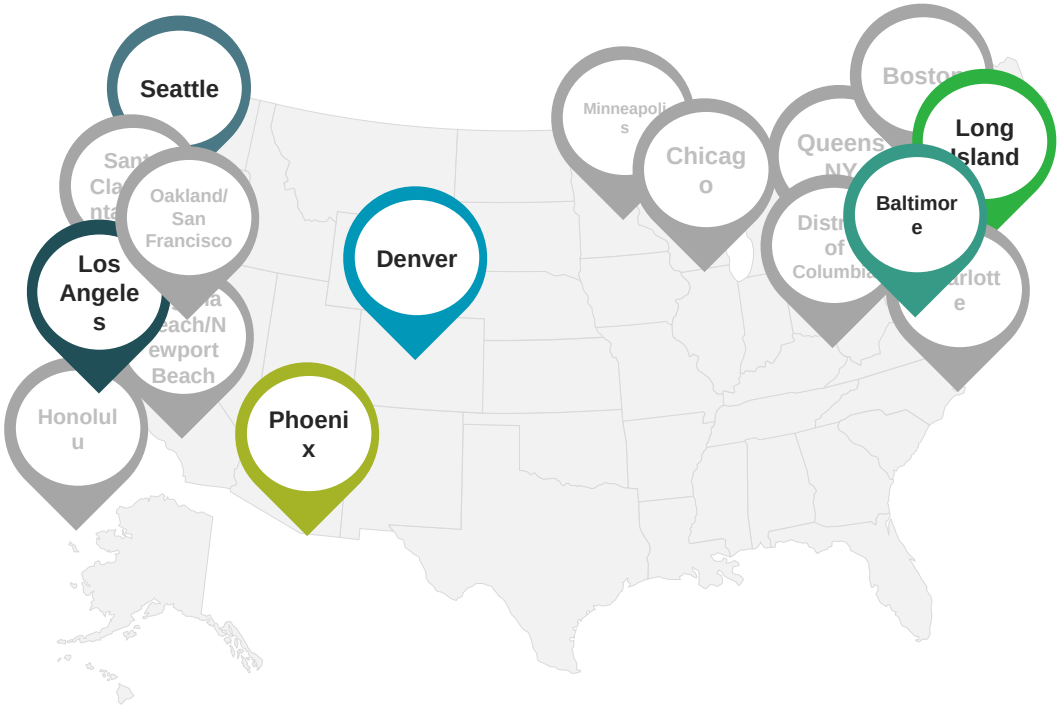
Sherman Oaks & Encino for Quiet Skies

Noise Impact Task Force Presentation
November 6, 2019

Metroplex Mess

Communities are fighting NextGen Metroplex roll-outs throughout the United States



The FAA moves noise in a repeated path over new neighborhoods that are not near airports.

The NextGen program has sparked controversy and outrage in dozens of cities across the U.S.

Source: Airport Noise Law; National Quiet Skies Coalition

Timeline - BUR

Southern California Metroplex – BURBANK AIRPORT

2015-2016

FAA Introduces SoCal Metroplex at BUR

- New RNAV (SID) departure procedures - OROSZ TWO and SLAPP ONE - are published in 2015 as Metroplex. BUR aircraft is routed farther south.
- Benedict Hills HOA challenges the FAA's 2015 Metroplex procedures.

Source: FAA Draft Environmental Review 10/2018; Benedict Hills Settlement Agreement

2016-2017

Benedict Hills HOA Settlement

A settlement agreement is reached in March 2017. The FAA proposes revisions to Metroplex's OROSZ THREE and SLAPP TWO procedures. It includes PBN embedded radar vector segments in open departure procedures and additional waypoints: JAYTE in Studio City and TEAGN in Sherman Oaks to be used on the way OROSZ and SLAPP.

Timeline - BUR

Southern California Metroplex – BURBANK AIRPORT

2016-2017*

mid-late 2018*

Huge Spike in Complaints from Studio City

Residents who had rarely*, occasionally* or sometimes* experienced BUR aircraft in Toluca Lake, and Studio City area (flats, foothills and Santa Monica Mountains) began filing complaints.

Huge Spike in Sherman Oaks and Bel Air

Residents 9 to 15 miles from BUR in Sherman Oaks (flats, foothills and mountains), Bel Air and the Mulholland corridor, who had rarely* and never* seen BUR aircraft before, began filing complaints.

Source: Noise complaint reports; *depending on location

Timeline - BUR

Southern California Metroplex – BURBANK AIRPORT

2018-2019

Oct 2019

FAA Denies NextGen is a Factor at BUR

- Residents report that different departure routes are being used than were published with Metroplex, including similarities to 2018 departure routes proposed as part of the Benedict Hills settlement agreement, not yet implemented.
- The FAA continues to deny that ATC's have changed how departing flights are handled.

30 Day Cease & Desist Letter for BUR

- City Attorney Feuer's letter indicates that the southern shift of flight paths does not comply with the departure procedures published by the FAA in 2017 and did not include an environmental analysis.

Source: FAA Draft Environmental Review 10/2018; Benedict Hills Settlement Agreement

Timeline - VNY

Southern California Metroplex – VAN NUYS AIRPORT

July 2015

Aug – Sept 2015

Public not shown procedural changes

VNY proposed procedural changes were not shown to the public during the Metroplex workshop. The original deadline for comment was July 10, 2015.

Councilmembers notified very late or not at all

- *After* the original public comment deadline in July and *less than 2 weeks before* the first extended public comment deadline of Sept 8, the FAA notified some LA City Councilmembers in an e-blast about Metroplex but without explanation that changes were being made to flight paths.
- Councilmember Paul Krekorian (Studio City, Toluca Lake) was *not notified at all*.

Sources: SoCal Metroplex EA Mailing List; FONSI ROD

Timeline - VNY

Southern California Metroplex – VAN NUYS AIRPORT

Mar - Apr 2017

FAA Introduces SoCal Metroplex for VNY

- The FAA published new departure (SID) procedures for VNY including FATKO waypoint near the end of the runway north of Victory Blvd.
- Prior to that, aircraft used conventional, dispersed departures north, and south turning at 2.2 DME between Victory Blvd and the 101 Fwy over the unpopulated Sepulveda Basin, with an average of 3 resident complaints per month for decades.

May – Aug 2017

Policy Violation & Small Spike Near Airport

- After FATKO was implemented, an average 29 residents near VNY airport (Lake Balboa area) complained each month from May to July 2017.
- Staff discovered that FATKO violated their long-standing “no early turns” policy (too close to Victory Blvd.) and began working on a revision with the FAA.

Sources: LAWA presentation 09/2017; FAA presentation 07/2019

Timeline - VNY

Southern California Metroplex – VAN NUYS AIRPORT

2016-2017

May 2018

Discrepancies and Temporary Solution at VNY

- The temporary solution for FATKO, implemented in August 2017, was a return to 2.2 DME for jets and conventional aircraft.
- But instead of permanently returning to historic procedures, a new waypoint PPRRY was published in May 2018 – *less than a year later* - without an EIS or notice to the new communities.

New VNY Waypoint is Located Further South

Located over ½ mile south of 2.2 DME, PPRRY requires RNAV-equipped aircraft to fly south over the foothills and Santa Monica Mountains to make their turns north. Conventional planes continued to turn at 2.2 DME.

Source: LAWA presentation 09/2017; FAA presentation 07/2019

Timeline - VNY

Southern California Metroplex – VAN NUYS AIRPORT

mid to late 2018*

Nov 2018

Spike in Sherman Oaks & Encino

- Residents *5 to 15 miles from VNY* in Sherman Oaks flats and mountains, Studio City and along the Mulholland corridor, who had rarely* and never* seen VNY aircraft, literally woke up one morning to 100+ daily low-flying aircraft, due to the PPRRY waypoint.
- Resident complaints in Encino also spiked.

Source: LAWA 09/2017; FAA 07/2019; L&B Report; Noise complaints

VNY CAC Passed Motion & Sent to BOAC

"…end use of the PPRRY departure point and return to their *original departure procedures* until such time that an environmental impact report can be conducted on the foothill communities of Sheman Oaks, Encino and Studio City. There was no consultation by the FAA with the community of this change and no environmental impact study conducted."

Timeline - VNY

Southern California Metroplex – VAN NUYS AIRPORT

Feb 2019

Mar – Aug 2019

City Council Unanimously Passes Motion

- Los Angeles City Council passes motion instructing LAWA to work on a solution with the FAA for VNY.
- LAWA staff meets with the FAA in Washington DC.

2019 Proposal to "fix" PPRRY

- Instead of returning to historic – even temporarily - the unacceptable “solution” the FAA proposed in August includes new waypoints/routes in Sherman Oaks, Studio City and Encino.
- Although PPRRY took less than a year to implement, this proposal would take a minimum of 18–24 months.
- The proposal places a waypoint and path in the opposite direction as proposed TEAGN waypoint for BUR.

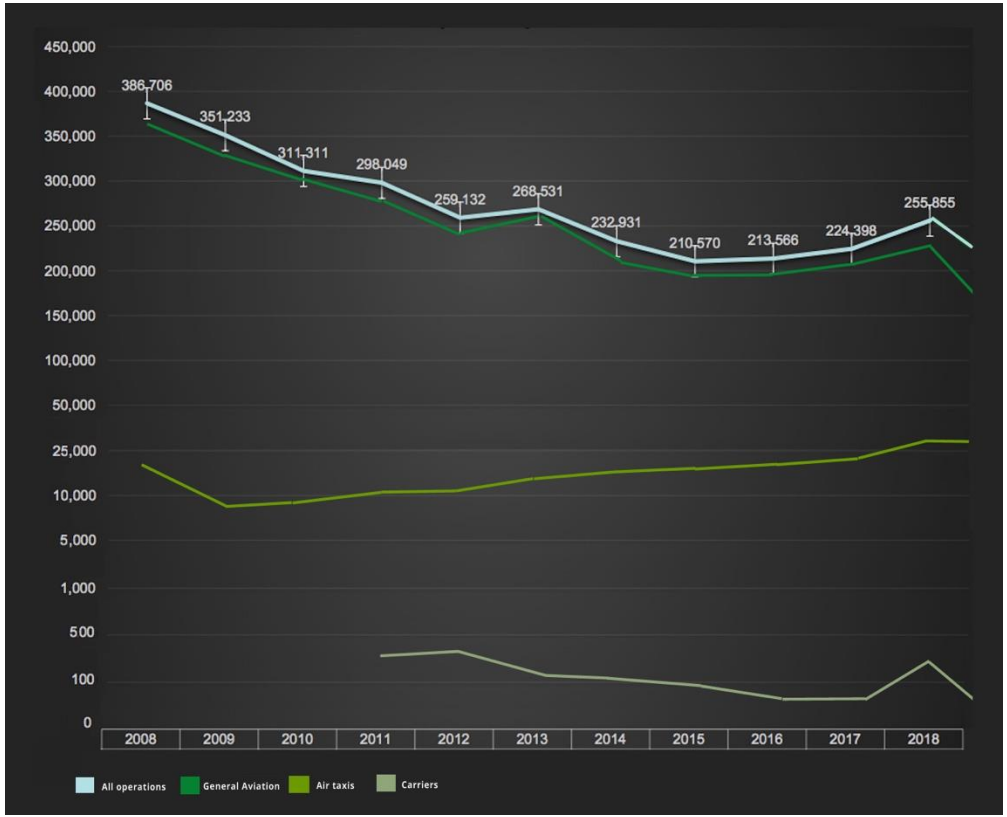
Source: City of Los Angeles; FAA proposal August 2019

The FAA said in a meeting to elected leaders on July 30, 2019 they weren't sure why flights were farther south…

One possibility they gave:
more aircraft

VNY Airport Operations

2008 - 2019



Total airport operations have been declining for more than a decade with a slight uptick in 2013 and again in 2018 after the closure of the Santa Monica Airport runway.

In 2003, operations totaled 460,686. Today, it is about 220,000 – less than half.

Combined air taxi and carrier operations are projected by the end of 2019 to be about the same as in 2018.

Source: FAA History of Two Airports report; Opsnet - 2019 stats to 9/30/19 with projections to year end.

BUR Airport Operations

2004 - 2019

Total airport operations were significantly higher from 2004 - 2007 than they are today. They have remained fairly steady since 2012.

Carrier operations are projected by the end of 2019 to be less or about the same as in 2007 and 2008.

Air taxi operations are projected by the end of 2019 to be less than 2005 – 2008.

Source: FAA History of Two Airports report; Opsnet - 2019 stats to 9/30/19 with projections to year end.

The reason for flights farther south is <u>not</u> due to *more aircraft*.

No!

Closure of Santa Monica Airport runway

Metroplex was implemented before the closure of Santa Monica's runway at VNY in 2017. The slight uptick in operations at VNY leveled off between 2018 and 2019.

No!

More Operations

There are fewer operations at VNY and BUR today than in previous years. The small increase at VNY and BUR in jet aircraft from 2018 – 2019 does not statistically correlate to a 90% increase in flights further south.

No!

Shared Airspace

Aircraft from VNY and BUR can and do share the same airspace, cleared one at a time. All aircraft – whether conventional or jets – have and can use the same departure routes. In 2018 all VNY aircraft used historical and dispered 2.2 DME, while FATKO was under review.

The FAA has said in multiple media reports, they weren't sure why flights were farther south…

They guessed it might be:
weather conditions

Weather Conditions

Aircraft performance during climb after take-off and before cruising altitude

Have these factors changed since pre-Metroplex?

01

Temperature

The higher the air temperature, the less thrust. Climb gradient is reduced.

02

Air Density

Increasing altitude (decreasing density) will reduce thrust. Climb gradient is reduced.

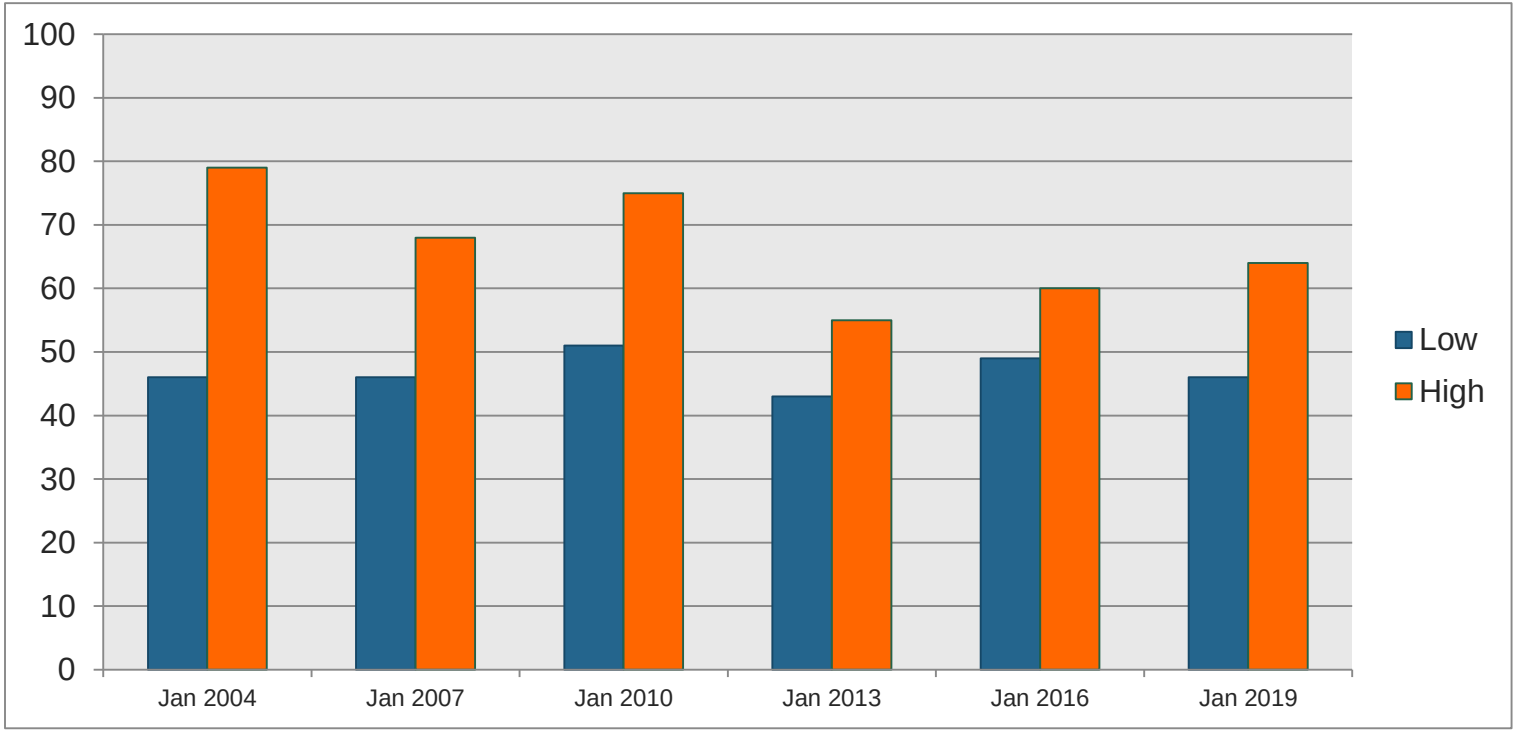
03

Wind

Relates to takeoff direction on runway (headwind/tailwind). The rate of climb is independent from the wind speed.

Temperature – January

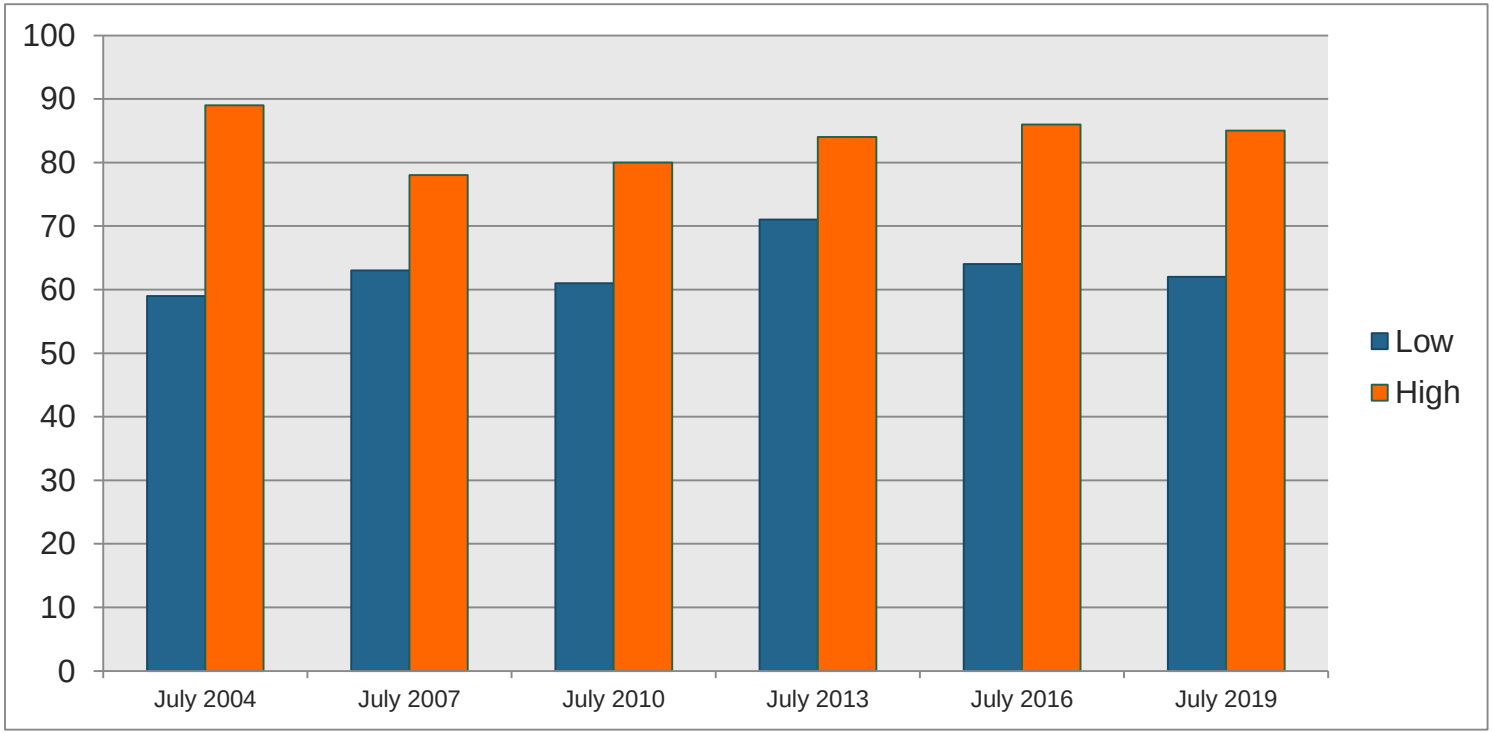
Comparison of temperatures at VNY and BUR in last 15 years (2004-2019)



Source: Wunderground.com; Analysis forJanuary 10th in all years.

Temperature – July

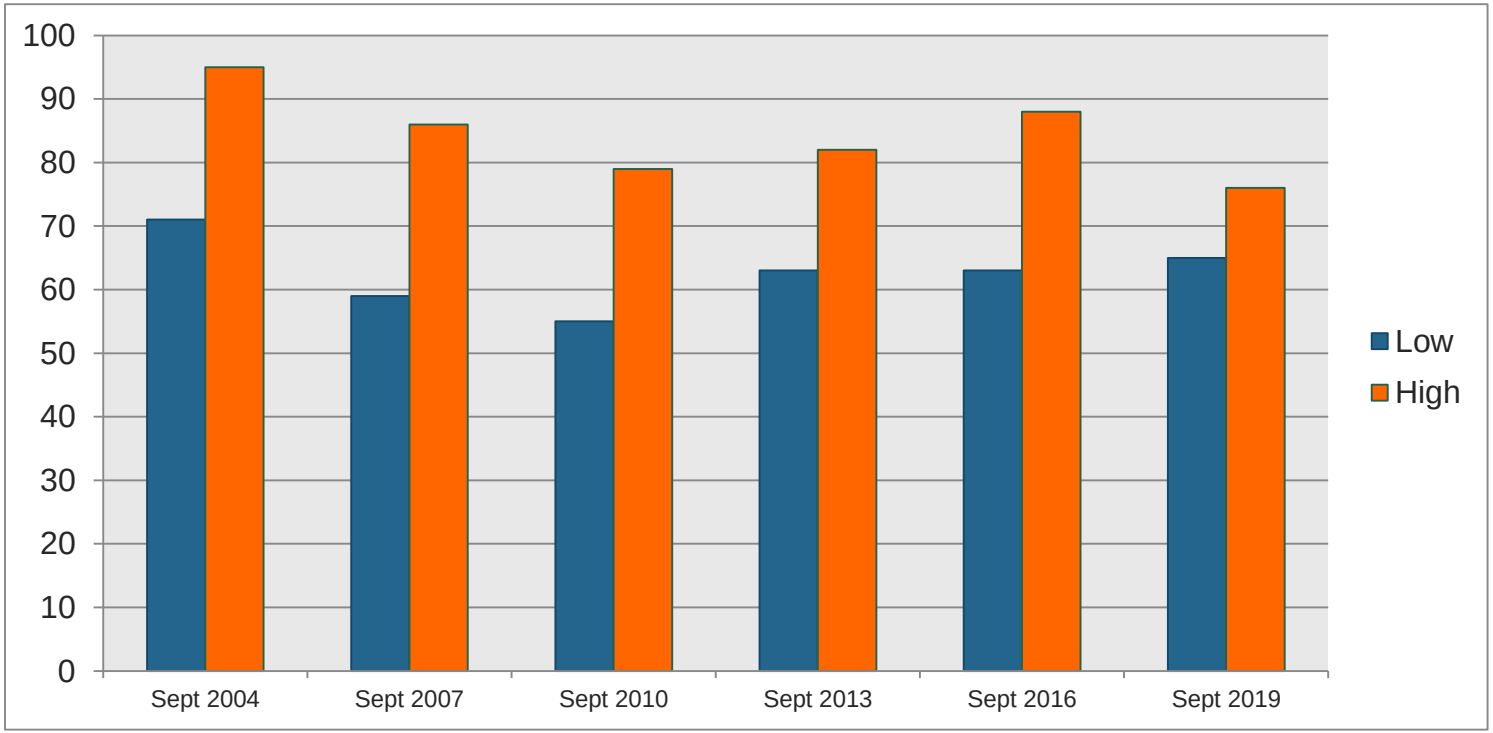
Comparison of temperatures at VNY and BUR in last 15 years (2004-2019)



Source: Wunderground.com; Analysis for July 10th in all years.

Temperature – September

Comparison of temperatures at VNY and BUR in last 15 years (2004-2019)



Source: Wunderground.com; Analysis is of September 10th in all years.

The reason for flights farther south is not due to *weather conditions*.

No!

Temperature

Southern California has mild year-round climate. Temperatures at VNY and BUR have been relatively constant. The 2019 high temperatures we reviewed were about the same or lower (not higher) than in the past.

No!

Air Density

High humidity may decrease aircraft overall performance. However, the relative humidity is moderate, with an average of 55% - 60% for the last 15 years. Sea level pressure also has remained constant at average of 29.22.

No!

Wind

Wind is a factor for runway direction – not how far south the aircraft must continue to fly unless there are unusual wind conditions. Wind conditions have remained the same for decades.

The FAA said in written statements they weren't sure why flights were farther south…

But thought it might be:
heavier aircraft

Aircraft Weight Analysis

2019 airlines, cargo and air taxis

Seating capacity 175+

Alaska Air B739

Seating capacity 150-175

Southwest B737-800, United A320

Seating capacity 125-149

Southwest B737

Seating capacity under 100

Skywest CRJ2, Delta Connect E170

Seating capacity – Other

FedEx A306 (cargo)

Data Set & Methodology

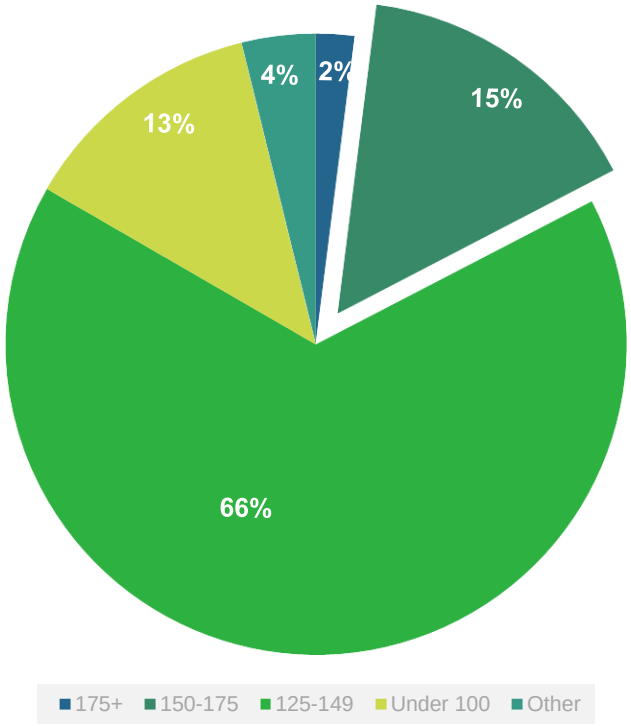
We analyzed over 2000 departures of airlines, air taxis and cargo aircraft from February – September 2019 that flew at least 10 miles from BUR before turning north over the Santa Monica Mountains.

Since our objective was weight analysis, the lightest aircraft - general aviation business jets and small prop planes - were excluded.

Sources: Overview of Commerical Aircraft 2018-2019 (DVB Bank SE Aviation Research); Seat Guru; Wikipedia (Southwest fleet): Airnoise.io reports

Aircraft Weight Analysis

2019 airliners, cargo and air taxis



66% are 125-149 seat capacity

This moderate category of airliners are the same aircraft that have been operating at BUR for the last decade.

13% are under 100

Lightweight air taxi category at BUR and VNY

2% are 175+

The heaviest category of airliners.

Sources: Airnoise.io reports; Overview of Commerical Aircraft 2018-2019 (DVB Bank SE Aviation Research); Seat Guru; SCAG 2013 Report

Aircraft Weight Analysis

Airliners, cargo and air taxis

Load Factors (pre-Metroplex)

In 2013 aircraft were turning north of the 101 Frwy and Ventura Blvd corridor with a high % of passengers (weight) in both moderate and larger aircraft.

Alaska Air (134 – 175 passenger capacity; over 2,000 operations)

81.7%

Southwest (122 – 175 passenger capacity; over 30,500 operations)

64.7%

Sources: AECOM Regional Aviation Forecasts (2015) - U.S. DOT T100 Database 2013; and AECOM analysis

The reason for flights farther south is <u>not</u> due to *heavier aircraft*.

No!

Larger Aircraft

98% of the aircraft flying farther south are moderate or light weight as they were in previous years.

No!

Passenger Capacity and Load Factor

In 2013, pre-Metroplex, this same aircraft were at 64.8% - 81.7% load capacity, similar to load capacity today.

No!

Performance

Experts say that 98% of the aircraft we looked at do not need to fly further south even with higher load capacities. ***"Performance-wise it's the same as before in terms of weight."*** *- Retired Boeing airline pilot*

The Pieces to the Puzzle

Lots of guesses by those who are in charge. What's really happening?

More Operations

No!

Weather Conditions

No!

Heavier Aircraft

No!

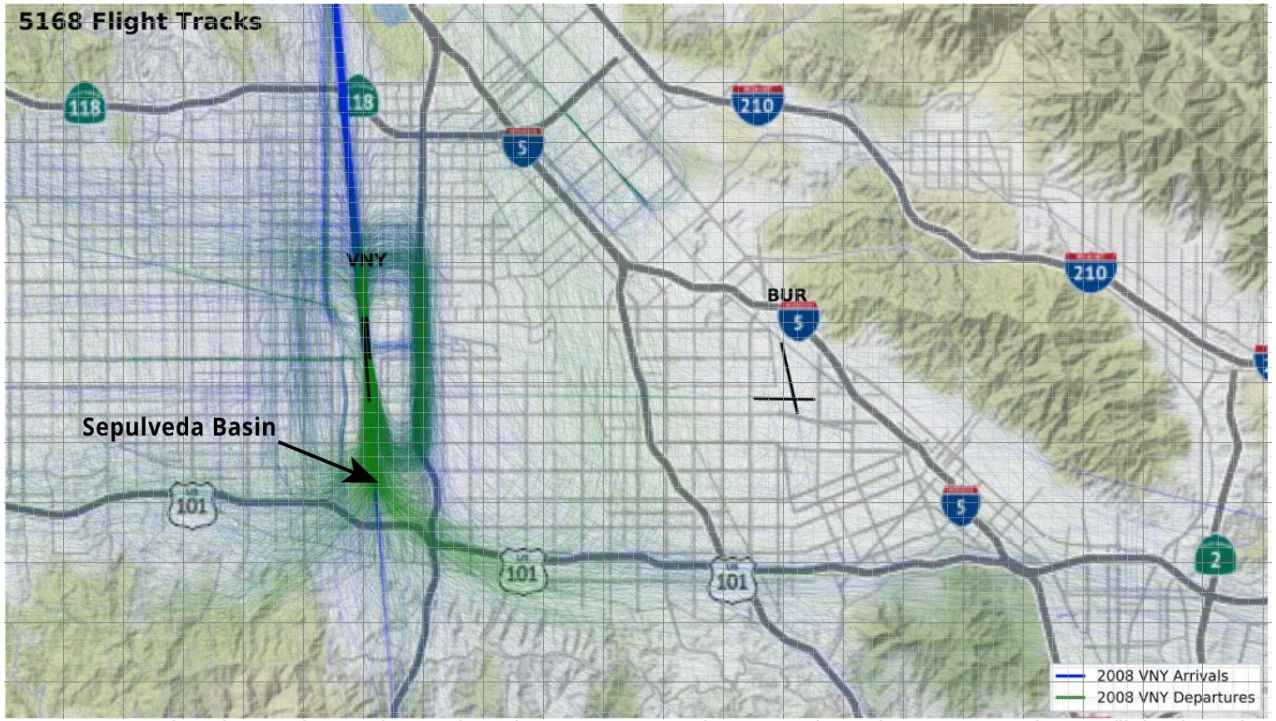
Metroplex - NextGen

Yes

History of VNY Departures and Metroplex

VNY Historical Routes

Pre-Metroplex used dispersed departures north, and south turning at 2.2 DME near Sepulveda Basin

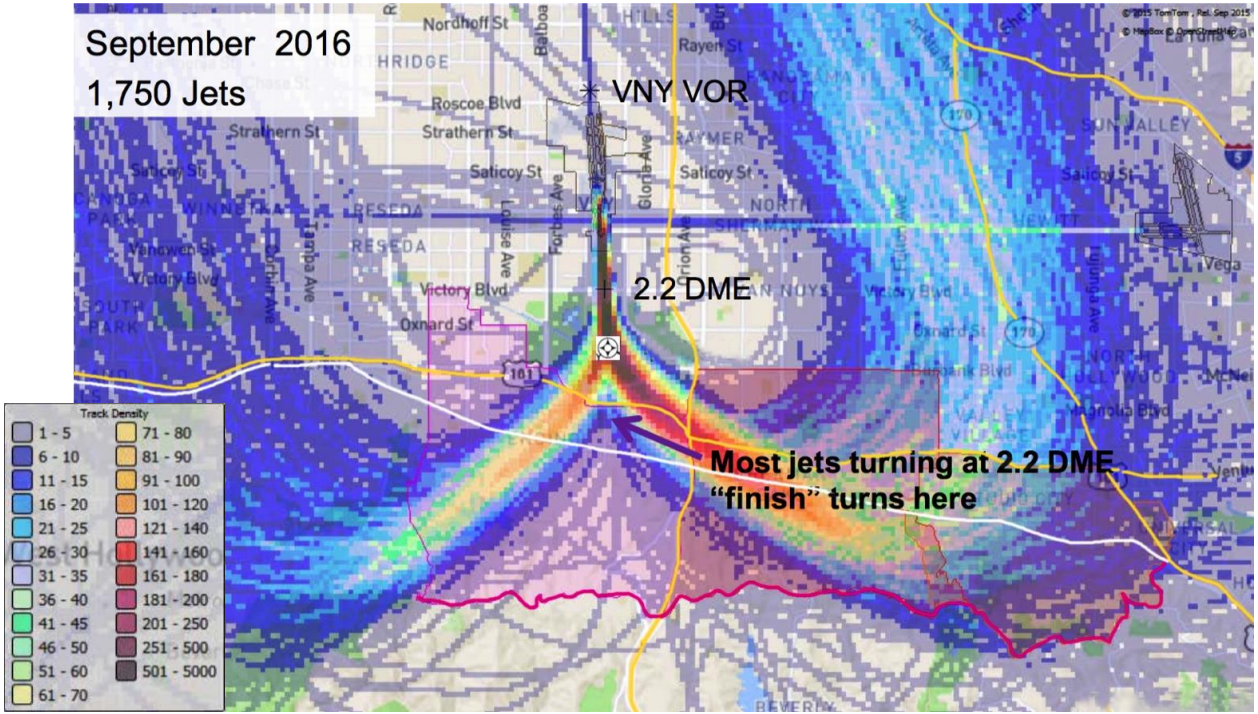


Source: FAA The History of Two Airports (2019). Departures are in green, shown in aggregate of 5,168 flights in entire year of 2008.

For decades, GPS equipped jets (when it was available) and conventional aircraft depart to the north, and south making their turns east or west over the unpopulated Sepulveda Basin. Most of their final destinations were Northeast, North, and Northwest.

VNY Historical Routes

2016 pre-Metroplex departures using 2.2 DME - **East side of the 405**



70% finished their turns over the Sepulveda Basin at or north of the 101 Freeway. (RED & ORANGE)

20% continued turning between the 101 Freeway and Ventura Blvd. (LIGHT ORANGE & YELLOW)

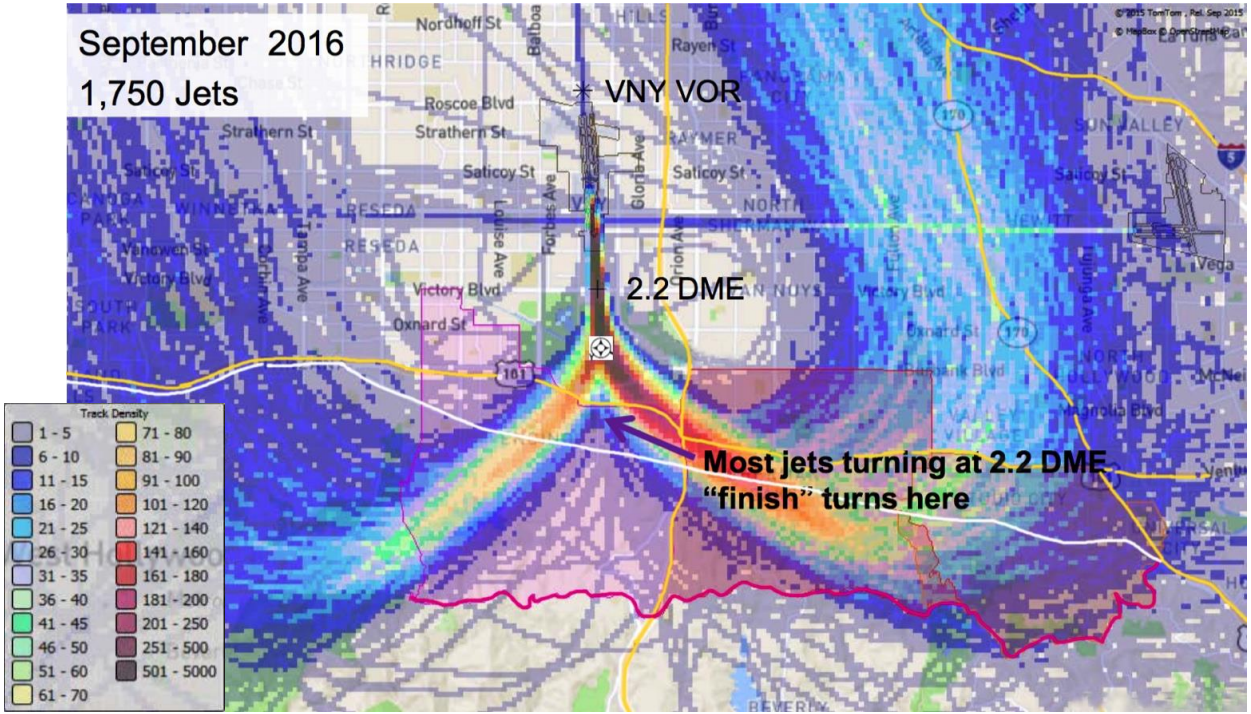
10% were south of Ventura Blvd in the foothills. (YELLOW and LIGHT BLUE)

10% were in parts of the Santa Monica Mountains. (PURPLE)

Source: LAWA report (Nov 6, 2018). Flights are shown in aggregate for September 2016. (Percentages provided are estimates.)

VNY Historical Routes

2016 pre-Metroplex departures using 2.2 DME - **West side of the 405**



Most aircraft turned to the East. Of those turning west:

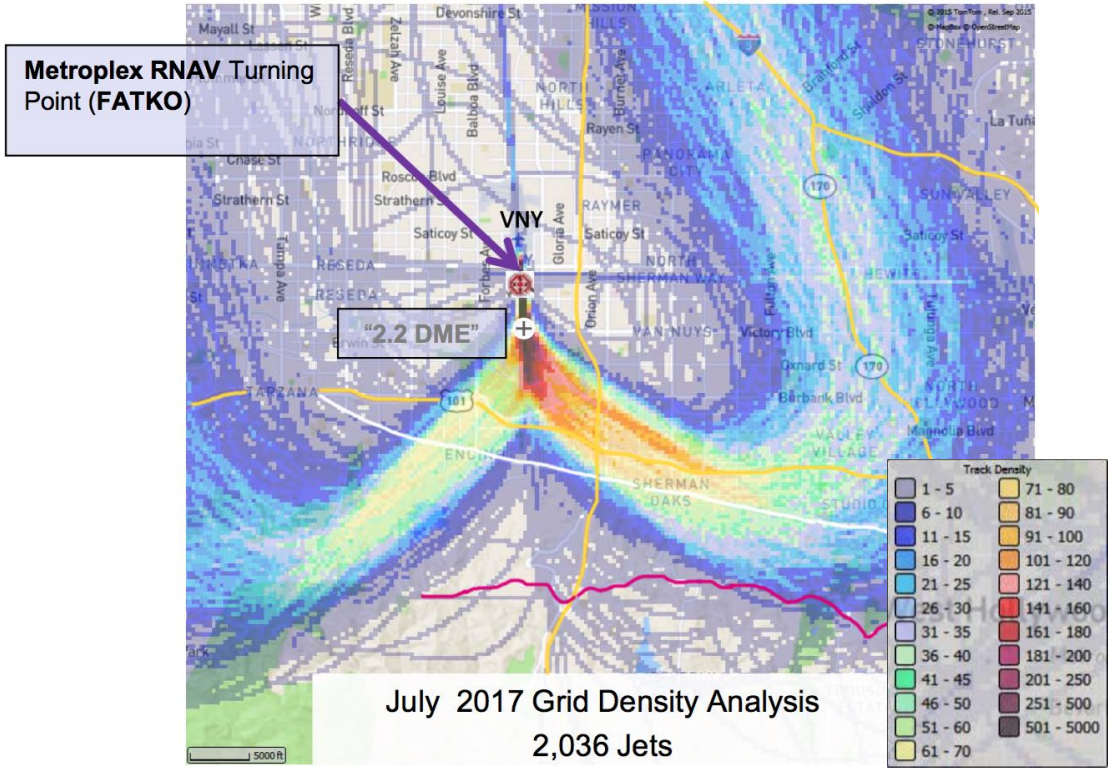
80% were north of the 101 Freeway (RED).

10% were between the 101 Freeway and Ventura Blvd (LIGHT ORANGE LIGHT BLUE and PURPLE)

10% were in the foothills and Santa Monica Mountains (YELLOW, LIGHT BLUE and PURPLE)

Source: LAWA report (Nov 6, 2018). Flights are shown in aggregate for September 2016. (Percentages provided are estimates.)

VNY Metroplex Introduced

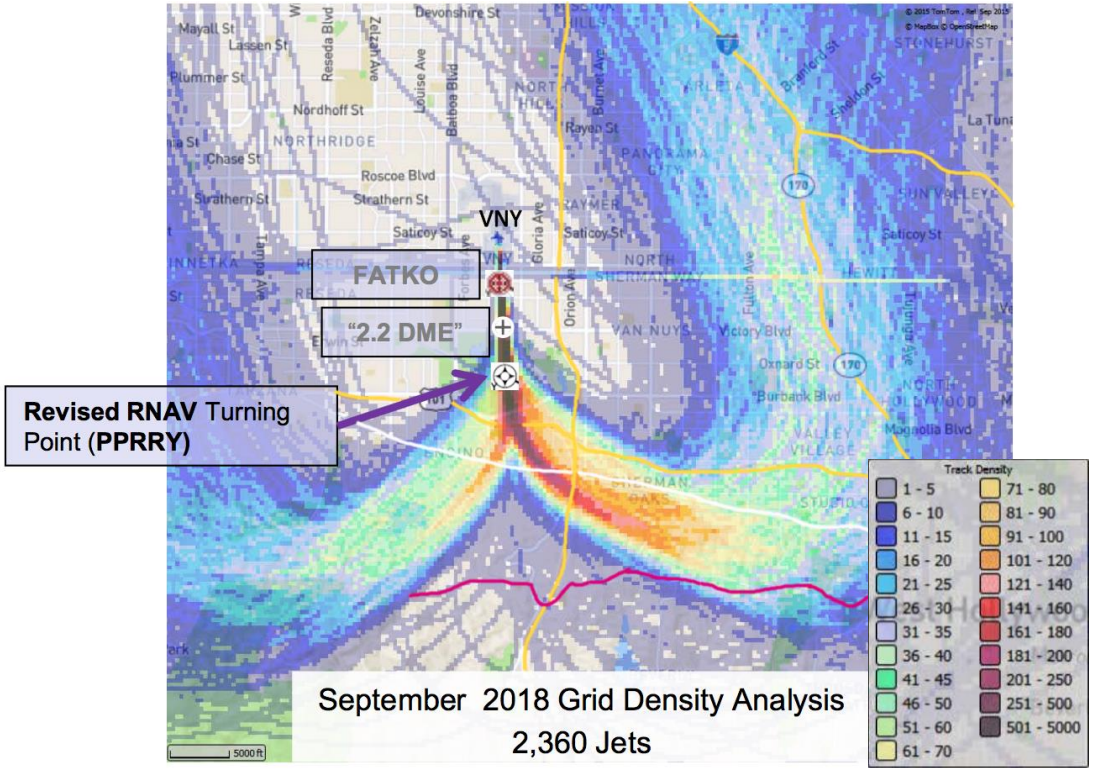


In March 2017 departures began using FATKO, a new RNAV point. It was not in the Metroplex EA.

- FATKO is **north** of historic 2.2 DME, near the end of Runway 16.
- GPS aircraft (jets) capable of RNAV begin turns at FATKO, further **north** than historically.
- Most jets and conventional aircraft are still north of the 101 Freeway. No additional aircraft is to the south.

Source: LAWA report (Feb 7, 2019). Flights are shown in aggregate for July 2017.

VNY New PPRRY Waypoint



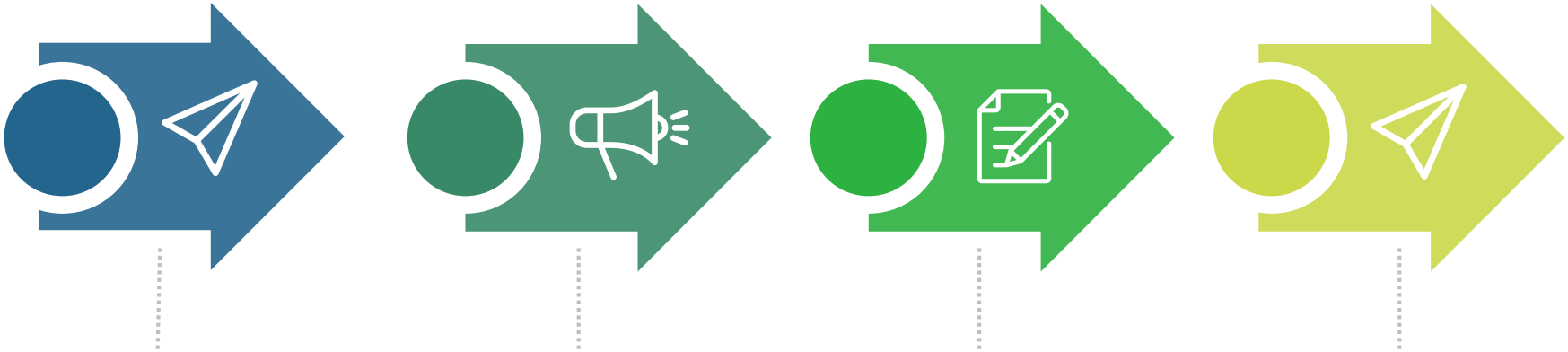
In May 2018 departures began using PPRRY, a new RNAV waypoint that "fixed" the FATKO problem. It was not in the EA and no notice was given.

- PPRRY is **over ½ mile south** of historic 2.2 DME and nearly a mile south of FATKO.
- Required to hit the waypoint, GPS aircraft (jets) **begin** their turns at PPRRY.
- Most jet aircraft turn south of the 101, into the foothills and Santa Monica Mountains between white (Ventura Blvd) and pink lines (Mulholland Dr).

Source: LAWA report (Feb 7, 2019). Flights are shown in aggregate for September 2018.

VNY Genesis of Metroplex

From FATKO to PPPRY



March/April 2017

FAA publishes new Metroplex RNAV departure procedure FATKO not in the EA. Turns are earlier/closer to VNY.

May-July 2017

Small increase from 4 (avg) residents per month complaining about noise to 7 (avg) in Lake Balboa adjacent to airport.

August 2017

LAWA alerts the FAA of complaints and VNY “no early turn” policy. FAA temporarily returns to 2.2 DME.

May 2018

FAA publishes new PPRRY waypoint over ½ mile south of 2.2. DME. It was not in the Metroplex EA.

“The FAA does not solve one community’s noise issue by moving noise to another community and creating a problem for them.”

– Ian Gregor, FAA Pacific Division

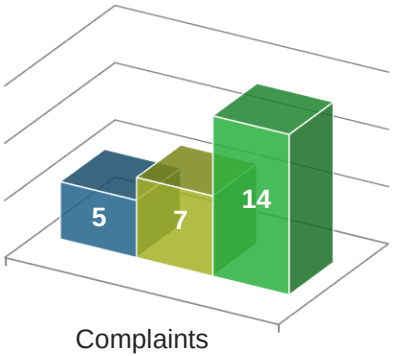
Great. But it's also not OK to create noise (and other) problems when there wasn't one *before…*

miles away from an airport.

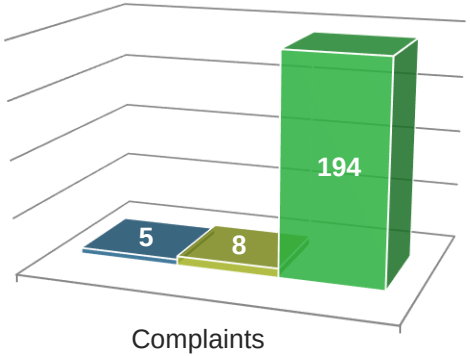
VNY Complaints

Pre-Metroplex to FATKO to PPRRY

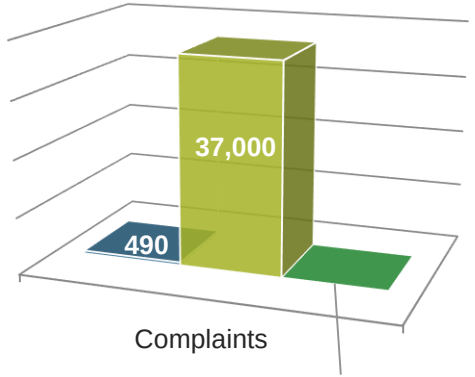
April 2017
Pre-Metroplex



May 2017 - After
Metroplex FATKO



May 2019 - After
Metroplex PPRRY
("fix" to FATKO)



Source: LAWA Noise Monthly Reports

VNY Complaints

Comparison by neighborhoods

April 2017 Pre-Metroplex:

21 total complaints

City	% of 21 Complaints
Sherman Oaks	2%
Encino	15%
Lake Balboa	7%
North Hills	53%
Northridge	4%
Van Nuys	13%
Studio City	0%
Bel Air (LA)	2%

VS

May 2019 Metroplex with PPRRY:

37,000 total complaints

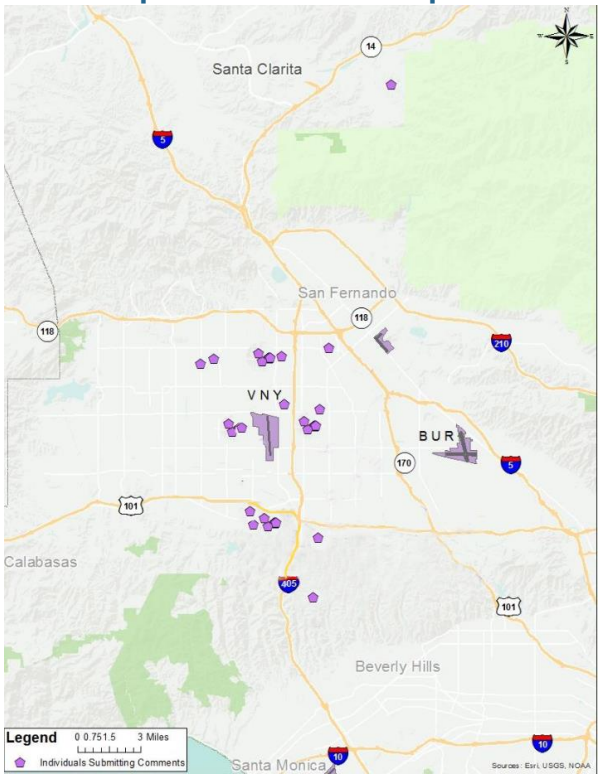
City	% of 37,000 Complaints
Sherman Oaks	40%
Encino	12%
Lake Balboa	1%
North Hills	2%
Northridge	0.4%
Van Nuys	2%
Studio City	22%
Bel Air (LA)	8%

Source: LAWA Noise Monthly Reports

VNY Complaints

Then and Now: Mapped

April 2017 Pre-Metroplex



VS

176,090%

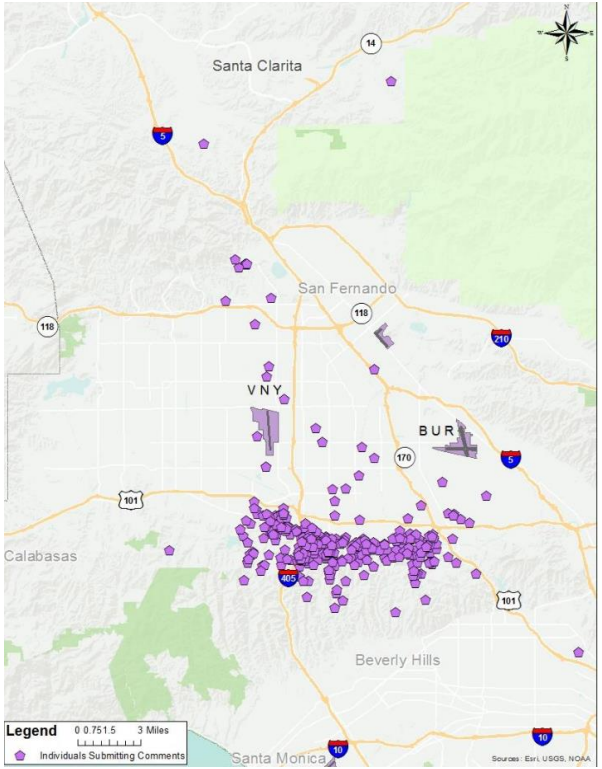
Increase in complaints

70%

3 to 15 miles south of the airport mainly in the noise-sensitive foothills and Santa Monica Mountains.

Sources: LAWA Noise Monthly Reports; Google Maps

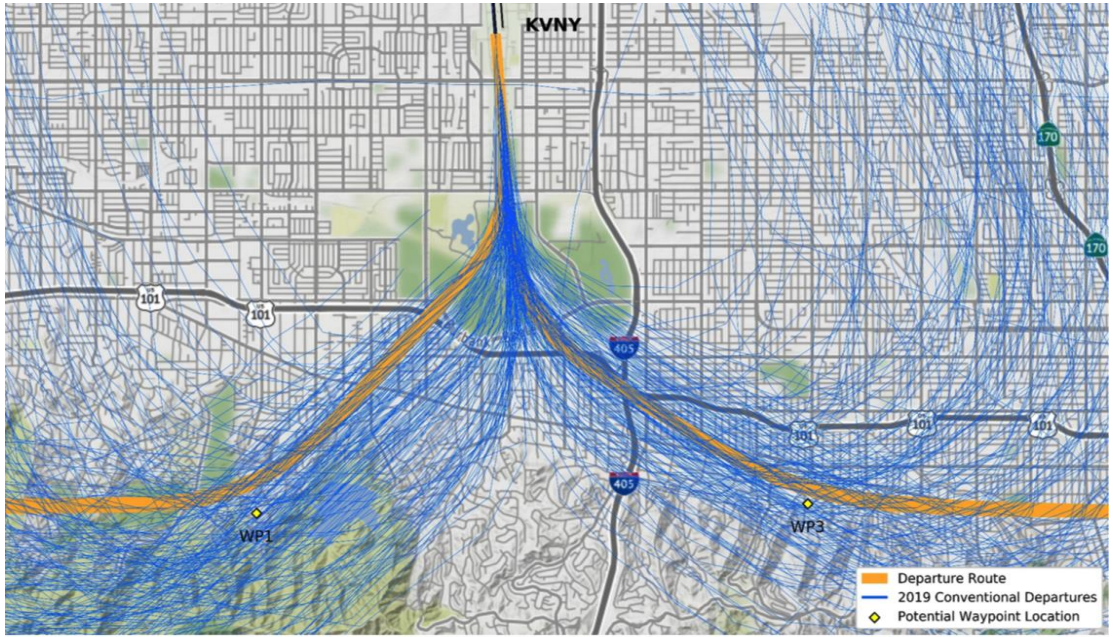
September 2019 Metroplex w/ PPRRY



The FAA's "Solution"

FAA Proposal: VNY

Departure route the FAA proposed in August 2019 to replace PPRRY



Source: FAA report (August 2019). Blue tracks are current conventional departures in aggregate over 15-day period in May 2019.

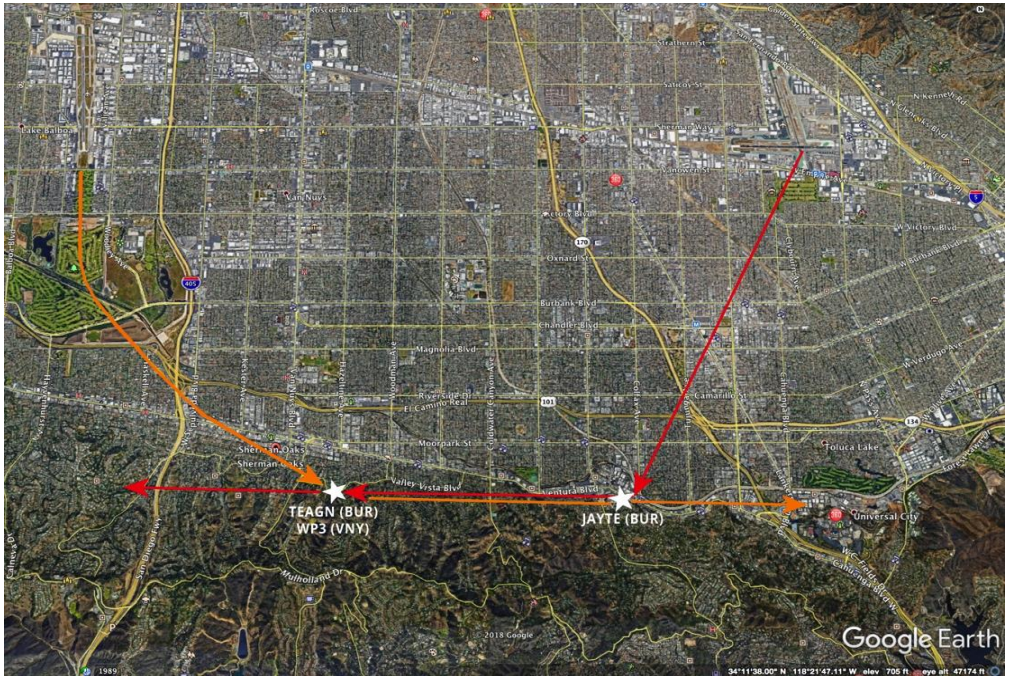
Instead of returning to historic, a new route and waypoints (W1, W2, W3) are proposed south of the 101 Fwy.

Mimics/overlays current conventional departure procedures (in blue).

Gold line is not depicting a “flight corridor or boundary.” FAA departure orders allow for ½ mile spread in either direction along route, essentially using the same path shown in blue.

FAA Proposals: VNY & BUR

VNY (post-Metroplex 2019) and BUR (post-Metroplex 2018)



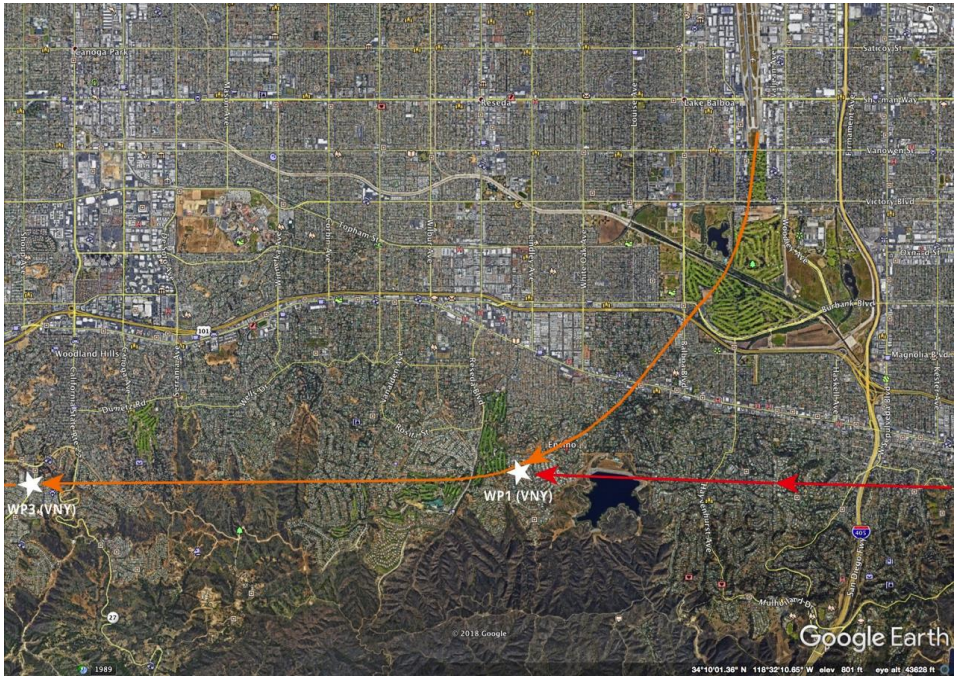
On the east side of the 405 Fwy, WP3 is in the exact location as TEAGN waypoint that the FAA proposed in 2018 for BUR. The routes are nearly identical in opposite directions.

Both waypoints are “fly bys” requiring RNAV jets to reach them before turning.

Source: Red path: FAA October 2018 proposed changes to SLAPP 1 and OROSZ 2 departures at BUR (TEAGN/JAYTE); Orange path: August 2019 proposed changes to PPRRY.

FAA Proposals: VNY & BUR

VNY (post-Metroplex 2019) and BUR (post-Metroplex 2018)



On the west side of the 405 Fwy WP1 and WP2 are in the path of the proposed BUR TEAGN route as it continues westward over the Santa Monica Mountains.

WP1 is a “fly by” requiring RNAV jets to reach them before turning. Jets can turn between WP1 and WP2 or can continue on to WP2.

Source: Red path: FAA October 2018 proposed changes to SLAPP 1 and OROSZ 2 departures at BUR (TEAGN/JAYTE); Orange path: August 2019 proposed changes to PPRRY.

Why these “solutions” are not acceptable.

No!

Better than PPRRY

The requirement of non-dispersal, fixed PBN waypoints in the Ventura Blvd corridor, foothills and Santa Monica Mountains, with a potential ½ mile spread in either direction of the route, is harmful.

No!

Can’t return to historic 2.2 DME

The FAA returned to 2.2 DME for jet (GPS) aircraft and conventional in 2017-2018 while working on a FATKO solution. And, all aircraft departed north, and south at 2.2 DME for decades without noise complaints or safety issues, separated from BUR aircraft.

No!

Needs repeatable paths

Loading up aircraft and creating new paths through noise-sensitive fire zones, is not acceptable under any circumstances. Re-evaluate ATC hiring practices and waive NextGen PBN mandates and waypoints.

The cumulative impacts

and why it matters to the City and airports

Metroplex Impacts

It’s not only about noise, folks…

Noise

Sound is amplified in noise-sensitive, elevated foothills and Santa Monica Mountains.

Low Altitude, Stacked + Frequent

Hundreds of jets, prop planes and helicopters traverse the same space.

20+ Protected Public Parks

Protected public parks, overlooks and open spaces are no longer a family oasis.

01

02

03

04

05

06

Safety + Fire

Poor general aviation crash record and high fire hazard zone is a ready-made disaster.

Wildlife

The paths are within the borders of the City’s Wildlife Pilot with birds, deer, and other species.

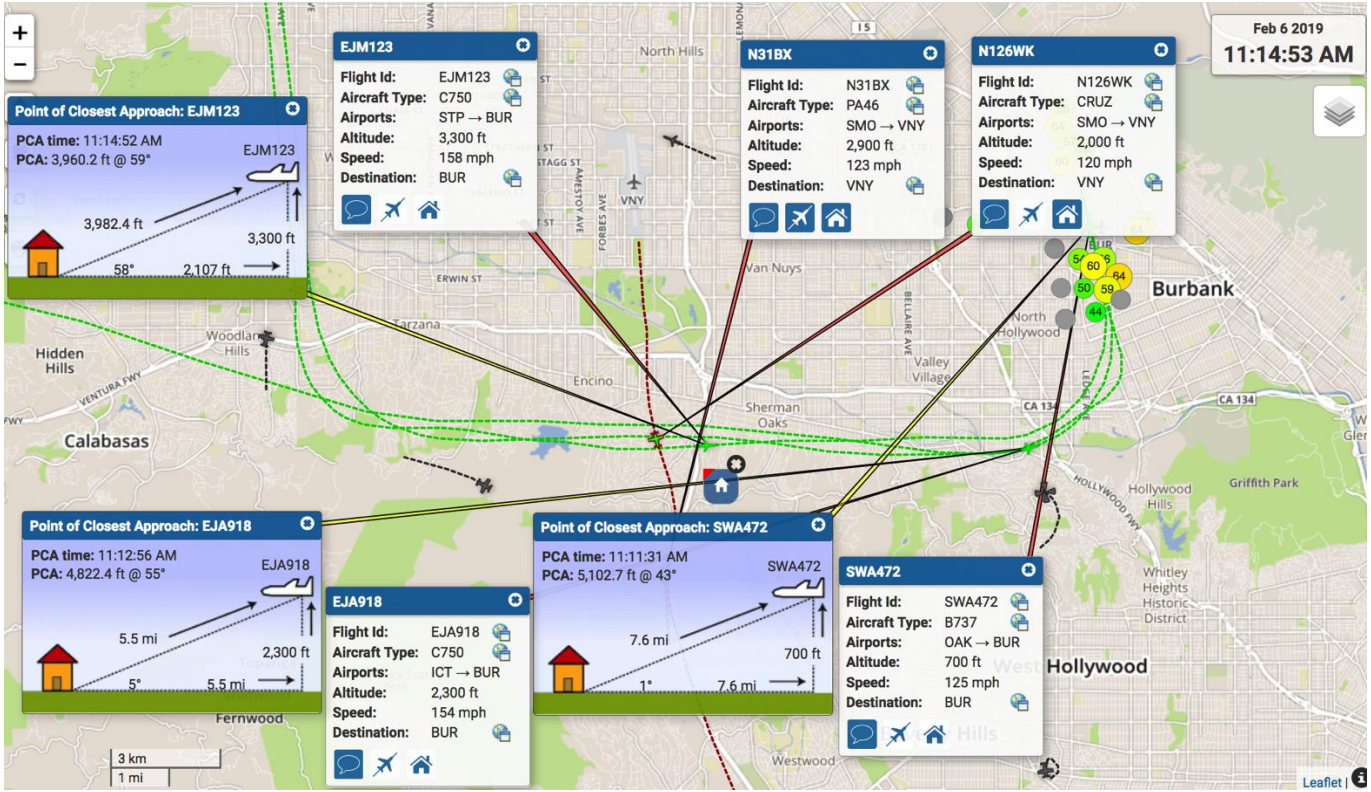
Distance

Homeowners, at an average 8 miles from either airport, now live next to a “runway” in the sky.

Low Altitude, Stacked and Frequent

Low Altitude, Stacked & Frequent

Hundreds of BUR and VNY low-flying aircraft are traversing high elevations



Noise

The FAA and aviation industry have known for years that NextGen PBN paths create a noise problem.

Yet it's PBN paths that the FAA is proposing as a "fix":

W1, W2, W3 in place of PPRRY at VNY. And TEAGN/JAYTE in place of Metroplex at BUR.

Noise

NextGen technology and noise metrics

In 2015, Former FAA Administrator Huerta oversaw a survey “to determine whether changes to the FAA’s use of the Day-Night Average Sound Level (DNL) 65 dB noise metric are warranted.”

Instead of **re-evaluating PBN (RNP) paths** or engaging in **social responsibility**…they kept their DNL and continue to jerry-rig the noise impact through modeling and averages. The NEPA findings are usually the same: “no significant impact.”

The threshold of significance (1.5 Db at 65 DNL and above) ***does not account for*** the significant increase in frequency that occurs under the PBN corridors.

Source: JDA Solutions

Noise

NextGen technology and noise metrics

What needs to be done?

01 Stop using these corridors NOW!

02 On a **test basis only, for a limited time**, use the PBN flight corridors to take actual noise measurements - instead of noise modeling - to determine why the reaction to noise impact is so much greater than the predicted noise impact. Per the Reauthorization Act of 2018, **use alternative noise metrics**: Account for frequency, terrain reverberations, Southern California indoor/outdoor living, parks/open spaces, wildlife, and cumulative impact of jets, planes and helicopters.

03 If the predicted (modeled) noise impact is found to be accurate, then **the threshold for significant impact needs to be evaluated and adjusted** to account for factors such as differing community tolerance for noise particularly 5 – 15 miles distance from airports where residents did not purchase under or near an airport or flight path.

Source: FAA Reauthorization Act, 2018

Noise

NextGen (RNP) technology and noise metrics

And hear this…

Our communities

will not accept “soundproofing”

as a viable option unless in the immediate area of an airport. This does not account for noise when **outdoors** around homes, or in protected parks, overlooks and open spaces.

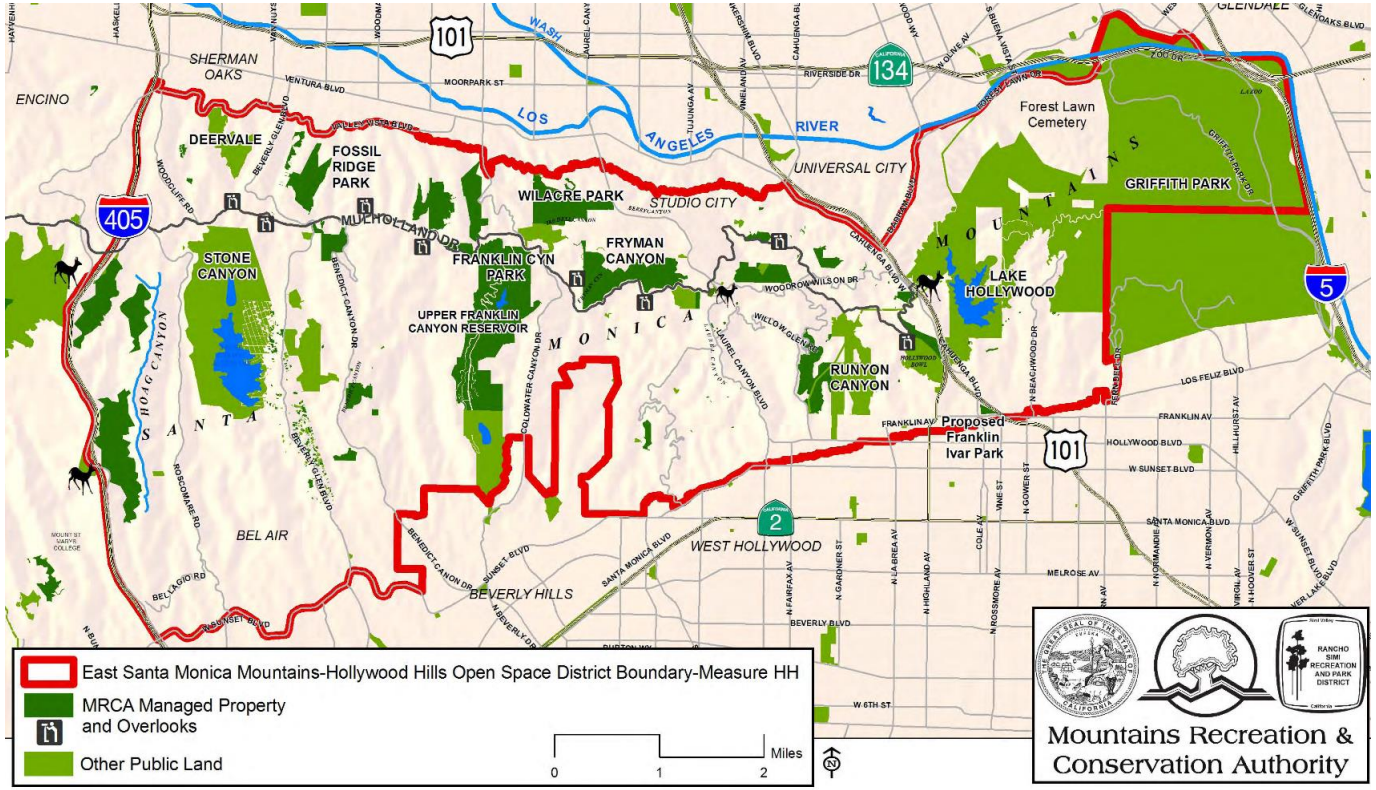
Source: UCLA SMO Health Impact Assessment

20+ Protected Parks, Overlooks and Open Spaces

Wildlife and peaceful oasis in the middle of Los Angeles

Santa Monica Mountains

MRCA Open Space District Boundary (Area 1) – Measure HH



Santa Monica Mountains

Open Space District Boundary (Area 1) – Measure HH

Provides funding to:

Protect open spaces, wildlife corridors and parklands and to increase fire prevention within these local areas of the Santa Monica Mountains Conservancy Zone.

Source: MRCA

28,450 Developed Parcels

Within the boundaries of MRCA's No. 1 area (from the 405 Freeway to Toluca Lake.

$24.00

The tax paid by the owner of each parcel per year.

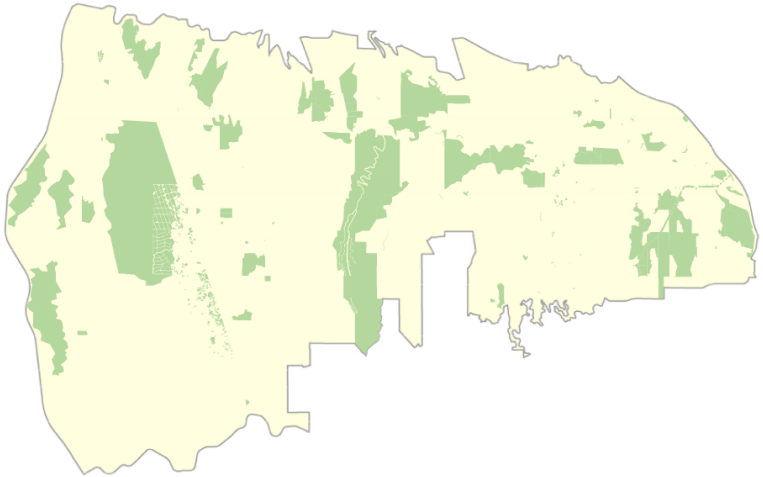
$4,096,800

The total paid to date, collectively.

Are our open spaces and parks being protected?

Santa Monica Mountains

Parks and Open Space for Wildlife Habitat



Parks and Open Space can serve as natural areas for wildlife habitats while providing recreational opportunities to people. This map shows all public parks and open spaces -City, County, State- as well as privately-owned properties belonging to the Santa Monica Mountains Conservancy.

Source: City of Los Angeles

Santa Monica Mountains

Parks and Open Space for Wildlife Habitat

Ridgelines represents the topmost geologic feature of a chain of mountains or hills that form a continuous elevation. They are largely undeveloped and serve as natural pathways for wildlife.

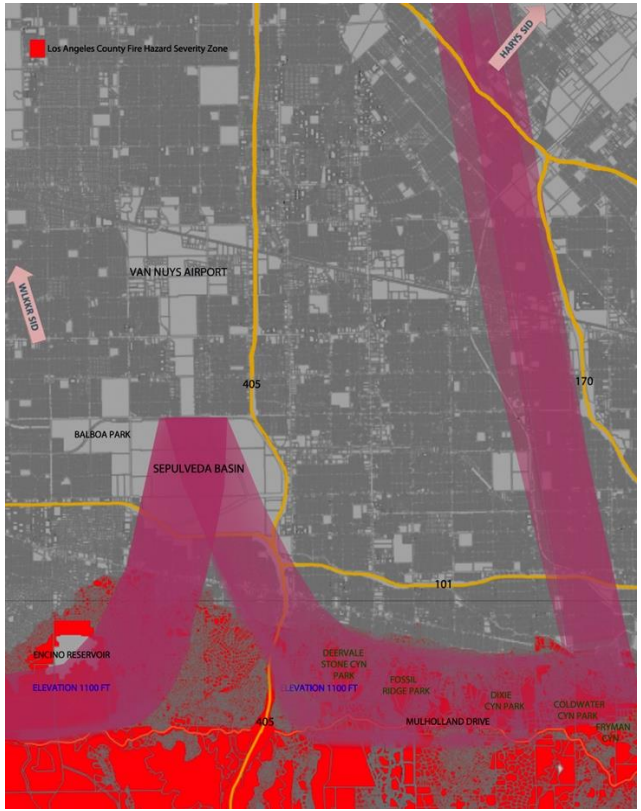
Source: City of Los Angeles

Safety and Fire

Poor crash record and fire hazard zone is a ready-made disaster.

Very High Fire Hazard Severity Zone

Santa Monica Mountains and foothills area overlaid by flight paths



16 square miles of VHFHSZ

Designated by the State of California, the entire mountain and foothill area shown in red are overlaid with the current VNY PPRRY flight path, shown in purple.

In addition, this same area is under the BUR Metroplex current and proposed paths.

Source: Cal Fire / Los Angeles County; Map overlay SOEQS

“

Hundreds of NTSB crash reports describe burning airplanes as a fireball or as having exploded. NTSB investigation forms include a box labeled ‘aircraft explosion’ for investigators to check.

”

– USA Today

Aviation Accidents

General aviation accidents including business jets, prop planes and helicopters – in mountainous and hillside terrain.

2,008

CRASHES

in hilliside and moutainous terrain in the United States since 2002.

114

FIRES

resulting from crashes in hillside/mountainous terrain.

179

FATALITIES

resulting from crashes in hillside/mountainous terrain.

172

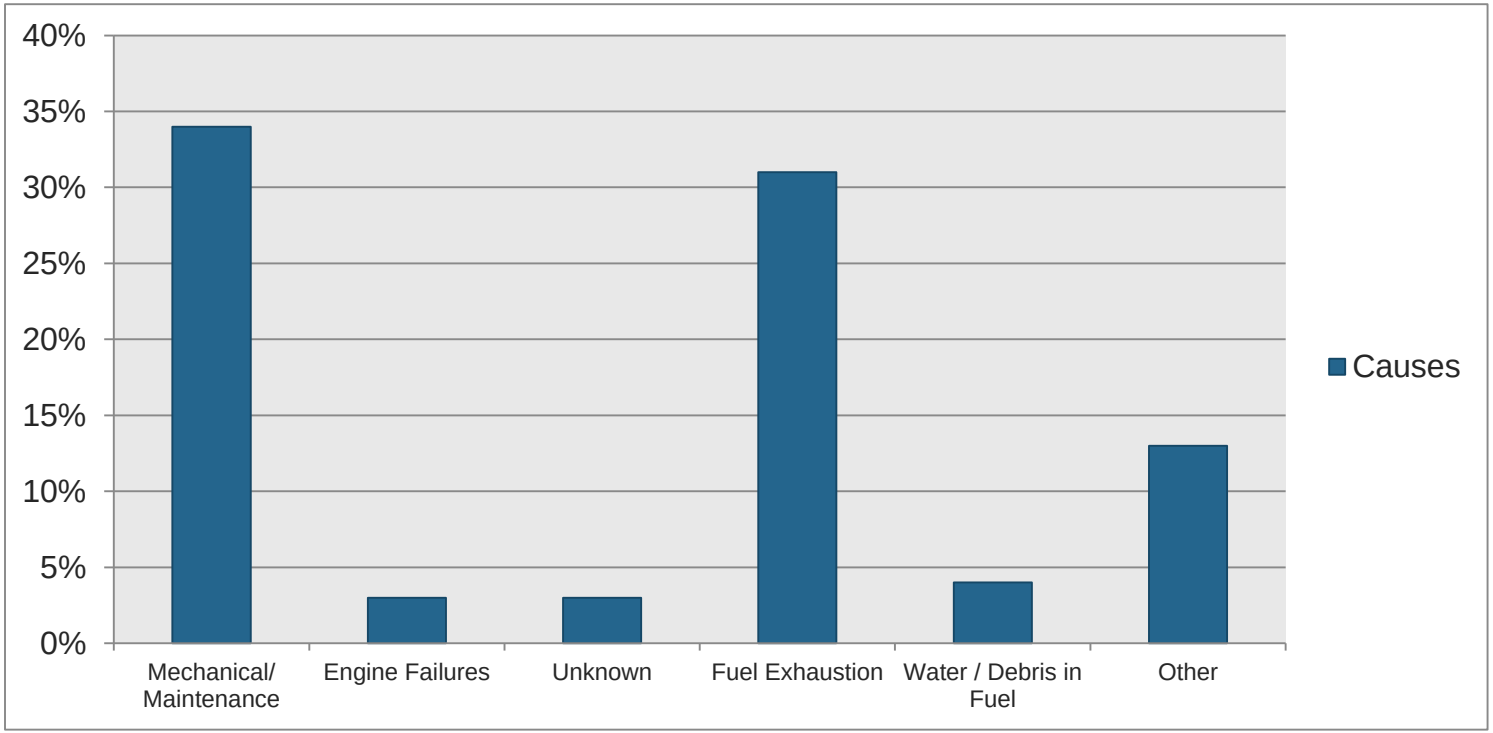
AFTER TAKEOFF

crashed in hillside/mountainous terrain after take-off while climbing.

Source: NTSB Accident database

Reasons for Accidents

General Aviation



Source: FAA / NTSB (2015-2017)

Top 3 Causes of Fatal Accidents

General Aviation 2001 - 2017

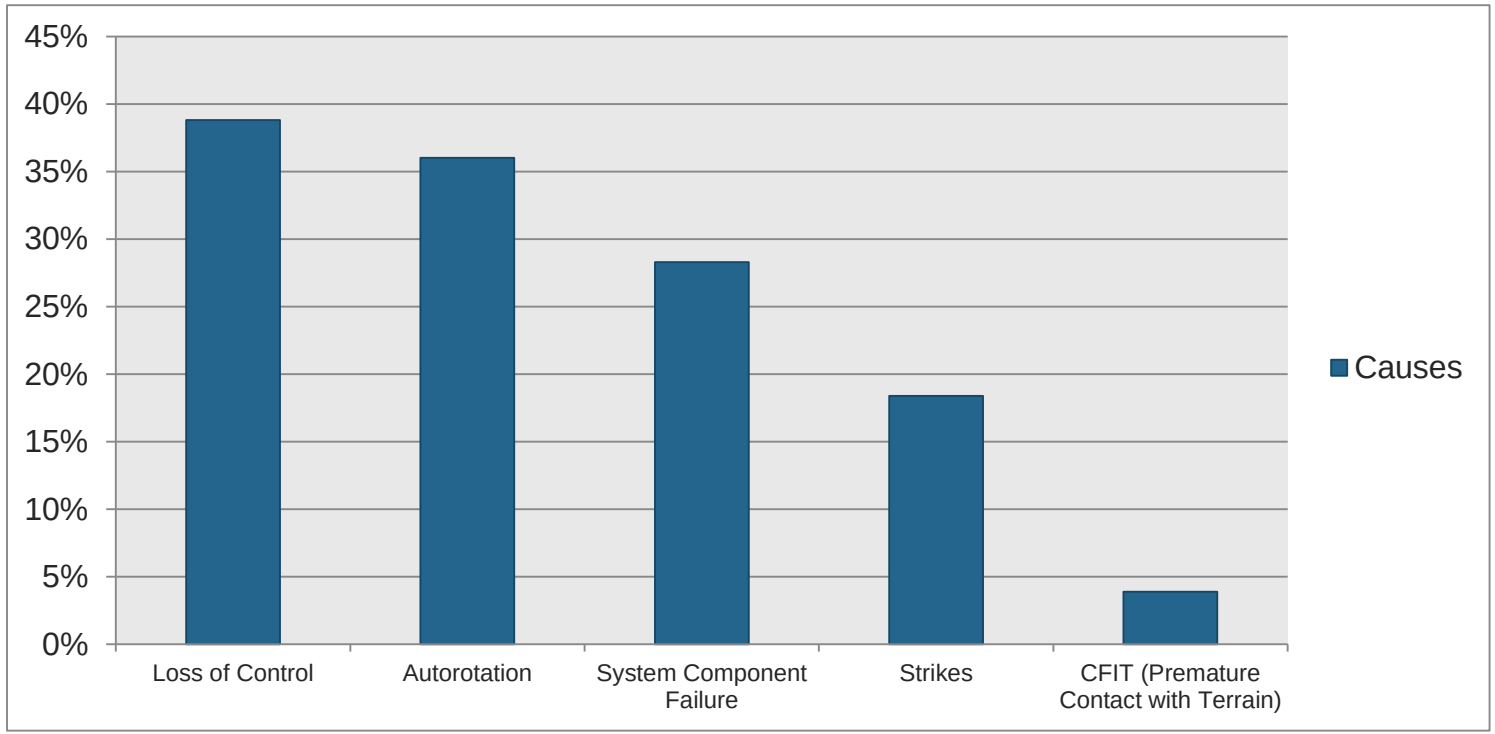
1. **Loss of Control in Flight**
2. **CFIT (Premature Contact With Terrain)**
3. **System Component Failure**

Over 25%

Of general aviation fatal accidents occur during the maneuvering phase of flight – **turning, climbing** or descending close to the ground.

Source: FAA / NTSB

Reasons for Accidents



Source: Theriault WireStrike Report (2012)

Helicopter Strikes

Statistics

01 Wire accident pilots are experienced, with an average of 7,225 hrs TT and 5,230 hrs Rotorcraft.

02 In an analysis of NTSB accidents, almost half KNEW the wires were there but struck them anyway.

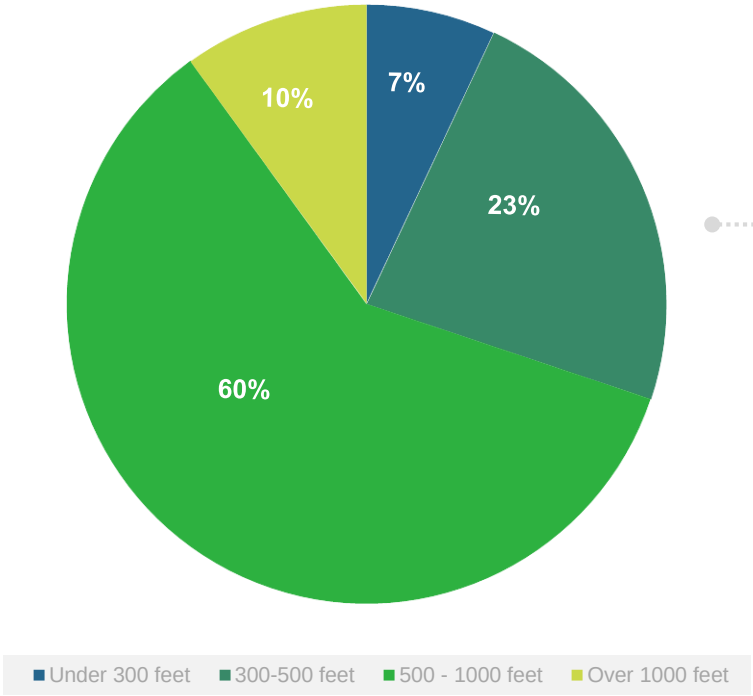
03 Other strikes include trees.

04 An USHST report indicates that low altitude operations is one of the leading causes of fatalities.

Sources: Theriault WireStrike Report (2012); USHST Report (2017); @CelineTVNews

Helicopter Analysis

2019 helicopters over the Santa Monica Mountains



7.6% are under 300 feet altitude

23% are under 500 feet altitude

Data Set & Methodology

We analyzed 500 VNY helicopter departures and arrivals over West Sherman Oaks Hills (over 5 miles from VNY) from February – September 2019 at 1150 elevation. Helicopters are flying at extremely low altitudes due to the “stacking” of VNY and BUR aircraft over the same airspace.

Source: Airnoise.io reports

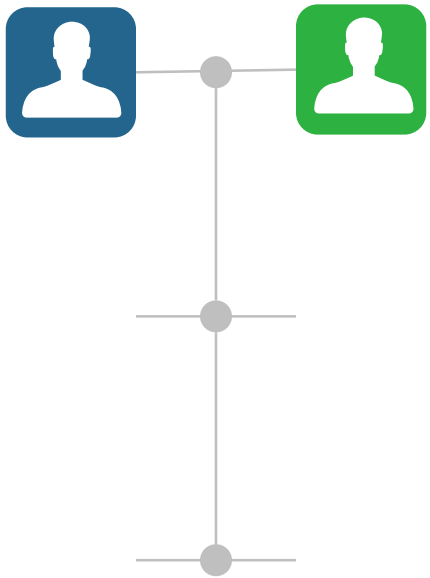
VNY & BUR Pilot Reports

Recent problems over the Santa Monica Mountains

B737-700 Airline Pilot

"Departing BUR on Runway 15, assigned heading of 210 degrees and initial altitude clearance of 4000 feet. Just prior to 3000 feet ATC asked us to expedite our climb. Shortly after, with urgency in his voice, the Controller told us to turn immediately right to the heading of 340. The First Officer started to turn the aircraft while I was looking at the TCAS. The intruder target was red and in close proximity to our aircraft..".

"Quite frankly, this event scared the hell out of me…We never saw the intruder aircraft."



Corporate Jet Pilot

"Departing VNY Runway 16R on the Canoga 2 departure. Airplane was on RNAV and autopilot to fly the departure. After reaching 2.2 DME at 1700 feet AGL, airplane turned to heading of 213 degrees and airplane did not continue to climb to assigned altitude of 4000 feet. Terrain warning system activated."

Pilot took evasive action and turned to the right to avoid terrain.

Source: FAA / ACN

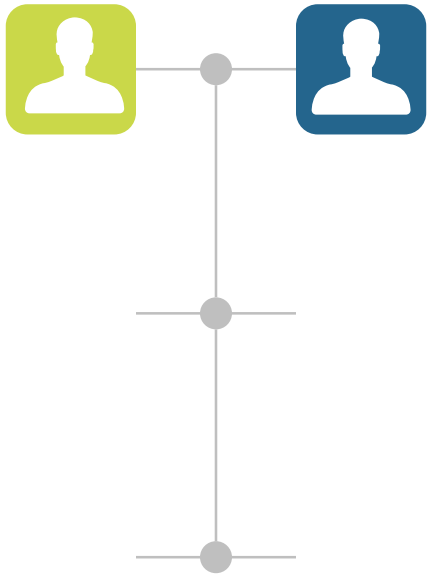
VNY & BUR Pilot Reports

Recent problems over the Santa Monica Mountains

B737-700 Airline Pilot

"Cleared to takeoff and fly SLAPP 1 RNAV departure, climb to 4000 feet. During initial climb, I noticed that the airplane was turning way past 210…Notified ATC that we were having FMS problems and asked for vectors. Asked for HDG mode and AP on. Aircraft again turned off selected HDG. Cancelled AP and leveled off at 4000 feet. Apparently we missed clearance to climb to 6000 feet and was asked again to climb...

"Aircraft control was less than smooth…during heavy distraction and workload."



Corporate Jet Pilot

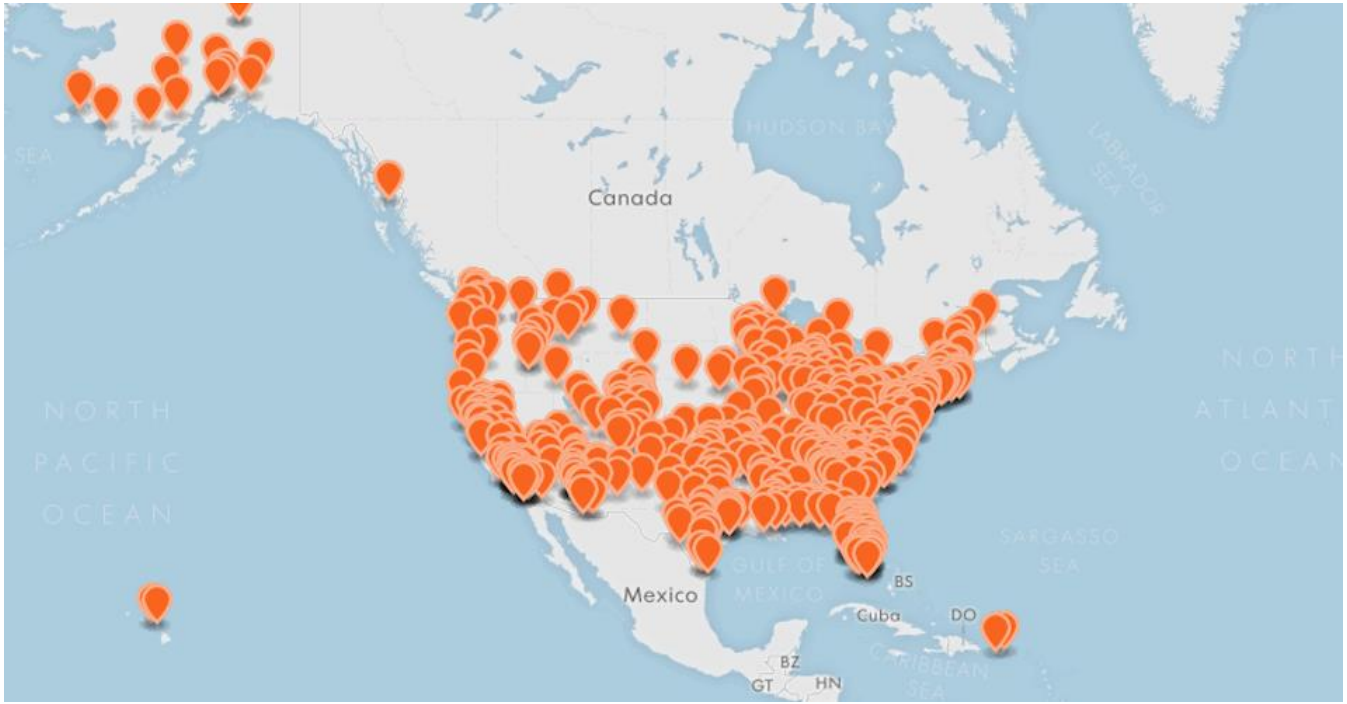
"We did a go around. At this point we were in the hills on the south end and 2000 was not going to keep us clear… We could not get a revised clearance in time and climbed on our own to avoid terrain… It was a total fiasco…We never got a terrain warning but did get a caution at one point and climbed up more. Clear sky, no clouds and calm winds on the ground…"

"We stayed clear of the terrain on our own but... This really rattled my cage."

Source: FAA / ACN

Aviation Fatalities with Fire

Crashes resulting in fire and death in the United States from 1993 – 2014.



Death by Fire

912 deaths in 544 crashes and hard landings attributed to aviation fires. About 42 per year.

Source/ Credit: Jerry Mosemak, Mitchell Thorson, USA Today; Obtained from death records (not available in 6 states in six states including New York and Alaska)

Wildfires Sparked by Crashes

Examples of GA crashes that have sparked wildfires. Similar aircraft regularly fly over the Santa Monica Mountains.

Ranchita, CA

May 11, 2018

A twin-engine Beechcraft crashed into the hillside, sparking a 12-acre wildfire in San Diego County.

Source: City News Service

Tehachapi, CA

September 5, 2011

A Cessna 210 crashed, exploding into flames, sparking a 4,500-acre wildfire and 1,500 evacuations near Bakersfield.

Source: CBS News

Las Vegas, NV

June 29, 2008

A Piper struck a tree about 40 feet above the ground. The crash strewed debris for 450 feet and sparked a wildfire.

Source: Las Vegas Review Journal

Laughlin, NV

May 17, 2015

A small plane crashes 4.6 miles after departure. Flaming wreckage ignited a large brush fire.

Source: NBC News

It was so hot that we couldn’t get an identification.

– Frank Rogers
Oroville, Washington County Sheriff

Describing a Cessna 182 crash in mountainous terrain that sparked a 5-square-mile wildfire.

Fires Sparked by Jet Crashes

Examples of jet crashes that have sparked fire. Similar aircraft regularly fly over the Santa Monica Mountains.

Toledo, OH

September 11, 2019

A twin-engine Convair 440 cargo plane crashed and burst into flames, sparking a blaze that quickly spread.

Source: CBS News

Oroville, CA

August 22, 2019

A twin-engine Citation business jet aborted a takeoff and exploded into flames, sparking a raging brush fire.

Source: Mercury News

Atlanta, GA

December 20, 2018

A private Citation 560 jet crashed a few miles from an Atlanta airport and burst into flames, sparking a field fire.

Source: Reuters

Teterboro, NJ

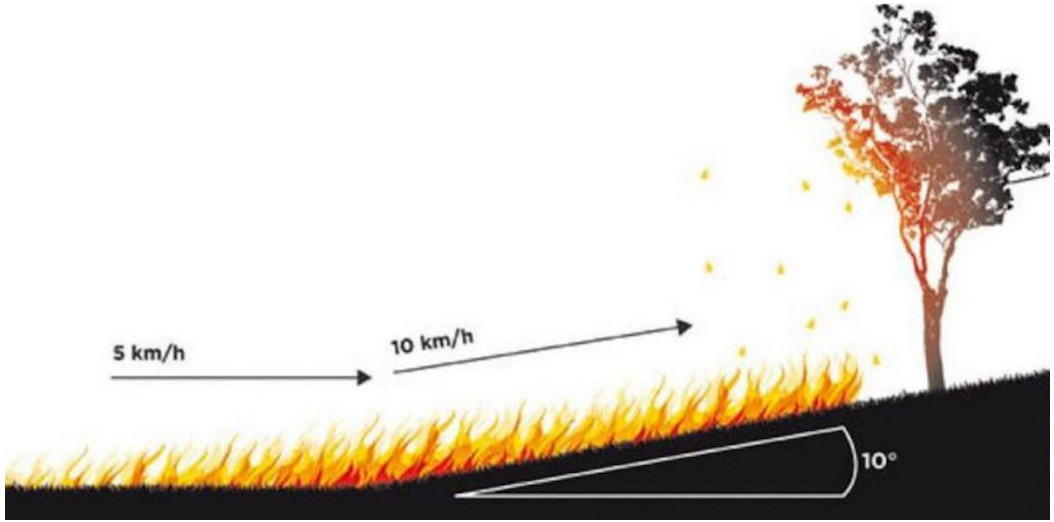
May 15, 2017

A Learjet fell from the sky near Teterboro Airport, exploding into flames on impact and killing the pilots.

Source: NBC New York

Aviation Fire in the Santa Monica Mountains

Why fuel-loaded jets and planes should not be departing over the mountains and foothills.



Sources: Forbes (Country Fire Authority/Victoria State Government, Australia)

After a fiery aviation crash…

- With gallons of fuel, flammable vegetation in the Santa Monica Mountains, oxygen to keep it burning and high temperatures and winds, it takes only a few minutes for a fire to spread.
- Fires travel up to 14 miles per hour in grassy areas. An additional 10 degrees of slope is enough to double the speed, engulfing an entire canyon.
- This is not only about property damage. Lives are at stake.

“

This was entirely preventable. And all of this was entirely foreseeable…They didn’t care that a fire could not only destroy a true natural treasure, but that it could threaten the lives of thousands of people and cause millions of dollars in damage.

”

– Alex Berezow,
American Council on Science and Health

Our Solution

Limitations

In 2015, the FAA recognized issues with flying over the Santa Monica Mountains yet directed flights over them.

In the FAA's 2015 Draft Environmental Assessment:

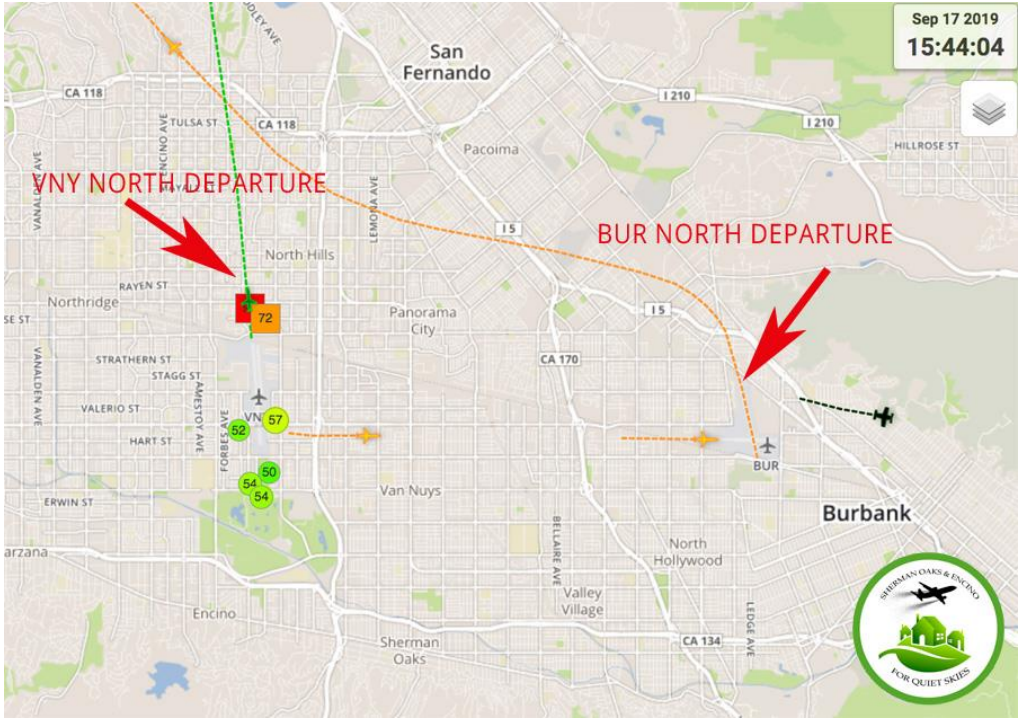
The Southern California Metroplex area is within designated mountainous terrain. Mountainous terrain poses significant challenges due to disturbed airflow, causing potentially high downdrafts and turbulence.

Due to the proximity of precipitous terrain and required higher standard minimum altitudes, location and altitude of flight procedures are limited.

Source: FAA

Shifting Departure Routes

At VNY and BUR Airports



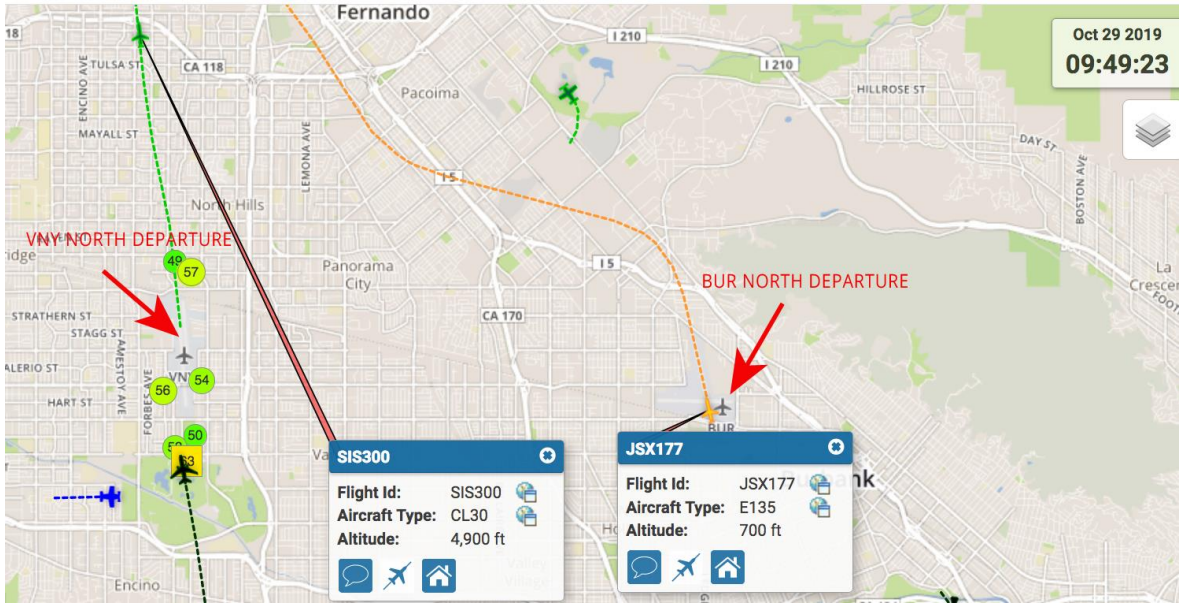
Source: Webtrak

On the afternoon of September 17, 2019 through the morning of September 18, departure paths shifted to the north during President Trump's visit to L.A. They returned to the south after his departure from LAX.

Departure routes can be changed easily. A return to historic paths can be made immediately.

Shifting Departure Routes

At VNY and BUR Airports



Source: Webtrak

The week of October of 28, 2019, departure paths shifted to the north during the Getty Fire. They returned to the south afterward.

Departure routes can be changed easily. A return to historic paths can be made immediately.

Our Solution

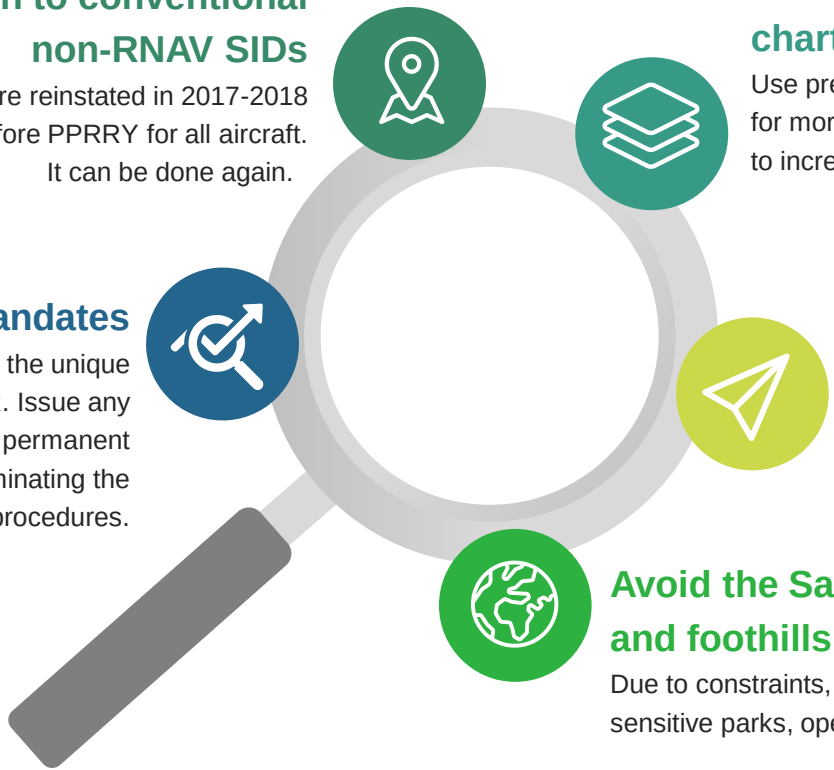
VNY Airport and shared airspace

Immediately return to conventional non-RNAV SIDs

Conventional departures were reinstated in 2017-2018 after FATKO and before PPRRY for all aircraft. It can be done again.

Use 2013 and other historic flight charts with preferential north flow

Use preferential north flow and disperse with south flow for more equitable dispersion. Add requirements for jets to increase take-off minimums to 600’ per NM.



Waive PBN mandates

Re-evaluate PBN mandates in the unique shared airspace of VNY and BUR. Issue any necessary waivers to allow permanent conventional departures, eliminating the harmful impact of NextGen PBN procedures.

Turn aircraft over the unpopulated Sepulveda Basin

For south flow, disperse aircraft more equitably to the west and east over the basin at 2.2 DME, used for decades without noise complaints.

Avoid the Santa Monica Mountains and foothills

Due to constraints, extreme fire hazards (VHFHSZ) and noise-sensitive parks, open spaces and natural wildlife habitats.

Our Solution

VNY Airport departures

Use a preferential north flow, dispersed with south flow, using these procedures:

- **NEWHALL 8 or 9**
- **CANOGA 2**
- **HAYEZ 5**
- **VVERA 2**
- **GLENDALE 1**

And add requirements to increase take-off minimums.

Immediately suspend these procedures and do not enstate the proposed “fix” for PPRRY:

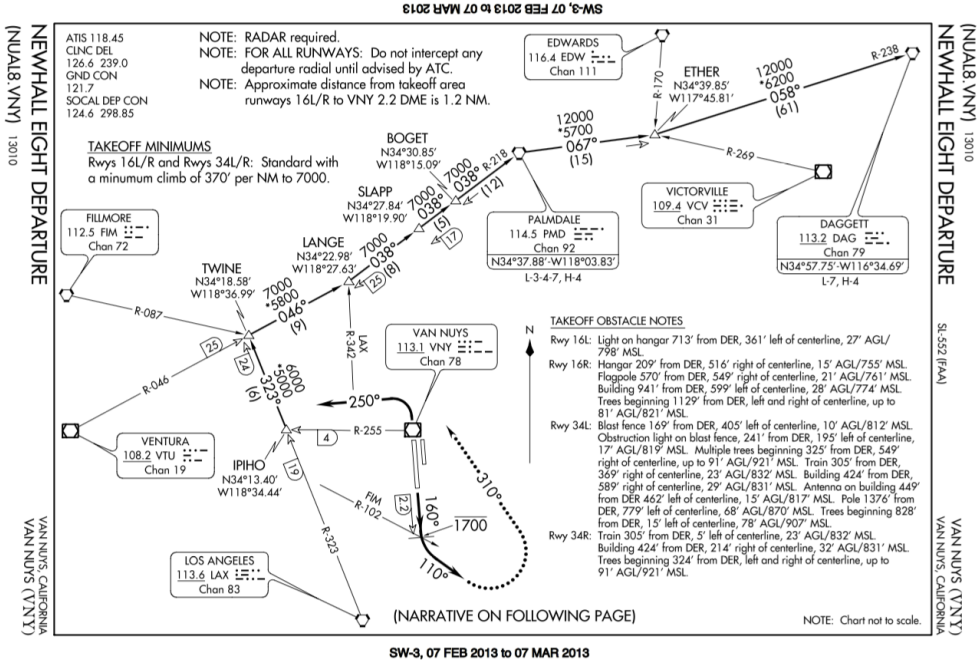
- **HARYS** (currently called HARYS 2 and any future iteration)
- **ROSCO 2** (and any previous or future iteration)
- **WLKKR 3** (and any previous or future iteration)
- **PROPOSED PPRRY “fix”** (including WP1, WP2, WP3 waypoints)

These are part of a preferential south flow which directs jets farther south into new airspace in the foothills and Santa Monica Mountains.

Example: 2013 VNY flight chart

Newhall 8 (or updated Newhall 9)

Add requirements to increase take-off minimums.



(NUAL8.VNY) 13010
NEWHALL EIGHT DEPARTURE SL-552 (FAA)
VAN NUYS (VNY)
VAN NUYS, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb on heading 160°, cross FIM R-102 or VNY VOR/DME 2.2 DME at or below 1700, then climbing left turn heading 110°, to assigned altitude, thence . . . .

TAKEOFF RUNWAYS 34L/R: Climbing left turn heading 250° to assigned altitude, thence . . . .

. . . . expect RADAR vectors to IPIHO, then via (transition) or (assigned route). Maintain ATC assigned altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within 5 DME from VNY VOR/DME, Rwys 16 L/R; turn left heading 310° to intercept the LAX R-342; and continue the published procedure.

DAGGETT TRANSITION (NUAL8.DAG): From over IPIHO INT via LAX R-323 to TWINE INT, then via VTU R-046 to LANGE INT, then via PMD R-218 to PMD VORTAC, then via PMD R-067 to ETHER INT, then via DAG R-238 to DAG VORTAC.

PALMDALE TRANSITION (NUAL8.PMD): From over IPIHO INT via LAX R-323 to TWINE INT, then via VTU R-046 to LANGE INT, then via PMD R-218 to PMD VORTAC.

SW-3, 07 FEB 2013 to 07 MAR 2013

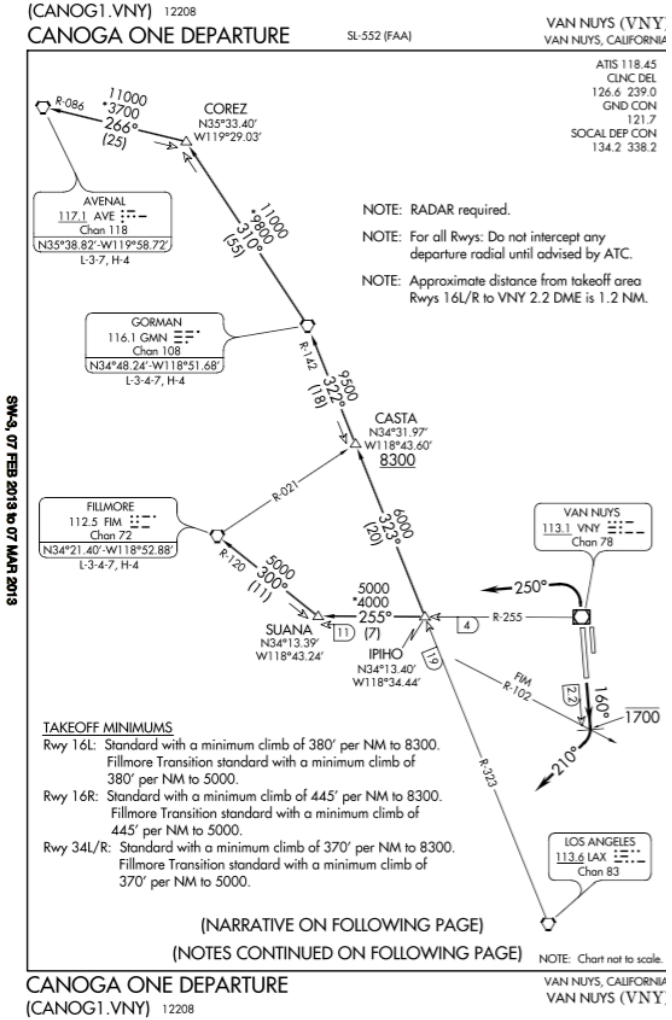
NEWHALL EIGHT DEPARTURE
(NUAL8.VNY) 13010
VAN NUYS, CALIFORNIA
VAN NUYS (VNY)

Example:

2013 VNY flight chart

Canoga One

Add requirements to increase take-off minimums.

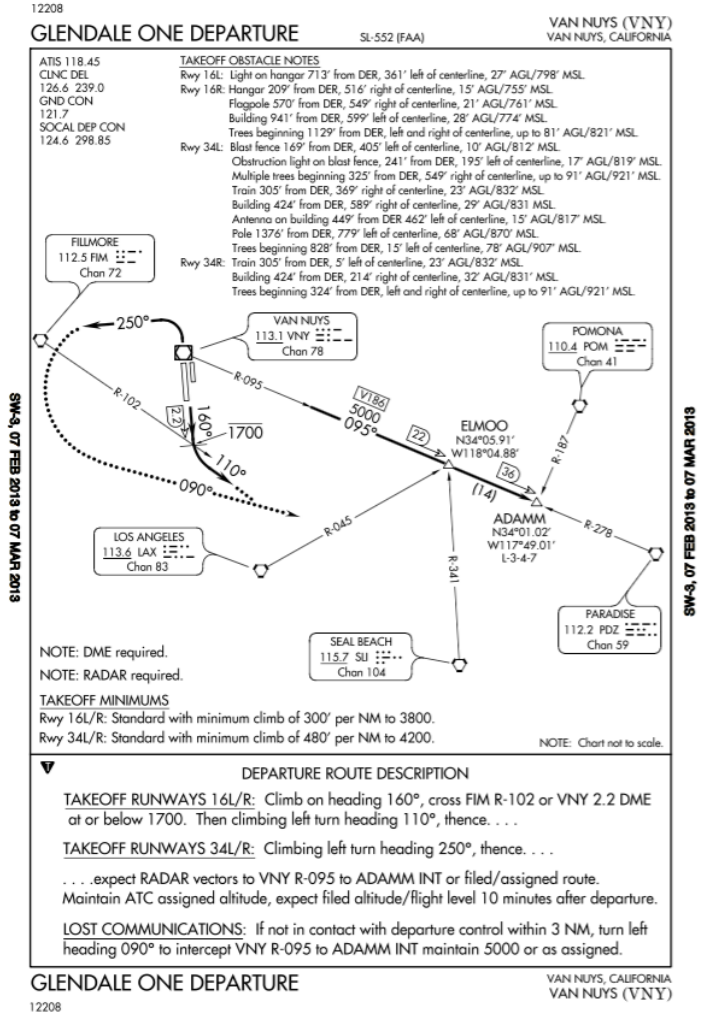


Example:

2013 VNY flight chart

Glendale One

Add requirements to increase take-off minimums.



Can it be done now?

Yes, flight paths can be changed immediately.

Thank you.

www.QuietSkiesNow.org

quietskiesnow@gmail.com