

FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties

**FAA & Select Committee
Working Meeting**

September 1, 2016



**Federal Aviation
Administration**



Discussion Overview

- **FAA IOUs from 8/18 Meeting**
 - Transition the SERFR STAR Back to the BSR Ground Track Prior to EPICK (#2)
 - Noise Model Comparison
 - Overlay of BSR-SERFR Vectoring
 - Special Use Airspace (SUA)
- **Other Solutions as Identified by the Select Committee**



2. Transition the SERFR STAR Back to the BSR Ground Track Prior to EPICK



Methodology: Track Data

- **BSR Tracks**

- Used for modelling noise on baseline of BSR:
 - The intent was to provide an average annual day usage of the BSR from the last whole year that the BSR was used.
 - 60 random days were sampled from Jan – Dec 2014. This is based upon ATO guidance for noise modelling.

- **SERFR Tracks**

- Used for modelling noise on SERFR and proposed DAVYJ:
 - The intent was to provide the most current average annual day usage of the SERFR.
 - 60 random days were sampled from Aug 2015 – July 2016. This is based upon ATO guidance for noise modelling.



Methodology: Altitudes

- **BSR/SERFR**

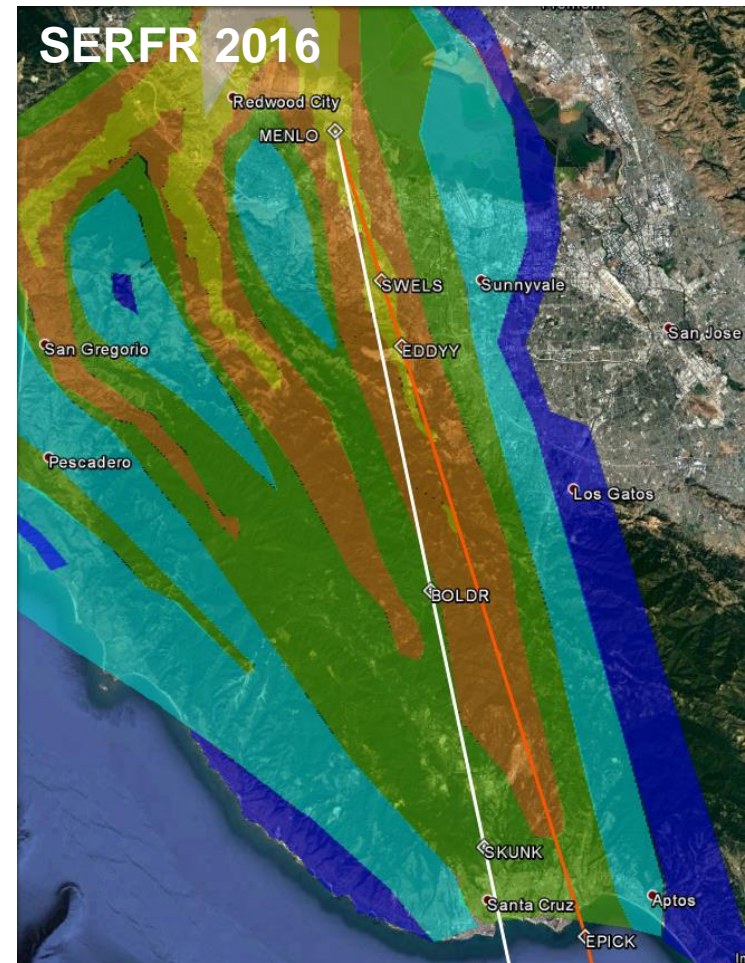
- All baseline altitudes were based upon measured average altitudes along the BSR/SERFR tracks. These altitudes were typically higher than the published altitudes since they also included the altitudes of those flights vectored off the ground track.

- **Notional DAVYJ**

- The lower and upper boundaries of the notional DAVYJ were based upon the lowest published altitudes on the SERFR and BSR respectively, with an altitude restriction at MENLO of 4,000 ft. MSL.



Comparison: BSR vs. SERFR



Key: — SERFR ground track — Notional DAVYJ ground track

Noise levels:

■ $x \geq 45$ dBA DNL

■ $40 \text{ dBA DNL} \leq x < 45 \text{ dBA DNL}$

■ $35 \text{ dBA DNL} \leq x < 40 \text{ dBA DNL}$

■ $30 \text{ dBA DNL} \leq x < 35 \text{ dBA DNL}$

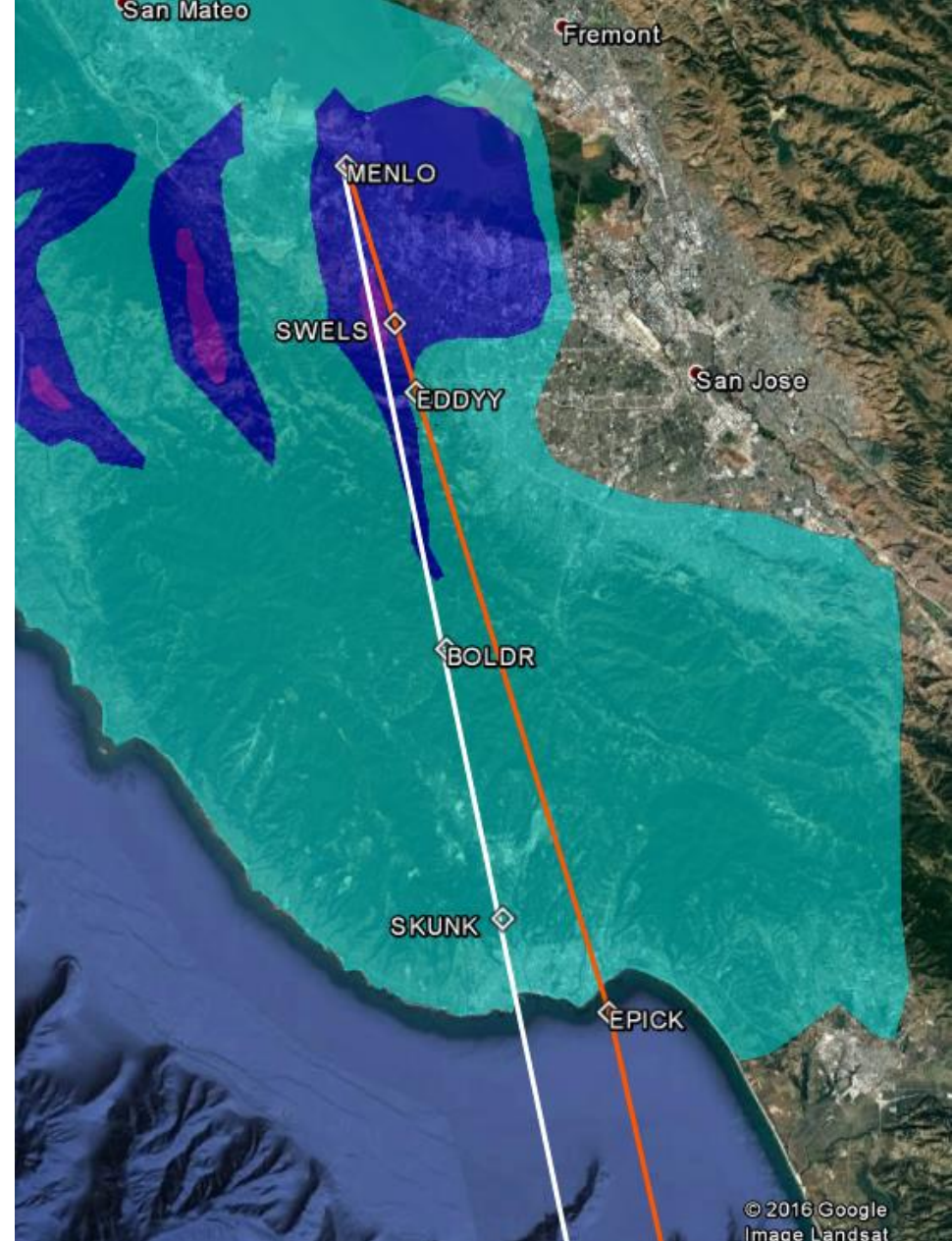
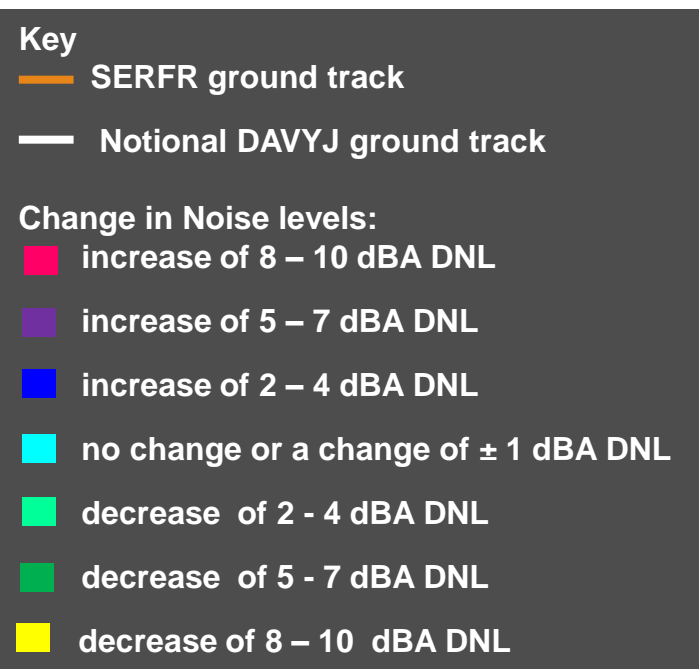
■ $25 \text{ dBA DNL} \leq x < 30 \text{ dBA DNL}$

■ $20 \text{ dBA DNL} \leq x < 25 \text{ dBA DNL}$



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Noise changes associated with notional DAVYJ in comparison with 2014 conditions



Summary

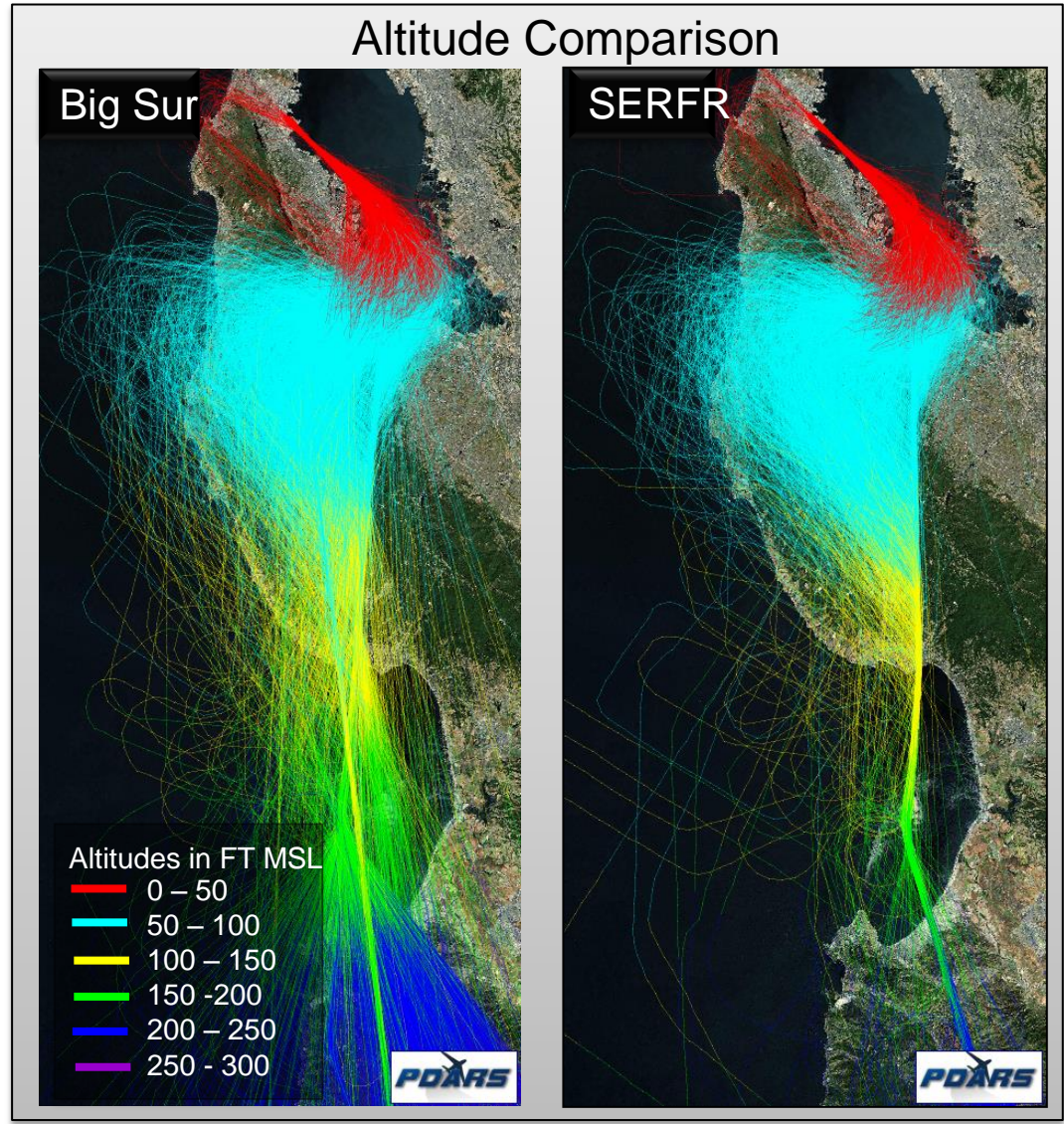
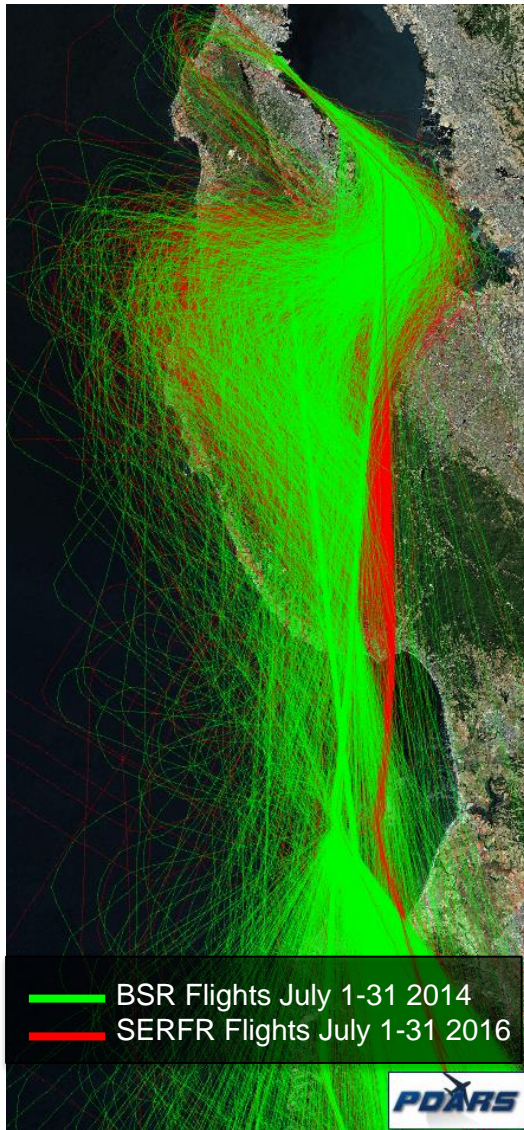
- **The noise contours of the SERFR tracks are slightly higher than for the BSR at comparative positions along the track.**
 - This is possibly due to slightly lower altitudes (AGL) flown by the SERFR.
- **There will likely be no discernable change in the noise exposure from BSR to DAVYJ, south of BOLDR.**
- **There will likely be a discernable increase (2-4 dBA DNL) in noise, compared to current conditions, under the ground track of the BSR if the DAVYJ is implemented.**
- **There will likely be a discernable decrease in noise compared to current conditions, under the ground track of the SERFR if the DAVYJ is implemented.**



Vectoring Overlay BSR and SERFR



Vectored Flights – BSR and SERFR



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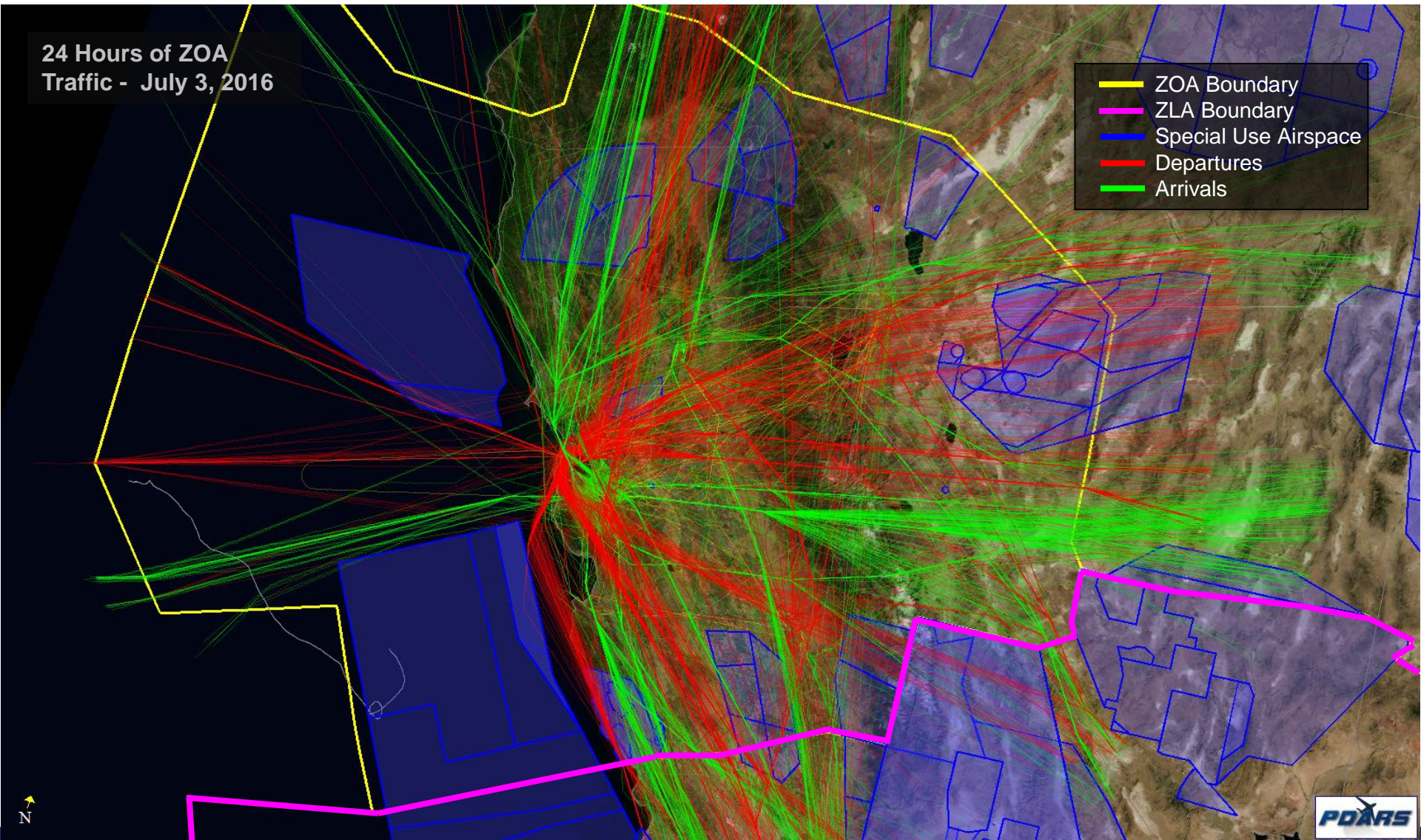
Special Use Airspace



NorCal Special Use Airspace

24 Hours of ZOA
Traffic - July 3, 2016

- ZOA Boundary
- ZLA Boundary
- Special Use Airspace
- Departures
- Arrivals



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Special Use Airspace

- **FAA JO 7400.8W Special Use Airspace lists the times of use, altitudes and controlling agency**
 - [http://www.faa.gov/documentLibrary/media/Order/SUA.pdf](http://www.faa.gov/documentLibrary/media/Order/ SUA.pdf)
- **Great Resource**
 - <https://skyvector.com/>

