

The Role of Airports in NextGen Implementation

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Presentation to Florida Airports Council

June 15, 2016

By **Mike Moffitt** Updated 4:00 am, Thursday, June 2, 2016



Culver City residents say noise from LAX flights is on the rise

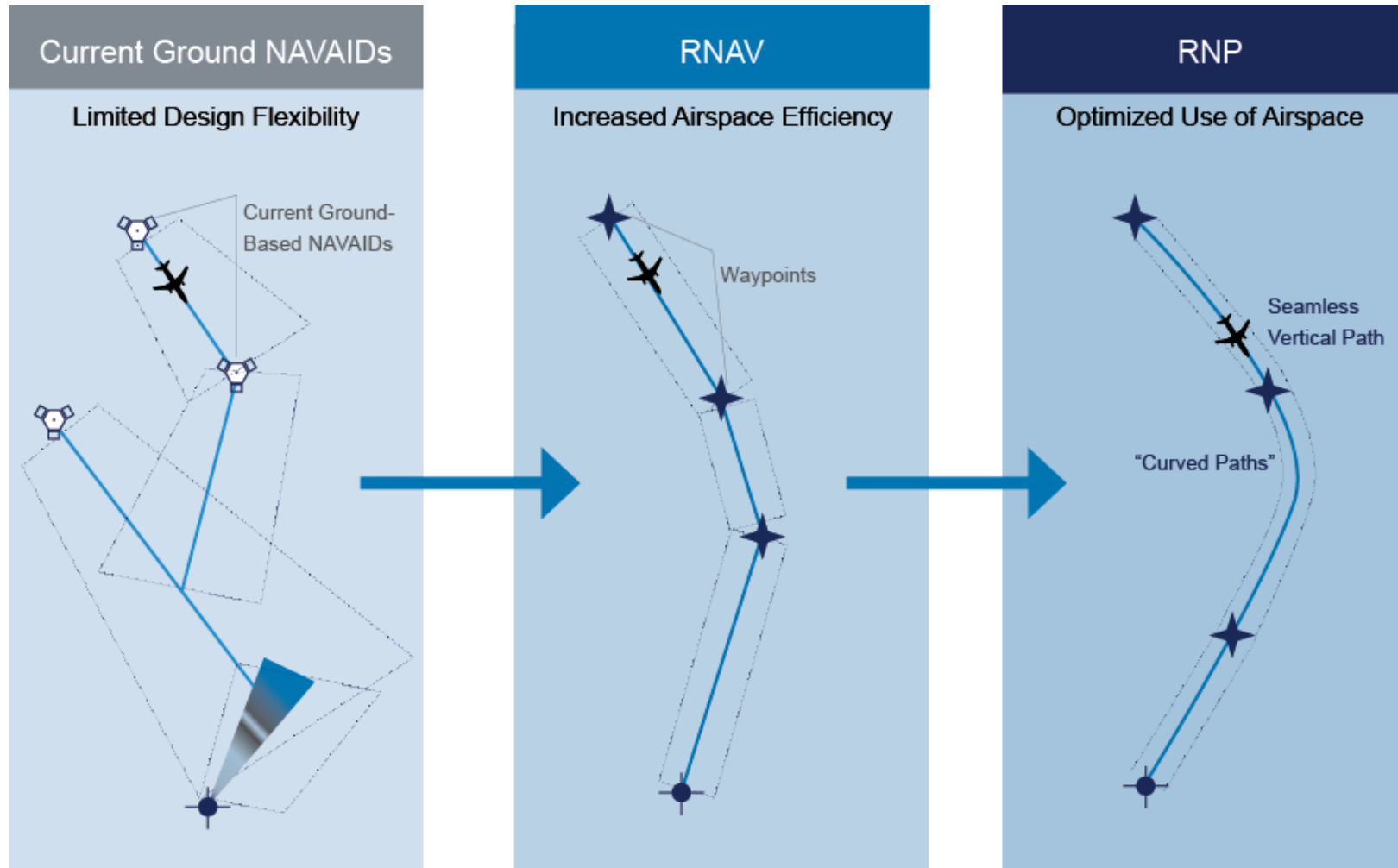
Phoenix council demands FAA change flight paths



Topics

- What is NextGen/PBN?
- Metroplex Case Study: SoCal
- The Role of Airports in NextGen
- RTCA PBN Blueprint Community Outreach Task Group

What is Performance Based Navigation?

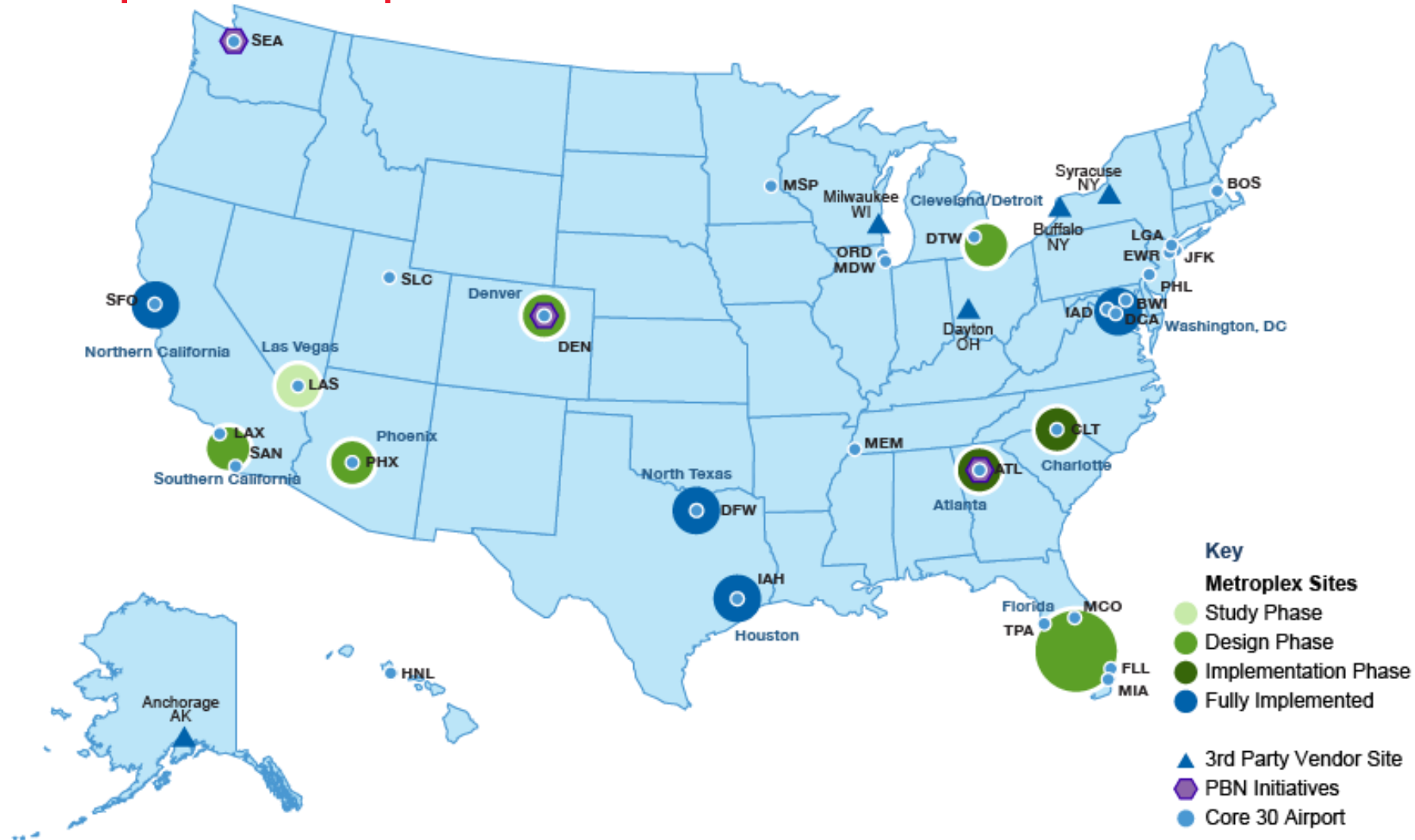


What is a Metroplex?

- A geographic area covering several airports, serving major metropolitan areas and a diversity of aviation stakeholders such as NAS users, FAA, and other lines of business and airport operators.
- The FAA has identified 21 metroplexes—geographic areas that include several commercial and general aviation airports in close proximity serving large metropolitan areas.
- By optimizing airspace and procedures in the metroplex, the FAA provides solutions on a regional scale, rather than focusing on a single airport or set of procedures. The optimization plan takes into account all airports and airspace that support each metropolitan area as well as how air traffic in those areas interacts with other metroplexes. It considers myriad factors including safety, efficiency, capacity, access and environmental impact.
- Using a consistent, repeatable approach, study teams of FAA and aviation community experts analyze the operational challenges of metroplexes and explore airspace and procedures optimization opportunities. Collaborative design and implementation teams then put in place the solutions the study teams recommend, including performance-based navigation procedures and airspace redesign.

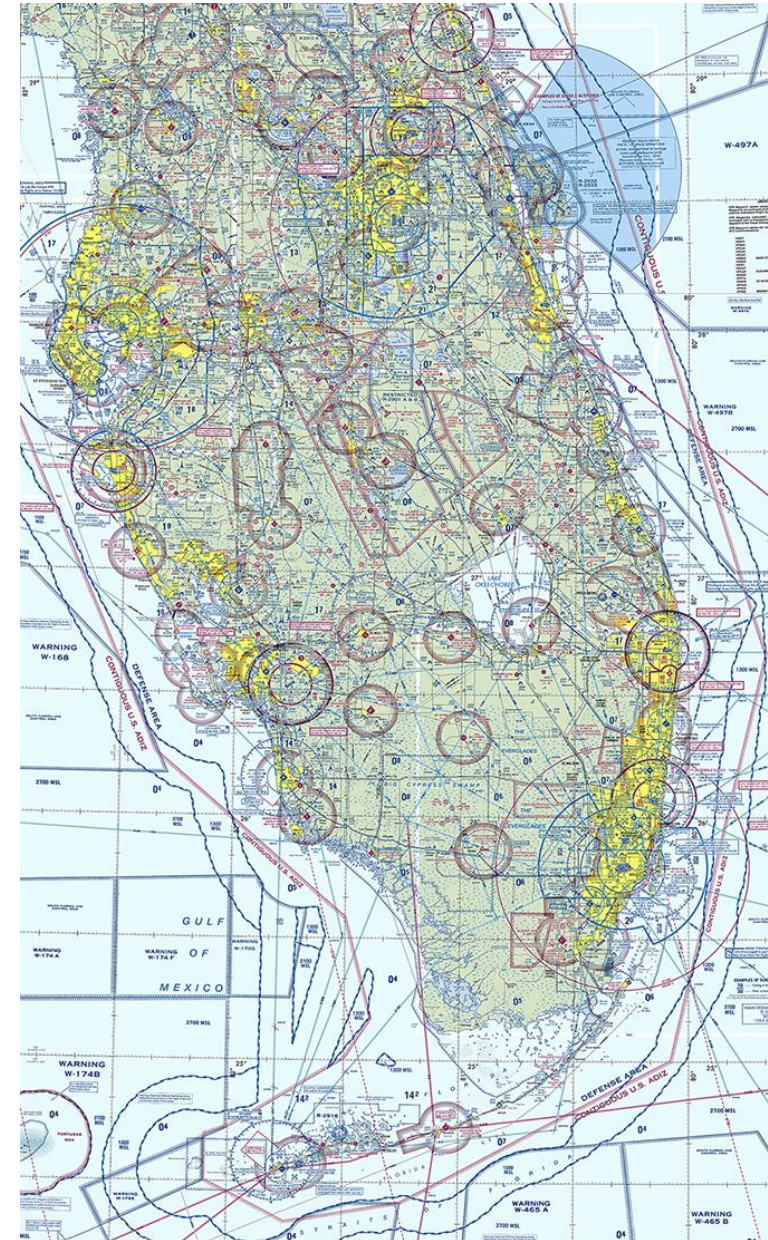


Metroplex Implementation Status



The Florida Metroplex

- Orlando International Airport (MCO)
- Orlando Sanford International Airport (SFB)
- Orlando/Executive Airport (ORL)
- Kissimmee Gateway Airport (ISM)
- Tampa International Airport (TPA)
- Sarasota/Bradenton International Airport (SRQ)
- Daytona Beach International Airport (DAB)
- Miami International Airport (MIA)
- Fort Lauderdale/Hollywood International Airport (FLL)
- Palm Beach International Airport (PBI)
- Boca Raton Airport (BCT)
- Stuart/Witham Field (SUA)
- Southwest Florida International Airport (RSW)
- Naples Municipal Airport (APF)
- Marco Island Airport (MKY)



Metroplex Case Study: SoCal



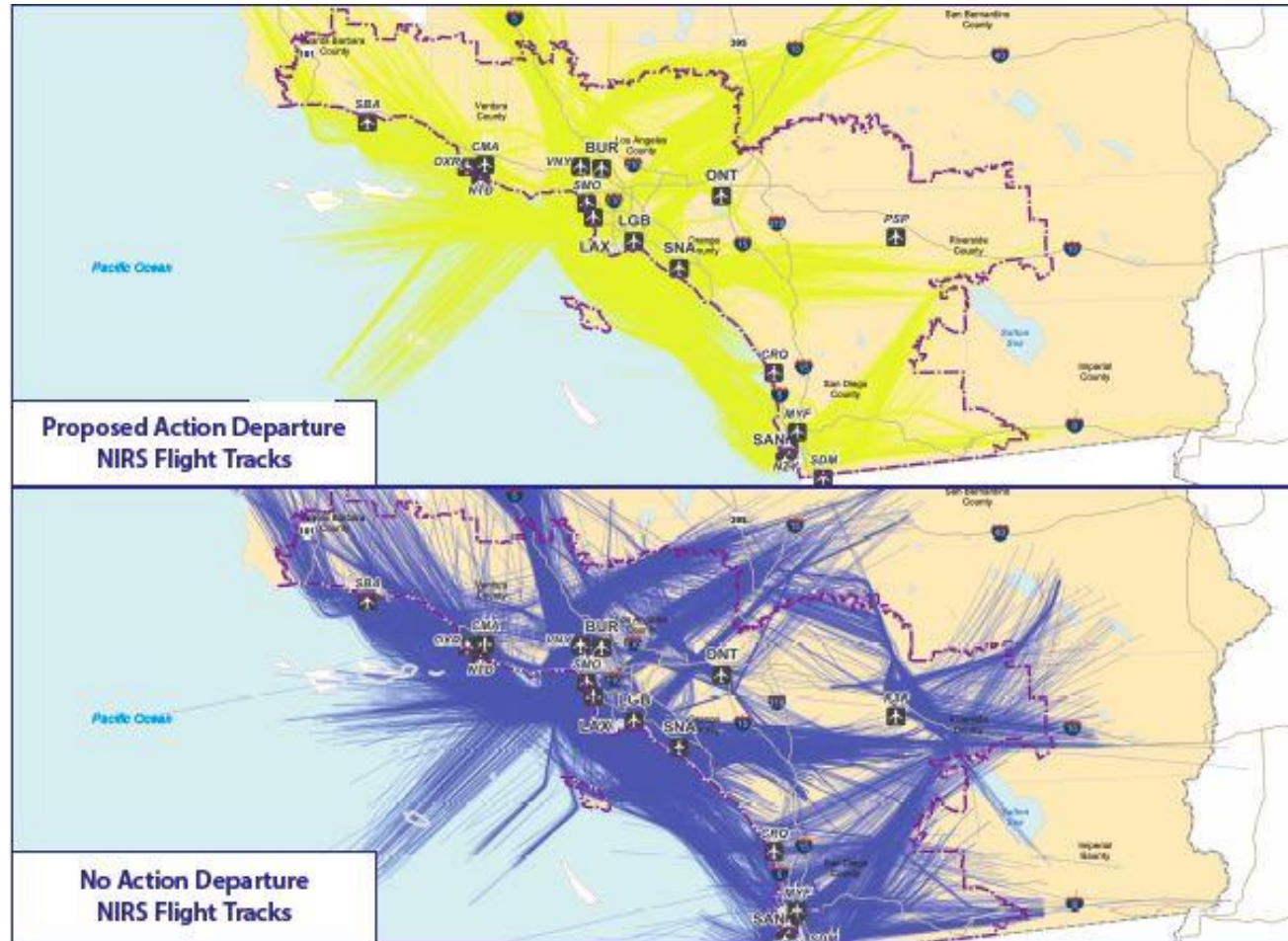
Exhibit 4-1

General Study Area

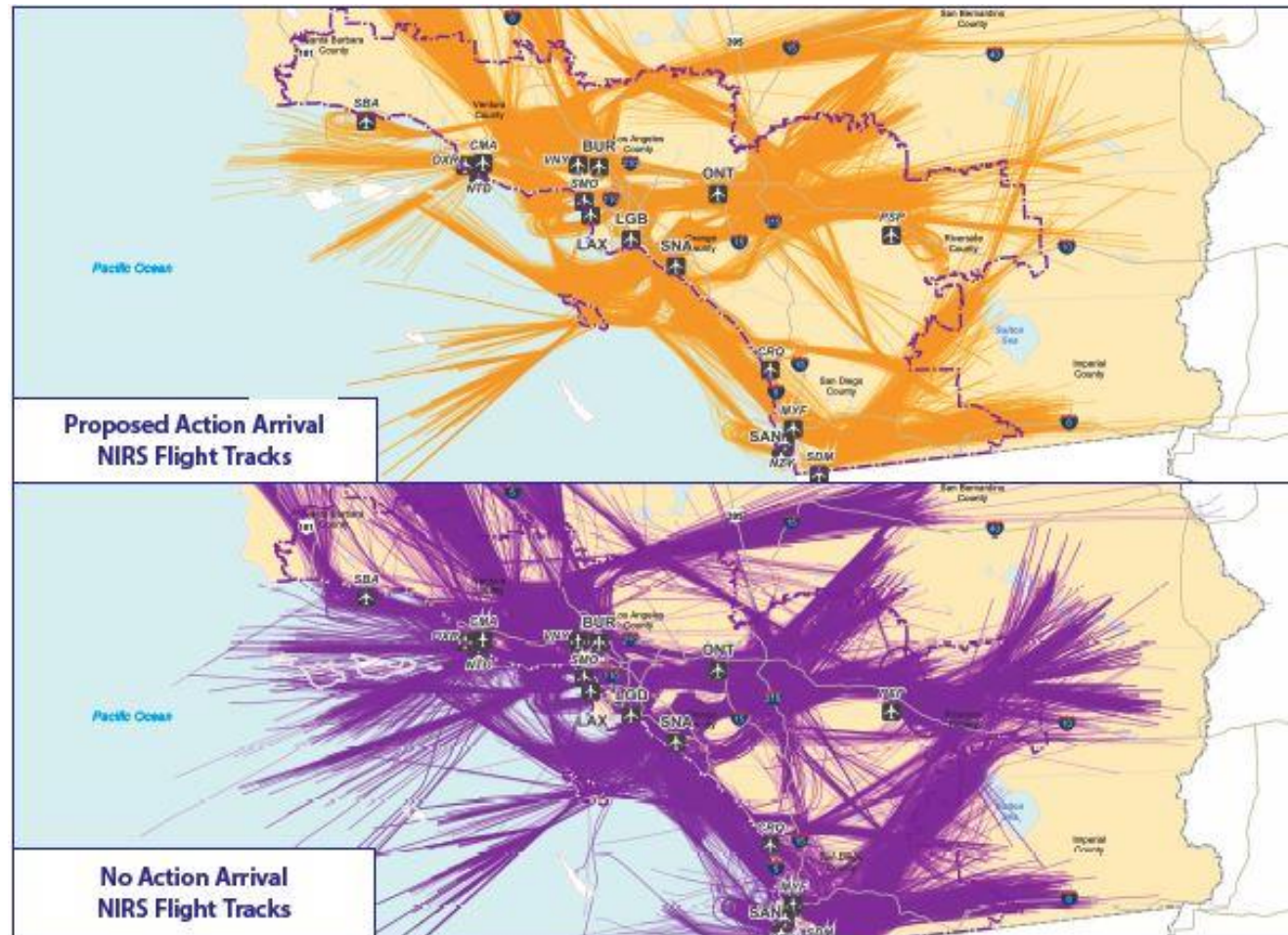
SoCal OAPM EA



Departure Procedures



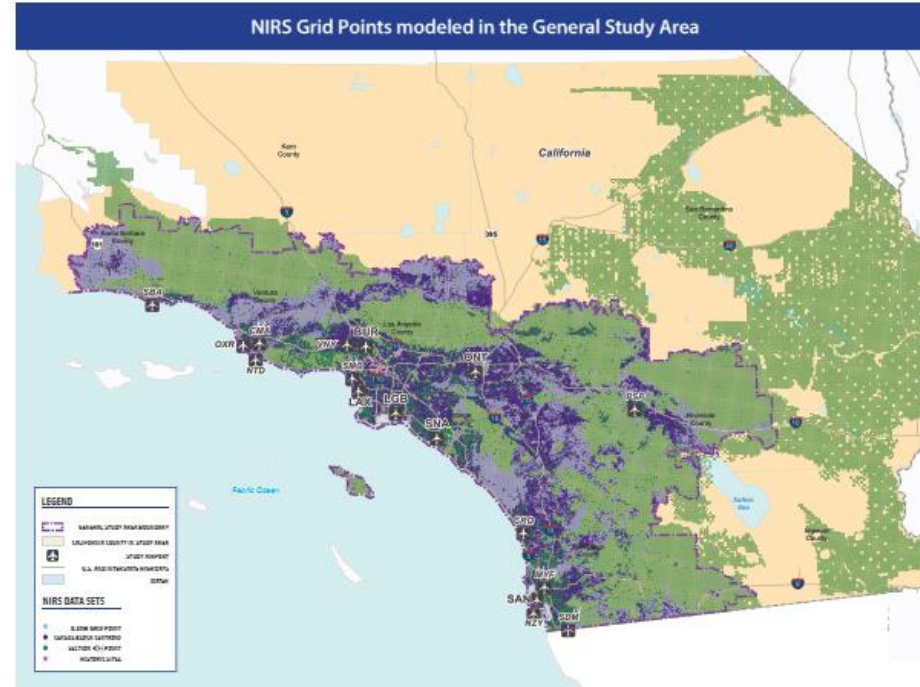
Arrival Procedures



Results

NOISE WAS MODELED AT 341,356 GRID POINTS, INCLUDING:

1. 175,488 2010 Census block centroids;
2. 87,069 uniform grid points at 0.5-nautical mile (nm) intervals on a uniform grid covering the General Study Area, which were also used to calculate DNL values at potential Department of Transportation Act (DOT), Section 4(f) resources and historic sites; and,
3. 76,966 unique points representing 7,422 Section 4(f) resources too small to be captured in the uniform grid, including 760 unique points representing National Register listed historic sites.



CHANGE IN POPULATION EXPOSED TO AIRCRAFT NOISE – 2015 AND 2020

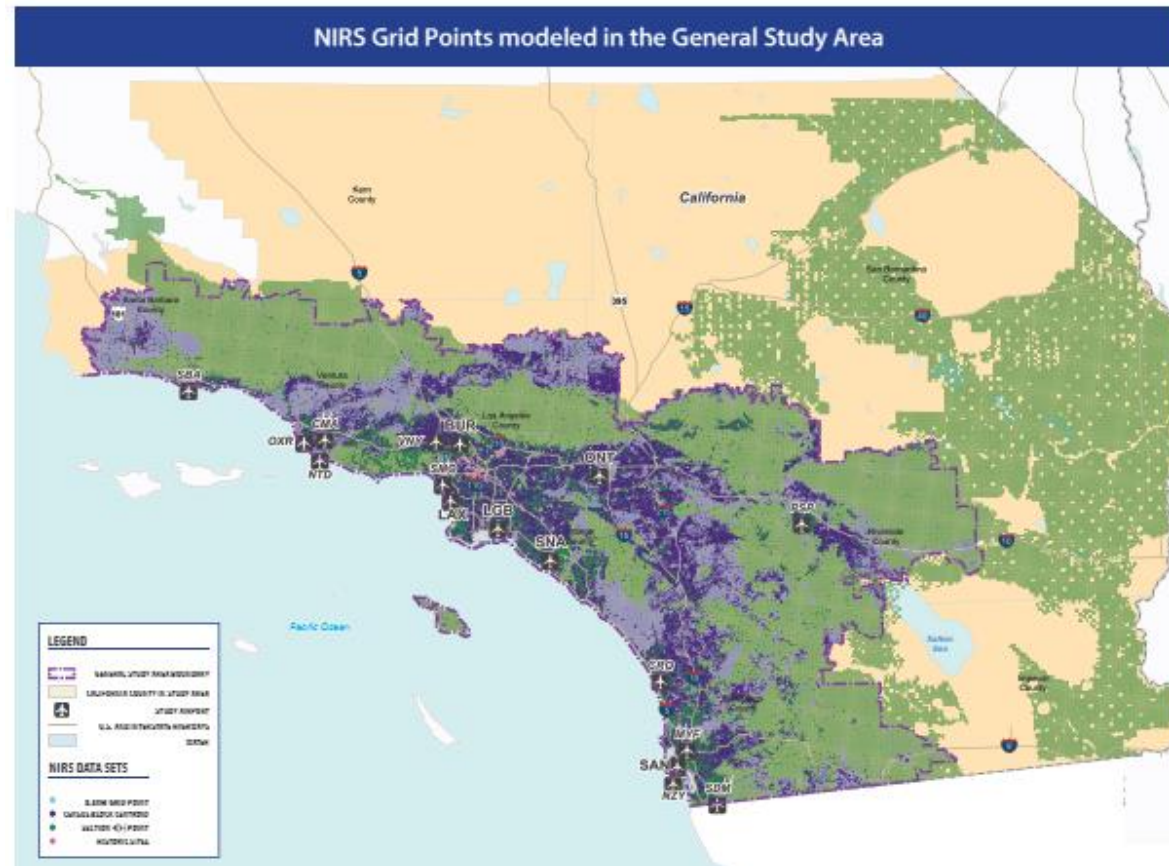
DNL NOISE EXPOSURE LEVEL UNDER THE PROPOSED ACTION	INCREASE IN DNL WITH THE PROPOSED ACTION	POPULATION EXPOSED TO NOISE THAT EXCEEDS THE THRESHOLD	
		2015	2020
DNL 65 and higher	DNL 1.5 dB or greater	0	0
DNL 60 to 65	DNL 3.0 dB or greater	0	0
DNL 45 to 60	DNL 5.0 dB or greater	0	0

NO SIGNIFICANT IMPACTS OR REPORTABLE NOISE INCREASES ASSOCIATED WITH THE PROPOSED ACTION

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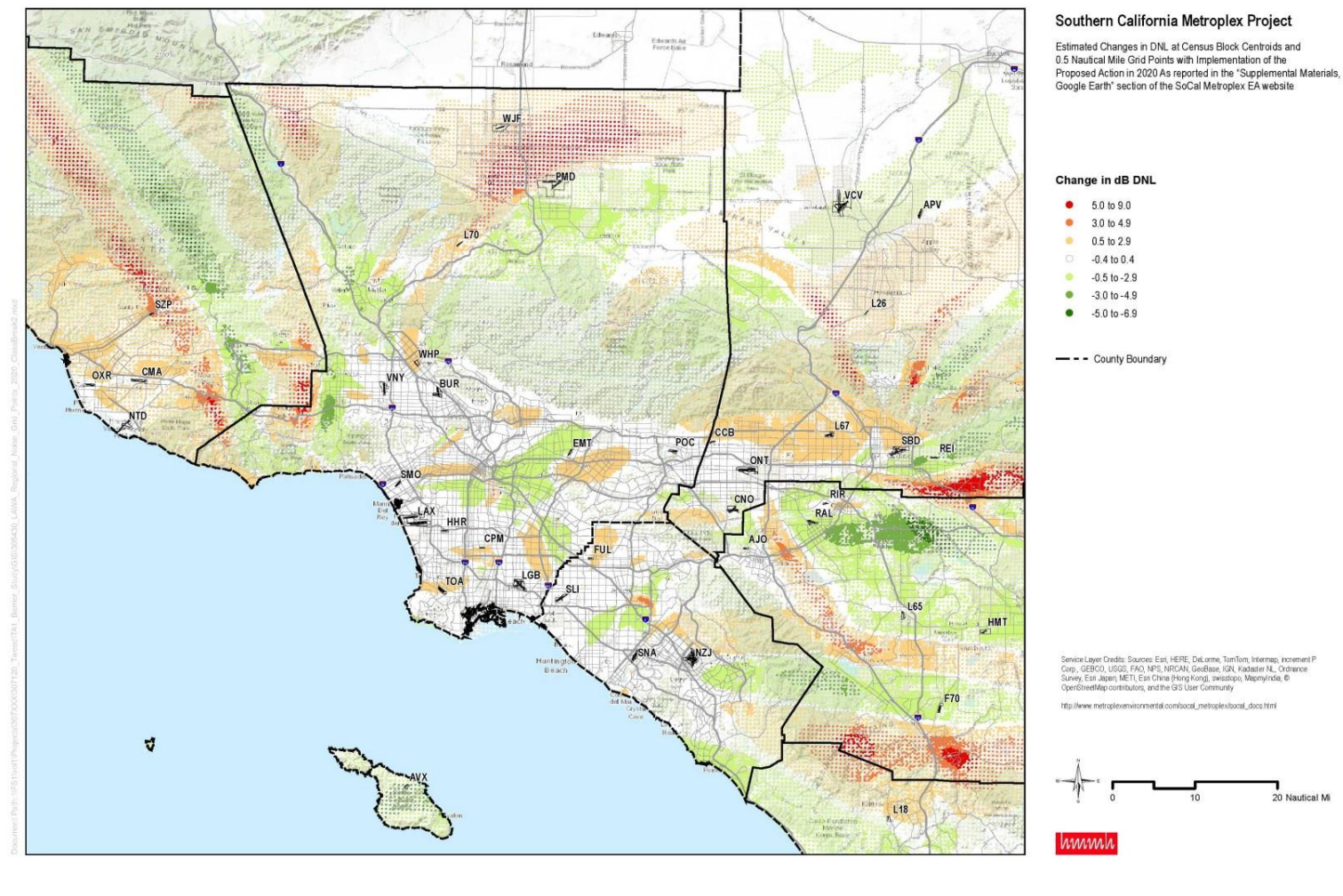
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Supplemental Information Prepared by LAWA



RTCA Blueprint Findings on Community Outreach



- Community Outreach:
 - Achieve community understanding and acceptance/advocacy of the goal of the PBN procedure effort.
 - More than just satisfying applicable legal requirements.
 - FAA leads the effort
- PBN success is not solely dependent upon the FAA
 - Stakeholders must participate and be held accountable for fulfilling their respective roles and responsibilities
 - Airports play an essential role in PBN implementation - community outreach
- “No surprises” to local community leaders/local government is crucial
- Successful PBN implementation efforts established outreach long before initiation of PBN



RTCA Recommendations to FAA



- Establish Specialized Community Outreach Team(s)
- Develop a Standard Community Outreach Toolkit
- Develop specific Local Community Outreach Toolkits
- Establish Ongoing and scalable Community Outreach Programs in collaboration with local airports



Community Engagement Process



- Preparation
- Education
- Engagement
- Advocacy
- Post-Implementation



Preparation



- Identify stakeholders and the elements that are important to them
- Identify and communicate milestones on the PBN-implementation timeline when airports and communities can expect to be involved
- Define the goals of each community outreach event by educating, soliciting input, support, or a combination of these objectives
- Ensure that FAA PBN Design Teams have all relevant background information including signed agreements, previous and ongoing environmental and noise studies, lawsuits and records of decision, historical noise issues, existing and historical noise abatement flight procedures, noise sensitivity of surrounding communities, etc., to prepare design activities



Education

- Providing information to external stakeholders in a meaningful and effective way will allow a basic and common level of understanding or knowledge.
 - Standardized Toolkit –FAA should develop uniform materials available for system-wide dissemination. These could be foundational materials that could be used by other stakeholders directly and/or to develop unique materials. They should also be in a format and dedicated location that is easily accessible (i.e. the internet), so that the toolkit can be retrieved directly by interested parties
 - Local Specific Toolkit – additional materials may aid in educating at a local airport level.

Engagement

- Timing
- Stakeholders
- Outreach Context
- Triggers for Engagement

Advocacy



- FAA can assist the industry with information about examples of successful community outreach stories. This should be developed and modified with new experiences at other locations
- Provide communities with information and an opportunity for meaningful dialogue to promote trust and understanding
- Maintain focus on NextGen goals and ensure all stakeholders are aware of these at both the local level and national level
- Incorporate community interests, where possible, consistent with the NextGen/PBN implementation goals
- Remember that safety is always paramount in any discussions about the efficient operation of aircraft in a manner that is sensitive to the environmental issues
- Be cognizant of the relationship that can exist between noise abatement and emissions reductions, particularly in light of beneficial outcomes for the public such as lower emissions and improvements to the NAS



Post-Implementation

- While developed by the FAA, the FAA should include other stakeholders, specifically airports and operators, when developing the strategy.
- Post-implementation outreach must be scalable to the specific project and site; the same level of outreach and analysis may not be needed for every implementation and will vary based on the project characteristics.
- It is essential that the outreach process provide an efficient and effective way to:
 - understand and address concerns and respond to inquiries
 - mitigate misinformation
 - connect back to the original messaging and outreach conducted prior to and as part of the procedure development process

Summary/Take-away points

- PBN will be implemented
- Airports are critical to success of PBN Design and Implementation
- Airports should be engaged early and often
- FAA is eager to engage airports

Resources

- FAA NextGen website: <http://www.faa.gov/nextgen/>
- Florida Metroplex EA:
http://www.metroplexenvironmental.com/fl_metroplex/fl_introduction.html
- RTCA NextGen Advisory Committee:
<http://www.rtca.org/content.asp?pl=33&sl=61&contentid=61>
- ACI-NA NextGen Committee: <http://www.aci-na.org/opstechnextgenresources>
- TRB/ACRP Research on NextGen: <http://www.trb.org/main/blurbs/171887.aspx>

Discussion

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