

San Francisco Roundtable Technical Working Group

September 26, 2019



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Background

This presentation is in response to the San Francisco Roundtable's (SFO RT) request for information in their August 22, 2019 letter to the FAA. For brevity, many of SFO RT's requests have been summarized.

All data, unless otherwise noted, is from August 1, 2019 – August 7, 2019.



SFO RT Request 1a

1a. Current typical path of SFO 050° departures



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SFO RT Request 1b

1b. Current typical path of OAK 120° departures



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SFO RT Request 1c

1c. Current NIITE and HUSSH noise abatement procedure



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SFO RT Request 1d

1d. Current NIITE and HUSSH noise abatement procedure with proposed conventional SUNNE departure

NOTE: The depicted SUNNE departure is an estimation only. Because SUNNE is a conventional procedure, actual flight tracks will vary.



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SFO RT Request 1e

1e. Proposed conventional SUNNE departure

NOTE: Conventional procedures are not subject to JO 7100.41 Performance Based Navigation (PBN) Implementation Process

NOTE: The depicted SUNNE departure is an estimation only. Because SUNNE is a conventional procedure, actual flight tracks will vary.



Google earth

Image Landsat / Copernicus
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Data LEDEO-Columbia, NSF, NOAA
Data SIO, NOAA, U.S. Navy, NGA, GEBCO



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SFO RT Request 1f

1f. SFO 050° departures, OAK 120° departures and proposed conventional SUNNE departure

NOTE: The depicted SUNNE departure is an estimation only. Because SUNNE is a conventional procedure, actual flight tracks will vary.



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SFO RT Request 1g

1g. Current NIITE and HUSSH noise abatement procedure with proposed conventional SUNNE departure

NOTE: The depicted SUNNE departure is an estimation only. Because SUNNE is a conventional procedure, actual flight tracks will vary.

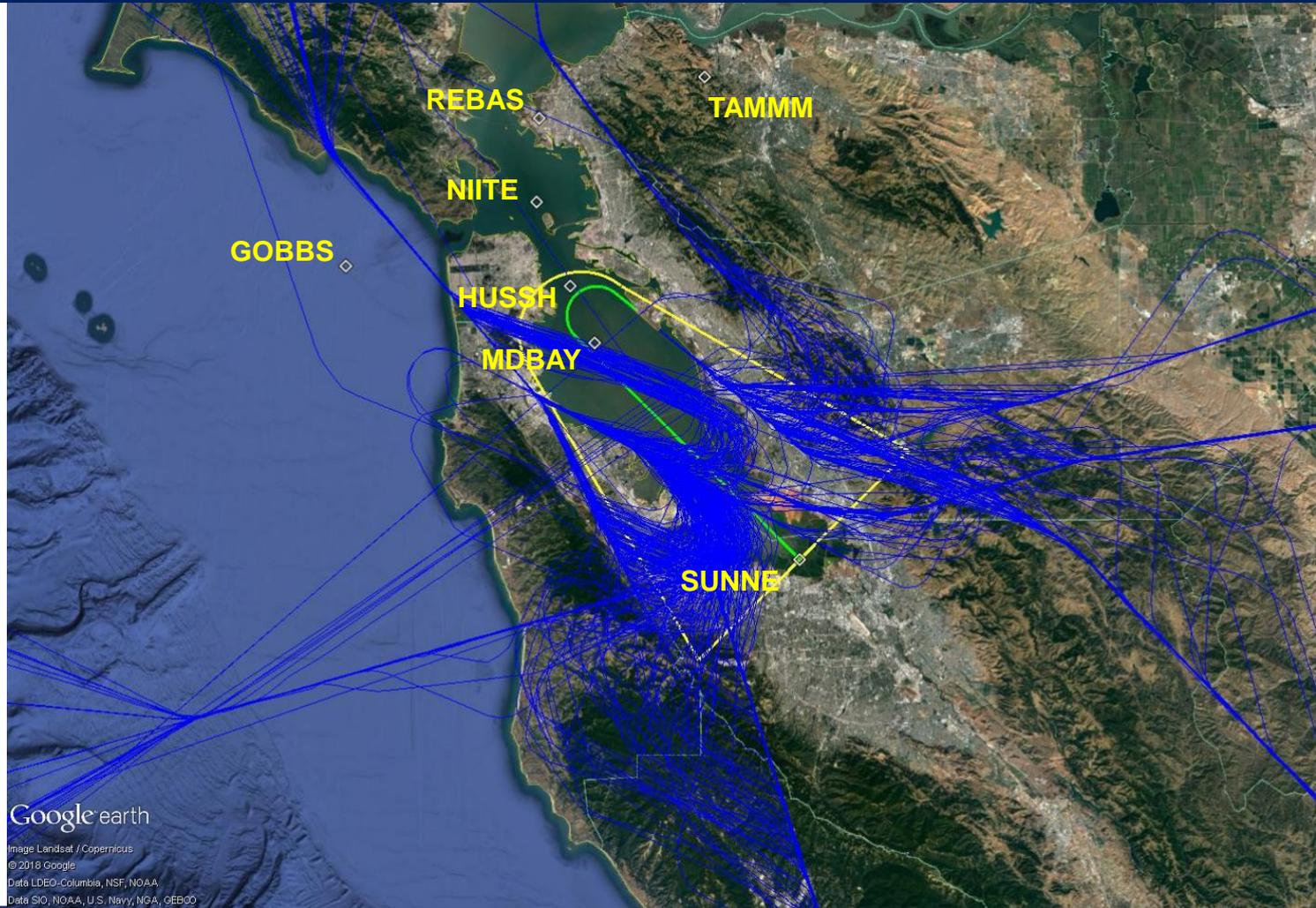


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SFO RT Request 1h

1h. **Proposed conventional SUNNE departure** and **SFO / OAK arrivals**

NOTE: The depicted SUNNE departure is an estimation only. Because SUNNE is a conventional procedure, actual flight tracks will vary.



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SFO RT Request 2

2a. At what step in the PBN Implementation Process (JO 7100.41) is the SUNNE procedure?

FAA Response: The SUNNE departure procedure off OAK is proposed to be a conventional procedure – a procedure that can be utilized by aircraft that are not RNAV equipped. Because it is not a PBN procedure, it is not subject to JO 7100.41 design requirements.

2b. Who is the proponent?

FAA Response: The proponent is the Northern California TRACON, who worked in conjunction with the OAK Airport Noise Office. The 120° departure off OAK is being turned into a procedure for automation purposes, which will increase safety by reducing controller workload.

2c. Who is the lead industry representative?

FAA Response: Because this is a proposed conventional procedure that is not subject to JO 7100.41, there is no requirement for a lead industry representative.



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SFO RT Request 2

2d. Who has provided public input on this proposed procedure?

FAA Response: Because this is a proposed conventional procedure that is not subject to JO 7100.41, there is no requirement for public input under that order. Additional requirements for public input are determined during the environmental review process.

2e. What steps have been completed? What steps are remaining before implementation?

FAA Response: Because this is a proposed conventional procedure, it is not subject to JO 7100.41. For tracking purposes, an Instrument Flight Procedures Gateway entry was created for this request on March 9, 2018. The proposed SUNNE departure procedure currently has an estimated chart date of January 30, 2020.

2vi. When will there be an opportunity for public input?

FAA Response: The FAA will follow JO 1050.1F, NEPA requirements and any applicable special purpose laws in the development of the proposed SUNNE procedure. Though such requirements of community engagement are contained within these, the FAA may elect to conduct additional outreach. Roundtables, such as the SFO Noise Roundtable, and other community groups are a way for public input to reach the FAA regarding proposed and existing procedures.



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SFO RT Request 3

3a. Will the NIITE/HUSSH southbound procedures be legal and safe to fly simultaneously with the proposed SUNNE?

FAA Response: The NIITE/HUSSH and proposed SUNNE procedures will not be procedurally separated. This means that OAK aircraft will only be assigned the proposed SUNNE departure when there are no conflicting SFO departing aircraft, SFO arrival aircraft or OAK arrival aircraft. Additionally, NCT has minimum in-trail separation requirements that it must provide to Oakland Center (ZOA). If these requirements cannot be met for RNAV-equipped aircraft by assigning the proposed SUNNE procedure, those aircraft will be assigned the HUSSH procedure. Non-RNAV equipped aircraft will be held on the ground until they can be released. The same restrictions apply to OAK 120° aircraft today.

3b. Will there be operational conflicts between the proposed SUNNE and the NIITE/HUSSH south which might cause delays for the NIITE/HUSSH southbound departures?

FAA Response: The NIITE/HUSSH and proposed SUNNE procedures will not be procedurally separated. Once southbound NIITE/HUSSH aircraft reach NIITE waypoint, they will proceed west over the Golden Gate Bridge to GOBBS waypoint (the southbound transition), and then to the next waypoint along the aircraft's flight plan. NIITE waypoint is well north of OAK and will have no impact on proposed SUNNE departures, other than those stated in the FAA Response to 3a.



SFO RT Request 3

3c. Will the proposed SUNNE procedure remain operational after the NIITE/HUSSH South transition is implemented? If so, how will flight priorities and conflicts be determined?

FAA Response: The standard noise abatement departure procedure for SFO and OAK is NIITE/HUSSH. Aircraft will only depart OAK on the proposed SUNNE procedure if there are no conflicting aircraft as detailed in the FAA's Response to 3a. If conflicts are present, proposed SUNNE aircraft will either be held on the ground (non-RNAV equipped) or assigned the HUSSH (RNAV equipped).



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SFO RT Request 4

4a. Is there also a SFO 050° Down the Bay Procedure being developed? If so, please provide all details.

FAA Response: There is no such procedure being developed at this time.

4b. If there is not also a companion SFO 050° Down the Bay Procedure being developed, why not?

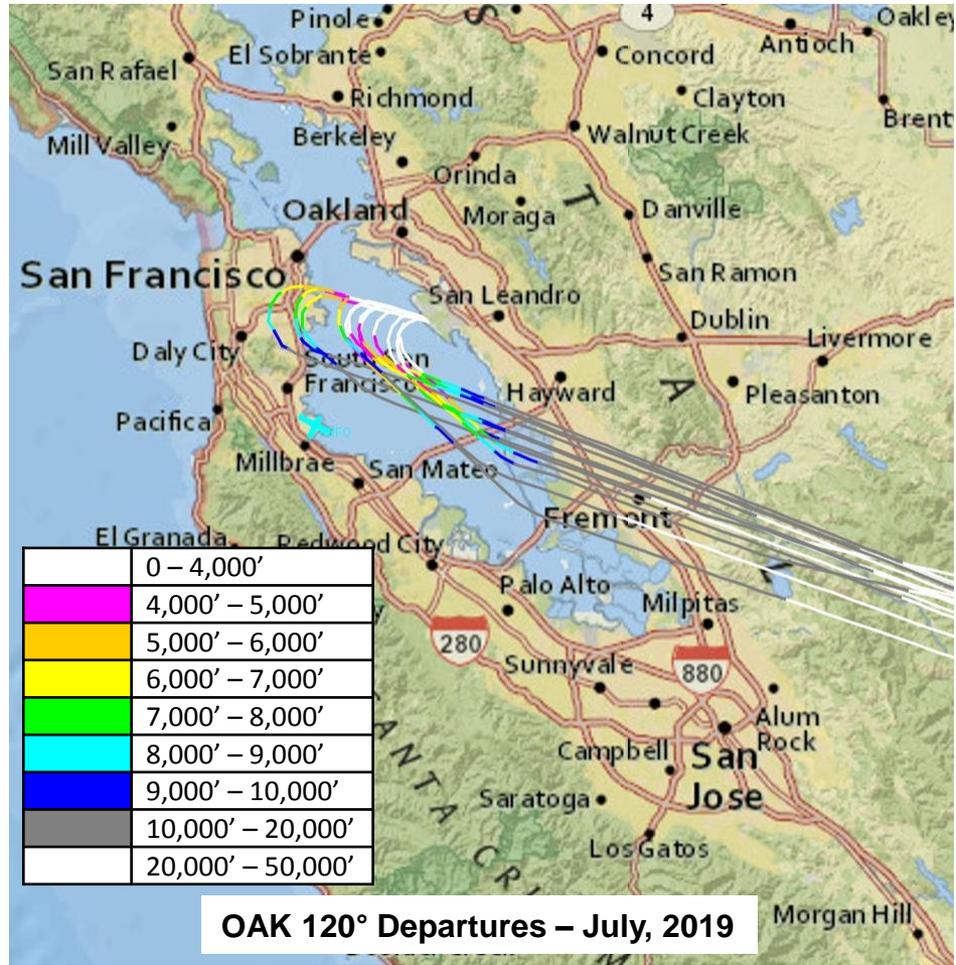
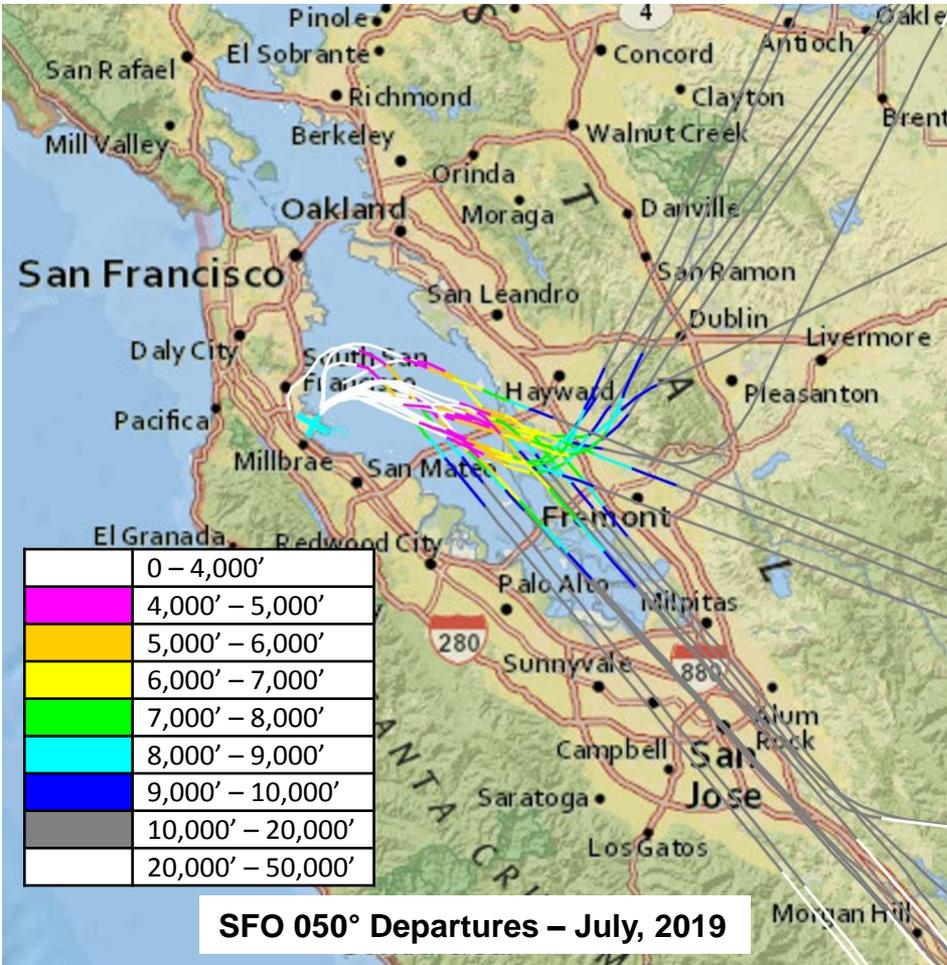
FAA Response: NCT does not have an operational need for such a procedure at this time.

4c. Please provide Google maps showing SFO 050° and OAK 120°.

FAA Response: Please see next slide.



SFO RT Request 4c



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SFO RT Request 5, 6

5. ODO - How will the proposed SUNNE deal with safety separation requirements from incoming OAK and SFO traffic and SFO Runway 1 Departures (including NIITE, HUSSH, SSTIK, CNDEL and any other Runway 1 southbound departure)?

FAA Response: Opposite Direction Operations (ODO) only applies to aircraft departing the same runway that an aircraft is arriving to from the opposite direction. No such operation is permitted at SFO or OAK.

The standard noise abatement departure procedure for SFO and OAK is proposed to be NIITE/HUSSH. Aircraft will only depart OAK on the proposed SUNNE procedure if they are unable to accept the HUSSH (non-RNAV equipped) or when there are no conflicting aircraft as detailed in the FAA's Response to 3a. If conflicts are present, proposed SUNNE aircraft will need to be sequenced in, meaning some aircraft will be held on the ground.

6. If the proposed SUNNE procedure is implemented, will it interfere with support from the FAA, Airports and industry for implementation of the NIITE/HUSSH Southbound Transition?

FAA Response: The NIITE/HUSSH and proposed SUNNE procedures will not be procedurally separated. Once southbound NIITE/HUSSH aircraft reach NIITE waypoint, they will proceed west over the Golden Gate Bridge to GOBBS waypoint (the southbound transition), and then to the next waypoint along the aircraft's flight plan. NIITE waypoint is well north of OAK and will have no impact on proposed SUNNE departures, other than those stated in the FAA Response to 3a.

