

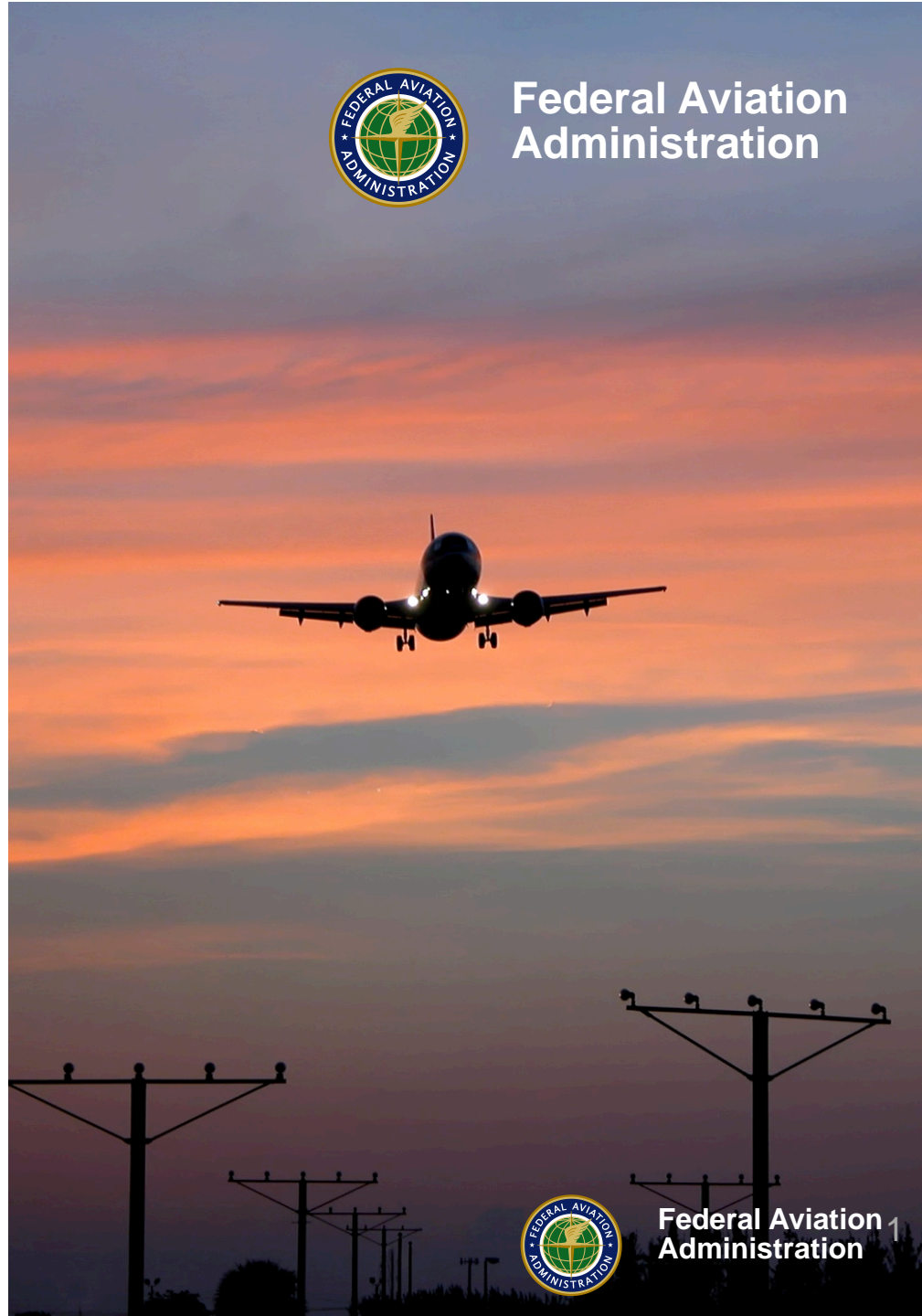
Santa Clara/Santa Cruz Counties Airport/Community Roundtable Briefing

By: Federal Aviation Administration

Date: February 26, 2020



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Agenda

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 - Environmental Review
 - Operational Data
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SUNNE ONE Procedure Description

- **For Oakland departures off runways 28L, 28R and 30**
- **Considered a Conventional Departure Procedure**
 - Utilizes radar vectoring for each aircraft
- **For select southbound, nighttime departures (From approximately 10:00pm to 7:00am)**
- **Published on January 30, 2020**



Oakland 120° Departure

- **Intended to keep aircraft over the bay and not over populated areas during the initial climb phase of flight**
- **Departing aircraft will:**
 - Climb in a left hand turn to 120 degree heading
 - Climb to altitude assigned by Air Traffic Control (ATC)
 - Continue via instructions from ATC specific to the flight



SUNNE ONE Procedure Design

- **Intended to reduce flights over populated areas while simplifying Pilot/Controller communication**
- **Design based on where current aircraft are Flying today**
- **Departing aircraft will:**
 - Climb in a left hand turn to 120 degree heading to SUNNE waypoint
 - Climb to 5,000 feet mean sea level
 - Continue via instructions from ATC specific to the flight



SUNNE ONE Environmental Review

• Noise Impacts:

- To comply with the National Environmental Policy Act (NEPA) requirements, the Federal Aviation Administration (FAA) has issued guidance on assessing aircraft noise in FAA Order 1050.1F. This guidance requires that aircraft noise analysis use the yearly Day-Night Average Sound Level (DNL) metric.
 - DNL is the FAA's primary metric used to establish a yearly day/night average of cumulative noise energy exposure of individuals to noise resulting from aviation activities.
- The FAA's noise guidelines for compliance with NEPA define a significant impact as an increase of 1.5 dB in areas exposed to aircraft noise of DNL 65 and higher.
- The FAA Guidance for Noise Screening of Air Traffic Actions (December 2012) was used to complete the analysis of potential effects due to the change in aircraft noise exposure level, as a result, of implementing the proposed action.
- Using the above criteria, the noise analysis indicate the proposed actions would not exceed the significance threshold of 1.5 dB or higher increase in noise sensitive areas exposed to DNL 65 dB or higher. It also would not result in any reportable noise increases (i.e., DNL increases of 3 dB or more in areas exposed to aircraft noise between DNL 60 dB and 65 dB or DNL increases of 5 dB or greater in areas exposed to aircraft noise between DNL 45 dB and 60 dB).



SUNNE ONE Environmental Review

- **Noise Impact Calculation (How it was Calculated):**
 - The TRAFFIC (TRAF) Test is used to determine if the number of operations on a particular route or procedure is high enough to generate noise levels that exceed noise screening thresholds.
 - The TRAF Test was used to evaluate the new procedures and amended procedure.
 - The TRAF Test collects the following data for the analysis:
 - The altitudes flown on the procedure or route. Must be the lowest altitude where the procedure changes. Typically, altitude is shown above ground level (AGL) and not mean sea level [MSL], and is flown by each of the piston engine, small jets, turboprops, large jets and heavy jets categories.
 - Operations between 10:00 p.m. and 07:00 a.m. are multiplied by 10 to account for low ambient noise levels.
 - Presence of noise sensitive receptors near the changed portion of the route is not a requirement of the TRAF test, however, provides additional flexibility to pass the test. For example, the TRAF Test may not be necessary if the changed portion of the route is over water and there are no sensitive receptors in the vicinity.
 - Using the above criteria, the noise analysis results indicate the proposed actions would not exceed the significance threshold of 1.5 dB or higher increase in sensitive areas exposed to DNL 65 dB or higher.



SUNNE ONE Environmental Review

- **Cumulative Impacts:**

- Defined as an impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency undertakes such other actions.
 - Consideration of cumulative impacts applies to the impacts resulting from the proposed implementation of the SUNNE ONE and QUAKE ONE departure procedures combined with the amendment of OAKLAND FIVE procedure.
- In the area of the proposed QUAKE ONE and SUNNE ONE departure procedures and the amendment to the OAKLAND FIVE departure procedure, there are no indications of conflicts with existing procedures.
- Cumulative impacts, such as noise increases to noise-sensitive environments are not expected.

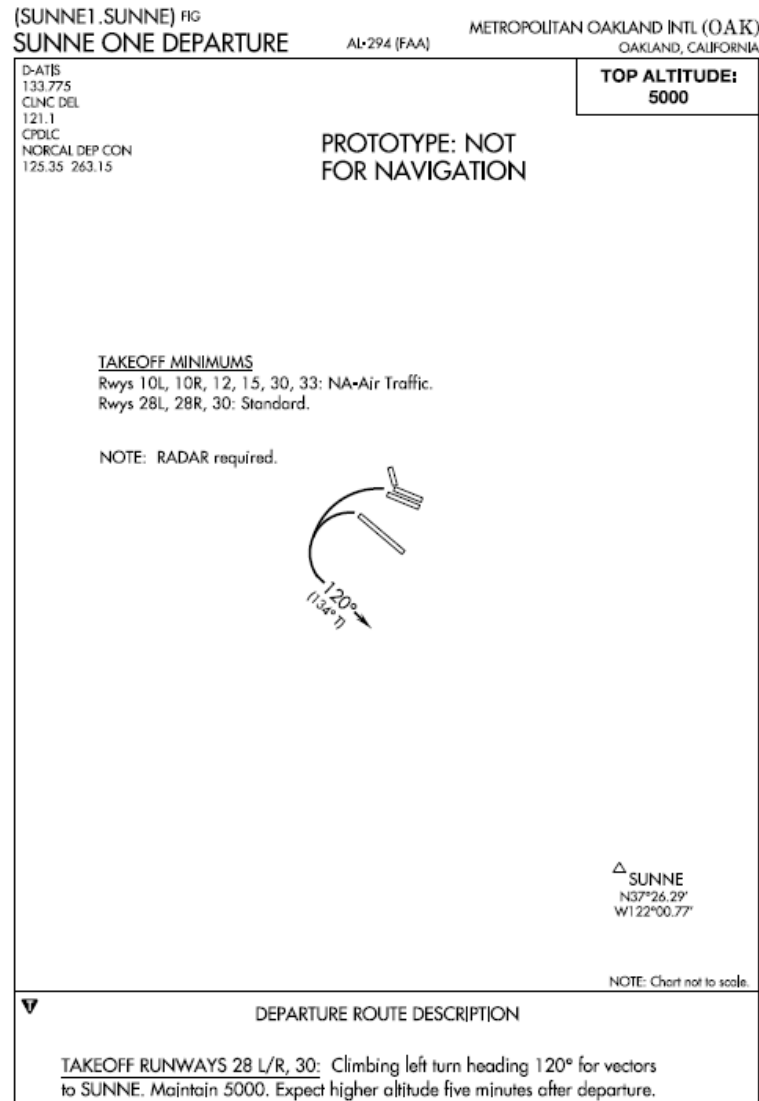


SUNNE ONE Operational Data

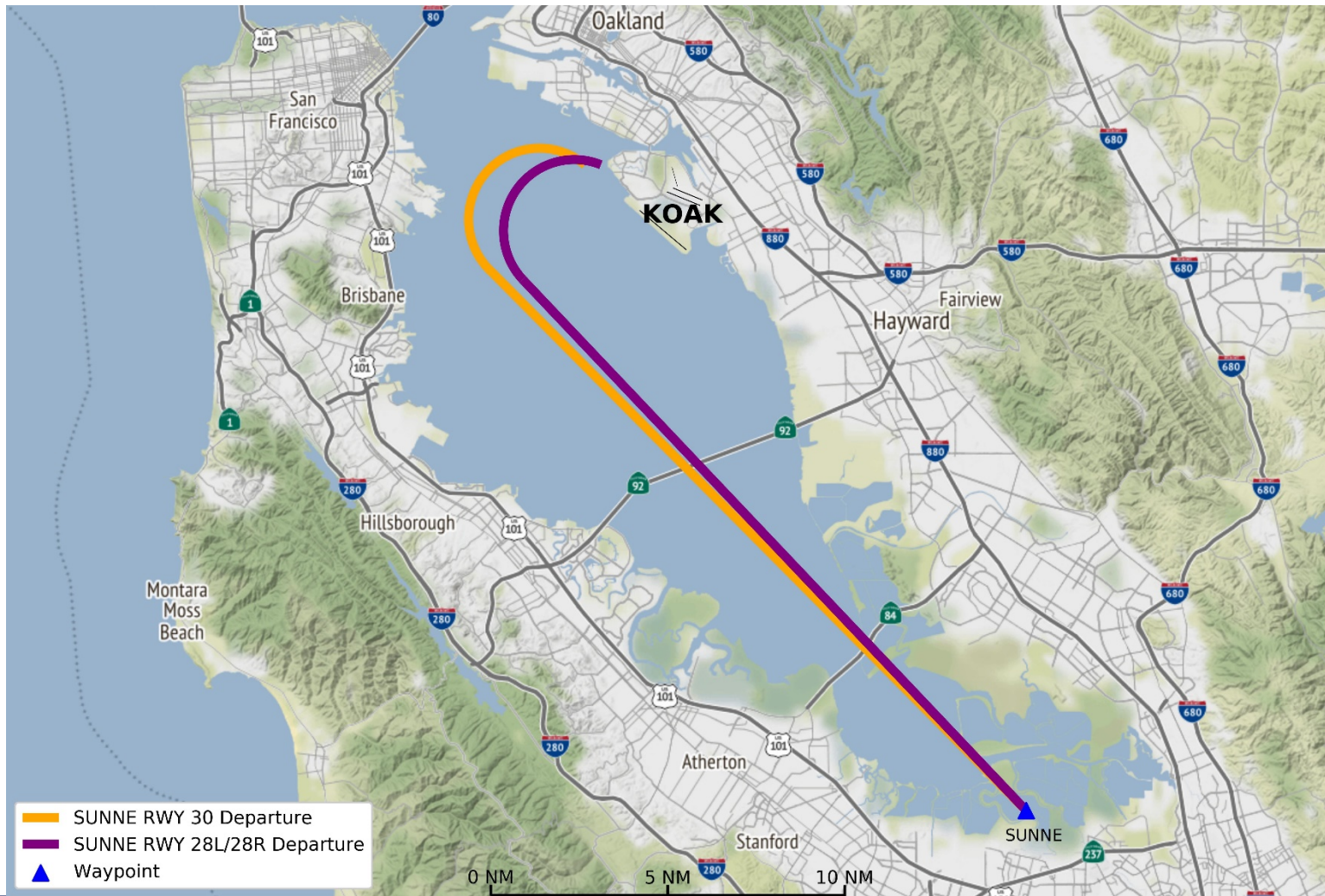
- **Primarily for non Area Navigation (RNAV) equipped aircraft**
- **No increase in operations is anticipated**
- **Aircraft are anticipated to fly just as they are today**
- **Procedure altitude is 5,000 feet Mean Sea Level until instructed to climb higher by Air Traffic Control**



SUNNE Standard Instrument Departure (SID) chart



SUNNE Standard Instrument Departure (SID)

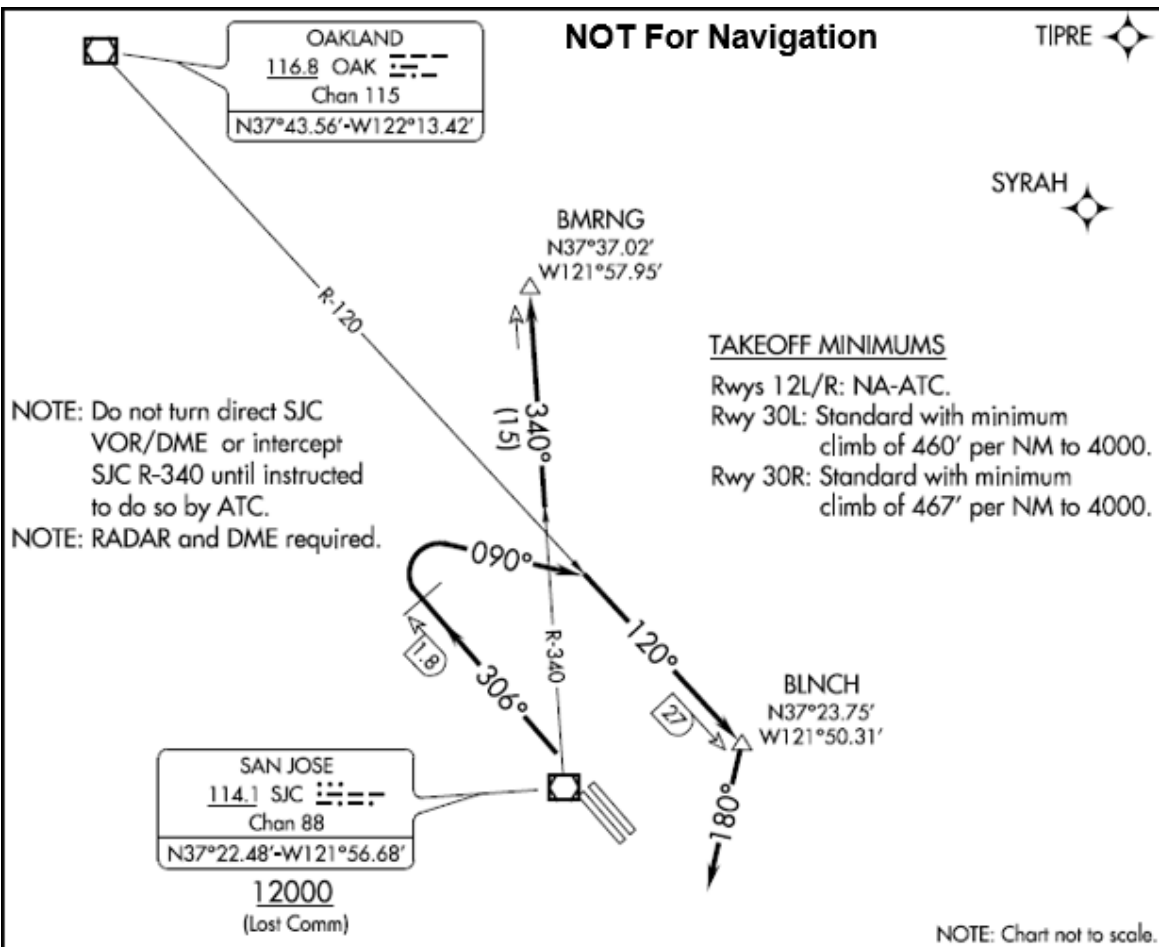


LOUPE FIVE

Standard Instrument Departure (SID)



LOUPE FIVE SID Description



- **Runway 30 Left (L), 30 Right (R) Departure:**

- Climb heading 306°, at SJC VOR/DME 1.8 DME northwest turn right heading 090° to intercept OAK R-120 to BLNCH, then turn right heading 180° for RADAR vectors to SJC VOR/DME, then on SJC R-340 to BMRNG INT. Maintain 5,000 expect filed altitude 10 minutes after departure

LOUPE FIVE SID Changes

- **Aircraft will turn right heading 090° instead of turning right to a heading 123°**
- **Aircraft will intercept the OAK 120° radial to BLNCH, then right turn heading 180° for Radar Vectors (RV) to SJC VOR instead of a 123° heading until receiving radar vector to SJC VOR**
- **There will be a minor decrease in climb gradient of 3 feet per Nautical Mile (NM) on runway 30R and 10 feet per NM on runway 30L**
- **Chart Note:**
 - **Do not turn direct SJC or intercept SJC R-340 until instructed to do so by ATC**



PIRAT

Standard Terminal Arrival Route (STAR)



PIRAT STAR Background

- **The PIRAT STAR is in response to Recommendation 2.3, included in the Report of the Select Committee on South Bay Arrivals (dated November 2016)**
- **Developed to meet the noise abatement procedures implemented in July 1998 (Traffic permitting cross over Woodside VOR (Now ARGGG) at 8,000 feet mean sea level)**



PIRAT STAR Changes

- **The change from PIRAT ONE to PIRAT TWO:**
 - Added an at or below altitude of 15,000 feet Mean Sea Level at the PIRAT waypoint
 - This change was requested by air traffic control
 - No other changes were made
- **An IFP Gateway request has been entered to amend the PIRAT STAR**
 - Submitted by air traffic control to simplify Pilot/Controller communication and increase safety



Oceanic arrivals May-August



Additional Items provided to SC/SC Chair

- **Oakland (OAK) and San Francisco (SFO) Traffic count for years 2013 -2019**
- **Oakland (OAK) and San Francisco (SFO) Traffic count for May-August 2013 -2019**
- **OAK Oceanic arrivals for May-August 2013-2019**
- **SFO Oceanic arrivals for May-August 2013-2019**
- **List of OAK and SFO aircraft that pass with 1 Mile and 3 miles of Woodside VOR (OSI) for dates requested**



Additional Items provided to SC/SC Chair

- **List of OAK and SFO aircraft that pass with 1 Mile and 3 miles of ARGGG waypoint for dates requested**
- **List of aircraft that pass within 1, 3, and 5 miles of MENLO and SIDBY waypoint**
- **Weight Class of Oceanic arrivals into OAK and SFO**
- **Flight Tracks from ARGGG waypoint to ILS at OAK and SFO for the years of 2013, 2018, 2019**



Questions?

