



# Meeting Agenda

## Regular Meeting

Meeting No. 351  
**Wednesday, August 7, 2024 - 7:00 p.m.**  
**\*VIA HYBRID ACCESS\***

**David J. Chetcuti Community Room**  
**450 Poplar Ave | Millbrae, CA 94030**  
\*see attached venue map & parking

Public may also join the virtual webinar:  
<https://smcgov.zoom.us/j/93011857218>

Or Dial in:

US: +1(669)900-6833 Webinar ID: 930 1185 7218

This meeting of the San Francisco Airport Community Roundtable will be in person at the above-mentioned address. Members of the public will be able to participate in the meeting remotely via the Zoom platform or in person at 450 Poplar Avenue, Millbrae, CA 94030. For information regarding how to participate in the meeting, either in person or remotely, please refer to the instructions at the end of the agenda.

### **HYBRID PUBLIC PARTICIPATION:**

A list of attendees (using Zoom sign-in credentials) will be displayed periodically throughout the meeting.

### Public Comment

\*Written public comments can be emailed to [SFORoundtable@smcgov.org](mailto:SFORoundtable@smcgov.org) and should include specific agenda items to which you are commenting.

\*Spoken public comments will also be accepted during the meeting in-person or via Zoom on Items NOT on the Agenda and for each Regular Agenda Item and at the end of Presentations, at the option of the speaker.

\*\*Please see instructions for written and spoken comments at the end of this agenda.

### **ADA Requests**

Individuals who require special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the agenda packet or other writings that may be distributed at the meeting, should contact staff as early as possible but no later than 10:00 am the day before the meeting at [SFORoundtable@smcgov.org](mailto:SFORoundtable@smcgov.org). Notification in advance of the meeting will enable Staff to make reasonable arrangements to ensure accessibility to this meeting, the materials related to it, and your ability to comment.



**AGENDA**

**Call to Order / Roll Call / Declaration of a Quorum Present**  
Al Royse, Roundtable Chairman

**Public Comment on Items NOT on the Agenda**  
Speakers are limited to two minutes. Roundtable members cannot discuss or take action on any matter raised under this item.

**Action to set Agenda and to Approve Consent Items**  
Al Royse, Roundtable Chairman

**CONSENT AGENDA**

All items on the Consent Agenda are approved/accepted in one motion. A Roundtable Member can make a request, before action on the Consent Agenda, to transfer a Consent Agenda item to the Regular Agenda. Any items on the Regular Agenda may be similarly transferred to the Consent Agenda. Public Comment is received before approval of the Consent Agenda.

- 1. Approval of Draft Minutes p. 9
  - a. June 5, 2024, Regular Meeting
  
- 2. Airport Director's Reports p.14
  - a. May 2024
  - b. June 2024
  
- 3. Budget vs. Actuals Update p.28

**REGULAR AGENDA**

Public Comment received on Regular Agenda items prior to action.

**PRESENTATIONS**

Public Comment on Presentation items will be taken after the last item under presentations.

- 4. Chairman Update  
Al Royse, Roundtable Chairman
  
- 5. Airport Director Update  
Ivar Satero, Airport Director
  - a. Aircraft Noise Office Update  
Bert Ganoung, Aircraft Noise Office Manager
  
- 6. FAA Announcements and Update p.29  
Moifair Chin, FAA Community Engagement Officer  
Eric Tandberg, FAA Air Traffic Control Specialist  
Joseph Bert, Team Manager, FAA Western Service Center *Attachments: FAA Online Noise Information and Resources*

*LINK to: [FAA Online Noise Information and Resources](#)  
FAA: SFO 7-11-24 Handout [SFO Flight Paths]*

7. SFO Roundtable Technical Consultant Update p.37

Eugene Reindel, HMMH, SFO Roundtable Technical Consultant

Attachment: *Curfew slide*

8. Subcommittee Updates

- a. Technical Working Group Subcommittee  
Sam Hindi, TWG Subcommittee Chair  
*LINK: [TWG Subcommittee Agenda](#)*
- b. Ground-Based Noise Subcommittee  
Al Royse, Roundtable Chair and Member, Ground Based Noise Subcommittee
- c. Legislative Subcommittee  
Al Royse, Roundtable Chairman  
Next meeting is August 14, 2024  
No meeting to report on since the last Regular Roundtable Meeting
- d. Strategic Plan Subcommittee  
No meeting to report on since the last Regular Roundtable Meeting

**MEETING CLOSURE**

9. Member and Subcommittee Communications / Announcements

Roundtable Members and Staff

10. Adjourn

Al Royse, Roundtable Chairman

**Information Only**

- i. HMMH FAA IFP Information Gateway Memo May 2024 p.80
- ii. HMMH FAA IFP Information Gateway Memo with attachment June 2024
  
- iii. SFO Roundtable Calendar of Upcoming Meetings
  - a. Roundtable Regular Meetings
    - i. October 2, 2024 at 7 pm at the Chetcuti Room, 450 Poplar Avenue, Millbrae
    - ii. December 4, 2024 at 7 pm at the Chetcuti Room, 450 Poplar Avenue, Millbrae
    - iii. February 5, 2025 at 7 pm at the Chetcuti Room, 450 Poplar Avenue, Millbrae
  - b. SFO Roundtable Upcoming Subcommittee Meetings
    - i. Legislative Subcommittee:  
August 14, 2024 at 3:30pm at the Hillsborough City Hall Conference Room, 1600 Floribunda Avenue, Hillsborough
    - ii. Technical Working Group:  
September 4, 2024 at 3:30pm in the Foster City Council Chambers Conference Room, 620 Civic Center Drive, Foster City

Consult the [SFO Roundtable Website](#) for the latest Regular and Subcommittee meeting information.

**\*\*Instructions for Public Comment during Meeting**

During the meeting, members of the public may address the Membership as follows:

**Written Comments:**

Written public comments may be emailed in advance of the meeting. Please read the following instructions carefully:

1. Your written comment should be emailed to [sfoundtable@smcgov.org](mailto:sfoundtable@smcgov.org)
2. Your email should include the specific agenda item for which you are submitting a comment.
3. The members of the public are limited to one comment per agenda item.
4. The length of the emailed comment should be commensurate with two minutes customarily allowed for verbal comments, which is approximately 250-300 words.
5. If your emailed comment is received by 5:00 pm on the day before the meeting, it will be provided to the Roundtable and made publicly available on the agenda website under the specific item to which the comment pertains. The Roundtable will make every effort to read emails received after that time but cannot guarantee such emails will be read during the meeting, however, such emails will still be included in the administrative record.

**Spoken Comments:**

**In-person Participation:**

1. If you wish to speak to the Membership, please fill out a speaker's slip located at the entrance. If you have anything you want to distribute to the Membership and include in the official record, please hand it to the Clerk who will distribute the information to the Membership and Staff.

**Via Teleconference (Zoom):**

The meeting may be accessed through Zoom online at <https://smcgov.zoom.us/j/93011857218>

1. The webinar ID: 930 1185 7218. The meeting may also be accessed via telephone by dialing +1-669-900-6833, entering webinar 930 1185 7218 then pressing #. Members of the public can also attend this meeting physically at the David J. Chetcuti Community Room, 450 Poplar Ave | Millbrae, CA 94030.
2. You may download the Zoom client or connect to the meeting using the internet browser. If you are using your browser, make sure you are using a current, up-to-date browser: Chrome 30+, Firefox 27+, Microsoft Edge 12+, Safari 7+. Certain functionality may be disabled in older browsers including Internet Explorer.
3. You will be asked to enter an email address and name. We request that you identify yourself by name as this will be visible online and will be used to notify you that it is your turn to speak.
4. When the Chairperson calls for the item on which you wish you speak click on the "raise-hand" icon. You will then be called on and unmuted to speak.

**\*Additional Information:**

For any questions or concerns regarding Zoom, including troubleshooting, privacy, or security settings, kindly contact Zoom directly.

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**Note:** Public records that relate to any item on the open session Agenda (Consent and Regular Agendas) for a Regular Airport/Community Roundtable Meeting are available for public inspection. Those records that are distributed less than 72 hours prior to a Regular Meeting are available for public inspection at the same time they are distributed to all Roundtable Members, or a majority of the Members of the Roundtable. The Roundtable has designated the San Mateo County Planning & Building Department, at 455 County Center, 2nd Floor Redwood City, California 94063, for the purpose of making those public records available for inspection. The documents are also available on the Roundtable website at: [www.sfoundtable.org](http://www.sfoundtable.org).

# Welcome

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The Airport/Community Roundtable is a voluntary committee that provides a public forum to address community noise issues related to aircraft operations at San Francisco International Airport. The Roundtable encourages orderly public participation and has established the following procedure to help you, if you wish to present comments to the committee at this meeting in-person or via Zoom.

- For written comments you may email your comments ahead of time to [sforoundtable@smcgov.org](mailto:sforoundtable@smcgov.org).
- To speak during the meeting in-person, submit a speaker slip to staff.
- To speak during the meeting via Zoom, you may use "raise-hand."
- The Roundtable Staff will call your name and allow you to speak. Full instructions in agenda below.

The Roundtable may receive several speaker requests on more than one Agenda item; therefore, each speaker is limited to two (2) minutes to present his/her comments on any Agenda item unless given more time by the Roundtable Chairperson. The Roundtable meetings are recorded. Video file of meeting will be posted to website once available. Please contact the Roundtable Coordinator for any request.

Roundtable Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the Agenda, Meeting Packet, or other writings that may be distributed at the meeting, should contact the Roundtable Coordinator at least two (2) working days before the meeting at the phone or e-mail listed below. Notification in advance of the meeting will enable Roundtable staff to make reasonable arrangements to ensure accessibility to this meeting.



# About the SFO Airport Community Roundtable

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**The Airport/Community Roundtable was established in May 1981, by a Memorandum of Understanding (MOU), to address noise impacts related to aircraft operations at San Francisco International Airport (SFO).** The Airport is owned and operated by the City and County of San Francisco, but it is located entirely within San Mateo County.

This voluntary committee consists of 25 appointed and elected officials from the City and County of San Francisco, the County of San Mateo, and several cities in San Mateo County (see attached Membership Roster). It provides a forum for the public to address local elected officials, Airport management, FAA staff, and airline representatives, regarding aircraft noise issues.

The committee monitors a performance-based aircraft noise mitigation program, as implemented by Airport staff, interprets community concerns, and attempts to achieve additional noise mitigation through a cooperative sharing of authority brought forth by the airline industry, the FAA, Airport management, and local government officials. The Roundtable adopts an annual Work Program to address key issues.

In 2024, the Roundtable is scheduled to meet on the first Wednesday of the following months: February, April, June, August, October and December. Regular Meetings are held on the first Wednesday of the designated month at 7:00 p.m. at **the David Chetcuti Community Room at 450 Poplar Avenue, Millbrae, California unless otherwise noted. Meetings are also broadcast via Zoom to encourage public participation.** Special Meetings and workshops are held as needed. The members of the public are encouraged to attend the meetings and workshops to express their concerns and learn about airport/aircraft noise and operations.

## **FEDERAL PREEMPTION RE: AIRCRAFT FLIGHT PATTERNS**

The authority to regulate flight patterns of aircraft is vested exclusively in the Federal Aviation Administration (FAA). Federal law provides that:

“No state or political subdivision thereof and no interstate agency or other political agency of two or more states shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law, relating to rates, routes, or services of any air carrier having authority under subchapter IV of this chapter to provide air transportation.”

*(Source: 49 U.S.C. A. Section 1302(a)(1)).*



## SFO Roundtable Regular Meetings

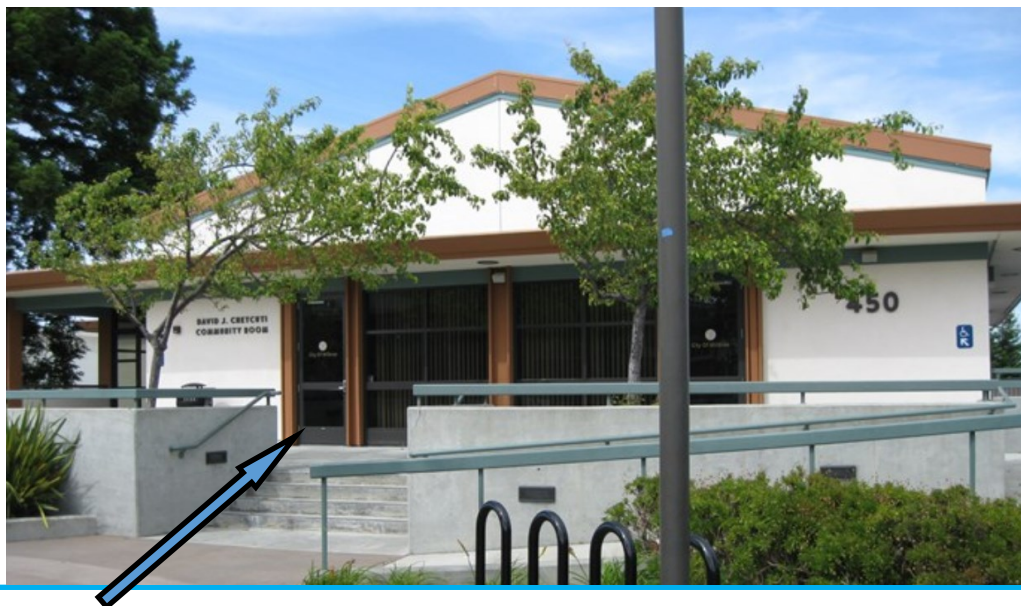
David J. Chetcuti Community Room

450 Poplar Avenue, Millbrae

- PARKING:**
1. Library parking lot (Poplar Street) adjacent to the Chetcuti Room
  2. Parking lot on Library Avenue
  3. City Hall parking lot (some restrictions). Take outdoor stairs up to Chetcuti Room
  4. Nearby neighborhood on-street parking

**ENTRANCE:** Chetcuti building can typically be entered from glass door at front of building.

**ACCESSIBILITY:** Ramp from Library Parking Lot to Chetcuti Room.





# Member Roster

June 2024

**CITY AND COUNTY OF SAN FRANCISCO  
BOARD OF SUPERVISORS**  
Vacant

**CITY AND COUNTY OF SAN FRANCISCO  
MAYOR'S OFFICE**  
Alexandra Sweet, (Appointed)

**CITY AND COUNTY OF SAN FRANCISCO  
AIRPORT COMMISSION REPRESENTATIVE**  
Ivar Satero, Airport Director (Appointed)  
Alternate: Doug Yakel, Public Information Officer

**COUNTY OF SAN MATEO  
BOARD OF SUPERVISORS**  
Dave Pine

**CITY/COUNTY ASSOCIATION OF GOVERNMENTS  
AIRPORT LAND USE COMMITTEE (ALUC)**  
Carol Ford (Appointed)

**TOWN OF ATHERTON**  
Stacy Holland  
Alternate: Bill Widmer

**CITY OF BELMONT**  
Robin Pang-Maganaris  
Alternate: Davina Hurt

**CITY OF BRISBANE**  
Terry O'Connell  
Alternate: Madison Davis

**CITY OF BURLINGAME**  
Andrea Pappajohn  
Alternate: Peter Stevenson

**TOWN OF COLMA**  
Joanne del Rosario  
Alternate: John Goodwin

**CITY OF DALY CITY**  
Pamela DiGiovanni  
Alternate: Rod Daus-Magbual

**CITY OF EAST PALO ALTO**  
Martha Barragan  
Alternate: Antonio Lopez

**CITY OF FOSTER CITY**  
Sam Hindi  
Alternate: Vacant

**CITY OF HALF MOON BAY**  
Joaquin Jimenez  
Alternate: Robert Brownstone

**TOWN OF HILLSBOROUGH**  
Alvin Royse  
Alternate: Christine Krolak

**CITY OF MENLO PARK**  
Drew Combs  
Alternate: Cecilia Taylor

**CITY OF MILLBRAE**  
Angelina Cahalan  
Alternate: Ann Schneider

**CITY OF PACIFICA**  
Christine Boles  
Alternate: Sue Vaterlaus

**TOWN OF PORTOLA VALLEY**  
Judith Hasko  
Alternate: Craig Hughes

**CITY OF REDWOOD CITY**  
Kaia Eakin  
Alternate: Chris Sturken

**CITY OF SAN BRUNO**  
Sandy Alvarez  
Alternate: Tom Hamilton

**CITY OF SAN CARLOS**  
Pranita Venkatesh  
Alternate: John Dugan

**CITY OF SAN MATEO**  
Rob Newsom  
Alternate: Lisa Diaz Nash

**CITY OF SOUTH SAN FRANCISCO**  
Mark Nagales  
Alternate: James Coleman

**TOWN OF WOODSIDE**  
Paul Goeld  
Alternate: Dick Brown

## **ROUNDTABLE ADVISORY MEMBERS**

**AIRLINES/FLIGHT OPERATIONS**  
Chief Pilot Lawrence Ellis, United Airlines

**FEDERAL AVIATION ADMINISTRATION**  
Rachel Girvin, Regional Administrator  
Faviola Garcia, Deputy Regional Administrator  
Carlette Young, Supervisory Senior Advisor  
Joseph Bert, Team Manager, Western Service Center

**ROUNDTABLE STAFF**  
Kathleen Wentworth, Roundtable Coordinator  
Diane Estipona, Roundtable Administrative Secretary  
Gene Reindel, Technical Consultant (HMMH)

**SFO AIRPORT NOISE OFFICE STAFF**  
Nupur Sinha, Director of Planning & Environmental Affairs  
Bert Ganoung, Aircraft Noise Office Manager



## **SFO Airport/Community Roundtable**

Meeting No 350 -- Minutes

Wednesday, June 5, 2024

### **Call to Order / Roll Call / Declaration of a Quorum Present (00:00:30)**

Roundtable Chairman Al Royse called to order the Regular Meeting of the SFO Airport/Community Roundtable on June 5, 2024, at 7:06 p.m., at the David J. Chetcuti Community Room, 450 Poplar Avenue, Millbrae, CA. A quorum (at least 13 Regular Members) was present as follows:

#### **REGULAR MEMBERS PRESENT**

Doug Yakel – City and County of San Francisco Airport Commission

Carol Ford – C/CAG Airport Land Use Committee (ALUC)

Robin Pang-Maganaris – City of Belmont

Terry O' Connell – City of Brisbane

Andrea Pappajohn – City of Burlingame

Martha Barragan – City of East Palo Alto

Sam Hindi – City of Foster City

Al Royse – Town of Hillsborough

Angelina Cahalan – City of Millbrae

Christine Boles – City of Pacifica

Judith Hasko – Town of Portola Valley

Mark Nagales – City of South San Francisco

Paul Goeld – Town of Woodside

#### **REGULAR MEMBERS ABSENT**

City and County of San Francisco Board of Supervisors

City and County of San Francisco Mayor's Office

County of San Mateo Board of Supervisors

Town of Atherton

Town of Colma

City of Daly City

City of Half Moon Bay

City of Menlo Park

City of Redwood City

City of San Bruno

City of San Carlos

City of San Mateo

Also present: Councilmember Rich Hedges – City of San Mateo

#### **ROUNDTABLE STAFF**

Kathleen Wentworth – Roundtable Coordinator

Diane Estipona – Roundtable Administrative Secretary

Maria Gonzalez – Planning Department Administrative Secretary

Eugene Reindel, HMMH – Roundtable Technical Consultant

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF

Bert Ganoung, Noise Office Manager  
Kevin Bumen, Chief Financial and Commercial Officer  
Luis Moreno, Project Manager, NIP  
David Ong, Aircraft Noise Systems Manager  
Anthony Carpeneti, Noise Abatement Specialist

FAA STAFF

Faviola Garcia, Deputy Regional Administrator  
Moifair Chin, Community Engagement Officer

AIRLINE REPRESENTATIVES PRESENT

Glenn Morse, United Airlines

ADDITIONAL ATTENDEES PRESENT

Linda Wolin – Chief of Staff to Supervisor Dave Pine

**Public Comments for Items NOT on the Agenda (00:11:20)**

Chairman Royse opened public comments for items not on the agenda.

Remi Tan, resident of Pacifica, made a public comment (00:13:26)

Chairman Royse closed public comments for items not on the agenda.

**Action to set Agenda and to Approve Consent Items 1-3 (00:16:47)**

Chairman Royse made a correction on the April minutes. Member Mark Nagales made a correction to the February minutes.

Terry O'Connell **MOVED** to approve the consent items as corrected. The motion was seconded by Mark Nagales and **CARRIED** unanimously by roll call vote. (00:18:40)

**4. ACTION: Approval of SFO Roundtable 2024-2025 Work Plan (00:23:35)**

Chairman Royse highlighted the seven strategic goals of the work plan and Vice-Chair O'Connell emphasized that the noise impact on health will also be studied within the plan.

Chairman Royse opened public comments.

Remi Tan, resident of Pacifica, made a public comment (00:33:57)

Sam Hindi requested information on the legality of the noise curfew to which HMMH Technical Consultant, Gene Reindel, explained in further detail. (00:37:50)

## **PRESENTATIONS**

### **5. Chairman Update (00:42:18)**

Chairman Royse welcomed new committee member, Andrea Pappajohn, from the City of Burlingame who replaced Ricardo Ortiz.

Chairman Royse announced the upcoming subcommittee meetings in July for the Technical Working Group and the Legislative Subcommittee.

Chairman Royse also mentioned that future regular meetings will include presentations from NASA on Advance Air Mobility and from well-known aviation attorney Peter Kirsch.

Chairman Royse opened and closed public comments. No comments were received.

### **6. Airport Director Update 00:47:35)**

Doug Yakel provided updates on the SFO summer passenger travel rates, flight operations, and terminal projects. Mr. Yakel mentioned the reopening of Runway 28L, the addition of two new airline services, and the Harvey Milk terminal opening.

Mr. Yakel also communicated that the current airport director, Ivar Satero, has announced in May 2024 that he will retire at the end of the year.

#### **a. Aircraft Noise Office Update (00:51:45)**

Bert Ganoung presented updates on the GBAS procedures, noise mitigation initiatives, and other projects.

Questions and discussion ensued among Roundtable members, Roundtable consultants, and the presenter regarding Agenda item #6. (00:57:00)

### **7. FAA Announcements and Update (00:59:00)**

Moifair Chin confirmed that the FAA Reauthorization Act of 2024 was signed and passed in the White House which reauthorizes the FAA and related revenue authorities through September 30, 2028.

Ms. Chin cited the FAA website which included resources for community engagement and educational video series.

## **8. Supersonic Aircraft – NASA Quesst Mission (01:01:40)**

Gautam Shah, Manager of the Supersonic Overflight and Community Response Program presented on the Commercial Supersonic Technology project at NASA. This program is intended to study the noise impact on residents who are exposed to this technology.

Questions and discussion ensued among Roundtable members, Roundtable consultants, and the presenter regarding Agenda item #8. (01:28:35)

Chairman Royse opened public comment.

Remi Tan, resident of Pacifica, made a public comment (01:48:11).

Darlene Yaplee, resident of Palo Alto, made a public comment (01:51:05).

Chairman Royse closed public comment.

## **9. Overview of Select 2024 FAA Reauthorization Noise & Environmental Provisions of Interest (01:54:55)**

HMMH Technical Consultant, Gene Reindel, provided an overview for the FAA Reauthorization Act and highlighted three key provisions from a list of twenty-nine from the signed bill (01:55:55).

Questions and discussion ensued among Roundtable members, Roundtable consultants, and the presenter regarding Agenda item #9. (02:00:59)

## **10. Subcommittee Updates (02:06:23)**

Chairman Royse reported on the Work Plan Subcommittee in agenda item #4 and no new updates were received for other subcommittees.

### **Public Comment (02:08:30)**

Chairman Royse opened public comment.

Darlene Yaplee, resident of Palo Alto, made a public comment (02:07:35).

Remi Tan, resident of Pacifica, made a public comment (02:09:47).

Chair Royse closed public comments.

**11. Member and Subcommittee Communications / Announcements (02:13:50)**

Chairman opened and closed discussion. No comments were received.

**12. Adjournment (02:14:00)**

Chairman Royse adjourned the meeting at approximately 9:21 P.M.

*Roundtable action minutes are considered draft until approved by the Roundtable at a regular meeting. A video recording of this meeting is available on the Roundtable's website.*



# Airport Director's Report

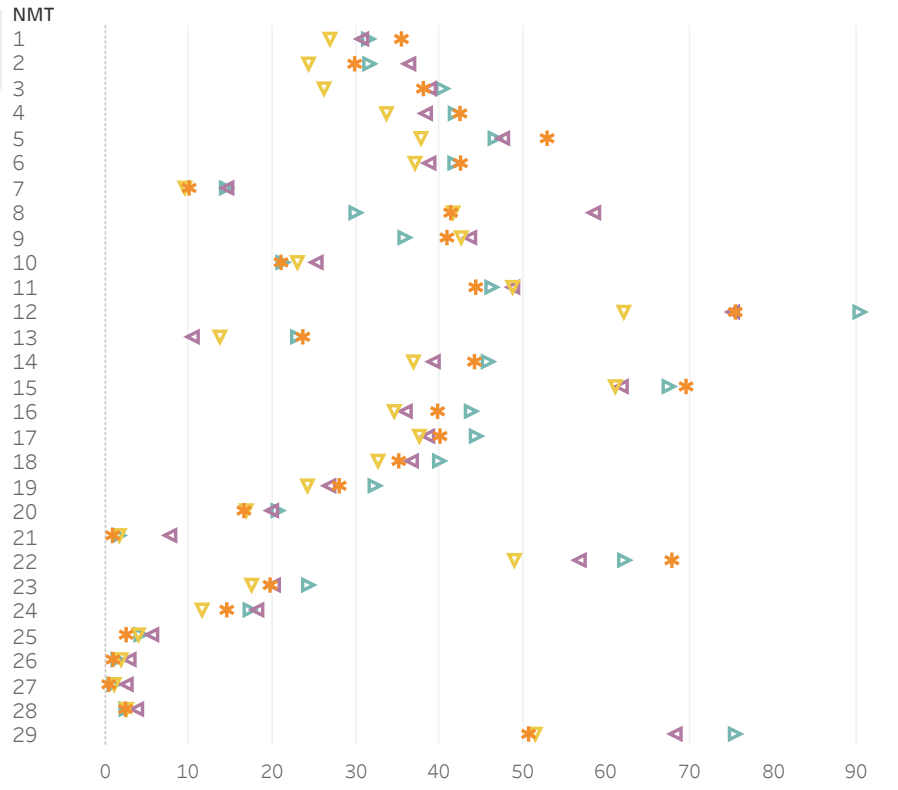
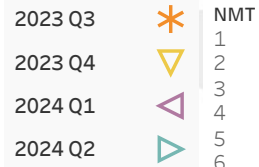
Presented at the August 7, 2024  
Airport/Community Roundtable Meeting

Aircraft Noise Office  
May 2024

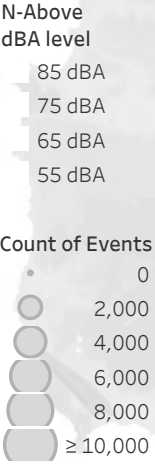


San Francisco  
International  
Airport

## Nighttime N-Above 55 dBA Daily Average

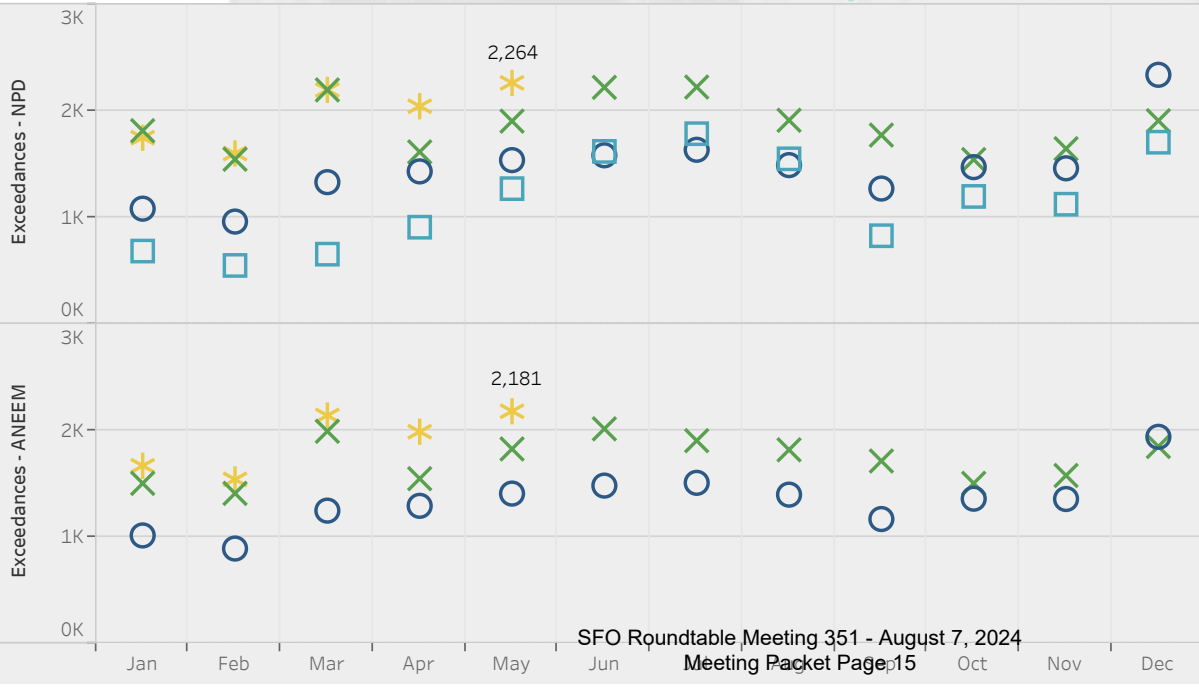


The chart above depicts the average daily N-Above 55dBA SFO aircraft noise events per NMT during nighttime hours (10pm-7am) compared to the previous 4 quarters. Values are derived from the ANEEM algorithm.



The map displays the N-Above counts at each NMT by N-Above Noise Level based on SFO aircraft noise events. Darker circles represent louder noise events and larger circles represent a larger number of noise events relative to the N-Above noise level. Values are derived from the ANEEM algorithm.

## Significant Exceedances



Significant Exceedances (right) displays a total count of SFO aircraft noise events that produced a noise level higher than the maximum allowable decibel value established for a particular monitoring site.

# Aircraft Noise Levels Details

May 2024

NMT	City	ANOMS						ANEEM			
		Aircraft			Community			Aircraft			
		Noise Events (AVG Day)	CNEL (dBA)	SEL (dBA)	LMax (dBA)	CNEL (dBA)	Ambient Level (dBA)	Noise Events (AVG Day)	CNEL (dBA)	SEL (dBA)	LMax (dBA)
1	San Bruno	101	72	95	84	67	55	100	72	95	84
2	San Bruno	66	55	80	69	63	51	98	56	80	68
3	SSF	53	53	80	68	60	45	186	55	76	64
4	SSF	97	67	90	79	60	45	163	67	88	73
5	San Bruno	95	64	87	76	61	47	149	64	85	71
6	SSF	93	65	88	77	58	44	168	64	85	70
7	Brisbane	20	48	80	68	59	45	101	50	75	63
8	Millbrae	8	60	92	77	64	50	113	61	82	67
9	Millbrae	7	50	81	67	58	41	131	53	74	60
10	Burlingame	6	54	87	69	59	43	68	55	77	62
11	Burlingame	8	49	81	67	57	42	166	53	73	60
12	Foster City	473	63	81	70	59	43	498	63	81	70
13	Hillsborough	4	47	83	68	58	42	69	51	73	60
14	SSF	96	61	85	73	60	44	170	61	82	68
15	SSF	159	59	82	70	59	46	292	60	80	66
16	SSF	84	59	83	71	60	45	178	59	80	66
17	SSF	90	60	83	72	59	45	160	60	81	68
18	Daly City	87	64	87	76	61	46	155	63	85	71
19	Pacifica	77	60	84	74	57	42	119	60	83	69
20	Daly City	75	51	78	66	60	44	134	51	75	64
21	San Francisco	23	44	78	65	62	52	27	43	77	67
22	San Bruno	22	50	82	71	63	45	240	58	77	65
23	San Francisco	87	54	80	69	63	47	175	56	78	66
24	San Francisco	48	49	79	66	61	46	134	51	76	64
25	San Francisco	13	41	78	66	57	42	51	43	72	61
26	San Francisco	3	35	77	66	60	48	23	40	75	63
27	San Francisco	5	38	79	67	57	44	17	39	74	62
28	Redwood City	7	38	78	66	53	36	29	39	71	59
29	San Mateo	54	49	77	64	59	44	377	53	72	60

Noise Monitor's CNEL values (above) are derived from actual measured events and are used to validate the 65dBA CNEL noise footprint. Aircraft monthly CNELs from both ANOMS NPD and ANEEM algorithms for each monitor site are provided with daily average aircraft counts, the average Sound Exposure Level (SEL), and average Maximum Level (LMax). Noise levels from other noise sources in the community calculated by ANOMS is provided as Community CNEL. Ambient Level is represented by the LA90 noise value which is the noise level exceeded at the monitor for 90% of the time.

## SFO N-Above NPD

## SFO N-Above ANEEM

NMT	Min:Max							Min:Max						
	LMax	55 dBA	60 dBA	65 dBA	70 dBA	75 dBA	80 dBA	LMax	55 dBA	60 dBA	65 dBA	70 dBA	75 dBA	80 dBA
1	66:99	3,021	3,021	3,021	2,942	2,785	2,375	58:99	3,037	3,033	3,014	2,953	2,776	2,362
2	61:83	2,026	2,026	1,824	622	23	1	54:80	2,780	2,763	2,380	758	35	0
3	63:88	1,517	1,517	1,407	375	47	9	53:87	4,775	4,004	1,938	386	33	6
4	61:94	2,962	2,962	2,925	2,742	2,365	1,419	53:94	4,413	4,129	3,305	2,823	2,412	1,433
5	64:87	2,881	2,881	2,872	2,695	1,774	633	53:87	4,410	4,179	3,448	2,757	1,775	629
6	62:90	2,878	2,878	2,848	2,632	2,011	823	53:90	4,822	4,296	3,142	2,635	1,999	818
7	61:81	529	529	458	171	15	4	53:81	2,199	1,498	651	188	20	3
8	68:99	211	211	211	196	94	49	54:99	3,376	3,240	2,285	692	160	58
9	60:84	96	96	62	40	26	14	53:83	3,422	1,788	551	145	38	13
10	60:94	78	77	61	43	31	21	53:94	1,650	1,068	387	107	35	22
11	61:88	70	70	47	36	19	3	53:88	4,412	2,154	618	159	41	3
12	63:85	14,761	14,761	14,673	7,557	419	50	54:83	15,369	15,317	14,713	7,469	355	21
13	60:85	41	40	32	26	17	6	53:85	1,786	866	225	29	16	6
14	62:85	2,964	2,964	2,905	2,212	948	21	53:86	4,822	4,477	3,273	2,212	941	17
15	62:89	4,916	4,916	4,679	2,241	210	15	53:82	8,702	7,897	5,531	2,275	193	3
16	62:82	2,603	2,603	2,554	1,714	321	3	53:82	5,036	4,348	2,989	1,731	315	3
17	63:82	2,770	2,770	2,726	1,843	428	6	53:81	4,714	4,408	3,248	1,849	411	5
18	65:89	2,694	2,694	2,692	2,508	1,814	452	53:89	4,478	4,114	3,194	2,618	1,829	457
19	66:84	2,377	2,377	2,377	2,045	883	32	53:84	3,593	3,221	2,686	2,067	881	31
20	59:89	2,185	2,171	1,264	342	106	18	53:82	3,534	3,063	1,221	219	33	2
21	59:76	366	360	194	31	2	0	60:74	407	406	229	24	0	0
22	64:87	588	588	584	340	59	7	53:82	7,099	6,133	3,595	1,201	102	3
23	63:85	2,595	2,595	2,501	869	74	28	55:84	4,361	4,238	3,115	914	46	7
24	60:86	1,250	1,248	841	133	16	6	53:80	2,901	2,486	1,118	181	11	0
25	59:81	289	282	162	39	3	1	53:74	1,092	713	228	31	0	0
26	61:73	45	45	29	2	0	0	53:75	293	234	80	5	1	0
27	62:71	11	11	5	1	0	0	53:73	79	55	15	2	0	0
28	59:78	116	113	47	22	5	0	53:73	396	145	21	2	0	0
29	59:84	1,690	1,654	529	125	23	3	53:78	11,527	5,518	634	69	6	0

Noise Monitor N-Above values (above) are derived from actual measured events and assigned to aircraft overflights using both ANOMS NPD and ANEEM algorithms. N-Above represents the count of events where the peak noise (LMax) reached above the designated dBA value. Note the charts on this page represent only SFO aircraft-related noise events.



# Operations

May 2024

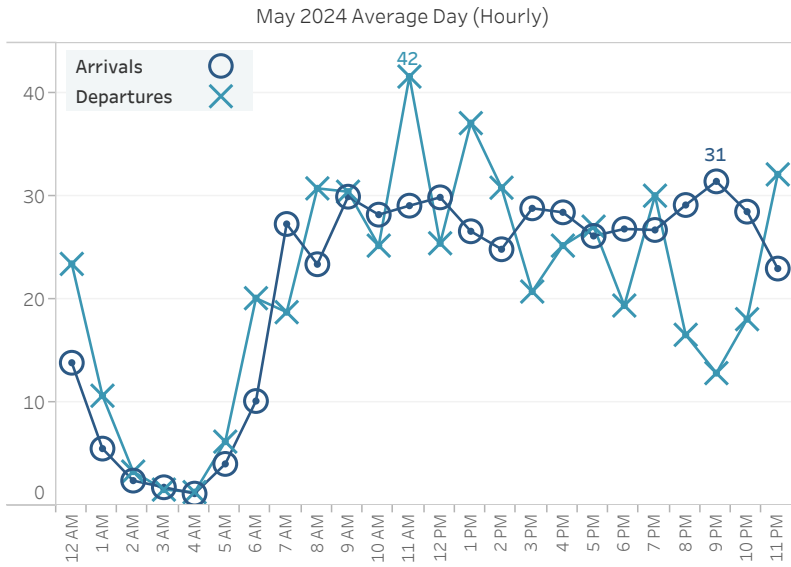
Monthly Ops	AVG Daily Ops	12 Month AVG	YOY Growth
31,452	1,015	31,611	-7%

Major Arrival and Departure Routes (West Flow)



West Flow is depicted in the above image and is a predominate flow at SFO.

**West Flow**  
99%



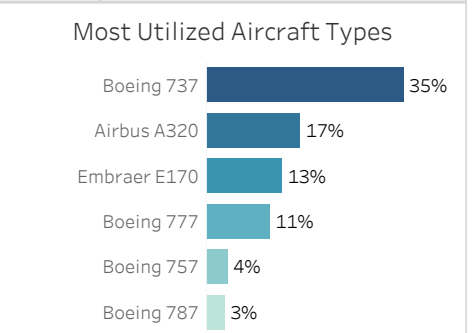
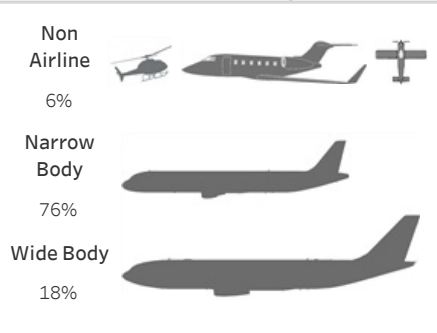
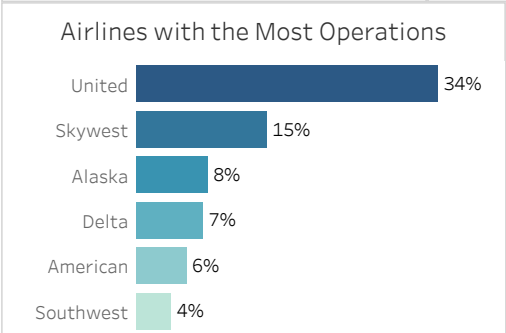
Top Destinations

Los Angeles	JFK	Seattle
7%	4%	4%

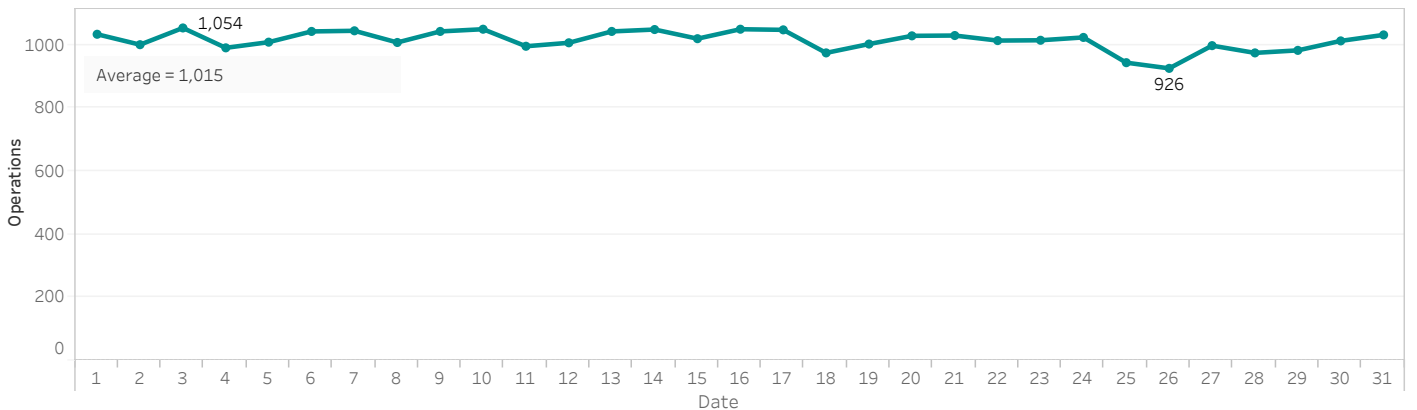
Down the Bay vs Peninsula

1.1 Down the Bay Visual	11%
1.2 BDEGA Arrival	89%

Arrival Route	Percentage	Departure Route	Percentage
1. BDEGA	34%	A. GAP	18%
2. DYAMD	35%	B. SSTIK	34%
3. SERFR	25%	C. NIITE	11%
4. PIRAT	6%	D. TRUKN RWY 01	37%
		D. TRUKN RWY 28	1%



Daily Aircraft Operations



# Runway Usage and Nighttime Operations

Leftmost Runway Utilization table shows percent of runway usage for arrivals and departures by runway based on air carrier operations using jet, regional jet, and turboprop aircraft. Late Night Preferential Runway Use table depicts departure runway usage between 1am - 6am for jet aircraft for the whole month (top) and during nighttime hours only (bottom). Percentages [%] are rounded to the nearest whole number.

## Runway Utilization

	Arrivals	Departures
01 L/R		81% 11,944
10 L/R		0% 41
19 L/R	1% 79	0% 36
28 L/R	99% 14,718	19% 2,784

## Late Night Preferential Runway Use (1 am - 6 am)

	Departures
10 L/R	0% 1
01 L/R	50% 335
28 L/R	44% 292
19 L/R	6% 37

## Runway Utilization Arrivals

28L	28R
0%	100%
Night (10pm-7am)	
28L	28R
0%	100%

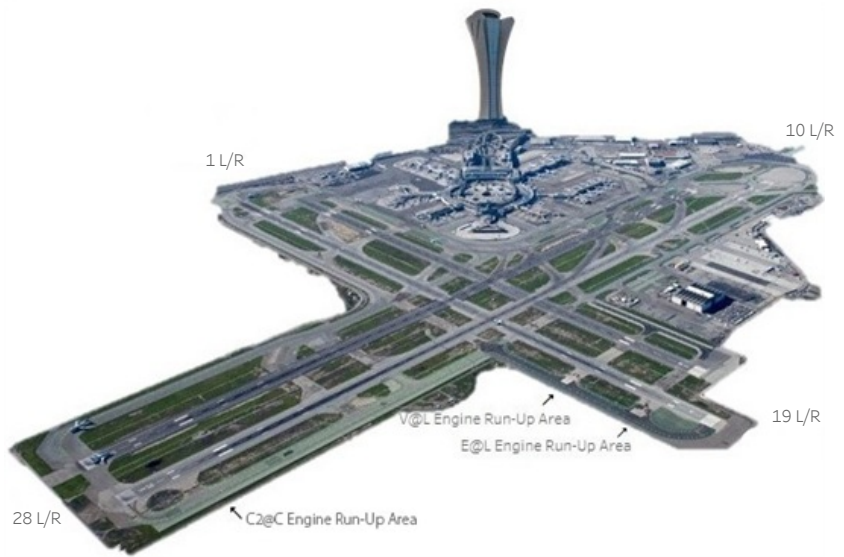
## Nighttime Power Run-Ups

10pm-7am

American Airlines 5  
United Airlines 10

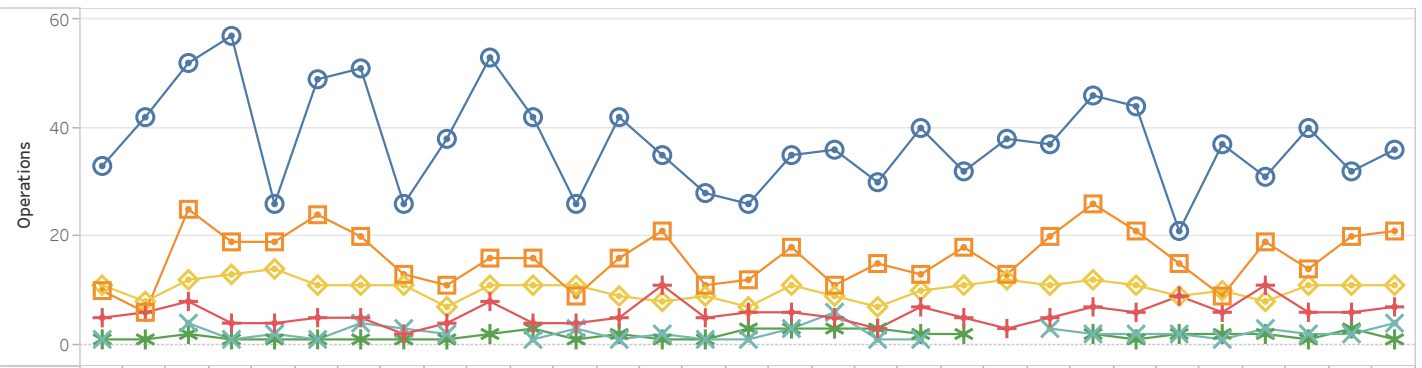
A power runup is a procedure used to test an aircraft engine after maintenance is completed. This is done to ensure safe operating standards prior to returning the aircraft to service. The Aircraft power settings range from idle to full power and may vary in duration.

Designated Power Runup locations are 19 L/R depicted on the airfield map (right) with airlines nighttime power runup counts shown above.



## Hourly Nighttime Operations

○ 12 AM    □ 1 AM    + 2 AM    × 3 AM    \* 4 AM    ◇ 5 AM



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
12 AM	33	42	52	57	26	49	51	26	38	53	42	26	42	35	28	26	35	36	30	40	32	38	37	46	44	21	37	31	40	32	36
1 AM	10	6	25	19	19	24	20	13	11	16	16	9	16	21	11	12	18	11	15	13	18	13	20	26	21	15	9	19	14	20	21
2 AM	5	6	8	4	4	5	5	2	4	8	4	4	5	11	5	6	6	5	3	7	5	3	5	7	6	9	6	11	6	6	7
3 AM	1		4	1	2	1	4	3	2		1	3	1	2	1	1	3	6	1	1			3	2	2	2	1	3	2	2	4
4 AM	1	1	2	1	1	1	1	1	1	2	3	1	2	1	1	3	3	3	3	2	2			2	1	2	2	2	1	3	1
5 AM	11	8	12	13	14	11	11	11	7	11	11	11	9	8	9	7	11	9	7	10	11	12	11	12	11	9	10	8	11	11	11

# Noise Reports

Reporters Annual AVG

## Noise Reporters Location Map

May 2024

Noise Reporters / Noise Reports

	Noise Reporters	Noise Reports
Atherton	2	16
Belmont	1	21
Brisbane	10	187
Burlingame	26	64
Daly City	3	922
El Granada	1	1,223
Emerald Hills	6	841
Foster City	6	33
Hillsborough	8	60
Menlo Park	11	291
Millbrae	12	32
Montara	2	800
Pacifica	9	682
Portola Valley	27	11,367
Redwood City	5	273
San Bruno	6	255
San Francisco	15	3,634
San Mateo	16	402
South San Francisco	5	26
Woodside	7	2,891
Alameda	5	128
Ben Lomond	1	6
Berkeley	4	1,123
Boulder Creek	2	27
Capitola	2	23
Castro Valley	1	31
Cupertino	1	87
Danville	1	2
Felton	2	67
Fremont	3	91
Hayward	1	2
Los Altos	41	3,876
Los Altos Hills	11	926
Los Gatos	29	3,782
Moraga	3	144
Mountain View	12	3,050
Oakland	7	2,994
Orinda	2	173
Palo Alto	102	15,627
Richmond	3	153
San Jose	3	11
Santa Cruz	31	8,378
Scotts Valley	22	2,612
Soquel	19	2,282
Stanford	2	607
Sunnyvale	3	255
Watsonville	1	71
<b>Grand Total</b>	<b>492</b>	<b>70,548</b>

Reports Annual AVG

76,345

New Reporters

41

New Reporters Top City

Burlingame

Furthest Report

64 Miles

Reports per SFO Operation

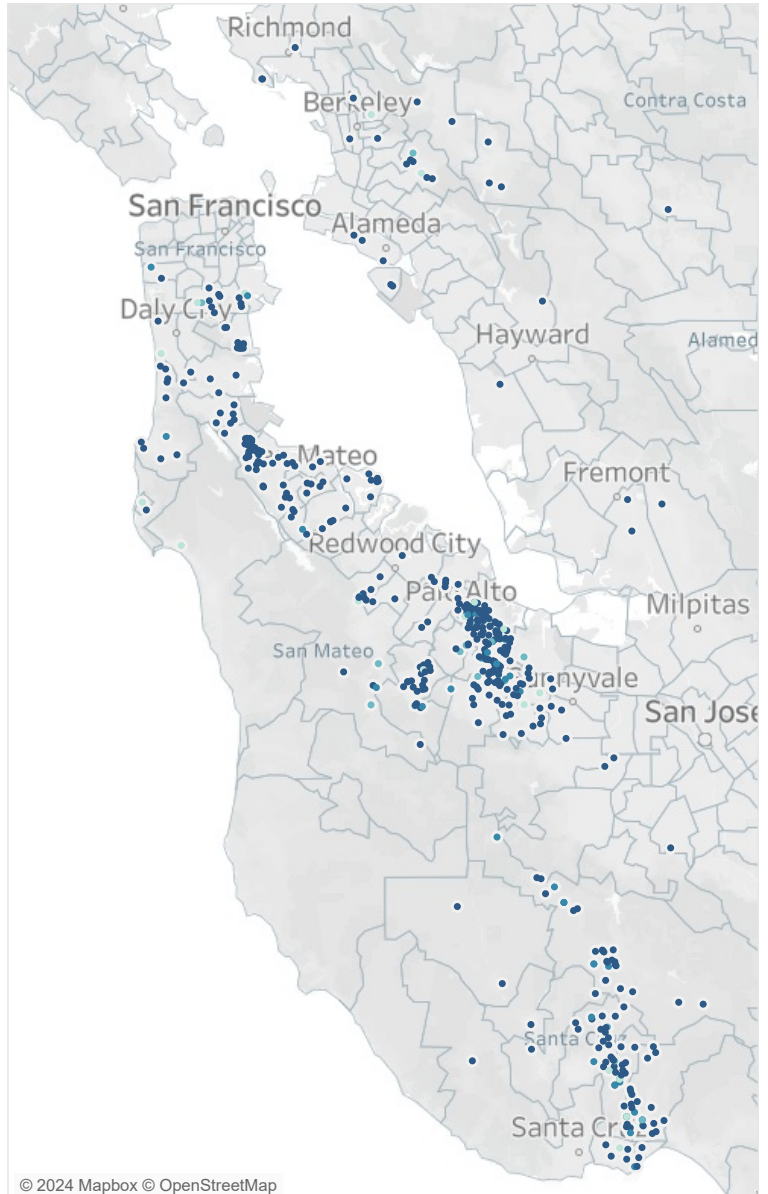
2

Top Aircraft Types

B737  
A320  
E75L

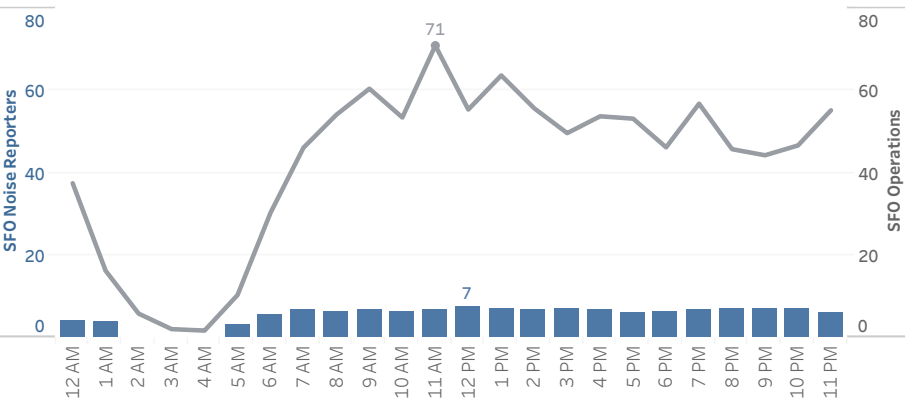
Top Flight Numbers

KAL214  
UAL2097  
UAL1272



© 2024 Mapbox © OpenStreetMap

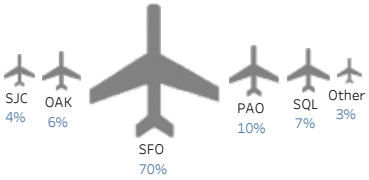
## Hourly Noise Reporters (Average Day in a Month)



Source: SFO Intl Airport Noise Monitoring System

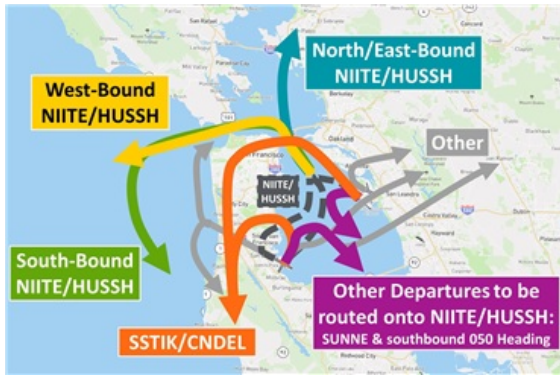
Notes:  
Address validation Relies on USPS-provided ZIP Code look up table and USPS-specified default city values.

## Noise Reports by Airport

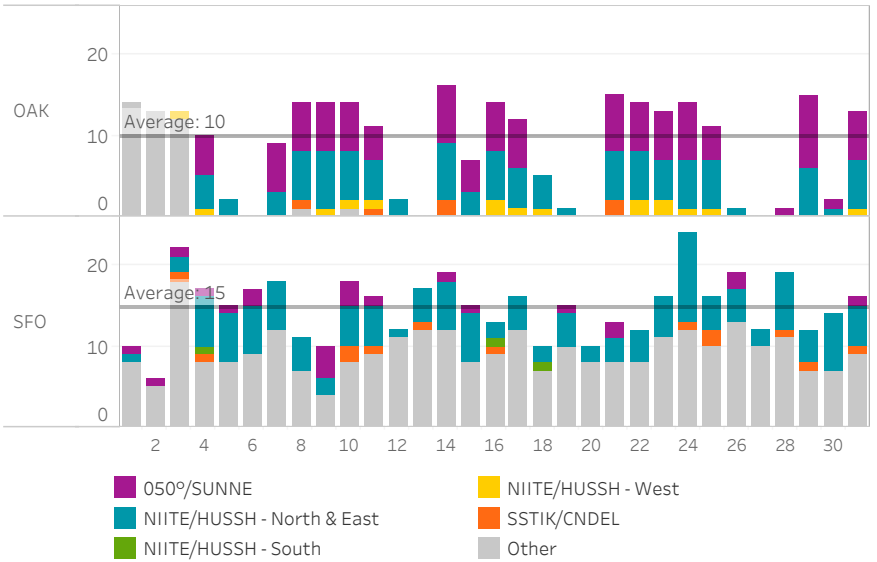


99% of noise reports correlate to a flight origin/destination airport.

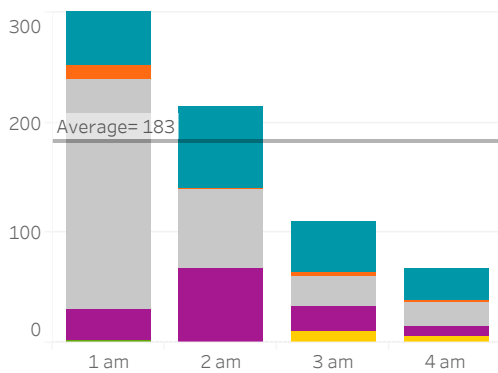
# NIITE to GOBBS 1 am to 5 am (May 2024)



Count of Departures per Night



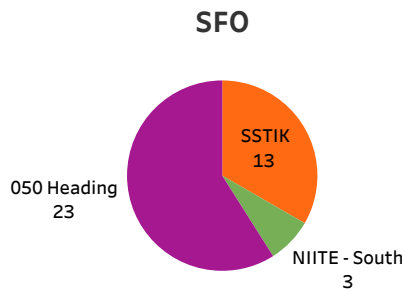
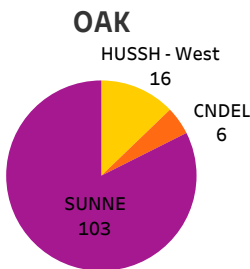
Average Total Departures per Hour



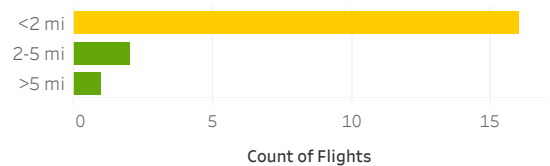
Departure Runway Usage

OAK			SFO					
10R	12	30	01L	01R	10L	19L	19R	28R
0%	14%	85%	4%	32%	0%	2%	3%	58%

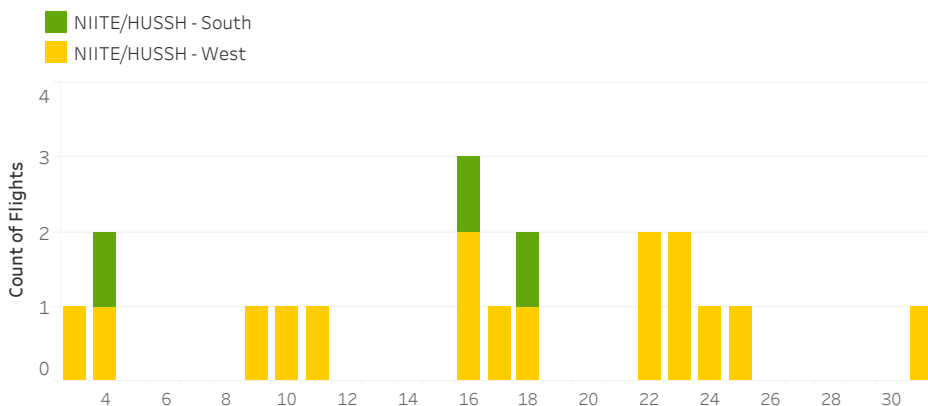
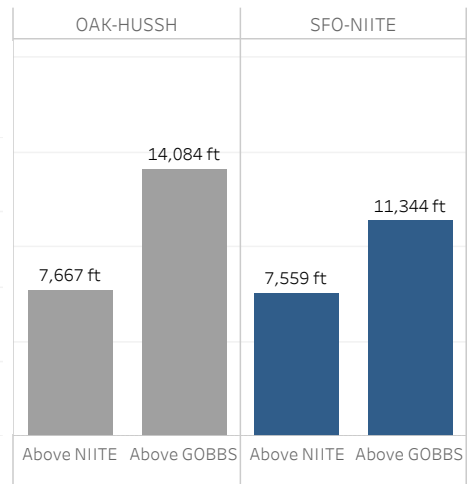
CNDEL and SSTIK Departures vs HUSSH and NIITE



How Close are Aircraft Flying to GOBBS?



Average Altitude at NIITE and GOBBS





# Airport Director's Report

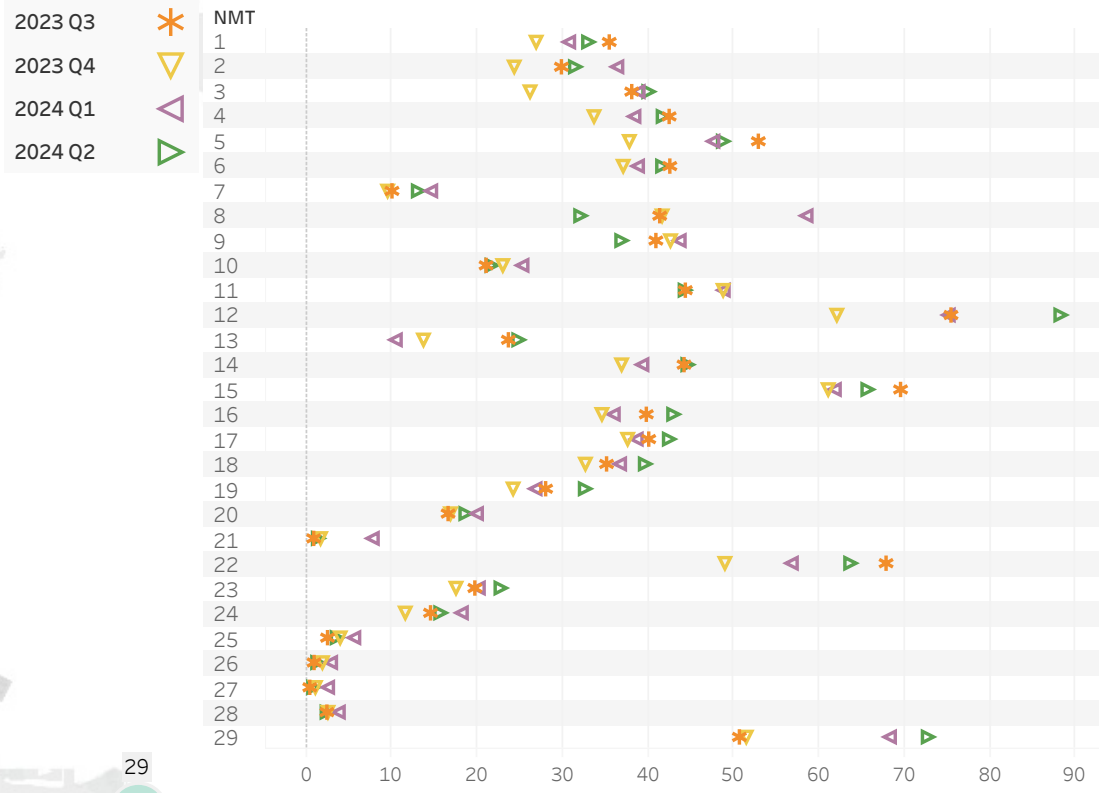
Presented at the August 7, 2024  
Airport/Community Roundtable Meeting

Aircraft Noise Office  
June 2024



San Francisco  
International  
Airport

## Nighttime N-Above 55 dBA Daily Average



The chart above depicts the average daily N-Above 55dBA SFO aircraft noise events per NMT during nighttime hours (10pm-7am) compared to the previous 4 quarters. Values are derived from the ANEEM algorithm.

**N-Above dBA level**

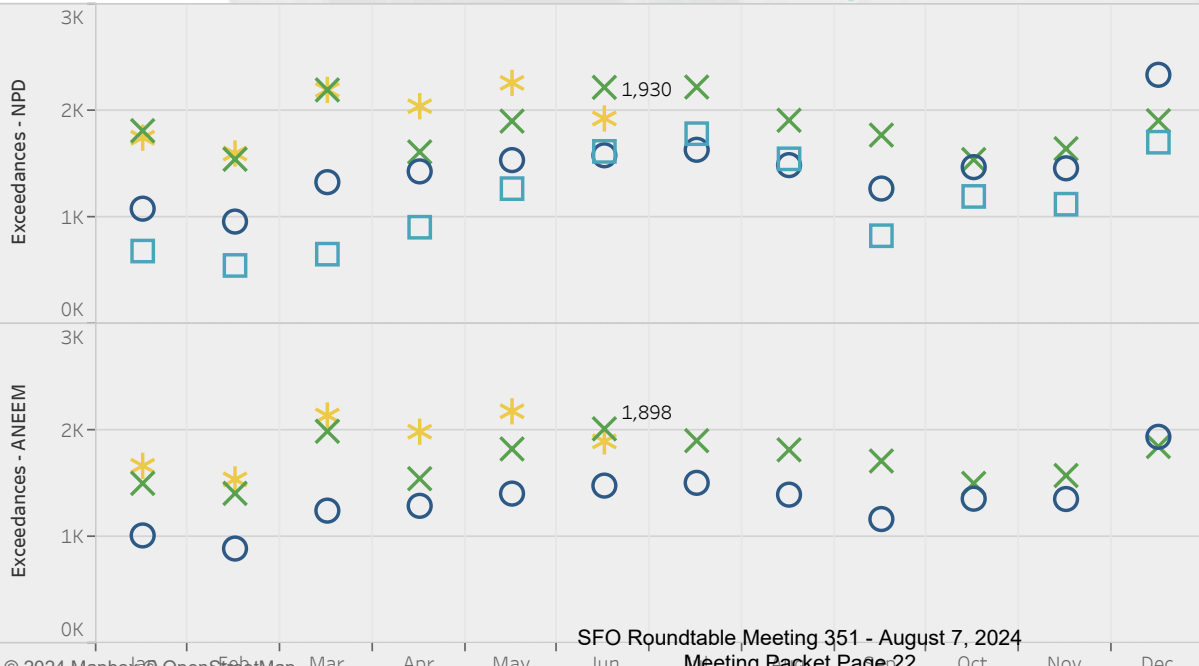
- 85 dBA
- 75 dBA
- 65 dBA
- 55 dBA

**Count of Events**

- 0
- 2,000
- 4,000
- 6,000
- 8,000
- ≥10,000

The map displays the N-Above counts at each NMT by N-Above Noise Level based on SFO aircraft noise events. Darker circles represent louder noise events and larger circles represent a larger number of noise events relative to the N-Above noise level. Values are derived from the ANEEM algorithm.

## Significant Exceedances



Significant Exceedances (right) displays a total count of SFO aircraft noise events that produced a noise level higher than the maximum allowable decibel value established for a particular monitoring site.

# Aircraft Noise Levels Details

NMT	City	ANOMS						ANEEM			
		Aircraft				Community		Aircraft			
		Noise Events (AVG Day)	CNEL (dBA)	SEL (dBA)	LMax (dBA)	CNEL (dBA)	Ambient Level (dBA)	Noise Events (AVG Day)	CNEL (dBA)	SEL (dBA)	LMax (dBA)
1	San Bruno	124	73	94	83	67	56	123	72	94	83
2	San Bruno	64	55	80	68	63	51	91	56	80	68
3	SSF	56	53	80	68	61	46	182	55	76	64
4	SSF	108	67	90	78	61	47	166	67	88	75
5	San Bruno	116	66	88	76	62	48	174	65	86	72
6	SSF	106	64	87	76	59	46	153	64	86	72
7	Brisbane	20	49	80	68	60	45	90	50	78	64
8	Millbrae	8	49	84	73	65	50	127	55	78	67
9	Millbrae	7	38	76	64	59	43	135	52	74	61
10	Burlingame	4	37	77	64	60	44	79	50	75	63
11	Burlingame	7	39	78	65	58	43	167	52	73	60
12	Foster City	418	63	81	70	59	44	457	63	81	70
13	Hillsborough	2	35	79	65	59	43	77	50	73	61
14	SSF	106	61	84	72	60	46	158	61	82	69
15	SSF	142	58	82	69	60	47	257	59	79	66
16	SSF	97	58	82	70	62	48	162	59	80	67
17	SSF	98	59	82	70	60	47	139	59	81	68
18	Daly City	95	63	87	76	63	48	150	63	85	72
19	Pacifica	85	59	83	73	58	43	121	60	82	69
20	Daly City	71	49	78	66	61	46	95	49	75	63
21	San Francisco	31	45	77	64	64	53	24	42	78	68
22	San Bruno	55	55	81	70	63	46	256	59	78	66
23	San Francisco	71	52	80	69	62	47	140	54	78	66
24	San Francisco	50	49	78	66	61	48	106	49	76	65
25	San Francisco	14	40	76	65	64	43	38	41	72	61
26	San Francisco	5	36	76	65	61	49	21	40	75	64
27	San Francisco	5	39	79	67	58	46	14	39	75	63
28	Redwood City	6	36	76	65	51	36	32	39	70	58
29	San Mateo	82	50	77	64	60	43	333	53	72	60

Noise Monitor's CNEL values (above) are derived from actual measured events and are used to validate the 65dBA CNEL noise footprint. Aircraft monthly CNELs from both ANOMS NPD and ANEEM algorithms for each monitor site are provided with daily average aircraft counts, the average Sound Exposure Level (SEL), and average Maximum Level (LMax). Noise levels from other noise sources in the community calculated by ANOMS is provided as Community CNEL. Ambient Level is represented by the LA90 noise value which is the noise level exceeded at the monitor for 90% of the time.

## SFO N-Above NPD

## SFO N-Above ANEEM

NMT	Min:Max							Min:Max						
	LMax	55 dBA	60 dBA	65 dBA	70 dBA	75 dBA	80 dBA	LMax	55 dBA	60 dBA	65 dBA	70 dBA	75 dBA	80 dBA
1	66:99	3,578	3,578	3,578	3,420	3,127	2,592	59:99	3,513	3,512	3,495	3,422	3,128	2,575
2	61:89	1,897	1,897	1,708	481	31	6	55:83	2,496	2,466	2,096	597	37	2
3	62:86	1,544	1,544	1,382	368	59	13	53:84	4,413	3,832	2,031	433	39	3
4	62:96	3,198	3,198	3,148	2,936	2,472	1,450	53:96	4,285	4,131	3,590	3,155	2,627	1,504
5	62:88	3,395	3,395	3,373	3,058	2,053	814	53:88	4,995	4,870	4,134	3,120	2,049	810
6	62:90	3,179	3,179	3,133	2,824	2,029	628	54:90	4,354	4,066	3,265	2,797	2,012	623
7	61:83	468	468	401	139	25	5	53:85	1,619	1,102	520	148	32	4
8	68:90	230	230	230	206	60	18	54:85	3,683	3,540	2,694	794	120	21
9	61:76	75	75	27	4	2	0	53:79	3,271	1,819	609	116	17	0
10	60:77	45	42	18	2	1	0	53:80	1,732	1,231	510	105	6	1
11	60:75	40	39	18	5	0	0	53:79	4,227	2,057	682	132	17	0
12	64:86	12,634	12,634	12,561	7,004	572	15	54:85	13,680	13,406	12,665	6,996	536	7
13	59:74	17	16	6	4	0	0	53:73	2,077	1,226	298	16	0	0
14	62:86	3,156	3,156	3,076	2,122	719	21	54:84	4,402	4,185	3,302	2,113	703	15
15	61:87	4,262	4,262	3,954	1,786	197	23	53:83	7,291	6,715	4,606	1,824	174	9
16	62:89	2,910	2,910	2,781	1,604	214	2	53:83	4,446	4,170	3,169	1,654	210	1
17	61:84	2,930	2,930	2,790	1,646	245	8	54:81	3,980	3,827	3,063	1,669	237	6
18	65:101	2,848	2,848	2,845	2,564	1,697	322	53:88	4,190	4,033	3,453	2,811	1,795	344
19	65:85	2,533	2,533	2,533	1,954	617	24	53:85	3,564	3,302	2,812	1,968	614	23
20	59:88	1,906	1,880	957	223	73	18	53:82	2,364	2,034	835	107	15	1
21	59:77	445	421	180	32	1	0	61:75	254	254	180	31	1	0
22	64:87	1,526	1,526	1,515	852	99	6	53:85	7,317	6,615	4,160	1,550	186	6
23	63:85	2,007	2,007	1,898	618	57	11	53:84	3,211	3,087	2,206	629	35	5
24	59:87	1,231	1,228	715	143	20	8	53:77	1,958	1,731	865	202	9	0
25	58:77	292	269	120	29	6	0	53:77	770	527	156	27	1	0
26	59:77	71	68	34	5	2	0	54:77	221	175	73	9	1	0
27	63:81	31	31	22	7	3	1	54:81	92	74	29	6	2	1
28	59:79	77	72	26	7	2	0	53:68	387	107	10	0	0	0
29	59:83	2,526	2,464	784	184	45	7	53:83	9,928	5,237	623	47	6	1

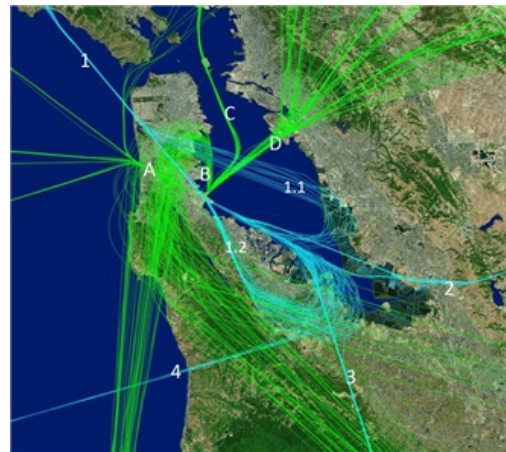
Noise Monitor N-Above values (above) are derived from actual measured events and assigned to aircraft overflights using both ANOMS NPD and ANEEM algorithms. N-Above represents the count of events where the peak noise (LMax) reached above the designated dBA value. Note, the charts on this page represent only SFO aircraft-related noise events.

# Operations

June 2024

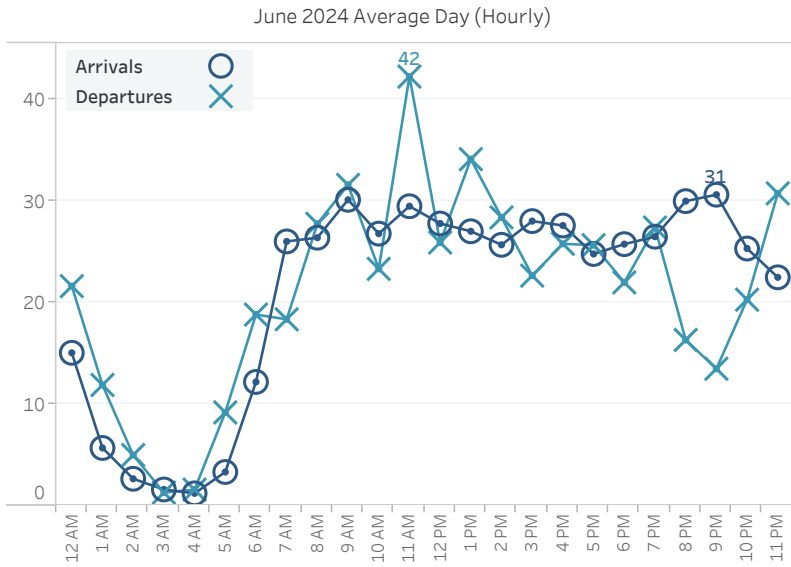
Monthly Ops	AVG Daily Ops	12 Month AVG	YOY Growth
30,177	1,006	31,377	-9%

Major Arrival and Departure Routes (West Flow)



West Flow is depicted in the above image and is a predominate flow at SFO.

**West Flow**  
100%



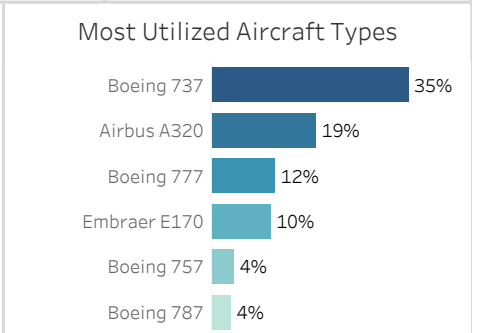
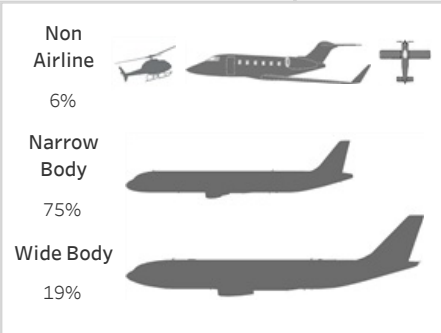
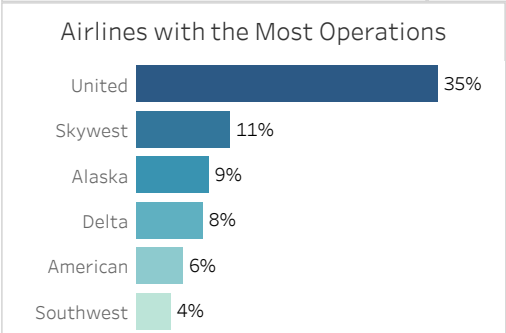
Top Destinations

Los Angeles	JFK	Seattle
6%	4%	4%

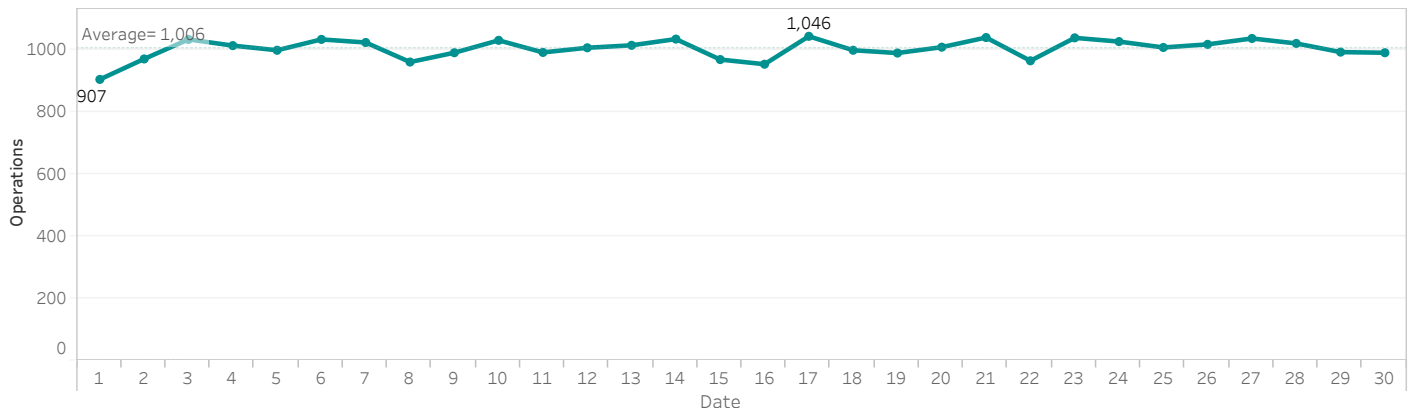
Down the Bay vs Peninsula

Route	Percentage
1.1 Down the Bay Visual	18%
1.2 BDEGA Arrival	82%

Arrival Route	Percentage	Departure Route	Percentage
1. BDEGA	31%	A. GAP	21%
2. DYAMD	38%	B. SSTIK	27%
3. SERFR	24%	C. NIITE	11%
4. PIRAT	7%	D. TRUKN RWY 01	38%
		D. TRUKN RWY 28	3%



Daily Aircraft Operations





# Runway Usage and Nighttime Operations

Leftmost Runway Utilization table shows percent of runway usage for arrivals and departures by runway based on air carrier operations using jet, regional jet, and turboprop aircraft. Late Night Preferential Runway Use table depicts departure runway usage between 1am - 6am for jet aircraft for the whole month (top) and during nighttime hours only (bottom). Percentages [%] are rounded to the nearest whole number.

## Runway Utilization

	Arrivals	Departures
01 L/R	0% 2	77% 10,901
19 L/R	0% 3	
28 L/R	100% 14,167	23% 3,291

## Late Night Preferential Runway Use (1 am - 6 am)

	Departures
01 L/R	50% 409
28 L/R	50% 407

## Runway Utilization Arrivals

28L	28R
13%	87%
Night (10pm-7am)	
9%	91%

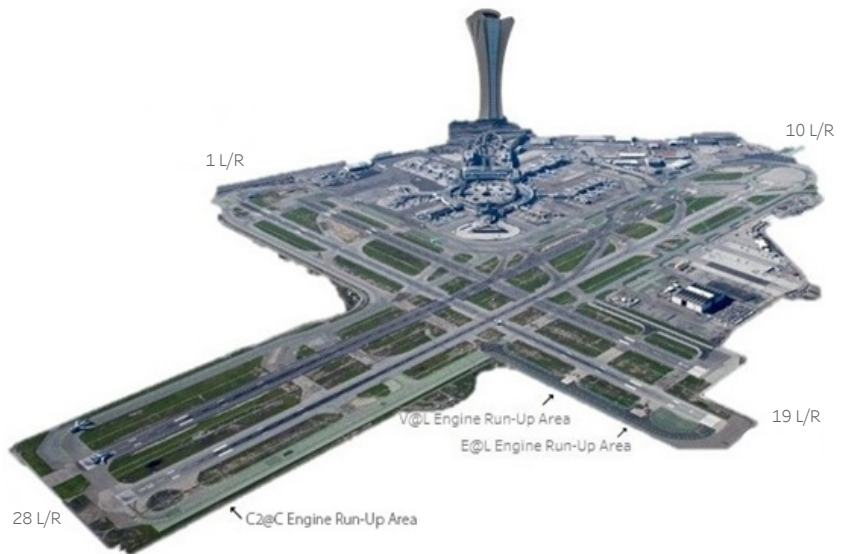
## Nighttime Power Run-Ups

10pm-7am

American Airlines	3
United Airlines	9
Virgin Atlantic	1
Zip Air	1

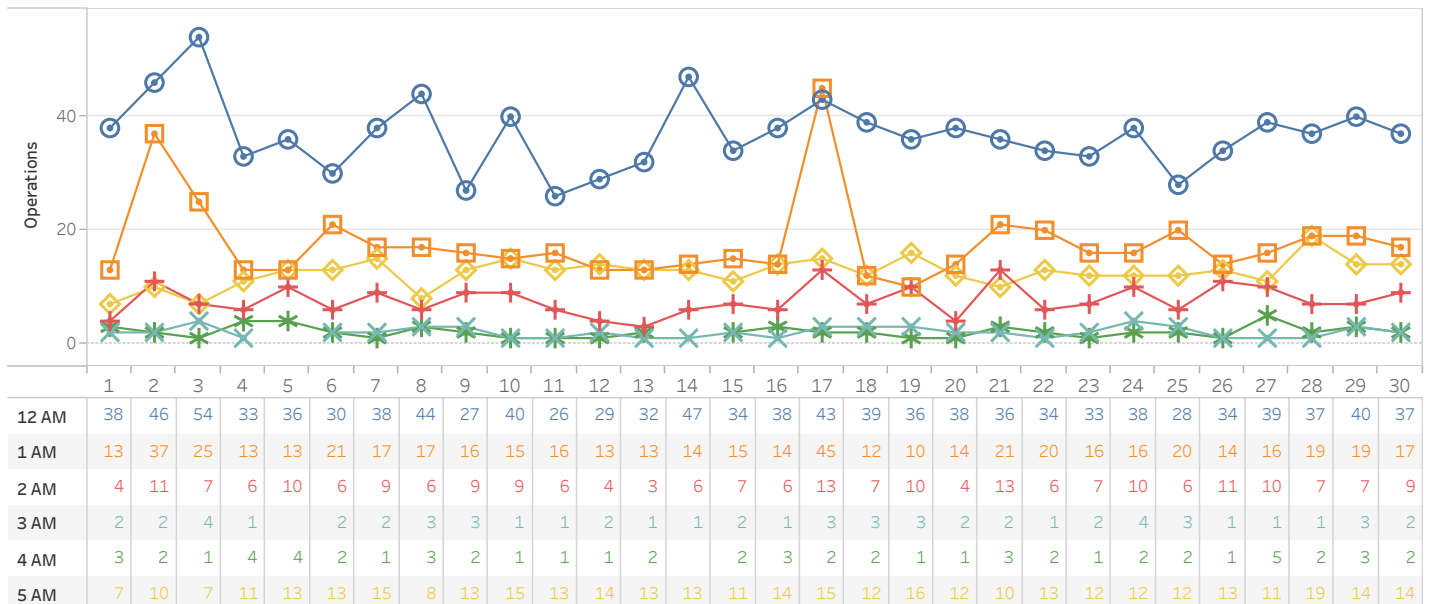
A power runup is a procedure used to test an aircraft engine after maintenance is completed. This is done to ensure safe operating standards prior to returning the aircraft to service. The Aircraft power settings range from idle to full power and may vary in duration.

Designated Power Runup locations are 19 L/R depicted on the airfield map (right) with airlines nighttime power runup counts shown above.



## Hourly Nighttime Operations

○ 12 AM    □ 1 AM    + 2 AM    × 3 AM    \* 4 AM    ◇ 5 AM



# Noise Reports

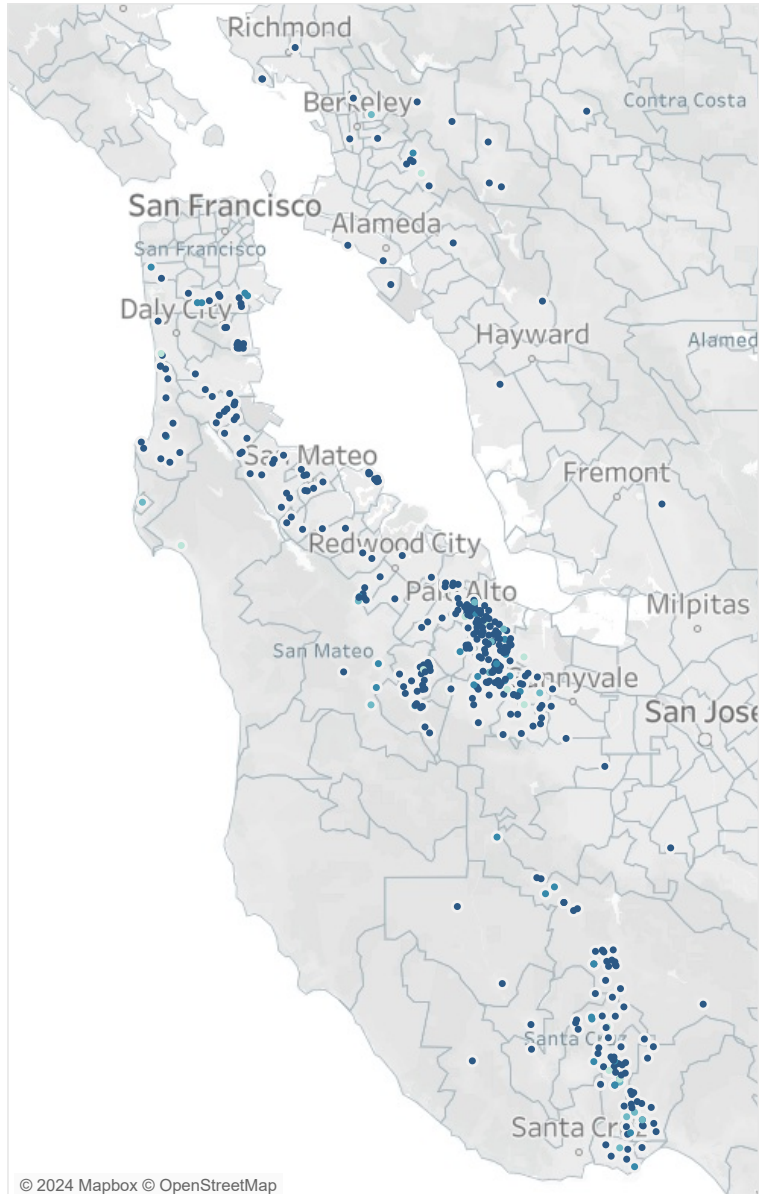
Reporters Annual AVG

## Noise Reporters Location Map

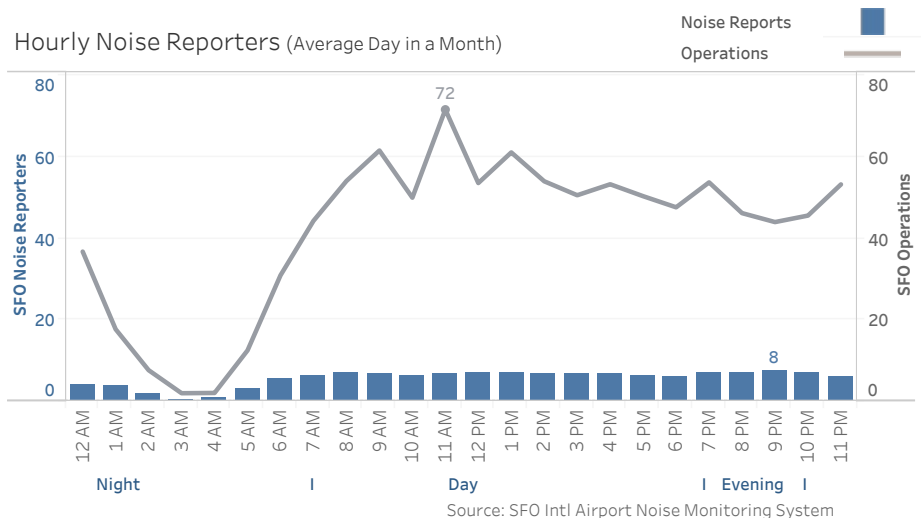
June 2024

	Noise Reporters / Noise Reports	
<b>Roundtable</b>		
Atherton	3	38
Belmont	2	6
Brisbane	11	104
Burlingame	3	13
Daly City	5	1,145
El Granada	1	1,218
Emerald Hills	6	565
Foster City	11	225
Hillsborough	5	42
Menlo Park	11	171
Millbrae	4	37
Montara	1	692
Pacifica	11	536
Portola Valley	30	9,925
Redwood City	4	326
San Bruno	10	137
San Carlos	2	4
San Francisco	13	2,033
San Mateo	10	108
South San Francisco	3	74
Woodside	5	1,786
<b>Other</b>		
Alameda	3	111
Ben Lomond	1	2
Berkeley	4	775
Boulder Creek	2	3
Capitola	1	21
Castro Valley	1	19
Cupertino	1	133
Felton	2	68
Fremont	1	62
Hayward	1	6
Lafayette	1	11
Los Altos	41	4,494
Los Altos Hills	10	1,021
Los Gatos	27	3,284
Moraga	3	129
Mountain View	12	2,660
Oakland	7	2,554
Orinda	2	125
Palo Alto	90	13,419
Richmond	3	83
San Jose	1	4
Santa Cruz	29	7,343
Scotts Valley	20	2,782
Soquel	17	2,189
Stanford	1	298
Sunnyvale	2	128
Watsonville	1	62
<b>Grand Total</b>	<b>435</b>	<b>60,971</b>

504
Reports Annual AVG
74,411
New Reporters
13
New Reporters Top City
San Mateo
Furthest Report
64 Miles
Reports per SFO Operation
2
Top Aircraft Types
B737 A320 B777
Top Flight Numbers
KAL214 TAI560 UAL1986

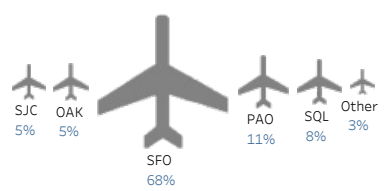


Hourly Noise Reporters (Average Day in a Month)



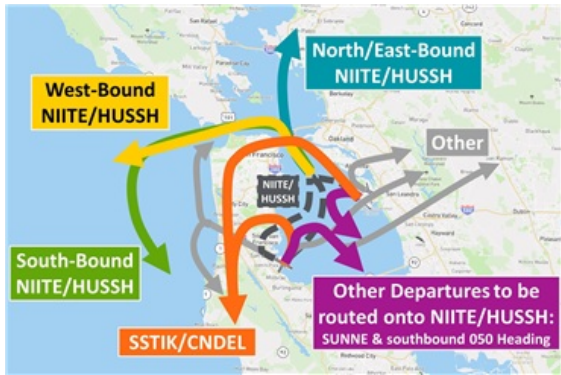
Notes:  
Address validation Relies on USPS-provided ZIP Code look up table and USPS-specified default city values.

### Noise Reports by Airport

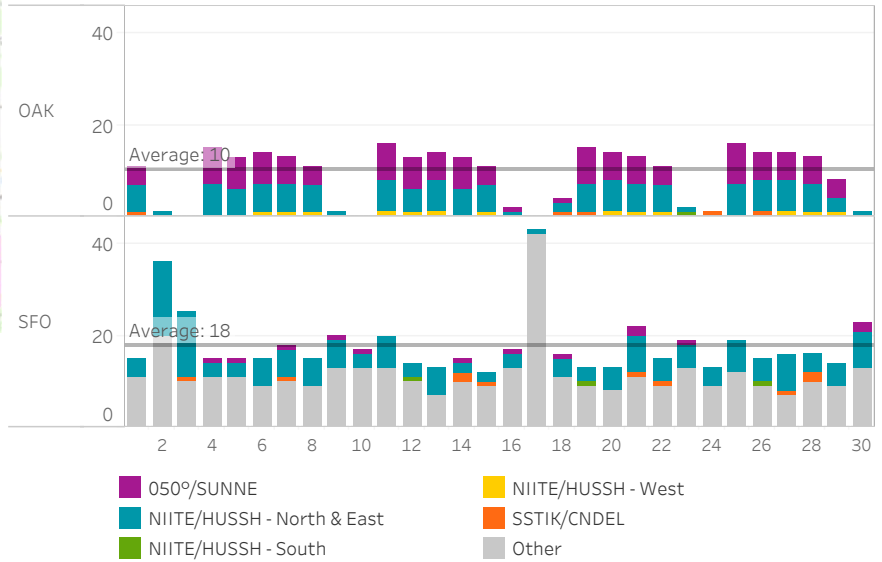


99% of noise reports correlate to a flight origin/destination airport.

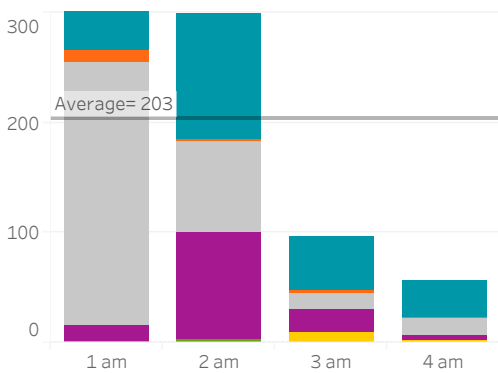
# NIITE to GOBBS 1 am to 5 am (June 2024)



Count of Departures per Night



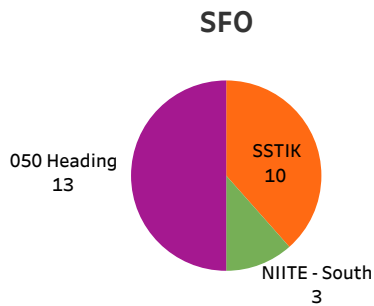
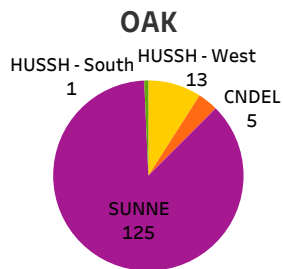
Average Total Departures per Hour



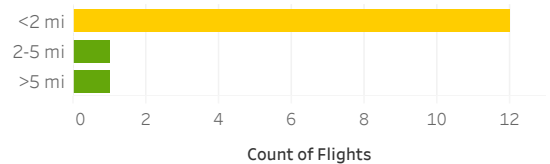
Departure Runway Usage

OAK		SFO			
28L	30	01L	01R	28L	28R
0%	100%	4%	27%	13%	56%

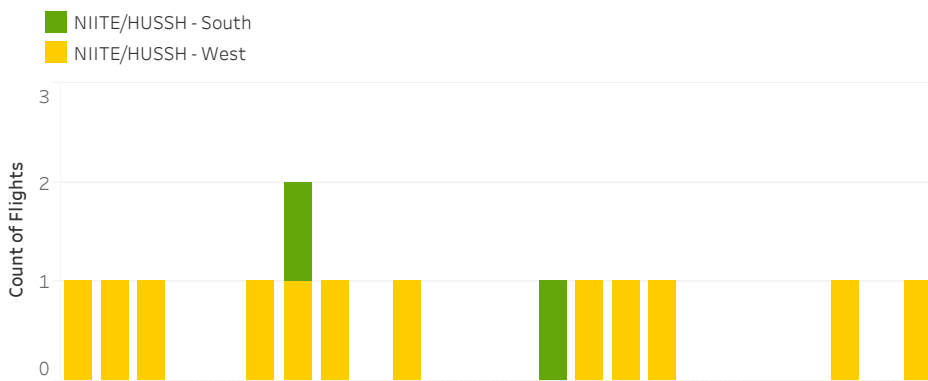
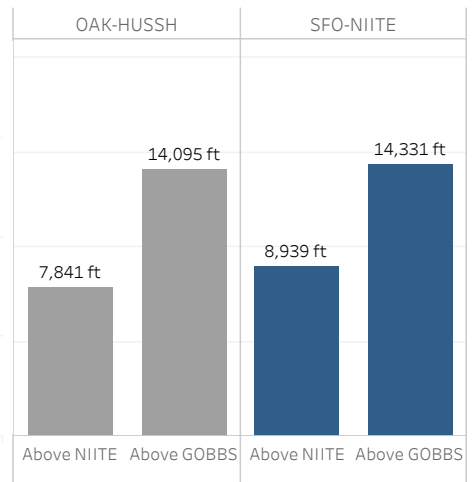
CNDEL and SSTIK Departures vs HUSSH and NIITE



How Close are Aircraft Flying to GOBBS?



Average Altitude at NIITE and GOBBS



## SFO Roundtable: Budget vs. Actual as of June 30, 2024

A	SOURCES	2023-2024	2023-2024 as of 6/30/2024
	<i>Revenue</i>	<u>BUDGET</u>	<u>ACTUAL</u>
	San Francisco Airport Commission	\$220,000.00	\$220,000.00
	Roundtable Membership	\$43,500.00	\$40,500.00
	<i>In Kind Contributions*</i>		
		<b>\$263,500.00</b>	<b>\$260,500.00</b>
	<i>Other Sources</i>	<u>BUDGET</u>	
	Fund Balance Contribution	\$ 9,490	
	<b>SOURCES TOTAL</b>	<b>\$ 272,990</b>	<b>\$260,500.00</b>
B	EXPENSES	2023-24	
	<i>Staffing &amp; Coordination</i>	<u>BUDGET</u>	<u>ACTUAL</u>
	County of San Mateo Coordination Services	\$155,000.00	\$125,030.87
	Roundtable Aviation Technical Consultant	\$90,000.00	\$92,571.06
		<b>\$245,000.00</b>	<b>\$217,601.93</b>
	<b>ADMINISTRATION / OPERATIONS</b>	<u>BUDGET</u>	<u>ACTUAL</u>
	Meeting Rooms * In-Kind	\$0.00	\$0.00
	Postage / Printing	\$1,500.00	\$1,800.00
	Website	\$1,800.00	\$0.00
	Data Storage & Conference Services	\$990.00	\$990.00
	Miscellaneous Office Expenses/Equipment	\$3,000.00	\$1,187.78
	Video Services	\$8,000.00	\$4,054.00
		<b>\$15,290.00</b>	<b>\$8,031.78</b>
	<b>PROJECTS, PROGRAMS, &amp; OTHER</b>	<u>BUDGET</u>	<u>ACTUAL</u>
	Noise Conferences Attendance, Coordinator	\$1,500.00	\$215.00
	Noise Conferences Attendance, Members	\$3,000.00	\$150.00
	TRACON Field Trip(s)	\$950.00	\$1,372.98
	Airport Noise Report subscription	\$2,500.00	\$2,500.00
	N.O.I.S.E. Membership	\$4,300.00	\$4,300.00
	Fly Quiet Awards	\$450.00	\$0.00
	Special Study	\$ -	\$0.00
		<b>\$12,700.00</b>	<b>\$8,537.98</b>
	<b>EXPENSES TOTAL</b>	<b>\$272,990.00</b>	<b>\$234,171.69</b>
	<b>YEAR END BALANCE</b>	<u>PROPOSED</u>	
		\$ -	
C	UNCOMMITTED FUNDS	2023-24	
		<u>PROPOSED</u>	
	Fund Balance	\$411,863.00	
	Contingency Reserve	\$40,000.00	
	<b>UNCOMMITTED FUNDS TOTAL</b>	<b>\$451,863.00</b>	

FEDERAL AVIATION ADMINISTRATION  
ONLINE RESOURCES, INCLUDING  
WESTERN PACIFIC REGION

LINK to this document

<https://sforoundtable.org/wp-content/uploads/2024/07/20240620-FAA-AWP-for-Public-Online-Noise-Information-and-Resouces.pdf>

PAGE 1 OF 2

**Contact the nearest airport to report an aircraft noise issue or complaint.**

AVIATION NOISE:

- **Federal Aviation Administration Community Education**  
<https://www.faa.gov/airtraffic/communityengagement/community-education-series>
- **Federal Aviation Administration Community Education Video Series (YouTube)**  
<https://www.youtube.com/playlist?list=PL5vHkqHi51DQ82t-D3h-4bqueWGNHuzzV>
- **Federal Aviation Administration Community Education Infographic**  
[https://www.faa.gov/sites/faa.gov/files/Aviation\\_and\\_Governance\\_Infographic.pdf](https://www.faa.gov/sites/faa.gov/files/Aviation_and_Governance_Infographic.pdf)
- **Federal Aviation Administration Responding to the Nation's Aviation Noise Concerns**  
<https://www.faa.gov/noise/inquiries/noise-complaint-inquiry-policy>
- **Federal Aviation Administration Community Engagement:**  
[https://www.faa.gov/air\\_traffic/community\\_engagement](https://www.faa.gov/air_traffic/community_engagement)
- **Federal Aviation Administration Noise Complaint Form:**  
[https://ancir.faa.gov/ancir?id=ancir\\_sc\\_cat\\_item&sys\\_id=6149ade187a1f550b0d987b9cebb357e](https://ancir.faa.gov/ancir?id=ancir_sc_cat_item&sys_id=6149ade187a1f550b0d987b9cebb357e)
- **Federal Aviation Administration Aviation Noise Frequently Asked Questions**  
<https://www.faa.gov/airtraffic/communityengagement/frequently-asked-questions>
- **Federal Aviation Administration Military Aircraft Operations**  
[https://www.faa.gov/air\\_traffic/noise\\_emissions/noise\\_complaints#Military%20Aircraft%20Noise](https://www.faa.gov/air_traffic/noise_emissions/noise_complaints#Military%20Aircraft%20Noise)
- **Federal Aviation Administration Performance Based Navigation (PBN) Implementation and Usage, Airport Selection Option**  
[https://www.faa.gov/air\\_traffic/community\\_engagement/dashboard/](https://www.faa.gov/air_traffic/community_engagement/dashboard/)
- **Federal Aviation Administration Airport Noise Compatibility (14CFT Part 150), Access Restrictions (14CFR Part 161)**  
[https://www.faa.gov/airports/environmental/airport\\_noise](https://www.faa.gov/airports/environmental/airport_noise)

FEDERAL AVIATION ADMINISTRATION  
ONLINE RESOURCES, INCLUDING  
WESTERN PACIFIC REGION

PAGE 2 OF 2

WESTERN PACIFIC REGION

- **Federal Aviation Administration Western Pacific Region**  
[https://www.faa.gov/about/office\\_org/headquarters\\_offices/ara/western\\_pacific#community](https://www.faa.gov/about/office_org/headquarters_offices/ara/western_pacific#community)
- **Federal Aviation Administration Western Pacific Region Aircraft Noise and Community Engagement Information**  
[https://www.faa.gov/about/office\\_org/headquarters\\_offices/ara/western\\_pacific/noise\\_complaint](https://www.faa.gov/about/office_org/headquarters_offices/ara/western_pacific/noise_complaint)

FEDERAL AVIATION ADMINISTRATION AVIATION SAFETY RESOURCES

- **Federal Aviation Administration Report a Issue Related to Aviation Safety or FAA Personnel and Facilities**  
[https://www.faa.gov/about/office\\_org/headquarters\\_offices/aae/programs\\_services/faq\\_hotlines](https://www.faa.gov/about/office_org/headquarters_offices/aae/programs_services/faq_hotlines)
- **Drones**  
[https://www.faa.gov/uas/contact\\_us/report\\_uas\\_sighting](https://www.faa.gov/uas/contact_us/report_uas_sighting)
- **Federal Aviation Administration Laser Incidents**  
<https://www.faa.gov/aircraft/safety/report/laserinfo>

OTHER FEDERAL AVIATION ADMINISTRATION RESOURCES AND OUTREACH

- **Federal Aviation Administration Signup for Email Updates on FAA**  
[https://public.govdelivery.com/accounts/USAFAA/subscriber/new?topic\\_id=USAFAA\\_1378](https://public.govdelivery.com/accounts/USAFAA/subscriber/new?topic_id=USAFAA_1378)
- **Federal Aviation Administration Social Media**  
[https://www.faa.gov/newsroom/stay\\_connected](https://www.faa.gov/newsroom/stay_connected)
- **Federal Aviation Administration Online Contact**  
<https://www.faa.gov/contact>
- **Federal Aviation Administration YouTube Channel Videos and More**  
<https://www.youtube.com/user/FAAnews/videos>
- **Federal Aviation Administration Air Traffic National Airspace System**  
[https://www.faa.gov/air\\_traffic/nas](https://www.faa.gov/air_traffic/nas)
- **Federal Aviation Administration STEM AVSED Program for Youth Outreach**  
<https://www.faa.gov/education>
- **NASA Smart Skies Youth Outreach**  
<https://www.nasa.gov/stem-content/smart-skies/>



## Informational Handout:

### *San Francisco International Airport (KSFO), San Francisco, California*

- SEGUL ONE DEPARTURE (Area Navigation [RNAV]) – New
- ALWAYS THREE ARRIVAL (RNAV) – Amend
- BDEGA FOUR ARRIVAL (RNAV) – Amend
- STLER FOUR ARRIVAL (RNAV) – Amend
- WWAVS TWO ARRIVAL (RNAV) – Amend
- PIRAT THREE ARRIVAL (RNAV) – Amend
- RNAV (Global Positioning System [GPS]) Runway (RWY) 10 Left (L) – Amend
- OFFSHORE TWO DEPARTURE – Cancel
- RNAV (GPS) X RWY 28R - Cancel

### Project Background

The Federal Aviation Administration (FAA) is proposing to implement one new departure procedure, amend five arrival procedures, amend one approach procedure, and cancel one departure procedure and one approach procedure at San Francisco International Airport (KSFO), San Francisco, California.

### Purpose of Changes

Canceling the conventional OFFSHORE TWO departure and replacing it with the SEGUL ONE DEPARTURE (RNAV) would enable use of the aircraft's flight management system, thereby reducing the potential for navigational error.

The proposed amendments to the ALWAYS TWO ARRIVAL (RNAV), BDEGA THREE ARRIVAL (RNAV), STLER THREE ARRIVAL (RNAV), and PIRAT TWO ARRIVAL (RNAV) would update criteria, add RWY 10 L/Right (R) transitions, and deconflict aircraft from Bay Area departures.

### Project Description

#### **SEGUL ONE DEPARTURE (RNAV) (New)**

- Would replace the OFFSHORE TWO DEPARTURE.

Runway transitions to common fix—SEGUL—would be:

- From RWY 1 L/R: Climb north bound to 513 ft MSL, then climbing left turn direct SEPDY, then left turn direct WAMMY, then southeast to cross SEGUL at or above (AOA) 16,000 feet (ft) mean sea level (MSL).
- From RWY 28 L/R: Climb west bound to 513 ft MSL, then climbing left turn direct SENZY, then left turn direct WAMMY, then southeast to cross SEGUL AOA 16,000 ft MSL.

En route transition from SEGUL to YYUNG would be:

- From SEGUL, fly southeast to cross CYPRS AOA flight level (FL) 220. Minimum en route altitude (MEA) of 16,000 ft MSL would be established between SEGUL and CYPRS. Minimum obstruction

clearance altitude (MOCA) would be 2,200 ft MSL.

- From CYPRS fly southeast to cross YYUNG. MEA would be FL220, MOCA would be 4,600 ft MSL.

### **ALWYS THREE ARRIVAL (RNAV)**

- MEA from RUSME to DYAMD would decrease to FL200.
- MOCA of 15,300 ft MSL would be established between INYOE and DYAMD.
- MOCA of 15,300 ft MSL would be established between RUSME and DYAMD.
- MEAs and MOCAs between DYAMD and ALWYS would be removed.
- Would add RWY 10 L/R transition to the procedure.

### **BDEGA FOUR ARRIVAL (RNAV)**

- PEENO transition—PEENO to LOZIT—would be removed.
- PYLLE would move ~5.35 NM north of its current location. From LEGGS to PYLLE, aircraft would fly south-southwest. From PYLLE to BGGLO aircraft would continue southwest.
- QUINN would move ~2.98 NM northwest of its current location and along the existing flight path.
- JONNE would move ~4.12 NM north-northwest of its current location and along the existing flight path.

### **STLER FOUR ARRIVAL (RNAV)**

Flight paths and fix locations would remain the same except:

- PEENO transition—PEENO to LOZIT—would be removed.
- QUINN would move northwest of its current location along the existing flight path.
- PYLLE would move ~5.35 NM north of its current location. From LEGGS to PYLLE aircraft would fly south-southwest. From PYLLE to BGGLO aircraft would fly south southwest.
- JONNE would move ~4.12 NM north-northwest.
- MSCAT would move ~3.50 NM north-northeast.
- PDROW would be added ~3.5 NM south of STLER.
- RWY 10 L/R transition would be added to the procedure. From STLER, aircraft would fly south to cross PDROW At 7,000 ft MSL, then then continue south and expect radar vectors to final approach course.

Altitudes would remain the same except:

- MOCA between AMAKR and QUINN would increase to 4,700 ft MSL.
- MOCA of 4,400 ft MSL would be added between QUINN and BGGLO.
- Minimum crossing restriction at BGGLO would increase to block altitudes 16,000 MSL to FL190 inclusive.
- MOCA of 4,100 ft MSL would be added between BGGLO and LOZIT.
- MOCA of 5,600 ft MSL would be added between LEGGS and PYLLE.
- MEA between LEGGS and PYLLE would increase to 15,000 ft MSL.
- MOCA of 4,400 ft MSL would be added between PYLLE and BGGLO.
- MOCA of 4,400 ft MSL would be added between JONNIE and BGGLO.
- MOCA of 4,100 ft MSL would be added between BGGLO and LOZIT.
- MEA between MLBEC and JONNE would increase to 15,000 ft MSL.
- MOCA of 5,700 ft MSL would be added between MLBEC and JONNE.
- MOCA of 6,600 ft MSL would be added between MRRLO and MSCAT.

### **WWAVS TWO ARRIVAL (RNAV)**

- PLLAR would be added ~30.75 NM northwest of WPOUT.
- Transition to RWY 10 L/R would be added: From WPOUT aircraft would fly west-northwest to cross



PLLAR At 6,000 ft MSL and At 210 knots indicated air speed (KIAS), then continue northwest to expect radar vectors to final approach course.

- THEEZ would move ~0.10 NM southeast.
- Speed restriction at THEEZ would decrease to 230 KIAS.
- Crossing restriction of At 6,000 ft MSL would be added at MVRKK WP.
- All MEAs would be removed from the procedure.

### **PIRAT THREE ARRIVAL (RNAV)**

Altitudes would remain the same except:

- MOCA of 2,200 ft MSL would be added between SUPER and PIRAT.
- MEA between SUPER and PASIF would decrease to 10,000 ft MSL.
- Crossing restriction at PASIF would decrease to AOB 14,000 ft MSL.
- Crossing restriction at PIRAT would decrease to At 10,000 ft MSL.
- MOCA of 2,200 ft MSL would be added between HUNTS and PASIF.
- MEA between HUNTS and PASIF would decrease to 10,000 ft MSL.
- MOCA of 2,200 ft MSL would be added between PAINT and SUPER.
- MOCA of 2,200 ft MSL would be added between WUSES and SUPER.
- Crossing and speed restrictions at BRINY would be removed.

### **RNAV (GPS) RWY 10L**

Flight paths, fix locations, and altitudes would remain the same, with some changes:

- Crossing restriction at STINS would be AOA 3,700 ft MSL.
- NORMM would be removed from the procedure and replaced with ILUDY located ~0.62 NM north-northeast of NORMM. Aircraft would fly east southeast from STINS to ILUDY.
- Crossing restriction at ILUDY would be AOA 3,500 ft MSL.
- XATTU would move ~0.26 NM north-northeast from current location. From ILUDY to XATTU aircraft would fly east-southeast.
- Crossing restriction at XATTU would be AOA 1,800 ft MSL.
- Final approach course from XATTU would remain southeast bound.
- Missed approach procedure would change to: Climb to 3,000 ft MSL direct DUMBA and hold.

### **OFFSHORE TWO DEPARTURE**

- Procedure would be canceled.

### **RNAV (GPS) X RWY 28R**

- Procedure would be cancelled.

## What Will Change

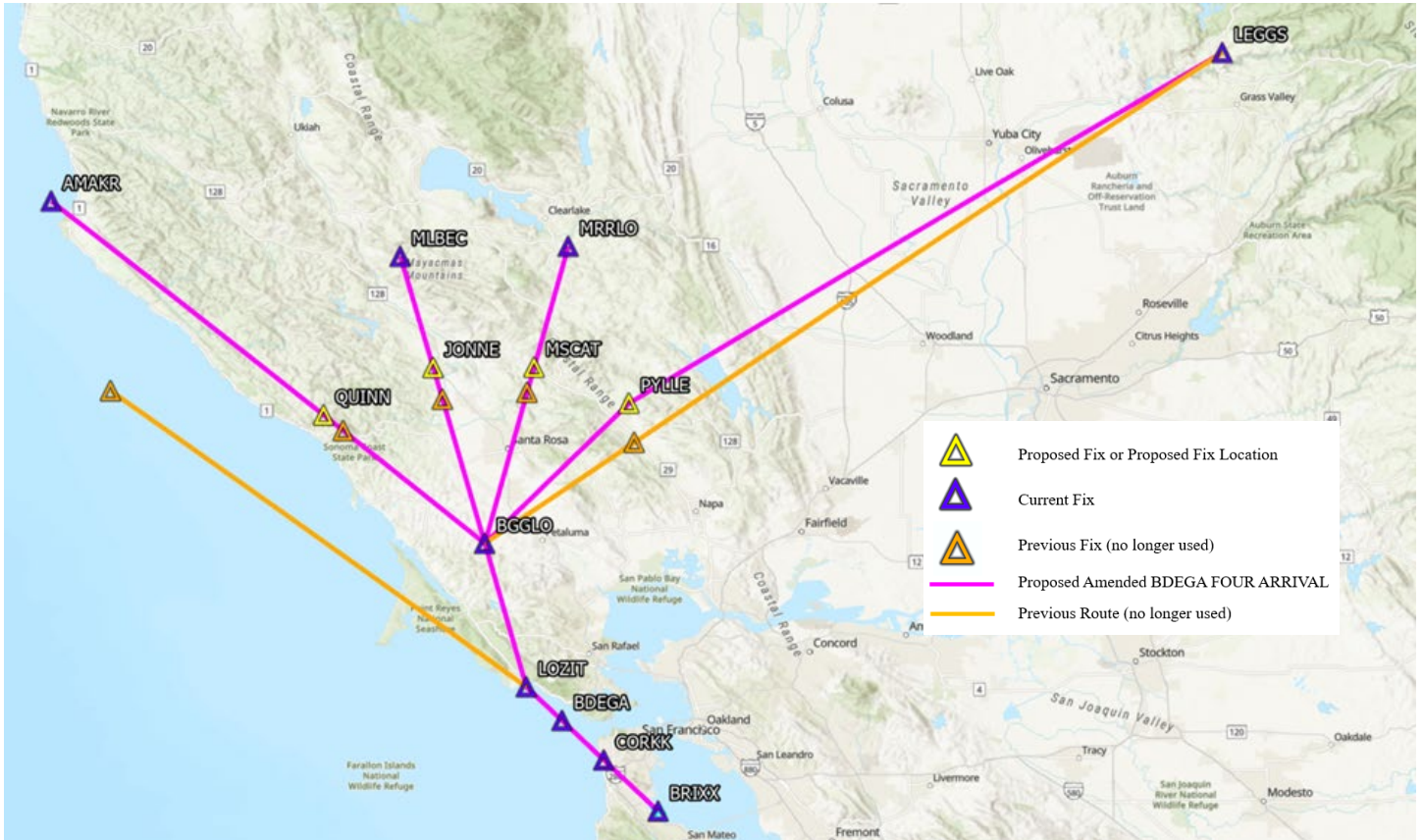
Canceling a conventional departure and replacing it with an RNAV procedure would allow flight crews to enter the procedure into the aircraft's flight management system. Additionally, the amendments would update design criteria, add RWY 10 L/R transitions, and deconflict aircraft from Bay Area departures. The amended and new procedures are depicted on the following pages. (Procedures with only altitude changes are not depicted.)

## Next Steps

Please refer to the Instrument Flight Procedures (IFP) Information Gateway to receive the most up-to-date publication date information at [https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/procedures/](https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/).

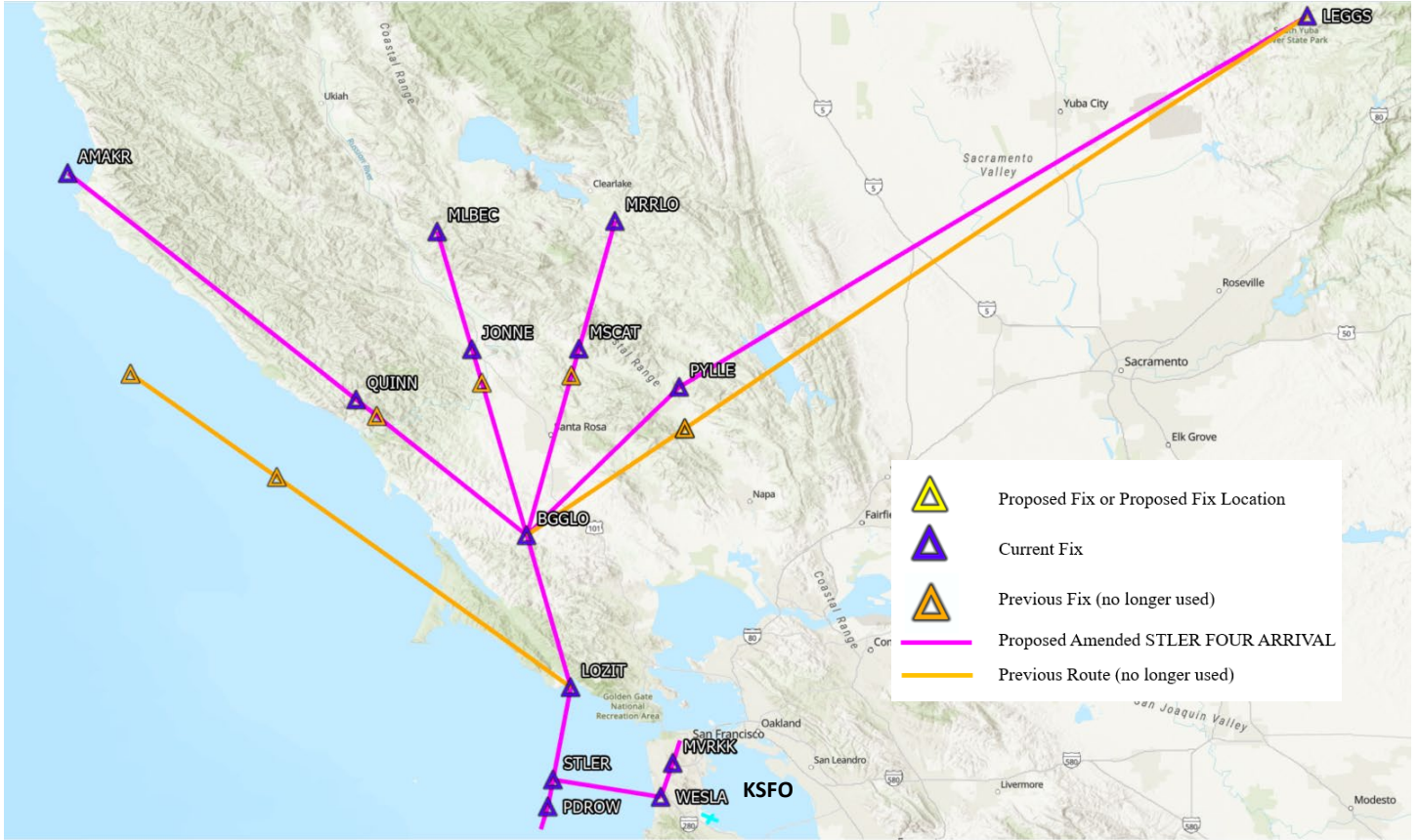
### Proposed Amended BDEGA FOUR ARRIVAL

*For visual reference only, not to be used for navigation.*



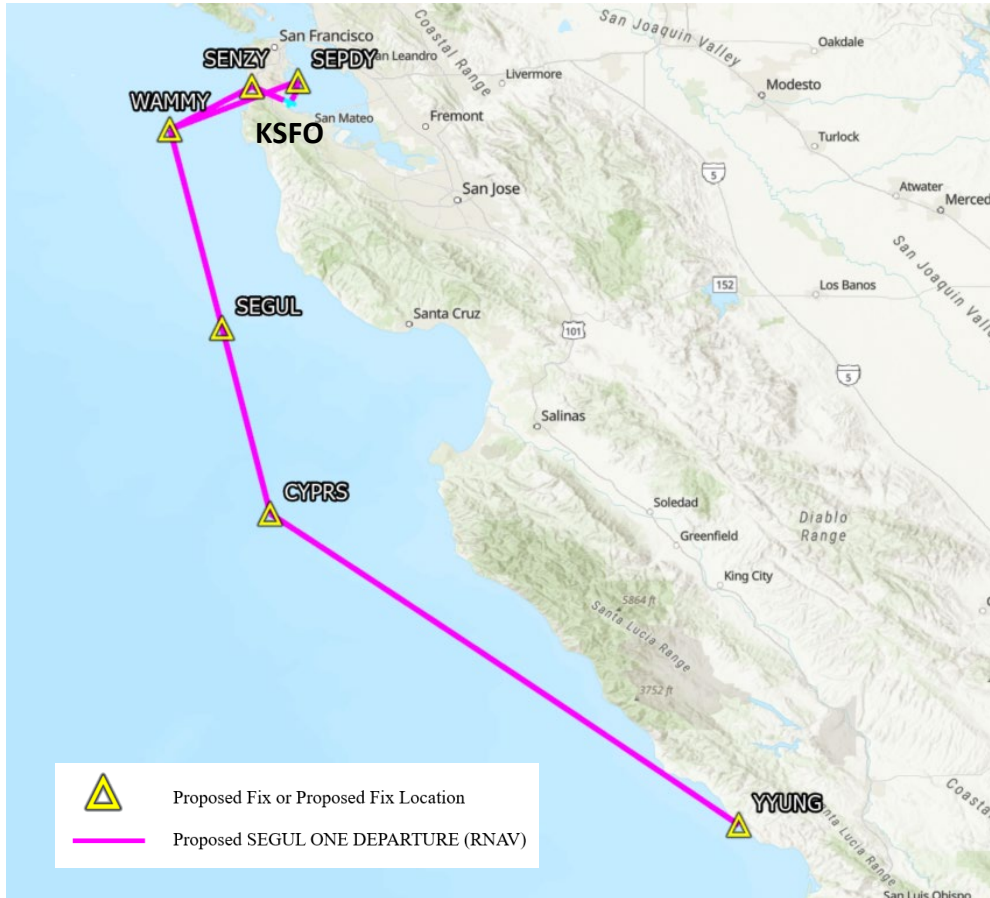
### Proposed Amended STLER FOUR ARRIVAL

*For visual reference only, not to be used for navigation.*

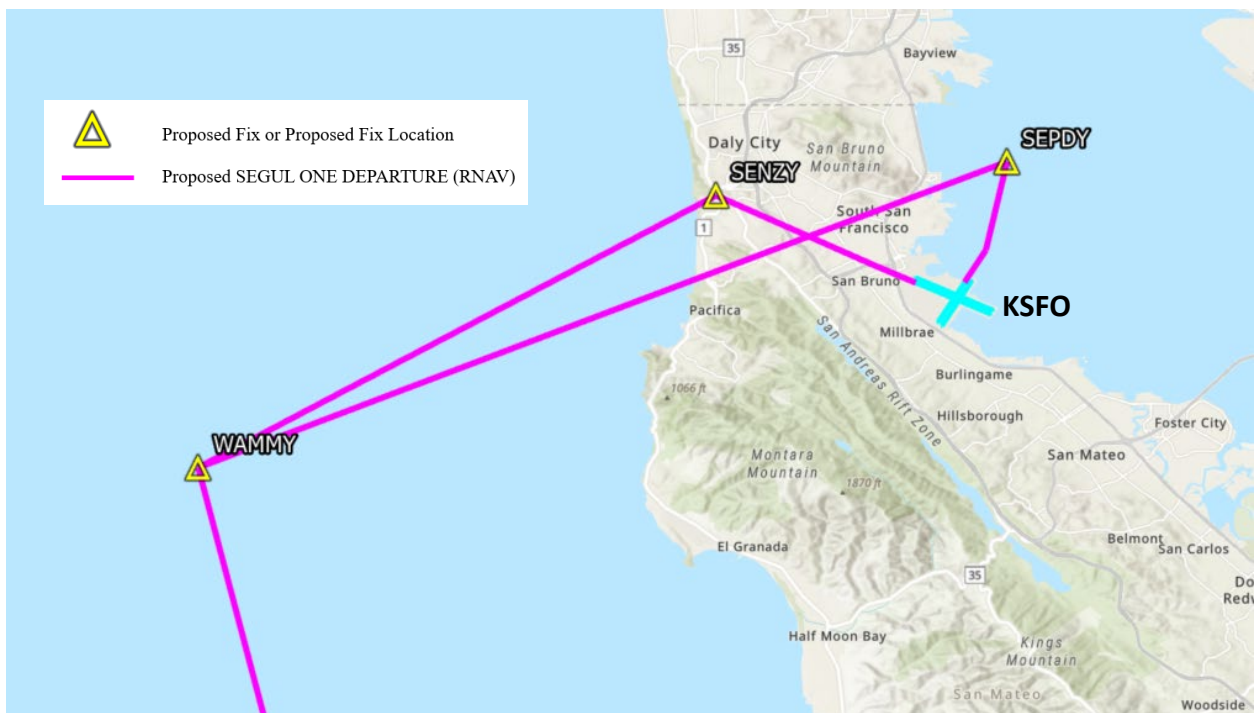


### Proposed SEGUL ONE DEPARTURE (RNAV)

*For visual reference only, not to be used for navigation.*



### Proposed SEGUL ONE DEPARTURE (RNAV) (close-up)



# Airport Curfews

A specific time of day at which, by rule, the airport is closed.

- Example: Aircraft are not allowed to depart San Diego International Airport between 11:30 pm and 6:30 am.

1990

## Airport Noise and Capacity Act (ANCA)

1

Mandated the phase out of noisier “Stage 2” aircraft

2

Established requirements regarding airport noise and access restrictions

- Resulted in greatly limiting an airport from imposing a curfew
- No new airport curfews have been put into place post-ANCA
- Existing pre-ANCA curfews were grandfathered in as long as the restriction is not more restrictive



## MEMORANDUM

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**To:** SFO Community Roundtable Members and Interested Parties

**From:** Jason R. Stoddard, Senior Airspace Analyst  
Eugene M. Reindel, Vice President

**Date:** June 5, 2024

**Subject:** Federal Aviation Administration (FAA) Instrument Flight Procedures (IFP)  
Information Gateway Review

**Reference:** HMMH Project Number 312310

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At the request of the Roundtable, Harris Miller Miller & Hanson Inc. (HMMH) is monitoring and reviewing updates to procedures published onto the FAA's IFP Information Gateway in the regions of San Francisco International Airport (SFO), Metropolitan Oakland International Airport (OAK), and Norman Y. Mineta San Jose International Airport (SJC).

After analyzing the documents posted, HMMH determines proposed changes and the reason for the changes. The FAA IFP Information Gateway published seven updates for SFO and two updates for SJC. There are currently nine open comment periods. The next publication is expected on June 13, 2024.

### Important Terms and Items:

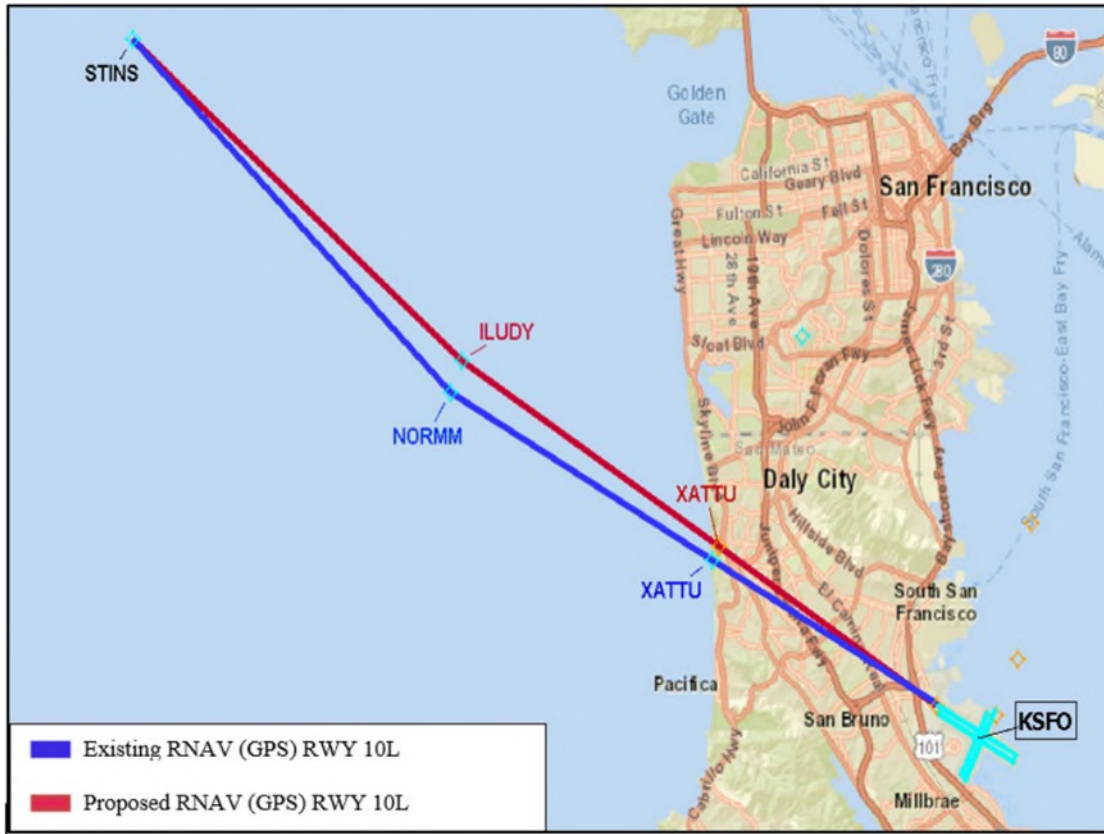
- FAA Stage Definitions
  1. FPT: Procedures are coordinated with Air Traffic, Tech Ops and Airports for feasibility, preparation, and priority (FPO)
  2. DEV: Development of the procedures
  3. FC: FAA Flight Inspection of the developed procedures
  4. PIT: Production Integration Team (TS)
  5. CHARTING: Procedures at Arnav Products Charting for publication (NACO)
- FAA Status Definitions
  1. At Flight Check: At Flight Inspection for procedure validation
  2. Awaiting Publication: At Arnav Products Charting for publication
  3. Complete: Procedure development action finished
  4. On Hold: Procedure waiting data/information to allow it to proceed/continue to next stage
  5. Pending: Procedure development work on-going
  6. Published: Procedure charted and published
  7. Under Development: Procedure is being worked on by the FAA
  8. Terminated: Procedure/project terminated
- Glossary
  - RNAV: Area Navigation
  - ATC: Air Traffic Control
  - IAP: Instrument Approach procedure
  - STAR: Standard Terminal Arrival Route
  - SID: Standard Instrument Departure
  - GPS: Global Positioning System
  - ILS: Instrument Landing System
  - LOC: Localizer

### Updates:

- SFO NIITE FOUR (RNAV) SID
  - Status changed to Awaiting Publication
  - Publication date of July 11, 2024
- SFO PIRAT THREE (RNAV) STAR
  - Status changed to Awaiting Publication
  - Publication Date of July 11, 2024
- SFO RNAV (GPS) RWY 10L, AMDT 3
  - Status changed to Awaiting Publication
  - Publication Date of July 11, 2024
- SFO SEGUL ONE (RNAV) SID
  - Status changed to Awaiting Publication
  - Publication Date July 11, 2024
- SFO STAR ALWAYS THREE (RNAV)
  - Status changed to Awaiting Publication
  - Publication Date of July 11, 2024
- SFO STAR STLER FOUR (RNAV)
  - Status changed to Awaiting Publication
  - Publication Date of July 11, 2024
- SFO WWAVS TWO (RNAV)
  - Status changed to Awaiting Publication
  - Publication Date of July 11, 2024
- SJC LOUPE ONE SID (RNAV)
  - Status changed to Published
  - Publication Date of May 16, 2024
- SJC LOUPE FIVE DEPARTURE
  - Status changed to Canceled
  - Cancellation Date of May 16, 2024
- **Next Publication:** We are not anticipating any updates in the June 13, 2024 publication.

### Open Comment Periods:

- **SFO NIITE FOUR (RNAV) SID**
  - Comment period ends June 25, 2024
  - The following changes are expected:
    - This is an abbreviated amendment with only administrative changes expected
- **SFO OFFSHORE TWO SID (Cancellation)**
  - Comment period ends June 25, 2024
  - The following changes are expected:
    - This is a comment period regarding the cancellation of the OFFSHORE TWO Conventional SID which will be replaced with the SEGUL ONE (RNAV) SID.
- **SFO PIRAT THREE (RNAV) STAR**
  - Comment period ends June 25, 2024
  - The following changes are expected:
    - Administrative remarks were updated to meet current FAA standards
    - Altitude restrictions were changed at various points along the STAR, however all changes were above 8,000 ft. and should not be noticeable to local communities
- **SFO RNAV (GPS) RWY 10L AMDT 3**
  - Comment period ends June 25, 2024
  - The following changes are expected:
    - Final approach course shifted north to accommodate a final approach course offset of 3 degrees.
    - Updated Flight Path can be seen on following page:



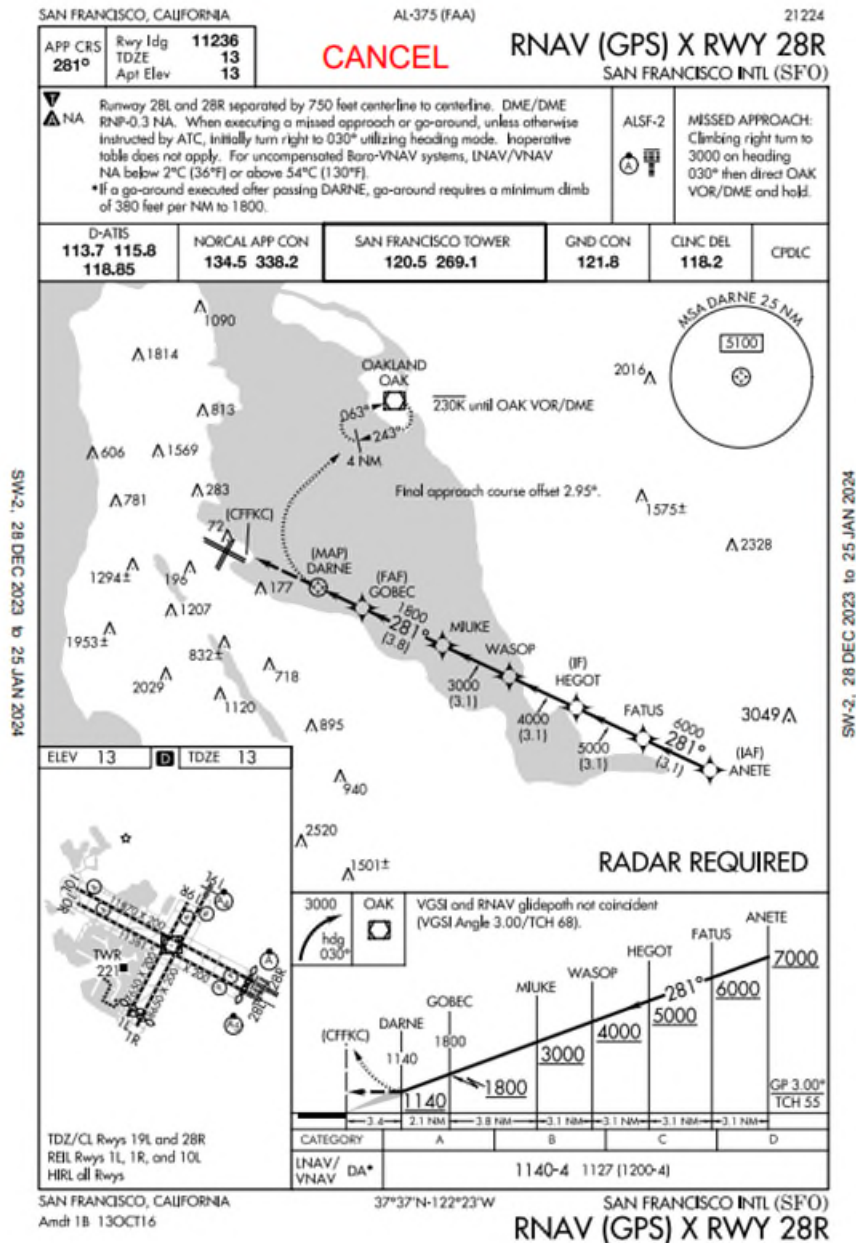


• **SFO RNAV (GPS) X RWY 28R AMDT 1B (Cancellation)**

○ Comment period ends June 13, 2024

The following changes are expected:

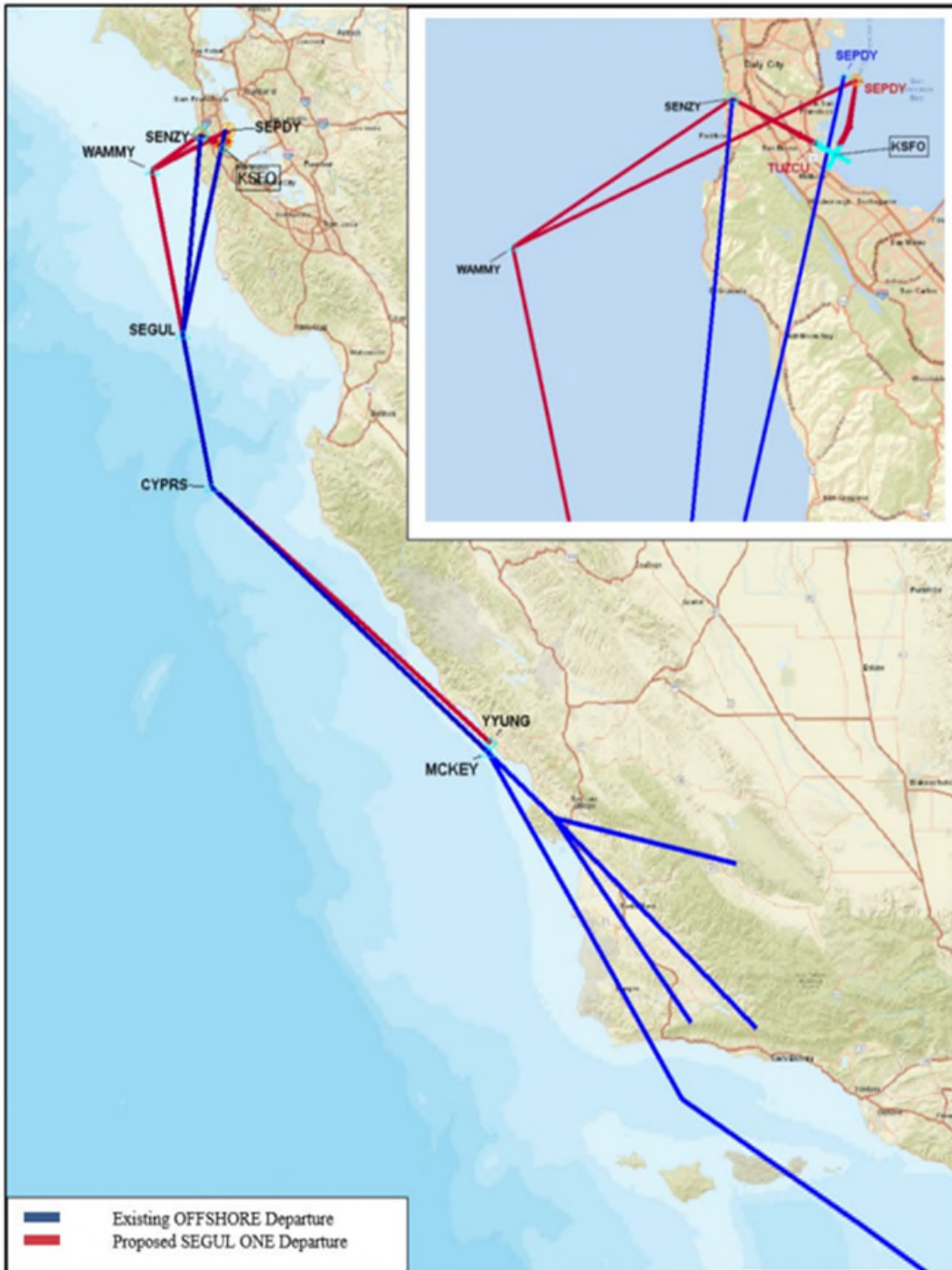
- This is a comment period regarding the cancellation of the RNAV (GPS) X RWY 28R AMDT 1B
- This Instrument approach procedure will no longer be available for use on July 11, 2024 and beyond. Flight procedure path can be seen in the image below:



- **SFO SID SEGUL ONE (RNAV)**

- Comment period ends June 25, 2024
  - New SID departing from Runways 28L/R and 1L/R, replacing the OFFSHORE TWO Departure.
  - OFFSHORE TWO Departure is depicted in Blue and will be replaced by the SEGUL ONE Departure depicted in Red.
  - Flight Path and proposed Departure Procedure Chart can be seen on the following page:

**Proposed SEGUL ONE DEPARTURE vs. Existing OFFSHORE TWO DEPARTURE**





- **SFO STAR BDEGA FOUR (RNAV)**

- Comment period ends June 25, 2024

The following changes can be expected:

- All changes to STAR route and altitudes only affect route segments and waypoints above 14,000 ft. MSL. Changes should not affect communities on the ground.
- Yellow segments below exist on the current BDEGA arrival and would be removed for this update.
- Red dashed line segment would replace the yellow segment below.
- All blue segments would remain the same.
- Graphical Depiction of changes can be seen below:

### Proposed Amendments for BDEGA FOUR ARRIVAL (RNAV)



- **SFO STAR WWAVS TWO (RNAV)**

- Comment period ends June 25, 2024

The following changes can be expected:

- Current procedure only accommodates arrivals on RWY 19L/R. This update would allow arrivals to RWY 10L/R.
- Added RWY 10 L/R transition (red segment) to the procedure. From WPOUT waypoint, aircraft would track 305° (NW) to cross PLLAR WP At 6,000 ft MSL and AT 210 KIAS, then track 310°. Aircraft would maintain that heading and await radar vectors from ATC to the runway.
- Blue segments would remain the same.
- Graphical depiction of changes can be seen below:

**Proposed Amendments for WWAVS TWO ARRIVAL (RNAV)**



Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: SID	Estimated Chart Date: 03/21/2024	APWS Task ID: ABEAFCB5EFE34FEEB451EBEFFF7D6A22	APWS Project ID: A7B8EF90C9634458A2CF01386C256CEF
Procedure: SEGUL ONE (RNAV) SID		Enroute: YES	Specialist: Mccartney, Michael		Agreement Number:
Airport ID: KSFO			Airport City: SAN FRANCISCO		State: CA
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			

Procedure Comments:  
ORIGINAL PROCEDURE USING ACTIVE DATA.

CONTACT: ERIC SUSKI, AJV-A431, MANAGER, (405) 954-7331.

*Digitally signed by*

**ERIC N SUSKI**

Feb 14, 2024

QUALITY  
20  
CHECKED

QUALITY  
41  
CHECKED

## FIPC BASIC FORM

<b>PROCEDURE:</b> SEGUL ONE (RNAV) SID		<b>AIRPORT NAME:</b> SAN FRANCISCO INTL		<b>AIRPORT ID:</b> KSFO	<b>SPECIAL CONTROL NO:</b> SG-02-188-24
<b>FAC ID:</b> SEGUL1		<b>CITY:</b> SAN FRANCISCO		<b>ST:</b> CA	<b>ORIG CHART DATE:</b> 07/11/2024
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b>	<b>PTS TASK ID:</b> ABEAFCB5EFE34FEEB451EBEFFD7D6A22	

### PREFLIGHT NOTES

<b>REVIEWER:</b>	<b>DATE:</b>
<b>COMMENTS:</b>	<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT
	<b>YES</b> <b>NO</b>
	<b>CPV COMPLETE?</b> <input checked="" type="checkbox"/> X

### PROCEDURE RESULTS

<b>INSPECTION DATE:</b> 05/21/2024	<b>CREW #:</b> VN235	<b>N #:</b> N83	<b>INSTRUMENT PROCEDURE STATUS:</b> <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT	<b>ARINC CODING:</b> <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT
<b>FLIGHT INSPECTOR SIGNATURE:</b> thomas e molokie @ 05/21/2024 17:19		<b>PRINTED NAME:</b> MOLOKIE, THOMAS EDWARD		<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

**FLIGHT INSPECTOR REMARKS:**  
Procedure satisfactory for GNSS operations, DME/DME awaiting AFS/WAJR approval.

### IN-FLIGHT OBSTACLE REPORT

<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>	<b>GNSS ALTITUDE (MSL):</b>	<b>BAROMETRIC ALTITUDE (MSL):</b>	<b>HEIGHT ABOVE GROUND LEVEL:</b>
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**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
CATEGORICAL EXCLUSION DECLARATION**

**SEGUL ONE DEPARTURE (RNAV) (New)  
ALWYS THREE ARRIVAL (RNAV) (Amend)  
BDEGA FOUR ARRIVAL (RNAV) (Amend)  
STLER FOUR ARRIVAL (RNAV) (Amend)  
WVAVS TWO ARRIVAL (RNAV) (Amend)  
PIRAT THREE ARRIVAL (RNAV) (Amend)  
RNAV (GPS) RWY 10L (Amend)  
OFFSHORE TWO DEPARTURE (Cancel)**

**San Francisco International Airport (KSFO)  
San Francisco, California**

**Description of Proposed Action**

The Federal Aviation Administration (FAA) is proposing to implement one new departure procedure, amend five arrival procedures, amend one approach procedure, and cancel one departure procedure at San Francisco International Airport (KSFO), San Francisco, California. The proposed procedures are as follows:

- SEGUL ONE DEPARTURE (Area Navigation [RNAV]) – New
- ALWYS THREE ARRIVAL (RNAV) – Amend
- BDEGA FOUR ARRIVAL (RNAV) – Amend
- STLER FOUR ARRIVAL (RNAV) – Amend
- WVAVS TWO ARRIVAL (RNAV) – Amend
- PIRAT THREE ARRIVAL (RNAV) – Amend
- RNAV (Global Positioning System [GPS]) Runway (RWY) 10 Left (L) – Amend
- OFFSHORE TWO DEPARTURE – Cancel

Amendments to the ALWYS TWO ARRIVAL (RNAV), BDEGA THREE ARRIVAL (RNAV), STLER THREE ARRIVAL (RNAV), WVAVS ONE ARRIVAL (RNAV), and PIRAT TWO ARRIVAL (RNAV) would update design criteria, add RWY 10 L/Right (R) transitions, and deconflict aircraft from Bay Area departures. Canceling the conventional OFFSHORE TWO departure procedure (a turbojet-only procedure) and replacing it with the SEGUL ONE DEPARTURE (RNAV) (also a turbojet-only procedure) will enable aircraft flight crews to enter the procedure into the aircraft's flight management system, thereby reducing the potential for error.

Proposed Action amendments to the ALWYS TWO ARRIVAL (RNAV), BDEGA THREE ARRIVAL (RNAV), STLER THREE ARRIVAL (RNAV), and PIRAT TWO ARRIVAL (RNAV) either occur well above altitudes necessary for environmental consideration, or over

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water. Therefore, when considering study areas, only the proposed RNAV (GPS) RWY 10L, WWAWS TWO ARRIVAL (RNAV), and SEGUL ONE DEPARTURE (RNAV) procedures required further analysis with study areas.

Annual aircraft operational statistics at KSFO were obtained from the Performance Data Analysis and Reporting System (PDARS) database for a period of December 6, 2022–December 5, 2023, and are presented in **Tables 1 and 2**.

**Table 1. PDARS Operational Statistics at KSFO Fleet Mix**

<b>Category</b>	<b>Annual Aircraft Operations 12/6/2022–12/5/2023</b>	<b>Percentage</b>	<b>Average Per Day</b>
Jet Heavy	62,237	16.67	170.51
Jet Large	292,201	78.29	800.55
Jet Small	15,177	4.07	41.58
Turboprop	2,740	0.73	7.51
Piston Props	104	0.03	0.28
Helicopter	733	0.20	2.01
Unknown	25	0.01	0.07
<b>Total</b>	<b>373,217</b>	<b>100.00</b>	<b>1,022.51</b>

**Table 2. PDARS Operational Statistics at KSFO Runway Use**

<b>Runway</b>	<b>Arrivals</b>	<b>Departures</b>	<b>Totals</b>
RWY 10L	247	4,803	5050
RWY 10R	218	3,140	3,358
RWY 28L	64,853	56,785	121,638
RWY 28R	113,161	13,968	127,129
RWY 1L	0	39,136	39,136
RWY 1R	3	66,431	66,434
RWY 19L	8,034	104	8,138
RWY 19R	436	823	1,259
Unknown	314	761	1,075
<b>Totals</b>	<b>187,266</b>	<b>185,951</b>	<b>373,217</b>

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**Table 3. Description of Proposed Action**

Proposed Procedure	Proposed Changes
<p style="text-align: center;">SEGUL ONE DEPARTURE (RNAV) (New)</p>	<p>Would replace the OFFSHORE TWO DEPARTURE.</p> <ul style="list-style-type: none"> <li>• SEPDY waypoint (WP) would move approximately (~)0.64 nautical miles (NM) east from its current location.</li> <li>• WAMMY WP would be added ~19.69 NM southwest of SEPDY WP and ~13.65 NM southwest of SENZY WP.</li> <li>• MCKEY WP would be replaced with YYUNG WP located ~2.10 NM northeast of MCKEY WP.</li> </ul> <p>Runway transition to common WP—SEGUL WP—would be:</p> <ul style="list-style-type: none"> <li>• From RWY 1 L/R: Climb on heading 014° to 513 ft MSL, then climbing left turn direct SEPDY WP, then left turn direct WAMMY WP, then track 154° to cross SEGUL WP at or above (AOA) 16,000 feet (ft) mean sea level (MSL) (over water).</li> <li>• From RWY 28 L/R: Climb on heading 284° to 513 ft MSL, then climbing left turn direct SENZY WP, then left turn direct WAMMY WP, then track 154° to cross SEGUL WP AOA 16,000 ft MSL (over water).</li> </ul> <p>En route transition from SEGUL WP to YYUNG WP would be:</p> <ul style="list-style-type: none"> <li>• From SEGUL WP track 154° to cross CYPRS WP AOA flight level (FL) 220 (over water).<sup>1</sup> Minimum en route altitude (MEA) of 16,000 ft MSL would be established between SEGUL WP and CYPRS WP. Minimum obstruction clearance altitude (MOCA) would be 2,200 ft MSL.</li> <li>• From CYPRS WP track 115° to cross YYUNG WP. MEA would be FL220, MOCA would be 4,600 ft MSL.</li> </ul>
<p style="text-align: center;">ALWYS THREE ARRIVAL (RNAV) (Amend)</p>	<ul style="list-style-type: none"> <li>• MEA from RUSME WP to DYAMD WP would decrease from FL220 to FL200.</li> <li>• MOCA of 15,300 ft MSL would be established between INYOE WP and DYAMD WP.</li> <li>• MOCA of 15,300 ft MSL would be established between RUSME WP and DYAMD WP.</li> <li>• MEAs and MOCAs between DYAMD WP and ALWYS WP would be removed.</li> <li>• Would add RWY 10 L/R transition to the procedure.</li> </ul>

<sup>1</sup> In aviation, a flight level (FL) is an aircraft's altitude at standard air pressure and therefore is not necessarily the same as the aircraft's actual altitude, either above sea level or above ground level. Aircraft altitudes AOA 18,000 ft will be referenced in FL.

Proposed Procedure	Proposed Changes
<p style="text-align: center;">BDEGA FOUR ARRIVAL (RNAV) (Amend)</p>	<ul style="list-style-type: none"> <li>• PEENO transition—PEENO WP to LOZIT WP—would be removed.</li> <li>• PYLLE WP would move approximately (~)5.35 nautical miles (NM) north of its current location. Course heading from LEGGS WP to PYLLE WP would change from 216° to 219°. Course heading from PYLLE WP to BGGLO WP would change from 216° to 205°.</li> <li>• QUINN WP would move ~2.98 NM northwest of its current location and along the existing flight path.</li> <li>• JONNE WP would move ~4.12 NM north-northwest of its current location and along the existing flight path.</li> <li>• MSCAT WP would move ~3.50 NM north-northeast of its current location and along the existing flight path.</li> <li>• RWY 1R and RWY 28 L/R identifiers would be added to the published procedure description.</li> </ul> <p>Altitudes would remain the same except:</p> <ul style="list-style-type: none"> <li>• MOCA between AMAKR WP and QUINN WP would increase from 4,600 ft MSL to 4,700 ft MSL.</li> <li>• Crossing restriction at LOZIT WP would change from at or below (AOB) 16,000 ft MSL to between 14,000 ft MSL and 16,000 ft MSL, inclusive.</li> <li>• MEA between LEGGS WP and PYLLE WP would increase from 11,000 ft MSL to 15,000 ft MSL.</li> <li>• MEA between MLBEC WP and JONNE WP would increase from 11,000 ft MSL to 15,000 MSL.</li> <li>• MOCA between JONNE WP and BGGLO WP would increase from 3,800 ft MSL to 4,300 ft MSL.</li> <li>• MOCA between MSCAT WP to BGGLO WP would increase from 4,500 ft MSL to 5,400 ft MSL.</li> </ul> <p>Speed restrictions would remain the same except:</p> <ul style="list-style-type: none"> <li>• Speed restriction of At 280 knots indicated airspeed (KIAS) would be established at MLBEC WP.</li> <li>• Speed restriction of At 280 KIAS would be established at MRRLO WP.</li> </ul>
<p style="text-align: center;">STLER FOUR ARRIVAL (RNAV) (Amend)</p>	<p>Flight paths and WP locations would remain the same except:</p> <ul style="list-style-type: none"> <li>• PEENO transition—PEENO WP to LOZIT WP—would be removed.</li> <li>• QUINN WP would move ~2.98 NM northwest of its current location and along the existing flight path.</li> <li>• PYLLE WP would move ~5.35 NM north of its current location. Course heading from LEGGS WP to PYLLE WP would change from 216° to 219°. Course heading from</li> </ul>

Proposed Procedure	Proposed Changes
	<p>PYLLE WP to BGGLO WP would change from 216° to 205°.</p> <ul style="list-style-type: none"> <li>• JONNE WP would move ~4.12 NM north-northwest of its current location and along the existing flight path.</li> <li>• MSCAT WP would move ~3.50 NM north-northeast of its current location and along the existing flight path.</li> <li>• PDROW WP would be added ~3.5 NM south of STLER WP.</li> <li>• Would add a RWY 10 L/R transition to the procedure. From STLER WP aircraft would track 175° to cross PDROW WP At 7,000 ft MSL, then on track 180°. Expect radar vectors to final approach course.</li> </ul> <p>Altitudes would remain the same except:</p> <ul style="list-style-type: none"> <li>• MOCA between AMAKR WP and QUINN WP would increase from 4,600 ft MSL to 4,700 ft MSL.</li> <li>• MOCA of 4,400 ft MSL would be added between QUINN WP and BGGLO WP.</li> <li>• Minimum crossing restriction at BGGLO WP would increase from block altitude 15,000 ft MSL to FL190 inclusive to block altitudes 16,000 MSL to FL190 inclusive.<sup>2</sup> Maximum crossing restriction would remain the same.</li> <li>• MOCA of 4,100 ft MSL would be added between BGGLO WP and LOZIT WP.</li> <li>• MOCA of 5,600 ft MSL would be added between LEGGS WP and PYLLE WP.</li> <li>• MEA between LEGGS WP and PYLLE WP would increase from 11,000 ft MSL to 15,000 ft MSL.</li> <li>• MOCA of 4,400 ft MSL would be added between PYLLE WP and BGGLO WP.</li> <li>• MOCA of 4,100 ft MSL would be added between BGGLO WP and LOZIT WP.</li> <li>• MEA between MLBEC WP and JONNE WP would increase from 11,000 ft MSL to 15,000 ft MSL.</li> <li>• MOCA of 5,700 ft MSL would be added between MLBEC WP and JONNE WP.</li> <li>• MOCA of 6,600 ft MSL would be added between MRRLO WP and MSCAT WP.</li> </ul>

<sup>2</sup> In aviation, a flight level (FL) is an aircraft's altitude at standard air pressure and therefore is not necessarily the same as the aircraft's actual altitude, either mean sea level or above ground level. Aircraft altitudes AOA 18,000 ft will be referenced in FL.

Proposed Procedure	Proposed Changes
<p>WWAVS TWO ARRIVAL (RNAV) (Amend)</p>	<ul style="list-style-type: none"> <li>• PLLAR WP would be added ~30.75 NM northwest of WPOUT WP.</li> <li>• Transition to RWY 10 L/R would be added: From WPOUT WP aircraft would track 305° to cross PLLAR WP At 6,000 ft MSL and AT 210 KIAS, then track 310°. Expect radar vectors to final approach course.</li> <li>• THEEZ WP would move ~0.10 NM southeast of its current location and along the existing flight path.</li> <li>• Speed restriction at THEEZ WP would decrease from 240 KIAS to 230 KIAS.</li> <li>• Would add a crossing restriction of At 6,000 ft MSL at MVRKK WP.</li> <li>• All MEAs would be removed from the procedure.</li> </ul>
<p>PIRAT THREE ARRIVAL (RNAV) (Amend)</p>	<p>Altitudes would remain the same except:</p> <ul style="list-style-type: none"> <li>• MOCA of 2,200 ft MSL would be added between SUPER WP and PIRAT WP.</li> <li>• MEA between SUPER WP and PASIF WP would decrease from 15,000 ft MSL to 10,000 ft MSL.</li> <li>• Crossing restriction at PASIF WP would decrease from AOB FL195 to AOB 14,000 ft MSL.</li> <li>• Crossing restriction at PIRAT WP would decrease from AOB 15,000 ft MSL to At 10,000 ft MSL.</li> <li>• MOCA of 2,200 ft MSL would be added between HUNTS WP and PASIF WP.</li> <li>• MEA between HUNTS WP and PASIF WP would decrease from 15,000 ft MSL to 10,000 ft MSL.</li> <li>• MOCA of 2,200 ft MSL would be added between PAINT WP and SUPER WP.</li> <li>• MOCA of 2,200 ft MSL would be added between WUSES WP and SUPER WP.</li> <li>• Crossing and speed restrictions at BRINY WP would be removed.</li> </ul>
<p>RNAV (GPS) RWY 10L (Amend)</p>	<p>Flight paths, WP locations, and altitudes would remain the same, with some changes:</p> <ul style="list-style-type: none"> <li>• Crossing restriction at STINS WP would be AOA 3,700 ft MSL.</li> <li>• NORMM WP would be removed from the procedure and replaced with ILUDY WP located ~0.62 NM north-northeast of NORMM WP. Course heading from STINS WP to ILUDY WP would be 114°.</li> <li>• Crossing restriction at ILUDY WP would be AOA 3,500 ft MSL (over water).</li> </ul>

Proposed Procedure	Proposed Changes
	<ul style="list-style-type: none"> <li>• XATTU WP would move ~0.26 NM north-northeast from current location. Course heading from ILUDY WP to XATTU WP would be 107°.</li> <li>• Crossing restriction at XATTU WP would be AOA 1,800 ft MSL (~1,216 ft AGL).</li> <li>• Final approach course heading from XATTU WP would be change from 104° to 107°.</li> </ul> <p>Missed approach procedure would change to: Climb to 3,000 ft MSL direct DUMBA WP and hold.</p>
<p>OFFSHORE TWO DEPARTURE (Cancel)</p>	<p>Procedure would be cancelled.<sup>3</sup></p>

**Figure 1. Proposed Amended BDEGA FOUR ARRIVAL**



<sup>3</sup> Cancellation of a routes is a publication action and would remove the route from publication. No environmental impacts are anticipated with the implementation of the cancellation. There would be no increase in operations nor a change in aircraft fleet mix with the implementation of the cancellation.

Figure 2. Proposed Amended STLER FOUR ARRIVAL

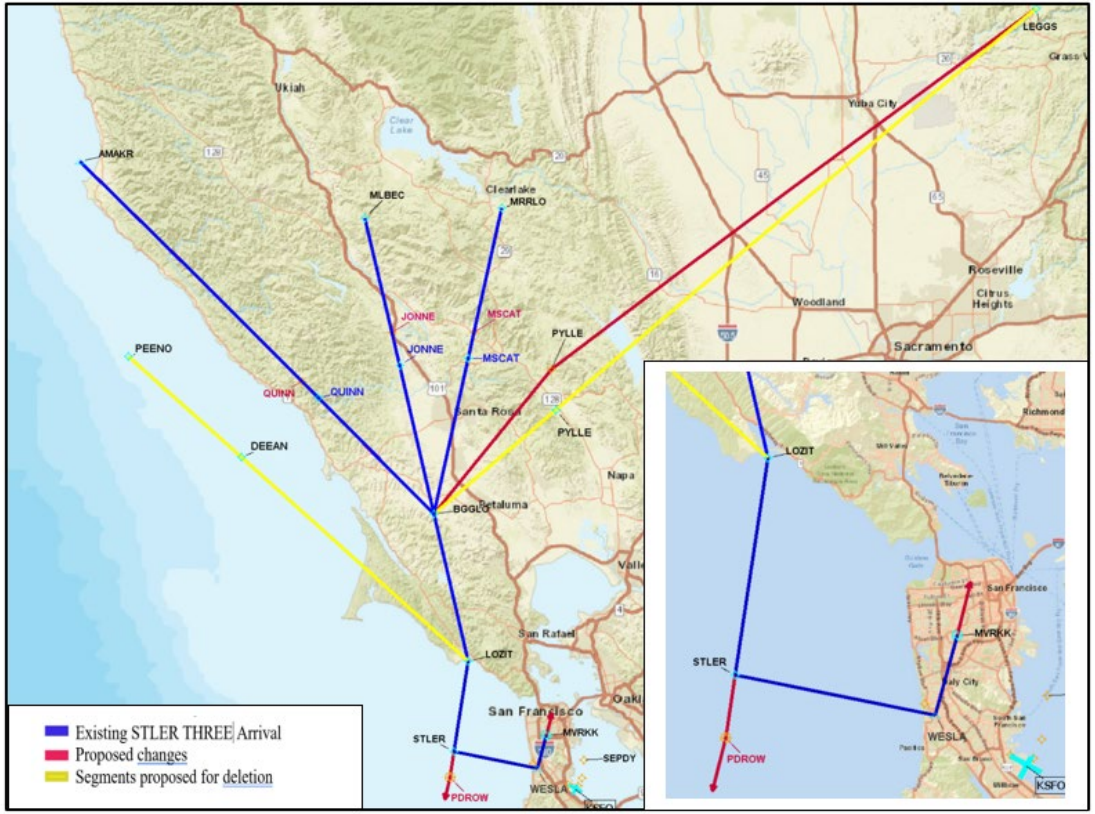


Figure 3. Proposed Amended WWAWS TWO ARRIVAL (RNAV)

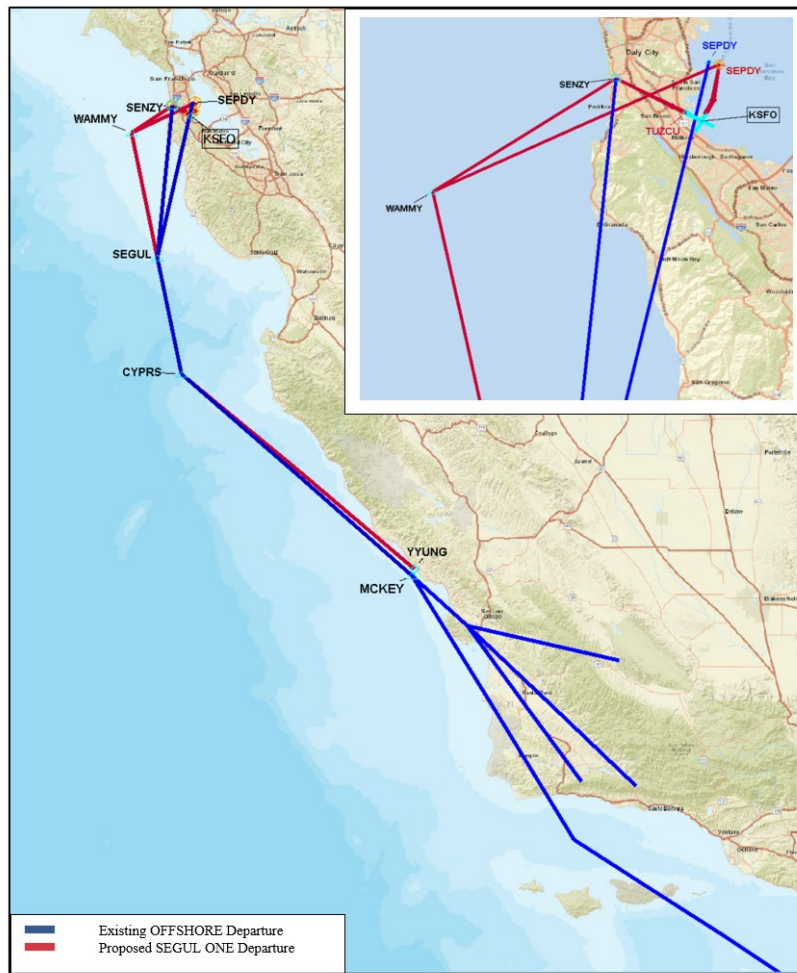


Figure 4. Proposed Amended RNAV (GPS) RWY 10L





**Figure 5. Proposed SEGUL ONE DEPARTURE (RNAV) Compared to Canceled OFFSHORE TWO DEPARTURE**



The Proposed Action is an air traffic action and does not involve land acquisition, any physical ground disturbance, construction, excavation or development activities, or discharges to water bodies. The following environmental impact categories were assessed and were considered either to not be present or to have negligible or nonexistent effects from the Proposed Action and, in accordance with Council on Environmental Quality (CEQ) regulations, did not warrant further analysis:

- Biological Resources (including Fish, Wildlife, and Plants)
- Climate
- Coastal Resources
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Architectural and Archeological Resources (except Historical and Cultural Resources)

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- Land Use
- Natural Resources and Energy Supply
- Socioeconomic Impacts and Children’s Environmental Health and Safety Risks (except Environmental Justice)
- Visual Resources (except Visual Impacts)
- Water Resources (including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

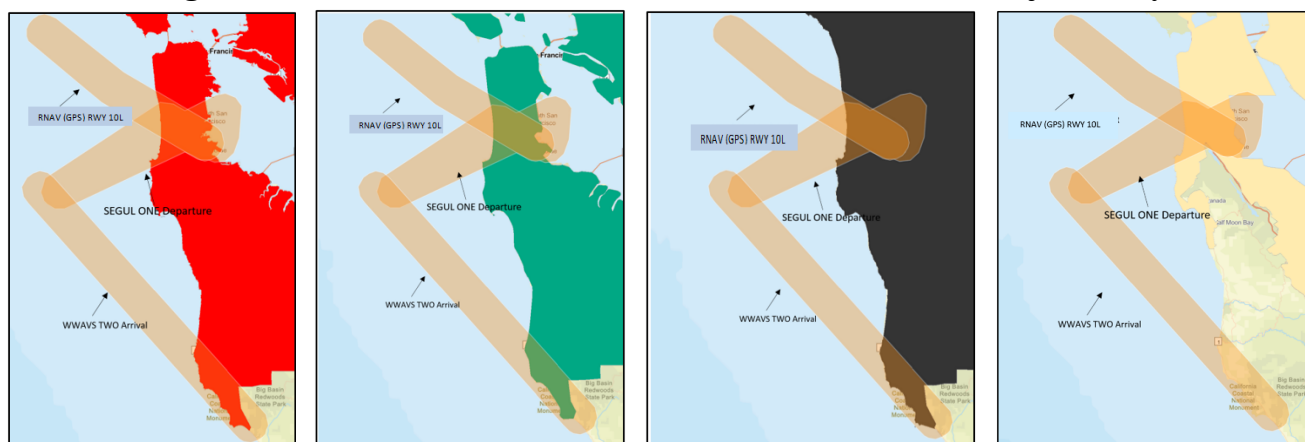
A project study area of approximately one nautical mile on either side centerline of the proposed procedure track was established for the Proposed Action. For the Proposed Action, the FAA assessed the following environmental impact categories, which, if they result in a significant impact, would preclude use of a categorical exclusion to satisfy National Environmental Policy Act (NEPA) requirements:

- Air Quality
- Biological Resources (Bird and Bat Species)
- Department of Transportation Act, Section 4(f)
- Historical and Cultural Resources (except Architectural and Archaeological Resources)
- Environmental Justice (except Socioeconomic Impacts and Children’s Environmental Health and Safety)
- Noise and Noise-Compatible Land Use
- Visual Impacts (except Light Emissions)
- Cumulative Impacts

### Air Quality

The NEPAassist tool identified that the proposed SEGUL ONE DEPARTURE (RNAV), RNAV (GPS) RWY 10L, and WWAWS TWO ARRIVAL (RNAV) procedures are located within the following nonattainment and/or maintenance areas within the project study area: nonattainment area for Ozone (O<sub>3</sub>) 8-hour (2008 Standard) (red), nonattainment for O<sub>3</sub> (2015 Standard) (green), nonattainment for Particulate Matter 2.5 microns (PM<sub>2.5</sub>) 24-hour (2006 Standard) (black), and maintenance area for carbon monoxide (CO) (1971 Standard) (tan).

**Figure 6. Nonattainment and Maintenance Areas within the Project Study Areas**



Categorical Exclusion

San Francisco International Airport (KSFO), San Francisco, California

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Additionally, the Proposed Action would not change project-related aircraft emissions below 3,000 feet AGL. The Proposed Action is not intended to change the number of aircraft operations and fleet mix. The Proposed Action is presumed to conform to the State Implementation Plan (SIP). The Proposed Action is a type of action that promotes the safe, orderly, and expeditious flow of aircraft traffic, including airport, approach, departure, and enroute air traffic control (ATC) procedures. Therefore, these changes are presumed to conform as emissions from these types of actions are below the applicable *de minimis* levels (40 CFR 93.153[c][2][xxii]). The EPA regulations identify certain actions that would not exceed these thresholds, including ATC activities and adoption of approach, departure, and enroute ATC procedures for aircraft operations above the mixing height specified in the applicable SIP (or 3,000 feet AGL) in places without an established mixing height. FAA Order 1050.1F provides that further analysis for NEPA purposes is normally not required where emissions do not exceed the EPA's *de minimis* thresholds.

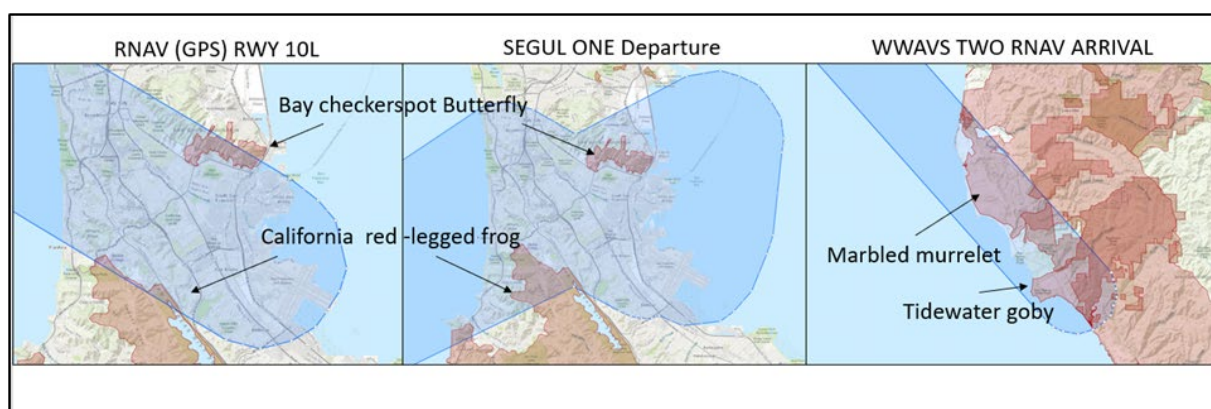
Implementation of this Proposed Action is not expected to affect air quality and is presumed to conform as Category 14, "Air Traffic Control Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations," as identified in the General Conformity Rule, 72 Fed. Reg. 41565–41580 (July 30, 2007).

### **Biological Resources (Avian and Bat Species)**

The United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) database was reviewed to identify critical habitat located within the project study areas for the amended RNAV (GPS) RWY 10L and WWAVS TWO ARRIVAL (RNAV) and the new SEGUL ONE DEPARTURE (RNAV) procedures.

Critical habitat areas for the Bay checkerspot Butterfly (*Euphydryas editha bayensis*), California red-legged frog (*Rana draytonii*), Tidewater goby (*Eucyclogobius newberryi*), and Marbled Murrelet (*Brachyramphus marmoratus*) have each been identified in the project study area for the Proposed Action. See **Figure 7**.

**Figure 7. Critical Habitat within the Proposed Action Study Areas**



The IPaC database identified 52 migratory bird species that could potentially be located within the project study area. The project study area falls within the Pacific Flyway. Every year, migratory birds travel some or all of this distance in spring and fall, following food sources, heading to breeding grounds, or traveling to overwintering sites. The Proposed Action is an air traffic action only. Based on the analysis of existing flight track data obtained from the PDARS, aircraft are currently overflying this area of the Western Pacific Flyway. See **Figure 11**.

The greatest potential for impacts to wildlife species would result from wildlife strikes on avian and/or bat species at altitudes below 3,000 feet AGL. Changes to flight paths under the Proposed Action would primarily occur above 3,000 feet AGL. The Proposed Action is not intended to increase the number of aircraft operations or change the aircraft fleet mix. Therefore, the Proposed Action is not anticipated to result in an impact to biological resources.

#### **Department of Transportation Act, Section 4(f)**

The NEPAassist tool identified the following Section 4(f) resources within the project study area:

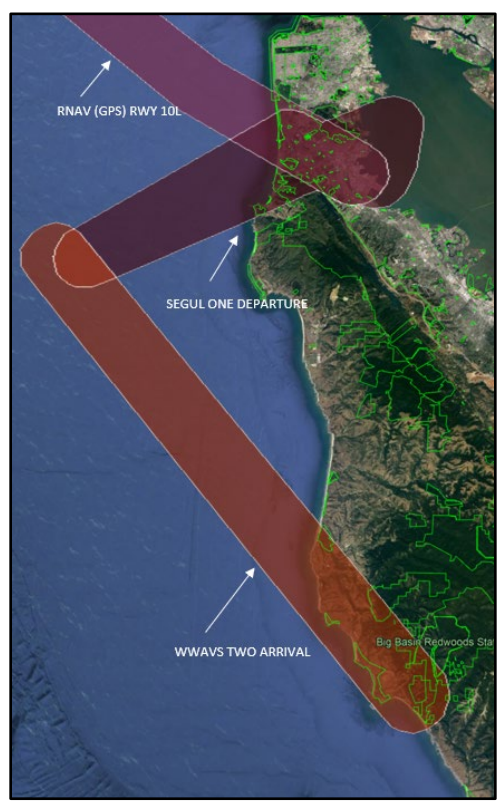
**Table 4. List of 4(f) Resources within the Project Study Area**

<b>Name of 4(f) Resource</b>	<b>Governing Authority</b>
Fort Funston	National Park Service
Thornton State Beach	California State Beach
Palisades Park	San Mateo County
Mussel Rock Park	National Park Service
Pacifica Esplanade Beach	City of Pacifica
Pacifica Municipal Pier	City of Pacifica
Rockaway Beach	City of Pacifica
Point San Pedro	National Park Service
Bacquiano Trail/ Sweeney Ridge	National Park Service
Pacifica State Beach (Linda Mar)/ San Pedro Beach	National Park Service
Mori Point	National Park Service
Pacifica Land Trust	National Park Service
Crestmoor Canyon	City of San Bruno
Ano Nuevo State Marine Reserve	State of California
Butano State Park	State of California
Bean Hollow State Beach	State of California

Pescadero State Beach	State of California
California Coastal National Monument*	Bureau of Land Management

\*Not shown in Fig. 8

**Figure 8. Section 4(f) Resources within the Project Study Area in Google Earth**



The Proposed Action would not involve land acquisition, construction, or other physical ground disturbance. The FAA considered that certain protected resources may be potentially sensitive to the effects of overflights that introduce a visual or audible element. The number of aircraft operations and the aircraft fleet mix are not expected to change as a result of the implementation of the Proposed Action. Additionally, civilian jet aircraft are currently overflying the area and would continue to overfly the area. See **Figure 11**. Furthermore, a noise screening of potential noise impacts was completed for this Proposed Action using the TARGETS Environmental Plug-in tool and the TARGETS Aviation Environmental Design Tool (AEDT) plug-in. Proposed procedures in the study area passed the noise analysis. Therefore, no noise impacts are anticipated with the implementation of the Proposed Action.

No new areas would be overflown, and the areas overflown are predominantly over water; aircraft would continue to overfly the area as they would with the No Action Alternative. Thus, the FAA determined that there would be no potential to introduce either new visual elements or

reportable or significant audible elements that could constitute a constructive use of protected resources.

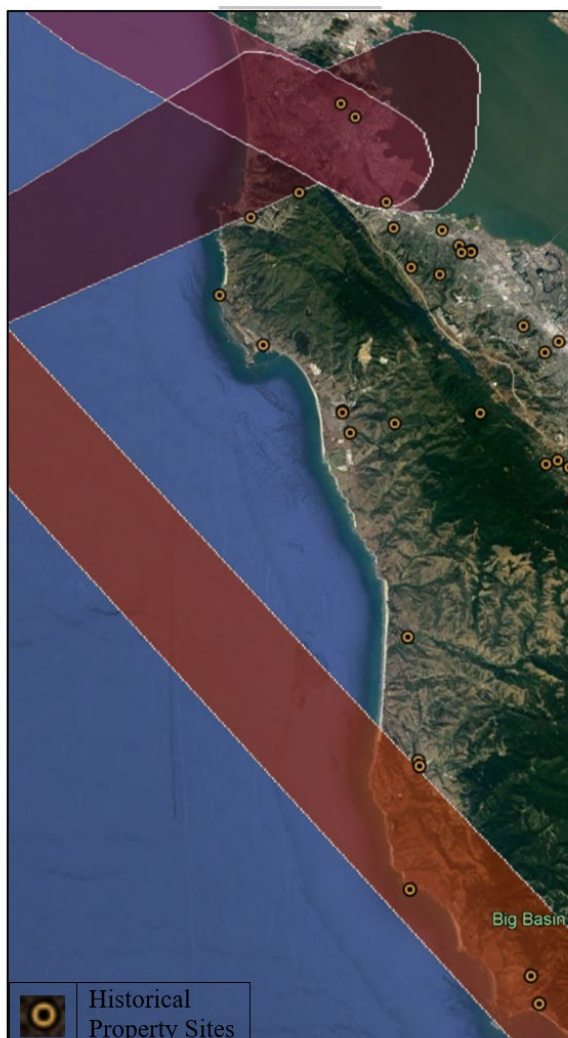
### **Historical, Architectural, Archaeological, and Cultural Resources**

A search of the National Register of Historic Places (NRHP), accessed through the NPS Google Earth plug-in are summarized in **Table 5** and depicted in **Figure 9**.

**Table 5. List of Historic Properties in the Study Area**

<b>Procedure</b>	<b>Historic Property</b>	<b>NPS Number</b>	<b>Significance</b>
WWAVS TWO ARRIVAL (RNAV)	Dickerman Barn	82002259	Agriculture/Architecture
	Green Oaks Ranch House	76000526	Agriculture/Industry
	Pigeon Point Lighthouse	77000337	Architecture; Commerce; Engineering; Military; Politics/Government; Transportation
RNP (GPS) RWY 10L & SEGUL ONE DEPARTURE (RNAV)	Southern Pacific Depot	78000770	Transportation/Architecture
	Martin Building	97000043	Community Planning and Development
	South San Francisco Hillside Sign	96000761	Social History; Other

**Figure 9. Historical Sites near the Proposed Procedure Using Google Earth**



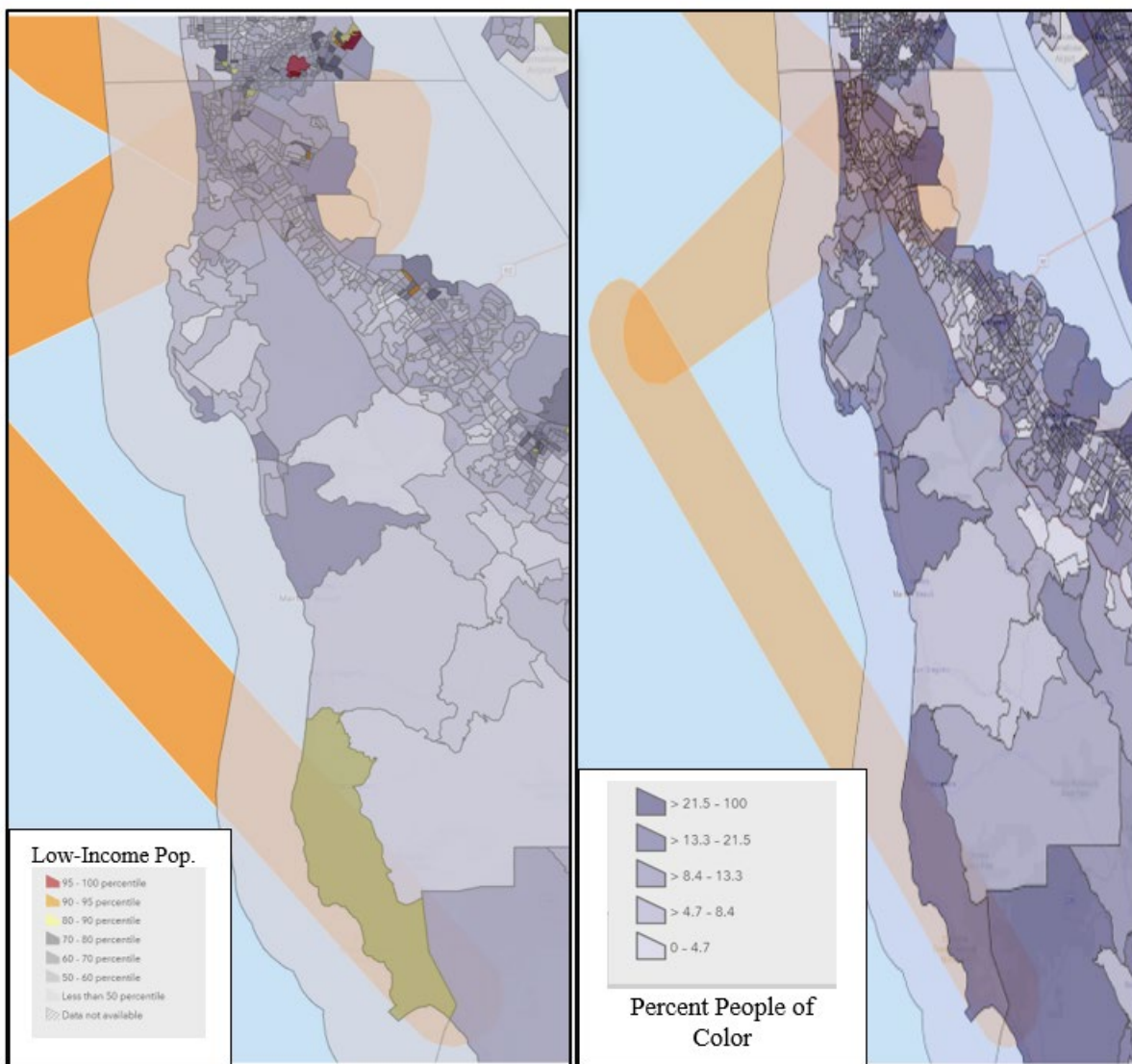
The identified historic resources are currently overflowed, and the results of the noise analysis indicate that no significant or reportable noise impacts are expected near these resources as a result of the implementation of the Proposed Action. Furthermore, there would be no land acquisition, construction activities, or other physical ground disturbance with the implementation of the Proposed Action. Therefore, the FAA has concluded that an impact to known listed historical properties is not anticipated.

**Environmental Justice (Subcategory under the General Heading of Socioeconomic Impacts)**

An environmental justice analysis considers the potential for impact on minority and low-income populations of the Proposed Action compared to the No Action Alternative. Considering whether the Proposed Action raises environmental justice concerns, the FAA considers whether a Proposed Action may have disproportionately high and adverse human health or environmental effects on minority and low-income populations. This analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality. If these factors exist, there is not

necessarily a significant impact; rather, the FAA must evaluate these factors in light of the context and intensity to determine if there are significant impacts.

**Figure 10. Low-Income and People of Color Percentiles in the Study Area**



While the concentration of low-income households and percentage of people of color in the study areas may be somewhat elevated, the study area was previously overflowed by aircraft. See **Figure 11**. Implementation of the Proposed Action would not adversely affect air quality or land use within the vicinity of the Proposed Action. Furthermore, a noise screening of potential noise impacts was not completed for this Proposed Action because the proposed amendments are de minimis in nature and would not appreciably change where aircraft are currently flying. No new areas would be overflowed, and the areas overflowed are predominantly unpopulated; aircraft would continue to overfly the area as they would with the No Action Alternative. Furthermore, a change in the number of aircraft operations—including those occurring between 10 p.m. and 7



a.m.—and a change to the aircraft fleet mix are not part of the purpose and need of the Proposed Action.

Based on the available information, there would be no disproportionate impacts on minority or low-income populations due to the Proposed Action when compared to the No Action Alternative. Therefore, an impact related to environmental justice is not anticipated.

### **Noise and Noise-Compatible Land Use**

Historical radar track data for KSFO was obtained from PDARS. Dates were randomly selected within a recent 60-day period (December 6, 2022 through December 5, 2023). The random dates are assumed to represent average runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions. See **Figure 11**.

A noise screening/analysis was completed to assess the potential impacts from a change in aircraft noise exposure resulting from the Proposed Action. The noise screening/analysis was conducted in the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) Environmental Plug-in tool and the Aviation Environmental Design Tool (AEDT).

#### **RNAV (GPS) RWY 10L**

For screening of the amended RNAV (GPS) RWY 10L approach procedure, the Operations Test (OPS Test) was used in accordance with MITRE's Center for Advanced Aviation System Development's *Guidance for Noise Screening of Air Traffic Actions* (December 2012). The OPS Test is a tool to help determine if further noise screening is required based on the number of operations on the RNAV (GPS) RWY 10L. An increase in operations and a change in fleet mix is not part of the purpose and need. RNAV (GPS) RWY 10L passed the OPS Test and no further noise analysis was required for the procedure.

#### **WVAVS TWO ARRIVAL (RNAV)**

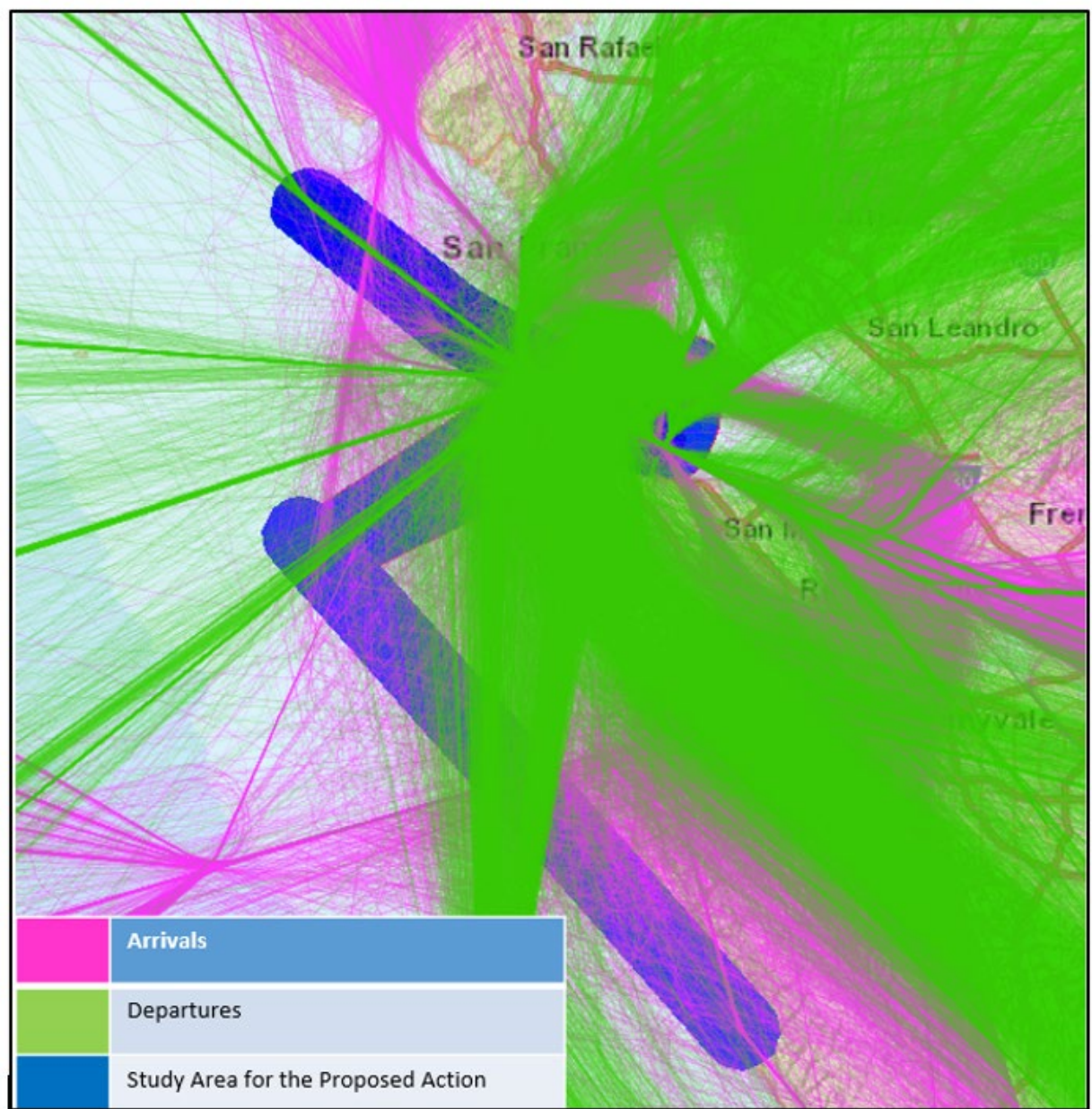
For screening of the WVAVS TWO ARRIVAL (RNAV), the Traffic Test (TRAF Test) was used in accordance with MITRE's Center for Advanced Aviation System Development's *Guidance for Noise Screening of Air Traffic Actions* (December 2012). The TRAF Test is a tool to help determine if the number of operations on a particular route or procedure is high enough to generate noise levels that exceed noise screening thresholds based on the fleet mix. ATC anticipates the new segment of the WVAVS TWO ARRIVAL (RNAV) from WPOUT WP to PLLAR WP would be used by ~5% of aircraft landing to RWY 10L/R. An increase in operations and a change in fleet mix is not part of the purpose and need. The WVAVS TWO ARRIVAL (RNAV) passed the TRAF Test and no further noise analysis was required for this procedure.

#### **SEGUL ONE DEPARTURE (RNAV)**

Noise analysis was completed to assess potential impacts resulting from proposed air traffic actions at KSFO using the TARGETS Environmental Plug-in tool and the AEDT. Historical radar track data was used to create a baseline scenario. After the baseline scenario was built, aircraft operations were reassigned to the proposed procedures, which provides the alternative scenario. Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for both scenarios using AEDT. The scenarios

were then compared to determine the potential for significant noise impacts. In the case of KSFO, there were **no reportable and no significant** impacts resulting from the proposed action.

**Figure 11. Historical Flight Tracks in TARGETS with Proposed Procedures**



*\*Tracks at 90% Transparency*

## **Cumulative Impacts**

Consideration of cumulative impacts applies to the impacts resulting from the implementation of the Proposed Action combined with other actions. A cumulative impact is defined as an impact on the environment, which results from the incremental impact of the action when added to other, recent and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions.

Analyzing cumulative impacts is considered within geographic (spatial) and time (temporal) boundaries. Reasonably foreseeable future actions refer to projects that would likely be completed within the next five years and do not include those actions that are highly speculative or indefinite. The types of projects considered under the cumulative impact analysis were primarily limited to airfield projects, specifically projects that directly affect or involve runways and modifications to parallel taxiways (TWY) (e.g., lengthening and/or widening). These types of projects may affect aircraft flight operations.

A comprehensive search identified the KSFO Draft Airport Development Plan (DADP) (2016).<sup>4</sup> The DADP provides a road map for efficiently meeting aviation demand through the reasonably foreseeable future while preserving the flexibility necessary to respond to changing airport needs and industry conditions. The KSFO DADP established a phasing plan broken down into Ongoing Development Projects (2011-2016), Near-Term Development Projects (2016-2021), and Long-Term Development Projects (2022 forward).

The following RWY/TWY projects were identified in the near-term development projects (2016-2021):

- TWY F2 would provide a second runway-entrance TWY to RWY 28L.
- TWY S3 fillet was added to TWY S (to be renamed TWY S3) at the end of RWY 10R.
- TWY C East would shift TWY C to a separation distance of 550 feet from the RWY 28R centerline along the eastern 6,850 feet of the RWY. Relocate the existing stormwater pump station 1B to the northwest. Rename TWY W to TWY C2.
- TWY C3 would realign TWY C1 perpendicular to RWY 10L/28R and rename it to TWY C3.
- TWY R North would realign TWY R perpendicular to the RWY between RWY 10L/28R and TWY C.
- TWY R South would upgrade TWY R between RWYs 10L/28R and 10R/28L to accommodate larger aircraft and close TWY U between TWY C and RWY 10R/28L.
- TWY F1 would realign TWY F1 at a separation of 800 feet from TWY F and rename it TWY W.
- TWYs T and D would realign TWY T to a similar angle as TWY Q and separate TWYs D and T at the RWY 10R/28L crossing point.
- TWYs E and J would reconfigure TWY E as an acute-angled exit TWY and realign and shift TWY J farther from RWY 1L/19R.
- TWY F West would shift TWY F farther from RWY 10R/28L between TWYs B and L.

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<sup>4</sup> KSFO ADP (2016), <https://www.flysfo.com/about-sfo/sfo-tomorrow/draft-final-airport-development-plan>, accessed January 25, 2024.

- TWY F East would shift TWY F farther from RWY 10R/28L between TWYs L and N.
- TWY N would realign TWY N at its intersection with TWY F.
- Helipad would provide a dedicated helipad northwest of Building 1050.
- TWYs H and M would realign TWYs H and M to the southwest; rename to TWYs M1 and M2, respectively, to conform to FAA naming convention.

The following RWY/TWY projects were identified in the long-term development projects (2022 forward):<sup>5</sup>

- TWY B realignment would shift TWY B 22 feet to the northwest to meet FAA design standards.
- TWY A realignment would shift TWY A 15 feet to the northwest to meet FAA design standards.

A review of historical FAA Airport Improvement Program (AIP) grants indicated that KSFO has received the following grants for RWY/TWY modifications/improvements within the last five years.<sup>6</sup> The Airport Improvement Program (AIP) grant funding indicates that the total amount of grants for infrastructure projects at KSFO in 2023 was \$15,207,247 for taxiway rehabilitation. Between 2019 and 2022, KSFO was awarded \$52,299,930 in AIP entitlements or discretionary funding to reconstruct runways, rehabilitate taxiways and runways.

The Terminal Area Forecast (TAF) report projects that total aircraft operations at KSFO are expected to increase by 36.19% between 2023 and 2028.<sup>7</sup>

**Table 6** summarizes proposals for amendments to flight procedures that have been recently published, are under development, or are pending.

**Table 6. Proposals for Amendments to KSFO Flight Procedures**

Procedure Name	Scheduled Pub. Date	Status
GLS RWY 19R, AMDT 1	11/30/2023	Published
GLS RWY 19L, AMDT 1	11/30/2023	Published
ILS OR LOC RWY 19L, AMDT 23	11/30/2023	Published
RNAV (GPS) RWY 19L, AMDT 4	11/30/2023	Published
RNAV (GPS) Y RWY 19R, AMDT 4	11/30/2023	Published
RNAV (GPS) Z RWY 19R, ORIG	11/30/2023	Published

<sup>5</sup> KSFO ADP (2016),

[https://www.flysfo.com/sites/default/files/default/about/Chapter\\_6\\_Recommended\\_AD\\_P\\_Draft\\_Final.pdf](https://www.flysfo.com/sites/default/files/default/about/Chapter_6_Recommended_AD_P_Draft_Final.pdf), accessed January 28, 2024.

<sup>6</sup> FAA AIP Histories, [https://www.faa.gov/airports/aip/grant\\_histories](https://www.faa.gov/airports/aip/grant_histories), accessed January 28, 2024.

<sup>7</sup> Federal Aviation Administration ([taf.faa.gov](http://taf.faa.gov)), accessed on January 28, 2024.

NIITE FOUR (RNAV) SID	7/11/2024	Under Development
RNAV (GPS) X RWY 28R, AMDT 1B	7/11/2024	Awaiting Cancellation
GLS RWY 10L, ORIG	2/20/2025	Pending
GLS RWY 10R, ORIG	2/20/2025	Pending
GLS T RWY 28R, ORIG	2/20/2025	Pending
GLS W RWY 28R, ORIG	2/20/2025	Pending
GLS X RWY 28R, ORIG	2/20/2025	Pending
GLS Y RWY 28L, ORIG	2/20/2025	Pending
GLS Y RWY 28R, ORIG	2/20/2025	Pending
GLS Z RWY 28L, ORIG	2/20/2025	Pending
GLS Z RWY 28R, ORIG	2/20/2025	Pending

The Proposed Action has independent utility and is unrelated to the projects above. There would be no anticipated change in aircraft operations or change to aircraft fleet mix in connection with the Proposed Action. The Proposed Action would have no long-term impacts on air traffic operations; therefore, cumulative impacts are not anticipated when compared to the No Action Alternative.

### **Extraordinary Circumstances**

In accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Paragraph 5-2, Extraordinary Circumstances, the FAA has reviewed the Proposed Action for factors and circumstances in which a normally categorically-excluded action may have a significant environmental impact requiring further analysis. The FAA has determined that no extraordinary circumstances exist that warrant additional environmental review.

### **Declaration of Exclusion**

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F.

### **Basis for this Determination**

The IFP Environmental Pre-Screening Filter was used to document the analysis, which was reviewed by the Western Service Center. This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, *Procedures for Considering*

*Environmental Impacts*, and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.

The applicable categorical exclusion is:

***5-6.5.i. Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima. For modifications to air traffic procedures at or above 3,000 feet AGL, the Noise Screening Tool (NST) or other FAA-approved environmental screening methodology should be applied.***

**Recommended by**

**Facility Manager Review/Concurrence**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: Michael Galvan  
Air Traffic Manager  
Oakland Air Route Traffic Control Center

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: Francine Malabo  
Air Traffic Manager  
Northern California Terminal Radar Approach Control

**Concurrence by**

**Western Service Area Environmental Protection Specialist**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: Suzanne Nelson-Pittle  
Environmental Protection Specialist, Operations Support Group  
Western Service Center

**Approval by**

**Western Service Area Director or Designee Approval**

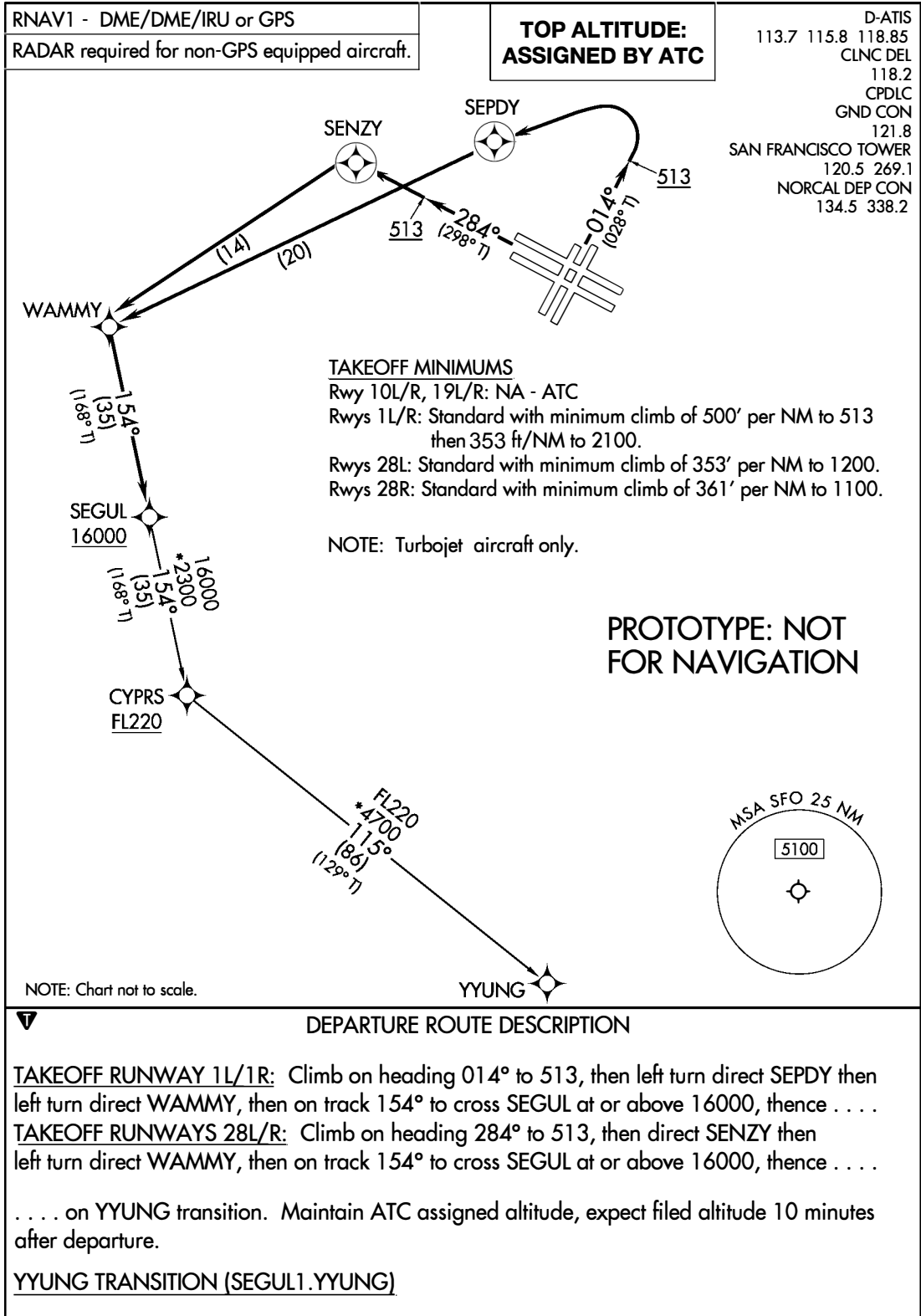
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: B. G. Chew  
Group Manager, Operations Support Group  
Western Service Center

(SEGUL1.SEGUL) FIG  
**SEGUL ONE DEPARTURE (RNAV)**

AL-375 (FAA)

SAN FRANCISCO INTL (SFO)  
 SAN FRANCISCO, CALIFORNIA



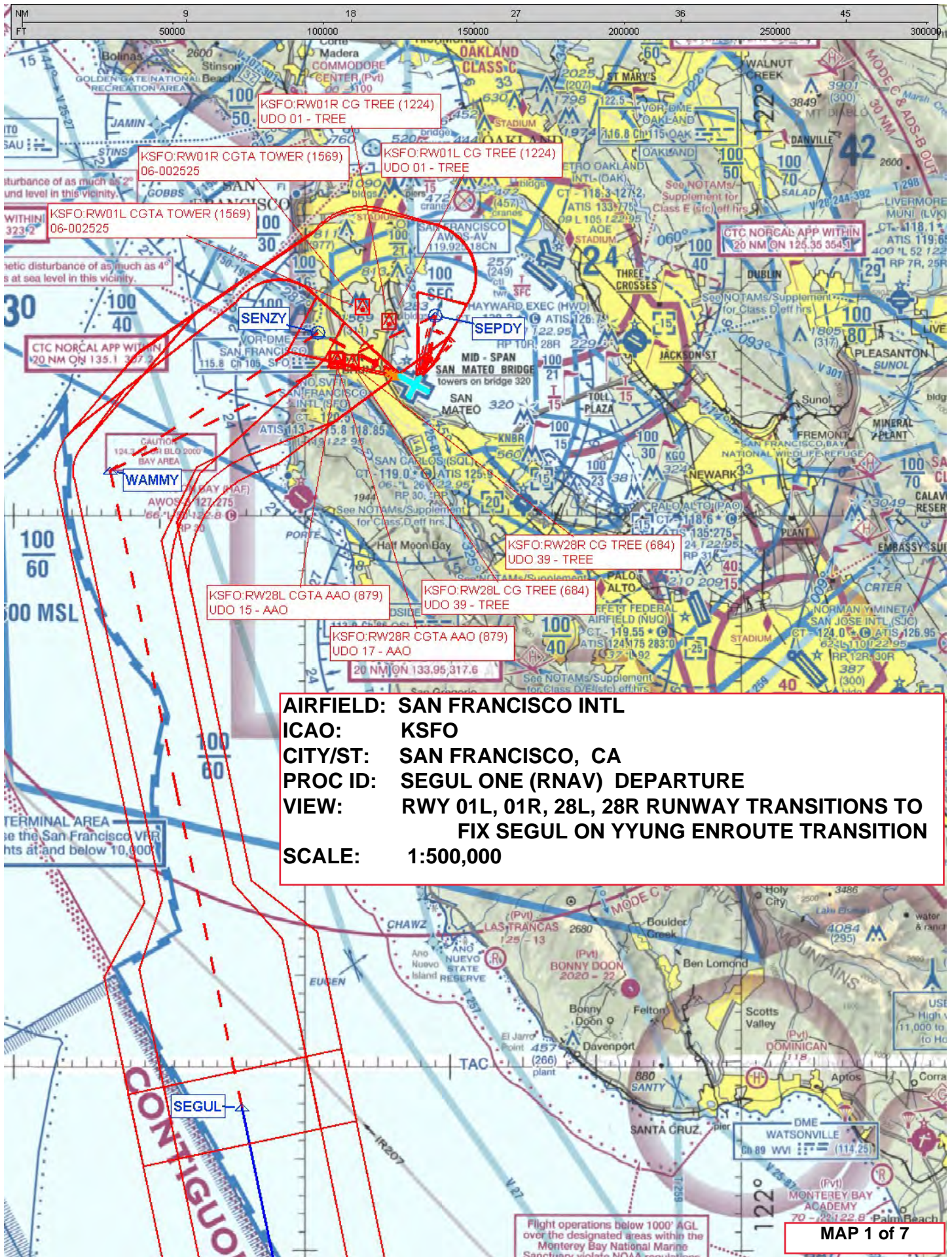
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SW-2  
 27 NOV 2023  
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 REVIEWER:  
 DBL CHKR:  
 EFF: FIG

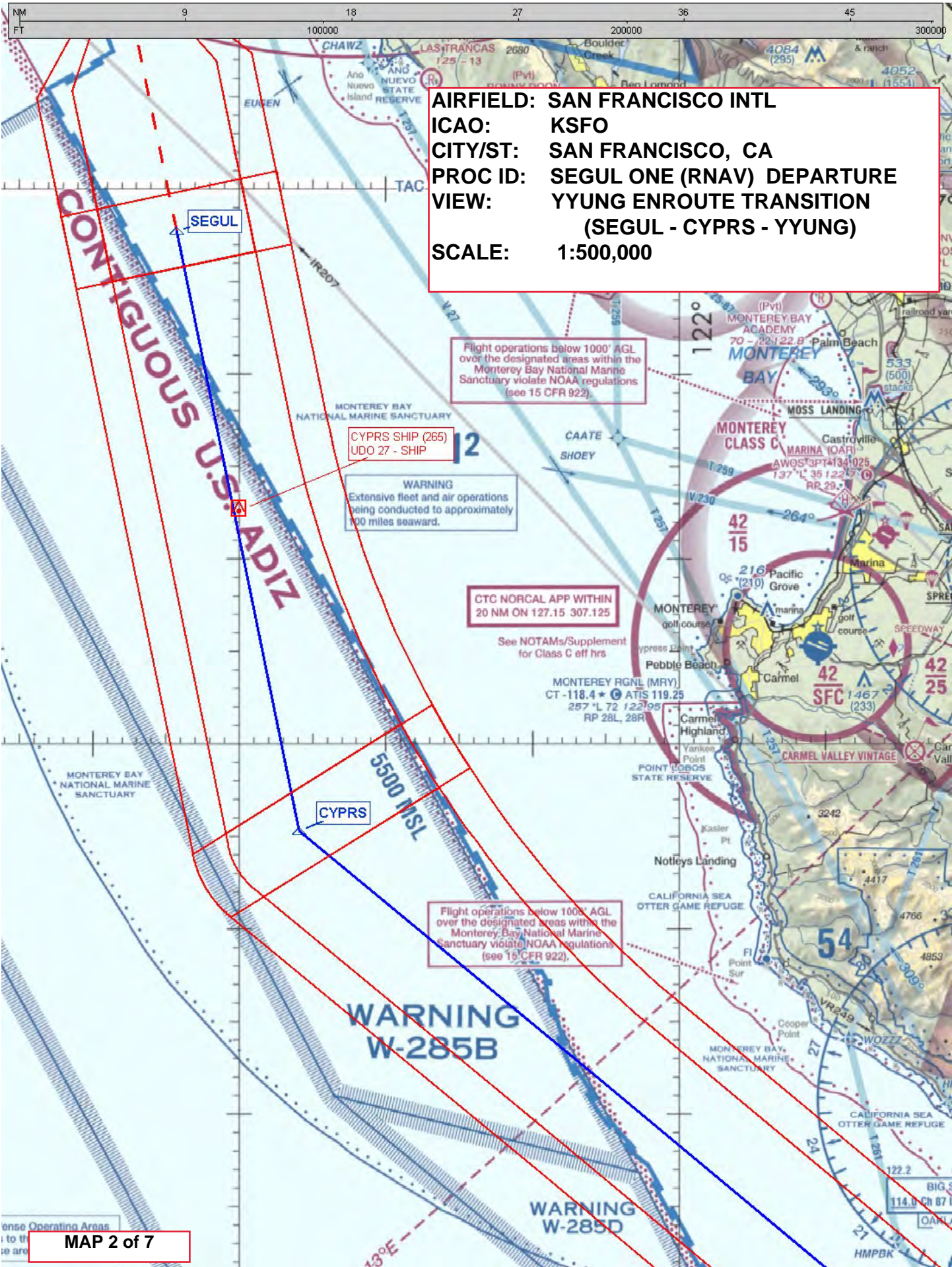
**SEGUL ONE DEPARTURE (RNAV)**  
 (SEGUL1.SEGUL) FIG

SAN FRANCISCO, CALIFORNIA  
 SAN FRANCISCO INTL (SFO)





**AIRFIELD: SAN FRANCISCO INTL**  
**ICAO: KSFO**  
**CITY/ST: SAN FRANCISCO, CA**  
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**VIEW: RWY 01L, 01R, 28L, 28R RUNWAY TRANSITIONS TO FIX SEGUL ON YYUNG ENROUTE TRANSITION**  
**SCALE: 1:500,000**



**AIRFIELD: SAN FRANCISCO INTL**  
**ICAO: KSFO**  
**CITY/ST: SAN FRANCISCO, CA**  
**PROC ID: SEGUL ONE (RNAV) DEPARTURE**  
**VIEW: YYUNG ENROUTE TRANSITION**  
**(SEGUL - CYPRS - YYUNG)**  
**SCALE: 1:500,000**

Flight operations below 1000' AGL over the designated areas within the Monterey Bay National Marine Sanctuary violate NOAA regulations (see 15 CFR 922).

CYPRS SHIP (265)  
 UDO 27 - SHIP

**WARNING**  
 Extensive fleet and air operations being conducted to approximately 100 miles seaward.

**CTC NORCAL APP WITHIN 20 NM ON 127.15 307.125**

See NOTAMs/Supplement for Class C off hrs

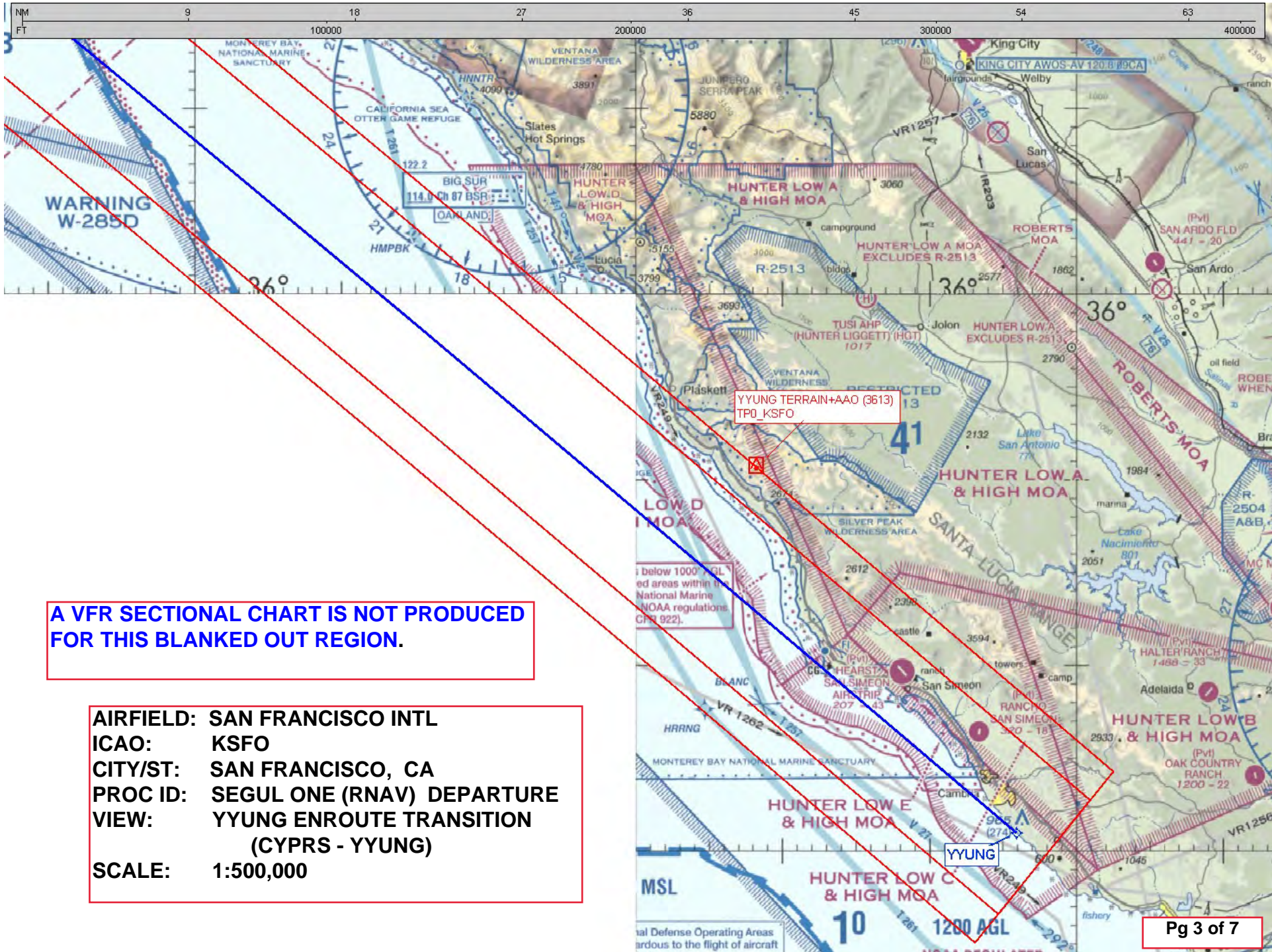
MONTEREY RGNL (MRY)  
 CT -118.4 \* ATIS 119.25  
 257° L 72 122.95  
 RP 28L, 28R

Flight operations below 1000' AGL over the designated areas within the Monterey Bay National Marine Sanctuary violate NOAA regulations (see 15 CFR 922).

**WARNING W-285B**

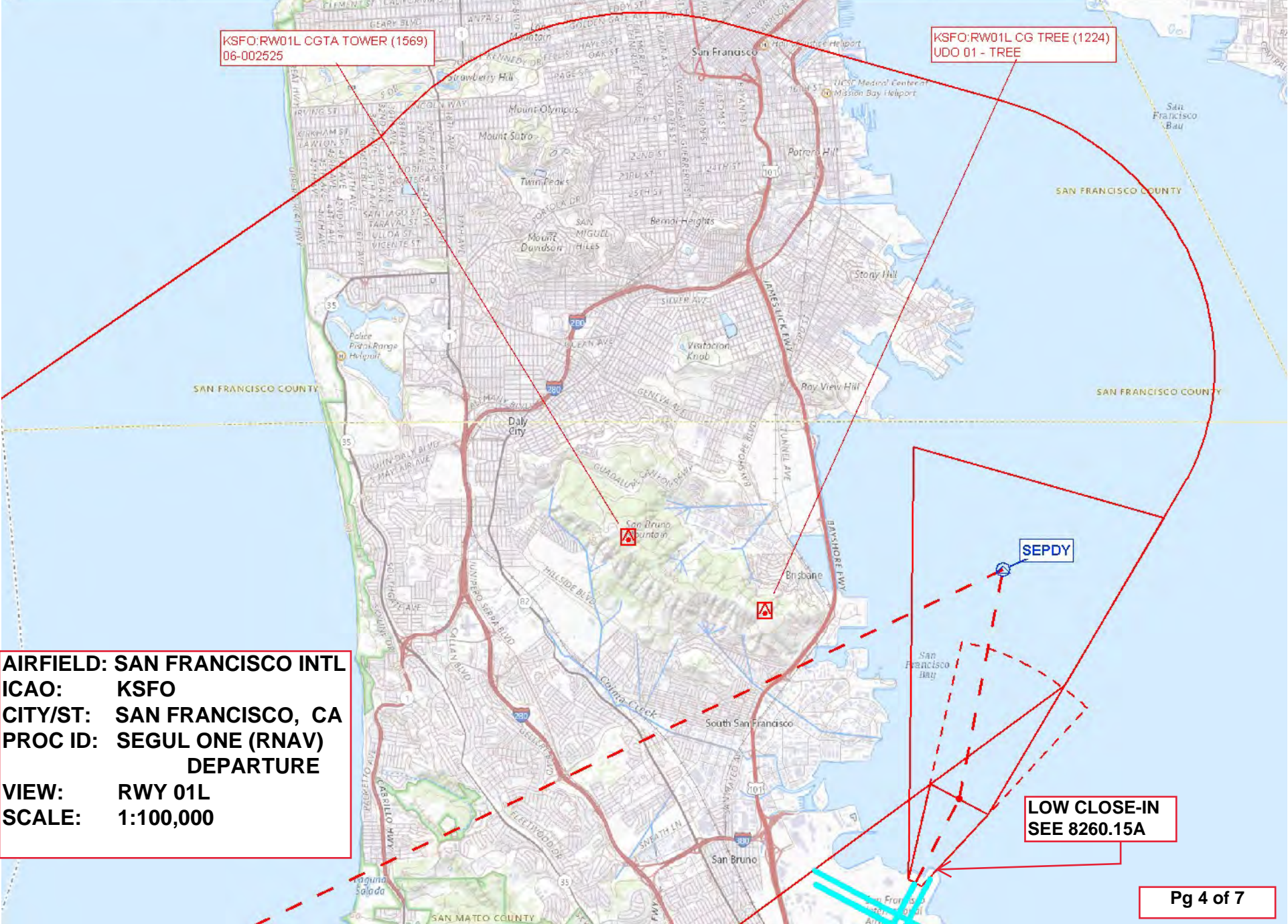
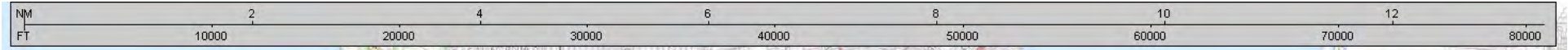
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**MAP 2 of 7**

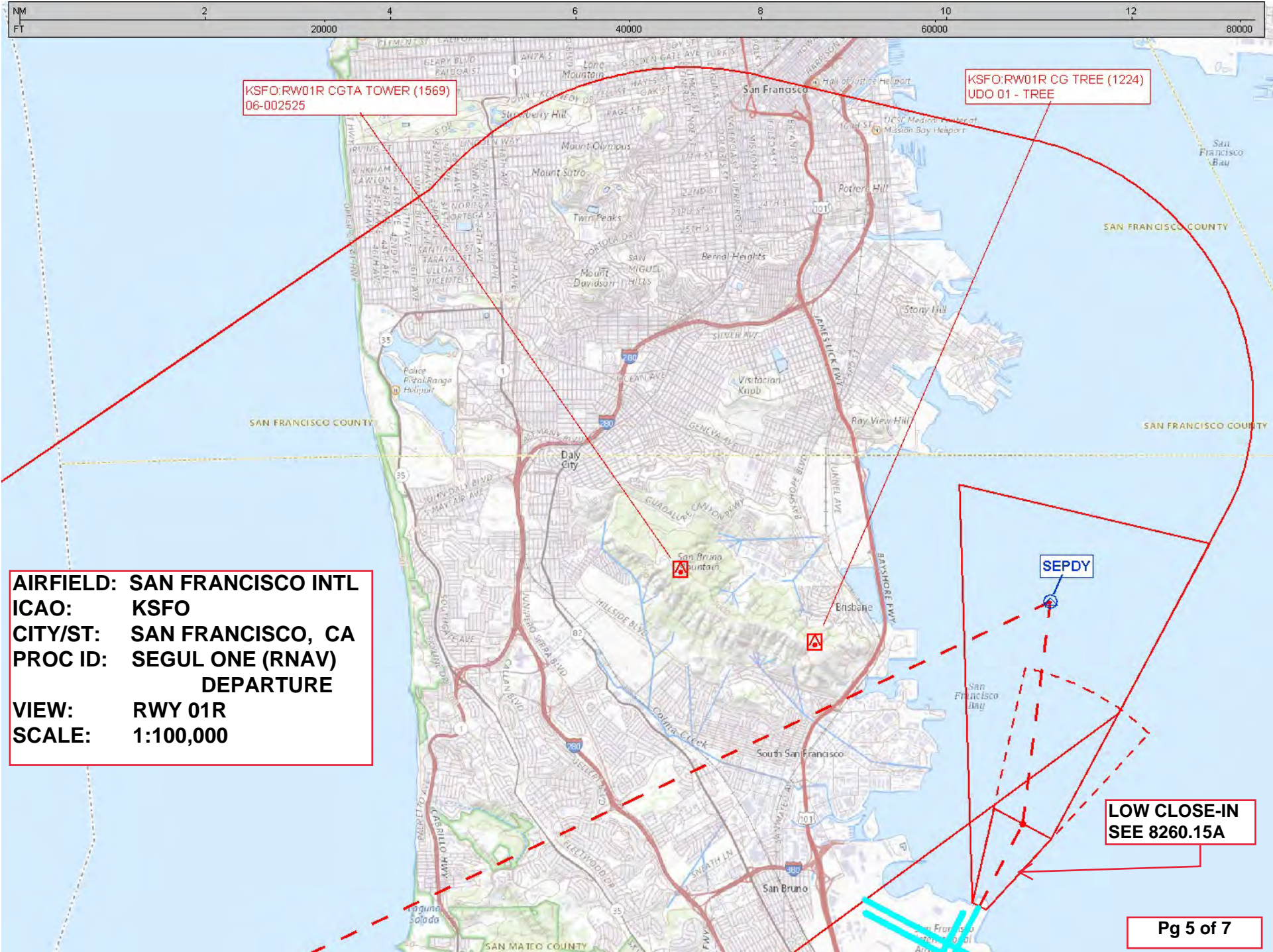


**A VFR SECTIONAL CHART IS NOT PRODUCED FOR THIS BLANKED OUT REGION.**

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**CITY/ST: SAN FRANCISCO, CA**  
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**VIEW: YYUNG ENROUTE TRANSITION (CYPRS - YYUNG)**  
**SCALE: 1:500,000**



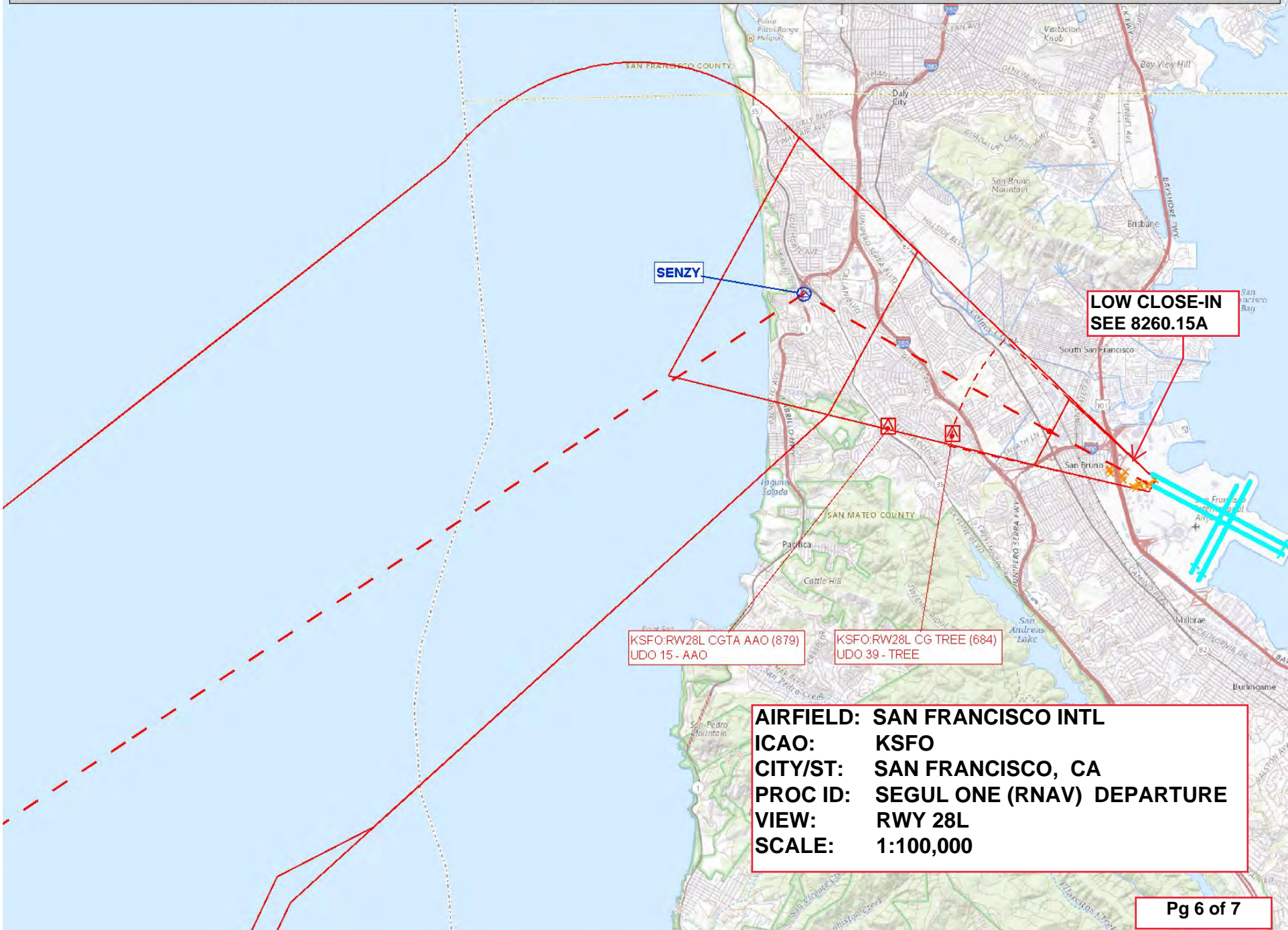
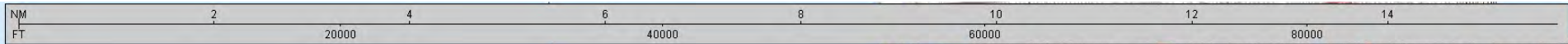
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**DEPARTURE**  
**VIEW: RWY 01L**  
**SCALE: 1:100,000**



**AIRFIELD: SAN FRANCISCO INTL**  
**ICAO: KSFO**  
**CITY/ST: SAN FRANCISCO, CA**  
**PROC ID: SEGUL ONE (RNAV)**  
**DEPARTURE**  
**VIEW: RWY 01R**  
**SCALE: 1:100,000**

**LOW CLOSE-IN**  
**SEE 8260.15A**

**Pg 5 of 7**



SENZY

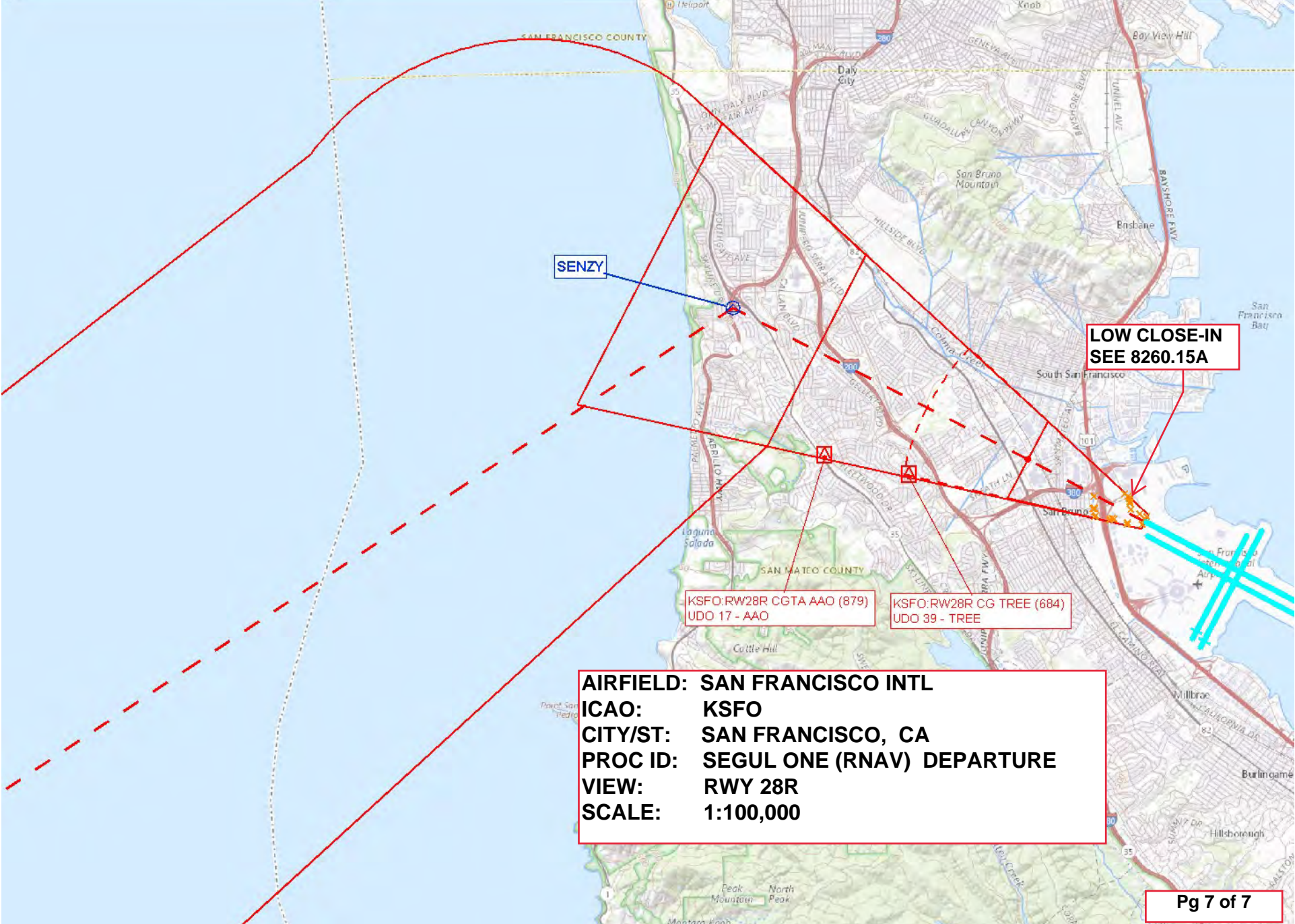
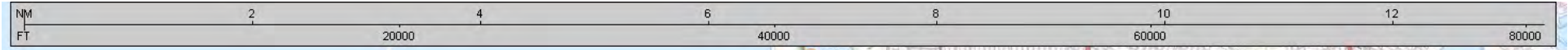
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SEE 8260.15A**

KSFO:RW28L CGTA AAO (879)  
UDO 15 - AAO

KSFO:RW28L CG TREE (684)  
UDO 39 - TREE

**AIRFIELD: SAN FRANCISCO INTL**  
**ICAO: KSFO**  
**CITY/ST: SAN FRANCISCO, CA**  
**PROC ID: SEGUL ONE (RNAV) DEPARTURE**  
**VIEW: RWY 28L**  
**SCALE: 1:100,000**

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## MEMORANDUM

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**To:** SFO Community Roundtable Members and Interested Parties

**From:** Jason R. Stoddard, Senior Airspace Analyst  
Eugene M. Reindel, Vice President

**Date:** July 2, 2024

**Subject:** Federal Aviation Administration (FAA) Instrument Flight Procedures (IFP)  
Information Gateway Review

**Reference:** HMMH Project Number 312310

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At the request of the Roundtable, Harris Miller Miller & Hanson Inc. (HMMH) is monitoring and reviewing updates to procedures published onto the FAA's IFP Information Gateway in the regions of San Francisco International Airport (SFO), Metropolitan Oakland International Airport (OAK), and Norman Y. Mineta San Jose International Airport (SJC).

After analyzing the documents posted, HMMH determines proposed changes and the reason for the changes. The FAA IFP Information Gateway published one update for SFO. There are currently two open comment periods. The next publication is expected on July 11, 2024.

### Important Terms and Items:

- FAA Stage Definitions
  1. FPT: Procedures are coordinated with Air Traffic, Tech Ops and Airports for feasibility, preparation, and priority (FPO)
  2. DEV: Development of the procedures
  3. FC: FAA Flight Inspection of the developed procedures
  4. PIT: Production Integration Team (TS)
  5. CHARTING: Procedures at Arnav Products Charting for publication (NACO)
- FAA Status Definitions
  1. At Flight Check: At Flight Inspection for procedure validation
  2. Awaiting Publication: At Arnav Products Charting for publication
  3. Complete: Procedure development action finished
  4. On Hold: Procedure waiting data/information to allow it to proceed/continue to next stage
  5. Pending: Procedure development work on-going
  6. Published: Procedure charted and published
  7. Under Development: Procedure is being worked on by the FAA
  8. Terminated: Procedure/project terminated
- Glossary
  - RNAV: Area Navigation
  - ATC: Air Traffic Control
  - IAP: Instrument Approach procedure
  - STAR: Standard Terminal Arrival Route
  - SID: Standard Instrument Departure
  - GPS: Global Positioning System
  - ILS: Instrument Landing System
  - LOC: Localizer

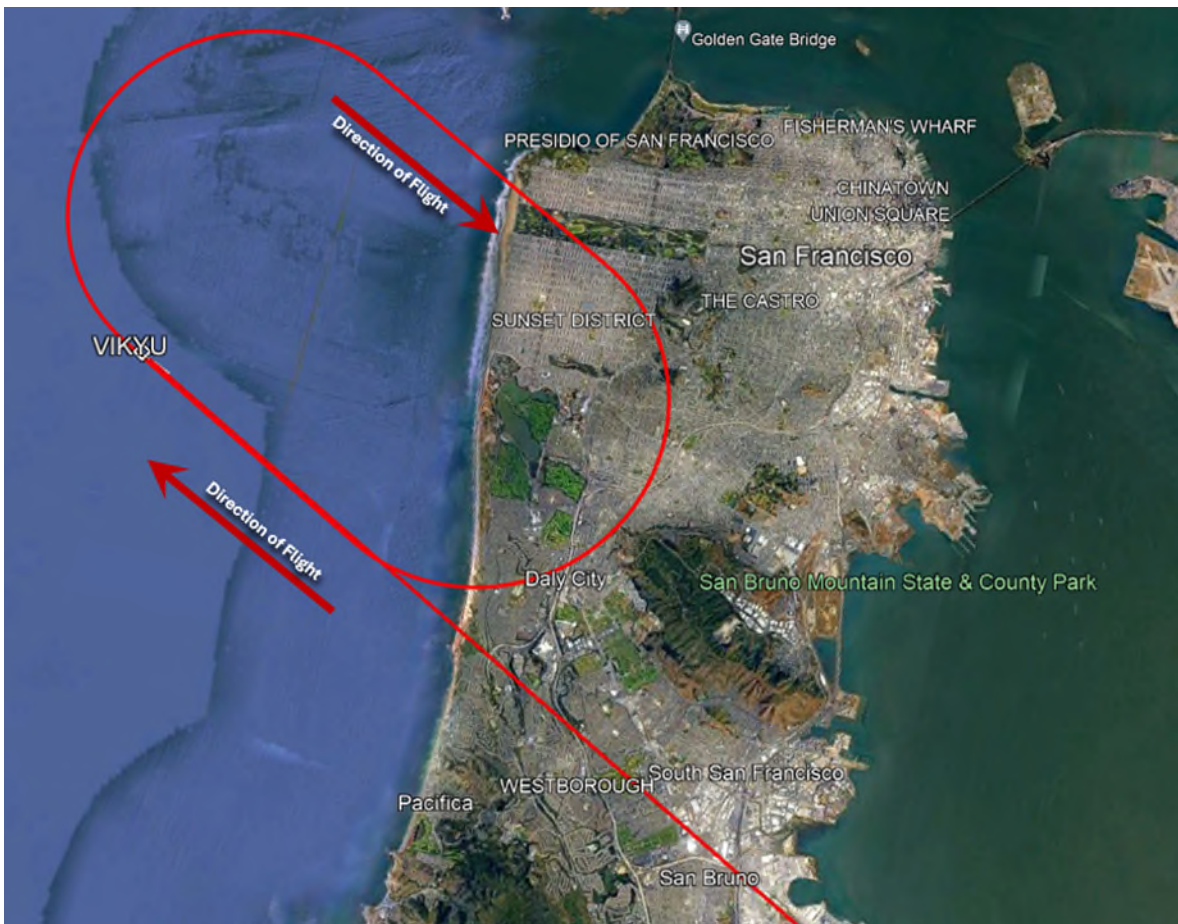


**Updates:**

- SFO RNAV (GPS) Z RWY 28R, AMDT 8
  - Status changed to Under Development
  - Scheduled Publication date of October 31, 2024
- **Next Publication:** We are not anticipating any updates in the July 11, 2024 publication.

**Open Comment Periods:**

- **SFO RNAV (GPS) Z RWY 28R, AMDT 8**
  - Comment period ends July 22, 2024The following changes are expected:
  - The missed approach segment has been redesigned to be congruent with ILS or LOC RWY 28R Missed Approach.
  - Missed approach instructions changed from “Climb to 3200 direct VIKYU and hold, continue climb-in-hold to 3200” to “Climb to 3000 direct VIKYU and hold”.
  - All flight paths shall remain the same, however, aircraft will now hold at 3000 ft. MSL instead of 3200 ft. MSL and be required to climb at a rate of 350 ft per nautical mile until reaching 1900 ft. MSL. Previously, aircraft could maintain the minimum climb gradient of 200 ft. per nautical mile and continue their climb up to 3200 ft. MSL while established in the holding pattern.



- **SFO STAR STLER FOUR (RNAV)**

- Comment period ends July 9, 2024

The Following changes can be expected:

- Added Runway 10 L/R transition to the procedure. From the STLER waypoint, aircraft would fly 175° (Magnetic) to cross PDROW waypoint at 7,000 ft. MSL. Aircraft would then fly 180° (Magnetic) and await vectors from ATC to the final approach course for Runway 10 L or Runway 10 R.
- Various additional changes to the STAR, but are not expected to affect local communities.



\*Green lines in above image depict current flight track for landing on Runways 19L and 19R. Red lines depict the new transition which will allow aircraft to land on Runways 10L and 10R.