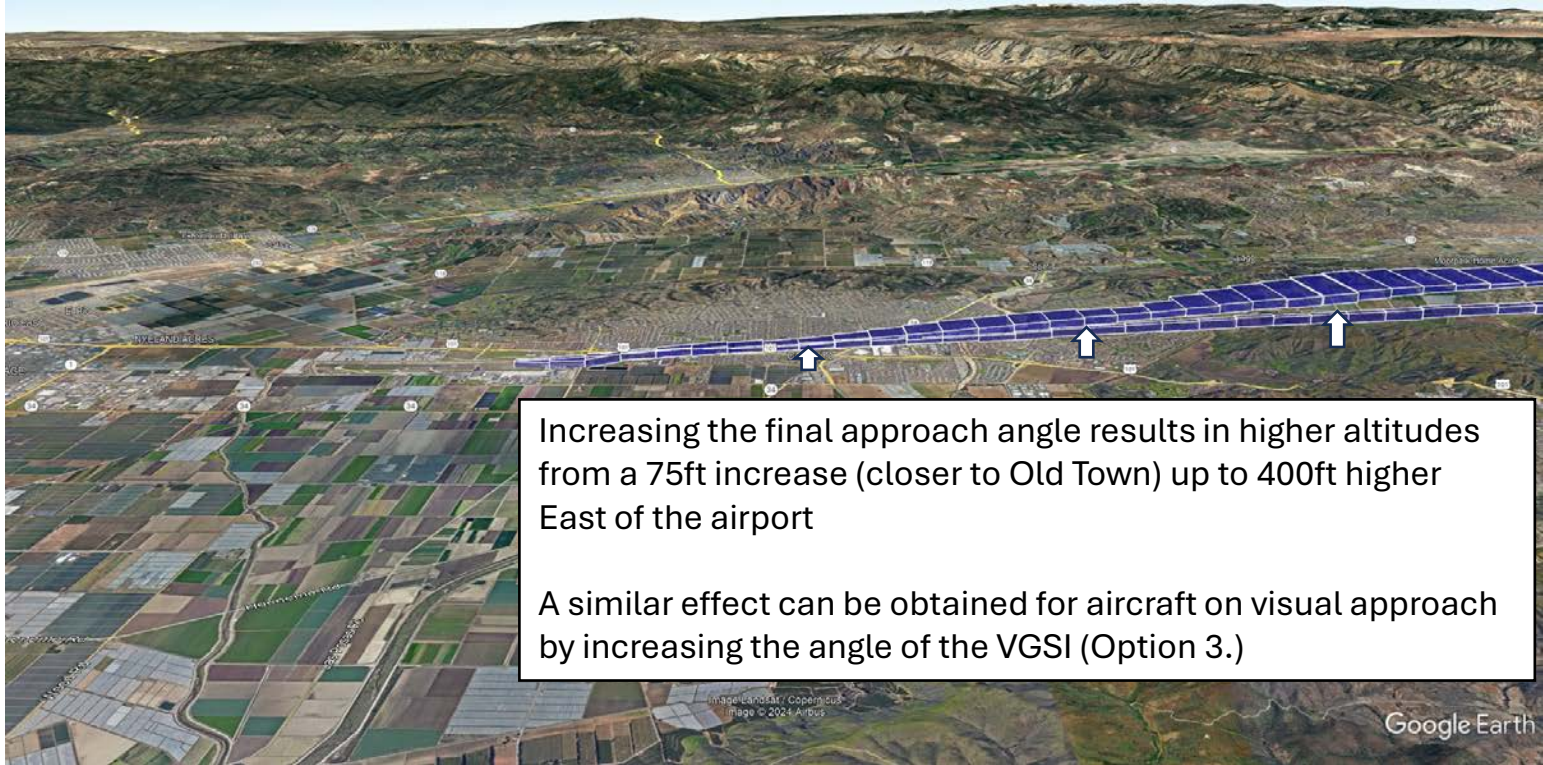


## 1. Charted Visual Flight Procedures Rwy 26



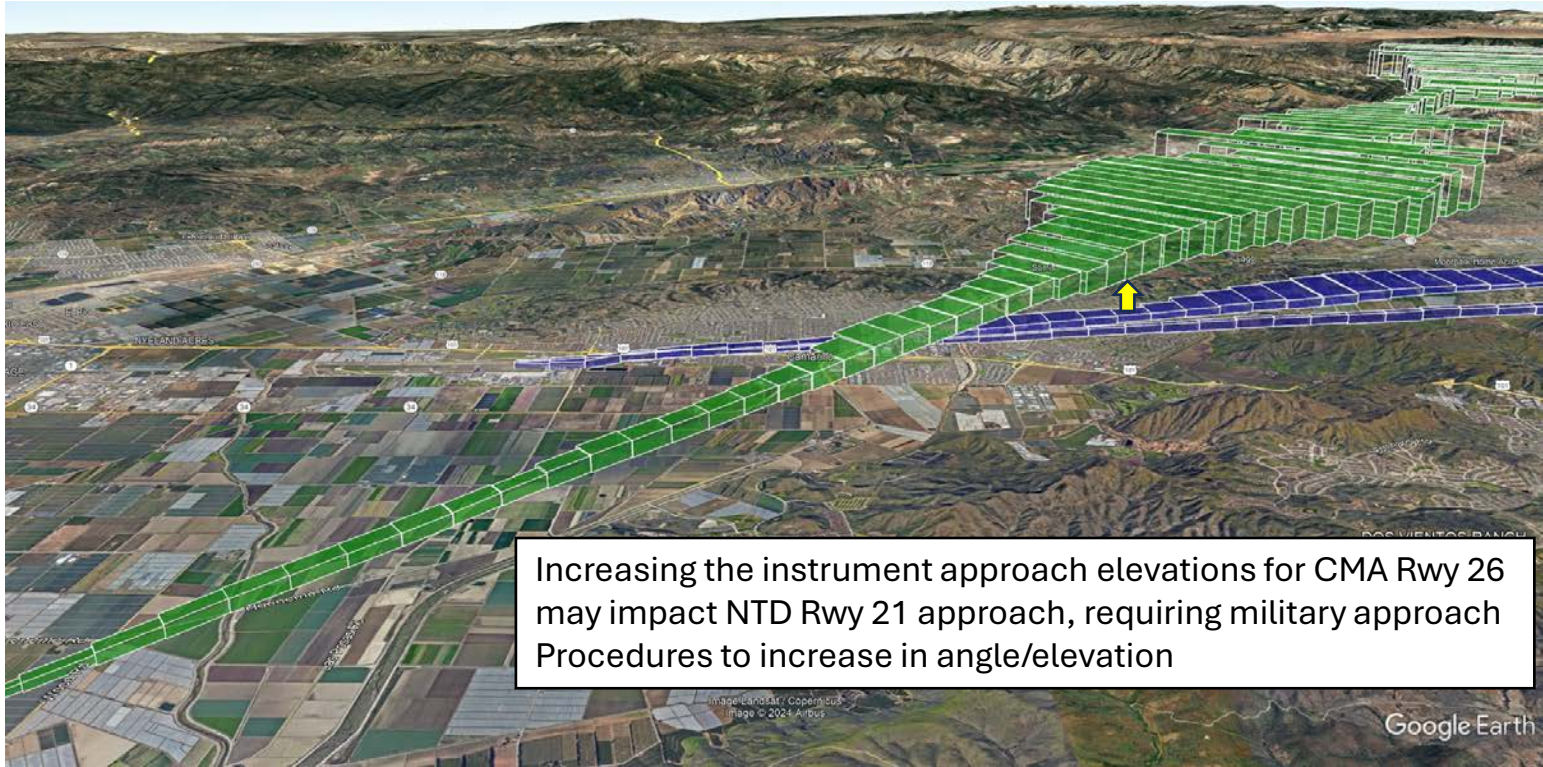


## 2./3. Instrument Procedure and VGSI Changes East of KCMA





## 2./3. Instrument Procedure and VGSI Changes East of KCMA





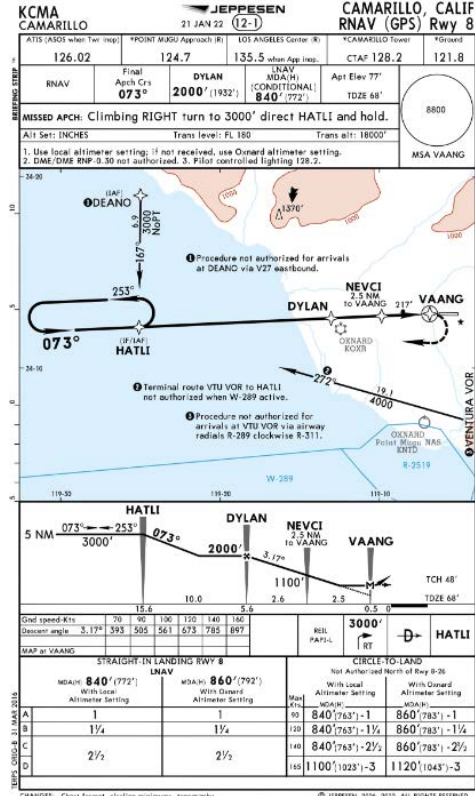


## 4. Increasing Nighttime Utilization of Rwy 8

Existing instrument approach to runway 8 is not conducive to nighttime use

- Does not provide vertical guidance (No VNAV or LPV)
- May not be effective during inclement weather (Minimums)
- Requires unusual/inefficient routing for aircraft arriving from the southeast (LA/San Diego, Las Vegas, Phoenix)
- Very inefficient when restricted airspace is in effect

Exploring opportunities to correct these deficiencies and encourage landing on runway 8 with pilots and air traffic





# Instrument Procedure Feasibility Process

## 1 Examine

Airspace, Obstacle and NAVAID challenges

Air Traffic challenges

Community experience

Operator experience

## 2 Design

Instrument procedures

Charted Visual procedures

Traffic Pattern Modifications

NAVAIDs and Lighting

Air Traffic LOA

## 3 Model & Measure

Historical weather and operational benefits/impacts

Noise measurement (when requested)\*

Cumulative (CNEL) and individual flight noise (LMAX, SEL, NA)

Aircraft separation modeling\*

## 4 Review & Select

Review findings with stakeholders:

FAA  
DoD  
Aircraft Operators  
Airport  
Community

Select options to proceed towards development

## 5 Develop & Coordinate

FAA IFP Gateway Request or Non-FAA Service Provider Bid

TARGETs file sharing/distribution

Obstruction mitigations, RAM Tool and Aeronautical data changes

FAA Reimbursable Agreements\*

## 6 Implement & Refine

Procedure Publication

Flight Inspection Coordination

Flight Track Review

Community feedback and noise monitoring (when requested)\*

2-3 Months

1-4 Months

1-2 Months

12-36 Months

3-12 Months



# Example of Community Flight Procedure Package (CFPP)

For Community Evaluation Only - Not Intended for Navigation

**GLS OW2 RWY 28R (EDDY) vs ILS**

**Revision 1**  
Changes: No changes on this page

GLS OW2 Instrument approach to runway 28R originating southeast of the airport, starting at the EDDY waypoint.

The approach is similar to the GLS-U RWY 28R from EDDY until it approaches SIDBY. It then turns the aircraft over the Bay to allow the aircraft to reduce speed and configure for landing offshore. If requested for development, this noise abatement procedure will only be available between 22:00 - 07:00 Local time.

**Project Goals**

- ✓ Noise reduction
- ✓ ILS Redundancy
- ✓ Efficiency
- ☐ Reduce Delays

For Community Evaluation Only - Not Intended for Navigation

**GLS OW2 RWY 28R (EDDY) vs ILS**

**Revision 1**  
Changes: No changes on this page

**Existing Approach ILS or LOC Rwy 28R**

**Preliminary Concept GLS OW2 RWY 28R**

**Aircraft @ SFO Capable of Using This Procedure**

- Regional/BizJet < 1%
- Narrowbody ~ 30%
- Widebody ~ 30%

Narrowbody and widebody aircraft capable of using this approach into SFO are anticipated to **increase** over the next 5 years.

**Weather Opportunity**

- VFR ✓ Night Use Only
- MVFR ✓ Night Use Only
- IFR ✓ Night Use Only
- LIFR ✓ CAT I, Night

For Community Evaluation Only - Not Intended for Navigation

**Narrowbody 1 SEL GLS OW2 RWY 28R vs ILS**

**Revision 1**  
Changes: Updated Population Effected Values

Map Layers: Google Terrain Hybrid  
Contours: AEDT 3E, BADA 4

To Explore SEL Contours in More Detail Visit: <https://noise.flysfo.com/>

Sample Point	Altitude	Existing SEL (dBA)	Proposed SEL (dBA)	2020 Population
EDDY	6000	7000	671	48,2
SIDBY	4000	5000	734	67,8

**Potential Change in Population Effected SEL Contour (dBA)**

SEL Contour (dBA)	2020 Population
50	-52625
55	-48981
60	-57851
65	-68474
70	-74276
75	-84921
80	-1449
85	0
90	0
95	0

Results tabulated and depicted are derived from AEDT 3E using Eurocontrol BADA 4 information. Real world results may differ.

**Map Legend**

- Instrument Procedure Path
- Estimated Current SEL Noise Contour
- Instrument Procedure Waypoint
- Potential Area of Increased SEL
- Potential Area of Decreased SEL

For Community Evaluation Only - Not Intended for Navigation

**Narrowbody 1 SEL GLS OW2 RWY 28R vs ILS**

**Revision 1**  
Changes: No changes on this page

Graphs showing:
 

- Simulated Flight Profile Characteristics for Existing Approach vs Innovative Approach Concept (Altitude vs Distance)
- Noise Abatement (Noise Abatement vs Distance)
- Noise Profile (Noise Profile vs Distance)
- Ground Speed (Ground Speed (kts) vs Distance)

<https://noise.flysfo.com/noise-efforts/ground-based-augmentation/innovative-approach-procedures/>