



September 27, 2021

Tamara A. Swann  
Deputy Regional Administrator, AWP-2  
Federal Aviation Administration  
Western-Pacific Region  
777 S Aviation Blvd, Suite 150  
El Segundo, CA 90245

Dear Tamara:

Thank you for your continued attendance and participation in LAX/Community Noise Roundtable (Roundtable). We are glad you have been a consistent presence in our meetings. I am writing you to ask for FAA assistance, engagement, and thoughtful consideration of the attached CASTA HYBRID proposal for commercial aircraft flights flying the LADYJ departure path out of LAX.

As you know, the Metroplex Ad Hoc Committee of the Roundtable works with community representatives and the FAA to lessen noise disruptions to residents living in the Los Angeles basin. The attached CASTA HYBRID proposal is a continuation of this work. Community members in the western San Fernando Valley have done extensive research and outreach which you will find in the attached PowerPoint.

We believe the attached proposal deserves careful and thorough consideration from FAA subject matter experts tasked with designing and maintaining flight paths and procedures within the SoCal Metroplex. The CASTA HYBRID proposal for commercial aircraft flights currently flying the LADYJ westerly departure path at LAX represents a good faith effort by community leaders participating in the Roundtable to fairly address the intensity and distribution of aircraft noise within our region. We look forward to engaging more fully with you and your organization about this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Denny Schneider".

Denny Schneider  
Chair, LAX/Community Noise Roundtable

WHWCNC Ad-Hoc Aviation Noise Committee  
in collaboration with QuietSkiesWH (Woodland Hills)

**MetroPlex Aviation Ad-Hoc Committee**  
**LAX Community Noise Round Table**

submit:

**West SFV - Community Proposal**

LAX LADYJ4 SID impacting western San Fernando Valley  
September 20, 2021

**LAX LADYJ SID - IMPACTED AREA:**

**Woodland Hills, West Hills,  
Calabasas, Hidden Hills, Bell Canyon,  
Chatsworth Reservoir area**

**Plus eight (8) Parks/Trails**

**+**

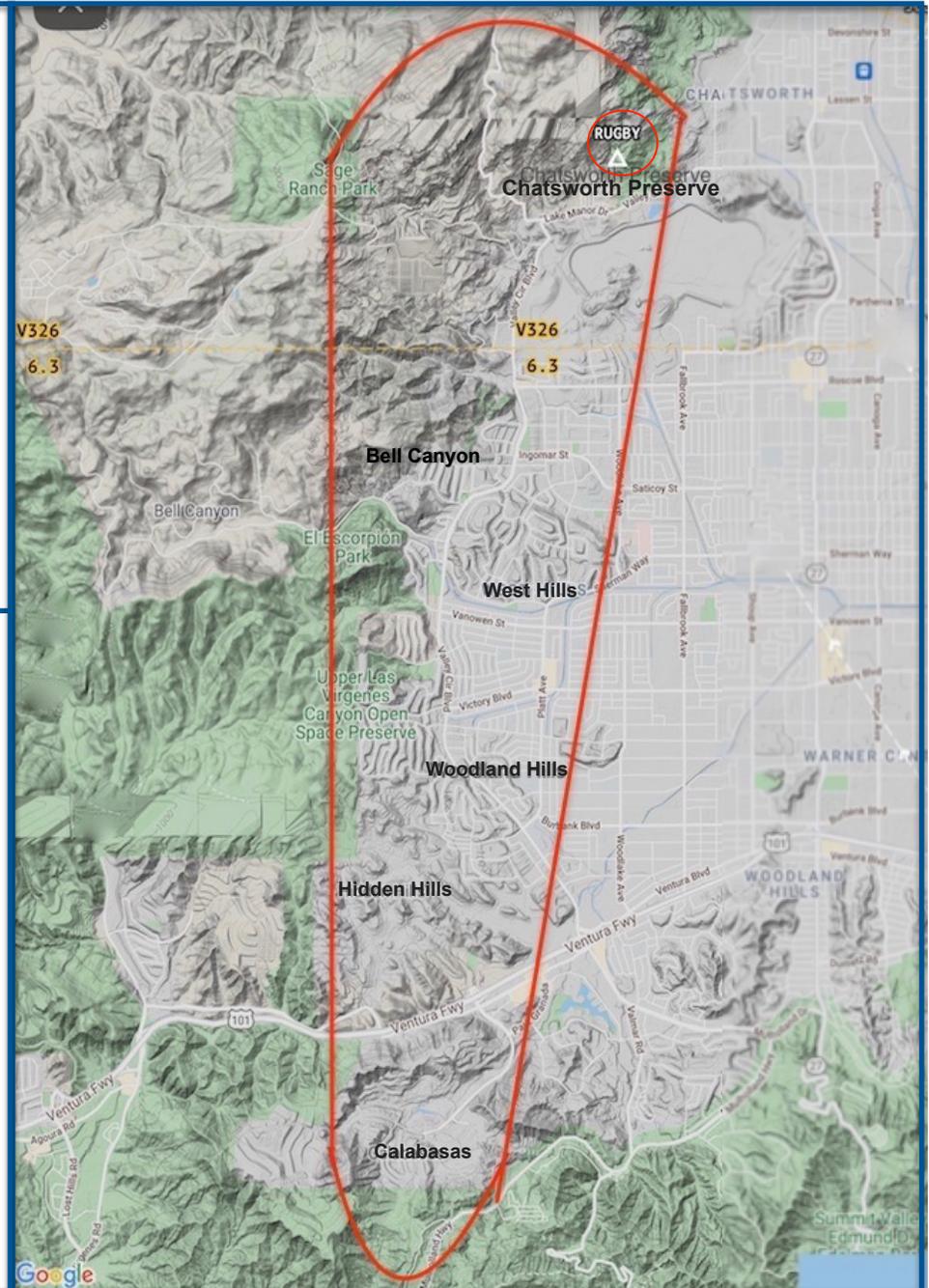
**Las Virgenes Canyon Open Space Preserve**

**+**

**Chatsworth Open Preserve**

**+**

**Calabasas Open Space**



# BACKGROUND, CONCERN and OPPORTUNITY



The west Valley Community Group, QSWH, has recognized that the LADYJ SID has proven to be an accretive problem with a disproportionate amount of aviation noise over a densely populated area, and has become a detriment to these communities. The NextGen route also negatively impacts the vast wildlife occupying the terrain, as well as the use and enjoyment of the entire region's public Parks/Trails and Recreation areas. These are all **detriments** that the **Historical Route naturally mitigated**. The historical CASTA SID was already a safe and efficient RNAV procedure and may have qualified to be modified (IE: CASTA 6/7), but not replaced.

The implementation of the LADYJ SID was never announced or vetted for residents of the effected communities on the western end of San Fernando Valley (slides 14-15), the implemented trajectory was not included in the EA released for public comment, and there was **no community outreach** in these areas by the FAA. Residents were never afforded an opportunity to dispute or comment on the detriment until 2021, when new awareness of the rapidly multiplying number and layers of flights suddenly flying over this *previously quiet* area sparked community response on the cumulative effect from all the unprecedented changes & air traffic.

These communities seek the FAA's cooperation in honoring your own statement of values: *"Integrity is our touchstone. We perform our duties honestly, with moral soundness, and with the highest level of ethics"*; as well as the FAA's vision of being *"Accountable to the American public"*; and most profoundly recognizing that this proposal is in line with the FAA's mission *"... to provide the safest, most efficient aerospace system in the world"*, whereas we ask the FAA to implement the modified **CASTA HYBRID** (1/2 LADYJ - 1/2 CASTA SEVEN) post haste for the **benefit of human and wildlife environments**, as well as to correct any and all NEPA, NHPA and D.O.T. Act, Section 4(f) oversights and violations. *To error is human, to voluntarily correct one's error - divine.*

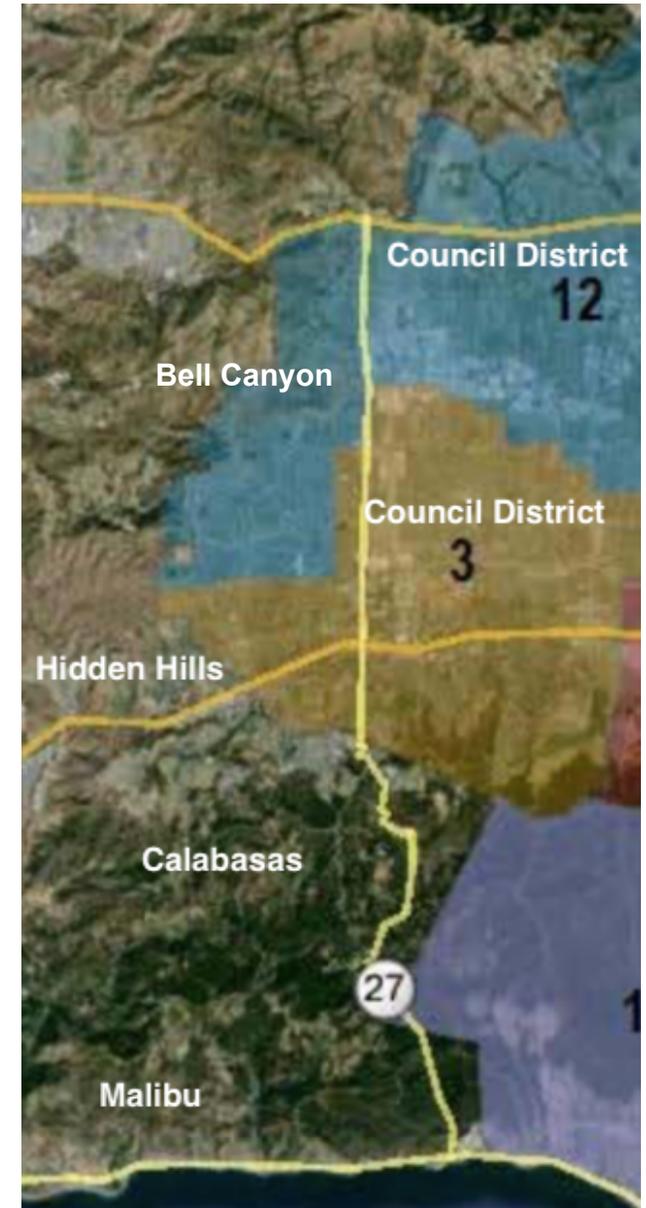
# Project Objectives

To have the, now proven detrimental, westerly departure route (LADYJ SID) reverted back to its historical tracks, *at and below 10,000 ft AGL*, by means of the proposed CASTA HYBRID modification, and (random safety deviations aside) obtain FAA agreement of ATC responsibly ensuring the integrity of the route between SILEX and TWINE.

- To restore home environments for six (6) communities, spanning three (3) Districts that were dramatically altered, **without warning**, by the egregious replacement of the existing and environmentally adapted westerly departure route (Slides 7 + 8 - Population).
- To restore environments of noise sensitive wildlife habitats and eco systems in both the Santa Monica Mountains Conservancy lands south of the 101, as well as two Open Nature Wildlife Preserves (and seasonal wetland) north of the 101 freeway that have been impacted and violated by the implementation of the LADYJ SID. (Slide 9 - Wildlife Population)
- To correct unjust impact that did not undergo NEPA's "EIS" and 4(f) evaluations, where applicable, in the new areas. (slides 8, 9, 14, 15 and 19)
- To diminish or eliminate unnecessary noise pollution amplified by high terrain. Mountains reverberate noise on the entire stretch of the LADYJ SID (see Slide 12). Decibel disruptions have been documented by residents ranging from 58dBA - 74dBA from the LAX air traffic, whereas the historical route naturally mitigated these disturbances.

# Community Outreach

- Malibu Council members  
(phone + Steven Taber - Malibu counsel + email - Rick Mullen )
- Hidden Hills Council members (email + public meeting)
- Calabasas Council members (email + phone + public meeting)
- CD-3: Bob Blumenfield - covers both Historical + LADYJ
- CD-12: John Lee - covers both Historical + LADYJ routes
- Multiple Valley Periodicals - Valley News Group covers both Historical + LADYJ territory - by CD3
- NextDoor - ongoing posts, including maps
- Local FaceBook Community Pages in CD3 + 12 - multiple posts + maps
- QSWH FB Community Page - ongoing posts + maps
- Public Meetings (other) - LAX Noise Round Table discussion and vote to take action on the LADYJ SID - 9/15/2021.



# Populations Impacted



# EVERYONE is CONSIDERED

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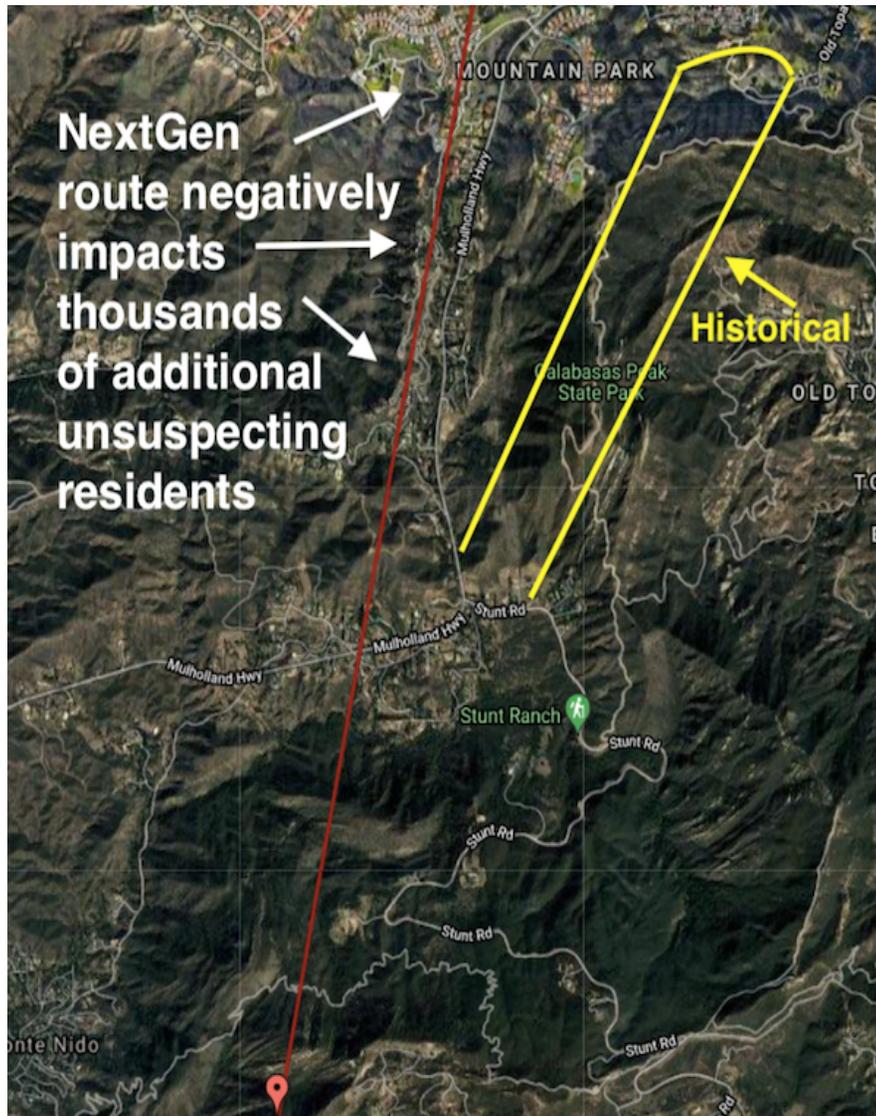


- Cities across the nation, including Los Angeles, have been fighting to revert paths back to historical tracks for the collective well-being of both the residential and wildlife population.
- Restoring historical tracks does NOT shift noise to new areas.
- Restoring historical tracks does NOT introduce new properties to flyovers.
- Honoring historical tracks restores the integrity of ALL home environments (human and animal) to pre-NextGen exposures.

# Population - South of 101

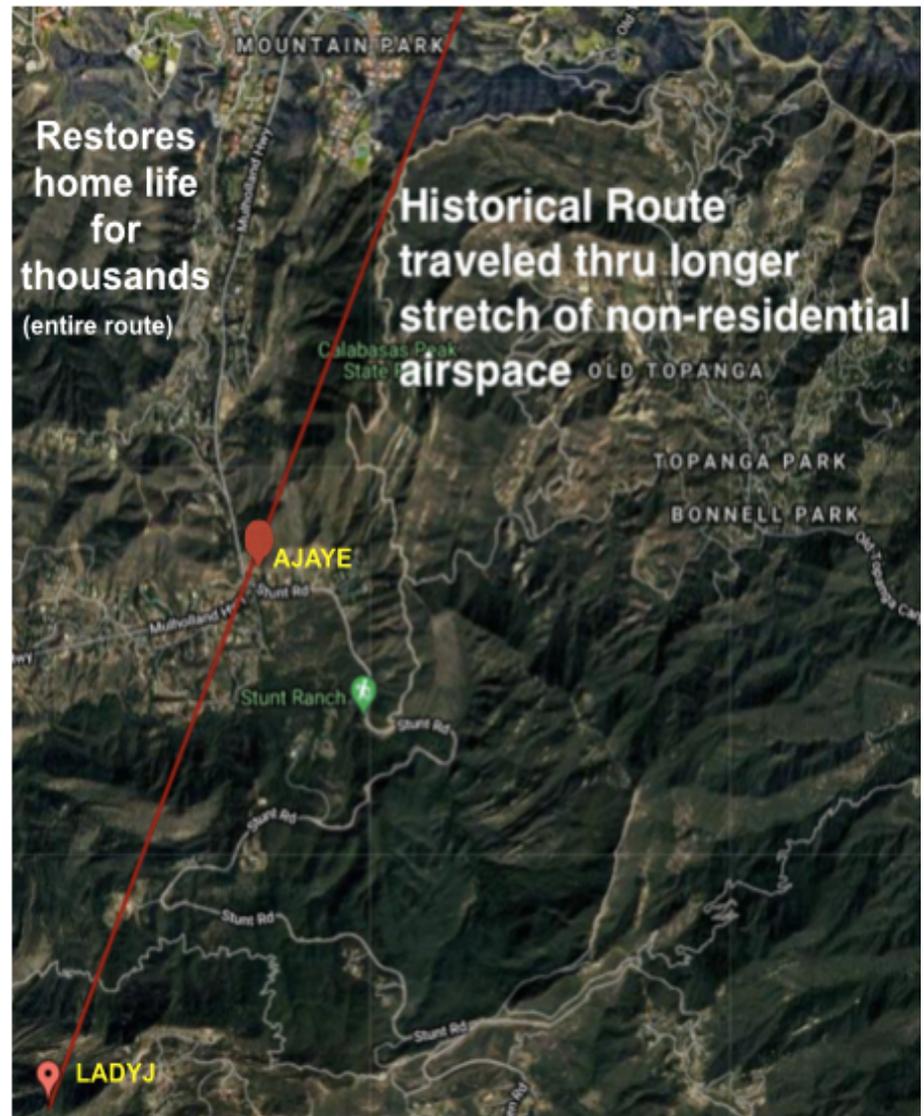
## LADYJ

existing



## CASTA HYBRID

historical + proposed modification(s)





# State Wildlife Population

The RUGBY waypoint violates the airspace of a seasonal foul wetland and preserve, and allows for impactful altitudes of **10k and under**. This is one of two wildlife open nature preserves impacted by the ill-conceived LADYJ. These land spaces are part of a critical ecological linkage and wildlife corridor between the Santa Monica Mountains and the ranges to the north. The proposed CASTA HYBRID corrects any 4(f) Process and NEPA oversights and violations where applicable.

WORKING TOGETHER TO SAVE A CRUCIAL WILDLIFE HABITAT IN LOS ANGELES-SAN FERNANDO VALLEY



## Chatsworth Reservoir and Open Nature Wildlife Preserve

**MISSION STATEMENT** (Chatsworth Nature Preserve Coalition)

We are pledged to preserve the largest remaining natural area in the northwestern San Fernando Valley region of the City of Los Angeles, with an Ecology Pond, seasonal wetlands and vernal pools, grasslands, oak woodlands and savanna, and riparian areas. We are working together to preserve all wildlife, and cultural and archaeological assets.

# Detriments Incurred



# LIABLE DEVIATIONS



The historical CASTA SID was a community accepted flight path that benefitted from decade(s) of human and wildlife adaptation. Its Egregious and Arbitrary replacement has put wildlife populations and 10's of thousands of residents' physical health and mental well-being in jeopardy.

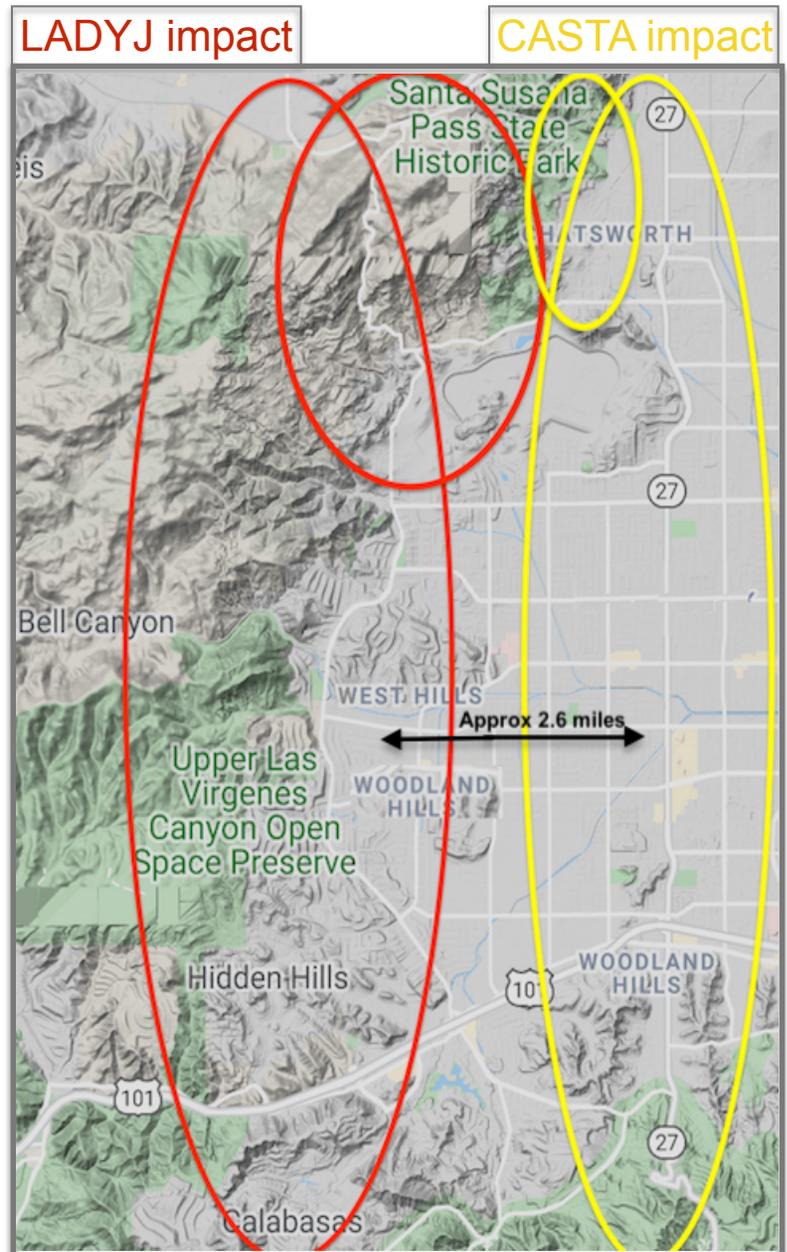
- No notable adversity was documented by residents who chose to reside in the vicinity of the historical CASTA SID.
- Contrary, Metroplex victims of the LADYJ report: ■ **loss of use** and **enjoyment** of their **homes**, ■ **anxiety**, ■ **stress**, ■ **elevated blood pressure**, ■ **vestibular and nervous system distress**, ■ **emotional upset**, ■ **loss of mental well-being** - from **rage** to **suicidal thoughts** over powerlessness of the detriment, and ■ **loss of productivity** from an **inability to concentrate** over the new and unfathomable disruptions.
- These **substantial affects** to the **quality of human environment** were not considered in the final EA released in 2015 or subsequent amendments, nor considered in the FONSI decision. The FONSI was proposed months before the trajectory of the LADYJ SID was altered (2016), whereas, newly impacted communities were discounted for purpose of fast-tracking project. Subsequent “amendments” were inadequate and misrepresentative (slide 15 + 19).
- LIVELIHOODS IMPACTED: Home prices and values are set by location and known nuisances. The irresponsible and cruel placement of the LADYJ has put thousands of people at risk by negatively impacting the equity of their homes. A **lifelong investment** that **seniors** and **lower & middle class** Americans living in impacted areas count on to **SURVIVE** retirement and emergency health care expenses.
- Changes in animal behavior can have **flow-on effects for whole ecosystems**. No less than two significant Open Space wildlife areas (including a seasonal foul wetland) are negatively impacted, and were not subject to the comprehensive EIS reviews, and possible 4(f) evaluations required by federal law.

# TERRAIN MATTERS

This image depicts the vast amount of hillside and mountain terrain where the LADYJ was implemented, and currently forks in two directions.

■ The hillsides are not vacant, this is a heavily populated residential and wildlife area and the mountains create a reverberating detriment to the noise pollution that **amplifies the effects** and causes the disturbance to linger. Residents of the flats sandwiched between the high terrain report the noise can increase after a plane passes, as the disturbance bounces between terrain surfaces. And “masking” occurs for many animal species creating an inability to hear important environmental clues & animal signals. Altitudes are 10k and less AGL.

■ Contrary, the historical route benefitted from an “open-air” airspace that allows noise to dissipate readily. The historical route also offers a segment of freeway transfer, as well as miles of commercial airspace (see slide 8). Freeway and commercial areas house their own “white noise” created by auto traffic and industry, and which has proven to further **benefit the mitigation of aircraft disturbances**.



# Evolution of LADYJ

# LADYJ PHASES

- Originally began as MLIBU with a proposed path outside of L.A. City districts north of 101.
- Study Team Phase completed Dec 2011 with \*MLIBU SID (\**proposed blue path in image*), whereas, current route NOT considered.
- Design Team Phase completed Mar 2014. *Current route NOT considered.*
- **Environmental Process:** Notional Designs Completed by Design and Implementation Teams June 2014. *Current route NOT considered.*
- Complete EA draft was “made available” 😞 for Public Comment Spring 2015 with MLIBU route. *Current route NOT proposed or released to public.*
- Public workshops (outside of actual proposed flight path) Summer 2015.
- **Final EA published Summer 2015** with a different trajectory (LADYJ -> OROSZ) than exists today. **NOT reflective of currently impacted populations.**
- 06/10/2015 Inconsequential name change from MLIBU to LADYJ but proposed route (LADYJ -> OROSZ) remained.
- **FONSI** proposed November 2015 - IE: final LADYJ as implemented was **not subject to consideration.**
- 11/07/2015 Inconsequential magnetic variation change, (higher altitude) transition removed, altitude amended to FL230. New RWY24L location added.
- 02/10/2016 Added the problematic RUGBY WP. One subsequent (amended) EA came *after-the-fact* (unlawful) between LADY versions 1-4.

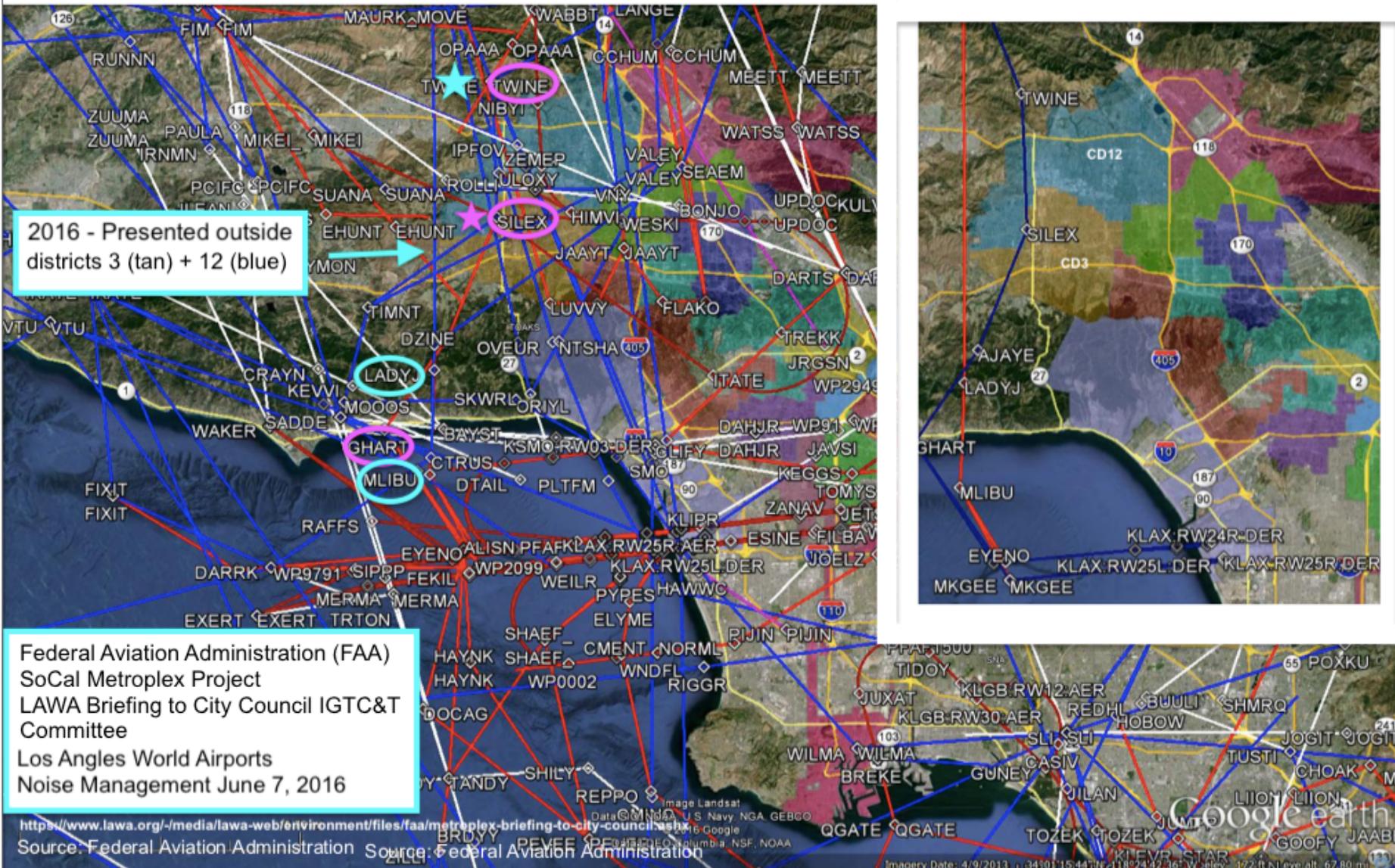


# Amendments: Inadequate, Wrong and NOT subject to Public scrutiny

- Adjustments: August 2016 - EA, Section 3.2.2 Proposed Action Alternative pg. 3-38 asserts: “The D&I Team adjusted this portion of the proposed route to closely follow 🙄 historical flight tracks. As a result of the adjustment, the FAA proposes an adjusted version of the LADYJ SID that is more efficient than the existing SID and **does not cause reportable noise increases for residents**”. NOTE: **Thousands of impacted residents disagree!** The aircraft noise **significantly exceeds** ambient noise levels whereas, using a NIOSH (CDC.gov) meter, decibel reads **jump 3-5+ dBA during flyovers**. And “more efficient” how? Each subsequent image, from the original flight tracks produced for the public (slide 21), seem to **suspiciously** depict more encroachment of western terrain that was not felt by residents (or wildlife) prior to LADYJ. While good intentions may have conceived RUGBY, air traffic at 10k and under should have ethically, morally & responsibly remained on the historical tracks and not decimate new and unsuspecting communities’ quality of life.
- After implementation in 2018, the City of Calabasas registered complaint over the noise on behalf of the City’s residents, and complaints from residents in all **six** impacted communities continue today. With the cumulative impacts **growing worse with time**, clearly the assumption cited in the amendment (one that was not supported by comprehensive noise analysis or “EIS” findings) was egregiously wrong.
- RUGBY’s addition came **after** the 2015 Public Comment phase, and subsequent materials from 2016 - 2017 made available to the public did NOT include the disclosure of the RUGBY WP or its trajectory. See: FAA Public Information Website on MetroPlex: [http://metroplexenvironmental.com/docs/socal\\_metroplex/Presentations\\_150626/LAX\\_Proposed\\_Departure\\_Procedures-West\\_Flow.pdf](http://metroplexenvironmental.com/docs/socal_metroplex/Presentations_150626/LAX_Proposed_Departure_Procedures-West_Flow.pdf) ♦ [https://www.faa.gov/air\\_traffic/community\\_involvement/socal/](https://www.faa.gov/air_traffic/community_involvement/socal/) (NOT depicted in webinar videos) ♦ [https://www.faa.gov/air\\_traffic/community\\_involvement/socal/media/New\\_Procedures\\_Los\\_Angeles\\_region\\_Feb\\_2017.pdf](https://www.faa.gov/air_traffic/community_involvement/socal/media/New_Procedures_Los_Angeles_region_Feb_2017.pdf)



# SoCal Metroplex - Proposed Procedures



2016 - Presented outside districts 3 (tan) + 12 (blue)

Federal Aviation Administration (FAA)  
SoCal Metroplex Project  
LAWA Briefing to City Council IGTC&T  
Committee  
Los Angeles World Airports  
Noise Management June 7, 2016

<https://www.lawa.org/-/media/lawa-web/environment/files/faa/metroplex-briefing-to-city-council-igtc&t-committee>  
Source: Federal Aviation Administration

**CASTA HYBRID  
VS  
LADYJ**

# CASTA HYBRID - Better for wildlife Environments, Better for Population, Better Separation

Even if considered minimal by pilot and/or ATC standards the historical track does offer more separation. Additionally the LADYJ **failed to solve** the “long level off”, a cited issue, and the **LADYJ may be responsible for an increase in RA - TCAS alerts.**



# Proposed CASTA HYBRID corrects NEPA failures



Section 102 of NEPA establishes procedural requirements requiring major Federal actions that significantly affect the quality of the human environment. D.O.T. Act Section 4(f) requires specific 4(f) evaluations of certain open space wildlife and historical areas. Review of the “EA” completed by the FAA demonstrates they failed to meet these requirements in respect to the implementation of the LADYJ SID.

- (1) There was no detailed statement, nor comprehensive noise impact comparisons for residential properties in Calabasas and Malibu discrediting decibel reads at or above 65 dBA re: LADYJ’s implementation.
- (2) The final EA released to the public did NOT include RUGBY WP or currently impacted communities (slide 14).
- (3) The FAA failed to acknowledge and depict that any and ALL adverse effects created by deviating from the historical CASTA SID were **100% avoidable** simply by not replacing the established and updated RNAV route under 10k AGL.
- (4) The FAA failed to list any alternatives to the proposed action as required by NEPA. (CASTA HYBRID is such alternative)
- (5) The FAA failed to identify the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity for all newly impacted residences.
- (6) The FAA discriminated against low-income and those without internet accessibility or web browsing prowess in their ineffective “notification” process, failed to hold any Public Outreach opportunities in Calabasas, Woodland Hills, West Hills or Chatsworth Reservoir areas, and failed to publish intentions in any local community periodicals. The FAA also failed to include the trajectory change of RUGBY on the artwork provided to the public on their platforms.
- (7) Because residents and incorporated cities were not notified, the FAA failed to meet Public Input requirements as the above named communities had no opportunity to object, voice concern or ask questions.

# NO exposed Consequences Reverting Path

Both the Study and Design Team reports (2011-2014) cited the purpose for replacing CASTA was (1) long level-off at 9k passing beneath the arrival, (2) “actual flight tracks” did not follow current SID. **NO safety issues were cited.**

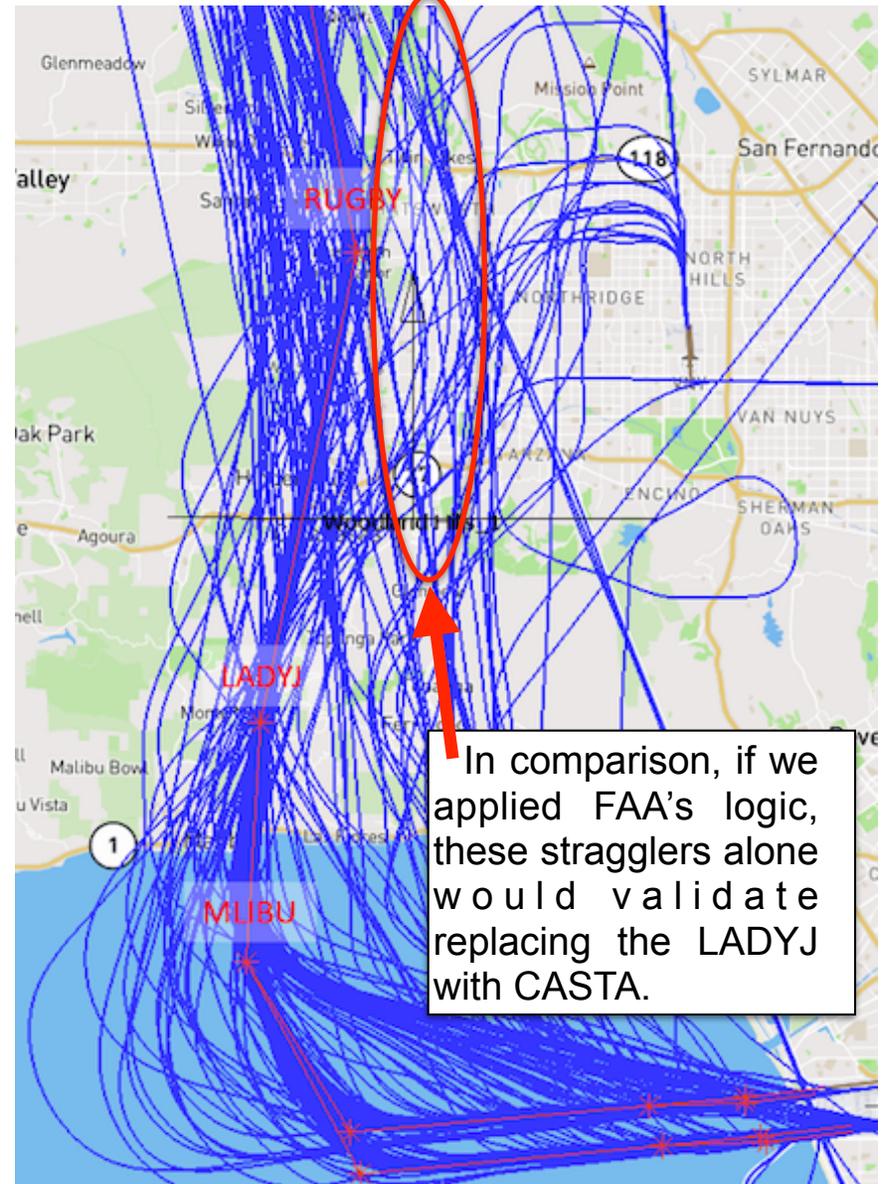
1. “Long level-off” occurs with **both** the historical (CASTA) and the LADYJ, which is due to the FAA giving STARS (arrivals) precedent. Long level offs are **not a safety issue** nor was it resolved by the LADYJ.
2. The flight tracks not following the CASTA SID claim was both misleading and negligent. As seen on next page, the vast majority of flights ARE on the route. The FAA elected to omit a track count, so for all we know rogue tracks encroaching new areas and open nature wildlife preserves to the west may have equated to less than 3% of flights. Additionally, the identified encroachment of airspace was the FAA’s own failure to act responsibly and in the best interest of the public and environment. This encroachment should never have been indulged by the FAA to begin with, and using those tracks as an excuse to create a “preferred route” for any reason was not only inappropriate, it was at the expense and detriment of both human & wildlife well-being. Furthermore, the LADYJ traffic does not follow current SID (**see Slide 21**).
3. The FAA cited TCAS alerts as a last minute attempt to validate the replacement of CASTA however, TCAS are common in ZLA airspace and at heavy arrival and departure airports. TCAS alerts were not resolved by the LADYJ, and data may demonstrate the LADYJ is creating more RA (resolution alerts) than CASTA. NOTE: *TCAS = traffic collision alert system.*
4. Current en-route traffic altitudes suggest they self-mitigate any conflict concerns raised for the proposed CASTA HYBRID.
5. CASTA 6 (updated to CASTA 7) was designed and modified to deconflict with other STARS and SIDS and to function with existing Metroplex traffic. The CASTA SEVEN was also listed as a Final MetroPlex Proposed Action in 2017 (**see Slide 28**).

# FAA excuse of “flight tracks not following SID” works both ways.

## Historical CASTA SID



## LADYJ SID



**DL394 / DAL394**  
Delta Air Lines



© Twin Cities Spotter

<b>LAX</b> LOS ANGELES PDT (UTC -07:00)	<b>SEA</b> SEATTLE PDT (UTC -07:00)
SCHEDULED 5:12 PM	SCHEDULED 7:58 PM
ACTUAL 5:23 PM	ESTIMATED 7:29 PM

28 NM, 00:08 ago      802 NM, in 01:57

**More DL394 information**

AIRCRAFT TYPE (B739)  
Boeing 737-932(ER)

REGISTRATION N870DN      COUNTRY OF REG. 

SERIAL NUMBER (MSN) 31981      AGE (JAN 2017) 4 years

**Recent N870DN flights**

CALIBRATED ALTITUDE 12,625 ft      VERTICAL SPEED 2,176 fpm  
 Hit OROSZ approx  
 GPS ALTITUDE 13,950 ft      TRACK 349°  
 13-14k ft

**Speed & altitude graph**

GROUND SPEED 388 kts	TRUE AIRSPEED N/A
INDICATED AIRSPEED	MACH

3D view   Route   Follow   Share   More



- LADYJ
- CASTA

**SIDS COMPARED:**

★ Both the CASTA SID and the LADYJ share the OROSZ waypoint, so from that fix onward, the proposed CASTA HYBRID will begin and at an altitude that is far less significant to life on the ground.

★ RUGBY is the Metroplex waypoint that encroaches the Chatsworth Open Nature Preserve airspace (*seasonal wetland*), just north of the reservoir. (slide 9)

Also worth noting is the grey commercial area and longer stretch of open-air airspace the (historical) CASTA offers, as opposed to the high terrain of residences that the LADYJ crosses for the entire route.

# Insignificant Distance Argument

**CASTA SID**  
 average 858 NM  
 (VS LADYJ 860 NM)

845 NM

870 NM

2015 CASTA - LAX->SEA Distance 845 NM / 973 miles					2015 LAX->SEA Distance 870 NM / 1001 miles				
21 FIX/VOR					24 FIX/VOR				
ID	Type	Position (lat/lon)	Dist (leg/tot)		ID	Type	Position (lat/lon)	Dist (leg/tot)	
○ KLAX	APT	33.94313 / -118.40892	- / 0 nm		○ KLAX	APT	33.94313 / -118.40892	- / 0 nm	
• FABRA	FIX	33.94564 / -118.46496	2 / 2 nm		• DLREY	FIX	33.94368 / -118.46515	2 / 2 nm	
• ENNEY	FIX	33.94278 / -118.50139	1 / 4 nm		• ENNEY	FIX	33.94278 / -118.50139	1 / 4 nm	
• NAANC	FIX	33.93167 / -118.64389	7 / 11 nm		• NAANC	FIX	33.93167 / -118.64389	7 / 11 nm	
• GHART	FIX	34.02901 / -118.72153	7 / 18 nm		• GHART	FIX	34.02901 / -118.72153	7 / 18 nm	
• AJAYE	FIX	34.10356 / -118.65901	5 / 24 nm		• AJAYE	FIX	34.10356 / -118.65901	5 / 24 nm	
• SILEX	FIX	34.20106 / -118.61164	6 / 30 nm		• SILEX	FIX	34.20106 / -118.61164	6 / 30 nm	
• TWINE	FIX	34.30969 / -118.61648	6 / 37 nm		• TWINE	FIX	34.30969 / -118.61648	6 / 37 nm	
• GROSZ	FIX	34.42672 / -118.67417	7 / 44 nm		• GROSZ	FIX	34.42672 / -118.67417	7 / 44 nm	
• CASTA	FIX	34.53280 / -118.72659	6 / 51 nm		• CASTA	FIX	34.53280 / -118.72659	6 / 51 nm	
• EHF	VOR	35.48456 / -119.09731	59 / 111 nm		• GMN	VOR	34.80403 / -118.86136	17 / 69 nm	
• PINNI	FIX	36.79783 / -119.27202	79 / 190 nm		• DUCKE	FIX	37.89768 / -120.10103	195 / 264 nm	
• TIOGA	FIX	37.93295 / -119.42802	68 / 259 nm		• BORDY	FIX	41.00083 / -121.09488	191 / 456 nm	
• SONNY	FIX	38.33575 / -119.48453	24 / 283 nm		• BTG	VOR	45.74781 / -122.59153	292 / 748 nm	
• TILTS	FIX	38.63472 / -119.52688	18 / 301 nm		• PTERA	FIX	46.09431 / -122.67747	21 / 769 nm	
• FMG	VOR	39.53128 / -119.65608	54 / 356 nm		• KRIEG	FIX	46.32021 / -122.72221	13 / 783 nm	
• PYRAM	FIX	39.89328 / -119.75600	22 / 378 nm		• HAWKZ	FIX	46.81447 / -122.70383	29 / 813 nm	
• HARTT	FIX	40.83587 / -120.02125	57 / 436 nm		• LIINE	FIX	46.84422 / -122.66851	2 / 815 nm	
• BAARB	FIX	41.15761 / -120.11367	19 / 455 nm		• PIKEZ	FIX	46.93776 / -122.56202	7 / 822 nm	
• LKV	VOR	42.49286 / -120.50711	82 / 537 nm		• COFAY	FIX	47.07884 / -122.50044	8 / 831 nm	
• POWEL	FIX	44.17872 / -121.08647	104 / 642 nm		• BREVE	FIX	47.18993 / -122.48013	6 / 838 nm	
• SUMMA	FIX	46.61786 / -121.98832	151 / 793 nm		• NETTZ	FIX	47.35250 / -122.45528	9 / 848 nm	
○ KSEA	APT	47.45019 / -122.31232	51 / 845 nm		• KWEST	FIX	47.42069 / -122.45533	4 / 852 nm	
					• VASHN	FIX	47.51150 / -122.45536	5 / 857 nm	
					• RAYUU	FIX	47.56311 / -122.45506	3 / 860 nm	
					○ KSEA	APT	47.45019 / -122.31232	8 / 869 nm	

# Insignificant Distance Argument

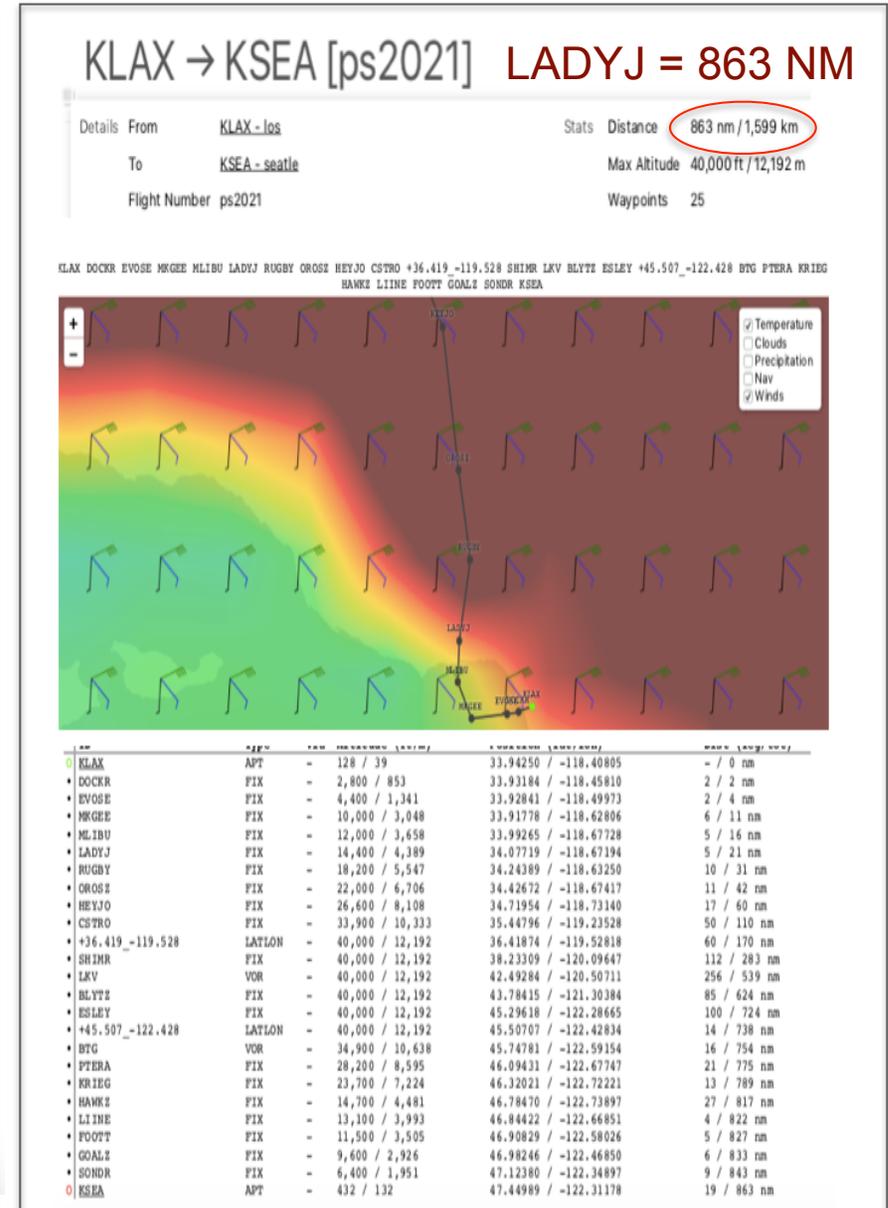
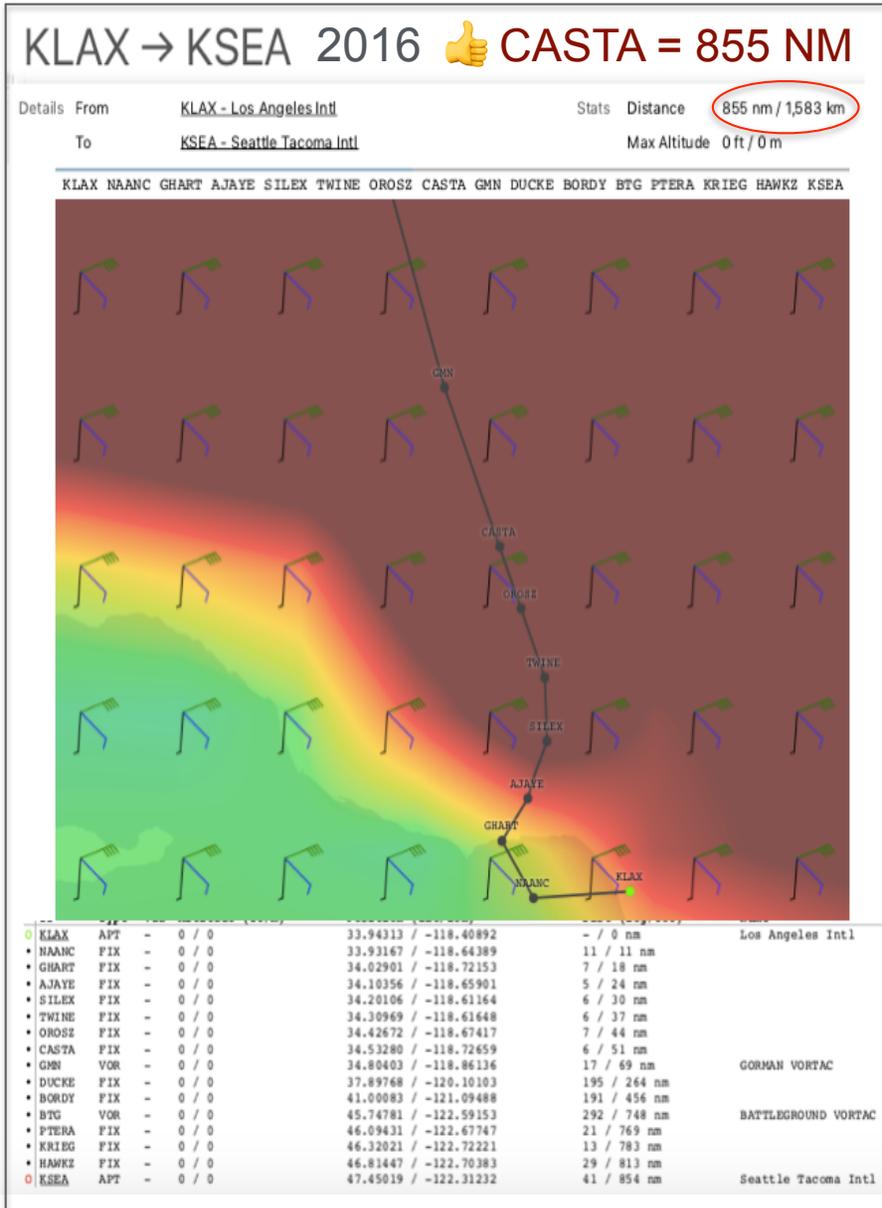
**LADYJ SID**  
 average 860 NM  
 (VS CASTA 858 NM)

857 NM

863 NM

2021 LADYJ - LAX->SEA Distance 857 NM / 986 miles				19 FIX/VOR	2021 LADYJ Distance 863 NM / 994 miles				23 FIX/VOR
ID	Type	Position (lat/lon)	Dist (leg/tot)		ID	Type	Position (lat/lon)	Dist (leg/tot)	
○ KLAX	APT	33.94310 / -118.40900	- / 0 nm		○ KLAX	APT	33.94250 / -118.40805	- / 0 nm	
• DLREY	FIX	33.94370 / -118.46500	2 / 2 nm		• DOCKR	FIX	33.93184 / -118.45810	2 / 2 nm	
• ENNEY	FIX	33.94250 / -118.50600	2 / 4 nm		• EVOSE	FIX	33.92841 / -118.49973	2 / 4 nm	
• EYENO	FIX	33.93260 / -118.63200	6 / 11 nm		• MKGEE	FIX	33.91778 / -118.62806	6 / 11 nm	
• MLIBU	FIX	33.99260 / -118.67700	4 / 15 nm		• MLIBU	FIX	33.99265 / -118.67728	5 / 16 nm	
• LADYJ	FIX	34.07720 / -118.67200	5 / 20 nm		• LADYJ	FIX	34.07719 / -118.67194	5 / 21 nm	
• RUGBY	FIX	34.24390 / -118.63200	10 / 30 nm		• RUGBY	FIX	34.24389 / -118.63250	10 / 31 nm	
• OROSZ	FIX	34.42670 / -118.67400	11 / 41 nm		• OROSZ	FIX	34.42672 / -118.67417	11 / 42 nm	
• HEYJO	FIX	34.71950 / -118.73100	17 / 59 nm		• HEYJO	FIX	34.71954 / -118.73140	17 / 60 nm	
• CSTRO	FIX	35.44800 / -119.23500	50 / 109 nm		• CSTRO	FIX	35.44796 / -119.23528	50 / 110 nm	
• DUCKE	FIX	37.89770 / -120.10100	152 / 262 nm		• +36.419_-119.528	LATLON	36.41874 / -119.52818	60 / 170 nm	
• LMT	VOR	42.15310 / -121.72800	266 / 529 nm		• SHIMR	FIX	38.23309 / -120.09647	112 / 283 nm	
• BTG	VOR	45.74780 / -122.59200	219 / 748 nm		• LKV	VOR	42.49284 / -120.50711	256 / 539 nm	
• PTERA	FIX	46.09430 / -122.67700	21 / 769 nm		• BLYTZ	FIX	43.78415 / -121.30384	85 / 624 nm	
• KRIEG	FIX	46.32020 / -122.72200	13 / 783 nm		• ESLEY	FIX	45.29618 / -122.28665	100 / 724 nm	
• HAWKZ	FIX	46.78470 / -122.73900	27 / 810 nm		• +45.507_-122.428	LATLON	45.50707 / -122.42834	14 / 738 nm	
• LIINE	FIX	46.84420 / -122.66900	4 / 815 nm		• BTG	VOR	45.74781 / -122.59154	16 / 754 nm	
• FOOTT	FIX	46.91370 / -122.57300	5 / 821 nm		• PTERA	FIX	46.09431 / -122.67747	21 / 775 nm	
• GOALZ	FIX	46.98250 / -122.46800	5 / 827 nm		• KRIEG	FIX	46.32021 / -122.72221	13 / 789 nm	
• SONDR	FIX	47.12380 / -122.34900	9 / 837 nm		• HAWKZ	FIX	46.78470 / -122.73897	27 / 817 nm	
○ KSEA	APT	47.45020 / -122.31200	19 / 856 nm		• LIINE	FIX	46.84422 / -122.66851	4 / 822 nm	
					• FOOTT	FIX	46.90829 / -122.58026	5 / 827 nm	
					• GOALZ	FIX	46.98246 / -122.46850	6 / 833 nm	
					• SONDR	FIX	47.12380 / -122.34897	9 / 843 nm	
					○ KSEA	APT	47.44989 / -122.31178	19 / 863 nm	

# Equal temperature + wind condition comparison



# CASTA HYBRID

## Ready to Implement

# Environmental Assessment (EA) - already COMPLETED

A MetroPlex modified CASTA 6/7 was included in the August 2016 Final Environmental Assessment “EA” for SoCal Metroplex. page 3-45, Table 3-2

link: [http://www.metroplexenvironmental.com/docs/socal\\_metroplex/final/Socal\\_Metroplex\\_FEA\\_Complete.pdf](http://www.metroplexenvironmental.com/docs/socal_metroplex/final/Socal_Metroplex_FEA_Complete.pdf)

The CASTA SID also underwent review at time of its original implementation making it prime to revert now.

*Environmental Assessment for the Southern California Metroplex Project*

**Table 3-2 Proposed Action SIDs and STARs (2 of 8)**

Proposed Action Procedure	No Action Procedure	Procedure Type	Basis of Design	Airports Served	Transitions (enroute/runway) <sup>1</sup>	Objectives
BAUBB ONE	N/A	STAR	RNAV	LGB	1/3	Flexibility, Predictability, Segregation
BIGBR ONE	BASET FOUR	STAR	RNAV	LAX	4/2	Flexibility, Predictability
KARLB ONE	N/A	STAR	RNAV	ONT	2/0	Predictability
BOGET ONE	KIMMO FOUR	STAR	RNAV	LAX, SMO	5/0	Predictability
BONJO ONE	FERNANDO FIVE	STAR	RNAV	SMO	4/0	Predictability
BORDER SEVEN	BORDER SEVEN	SID	Conventional	SAN	2/2	N/A
BRUEN ONE	BASET FOUR	STAR	RNAV	LAX	4/2	Flexibility, Predictability
CAMARILLO FIVE	CAMARILLO FIVE	SID	Conventional	OXR	3/2	N/A
CANOGA ONE	CANOGA ONE	SID	Conventional	VNY	3/0	N/A
<b>CASTA SIX</b>	<b>CASTA FIVE</b>	SID	RNAV	LAX	3/4	Predictability

# CASTA 7 PUBLISHED as METROPLEX PROPOSED ACTION

## Procedure Implementation Schedule



### Phase 2 (Publish on 3/2/17)

1. BUR_VNY JANNY THREE ARRIVAL (RNAV)	12. LAX CASTA SEVEN DEPARTURE (RNAV)
2. BUR OROSZ ONE DEPARTURE (RNAV)	13. LAX DOTSS ONE DEPARTURE (RNAV)
3. BUR SLAPP ONE DEPARTURE (RNAV)	14. LAX FIXIT FOUR DEPARTURE (RNAV)
4. BUR_VNY ROKKR ONE ARRIVAL (RNAV)	15. LAX GARDY ONE DEPARTURE (RNAV)
5. BUR_VNY VVERA ONE DEPARTURE (RNAV)	16. LAX HLYWD ONE ARRIVAL (RNAV)
6. CRQ LEGOZ ONE ARRIVAL (RNAV)	17. LAX HOLTZ TWO DEPARTURE (RNAV)
7. LAS BOACH SEVEN DEPARTURE (RNAV)	18. LAX ILS or LOC RWY 24R, AMDT 25
8. LAS KEPEC FOUR ARRIVAL (RNAV)	19. LAX ILS or LOC RWY 25L, AMDT 13
9. LAX ANJLL ONE ARRIVAL (RNAV)	20. LAX ILS or LOC RWY 25R, AMDT 18
10. LAX BIGBR ONE ARRIVAL (RNAV)	21. LAX KARVR FIVE DEPARTURE (RNAV)
11. LAX BRUEN ONE ARRIVAL (RNAV)	22. LAX LADYJ ONE DEPARTURE (RNAV)

Source: FAA

LAX CATSTA 7 SID



Federal Aviation Administration

25

FAA document: SoCal Metroplex Project, March 2, 2017 Chart - Industry Update, January 26, 2017 - pages 9 and 25

## Sixty Four Procedures March 2, 2017

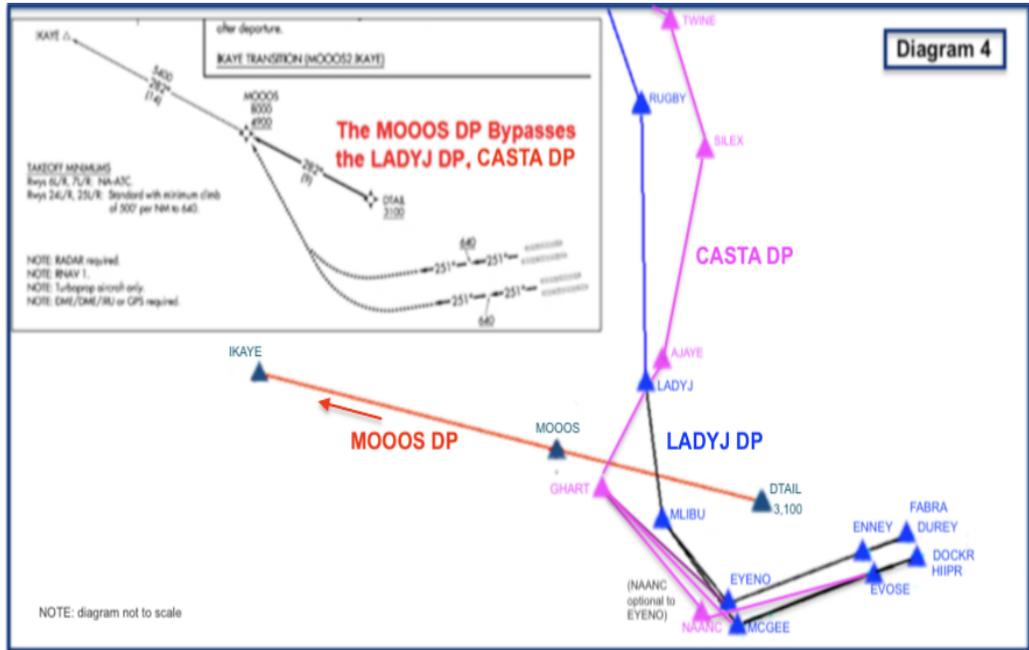
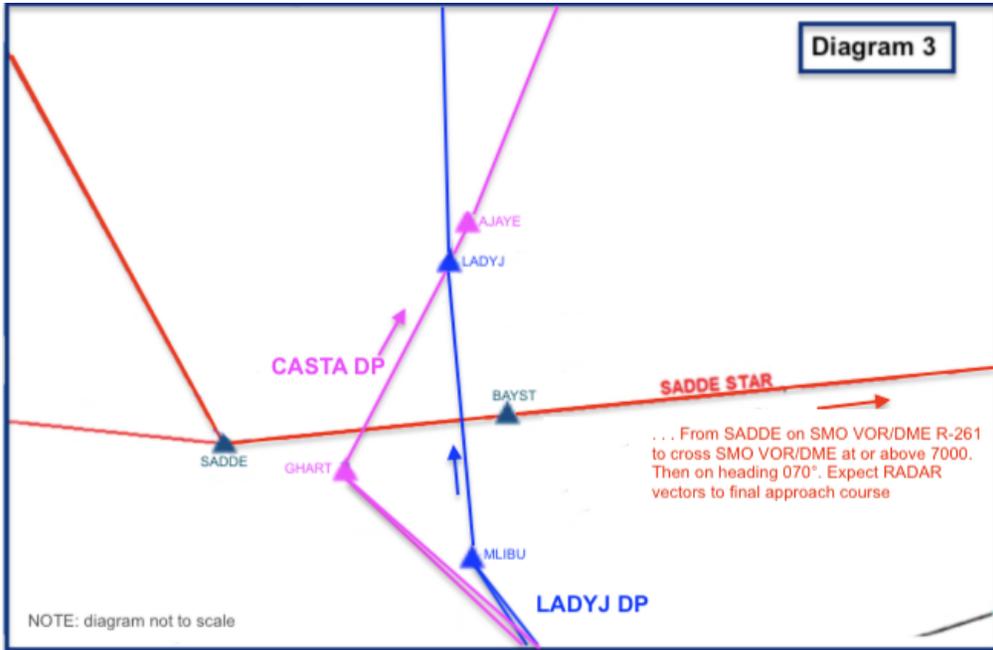
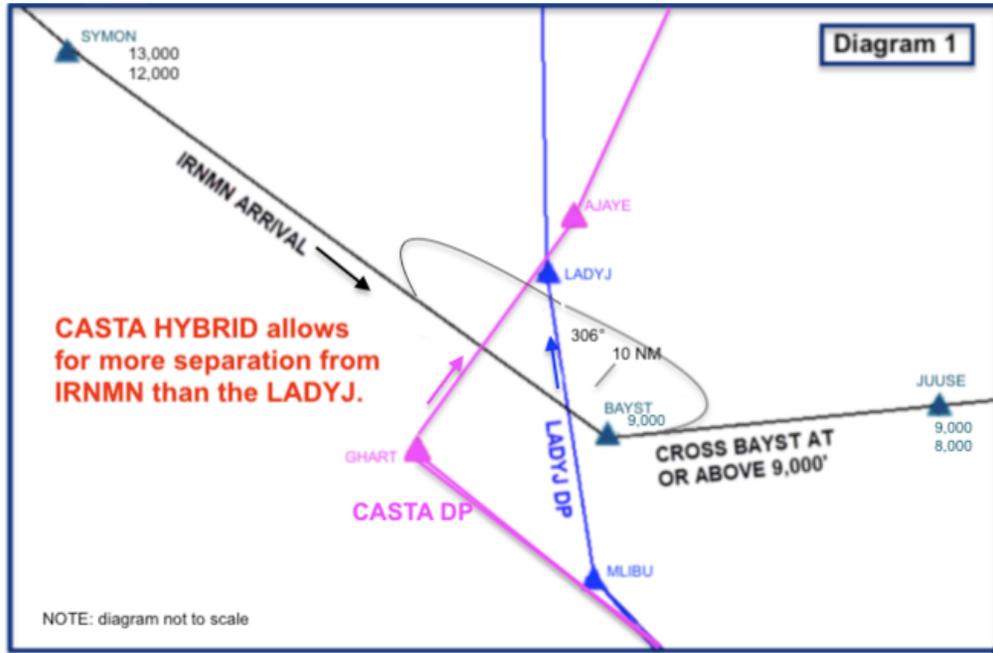
BUR_VNY JANNY THREE ARRIVAL (RNAV)	LAX MDNYT ONE ARRIVAL (RNAV) Added per SoCal Metroplex	NTD_CMA_OXR GUERA ONE ARRIVAL (RNAV)
BUR OROSZ ONE DEPARTURE (RNAV)	LAX MOOOS ONE DEPARTURE (RNAV)	ONT RAJEE ONE DEPARTURE (RNAV)
BUR SLAPP ONE DEPARTURE (RNAV)	LAX MUELK THREE DEPARTURE (RNAV)	ONT SNSHN ONE DEPARTURE (RNAV)
BUR_VNY ROKKR ONE ARRIVAL (RNAV)	LAX OCEAN THREE ARRIVAL (CONVENTIONAL)	PHX IZZOO DEPARTURE
BUR_VNY VVERA ONE DEPARTURE (RNAV)	LAX OLAAA ONE ARRIVAL (RNAV)	PSP_UDD_TRM SIZLR ONE ARRIVAL (RNAV)
CRQ LEGOZ ONE ARRIVAL (RNAV)	LAX ORCKA ONE DEPARTURE (RNAV)	SAN COMIX ONE ARRIVAL (RNAV)
LAS BOACH SEVEN DEPARTURE (RNAV)	LAX OSHNN SIX DEPARTURE (RNAV)	SAN ECCHO ONE DEPARTURE (RNAV)
LAS KEPEC FOUR ARRIVAL (RNAV)	LAX PNDAAH ONE DEPARTURE (RNAV)	SAN MMOTO ONE DEPARTURE (RNAV)
LAX ANJLL ONE ARRIVAL (RNAV)	LAX RNAV (GPS) Y RWY 24R, AMDT 2	SAN PADRZ ONE DEPARTURE (RNAV)
LAX BIGBR ONE ARRIVAL (RNAV)	LAX RNAV (GPS) Y RWY 25L AMDT 4	SAN PLYYA ONE ARRIVAL (RNAV)
LAX BRUEN ONE ARRIVAL (RNAV)	LAX RNAV (RNP) Z RWY 24R, AMDT 1	SAN SATELLITE CWARD ONE DEPARTURE (RNAV)
LAX CASTA SEVEN DEPARTURE (RNAV)	LAX RNAV (RNP) Z RWY 25L, AMDT 2	SAN SAYOW ONE DEPARTURE (RNAV)
LAX DOTSS ONE DEPARTURE (RNAV)	LAX SKWRL ONE DEPARTURE (RNAV)	SAN TOPGN ONE ARRIVAL (RNAV)
LAX FIXIT FOUR DEPARTURE (RNAV)	LAX TUSTI ONE DEPARTURE (RNAV)	SBA MISHN 2 DEPARTURE (RNAV) (NNAVY Correction)
LAX GARDY ONE DEPARTURE (RNAV)	LAX VISTA THREE ARRIVAL (CONVENTIONAL)	SMO BONJO ONE ARRIVAL (RNAV)
LAX HLYWD ONE ARRIVAL (RNAV)	LAX ZILLI THREE DEPARTURE (RNAV)	SMO CHOII ONE DEPARTURE (RNAV)
LAX HOLTZ TWO DEPARTURE (RNAV)	LGB FRITR ONE DEPARTURE (RNAV)	SMO CTRUS ONE DEPARTURE (RNAV)
LAX ILS or LOC RWY 24R, AMDT 25	LGB ZOOMM ONE DEPARTURE (RNAV)	SMO PEVEE FOUR DEPARTURE (RNAV)
LAX ILS or LOC RWY 25L, AMDT 13	LGB_FUL_SLI_TOA REDHL ONE DEPARTURE (RNAV)	SMO SANTA MONICA ONE DEPARTURE (RNAV) (PROPS)
LAX KARVR FIVE DEPARTURE (RNAV)	LGB_SNA DSNEE ONE ARRIVAL (RNAV)	SNA PIGGN ONE DEPARTURE (RNAV)
LAX LADYJ ONE DEPARTURE (RNAV)	LGB_SNA ROOBY ONE ARRIVAL (RNAV)	SNA PLZZA ONE DEPARTURE (RNAV)
		T ROUTE (T-326)

# Interacting Route Breakdown

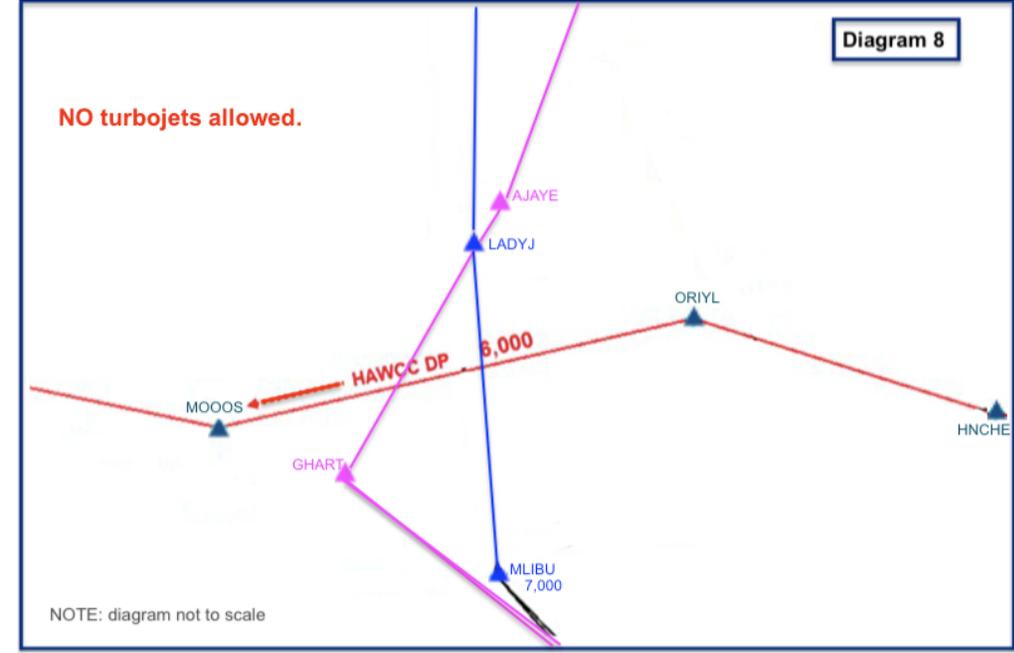
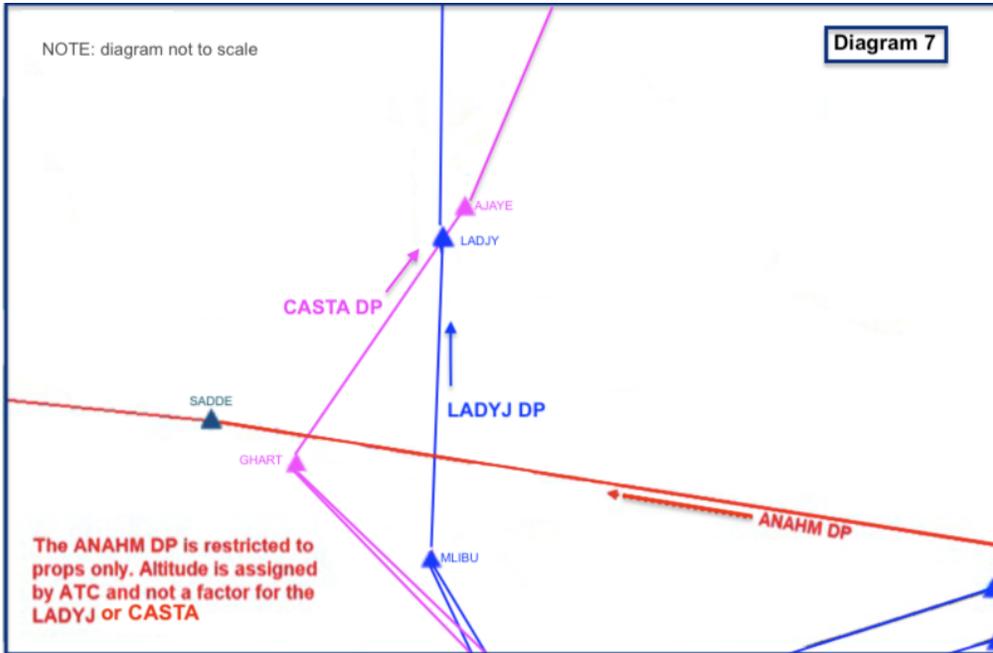
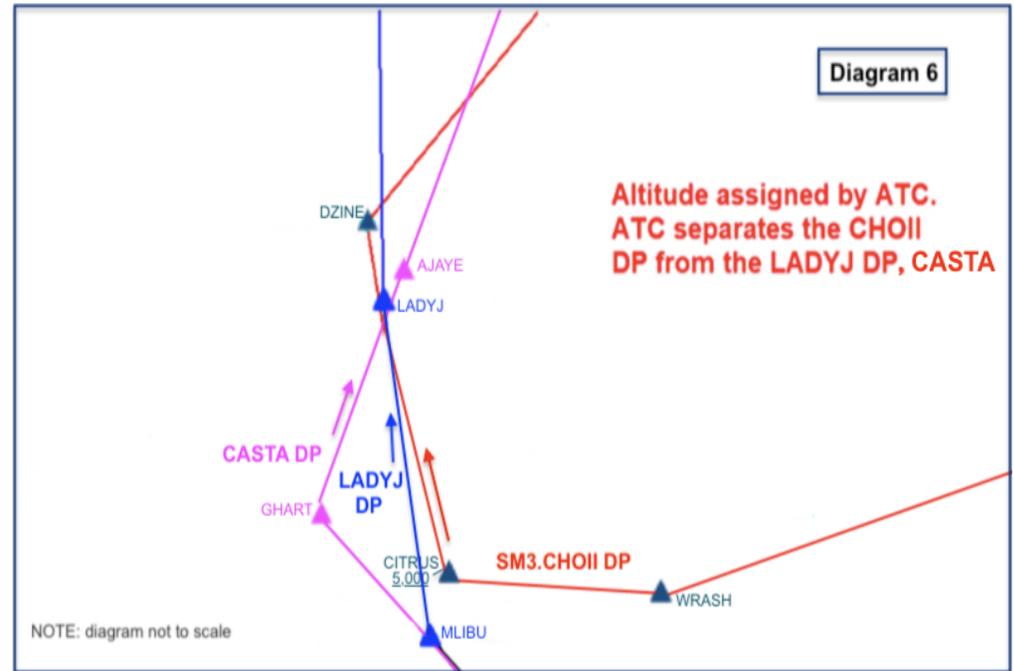
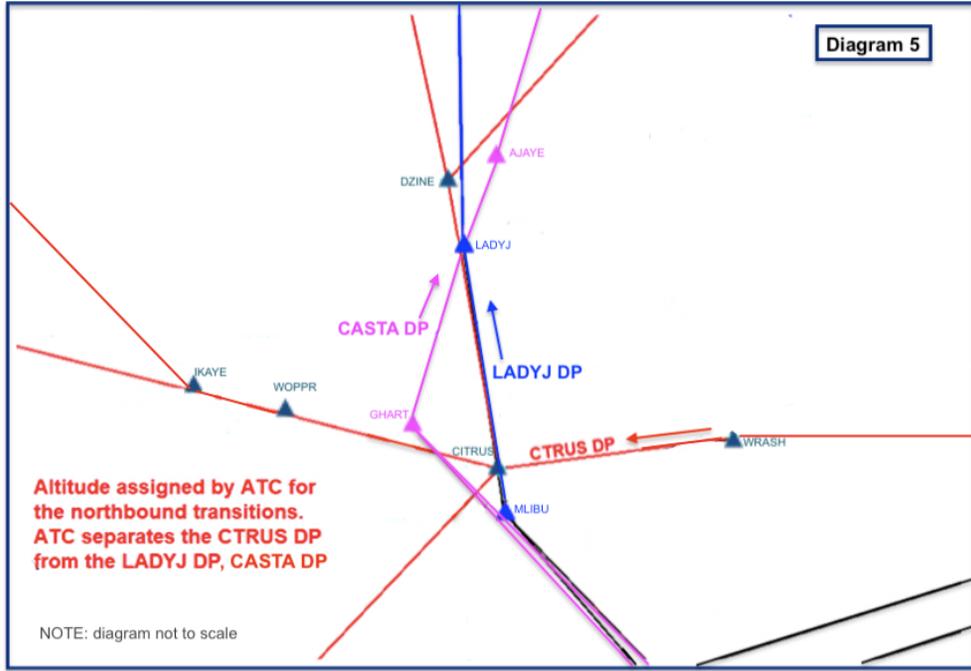
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- IRNMN STAR would cross proposed CASTA HYBRID at approx 10k ft and descending to 9k. (diagram 1)
- RYDRR + HULL STARS join IRNMN and would cross proposed CASTA HYBRID at approx 10k ft and descending. (diagram 2)
- SADDE STAR vectored to BAYST at 9k, or directly to SMO VOR/DME with a descent/maintain at 7k (diagram 3)
- MOOOS SID designed to bypass - true of CASTA7, LADYJ and proposed CASTA HYBRID (diagram 4)
- CTRUS SID is separated from current and proposed route by ATC. ATC assigns the altitudes for the northbound transitions. (diagram 5)
- SM3.CHOII SID is separated from LADY7 + CASTA by ATC. ATC assigns altitudes. (diagram 6)
- ANAHM SID is restricted to props only. Altitudes are assigned by ATC and thus not an issue for current route or the proposed CASTA HYBRID. (diagram 7)
- HAWCC SID flows under both the current and proposed route. (diagram 8)
- PEEVE SID expects radar vectors to PEEVE prior to PEEER - separated from CASTA same manner as LADYJ (diagram 9)
- TOPMM SID is a non-issue.
- OHSEA STAR is a non-issue due to high altitudes (17 - 14k)

# Interacting Routes - Deconflicted (diagrams 1 - 4)

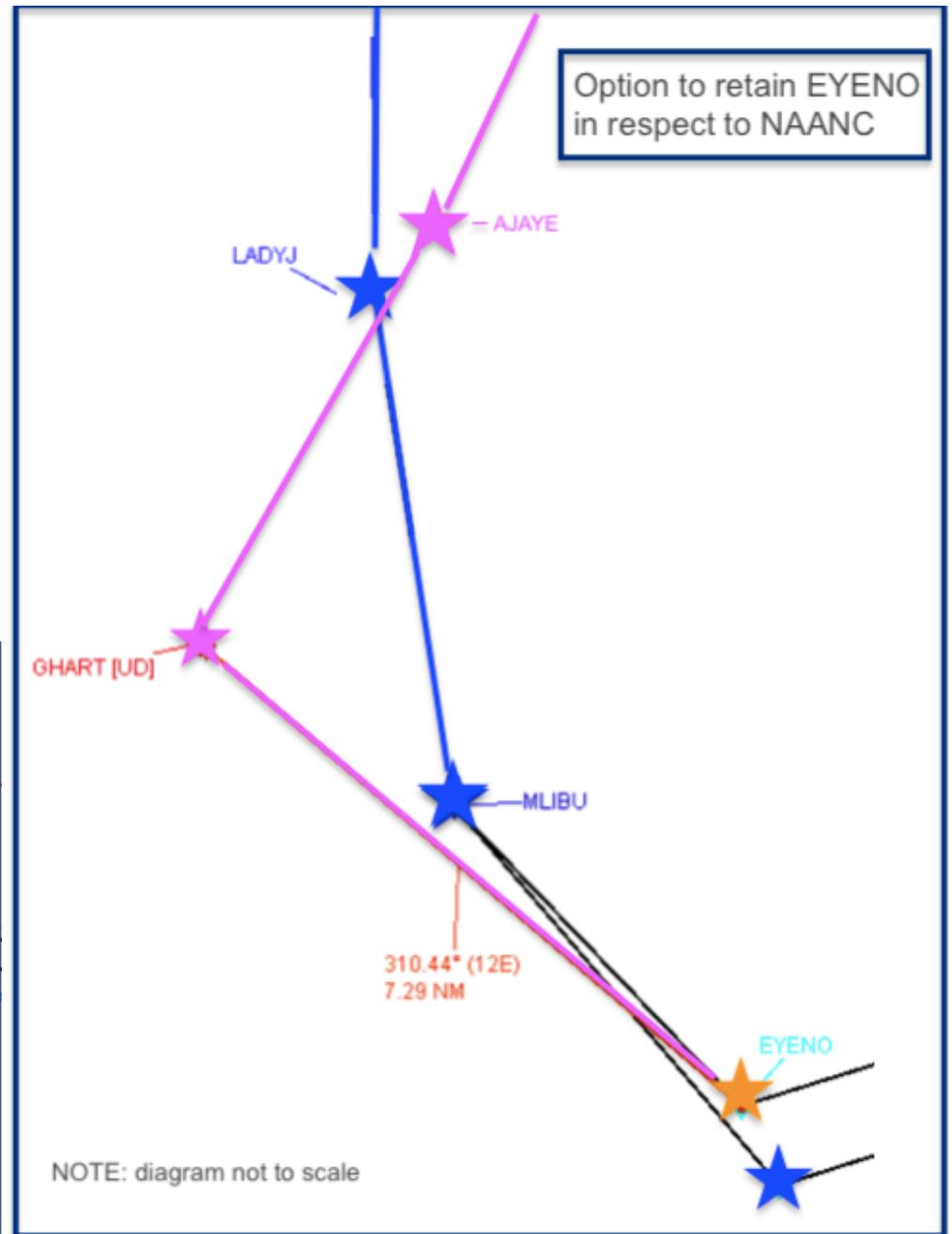
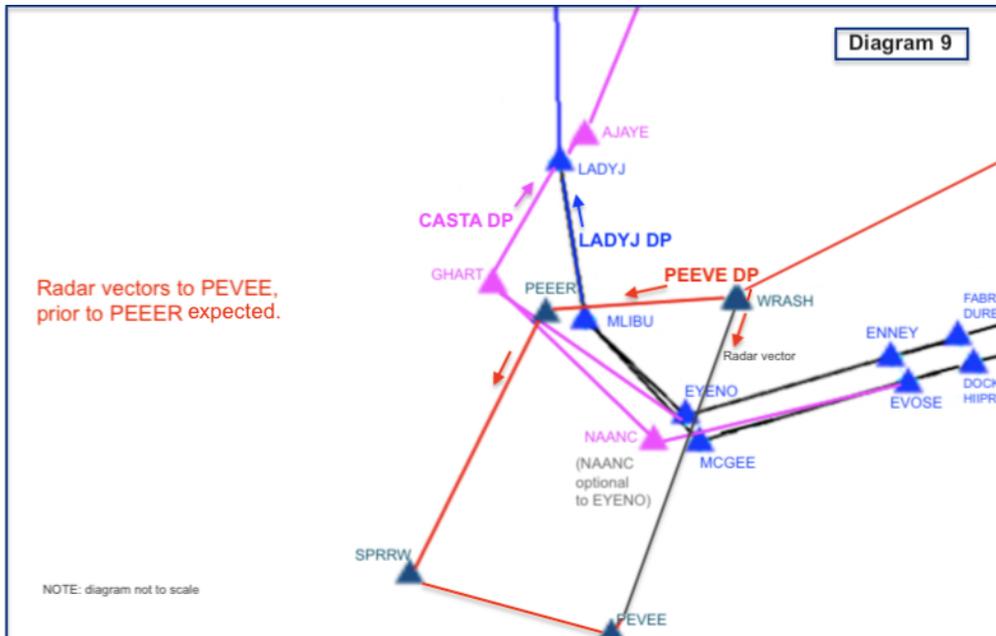


# Interacting Routes - Deconflicted (diagrams 5 - 8)



# Option to NAANC WP (diagram 10)

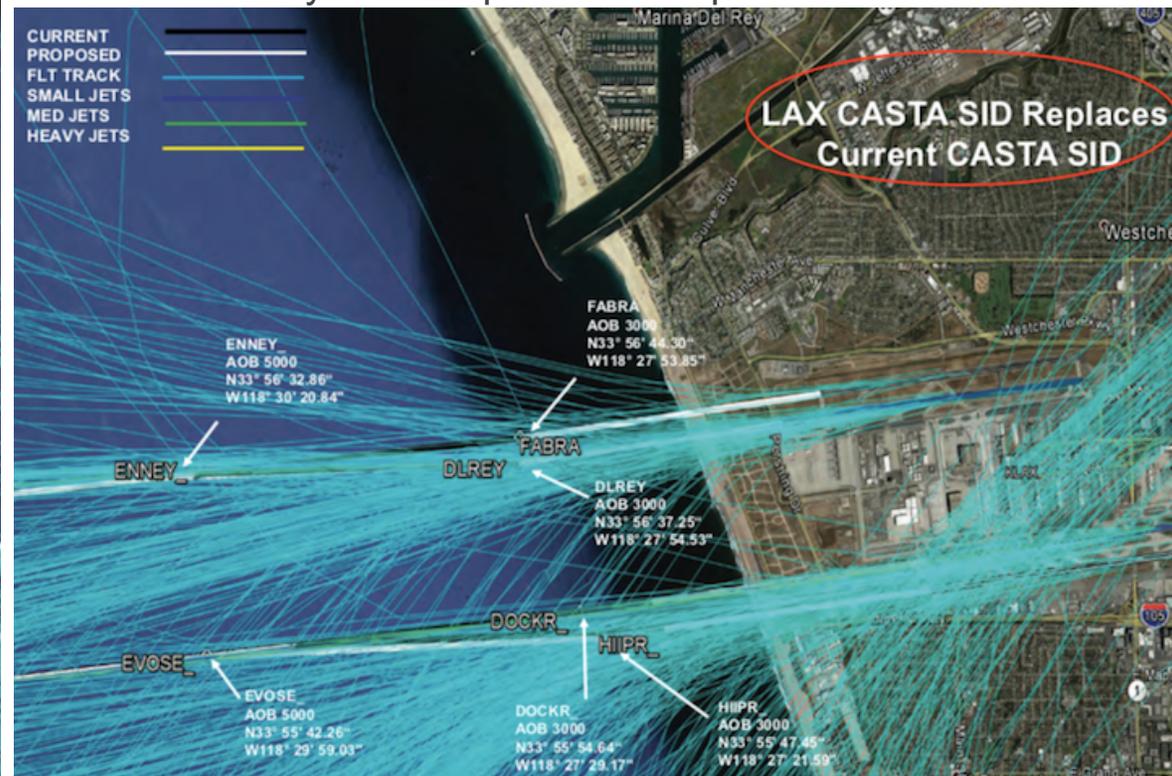
## Interacting Routes - Deconflicted (diagram 9)



# CASTA HYBRID

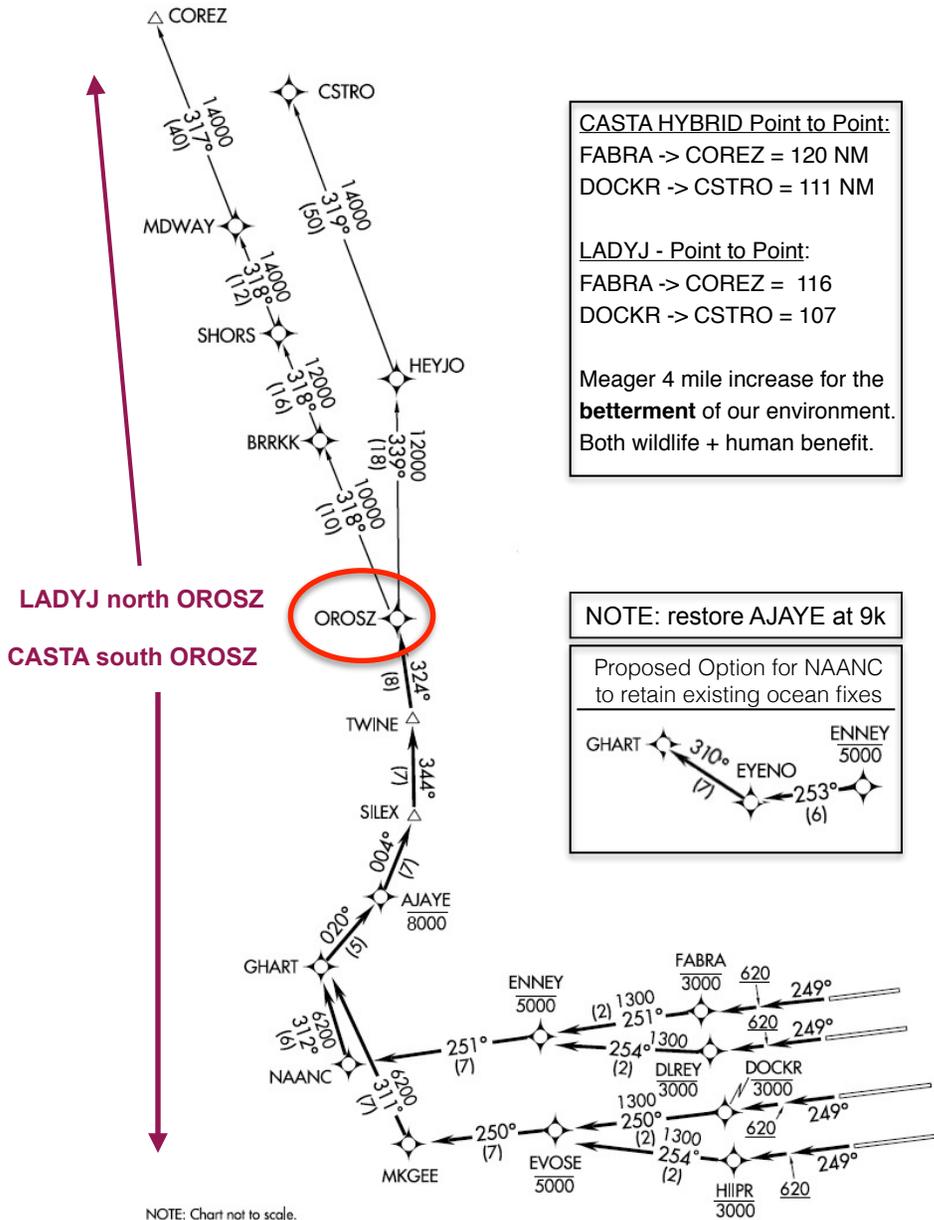
If it ain't broke 🍌 don't "fix" it.

CASTA 7 was not only flown during the transition, but as seen in slide 28, it was vetted for and deconflicted from Metroplex routes. **Flights today are already flying the SILEX -> TWINE stretch of the proposed CASTA HYBRID** (slide 34). Between LADYJ + CASTA 6/7, the hybrid track was included in the 2016 final "EA" and as a 2017 proposed procedure. Most importantly, it is the most environmentally sound option for adapted life.



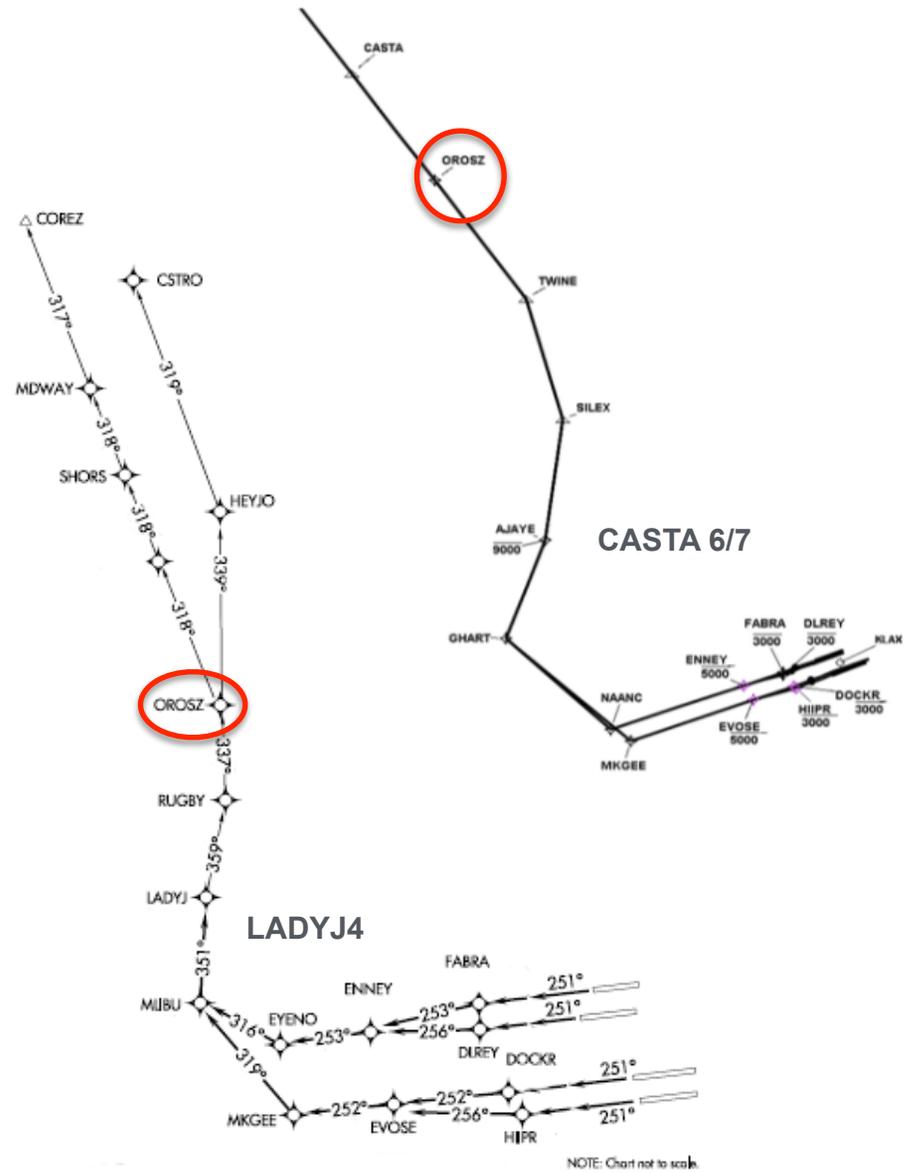
# CASTA HYBRID

proposed CASTA Hybrid



# Historical + LADYJ

Historical Metroplex CASTA (top) - LADYJ (bottom)



# Check List to Change...

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- Deconflict routes ✓ (completed)
- Environmental Assessment ✓ (completed + CASTA evaluated twice now!)
- Adjoining facilities? ✓ (No changes that impact.)
- Aircraft able to fly route and adhere to speed + altitudes? ✓  
(Aircraft already doing and done it.)
- Proposed Action released by FAA to public? ✓ (completed - slide 28)
- Chart to be officially amended, reviewed, vetted, and fit into a publication cycle - that also includes flight management system database distribution. (Can be completed in mere months!)



# SUMMARY

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- The Proposed CASTA HYBRID **track has already been vetted, modified, and included in the “EA” during their Metroplex** process (slides 27 + 28)
- The proposed CASTA HYBRID **corrects** any **NEPA** and **4(f) oversights** where applicable (slides 14,15 + 19).
- The HYBRID does not affect aircraft arriving or departing LAX (Slides 18 + 30-32).
- No en-route conflicts have been identified with the proposed modifications as current MetroPlex altitudes mitigate themselves. While SILEX + TWINE have always been historically busy intersections, they were designed for traffic between the three airports (VNY/BUR/LAX), and the historical route functioned for decade(s) - safely, seamlessly and efficiently, and as an RNAV route for over a decade.
- There were NO safety issues validated for replacing CASTA with the LADYJ to begin with, and there are **no identified safety issues raised** for reverting the route back. (Slide 20)
- The HYBRID does not expose new areas to aircraft disturbance, and was approved by the Community Round Table.
- Minutes from a Oct 12, 2016 meeting with the LAX Noise Round Table, read that the FAA (Glen Martin and Rob Henry) stated that the design team considered **“suitable land”** like highways and commercial airspace when possible - **this modification affords the FAA the opportunity to honor that responsible effort and consideration.** (Slide 8)
- Reverting back to a stretch of the historical path further affords aircraft the advantage of gaining altitude as it overflies the 101 freeway, and travels in airspace above a commercial district, thus affording the added benefit of **historically lessening the noise impact** by means of industry “white noise” at altitudes of 10k and less. It also allows for any noise pollution to dissipate since the mountains to the west are no longer a detrimental influence, and spares our protected open space wildlife preserves of added and unnecessary or unlawful burden. (Slides 8, 9)