AGENDA

SANTA CLARA/SANTA CRUZ COUNTIES AIRPORT/COMMUNITY ROUNDTABLE

Fourteenth Regular Meeting of the Roundtable

October 28, 2020
1:00 – 4:00 PM PDT

This meeting will be conducted in accordance with State of California Executive Order N-29-20, dated March 17, 2020. All members of the Committee will participate by video conference, with no physical meeting location.

Members of the public wishing to observe the meeting live may do so at:
https://www.youtube.com/channel/UCtPEqHsvTSnRcJUCQxX2Ofw?view_as=subscriber

Youtube.com → SCSC Roundtable Channel

Members of the public wishing to comment on an item on the agenda may do so in the following ways:

1. Email comments to scscroundtable@gmail.com by 3:00 p.m. on October 27. Emails will be forwarded to the Committee. Emails received after 3:00 p.m. and prior to the Chair announcing that public comment is closed may be noted or may be read into the record by the Chair at the meeting (up to 3 minutes) at the discretion of the Chair. **IMPORTANT:** *Identify the Agenda Item number in the subject line of your email. All emails received will be entered into the record for the meeting.*

2. Provide oral public comments during the meeting by following the link to register in advance to access the meeting via Zoom Webinar: https://esassoc.zoom.us/webinar/register/WN_K39dUvvlQiK6ef0HRL8KRA

    a. You will be asked to enter an email address and a name. Your email address will not be disclosed to the public. After registering, you will receive an email with instructions on how to connect to the meeting. If you prefer not to provide an email, you may call in to the meeting (listed below) and view the live stream on the SCSC Roundtable YouTube Channel.

    Dial: US : +1 213 338 8477 or +1 669 219 2599 or +1 206 337 9723 or +1 346 248 7799 or +1 470 250 9358 or +1 646 518 9805 or 833 548 0276 (Toll Free) or 833 548 0282 (Toll Free) or 877 853 5247 (Toll Free) or 888 788 0099 (Toll Free)

    Webinar ID: 885 2078 0728

    b. When the Chair announces the item on which you wish to speak, click the "raise hand" feature in Zoom. Speakers will be notified shortly before they are called to speak.

    c. When called to speak, please limit your comments to the time allotted (up to 3 minutes, at the discretion of the Chair).

    d. For those individuals participating by phone, you may use the following controls as appropriate.

    Press *9 - Raise hand

1:00 PM	1. Welcome/Review of the Meeting Format – *Steve Alverson, Roundtable Facilitator*	Information
	2. Call to Order and Identification of Members Present – *Chairperson Bernald*	Information
1:10 PM	3. Flight Track Dispersion 101 – *Chris Sequeira, ESA, Backup Roundtable Facilitator* Public Comment	Information
2:20 PM	4. Committee Reports a.) Technical Working Group – *Technical Working Group Committee Chair Anita Enander* - Discussion and possible approval of sending a letter regarding use of the BDEGA flight paths to the FAA - Discussion and possible approval of enlisting ESA input regarding the CATEX process - Discussion and possible approval of sending follow-up letter to the FAA regarding PIRAT b.) Legislative Committee – *Legislative Committee Chair Lisa Matichak* Possible actions include consideration of sending a letter regarding the use of the BDEGA flight paths to the FAA, authorizing ESA input regarding the FAA's CATEX process, and direction from the full Public Comment	Information/ Action
2:50 PM	5. Ad Hoc Committee Report – *Chairperson Bernald* Update regarding the Ad Hoc Committee's exploration of the possibility of the Roundtable becoming independent from the Cities Association in Response to the Cities Association Executive Board request. Possible actions include direction from the full Roundtable to the Ad Hoc Committee on the possibility of the Roundtable becoming independent from the Cities Association. Public Comment	Information/ Action
3:30 PM	6. Oral Communications/Public Comment - *Speakers are limited to a maximum of two minutes or less depending on the number of speakers. Roundtable members cannot discuss or take action on any matter raised under this agenda item.*	Information
3:45 PM	7. Member Discussion - Chair's Report Public Comment	Information
4:00 PM	8. Adjournment – *Chairperson Bernald*	

Materials to be provided during the meeting:

- Presentation of the electronic agenda packet

In compliance with the Americans with Disabilities Act and the Brown Act, those requiring accommodation for this meeting should notify SCSC Roundtable Staff at least 24 hours prior to the meeting at scscroundtable@gmail.com; or at (408) 766-9534, or (916) 231-1166.

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memorandum

date	October 23, 2020
to	Roundtable Members and Interested Parties
cc	
from	Steve Alverson, Santa Clara/Santa Cruz Counties Airport/Community Roundtable Facilitator
subject	Review of the Federal Aviation Administration (FAA) Instrument Flight Procedures (IFP) Information Gateway

The FAA's Instrument Flight Procedures Information Gateway ("IFP Gateway") is a website used by the FAA to distribute aircraft instrument flight procedure details ("charts") to the general public.[1] The FAA also uses the IFP Gateway to share its IFP Production Plan, which includes details on IFPs under development or amendment along with development status and tentative publication dates. Environmental Science Associates (ESA) monitors the IFP Gateway for proposed changes to IFPs associated with Norman Y. Mineta San Jose International Airport (SJC), San Francisco International Airport (SFO), and Oakland International Airport (OAK). Changes to IFPs associated with these airports may affect communities in Santa Clara and Santa Cruz counties.

The FAA publishes IFPs on a 56-day publication cycle. The most recent publication date is September 10, 2020. The following information provides details on the IFP development process and IFPs under development or amendment.

Stages of IFP Development

Development of IFPs typically follows five stages, described below. Depending on the nature of the IFP development or amendment, not all of these stages may occur.

1. **FPT (Flight Procedures Team):** This team reviews potential IFPs for feasibility and coordinates IFP development with relevant FAA lines of business and staff offices.
2. **DEV:** Procedure development.
3. **FC (Flight Check):** The FAA performs a flight inspection of the procedure.
4. **PIT (Production Integration Team):** This team prepares procedure details to support publication.

[1] https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/

5. **CHARTING:** Procedures are made available to the public, typically in graphical, text, and electronic formats.

IFP Development Status Indicators

The following terms are employed by the FAA to identify the status of the IFP during the development process.

At Flight Check	The procedure is with FAA staff responsible for flight inspection.
Awaiting Publication	The procedure has been developed and is awaiting an upcoming publication date.
Awaiting Cancellation	The procedure will be removed from FAA flight procedure databases on an upcoming publication date.
Complete	Procedure development has finished.
On Hold	Procedure development has been paused while awaiting further information.
Pending	Detailed development of the procedure will begin in the future.
Published	The procedure has been made publicly available.
Terminated	Development has terminated for the procedure.
Under Development	The procedure is being developed by the FAA.

Key Terms

The following acronyms are employed by the FAA to describe the IFP, including some of the navigational equipment necessary to accommodate the IFP.

AMDT	Amendment
CAT	Category
DME	Distance Measuring Equipment
DP	Departure Procedure
GPS	Global Positioning System
GLS	Ground-Based Augmentation System (GBAS) Landing System
IAP	Instrument Approach Procedure
ILS	Instrument Landing System
LOC	Localizer
LDA	Localizer Type Directional Aid
RNAV	Area Navigation
RNP	Required Navigation Performance
RWY	Runway
SA	Special Authorization
SID	Standard Instrument Departure
STAR	Standard Terminal Arrival Route
TBD	To Be Determined

Management of FAA IFP Production During the COVID-19 Pandemic

On April 16, 2020, the FAA issued a memorandum (distributed with the May 27, 2020 IFP Gateway memorandum) discussing changes to IFP production during the COVID-19 pandemic. FAA noted that IFP production has been impacted by precautions taken to protect the health and safety of FAA Flight Inspection aircrews[2] due to the pandemic. Among the work that may continue during the pandemic is completion of IFP procedure amendments that do not require flight inspection; periodic IFP reviews and inventory maintenance; compilation and utilization of a list of completed IFP work that can be flown by Flight Inspection aircrews if operations are warranted; and coordination with FAA Flight Inspection Operations on IFP requests associated with National Airspace System Safety/Efficiency. This includes IFP related requests such as returning navigational aids to service and providing support to Flight Inspection Operations by ensuring satisfaction of IFP requirements at Focus 40 airports. IFP requirements include satisfaction of instrument approach procedure prerequisites, collection of airport land survey data, collection of airport data, and satisfaction of an initial environmental review. Both OAK and SFO are Focus 40 airports. SJC is not a Focus 40 airport. The memorandum further states that no new or amended IFP will be validated by Flight Inspection without prior FAA approval.

IFP Status

The following tables provide status updates on IFP production for procedures serving OAK, SFO, and SJC. Information highlighted in turquoise has been updated since the July 17, 2020 SCSC Roundtable IFP Gateway Review.

Norman Y. Mineta San Jose International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
ILS OR LOC RWY 30L, AMDT 26	IAP	Published	9/10/2020	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 12L, AMDT 2B	IAP	Under Development	4/22/2021	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 12R, AMDT 3B	IAP	Under Development	4/22/2021	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 30L, AMDT 2B	IAP	Under Development	4/22/2021	No further information available on the IFP Gateway at this time.

[2] The FAA's Flight Inspection Operations Group is responsible for ensuring the safety of instrument flight procedures in the National Airspace System. Flight Inspection aircrews evaluate and validate ground and space-based navigational aids and conduct airborne inspection of all instrument flight procedures under both ideal and adverse weather conditions.

San Francisco International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
TIPP TOE VISUAL RWY 28L/R, AMDT 3	IAP	Pending	12/2/2021	The change is of interest to the SCSC Roundtable as the current procedure is a nighttime noise abatement procedure that overflies Los Altos and Palo Alto. Additional information is being pursued.
GLS OVERLAY RNAV (GPS) RWY 19L, AMDT 3	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) RWY 19R, AMDT 2	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) RWY 28L, AMDT 6	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) Z RWY 28R, AMDT 6	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
POINT REYES THREE	STAR	Pending	6/17/2021	No further information available on the IFP Gateway at this time.
STINS FOUR	STAR	Pending	6/17/2021	No further information available on the IFP Gateway at this time.
ILS PRM RWY 28L (SIMULTANEOUS CLOSE PARALLEL), AMDT 3A	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
LDA PRM RWY 28R, AMDT 2B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
LDA/DME RWY 28R, AMDT 2B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) PRM RWY 28L (CLOSE PARALLEL), AMDT 2	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) PRM X RWY 28R, AMDT 1B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.

Oakland International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
QUAKE TWO	SID	Awaiting Publication	11/5/2020	This is an update to the QUAKE ONE SID published 1/30/2020. No further information available on the IFP Gateway at this time.
ILS OR LOC RWY 12, AMDT 9	IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) Y RWY 12, AMDT 4	IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
AANET TWO	RNAV STAR	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
WNDSR THREE	RNAV STAR	Pending	10/7/2021	No further information available on the IFP Gateway at this time.

Agenda Item 3. Flight Track Dispersion 101 – Chris Sequeira, ESA, Backup Roundtable Facilitator

Santa Clara/Santa Cruz Counties
Airport/Community Roundtable

Aircraft Flight Track Dispersion 101

Chris Sequeira, ESA

October 28, 2020

Presentation Outline

- How Do Aircraft Navigate?
- What is Flight Track Dispersion?
- Special Cases of Dispersion
- Summary

How Do Aircraft Navigate?

Visual and Instrument Flight Rules

- Title 14 of the Code of Federal Regulations, Part 91 (14 CFR Part 91) specifies regulations for operating aircraft in the National Airspace System (NAS)
- Visual Flight Rules (VFR) enable pilots to operate by visual reference to the sky and ground when weather conditions allow
  - VFR regulations begin at 14 CFR Part 91.151
- Instrument Flight Rules (IFR) enable pilots to operate by referencing aircraft navigation instruments when weather conditions do not permit VFR operation
  - IFR regulations begin at 14 CFR Part 91.167

Fundamentals of VFR Operation

- Navigation by visual reference to the sky, ground, and objects
- Requires specific weather conditions, such as visibility and distance from clouds, specified in 14 CFR Part 91.155
- Requires pilots to take responsibility for seeing and avoiding aircraft and other obstacles

Image source: “DSC_2412.” kansasphoto. flickr. https://www.flickr.com/photos/34022876@N06/3472528846/. Some rights reserved. Cropped by ESA.

Fundamentals of IFR Operation

- Navigation by reference to aircraft instruments, such as altimeters, attitude indicators, and electronic navigation equipment
- Enables navigation in adverse weather conditions
- FAA Air Traffic Control (ATC) typically takes responsibility for separating aircraft from other aircraft and obstacles
- Commercial aircraft usually fly under IFR

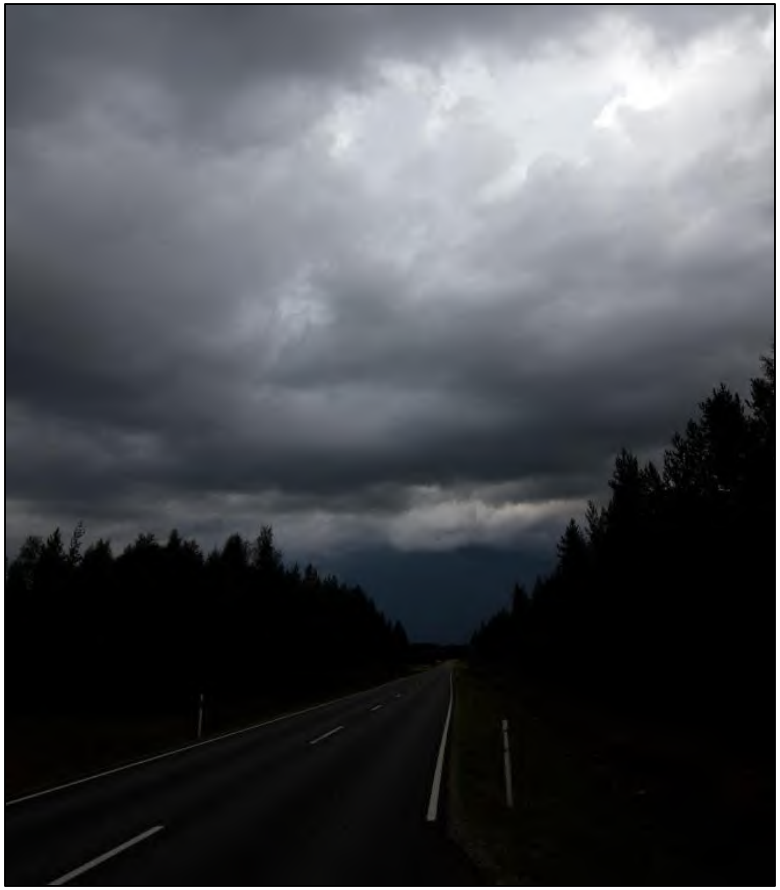

Image source: “Rainy Weather.” Antti. flickr. https://www.flickr.com/photos/fragmentfi/3889028973/. Some rights reserved. Cropped by ESA.

What is an Instrument Flight Procedure (IFP)?

- A standard set of instructions for IFR navigation
- IFPs usually include reference locations for navigation. These locations are:
  - Ground based navigational aids (navaids) that use radio beacons
  - Or, “waypoints” formed by intersecting radio beacons or satellite Global Positioning System (GPS) coordinates
- Designed to separate aircraft from terrain and obstacles
- The FAA develops most IFPs and makes them publicly available to pilots in the flying in the United States

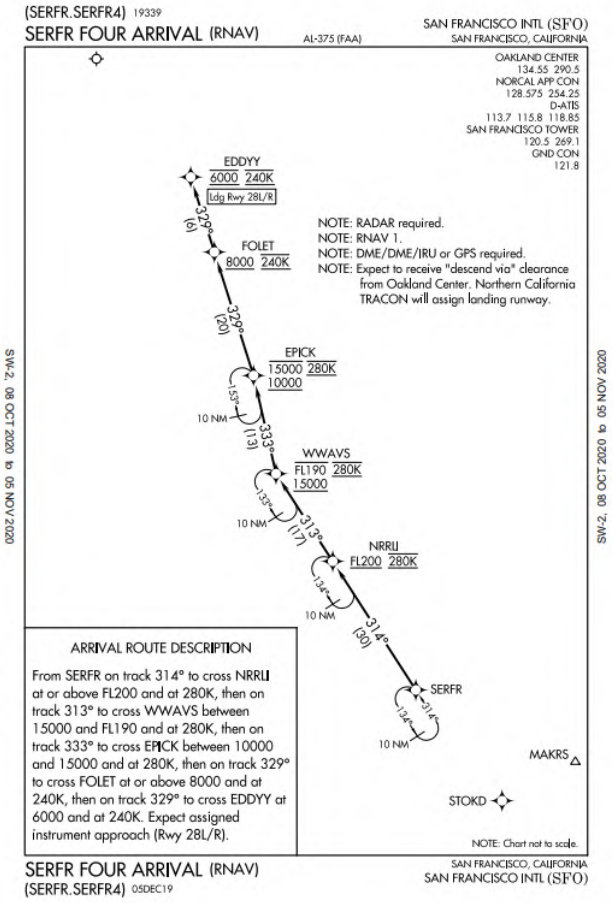

Image source: “SERFR FOUR Arrival (RNAV).” Federal Aviation Administration. https://www.faa.gov/aero_docs/dtpp/2011/00375SERFR.PDF#nameddest=(SFO).

Why Use an Instrument Flight Procedure?

- Reduces verbal communications between pilots and ATC
  - Lower pilot/controller workload
  - Fewer errors
- Improves predictability of aircraft locations
- IFPs provide flexibility to ATC, which can “vector” aircraft onto or off of IFPs

Image source: https://www.pxfuel.com/en/free-photo-eywro

What IFPs are Common Near Airports?

- Standard Instrument Departures (SIDs): Guide departing aircraft from an airport to the en route (higher-altitude) environment
- Standard Terminal Arrival Routes (STARs): Guide arriving aircraft from the en route environment to the vicinity of an airport
- Instrument Approach Procedures (IAPs): Guide arriving aircraft from the near-airport vicinity to a runway for landing

Image source: "SFO." Ron Reiring. flickr. https://www.flickr.com/photos/84263554@N00/185124495. Some rights reserved. Cropped by ESA.

What is a Conventional IFP?

- An IFP that features aircraft navigation using radio beacons from ground-based navaids
- Typically requires that aircraft directly overfly navaids
  - Limits flexibility in design of flight paths
- Accuracy of navigation varies with distance between aircraft and navaids

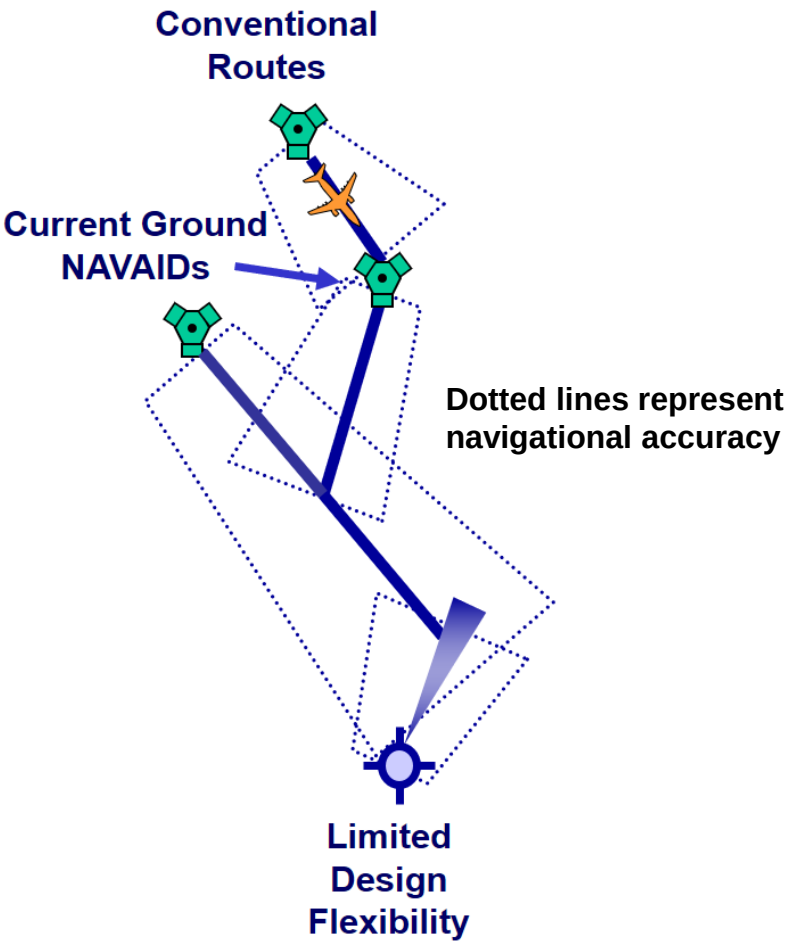

Image source: "Required Navigation Performance (RNP) in the United States." Federal Aviation Administration. June 7, 2005. Adapted by ESA.

What is an Area Navigation (RNAV) IFP?

- An IFP that features aircraft navigation unconstrained by the locations of ground-based navaids
- Typically features GPS waypoints
- GPS navigation does not vary with distance between aircraft and waypoint, permitting greater navigation accuracy
- Many commercial airports feature RNAV SIDs, STARs, and IAPs

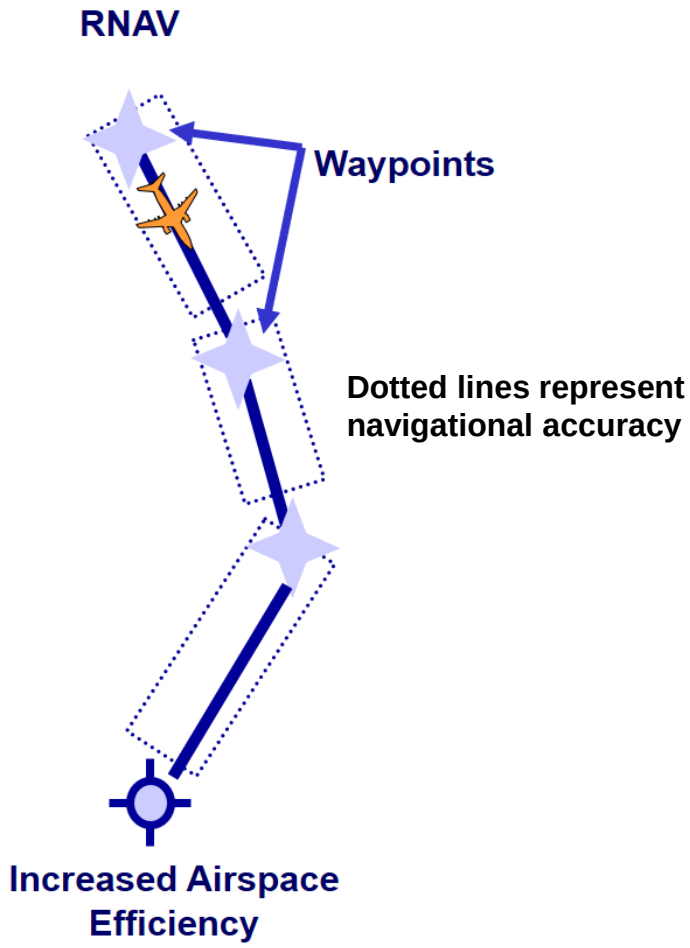

Image source: "Required Navigation Performance (RNP) in the United States." Federal Aviation Administration. June 7, 2005. Adapted by ESA.

Why is RNAV Important to the FAA?

- RNAV is a key enabler for FAA's NextGen
- The purpose of NextGen: to improve "capacity, performance, efficiency, and predictability" of aircraft operations in the NAS*
- The FAA states that it "has switched to a primarily satellite-enabled navigation system that is more precise than traditional ground-based" navaids
- The increased precision of RNAV is necessary to help the FAA meet its NextGen goals

* "How NextGen Works." https://www.faa.gov/nextgen/how_nextgen_works/.
Image source: "Required Navigation Performance (RNP) in the United States." Federal Aviation Administration. June 7, 2005. Adapted by ESA.

Why is RNAV Important to the FAA? (cont.)

- Implementation of RNAV is mandated by the U.S. Congress
- The FAA Modernization and Reform Act of 2012 required the FAA to implement RNAV IFPs at the 35 busiest commercial airports in the U.S. before June 30, 2015*
- In 2012, San Francisco International Airport was the 7th busiest airport in the United States+

* Public Law 112-95, Section 213(a)(2)(C).
+ "2012 Airport Traffic Report." The Port Authority of New York & New Jersey. April 1, 2013.
Image source: "U.S. Capitol West Facade." massmatt. flickr. https://www.flickr.com/photos/momentsnotice/49313225507/. Some rights reserved.
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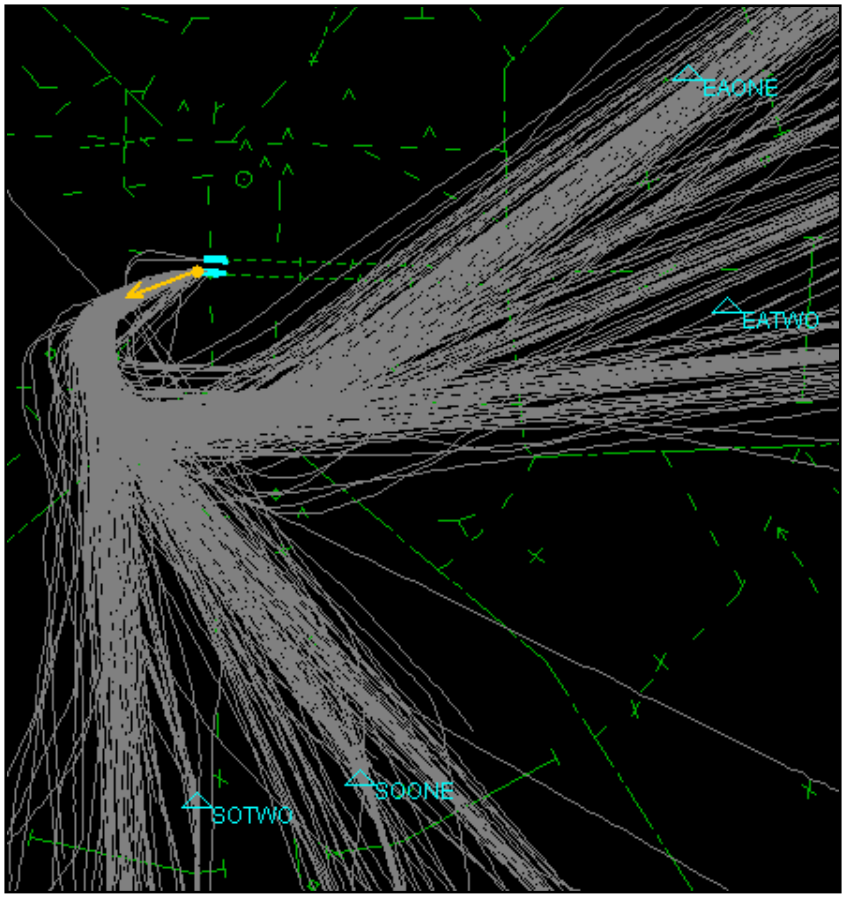
What is Flight Track Dispersion?

What is Flight Track Dispersion?



- Variation of aircraft locations along the centerline of an IFP
  - Typically refers to horizontal variation (left or right of an IFP centerline)
- Results in varying locations of overflights and noise exposure
- The gray lines in the example graphic at left represent varying locations of aircraft departure flight tracks

Image source: “Required Navigation Performance (RNP) in the United States.” Federal Aviation Administration. June 7, 2005. Adapted by ESA.

What Are Some Causes of Dispersion?

- Instructions from ATC to vector aircraft onto or off of IFPs can cause flight track dispersion
- Some IFPs direct aircraft down a common route segment before sending them to different directions on separate segments depending on aircraft destination, also causing dispersion
- The example graphic shows departure dispersion caused by ATC vectoring or different aircraft destinations

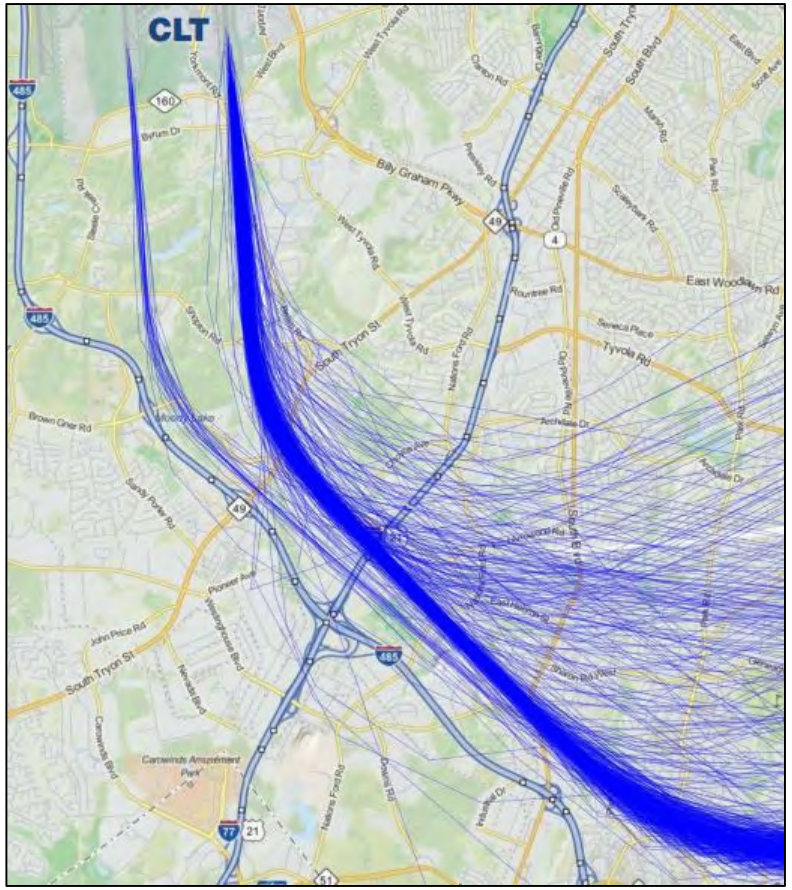


Image source: “Charlotte Metroplex Meeting.” Federal Aviation Administration. May, 2016.

What Are Some Causes of Dispersion? (cont.)

- Ground-based navaids provide accuracy that varies with distance between aircraft and navaid, causing dispersion
- RNAV IFPs typically use GPS navigation, which remains highly accurate regardless of distance to waypoints – this concentrates flights into narrow paths

Example of departure flight tracks before and after RNAV SID implementation

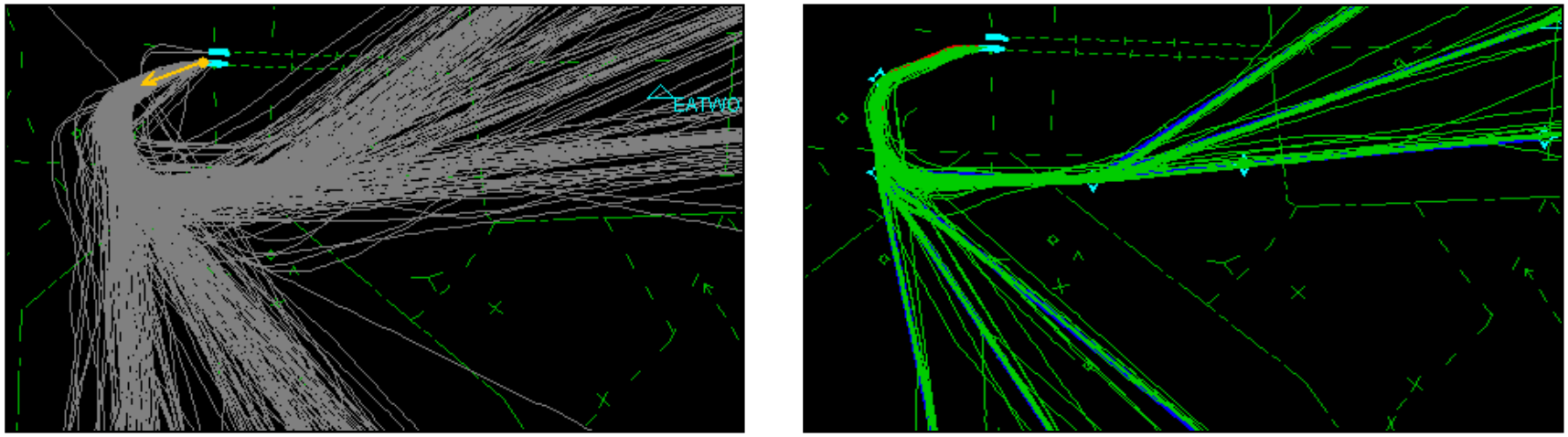


Image sources: "Required Navigation Performance (RNP) in the United States." Federal Aviation Administration. June 7, 2005. Adapted by ESA.

What Are Some Causes of Dispersion? (cont.)

- Variations in weather and aircraft performance capabilities can cause dispersion
- These variations can affect when different aircraft operations must turn from one reference point to the next
- Climb rates and tightness of aircraft turns can also be affected by these variations

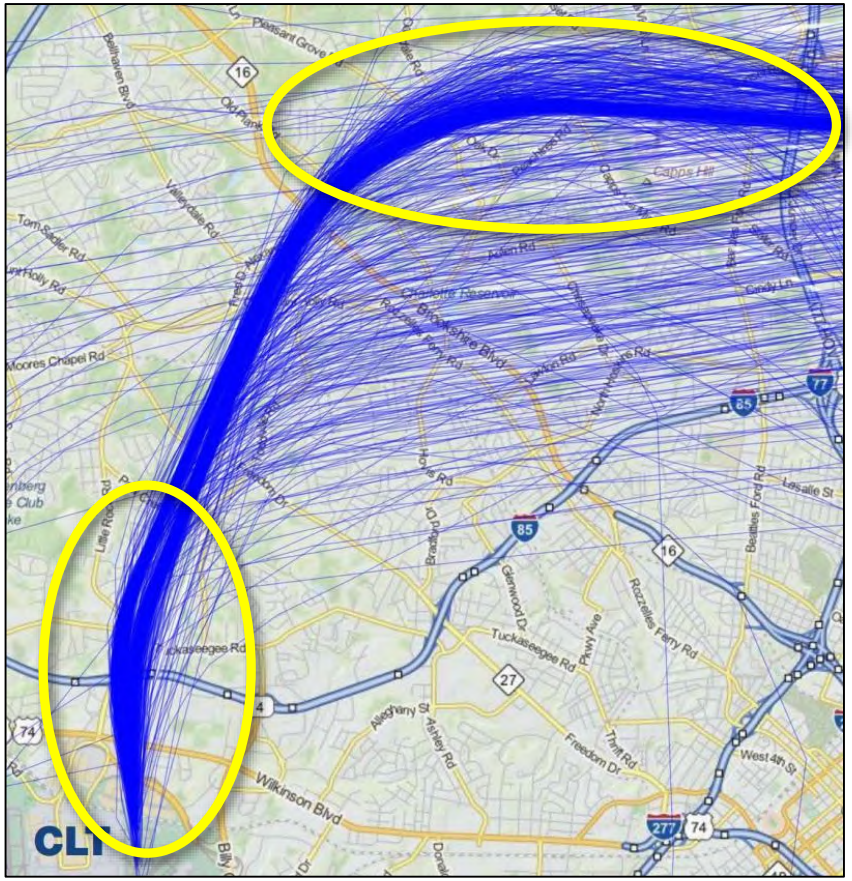


Image source: “Charlotte Metroplex Meeting.” Federal Aviation Administration. May, 2016.

How Does RNAV Implementation Affect Dispersion?

- RNAV GPS navigation allows highly-accurate, consistent navigation
- Accuracy of GPS does not vary with distance between aircraft and waypoint
- Result: Fewer people are overflown, but those people are overflown more often

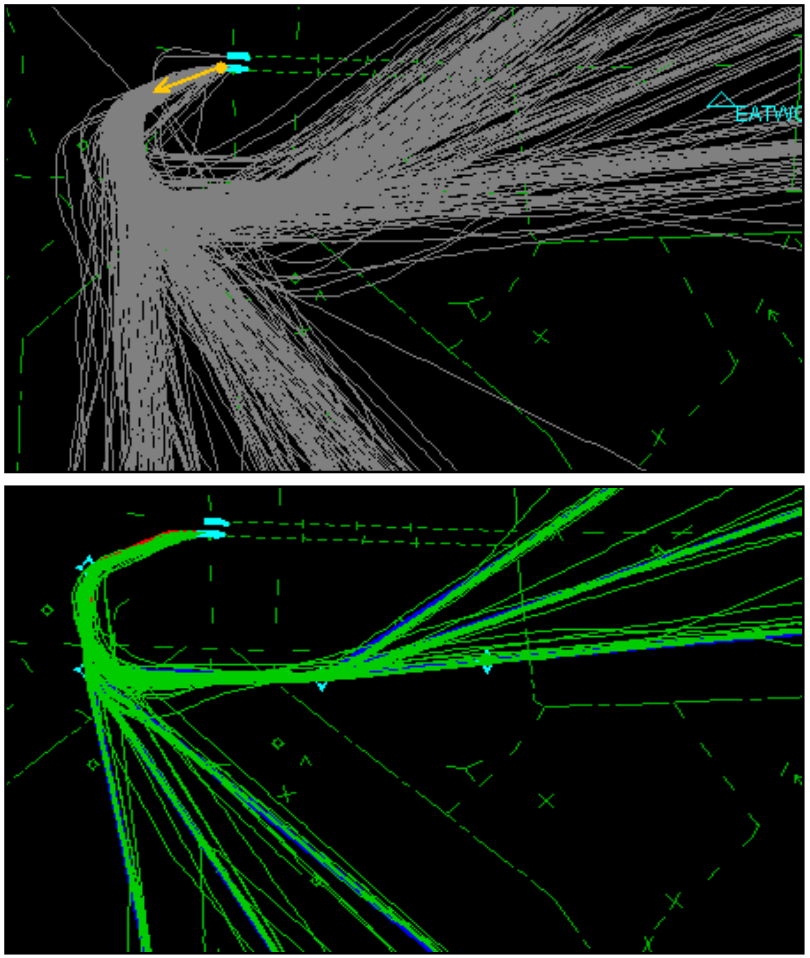


Image sources: “Required Navigation Performance (RNP) in the United States.” Federal Aviation Administration. June 7, 2005. Adapted by ESA.

How Does RNAV Implementation Affect Dispersion? (cont.)

- In the FAA's response to the Southern San Fernando Valley Airplane Noise Task Force regarding RNAV IFPs at Hollywood Burbank and Van Nuys airports, the FAA stated the following:

> . . . it is not possible to replicate the kind of random dispersal that occurs when planes are flying using ground based navigation—in other words, introducing systematic dispersal using satellite based routes would not achieve the outcome of "going back to the way it was." That type of dispersal is no longer possible.*

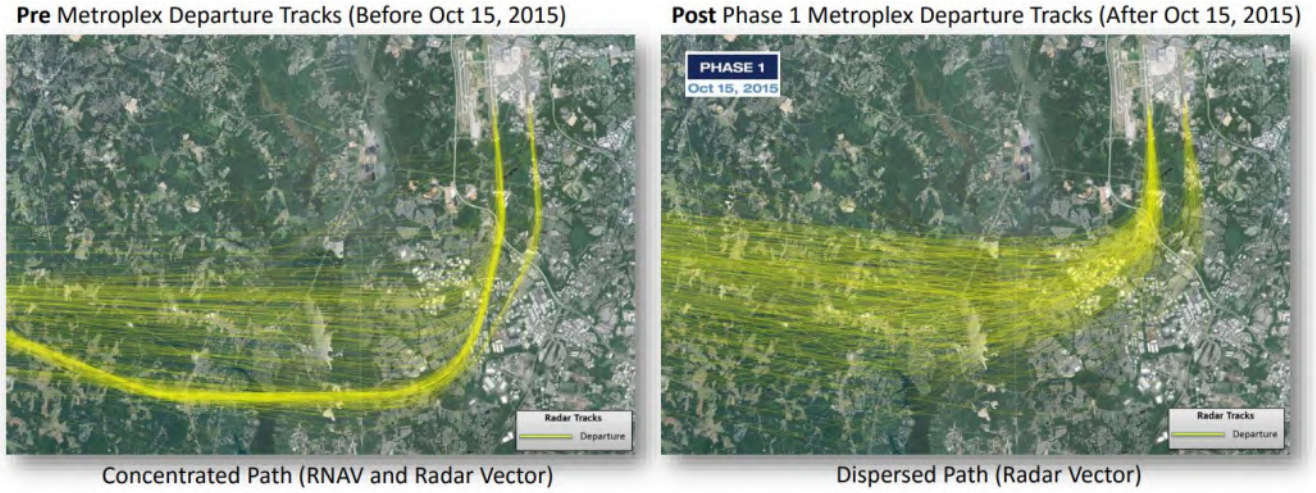
It is not possible for RNAV IFPs to duplicate the dispersion of conventional IFPs.

* Federal Aviation Administration. Letter from Raquel Girvin to Patrick Lammerding and Flora Margheritis. September 1, 2020.

Special Cases of Flight Track Dispersion

Charlotte Optimization of Airspace and Procedures in the Metroplex (CLT OAPM)

- In 2015, the FAA published a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the Charlotte Optimization of Airspace and Procedures in the Metroplex*
- The CLT OAPM appeared to feature additions of flight track dispersion in certain areas. For example:



Concentrated Path (RNAV and Radar Vector)

Dispersed Path (Radar Vector)

* "Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the Charlotte Optimization of Airspace and Procedures in the Metroplex (CLT OAPM)." Federal Aviation Administration. June 2015.

Image source: "Metroplex: An Update on Charlotte Airspace Modernization." Federal Aviation Administration. May 19, 2016.

Charlotte Optimization of Airspace and Procedures in the Metroplex (cont.)

- In the CLT OAPM FONSI ROD, however, the FAA states the following as part of the Purpose and Need for the CLT OAPM* (emphasis by ESA):

> . . . there are an **insufficient number of transitions for existing Standard Terminal Arrival Routes (STARs)** and arrivals from the northwest cornerpost require greater support. There are also an insufficient number of Standard Instrument Departures (SIDs). The **current SIDs are inefficiently designed and require earlier route divergence** to increase departure throughput.

In the CLT OAPM, the FAA added IFPs / dispersion specifically to meet operational efficiency goals, rather than noise exposure goals.

* "Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the Charlotte Optimization of Airspace and Procedures in the Metroplex (CLT OAPM)." Federal Aviation Administration. June 2015.

Open SIDs

- In 2015, the FAA published criteria for RNAV SIDs that contain intermediate route segments with ATC vectoring – known as "Open SIDs"*
- ATC vectoring would disperse flights in the middle of open SIDs
- The criteria memorandum, however, specifically states the following:

> . . . open SID design criteria should be used only where operationally necessary to achieve airspace efficiencies.

Open SID IFPs are not intended to support noise exposure goals.

* "Criteria for Area Navigation (RNAV) Standard Instrument Departures (SID)s that contain RADAR Vector Segments (Open SID Design)." Federal Aviation Administration. Memorandum from Bruce DeCleene to Jodi McCarthy. September 2, 2015.

The FAA Reauthorization Act of 2018

- Section 175 of the FAA Reauthorization Act of 2018 specifies situations where the FAA "shall consider the feasibility of dispersal headings or other lateral track variations" for RNAV departures below 6,000 feet above ground level*
  - If an airport operator, in consultation with an affected community, submits a request to FAA;
  - If the FAA judges that the airport operator's request would not "conflict with the safe and efficient operation" of the NAS; and,
  - If the modified departure would "not significantly increase noise over noise sensitive areas"

Section 175 does not mandate the FAA to add dispersion to RNAV IFPs.

* Public Law 115-254, Section 175.

Summary

Summary

- Implementation of RNAV helps the FAA meet its NextGen goals and is also mandated by the U.S. Congress
- It is not possible for RNAV IFPs to duplicate the flight track dispersion observed with conventional IFPs
- In special cases, the FAA has added dispersion to IFPs specifically to meet operational efficiency goals
- In certain cases, the FAA is required to consider adding dispersion to RNAV SIDs, but is not mandated to do so

The FAA is unlikely to retain or add dispersion to IFPs unless necessary to meet NextGen goals.

Questions?

Agenda Item 4.Committee Reports - Attachments

a.)Technical Working Group – Technical Working Group Committee Chair Anita Enander

- Discussion and possible approval of sending a letter regarding use of the BDEGA flight paths to the FAA

Item4a_1_Letter Regarding BDEGA Arrivals - FAA Questions

- Discussion and possible approval of sending follow-up letter to the FAA regarding PIRAT

Item4a_3_Letter Response to FAA PIRAT letter dated May 27, 2020

Item4a_3_CATEGORICAL EXCLUSION
DECLARATION/RECORD OF DECISION
San Francisco International Airport/Metropolitan Oakland International Airport
Amendments to Multiple Procedures
PIRAT STAR

DATE

Ms. Raquel Girvin
Regional Administrator, AWP-1
FAA Western-Pacific Region
777 South Aviation Boulevard, Suite 150
El Segundo, CA 90245

Subject: BDEGA Arrivals - FAA Questions

Dear Administrator Girvin,

As the FAA is aware, SFO BDEGA arrivals have a substantial negative impact on many Peninsula residents because it is a high-volume procedure (roughly 25% of SFO arrivals) and planes fly over the Peninsula the majority of the time (typically 70% or more) using the BDEGA-west leg[1] instead of the BDEGA-east leg[2] down over the Bay.

Both the SFO Roundtable and Select Committee made multiple recommendations to the FAA regarding increasing the use of the BDEGA-east leg, including returning to historical usage where BDEGA-east was used at least 50% of the time:

- See Appendix for data analyses (recent and historical).
- See the November 2016 SFO Roundtable recommendations (in particular pages 7-9 of the pdf document) and the November 2016 Select Committee recommendations (in particular section 2.2 on page 10 of report).

Through past FAA updates and comments at Roundtable meetings, the FAA indicated that BDEGA-east usage was constrained by DYAMD arrival volume and that the FAA would reinforce the use of BDEGA-east with Air Traffic Control.

If the FAA took specific actions to increase the percentage use of BDEGA-east, we have not seen substantial progress since these recommendations were made. We were hoping, however, that the sharp downturn in SFO operations caused by the COVID-19 pandemic would allow the FAA to increase substantially the use of BDEGA-east therefore reducing impact on residential communities of the Peninsula.

We saw some improvement in May and June 2020, which we appreciate very much. Using BDEGA-east 40% of the time is great progress over the typical 28 or 30% usage of the last few years. However, the percentage split for BDEGA-east still falls short of historical values achieved when air traffic was much higher than now. For instance, BDEGA-east was used 57% of the time in May 2005 when traffic was almost three times as high. One would expect that the

[1] The SCSC Roundtable acknowledges that the FAA uses the term "BDEGA Arrival" instead of the BDEGA-west leg, which has been retained here for historical context.
[2] The SCSC Roundtable acknowledges that the FAA uses the term "downwind visual for the BDEGA Arrival" instead of the BDEGA-east leg over the Bay, which has been retained here for historical context.

FAA would be able to achieve similar splits or exceed them when the volume of SFO operations is roughly one-third of what it was then. See the BDEGA-east analysis provided in the Appendix.

Given the limited improvement observed on the percentage use of BDEGA-east, we would therefore like the FAA to address the following BDEGA questions:

1. What is preventing Air Traffic Control from using the BDEGA-east leg more during this period of drastically reduced air traffic volume at SFO?
    - Please list all reasons with supporting data.
        - In particular, please specify whether NIITE/HUSSH departures or OAK departures to FFOIL with transition to YYUNG conflict with BDEGA-east arrivals.
    - Please provide specific reasons why BDEGA-east was used only 40% of the time in May 2020, but 57% of the time in May 2005 when traffic volume was about three times higher.
    - Identify what can be done for ATC to use BDEGA-east much more during this very low traffic period.

2. Is the BDEGA-east leg down the Bay considered an integral part of the BDEGA arrivals procedure?
    - If not, please explain why not and what needs to happen to change that.

3. Is the FAA willing to consider changes to enable the use of BDEGA-east at least 50% of the time?
    - Please suggest all possible changes that would increase usage of BDEGA-east.
        - Changes may include but are not limited to increasing in-trail spacing on DYAMD, creating a curved arrival Required Navigation Procedure over the Bay, coordinating SFO or OAK departures to allow BDEGA-east arrivals if conflicts exist, and making BDEGA-east the default leg for SFO arrivals from the north during night time (10 PM to 7 AM).
    - For each possible change, specify if the FAA is willing or not to evaluate the change.
        - If the FAA is willing, describe the process to initiate the change.
        - If the FAA is not willing, please share explanations.

Most Sincerely,

Mary-Lynne Bernald
Chairperson, Santa Cruz/Santa Clara Counties Airport/Community Roundtable

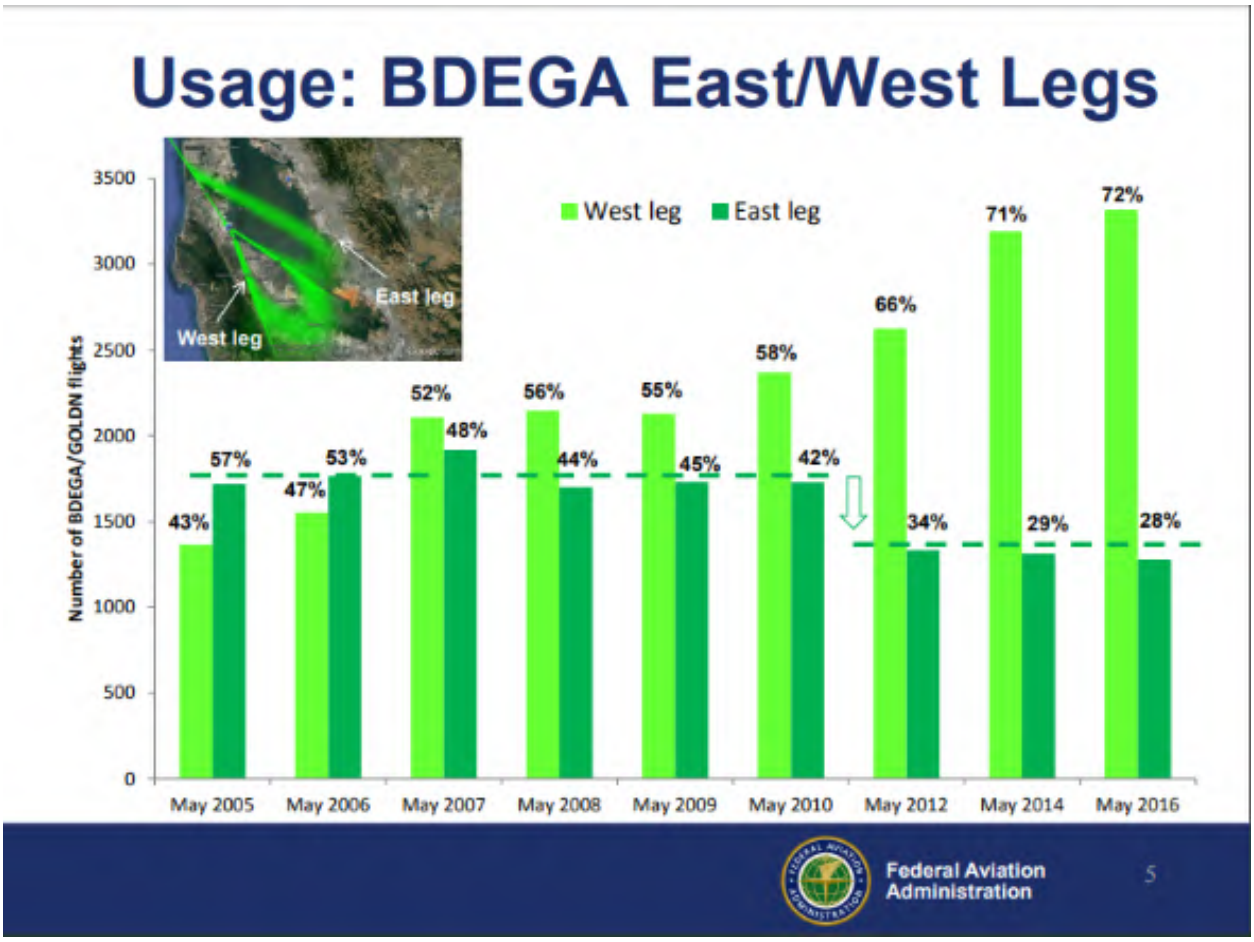
APPENDIX

BDEGA usage analysis

Sources: FAA data presented at the 09/29/2016 Select Committee meeting (see figure below), 2020 data provided by the SFO Noise Abatement Office (see table below), and SFO Airport Director Reports.

- All BDEGA arrivals:
  - Current BDEGA arrivals are much lower than before: all BDEGA arrivals in May 2020 (~ 1150) were about 37% of all BDEGA arrivals in May 2005 (~ 3100).
  - The decrease in all BDEGA arrivals is consistent with the decrease in all SFO arrivals for the same months:
    - May 2020 SFO total arrivals (~ 4,400) were about 35% of the May 2005 SFO total arrivals (~ 12,500).
- BDEGA-east arrivals:
  - Between 2005 and 2016, the percentage use of BDEGA-east declined steadily:
    - Between May 2005 and May 2016, the percentage use of BDEGA-east was cut in half: 57% usage in May 2005 versus 28% usage in May 2016.
  - Since 2014, the percentage use of BDEGA-east has remained below 30% except for May and June 2020 when usage rose to 39.7% and 37.4%, respectively.
  - BDEGA-east was used 57% of the time in May 2005 versus 40% of the time in May 2020 even though there were almost 3 times as many BDEGA arrivals in May 2005 than in May 2020 as described above.
- Key observations:
  - Recent percentages of BDEGA-east usage remain low when compared to historical percentages given that current SFO traffic is much lower than historical values due to COVID-19.
  - The FAA was able to use BDEGA-east 57% of the time in May 2005 when SFO traffic was roughly three times higher than in May 2020.
  - In comparison, BDEGA-east was used only 40% of the time in May 2020 when traffic was about one third of what it was in May 2005.

FAA presentation at 09/29/2016 Select Committee meeting



BDEGA-east & BDEGA-west arrivals into SFO from January through June 2020

2020	SFO Total Operations*	SFO Arrivals (assumption: 1/2 of total operations)	BDEGA Arrivals		BDEGA East Arrivals		BDEGA West Arrivals	
			Number*	% SFO Arrivals	Number*	% split	Number*	% split
January	36,473	18,237	4,781	26.2%	1,300	27.2%	3,481	72.8%
February	33,991	16,996	4,636	27.3%	1,443	31.1%	3,193	68.9%
March	29,674	14,837	3,935	26.5%	1,028	26.1%	2,907	73.9%
April	7,576	3,788	906	23.9%	257	28.4%	649	71.6%
May	8,726	4,363	1,162	26.6%	461	39.7%	701	60.3%
June	11,275	5,638	1,491	26.4%	558	37.4%	933	62.6%
Totals:	127,715	63,858	16,911	26.5%	5,047	29.8%	11,864	70.2%

*Data source: SFO Airport Noise Abatement Office

Notes:

1. BDEGA is a major SFO arrival route, typically representing about 26.5% of SFO arrivals in the first 6 months of 2020.
2. In the first 3 months of 2020, the % split between BDEGA East and BDEGA West was aligned with the typical split observed for the last few years: BDEGA East was used between 26% and 31% of the time.
3. SFO Arrivals in April 2020 were only 20.7% of the January 2020 arrivals. Despite this sharp decrease in traffic, BDEGA East was used only 28.4% of the time in April 2020.
4. In May and June 2020, SFO arrivals started to increase again and the percentage usage of BDEGA East increased substantially to 39.7% and 37.4%, respectively.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WESTERN SERVICE AREA

CATEGORICAL EXCLUSION DECLARATION/RECORD OF DECISION

San Francisco International Airport/Metropolitan Oakland International Airport
Amendments to Multiple Procedures
PIRAT STAR

Description of Action:
The FAA is proposing to amend multiple procedures for the San Francisco International Airport (KSFO) in San Francisco, California and one procedure for the Metropolitan Oakland International Airport (KOAK) in Oakland, California. The FAA is also proposing to implement one new Area Navigation (RNAV) Standard Terminal Arrival Route (STAR) for both KSFO and KOAK.

The crossing restriction at the ARCHI waypoint on the DYAMD STAR and connecting Instrument Approach Procedures (IAPs) and one Charted Visual Flight Procedure (CVFP) was raised from 7,000 feet mean sea level (MSL) to AT 8,000 feet MSL in January 2016. The amendments were implemented in response to aircraft excursions into and out of Class B airspace. Concurrently, the Class B airspace was undergoing redesign to contain arrival and departure paths, both lateral and vertical, within the Class B airspace. The change in altitude was to keep traffic within Class B airspace until the redesigned airspace was implemented (effective August 2018). To conform to the redesigned Class B airspace, the crossing restriction at ARCHI would be lowered from AT 8,000 feet MSL to AT 7,000 feet MSL. Amending the crossing restriction at the ARCHI waypoint requires amendment of associated IAPs and CVFP to maintain connectivity between DYAMD and the IAPs/CVFP.

The YYUNG transition on the CNDEL, SSTIK, and WESLA Standard Instrument Departure (SID) procedures would be amended by adding a new waypoint, LIBBO, and removing the FLOKK waypoint. The addition of LIBBO would move the alignment of the transition approximately 10 nautical miles away from the California coastline westward over the Pacific Ocean.

The PIRAT STAR will convert the Pacific 2 Tailored Approach (TA) to a public-use RNAV STAR that expands benefits of the TA currently only available to selected carriers to all users of KSFO. The oceanic arrivals converging into the congested domestic airspace need to be procedurally separated and sequenced into the arrival flow at the destination airport to ensure aircraft operations remain safe and efficient without increasing pilot and controller workload.

The PIRAT STAR will accommodate arrivals to Runway 28Left/Right at KSFO and Runway 28Left/Right and Runway 30 at KOAK.

The PIRAT STAR will be an Optimized Profile Descent (OPD) STAR, requiring aircraft to cross a new waypoint ARGGG at 8,000 feet MSL or approximately 5,820 feet AGL. The waypoint ARGGG will replace the WOODSIDE VOR (OSI), and is located approximately 100 feet west of OSI along the existing track. The PIRAT STAR does not connect to IAPs. At ARGGG, ATC will vector aircraft to final approach course for KSFO and/or KOAK.

The PIRAT STAR will have three en route transition, PAINT, ALCOA, and CINNY. The CINNY transition mimics the existing Pacific 2 TA segment(s) CINNY-PIRAT- BRINY-OSI. The ALCOA transition mimics the existing BUTEN-ALCOA-BRINY-OSI segment on the Pacific 2 TA. The PAINT transition mimics the existing DACEM-BRINY-OSI segment on the Pacific 2 TA. Oakland Air Route Traffic Control Center (ZOA) requested a route north of the waypoint PAINT developed for offloads that the Traffic Management Unit (TMU) could utilize during periods of concentrated demand. Waypoint WUSUS is the proposed start point for the offload route.

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:

An Environmental Review was completed by the Western Service Center and is incorporated herein by reference. The Environmental 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.

The Proposed Action meets the following categorical exclusion contained in FAA Order 1050.1F: *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.*

Decision:

After careful and thorough consideration of the facts contained herein, I find that the Proposed Action is consistent with existing national environmental policies and objectives as set forth in Section 101 of National Environmental Policy Act and other applicable environmental requirements and will not significantly affect the quality of human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of National Environmental Policy Act.

I, the undersigned, have reviewed the referenced Final Environmental Review including the evaluation of the purpose and need that this action would serve. I find the action described in the Final Environmental Review is reasonably supported and a Categorical Exclusion/Record of Decision is appropriate.

Under the authority delegated to me by the Administrator of the FAA, I approve the operational changes necessary to implement the amendments to multiple procedures, and implementation of one new procedure for the San Francisco International Airport and the Metropolitan Oakland International Airport.

Recommended by:

Facility Manager Review/Concurrence

Signature: _____ Date: 7/10/18

Name: John F. Nelson
Air Traffic Manager
Northern California Terminal Radar Approach Control (NCT)

Concurrence by:

Western Service Center Environmental Specialist

Signature: _____ Date: _____

Name: Marina Landis
Environmental Specialist, Operations Support Group,
Western Service Center, AJV-W25

Approval by:

Western Service Area Director or Designee Approval

Signature: _____ Date: _____

Name: Kimberly A. Stover
Director, Air Traffic Operations
Western Service Area, AJTW

RIGHT OF APPEAL

This Categorical Exclusion/Record of Decision constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110.

Agenda Item 5. Ad Hoc Committee Report – Chairperson Bernald - Attachments

IItem 5_2020-10-21 final Letter to RT on independence w attachment

CITIES ASSOCIATION
OF SANTA CLARA COUNTY

P.O. Box 3144
Los Altos, CA 94024
www.citiesassociation.org
408-766-9534

October 21, 2020

Hon. Mary-Lynne Bernald
Members of the SCSC Roundtable
PO Box 3144
Los Altos, CA 94024

VIA EMAIL

RE: Request for SCSC Roundtable to become an Independent Organization

Dear Chair Bernald and Members of the Roundtable:

As you are aware, the Cities Association of Santa Clara County (CASCC) created the SCSC Roundtable in 2018 as a permanent aircraft-noise and environmental mitigation forum comprised of cities/counties of Santa Clara County and the County of Santa Cruz. The CASCC was and is a proponent of the Roundtable's mission and has viewed the Roundtable as a partner in CASCC's efforts to unite the voices of the many cities in Santa Clara County and beyond. Indeed, the intent of CASCC in establishing the Roundtable was to allow our residents to have a venue for dialogue with the FAA and to present a unified, local voice to our federal partners. We understandably knew the formation and initial work of the SCSC Roundtable would be difficult but hoped the benefit for our residents outweighed those difficulties.

The CASCC was amiable to acting as the fiscal agent to facilitate an almost immediate formation of the Roundtable. However, CASCC's vision was for the Roundtable to eventually be administered and run by the airports or become an independent organization. It has been clear from the outset that once the SCSC Roundtable was holding regular meetings and performing its intended role, the CASCC would step aside as the fiscal agent allow the Roundtable to operate as its own entity with control over its own budget, staffing, and operations as is done with SFO Community Roundtable. For this reason, and those explained herein, the CASCC recently requested that the Roundtable endeavor to set out a plan for independence.

CASCC's request was based on the premise that its fiscal responsibilities would be temporary, and also due to continued and pervasive concerns with the management and operations of the Roundtable, some of which have raised concerns among CASCC members that the Roundtable may cause CASCC to incur undue liabilities. Since the first meeting of the Roundtable in February 2019, the Roundtable has struggled to find cohesion among its members. Also troubling is that due to the budgetary impacts of COVID-19, the Roundtable has lost members, including the entire representation of Santa Cruz County jurisdictions. The SCSC Roundtable now consists of only 8 of the 15 members of the CASCC. The CASCC is in the unfortunate position now in that 7 of the CASCC members, who have no involvement in the Roundtable, are asked to contribute financially to its operation. In that same vein another matter of concern to the CASCC is that the Executive Director of the CASCC has been spending approximately a third of her time on Roundtable matters, largely

due to Brown Act issues and disputes among Roundtable members or between the Roundtable and the CASCC. With so little Roundtable representation among members of the CASCC, our continued role as fiscal agent is concerning given the amount of time and expense the CASCC dedicates to the Roundtable.

In addition to the issues above, SCSC Roundtable Members have expressed displeasure with each other and the CASCC. These disputes directed at each other and staff may result in liability to the CASCC as the fiscal agent, particularly because the CASCC has attempted to address some of these issues to no avail. There is also growing concern that the SCSC Roundtable disputes are creating an unworkable and potentially hostile work environment to certain staff, and the CASCC does not condone and cannot in any way appear to condone this behavior.

For the foregoing reasons, and in accordance with and furtherance of the fundamental premise that the Roundtable would become fully independent and separate from the CASCC, at the June 5 and June 26, 2020 CASCC Executive Board of Directors meetings, the Executive Board requested of Chair Bernald directly and via email to the Roundtable that the SCSC Roundtable move toward becoming an independent organization or find a new fiscal agent. The motion stated:

> "*Request a 6 month check in (January) which is not a hard deadline by the SCSC Roundtable on the following items:*
>
> - *The Executive Board would like a plan for the SCSC Roundtable independence from CASCC or instead of independence, identify a new fiscal agent and project manager if needed.*
> - *Revisit by-laws/MOU if necessary, to make changes*."

In response to the CASCC's motion, Chair Bernald appointed an SCSC Roundtable Ad Hoc Committee to explore options for the Roundtable's independence. To that end, the CASCC, at its own expense, shared information written by a tax specialist and attorney with the SCSC Roundtable to enable such a move toward independence, including advice on becoming an independent and legally sustainable organization such as a Joint Powers Authority or a non-profit 501(c)(4). Despite the motion, collaboration with the Chair of the Roundtable, and substantial information sharing, there has not been sufficient action toward the Roundtable's independence.

Recently, two members of the Ad Hoc Committee met with CASCC 1st Vice President Marico Sayoc and the CASCC Executive Director and announced the committee's desire that the SCSC Roundtable stay affiliated with CASCC. This was not an option for the SCSC Roundtable given the motion passed by the CASCC. Therefore, based on the last conversation with members of the Ad Hoc Committee and the motion passed by the CASCC, the Executive Board reiterates that its position has not changed and that the SCSC Roundtable either become independent or find a new fiscal agent. The Roundtable may present its decision at either the December or January Executive Board Meeting of the CASCC. Regardless of whether the Roundtable determines to work with another fiscal agent or otherwise establish itself as independent from the CASCC, the CASCC will not continue as the Roundtable's fiscal agent indefinitely, and the Roundtable must present a plan for independence no later than the January CASCC Executive Board Meeting.

Moreover, we are aware that apparently the Brown Act issues and disputes which CASCC has raised with the Roundtable have not been shared with the entire SCSC Roundtable. While the CASCC has shared the bulleted information below with the Roundtable Chair in the hope efforts will be undertaken to share these concerns with the Roundtable and rectify any issues and disputes, we have been asked by Roundtable members to expound upon these issues. The only meaningful way for the CASCC to do so is through a letter of this kind. Because members of the Roundtable have expressed concerns regarding the lack of information about the issues affecting the Roundtable, we are providing the attached information.

To be clear, CASCC wants the Roundtable to succeed. But, the Roundtable must take its own steps to ensure its success. We hope that this letter provides insight to the Roundtable regarding CASCC's concerns and rationale for insisting upon the Roundtable's independence. We understand that this information will likely be surprising to those members who have not yet been informed about the underlying legal and operational issues that continue. However, it is our hope that this letter will provide the awareness to foment positive change and to enable the Roundtable to continue to operate successfully without CASCC's involvement going forward.

We look forward to receiving your proposal.

Our best,

Larry Klein
President, CASCC
Mayor, City of Sunnyvale

Marico Sayoc
1st Vice President, CASCC
Councilmember, Los Gatos

attachment

cc: Board of Directors
City Managers
US Representatives Eshoo, Khanna, Panetta

Cities Association of Santa Clara County Concerns regarding the SCSC Roundtable

I. Roundtable Operations and Management

a. The SCSC Roundtable is consuming a third of the Executive Director's time, which is time not spent on CASCC Board priorities. The fiscal impact to the CASCC is approximately $35,000 per year.

b. The SCSC Roundtable Members have expressed displeasure with each other, with staff, and with the CASCC. Additionally, the Roundtable's treatment of staff is unprofessional and is creating an unworkable and potentially hostile work environment, presenting a possible liability for the CASCC. The CASCC cannot continue to associate itself with a group which demonstrates hostility toward CASCC staff.

c. Executive Board Members have become aware that there are concerns from their colleagues serving on the Roundtable and that there is a desire for the Roundtable to become independent.

d. Roundtable members erroneously believe the Executive Director is violating her role and making policy decisions by setting the agenda. However, the Chair is responsible for the agenda and the Executive Director does not and has not been setting the agenda.

e. Members of the Roundtable do not want to utilize Roundtable Staff (Executive Director, Attorney, Consultants) for committee meetings. As the CASCC has already stated in its August 11, 2020 letter to the Roundtable, the CASCC insists that the Roundtable have legal counsel present at its meetings while CASCC is the fiscal agent of the Roundtable to protect both entities from potential liability and to provide guidance on legal compliance.

f. Roundtable Members voted to reduce the line item for the attorney to be present at meetings, potentially increasing undue liability for the CASCC, particularly in light of the CASCC's position that the Roundtable should have legal counsel present at its meetings.

II. Brown Act Violations, Member Disputes, and Legal Concerns:

a. Prior to hiring an attorney for the Roundtable, there were a number of Brown Act issues which occurred during early meetings (some of which have since been resolved or were addressed during these early meetings). These Brown Act issues resulted in the City of Cupertino requesting the addition of an attorney at the meetings. For that reason, and because of CASCC concerns, an attorney was hired for the Roundtable. The attorney was initially hired to respond to the following concerns raised by Roundtable members, the CASCC and the Chair of the Roundtable:

   i. The Chair informed the public during several meetings that the public would not be given a chance to speak on a topic, in contravention of the Brown Act.

   ii. The Roundtable did not allow the public an opportunity to speak before a vote on several topics.

   iii. The public made complaints about abundant time for public comment on unimportant matters, and inadequate time for substantive topics.

   iv. There was a dispute between the Chair of the Roundtable and the Chairs of the standing committees who disagreed over the strategic plan and work plan. Specifically, the parties disagreed over who was authorized to set the agenda

for committees, that is, the SCSC Roundtable or the Committee Chairs. The Strategic Plan and Work Plan state the Roundtable sets the agenda and gives direction to the committees. In absence of direction from the larger Roundtable body, the Chair may provide an exception. However, when a dispute occurs, the Roundtable as a whole should discuss the dispute and resolve.

v. Committee assignments were made during a Roundtable meeting. The Committee Chairs later notified the Roundtable Chair that their intention was for the committees to act collaboratively, discussing and deliberating upon issues between the subcommittees which would have created a quorum for the Roundtable as a whole. With the makeup of the committees at the time, this would have created a serial chain Brown Act Violation.

b. Another Brown Act issue occurred when the Legislative Committee met by "exception," which is an emergency meeting assignment provided by the Chair. The Legislative Committee took action on items not stated by the exception as well as items not on the agenda. (This raised multiple Brown Act concerns. The Legislative Chair placed responsibility for any such Brown Act violations on the Executive Director, however, the Executive Director was not involved in these decisions.)

c. The Legislative Committee issued a letter discussed during a Legislative Committee meeting which was not agendized by the committee and was not approved by the Chair on exception to discuss during the meeting (in violation of the Brown Act), and which was then approved by the Committee and discussed among members of the Roundtable who were not on the Legislative Committee, forming a quorum of the Roundtable and creating a serial meeting violation of the Brown Act.

d. The CASCC is aware that the Roundtable has had multiple issues with ensuring its meetings are publicly available and held in accordance with the Brown Act. For example, the Technical Working Group meeting via Ring Central did not allow immediate access to the online meeting nor was it streamed publicly. Failure to provide public access to a Roundtable meeting is a Brown Act Violation.

e. CASCC is gravely concerned with continuing misunderstanding of the Brown Act among certain Roundtable members. During a Roundtable meeting, one Roundtable member incorrectly stated the Roundtable is not a Brown Act body. Chair Bernald corrected the member informing the member that the body is subject to the Brown Act, which prompted the member to ask under what authority this decision was made. Members of the Roundtable have been reticent to approve Brown Act training despite an apparent need for such training.

f. There appear to have been multiple improper serial meetings in violation of the Brown Act. For example, during the July 2020 Roundtable Meeting it became apparent that there had been coordination between a majority of the Roundtable members, who had deliberated together outside of a public meeting to change the scope of work for the technical consultant, remove the attorney from the budget, allege that certain staff were acting outside of their scope, and coordinate with one another on a plan to make significant changes to a preexisting contract between CASCC and ESA. Deliberation among the majority or quorum of the Roundtable on an issue within the Roundtable's jurisdiction must occur during a public meeting and in accordance with the Brown Act.

g. We are also aware that on at least one occasion, a member of the public shared an email with members of the Roundtable regarding deliberation on matters within the Roundtable's jurisdiction. Such emails were not shared with the CASCC Executive Director. There was a clear disregard for the availability of public records and for the requirement that any communication as a member to or from the public regarding matters of public interest (in this case, the operations and role of the Roundtable) is a public record.

SCSC Roundtable All Correspondence

July 17, 2020 – October 23, 2020

July 19, 2020

From

Greg Hyver

To

SCSC Roundtable

Message

SCSC Roundtable - Virtual Meeting - July 22, 2020 - Registration Link and Agenda Packet Posted

Just move the SERFR flight path so every one of you can quit wasting taxpayer money by quibbling over minutia at every meeting. If you don't move SERFR soon, we citizens will consider the Roundtable an abject failure and encourage our cities to sue the FAA and to recall all of your asses on the Roundtable. The FAA is just buying time and has turned this into a joke. Demand action now and put out statements to the public that are clear and simple. Not the double-speak that goes on at your meetings. My God. Grow some balls please.

July 20, 2020

From

Jean-Paul Sartre

To

SCSC Roundtable

Message

Jet noise

I have one simple question :
When will the FAA prioritize the most basic well being of very hard working citizens who deserve some peace and quiet over greed greed and more greed ?

July 20, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

Fwd: June 12 Public Workshop - my inquiry about Alternative Metrics

Dear Members of the SCSC roundtable.

I would like to remind all who are interested in addressing FAA noise metrics that the current status of FAA's position on alternative metrics is in Section 188 - which encourages the use of supplemental metrics to aid in the public understanding of community noise exposure.

The following note on the topic provides some further info.

Separately- what we need is follow up on Section 173. I think you missed that in your since recalled letter to follow up with FAA. Please consider distinguishing the differences between 188 and 173.
Thank you,

Jennifer

---------- Forwarded message ----------
From: **Jennifer Landesmann**
Date: Monday, July 20, 2020
Subject: June 12 Public Workshop - my inquiry about Alternative Metrics
To: Michael.O'Harra

Dear Administrator O'Harra,

On June 12, 2020 I joined the FAA's Virtual Public Workshops held for the South-Central Florida Metroplex. Thank you for hosting. The workshop was very accessible in terms of how to sign up and then to submit questions. I received an immediate text to let me know my questions were lined up and they were addressed - my inquiry was about FAA policy for employing alternative metrics.

I'm from the San Francisco Bay Area which experienced a Metroplex implementation in 2014. My comments below are informed by the engagement our region has been having with the FAA about environmental practices.

I had hoped that the FAA's response to my inquiry would include that FAA's policy for NEPA compliance **provides for using supplemental metrics to characterize noise impacts**. Also, that FAA ***encourages*** the use of supplemental metrics to aid in the public understanding of community noise exposure.

These points are covered on Section 11.4 in the FAA Environmental Policy Guidance, NEPA Desk Reference, dated February 2020.

> "*The Federal Interagency Committee on Noise (FICON) report, "Federal Agency Review of Selected Airport Noise Analysis Issues10," dated August 1992, concluded that the DNL is the recommended metric and should continue to be used as the primary metric for aircraft noise exposure. Subsequent review has confirmed there are no new descriptors or metrics of sufficient scientific standing to substitute for the present DNL cumulative noise exposure metric. However,* ***DNL analysis may optionally be supplemented on a case-by-case basis to characterize specific noise impacts."***

Furthermore, in FAA's evaluation of Alternative Metrics, per Report to Congress on Section 188 of the 2018 FAA Reauthorization:

Section 5 Noise Metrics in use by FAA:

*"While DNL is used for all FAA noise-based decision-making purposes, the **FAA encourages** the use of other supplemental metrics as a communication tool to highlight unique situations where applicable.Section 8 will discuss the use of noise metrics for supplemental purposes."*

Section 8 Role of Supplemental Metrics:

"As discussed in Section 3, FAA's environmental decision-making for noise must use a metric that considers the magnitude, duration, and frequency of the noise events under study. The DNL noise metric uniquely meets these requirements. However, in specific situations, additional information focused on a more targeted type of noise exposure may require the use of supplemental noise metrics. "

*"There is no single supplemental metric that is preferable in all situations and the selection of an appropriate supplemental metric depends on the circumstances of each analysis. However, where warranted, consideration of established supplemental metrics is **encouraged."***

*"Individually, supplemental metrics may not fully consider the magnitude, duration, and frequency of the noise events, b**ut may be used to support further disclosure and aid in the public understanding of community noise exposure**.38 Supplemental noise analyses are often useful to describe aircraft noise exposure from unique operational situations or for noise sensitive locations **to assist in the public's understanding.**"*

Targeted Type of Noise Exposure:

Without alternative metrics, communities could be kept in the dark, the opposite of having an understanding of community noise exposure. It has been the case where cities, counties and states have also been unable to respond on behalf of community stakeholders due to the DNL masking of noise impacts in environmental documents and processes. Thus, it is really incumbent upon everyone that with the lessons learned about the sole reliance on DNL, to correct and avert known problems that prevent meaningful community engagement.

Overlays:

Along with the issues regarding metrics, there appears to be a suggestion in your discussions that ground track "overlays" are not noise events, which couldn't be further from the truth as we learned in the Bay Area. Ground tracks are only a part of the noise equation (*where* planes fly) but when introducing new air traffic technologies and procedures, *how* planes fly can change the noise from historical levels in extremely surprising ways, and even unrelated to operation levels. Together - using only DNL and the term "overlays" the public will be left with misleading ideas about what's ahead, thus impairing disclosures in the NEPA process.

Agency Discretion:

From the above references - 1050.1F and 188 Report to Congress, **FAA can and will consider employing supplemental metrics (alternative to DNL)**.

I urge that the FAA please provide the public with more understanding of alternative metrics in practice. That ***the laws are already in place to use them, and the FAA encourages their use***. This was missing from the response I heard on 6/12 replayed here at time code 1:18:07 which suggested that DNL was the "only" metric the FAA was authorized to use. Most airports are aware of these rules and it's been unclear why they have not led on using more metrics but they should also be instrumental.

Thank you,

Jennifer

July 21, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

IFP Gateway

Dear SCSC,

I would like to reiterate suggestions I made during various public comments when the SCSC got started, for the IFP Gateway report (attached) to **please have additional columns**, so that it can serve the purpose of environmental information.

Turning the report to a landscape format, to include more information.

A sorely needed column is one which has the FAA Environmental Determination status. Surely the FAA Regional Administrator's Environmental support office has a record of all their environmental decisions and can offer these to the Roundtable on a regular basis. It should be first order priority to organize this column - **to respond to the multitude of requests from the public to have adequate timing between an IFP publication and the SCSC's opportunity to consider and address if needed.**

It would also be most helpful for all the Bay Area roundtables to jointly put together an Instrument Flight Procedures IFP Inventory Summary for the NorCal Metroplex, a report similar to the one FAA has https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/ifp_inventory_summary/ which can distinguish the type of procedures that are in the production cycle.

If a procedure has not yet made the IFP Gateway list, but is being planned or considered by the various roundtables or airports, it should also be listed.

Thank you,

Jennifer

Attachment Name

20200721_J_Landesmann_IFP Gateway_SCSC Memo on IFP Gateway

2600 Capitol Avenue
Suite 200
Sacramento, CA 95816
916.564.4500 phone
916.564.4501 fax

esassoc.com

memorandum

date	July 17, 2020
to	Roundtable Members and Interested Parties
cc	
from	Steve Alverson, Santa Clara/Santa Cruz Counties Airport/Community Roundtable Facilitator
subject	Review of the Federal Aviation Administration (FAA) Instrument Flight Procedures (IFP) Information Gateway

The FAA's Instrument Flight Procedures Information Gateway ("IFP Gateway") is a website used by the FAA to distribute aircraft instrument flight procedure details ("charts") to the general public.[1] The FAA also uses the IFP Gateway to share its IFP Production Plan, which includes details on IFPs under development or amendment along with development status and tentative publication dates. Environmental Science Associates (ESA) monitors the IFP Gateway for proposed changes to IFPs associated with Norman Y. Mineta San Jose International Airport (SJC), San Francisco International Airport (SFO), and Oakland International Airport (OAK). Changes to IFPs associated with these airports may affect communities in Santa Clara and Santa Cruz counties.

The FAA publishes IFPs on a 56-day publication cycle. The most recent publication date is May 21, 2020. The following information provides details on the IFP development process and IFPs under development or amendment.

Stages of IFP Development

Development of IFPs typically follows five stages, described below. Depending on the nature of the IFP development or amendment, not all of these stages may occur.

1. **FPT (Flight Procedures Team):** This team reviews potential IFPs for feasibility and coordinates IFP development with relevant FAA lines of business and staff offices.
2. **DEV:** Procedure development.
3. **FC (Flight Check):** The FAA performs a flight inspection of the procedure.
4. **PIT (Production Integration Team):** This team prepares procedure details to support publication.

[1] https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/

5. **CHARTING:** Procedures are made available to the public, typically in graphical, text, and electronic formats.

IFP Development Status Indicators

The following terms are employed by the FAA to identify the status of the IFP during the development process.

At Flight Check	The procedure is with FAA staff responsible for flight inspection.
Awaiting Publication	The procedure has been developed and is awaiting an upcoming publication date.
Awaiting Cancellation	The procedure will be removed from FAA flight procedure databases on an upcoming publication date.
Complete	Procedure development has finished.
On Hold	Procedure development has been paused while awaiting further information.
Pending	Detailed development of the procedure will begin in the future.
Published	The procedure has been made publicly available.
Terminated	Development has terminated for the procedure.
Under Development	The procedure is being developed by the FAA.

Key Terms

The following acronyms are employed by the FAA to describe the IFP, including some of the navigational equipment necessary to accommodate the IFP.

AMDT	Amendment
CAT	Category
DME	Distance Measuring Equipment
DP	Departure Procedure
GPS	Global Positioning System
GLS	Ground-Based Augmentation System (GBAS) Landing System
IAP	Instrument Approach Procedure
ILS	Instrument Landing System
LOC	Localizer
LDA	Localizer Type Directional Aid
RNAV	Area Navigation
RNP	Required Navigation Performance
RWY	Runway
SA	Special Authorization
SID	Standard Instrument Departure
STAR	Standard Terminal Arrival Route
TBD	To Be Determined

Management of FAA IFP Production During the COVID-19 Pandemic

On April 16, 2020, the FAA issued a memorandum (distributed with the May 27, 2020 IFP Gateway memorandum) discussing changes to IFP production during the COVID-19 pandemic. FAA noted that IFP production has been impacted by precautions taken to protect the health and safety of FAA Flight Inspection aircrews[2] due to the pandemic. Among the work that may continue during the pandemic is completion of IFP procedure amendments that do not require flight inspection; periodic IFP reviews and inventory maintenance; compilation and utilization of a list of completed IFP work that can be flown by Flight Inspection aircrews if operations are warranted; and coordination with FAA Flight Inspection Operations on IFP requests associated with National Airspace System Safety/Efficiency. This includes IFP related requests such as returning navigational aids to service and providing support to Flight Inspection Operations by ensuring satisfaction of IFP requirements at Focus 40 airports. IFP requirements include satisfaction of instrument approach procedure prerequisites, collection of airport land survey data, collection of airport data, and satisfaction of an initial environmental review. Both OAK and SFO are Focus 40 airports. SJC is not a Focus 40 airport. The memorandum further states that no new or amended IFP will be validated by Flight Inspection without prior FAA approval.

IFP Status

The following tables provide status updates on IFP production for procedures serving OAK, SFO, and SJC. Information highlighted in turquoise has been updated since the May 27, 2020 SCSC Roundtable IFP Gateway Review.

Norman Y. Mineta San Jose International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
ILS OR LOC RWY 30L, AMDT 26	IAP	Awaiting Publication	9/10/2020	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 12L, AMDT 2B	IAP	Under Development	12/31/2020	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 12R, AMDT 3B	IAP	Under Development	12/31/2020	No further information available on the IFP Gateway at this time.
RNAV (RNP) Z RWY 30L, AMDT 2B	IAP	Under Development	12/31/2020	No further information available on the IFP Gateway at this time.

San Francisco International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
LDA/DME RWY 28, AMDT 2B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.

[2] The FAA's Flight Inspection Operations Group is responsible for ensuring the safety of instrument flight procedures in the National Airspace System. Flight Inspection aircrews evaluate and validate ground and space-based navigational aids and conduct airborne inspection of all instrument flight procedures under both ideal and adverse weather conditions.

San Francisco International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
TIPP TOE VISUAL RWY 28L/R, AMDT 3	IAP	Pending	12/2/2021	The change is of interest to the SCSC Roundtable as the current procedure is a nighttime noise abatement procedure that overflies Los Altos and Palo Alto. Additional information is being pursued.
GLS OVERLAY RNAV (GPS) RWY 19L, AMDT 3	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) RWY 19R, AMDT 2	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) Z RWY 28R, AMDT, AMDT 6	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
GLS OVERLAY RNAV (GPS) RWY 28L, AMDT 6	GLS IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
ILS PRM RWY 28L, AMDT 3A	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
LDA PRM RWY 28R, AMDT 2B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) PRM RWY 28L, AMDT 2	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) PRM X RWY 28R, AMDT 1B	IAP	Awaiting Cancellation	2/25/2021	No further information available on the IFP Gateway at this time.
POINT REYES THREE	STAR	Pending	6/17/2021	No further information available on the IFP Gateway at this time.
STINS FOUR	STAR	Pending	6/17/2021	No further information available on the IFP Gateway at this time.

Oakland International Airport				
IFP in Production Plan	**Type of IFP**	**Status**	**Scheduled Publication Date**	**Additional Notes (If Applicable)**
QUAKE TWO	SID	Under Development	11/5/2020	This is an update to the QUAKE ONE SID published 1/30/2020. No further information available on the IFP Gateway at this time.
ILS RWY 12 (SA CAT I), AMDT 8B	IAP	Published	3/26/2020	This procedure has been removed from the IFP Production Plan on the IFP Gateway as it was published on 3/26/2020.
SILENT TWO	SID	Published	5/21/2020	This procedure was published on 5/21/2020.
ILS OR LOC RWY 12, AMDT 9	IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
RNAV (GPS) Y RWY 12, AMDT 4	IAP	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
AANET TWO	RNAV STAR	Pending	10/7/2021	No further information available on the IFP Gateway at this time.
WNDSR THREE	RNAV STAR	Pending	10/7/2021	No further information available on the IFP Gateway at this time.

July 21, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

Request for Permanent Noise Monitoring

Dear Representative Eshoo and SCSC Roundtable,

It came as a surprise that FAA needs to give permission for San Francisco Airport to provide a noise monitor per the City of Palo Alto's request.

Letter from SFO

02/05/20 Letter from San Francisco International Airport (Received 06/24/2020)

Request for Monitoring

01/31/2020 Letter to San Francisco International Airport Regarding Permanent Noise Monitoring Program

Over the years, we have had many discussions with SFO about this and especially because a noise monitor was provided for in a prior agreement with FAA and SFO:

https://www.skypossepaloalto.org/wp-content/uploads/2014/12/2000-SFO-Agreement.pdf

The reasons given were various, but that FAA permission was needed to move forward is NEW.

If suddenly the idea to fund the monitors is to ask for airport improvement funds - in which case FAA should have a QUICK yes/no. It is already questionable how a February letter from SFO is delivered in June and really 20 years seems long enough to get clarity. GIven that +50% of arrivals traffic is routed over Palo Alto, SFO surely can be neighborly and move forward with this without relying on FAA.

Please urge the FAA and SFO to follow up on this ASAP.

Thank you,

Jennifer

July 21, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

CATEX inquiry for FAA

Dear Representative Eshoo, and members of the SCSC Roundtable,

Please find below a set of **six questions for FAA - for the agency to please clarify FAA's CATEX.**

Background:

As you are aware, one of the most problematic aspects of the events that led to the formation of the Select Committee and the SCSC was FAA's failure to notice and to provide meaningful public engagement when it brought Nextgen to the Bay Area. Unfortunately, the pattern of poor due process has been continuing as regards environmental practices due to the continued use of CATEX.

I have been involved since the early days of advocacy on this issue and I have heard many versions of what CATEX is or not, and the only clear thing I can tell for sure is that there is total confusion about FAA Catex. Given that this is a core issue for the public, please **I urge some authoritative explanations - from FAA or Congressional leadership about CATEX.**

SJC EXHIBIT:

Attached is letter from San Jose Airport with a statement about - CATEX, which as you may be aware is considered by FAA as a "level" of environmental review.

> Congress Exempts the FAA from Environmental impact Reviews and Public Hearings
>
> The Santa Cruz Mountains residents noted the FAA did not do any outreach to their community nor conduct an environmental assessment of the noise impacts on their community before implementing the new flight paths. It is worth noting that the 2012 FAA reauthorization bill intended to fast-track the roll out of NextGen by exempting it from normal environmental impact reviews and public hearings. Example language from the 2012 bill adopted by Congress states:
>
> *"Any navigation performance or other performance based navigation procedure developed, certified, published, or implemented that, in the determination of the*
>
> *Administrator, would result in measurable reductions in fuel consumption, carbon dioxide emissions, and noise, on a per flight basis, as compared to aircraft operations that follow existing instrument flight rules procedures in the same airspace, shall be presumed to have no significant affect on the quality of the human environment and the Administrator shall issue and file a categorical exclusion for the new procedure. "*

Questions:

1) The FAA has said that the legislative Catex which FAA refers to has NEVER been used. Is this true?

2) If the legislative Catex has never been used, why do Bay Area Officials refer to it? SJC is not alone, Supervisor Dave Pine said the same at an SFO Roundable meeting where he provided a review of legal happenings in Phoenix. The public was led to believe that after 2012 the pubic had no rights.

3) **What was the purpose of the legislative Catex if it was never going to be used?** Why are principles of environmental impact reduction not being fulfilled with Catex after 2012?

4) FAA appears to simply use a vanilla Catex (with the criteria of using a Catex if there is no impact at 65 DNL). **Did anything change in FAA Catex from pre-2012 to post 2012?**

5) Per a workshop on environmental review in March at the ANE Symposium, it was explained that Categorical Exclusion are for actions that do not result in any impacts, ***such as would be the purchase of office supplies***. So, why do FAA Categorical exclusions have an impact threshold that is actually extremely demanding for disclosures of impacts?

6) How can Categorical Exclusions which by definition are a "nothing to look at", be considered a "level" of environmental review?

I appreciate your leadership in getting a clarification from FAA as soon as possible. Or for the SCSC to provide a response.

Thank you,

Jennifer

Attachment Name

20200721_J_Landesmann_san-jose-memo-september-2015-1

July 21, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

CATEX inquiry for FAA

Pardon, a correction to Q1

1) T**he FAA has said that the legislative Catex <u>which San Jose Airport</u> refers to (per exhibit) has NEVER been used. Is this true?**

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND COUNCIL

FROM: Kimberly J. Becker

SUBJECT: **NEW FLIGHT PATH AND INCREASE IN NOISE COMPLAINTS**

DATE: September 11, 2015

Approved D. DSyC Date 9/14/15

INFORMATION

SUMMARY

This is an update to staff's information memo of July 22, 2015 concerning the aircraft noise impacts on the communities of the Santa Cruz Mountains of the new flight paths implemented by the Federal Aviation Administration (FAA) in March 2015.

In response to a request from Santa Cruz Mountains residents at its August meeting, the Airport Commission recommended that the Airport Director write a letter to the FAA to encourage that agency to work with Santa Cruz and Santa Clara counties' residents and elected officials to make modifications in the newly implemented flight paths that will reduce the noise impacts on Santa Cruz Mountains residents. In the past several months, Airport staff has seen a sharp increase in the number of noise complaints from Santa Cruz County residents as a result of the new flight paths.

In addition, the Airport has also seen a notable increase in the number of noise complaints from Palo Alto, Mountain View, Sunnyvale and City of Santa Clara residents because runway construction at SJC that has limited the Airport to one functioning runway. However, the construction will be completed in mid-to-late October, at which time staff anticipates a significant reduction in the number of complaints from those cities though wind conditions will continue to require occasional arriving flights over those areas. Staff also received noise complaints for a variety of other reasons.

BACKGROUND

Santa Cruz Residents Significantly Impacted by New Flight Paths

In a July 22, 2015 information memo, staff reported to the Council on the Federal Aviation Administration's implementation of new arrival and departure flight paths for San Francisco International Airport (SFO) and Mineta San José International Airport (SJC) (see Attachment A).

The change is part of the FAA's nationwide Next Generation (Next Gen) project to upgrade U.S. air traffic control from a ground-based radar system to a satellite-based radar system and implement different arrival and departure procedures. The purpose of the upgrade is to increase efficiencies by enabling planes to fly closer together, take routes that are more direct and avoid delays caused by airport "stacking" as planes wait for an open runway. The U.S. air traffic system transported 720 million passengers in 2011 and is predicted to reach one billion passengers by 2024.

The change in flight procedures often means more direct routes to destinations. As a result, areas that previously heard little to no aircraft noise are now experiencing significant increases in aircraft overflights.

In the Bay Area, one area that is experiencing a significant increase in noise because of the implementation of the Next Gen project are the residents of the Santa Cruz Mountains (which includes residents of both Santa Cruz and Santa Clara counties). While the great majority of the aircraft using the new arrival path are bound for SFO, SJC-bound arriving aircraft also contribute to the increased noise.

Congress Exempts the FAA from Environmental Impact Reviews and Public Hearings

The Santa Cruz Mountains residents noted the FAA did not do any outreach to their community nor conduct an environmental assessment of the noise impacts on their community before implementing the new flight paths. It is worth noting that the 2012 FAA reauthorization bill intended to fast-track the roll out of NextGen by exempting it from normal environmental impact reviews and public hearings. Example language from the 2012 bill adopted by Congress states:

> *"Any navigation performance or other performance based navigation procedure developed, certified, published, or implemented that, in the determination of the Administrator, would result in measurable reductions in fuel consumption, carbon dioxide emissions, and noise, on a per flight basis, as compared to aircraft operations that follow existing instrument flight rules procedures in the same airspace, shall be presumed to have no significant affect on the quality of the human environment and the Administrator shall issue and file a categorical exclusion for the new procedure."*

Santa Cruz Area Residents Request Airport Support

A number of Santa Cruz Mountains residents attended the Airport Commission meeting on August 10 to present their concerns about significantly increased aircraft noise over their homes. They requested that SJC support their efforts to immediately raise the altitudes of arriving aircraft flying over their homes and, over the long term, participate in a regional effort to redesign the flight paths. The residents had secured commitments from SFO and the SFO Community Roundtable (which hears noise issues for SFO) to encourage the FAA to meet with SFO to discuss ideas to "further optimize" the SFO flight path while reducing the noise impacts on the residents of the Santa Cruz Mountains (see SFO and SFO Roundtable letters contained in Attachment A).

Commission Recommendation

A staff presentation provided background information and a staff recommendation to the Commission. The Commission heard public comment, had a discussion of the the residents' request, and then voted unanimously to support staff's recommendation. The staff's recommendation is to have the Director of Aviation write a letter to the FAA to encourage that agency to work with SFO, the residents of both Santa Cruz and Santa Clara counties, and their elected officials, to reduce the noise impact of the new flight path over Santa Cruz and Santa Clara counties. The recommendation further states that the Airport's support is contingent on any solution not adversely affecting San Jose residents or residents of adjoining communities. Staff has drafted and sent the recommended letter to the FAA (see Attachment B). Staff is now considering other possible avenues to encourage the FAA work with the Airport as part of the effort to address the residents' concerns.

SJC Experiencing Increased Noise Complaints

Increased Noise Complaints from the Santa Cruz Area

As staff pursues options to encourage the FAA to address the SJC-bound flight noise concerns of the Santa Cruz Mountains residents, the number of noise complaints from the Santa Cruz area has increased significantly. The chart below shows the number of complaints received from Santa Cruz area residents from January to mid-August. The chart also shows the number of noise complaints received by staff were actually SFO-bound flights:

Month	# of Santa Cruz Complaints Received	Santa Cruz Complaints Received about Flights to Airports Other than SJC
January	1	0
February	0	0
March	18	15
April	80	61
May	96	21
June	138	66
July	287	15
August	200	46

The total number of complaints received by staff in August was 569. However, 200 of the complaints came from 26 Santa Cruz area residents. Forty-six of those complaints were for flights heading for other airports around northern California, including SFO, Oakland, Palo Alto, San Carlos and Watsonville. The remaining 154 complaints were for SJC-bound flights.

Significant Increase in Noise Complaints Received by SFO

While SJC has seen a significant increase in noise complaints because of the new flight paths, the complaints are small when compared to the number of noise complaints received by SFO. In

January 2015, SFO received just three complaints from the Santa Cruz area. However, since that time, SFO has experienced an exponential increase in noise complaints. In April there were 149 noise complaints; in May, 7,500 complaints; in June, 12,100 complaints; and in July, 17,000 complaints. Most of the SFO noise complaints are related to the FAA's implementation of the new "SERFR1" flight path for inbound flights to SFO. The SFO noise complaint numbers clearly underscore that the overwhelming majority of the noise impact on Santa Cruz residents are the result of SFO-bound flights. As noted earlier, SFO has offered to work with the FAA to reduce the noise impact of its new flight path.

Increased Noise Complaints from Palo Alto, Mountain View, Sunnyvale and City of Santa Clara

As previously mentioned, not all complaints received by Airport staff in July and August related to SJC or SFO flights using the new flight path. An increasing number of the complaints (e.g., 15% of all complaints received in August) were related to SJC flights arriving or departing from the north instead of the normal arrivals and departures from the south. The change of direction for many of the northern arrivals and departures is the direct result of a combination of runway construction work now occurring at SJC and wind conditions identified by the Airport's Air Traffic Control Tower. The construction work is expected to be completed in mid-to-late October. When that work is completed, staff anticipates a notable reduction in the number of noise complaints from the cities of Palo Alto, Mountain View, Sunnyvale and Santa Clara, though wind conditions will continue to require some northern arrivals/departures. Airport staff is working with the Control Tower to encourage a reduction in the number of northern arrivals and departures due to the current construction. The Tower has expressed a willingness to "do what it can."

Staff also received a number of noise complaints for a variety of other reasons, including flights related to Levi's Stadium events, late flights during curfew, Moffett Field flights, etc. One person accounted for 100 of the remaining 369 complaints received in August. A number of other residents submitted multiple complaints.

As staff attempts to encourage the FAA to make modifications to reduce the noise impacts of SJC-bound flights on Santa Cruz area residents, staff will continue to keep the Council informed of any progress in addressing the noise concerns of Santa Cruz area residents and of any significant increases in noise complaints related to the new flight paths.

/s/
KIMBERLY J. BECKER
Director of Aviation

For questions, please contact Jim Webb, Assistant to the Director at (408) 392-3609.
Attachment A: July 22, 2015 Information Memo
Attachment B: Director's August 31, 2015 letter to the FAA

Attachment A

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kimberly J. Becker

SUBJECT: **CHANGE IN FAA-DESIGNATED ARRIVAL FLIGHT PATHS**

DATE: July 22, 2015

Approved D. DiSyl Date 7/23/15

INFORMATION

BACKGROUND

New FAA Arrival Flight Paths

In 2013, the FAA announced the planned implementation of its Northern California Optimization of Airspace Procedures in the Metroplex (NorCal OAPM) project. NorCal OAPM consolidates several previous arrival and departure flight paths into San Francisco International Airport (SFO) and Mineta San José International (SJC) to create new, more concentrated flight paths using different approach procedures. The NorCal OAPM project is part of the Next Generation (Next Gen) project, a nationwide upgrade of the technology of the U.S. air traffic control system, to create greater efficiencies in flight arrival and departure procedures.

Why the Change?

The FAA is predicting that by 2024, the U.S. air transportation system will be transporting one billion people a year. (The U.S. air transportation system transported about 720 million people in 2011.) This significant increase in passengers transported will require more planes in the air and will result in increasing chokepoints and flight delays in already heavily congested areas. To handle this greater air traffic, the FAA is implementing a nationwide effort to create greater efficiencies in the air traffic control system by transforming the U.S. air traffic control system from the use of ground-based radar to satellite-based radar as well implementing different arrival and departure procedures for aircraft.

Next Gen will use GPS technology to shorten routes, save time and fuel, reduce traffic delays, increase capacity, and permit controllers to monitor and manage aircraft with greater safety margins. Planes will be able to fly closer together, take routes that are more direct and avoid delays caused by airport "stacking" as planes wait for an open runway. The Next Gen project is not unlike upgrading the traffic control technology of a congested street intersection from a stop sign to a traffic signal and adding turning lanes.

FAA Community Outreach

In March-April 2014, the FAA held an outreach meeting in San José, ostensibly to talk about the NorCal OAPM project. Airport staff and several Councilmembers attended the meeting. However, the FAA had little specific information to share about the potential changes in flight paths and their impacts on effected communities. At the time, Airport staff advised the FAA that more airport-specific information should be included in the agency's environmental assessment and that more information was needed to support the agency's environmental findings, including the conclusions that no area would experience an increase in noise levels and that air pollution emissions would increase only slightly (Attachment A).

Impact on Residents

On March 5, 2015, a new flight path to SFO, known as SERFR ONE RNAV STAR, took effect, along with slight changes to the SJC flight paths. The SJC flight path is known as BRIXX.

While these arrival paths changes have not resulted in any increase in noise complaints from San José residents and residents of adjoining cities, residents in Santa Cruz County are experiencing a significant increase in aircraft noise. In June, they presented their concerns to the Airport Commission and staff. They asked for support in meeting with the FAA to discuss their noise issues and to request a modification in the new flight paths. The Santa Cruz residents have stated that the FAA did not conduct studies about the noise impacts on their community nor did the agency meet with them before implementing the change of flight paths in March. While some of the aircraft noise affecting the Santa Cruz residents is from SJC-bound flights from the northwest, the great majority of aircraft noise is being generated by SFO-bound flights. Although the number of arriving flights could vary on any given day, for purposes of getting an order of magnitude number, on July 5, 2015, staff analyzed the number of arrivals over the general area of the Santa Cruz Mountains using the new flight path. Out of the estimated 190 flights that occurred on that day, about 160 were bound for SFO.

In response to the concerns of Santa Cruz residents, the Airport Commission has requested staff to return with information on the new flight path. The Commission will discuss the Santa Cruz residents' concerns and make a recommendation to Airport staff at its August 10 meeting. The Santa Cruz residents have also met with SFO staff, who, in May 2015, offered to work with the FAA to suggest adjustments that would further "optimize" the new flight path to reduce the noise impact on the Santa Cruz residents (Attachment B). In addition, in early June 2015 the SFO Roundtable (the body that addresses noise issues at SFO) expressed its support for SFO's offer (Attachment C).

Summary

The purpose of this memorandum is to advise the Council that:

- ✓ While there has been a change in the arrival/departure flight paths, San José and the adjoining surrounding communities have thus far not experienced a significant increase in aircraft noise.

- ✓ The establishment of arrival and departure flight paths is solely within the jurisdiction of the FAA. However, staff will be as supportive as resources and circumstances allow in working with the Santa Cruz residents and the FAA to reduce any noise impacts from SJC-bound flights using the new arrival flight paths – provided any modifications do not result in any adverse impacts on the residents of San José and the adjoining communities.

- ✓ Staff will continue to monitor and study the new path for potential noise impacts, particularly if the FAA makes any modifications to the flight path in the future.

/s/
KIMBERLY J. BECKER
Director of Aviation

Attachment A: April 22, 2014 letter from SJC staff
Attachment B: May 12, 2015 letter from San Francisco International Airport Director John Martin
Attachment C: June 1, 2015 letter from the San Francisco International Airport/Community Roundtable

Attachment A

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT

SILICON VALLEY'S AIRPORT

April 22, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center – Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057

Subject: Comments on Draft EA for NorCal OAPM Project

The City of San Jose, which owns and operates the Norman Y. Mineta San Jose International Airport (SJC), has reviewed the March 2014 Draft Environmental Assessment for the FAA's Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM) project and offers the following general comments.

SJC supports the objectives of the Proposed Action and the vigorous technical process that was conducted to design the component improvements to airspace utilization in the Metroplex. However, SJC suggests that the Draft EA, as a public information document, does not adequately provide *"..a clear, accurate description of the potential environmental impacts.."* (quoting the very first sentence on Page 1-1), and therefore should be substantially revised.

First, given the large geographic size of the Metroplex (all or part of 22 counties) and the number of proposed new airspace procedures (33 in addition to the existing 52), the EA should include sub-regional discussions to convey the analyses on a more airport-specific level. Exhibits displaying the Proposed Action and No Action flight paths separately for each of the four major airports, along with the associated environmental impact analysis for each of the four sets of airport-specific flight paths, would substantially enhance the document.

Second, the EA needs more information to support some of the environmental findings presented. In particular, as the Proposed Action would provide more precise, efficient flight routes in the Metroplex (with presumed fewer speed or altitude changes and resulting shorter flight times), there should be environmental benefits compared to the No Action. Instead, the analysis presents somewhat counter-intuitive conclusions, such as that no areas would experience a significant increase in noise levels, and that air pollutant emissions would increase slightly. Why wouldn't noise levels or air pollutant emissions be reduced? The document needs to address these perceived disconnects between the project description and the environmental impact findings.

Sincerely,

Cary Greene

Cary Greene
Airport Planner

1701 Airport Boulevard, Suite B-1130 • San José, CA 95110-1206 • Tel 408.392.3600 • Fax 408.441.4593 • www.flysanjose.com

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Attachment B

Attachment A

San Francisco International Airport

May 12, 2015

Mr. Glen A. Martin
Regional Administrator
Western-Pacific Region
Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009

Subject: Routing of SERFR ONE Area Navigation (RNAV) Standard Terminal Arrival Route (STAR)

Dear ~~Mr. Martin~~,

The San Francisco International Airport (SFO or the Airport) has been tracking the implementation of new arrival and departure procedures that FAA developed through the Northern California Optimization of Airspace Procedures in the Metroplex (NorCal OAPM) project. Most recently, on March 5, 2015, the FAA implemented the SERFR ONE RNAV STAR.

Since March 5, when FAA implemented the new SERFR ONE RNAV STAR, the Airport's Aircraft Noise Abatement Office has noted a significant increase in complaints from the communities of Aptos, Capitola, Felton, Los Gatos, Santa Cruz, Scotts Valley and Soquel. In the six weeks prior to March 5, the Airport received two complaints from two complainants from these areas. In the six weeks following March 5, the Airport received 497 complaints from 237 complainants. These complaints and an analysis of flight tracks and the procedures by the Airport indicate that the new SERFR ONE RNAV STAR may not be fully optimized north of the STOKD waypoint.

We have some ideas which may further optimize the SERFR ONE RNAV STAR on the BIG SUR Arrival between existing fix, ANJEE, and the MENLO waypoint. This could result in a reduction in noise complaints in the area beneath the SERFR ONE RNAV STAR. We will reach out to your staff to discuss further.

Thank you for your consideration of this matter.

Very truly yours,

John L. Martin
Airport Director

Attachment

cc: Cliff Lentz, Chairman, San Francisco International Airport/Community Roundtable
John Bergener, Planning Director, SFO Bureau of Planning and Environmental Affairs
Bert Ganoung, Manager, SFO Aircraft Noise Abatement Office

Attachment C
San Francisco International
Airport/Community Roundtable

455 County Center, 2nd Floor
Redwood City, CA 94063
T (650) 363-1853
F (650) 363-4849
www.sforoundtable.org

SFO COMMUNITY ROUNDTABLE

June 1, 2015

Mr. Glen A. Martin
Regional Administrator
Western-Pacific Region
Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009

Re: Northern California Metroplex SERFR ONE Area Navigation (RNAV) Standard Terminal Arrival Route (STAR) Implementation

Dear Mr. Martin:

The San Francisco International Airport/Community Roundtable has tracked progress of the Northern California Metroplex (Metroplex) satellite-based procedure implementation since November 2014, as well as the preceding Metroplex Environmental Assessment (EA) process. On March 5, 2015, the SERFR STAR was implemented, one of the numerous Metroplex procedures shown in draft form in the final Metroplex EA. The SERFR STAR waypoints published In March 2015 did not reflect information regarding this procedure in the Metroplex EA. Citizens from the Santa Cruz area have voiced their concerns about the SERFR STAR flight path shifting laterally, most recently at our April 1, 2015 regular meeting and the Roundtable's Arrivals Technical Working Group on April 29, 2015.

The Roundtable supports the San Francisco International Airport in its efforts to optimize the SERFR and BIG SUR routes in the greater Santa Cruz and Capitola areas. As a noise abatement stakeholder in the Bay Area, we look forward to working with the airport and FAA to find a solution for these routes.

Regards,

Cliff Lentz, Councilmember
City of Brisbane
Chair, San Francisco Airport Community Roundtable

Cc: Congresswoman Speier
John Martin, San Francisco International Airport

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT

SILICON VALLEY'S AIRPORT

August 31, 2015

Mr. Glen A Martin
Regional Administrator
Western-Pacific Region
Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009

Subject: Implementation of the Northern California OAPM Standard Terminal Arrival Route (STAR)

Dear Mr. Martin:

The Norman Y. Mineta San José International Airport (SJC) has been receiving a steadily increasing number of aircraft overflight noise complaints from residents in the Santa Cruz Mountains area that overlaps Santa Cruz and Santa Clara counties. The rise in noise complaints appear to be directly correlated to the changes in Standard Terminal Arrival Routes (STAR) that were implemented on March 5, 2014, as part of the Northern California Optimization of Airspace and Procedures in the Metroplex project.

At the most recent meeting of the City of San Jose's Airport Commission, a number of Santa Cruz Mountains residents attended to voice concerns about the noise impact of flights using the BRIXX arrival route to SJC and their contribution to the larger noise concern with the convergence of flights using the SERFR1 flight path headed to both SFO and SJC over their area. In tracking flights for a single day (July 5) over the Santa Cruz Mountains area, we counted 190 flights to either SFO or SJC. Although the SJC flights using the BRIXX route represented only 30 of the 190 flights, their noise impact is amplified because they must come in at altitudes below the SERFR1 SFO flights. The maximum altitude for the BRIXX flights over the Santa Cruz Mountains is 7,000 feet but flights reportedly pass over the area at altitudes as low as 3,700 feet.

With the lower altitudes and concentration of arriving flights over the elevated ground surface of the Santa Cruz Mountains, residents of that area strongly consider the overflight noise to be a significant environmental issue. Moreover, SJC supports the contention expressed by Santa Cruz Mountains residents that the federal environmental assessment process conducted for the OAPM included little to no outreach to that affected portion of the region, nor was any specific noise analysis information included in the Environmental Assessment.

SJC therefore encourages the FAA to work with Santa Cruz County and Santa Clara County officials and Santa Cruz Mountains residents in identifying and evaluating modifications in flight procedures to reduce overflight noise. Such improvements would also reduce the resources that both SJC and SFO must devote to responding to the volume of noise complaints from this impacted area. More specifically, we urge the FAA to take the following two steps:

1. *Hold one or more public outreach meetings with the Santa Cruz Mountains communities to hear residents' concerns directly, and to potentially identify feasible flight track modifications.* SFO staff can likely suggest other communities in Santa Cruz County and Santa Clara County that would benefit from similar outreach meetings and flight track modifications. Elected officials representing these communities could be helpful in organizing public meetings.

2. *Work directly with SFO and SJC staff to identify measures that could reduce the overflight noise impacts of the new STAR routes.* We understand that SFO has some ideas to further optimize the new routes (see the attached letter of May 12 from SFO Airport Director John Martin). SJC would like to participate in any discussions and reviews about further optimizing the route. At minimum, SJC would like to be consulted on any modifications of the STAR approaches.

We believe these two steps could go a long way to improving the situation on the ground for the impacted residents while maintaining the improved safety and efficiency the FAA seeks to achieve with the new route changes. Toward that objective, SJC is willing and ready to assist the FAA in discussions and considerations to address the current concerns. We look forward to your agency's response to these issues and suggestions.

Sincerely,

Kimberly J. Becker
Director of Aviation

Attachment: as stated

cc: Mayor and City Council
Mineta San José International Airport Commission
John L. Martin – San Francisco International Airport

San Francisco International Airport

May 12, 2015

Mr. Glen A. Martin
Regional Administrator
Western-Pacific Region
Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009

Subject: Routing of SERFR ONE Area Navigation (RNAV) Standard Terminal Arrival Route (STAR)

Dear Mr. Martin,

The San Francisco International Airport (SFO or the Airport) has been tracking the implementation of new arrival and departure procedures that FAA developed through the Northern California Optimization of Airspace Procedures in the Metroplex (NorCal OAPM) project. Most recently, on March 5, 2015, the FAA implemented the SERFR ONE RNAV STAR.

Since March 5, when FAA implemented the new SERFR ONE RNAV STAR, the Airport's Aircraft Noise Abatement Office has noted a significant increase in complaints from the communities of Aptos, Capitola, Felton, Los Gatos, Santa Cruz, Scotts Valley and Soquel. In the six weeks prior to March 5, the Airport received two complaints from two complainants from these areas. In the six weeks following March 5, the Airport received 497 complaints from 237 complainants. These complaints and an analysis of flight tracks and the procedures by the Airport indicate that the new SERFR ONE RNAV STAR may not be fully optimized north of the STOKD waypoint.

We have some ideas which may further optimize the SERFR ONE RNAV STAR on the BIG SUR Arrival between existing fix, ANJEE, and the MENLO waypoint. This could result in a reduction in noise complaints in the area beneath the SERFR ONE RNAV STAR. We will reach out to your staff to discuss further.

Thank you for your consideration of this matter.

Very truly yours,

John L. Martin
Airport Director

Attachment

cc: Cliff Lentz, Chairman, San Francisco International Airport/Community Roundtable
John Bergener, Planning Director, SFO Bureau of Planning and Environmental Affairs
Bert Ganoung, Manager, SFO Aircraft Noise Abatement Office

Post Office Box 8097 San Francisco, California 94128 Tel 650.821.5000 Fax 650.821.5005 www.flysfo.com

July 22, 2020

From

Faviola Garcia

To

SCSC Roundtable

Message

FAA Response to Request for update to SCSC roundtable

Hello, please see attached response.

Thank you,

Favi-

Faviola Garcia
Supervisory Senior Advisor
Federal Aviation Administration
Office of the Regional Administrator

Attachment Name

20200722_F_Garcia_FAAJUL 22 Response SCSC letter dated June 24

U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Office of the Regional Administrator

777 S. Aviation Blvd., Suite 150
El Segundo, CA 90245

July 22, 2020

Ms. Mary-Lynne Bernald
Chairperson
Santa Clara/Santa Cruz Counties Airport/Community Roundtable
PO Box 3144
Los Altos, CA 94024

Dear Ms. Bernald:

Thank you for your letter dated June 24, 2020, in which you request an update on the development of the Big Sur Overlay. Community Engagement Officer Sky Laron will be participating in the July 22nd, roundtable meeting to provide a brief update on the status of SERFR. This information was previously communicated to Mr. Steve Alverson via email late last week.

If you have any questions, please contact my office at (424) 405-7000.

Sincerely,

Raquel Girvin
Regional Administrator

July 23, 2020

From

Karyn Meadows

To

SCSC Roundtable

Message

New submission from Contact us

Hello, I live in Los Gatos and we have had a huge jump in airplane noise over our homes in the neighborhood since FAA went to GPS assisted arrivals and departures. I wanted to ask if Los Gatos is represented in your meetings along with other towns and cities? And if not, what can we do to get added?

July 23, 2020

From

SCSC Roundtable - RESPONSE

To

Karyn Meadows

Message

New submission from Contact us

Dear Ms. Meadows,

Thank you for your July 23, 2020 email inquiring about Los Gatos' representation on the SCSC Roundtable.

When the Roundtable was initially being formed, the Town of Los Gatos declined the opportunity to participate on the SCSC Roundtable. If you are interested in having the Town of Los Gatos participate, you should contact the Town Council. However, Santa Clara County is a member of the SCSC Roundtable. Therefore, as a resident of Santa Clara County, you can bring your aircraft noise concerns to Mr. Steve Preminger, who represents Santa Clara County on the Roundtable. Mr. Preminger's email address is steve.preminger@ceo.sccgov.org.

We trust this information is helpful to you.

SCSC Roundtable Staff

July 23, 2020

From

Karyn Meadows

To

SCSC Roundtable

Message

New submission from Contact us

Hi, thank you so much for your quick response. I'll take my concerns to the Town Council and also to Mr. Priminger.

Best, Karyn

July 23, 2020

From

Jennifer Landesmann

To

Steve Alverson and SCSC Roundtable

Message

Recalled letter/Dispersion training

Hi Steve,

From yesterday's SCSC discussion, It sounded like the letter from the Legislative Committee was recalled because it mentioned dispersion, and that there will now be Training about the term to address Mary Lynn Bernald's concerns about dispersion.

If I am correct, the issues are - as Mary Lynn shared - the airports do not support dispersion because they consider that "noise shifting" and that according to Rep Rho Khanna's staff the congressional staffers also dispensed with dispersion saying that FAA thinks that dispersion is not helpful.

Based on the FAA's last presentation to the SFO Roundtable, the FAA actually suggested the opposite. That for noise management - they are exploring not only what is in the air but where and how planes fly.

So, it sounds like the real issue is not "dispersion" but "noise shifting" and I urge that unless the Dispersion Training includes studies showing how noise dispersion is not beneficial that it doesn't become a theoretical of what is possible or not possible - or what is feasible or infeasible according to the airports and ATC - neither of which have any experience in re-design to mitigate noise. To work with noise you need more than 1 day's flight track data as they used to design PIRAT.

There's quite a bit to address with "noise shifting" though, and preliminarily, these are some questions.

1) What is the definition of "noise" in noise shifting
2) Is the definition of noise restricted to ground track location?
3) Does "shifting" have a legal definition?
4) Where does the term "noise shifting" come from?
5) Is there a difference between "noise shifting" for the benefit of airports and airlines?
6) What are the written and articulated policies from the FAA about "noise shifting"?
7) What does "historical" mean, is there a date when historical begins for paths that have been changing all the time and materially since 2014?

As I expressed yesterday, it would be astonishing for the Bay Area to lead on being anti looking at options to reduce concentration of noise (because of airport pressure at that). I am not stuck on what the term is to describe responsible noise management but when a term like "noise shifting" is introduced, then the community deserves clarity on that as well.

This is of course a critical issue for Palo Alto, which sustains 50%+ of SFO's arrivals plus other airports, so the SCSC needs to be very clear about what the airports mean by "noise shifting."

Thank you,

Jennifer

July 23, 2020

From

Steve Alverson / SCSC Roundtable - RESPONSE

To

Jennifer Landesmann

Message

Recalled letter/Dispersion training

Jennifer,

Thank you for your email.

The draft letter to the congressional representatives regarding the Quiet Skies Caucus meeting with FAA Administrator Dickson was recalled because Chair Bernald's "on exception" authorization to send the letter was based on her understanding that the Quiet Skies Caucus meeting with FAA Administrator Dickson was going to occur before the end of June (i.e., prior to yesterday's Roundtable meeting). As you know from yesterday's Roundtable meeting, the meeting between the Quiet Skies Caucus and FAA Administrator Dickson has not yet been scheduled. After she became aware that the meeting with FAA Administrator Dickson would occur after the next Roundtable meeting, Chair Bernald requested that the letter be recalled so that the full Roundtable could discuss it at its July 22, 2020 meeting.

I appreciate all of the background/questions you provided on the topics of dispersion and noise shifting.

Regards,

Steve Alverson

Facilitator, SCSC Roundtable

July 24, 2020

From

Tami Mulcahy

To

SCSC Roundtable

Message

New submission from Contact us

Dear SCSC Roundtable,

Listening to the FAA presentation this past Wednesday, I was at once shocked, not surprised, outraged, resigned.

Seriously, a new BSR design is done! Here we go again, on the defense with no representation of our best interest in the preplanning stage. What criteria is the design based on? How does the new BSR fit in an overall plan? Do they have an overall plan?

Sadly, the FAA has no credibility with the public. And, sadly, they have done nothing to suggest they comprehend the complexity of our noise problem. A house cannot be built by simply putting up walls. There has to be a plan!!!!!!

The SCSC Roundtable voted not to revisit the Select Committee recommendations. That being the case, the FAA must meet the rationale of why the SC made its decisions. I live under SERFR. Yet, I advocate for what is right. In order to return SERFR to the historic BSR, fix the parameters that make SERFR miserable.

A large part of that misery is frequency…the near constant noise at full capacity. Last evening, SERFR planes came every two to five minutes. Some were southern arrivals, but also Austin, Houston, Las Vegas and several from Phoenix. Why are eastern arrivals on SERFR?

The new BSR plan must address frequency to protect against abuse. A full length of the Bay approach for southern arrivals and the return of SERFR to its historic path go hand in hand. And, the 50% of planes that are currently vectored require an additional path.

And finally, the lack of funds, due to the strain of the pandemic, does not negate the interests of affected communities that can't afford further participation on the roundtable. Honestly, we've all been at this awhile. We know what everybody wants. What is lacking is fresh eyes on the SC recommendations to build a timetable, regional action plan and a commitment from the FAA to implement it.

Thank you for reading and your service.
Tami Mulcahy
Los Altos

July 27, 2020

From

Lydia Kou

To

SCSC Roundtable

Message

Input - FAA Big Sur Overlay Presentation

Dear Mary-Lynne,

As a follow-up to Wednesday's meeting, I am pleased a letter will be sent from the SCSC RT to the FAA on the Big Sur Overlay. I want to reiterate the importance of what was stated then regarding the need to be specific to set proper expectations for the FAA update and presentation. As we have learned from past FAA presentations, the more context and specifics the SCSC RT provides in advance, the better the FAA content will meet our needs to inform the community.

At the TWG meeting in June, I had volunteered to write a draft of the Big Sur Overlay letter to the FAA. Given that you will now write the Big Sur Overlay letter to the FAA, I have provided below my input, including timeline and process questions that Glenn has mentioned multiple times and for which Steve has specific notes based on comments that the FAA made at previous Roundtable meetings

As you will see below, I ask specifically that the Roundtable request that the FAA reports the N-Above metric in addition to the CNEL metric when the FAA runs the AEDT noise modeling tool to estimate noise levels. Reporting additional metrics in an AEDT analysis is a straightforward and trivial task. This request to report N-Above is also consistent and aligned with statements from the FAA in the April 2020 metrics report where the FAA encouraged the use of supplemental metrics to improve communication with the community as well as a statement on a recent FAA slide from a Florida Metroplex Workshop ("The role of supplemental noise metrics, and how their use in applicable situations is encouraged to better inform the public."). Using alternative metrics was stated in the Legislative committee letter discussed last week, "The Roundtable would like to see the FAA use different noise metrics to measure noise from air traffic that residents experience." At the July 22nd Roundtable meeting you commented and reinforced the top priority of using other noise metrics. I hope there will be sufficient time on the agenda for the Big Sur Overlay presentation, comments, and questions. Please consider a dedicated meeting for this topic. Along these lines, the SFO RT has scheduled a dedicated TWG meeting next week for the FAA to present NITE-HUSSH (the FAA presents procedure details at the SFO TWG meetings, not at the general Roundtable meetings). Please consider either a dedicated SCSC TWG meeting or a dedicated full SCSC Roundtable meeting.

Attached are the following:

- My Big Sur Overlay draft letter
- June 4-5, 2019 Full Working Group (FWG) Design meeting minutes

Kind regards,

Lydia Kou - Council Member

Attachment Name

20200727_L_Kou_7.26 BigSurOverlayLetter_LKinput
20200727_L_Kou_7.26 FWG Minutes - CA SFO.SJC_SERFR.BRIXX STARS

DATE

Ms. Raquel Girvin
Regional Administrator, AWP-1
FAA Western-Pacific Region
777 South Aviation Boulevard, Suite 150
El Segundo, CA 90245

Subject: SCSC Roundtable Requests Regarding SERFR Replacement/Big Sur Overlay

Dear Administrator Girvin,

The SCSC Roundtable is submitting three requests regarding the upcoming Big Sur Overlay FAA presentation. We will schedule a SCSC Roundtable Technical Working Group for the presentation; this can be done within 1-week notice. Attached as a reference is the FOIA information from the procedure Full Working Group meeting that was held over a year ago on June 4-5, 2019.

To increase the effectiveness of the discussion on the topic at the meeting and improve community communication, we ask that:

- All materials to be provided to the Roundtable at least 7 calendar days prior to the FAA presentation. The FAA reports the N-Above metric in addition to the CNEL metric when running the AEDT noise modeling tool.
    - N-Above should be reported in 5 dBA intervals starting at 45 dBA and up to 70 dBA for several locations across the ground tracks from Monterey Bay to the San Francisco Bay.
    - Reporting additional metrics in an AEDT analysis (called "study" in AEDT) is a straightforward and trivial task: in the AEDT "Metric Results Tab", within the "Choose Metrics" dialog, one can select "NANL" (the AEDT's name for N-Above), and add it to the list of desired metric results (e.g., CNEL, NANL).
    - Our request is consistent and aligned with the FAA's April 2020 metrics report, which not only encouraged the use of supplemental metrics but also stated multiple times that supplemental metrics are important in communicating with the public.
        - "...the FAA encourages the use of other supplemental metrics as a communication tool to highlight unique situations where applicable." (page 11)
        - "where warranted, consideration of established supplemental metrics is encouraged." (page 18)
        - "Individually, supplemental metrics may not fully consider the magnitude, duration, and frequency of the noise events, but may be used to support further disclosure and aid in the public understanding of community noise exposure." (page 18)
        - "Finally, while the DNL metric is FAA's decision-making metric, other supplementary metrics can be used to support further disclosure and aid in the public understanding of community noise effects." (page 20)

      And an FAA slide from the recent Florida Metroplex Workshop, stated that, "The role of supplemental noise metrics, and how their use in applicable situations is encouraged to better inform the public."

As you know, the Roundtable will not reopen recommendations from the former Select Committee. The Roundtable will however track progress and provide input on the FAA's implementation of recommendations in section 1.2 of the Final Report of the Select Committee on South Bay Arrivals.

Questions to the FAA on the SERFR Replacement/BSR Overlay

1. Describe the timelines and process for procedure development including the environmental review process that will be used or is already underway for the proposed partial BSR Overlay. In particular,

A. Identify the representatives for "airport proprietors" and "community" (is this the Roundtable?) who will be or have been contacted already and the phases in which these representatives will be involved?

B. Provide a status update of the environmental review process for the proposed BSR Overlay and a targeted completion date.

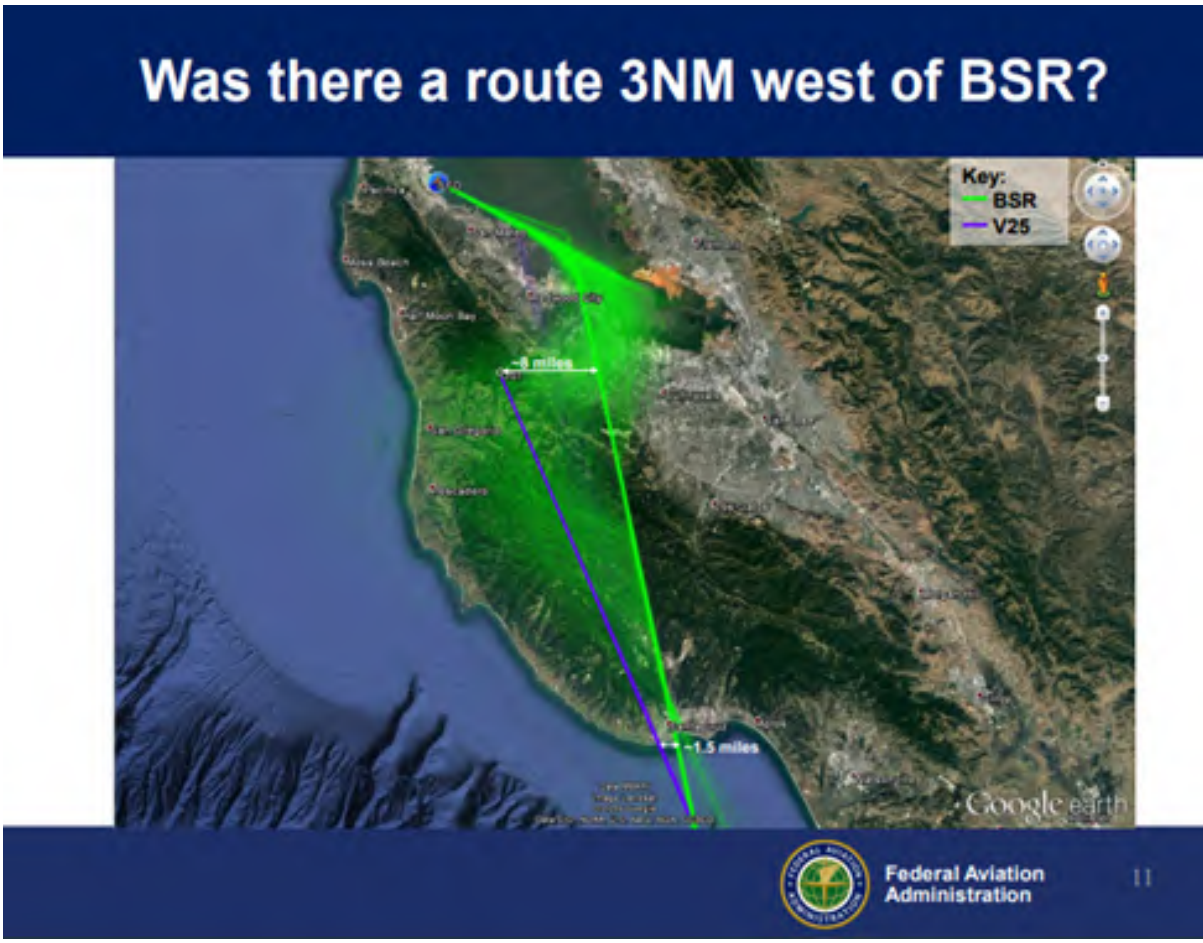
Note: Steve to include further details based on notes of the meeting held in Santa Cruz including FAA's commitments on process information.

2. Explain why the proposed BSR overlay (as described in the attached FOIA information) **is a partial overlay and not a full overlay between EPICK and MENLO as was voted on and recommended by the Select Committee in recommendation 1.2 R1.** In particular, please address the following points:

A. Can the FAA replace SERFR with an OPD procedure **along the entire BSR ground track prior to EPICK** as voted on and recommended by the Select Committee? Given the answer, is recommendation 1.2 R1 feasible or not? Does the proposed BSR Overlay comply with the recommendation 1.2 R1 without reopening this Select Committee recommendation?

B. Explain the statement made by Derek Wolfe (PBN Co-lead) at the June 4-5, 2019 Full Work Group meeting, which was "Our goal was the green line --which is doable -but **we have other goals too**." In particular, what are the **other goals**?

> Note that the FAA presented a green line for the BSR route on slide 11 of the FAA presentation to the Select Committee on Oct 13, 2016 (see screenshot below). Based on FAA information received last year, the blue line was for propeller planes such as SkyWest.



3. Please compare the proposed partial BSR Overlay to the old BSR procedure and to a full BSR Overlay. In particular, please address the following questions:

A. How do the **proposed** BSR Overlay ground tracks, altitudes, speeds, angles of descent, waypoint locations, end waypoint of the STAR, and default heading for vectoring after the end of the STAR compare to the **old** BSR **from the Monterey Bay all the way to the SFO airport**? In particular, provide a detailed side-by-side comparison of all items (ground tracks, altitudes, speeds, angles of descent, waypoint locations, end waypoint of the STAR, and default heading for vectoring after the end of the STAR) for different portions and locations of the procedure, including the vectoring to the ILS. Include visuals as appropriate, especially for ground tracks.

B. What are the **differences** in the **estimated noise impacts** between the **full BSR Overlay** and the **proposed partial BSR Overlay** across the entire paths between the Monterey Bay all the way to SFO (the Select Committee voted on a full BSR Overlay, which is the BSR ground track from the Monterey Bay to the MENLO waypoint; the partial BSR Overlay is described in the FOIA information)? In particular,

- Please address the differences after the end of a procedure for the vectored portion and specify all assumptions and historical data used in calculating the noise impact estimates and differences.

- Please provide all airline simulation results as well as all noise modeling data and assumptions made in the calculations for the proposed BSR Overlay impact.

- As mentioned earlier, please report AEDT results for both CNEL and N-Above metrics.

July 27, 2020

From

Marie-Jo Fremont

To

SCSC Roundtable

Message

TIME SENSITIVE - SCSC RT Letter to FAA on Big Sur Overlay Presentation

SCSC RT Members,

During the Select Committee meetings in 2016, Glenn Martin (then FAA Western Region Administrator) stated that the new procedure would be better, quieter, and higher than the old BSR.

Therefore, when the SCSC RT requests a presentation on the BSR Overlay from the FAA, please ask that the FAA provides a detailed comparison between the old BSR procedure and the BSR Overlay, namely:

- Comparison of the ground tracks and the waypoints used from the Monterey Bay all the way to SFO
- Comparison of altitudes, speeds, angles of descent on the various segments of the procedures all the way to final approach
- Noise impact estimates using the latest version of AEDT
- Comparison of noise impact estimates at multiple locations across both ground tracks (e.g., same latitudes) with 2 metrics:
    - CNEL (recognized by FAA)
    - N-Above (which is part of supplemental metrics, also called alternative metrics). In recommendation 3.3, the Select Committee recommended unanimously to require the FAA to adopt supplemental metrics.

Note that AEDT allows the reporting of multiple metrics, including CNEL and N-Above.

- Given that SERFR went through multiple versions since its first implementation in March 2015, impact should be estimated from 2014 to 2019 for the same time period each year (like 3 months or 6 months).

As you know, when the request to the FAA is not specific or lacks context, then we get a generic, high-level FAA presentation, which does not contain the information that the community is seeking on the topic. Then, we have to ask again and wait another 45 days or more.

Thank you for considering our input.

Marie-Jo and Darlene

July 27, 2020

From

Mary-Lynne Bernald / SCSC Roundtable - RESPONSE

To

Marie-Jo Fremont

Message

TIME SENSITIVE - SCSC RT Letter to FAA on Big Sur Overlay Presentation

Thank you, Marie Jo, for your detailed input. Lydia Kou sent us an email this morning requesting many of the same specifics.

With appreciation for your continued involvement,

Mary-Lynne

MEETING MINUTES

Performance Based Navigation (PBN)
Full Work Group (FWG) Design Meeting
NCT STARs: BRIXX and SERFR
June 4-5, 2019

Prepared By:	Mark Tellier, NAVTAC WSC-OSG
Location:	Northern California TRACON
PTT:	FAA_P00026773; FAA_P00014316; FAA_P00012775

PURPOSE OF MEETING:
To amend the SERFR RNAV STAR tracks to transition the Big Sur (BSR) STAR track at WWAVS; to increase BRIXX minimum segment altitudes to facilitate vertical separation from adjacent routes.

ATTENDEES:

Name	Organization
Joshua Haviland	PBN Co-Lead
Derek Wolfe	PBN Co-Lead
Bert Ganoung	SFO Airport Noise Commission
Perry Oleck	Western Flight Procedures Team
Jeannette Roller	NAVTAC Contractor
Theodore Roller	NAVTAC Contractor
Tamara Swann	AWP Deputy Regional Administrator
Mark Tellier	NAVTAC Contractor
Matthew Greene	NCT SME
Jason Bush	NCT Operations Supervisor
Eric Morse	Delta Airlines
Ryan Weller	FAA WSC OSG
Ron Renk	United Airlines
Ed Hulsey	FAA NATCA
Adam Domitrovich	NCT SME
Ray Hernandez	NCT Operations Supervisor
Thann McLeod	NCT Airspace Manager
Dan Stender	NCT Airspace Support Specialist
Lisa Dussell	FAA ZOA
Rohn Grant	WSC/OSG POC
Tony DiBernardo	LA District Manager
James Kosanovich	LA District S&P Manager
Kevin Allen	American Airlines
Walt Alexis	Los Angeles ARTCC
Joe Brook	WSC/OSG NAS Analytics?
Melissa Holmes	Oakland ARTCC A&P

Tonya Patterson	District Operations Manager, DMO
Curt Eikerman	SJC Airport
Ian Hogg	SJC Airport
Gary McMullin	Southwest Airlines
Jim McVeigh	FedEx

PROJECT KICKOFF AND GENERAL DISCUSSION:

1. Josh Haviland (JH) and Derek Wolfe (DW) opening comments and introductions:
   a. JH: & DW: presented an overview on the following topics:
      (1) Five phases of the 7100.41 PBN process.
      (2) Community Involvement (CI)
   b. Introductions made
   c. Agenda reviewed
      (1) Ground Rules discussed
      (2) JH briefed project and overview.
         (a) Feasible, flyable and reaching FWG consensus.

> **BRIXX** - NCT is requesting the published MIA on the BRIXX STAR between BRIXX and LUYTA be increased to 12,000. Reason: Aircraft. SFO arrivals are directly beneath this arrival at 11,000 and it is not uncommon for a pilot to descend without clearance believing the bottom altitude on the STAR is 7,000.
>
> **SERFR** - At the request of Congress representatives Eshoo, Speier, and Panetta/Farr (Former Select Committee), develop an RNAV STAR that would transition aircraft from the SERFR (RNAV) STAR to the Big Sur conventional STAR ground track to the extent possible from the WAVVS fix northbound. Redesign of other instrument procedures into and out of San Francisco Bay area *may* be needed for procedural separation and/or shared fixes and connectivity Aircraft Type

2. Derek gave an overview of the .41 and 5 phases:
   (1) Q: When we find something doesn't work, does it go back to the bottom of the list?
      (a) A: JH advised that it depends on the individual case.
   b. Derek explained to the FWG community engagement.
      (1) Design and operational fit may be good, but there may be a need to share technical reasons for changes. That decision is made with NAS Analytics, Regional Administrator, and HQ level.
      (2) OSG NAS Analytics briefed on workshops and other methods of community engagement to include webinar and or descriptive language on the FAA NextGen website.

3. Mission Statement:
   a. Per the select committee: Develop a new procedure to transition SERFR traffic to the Big Sur (BSR) STAR track.
      (1) After a short discussion it was proposed to change the Mission Statement to: **Per the select committee recommendations: amend the SERFR RNAV STAR tracks to transition the Big Sur (BSR) STAR track at WWAVS.**
   b. **FWG consensus on mission statement.**

4. BRIXX STAR
   a. JH brought up about MEA issues from previous meeting.
   b. JH talked about deleting elements that no longer conform to criteria
   c. A question about "expect altitude" being included on chart.

(1) JH replied that procedure notes were more for later

d. Fixed the MEA issue: chart requirements

e. Suggested to table BRIXX until criteria issues with BSR are addressed.

5. SERFR STAR

a. JH asked for ideas about where to place the key fix.

(1) NCT offered that SERFR could continue straight to intercept BSR STAR.

(2) Comment: So it could still end at EDDYY

b. JH asked if that would suffice.

(1) Discussion of options

(2) Comment on pilot issues with speeds

(3) No mandate to do that on this project

(a) Comment thought issue was outside of MRY

(b) We offered to do community noise monitoring but community would not cooperate.

(4) TM mentioned that there had been problems with OAK departures if previous proposals were implemented.

(5) JH asked if it would be feasible to overlay the track.

(a) It was suggested it might be safer to directly overlay the BSR track.

(b) Comments: The portion over MRY bay is NOT workable.

(c) It is feasible to move EDDYY.

(d) They could descend after EPICK.

(6) JH asked if we were in agreement on moving EDDYY.

(a) After discussion: Not sure yet.

(b) It was suggested to move NEW BOLDR west could avoid a problem.

c. NCT suggested we start work on EDDYY and talk about new BOLDR later.

(1) Comment: with increased angle there could be more overshoots.

(a) A user offered they'd just need to analyze the angles for an opinion.

(b) Comment: The turn between EDDYY and SIDBY is the key.

(2) JH offered that if EDDYY were moved, 9 other procedures would be affected (including charted visuals).

6. JH recapped the project so far.

a. Discussion of MEA reductions and impacts

(1) DW asked whether we agreed with potentially changing 16 procedures to move EDDYY?

(2) JH stated that unless there are objections, we should continue with the assumption of the new EDDYY location.

b. ATC: Everything we do that shortens the route is going to increase the descent gradient, and it looks to be a little steep.

(1) TARGETS Operator (TO) and work group evaluated several fix adds/moves to seek improvement.

(2) TO displayed how changes might affect the output

(3) Industry and TO worked to optimize route and determined that restrictions would stay the same.

c. Derek asked (Ryan) for Environmental input.

(1) Operational benefits for justification?

(2) Industry offered that a straight line arrival is smoother and straighter, conferring justifiable benefit.

(3) Derek: our goal was the green line- - which is doable – but we have other goals too.

(a) Comment: moving SIDBY west could make things worse

(4) So the new locations will reduce course fly-through, overshoots, and reduce corrective actions, therefore:

FWG consensus: (Industry) fix location for EDDYY will provide the greatest benefit.

(5) JH asked we document several Special procedures that will be affected:
- **(a)** RNAV Visual RWY 1R ..
- **(b)** FMS Bridge Visual RWY 28R.
- **(c)** Tip-Toe Visual (in production).

(6) PBN will work with industry to facilitate the Special changes.

d. TO was asked to display the notional BRIXX in comparison to the NCT original design.

(1) Meant to terminate at a point in space.

(2) Alternatives for overlay and other ideas were discussed.
- **(a)** Comment: Since we have moved the SERFR, now we need the BRIXX track to change, but we don't want an altitude restriction at SAPID.
- **(b)** HEPAP is a straight inbound, can we terminate there?
- **(c)** HEPAP vs YADUT issues were discussed; YADUT is fly-over.
- **(d)** Comment: For ATC, we don't necessarily want to terminate at HEPAP; we want the 90 heading and the ability to vector or route direct to HEPAP at discretion.

(3) ATC concurs they prefer no altitude restriction at SAPID.

(4) Comment: We would like to connect to the RNP, if we can.

(5) Can we look at redesigning the RNP to tie in farther south?
- **(a)** Industry offered we could not redesign because of the visual area left turn. Communities agreed to approve it based on following the visual procedures.
- **(b)** Industry follow-up remark, they would like to see it displayed in TARGETS to analyze what would be needed to connect the procedures.
- **(c)** Additional discussion.

(6) JH suggested that the only way to retain connectivity with other changes we are making to the BRIXX and SERFR, would require an amendment.

Data redacted pursuant to FOIA Exemption 5 5 U.S.C. Section 552(b)(5)

- **(a)** [redacted]
- **(b)** It was offered to make no changes to the RNP, and put up with the lost connectivity.
- **(c)** Comment: We have consensus we can accommodate the SERFR changes.
- **(d)** [redacted]

(7) JH - we have to seek compromise to address competing needs, in order to make everything work the best it can.

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- **(a)** [redacted]
- **(b)** If we put an altitude on the STAR, will that make it work?
- **(c)** ATC: The mix is 50% visuals and 50% RNP, approximately.
- **(d)** Industry said they would concur if we had to adjust altitudes to make it work.

(8) Derek asked ATC's position. "Is using SAPID better to avoid vectors?"
- **(a)** Industry concurred that vectors to final occur about half the time.
- **(b)** DW said the folks in the room were amenable to a slightly wider route for overall benefit to retain connectivity.
- **(c)** Industry: We could accept a route slightly wider, but not much.

(9) DW: Comment: "manual vectoring lends to wider tracks – per graphic on screen"
- **(a)** JH and DW: Potential to see bigger benefit than some may be anticipating

(10) Discussion of how to altitude separate BRIXX from SERFR
- **(a)** Comment: If JILNA is moved slightly south, does that work?
- **(b)** The Work Group considered a compromise of an interim fix so they don't have to fly all the way south to SAPID.

(11) Derek: "We moved New BOLDR north, but may need a waiver."
- **(a)** New JILNA could be the fly-over end of the STAR; ending on a 110 heading for example.
- **(b)** Comment: Usually aircraft are not cleared prior to JILNA.

(12) Reviewing the new SERFR and new BRIXX results.
- **(a)** YADUT will be removed from the BRIXX.
- **(b)** VM leg heading 108 from JILNA.

e. JH opened discussion of optimal New BOLDR placement.

(1) Discussion of ATC preferences.

(2) Comment: Changes could induce speed restrictions at SKUNK; could we raise it instead?

(3) Can we get rid of EPICK entirely?
- **(a)** After discussion it was determined EPICK is needed for the at-or-below 15000 restriction.

(4) NCT asked what if we had a different altitude window at SKUNK?
- **(a)** Comment: Or can we move EPICK north?
- **(b)** TO asked where shall we join the BSR? At WWAVS?
- **(c)** NCT stated they did not want to change the bottom altitude which is needed.

(5) JH said "If we apply what the criteria will allow, that should help to find a solution."
- **(a)** Discussion of fix placement, leg length.
- **(b)** Experiments yielded a descent gradient of 350' /nm, a significant improvement from 412'.
- **(c)** Further adjustments gained improvement to 338' /nm.
- **(d)** Also reduced total route mileage by 2 NM.

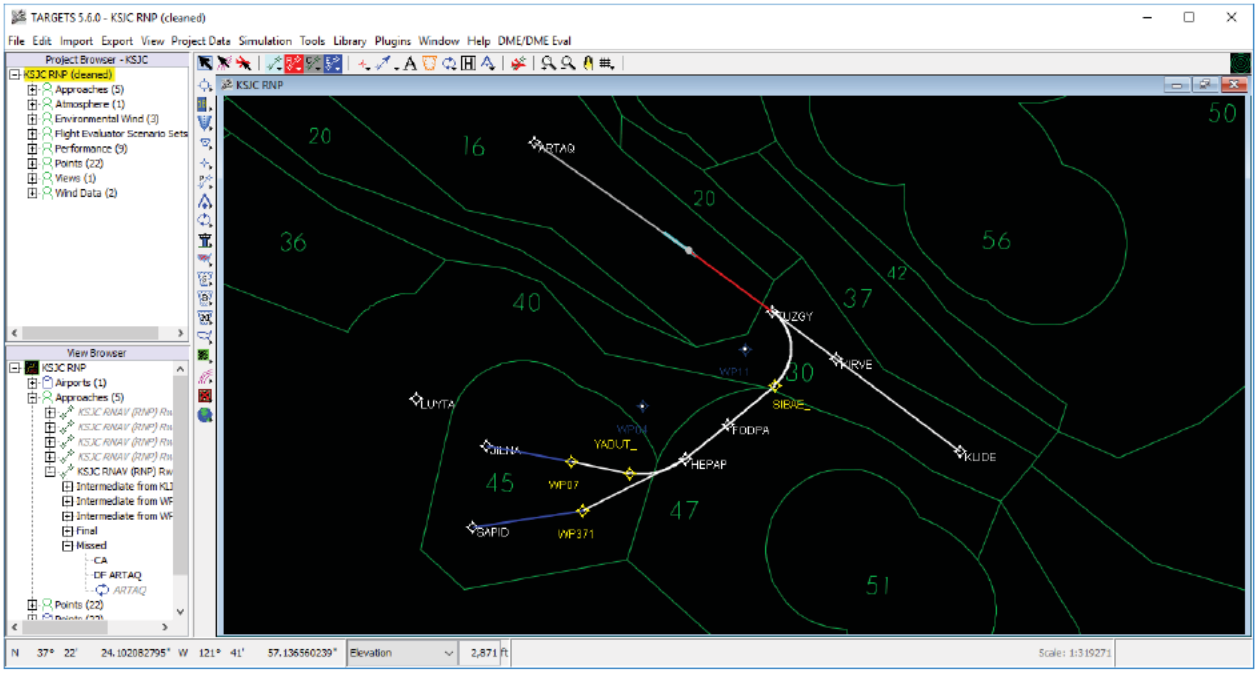
(6) NCT said they would like to move New EPICK further west, if possible.
- **(a)** TO moved N_EPICK west.
- **(b)** Comments: That gets a result that will require an approval letter.
- **(c)** JH said if we can eliminate the letter that would be better.
- **(d)** TO adjusted route segments.
- **(e)** FWG explored ways to lengthen segments and eliminate (deceleration) letter.
- **(f)** Industry offered that the deceleration would not be an issue for them.

(7) Industry suggested that present configuration will not cause TARGETS criteria failure.

(8) JH and TO discussion of tech requirements of Reference Software run.
- **(a)** TO exploring workaround to address deceleration warning.
- **(b)** Industry suggested removing 280 speed restriction.
- **(c)** Discussion of options.
- **(d)** Notional examination of several sets of speed restrictions.
- **(e)** Determined to move on but JH plans to revisit this issue.

f. DW requested that Industry perform a sim run to verify they are workable restrictions to include current block altitudes at or above 10000 at or below 14000.

(1) TARGETS run to consider fix altitudes.



(a) N_JILNA 7000
(b) WP475 6300
(c) N_YADUT 5600
(d) HEPAP 4500
(e) FODPA 3700
(f) SIBAE_ 2800
(g) TUZGY 1600
(h) TO appears with historical winds this will pass.

(2) Adjustments to TARGETS file.
(a) Discussion of speeds vs leg length
(b) Industry and KM will adjust so that N_JILNA the FWG developed can be used (will keep JILNA functional for multiple procedures).
(c) **SWA Action Item to fine tune NEW JILNA review and revisit tomorrow.**

g. JH brought up SERFR for discussion

(1) [redacted]

(a) [redacted]

(b) Discussion of competing speed control needs.
(c) Speed restriction (280K) removed from WWAVS.

(2) JH "We should review the positions from the prior meeting of May 2018 and confirm we are still in agreement about strategy."
(a) Comment: We have a track change between WP2 and WP4.
(b) From this point to end FWG notes the conclusions in the previous notes remain valid.

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5 U.S.C. Section 552(b)(5)

(3) JH offered that 13 procedures – including specials – will have to be amended depending on outcome details.

(4) **<u>JH announced (virtual) FWG consensus on two STAR designs</u>.**

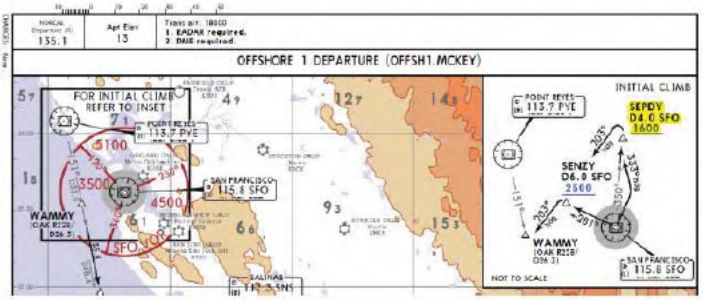
DAY 2
June 5, 2019

7. JH made opening remarks
  a. We will take a look at Priest VOR, PTT 13482
8. JH introduced United (UAL) Tech Pilot for a presentation (See Attachment A).

San Francisco (SFO) OFFSHORE 1 departure

Background

Multiple FSAP reports have indicated FMC anomalies resulting in an early turn prior to SEPDY when assigned runway 1L/R and the OFFSHORE 1 DEPARTURE (OFFSH1.MCKEY) with LNAV engaged. United requested GE assist in the investigation of the FMC anomalies. GE was able to reproduce an early turn event just prior to SEPDY on heavy B737 aircraft in certain wind conditions.



RWY	INITIAL CLIMB	TOP ALTITUDE
1L/R	Climbing LEFT turn heading 333° to intercept SFO R350 to cross SEPDY at or above 1600.	Assigned by ATC
28L/R	Climb on SFO R281 to cross SENZY at or above 2500.	
ROUTING		
Climbing LEFT turn heading 203° to intercept PYE R151 to cross SEGUL at or above 16000, then on PYE R151 to cross CYPRS at or above FL220. Then on MQO R295 to MCKEY, then on assigned transition. MAINTAIN FL220. EXPECT filed altitude 10 minutes after departure.		

(1) UAL briefed FMS departures for heavies; 500 foot LNAV restriction. Jeppessen won't change the coding.
(2) Industry asked about the status of FMS approaches going forward.
  (a) OFFSHORE DP at SFO is supposed to go away, be replaced by YOUNG transition. [NCT]
  (b) The STICK may need to be changed. Some communities do not like it.
(3) JH said STICK, a direct to fix flyover WP, would have to be moved if procedure was amended.
  (a) NCT stated that ZOA still wants to use the OFFSHORE procedure.
  (b) NCT stated YOUNG transition was designed to replace it, but doesn't work as intended.
(4) Industry asked if a Gateway request would be worthwhile.
  (a) NCT replied that they are unsure.
  (b) UAL stated it is a safety issue; most pilots are intervening because they see it live.

(5) [redacted]

(a) Discussion about how the OFFSHORE DP is flown.
(b) NCT said there are conventional procedures where the expectation is that they will be converted to RNAV but that won't always be possible.
(c) JH and DW technical discussion with ATC SMEs.

b. JH briefed the topic of **Priest VOR** (ROM)
(1) The Work group agreed to review work the previously FWG completed to ensure no amendments or updates are required.
(2) Perry Oleck (OSC) briefed on a route request for SJC arrivals from NE (T333) over BORED to SWIGS to KLIDE that is being changed to BORED - GILRO due to an excessive turn.
(a) Perry proposed adding that route to existing RNP procedures as both already include KLIDE. (RNP Z 30 L and R)
(b) New T333 will be BORED to GILRO.
(c) Proposed to add BORED as the IAF, then SWIGS then KLIDE on the RNPs as well.
(d) [TM check previous minutes for the original version.]
(e) NCT ATC has no objections.

c. JH brought up JILNA Waypoint to revisit an issue
(1) TO will verify that the 7000 was used for RS evaluation only.
(a) Consensus this is true
(b) There will be no terminus altitude, which will require a letter.
(2) Review of BRIXX fixes from yesterday
(a) To fix a break with the RNP, JILNA will be moved further to the west.
(b) JH asked industry for input on where JILNA should be placed.
(c) Discussion of the optimal (of three) possible locations for JILNA.
(3) JH: just to be clear: Terminus of the star shall be JILNA
(a) Kevin M briefed on his TARGETS efforts for JILNA (slightly moved) and the RNP.
(b) DW: propose we review JILNA location to achieve clarity and consensus.

FWG consensus on JILNA location 3+ miles w of SERFR segment, which will result in significant operational advantage.

(4) TO verified that the STAR will not have an altitude a JILNA
(a) Industry says the altitude is required.
(b) ATC comment: IF that is so, BRIXX STAR must end at BRIXX.
(c) Tm suggested that if it doesn't tie in, we issue a letter to
(5) DW proposes status quo on BRIXX and submit a letter to eliminate terminal altitude [same as was done with Jackie and Casey WP.
(a) JH is should be similar to Jackie [SP] STAR.
(b) The VM heading from JILNA was set to 108 yesterday; TO evaluated 105.
(c) ATC concurs with heading 105.

d. DW briefed an overview of the work done so far.

(1) BRIXX
(a) Request your comments and questions

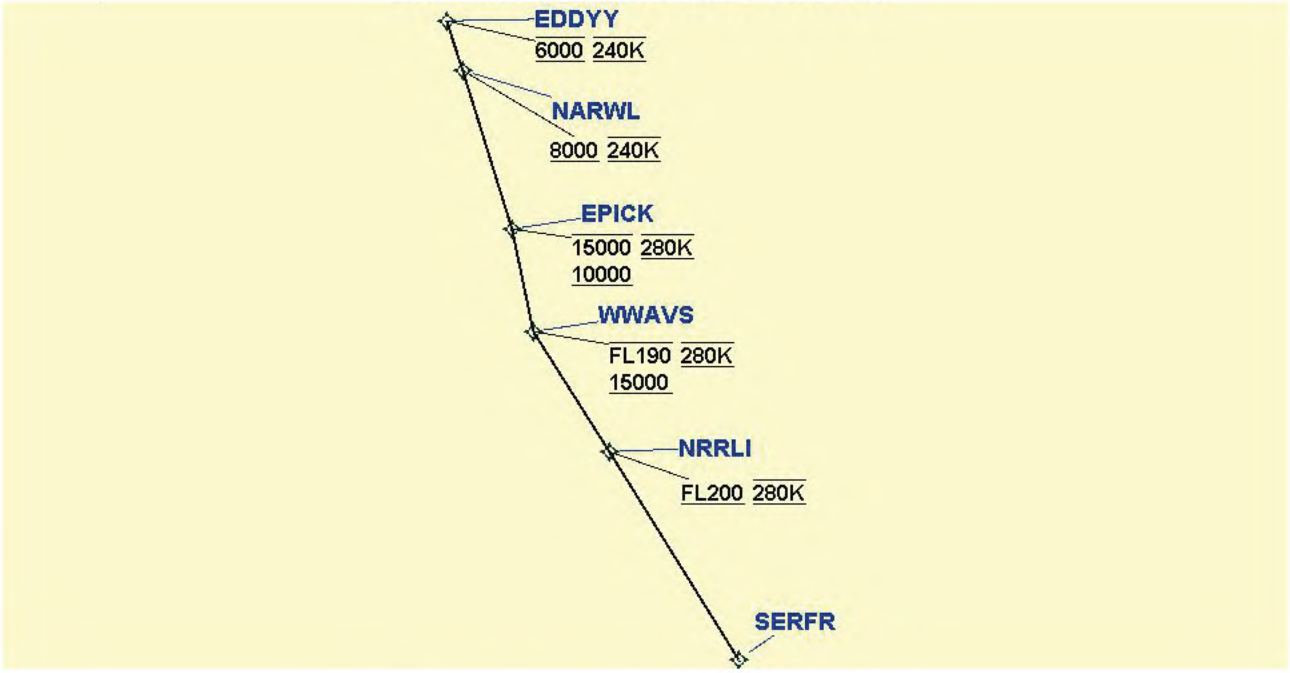
(2) Q: What is distance between old and new JILNAs?
  (a) A: 1.27 nm.
(3) SERFR
  (a) Moved the track to the west over WWAYS
(4) Industry asked whether we could fully link the RNP if BRIXX was the endpoint.
  (a) A: ATC advised that aircraft arriving from the NW via BRIXX would not be assigned the RNP arrival, in general.
  (b) We could link the procedures, but ATC generally would not assign due to operational considerations
  (c) Extended discussion of pilot and ATC local factors.
  (d) Southwest and United offered to run simulations the RNP proposal with the new JILNA location. Co-leads agreed to follow up with Industry to coordinate / share details.
(5) If there is going to be a route change, goal is pilots and controllers on the same page.
  (a) JH suggested that sort of system works well in some places, especially where procedures do not use LNAV. In this case, it would not work as well.
  (b) NCT said we still have to seek improvement, as changes become possible.
  (c) It would be nice to link, but if in reality you will not be assigned the RNP, it would be misleading to have the procedure promise (or suggest) an altitude or route that would essentially never be assigned.
  (d) In most cases they would be too high for the RNP
(6) What is the likelihood that the community rejects everything?
  (a) A DH: Unknown. But this FWG is a result of community input.
  (b) Comment: We are following the recommendations of the vote of the committee.
  (c) The select committee did quite a bit of outreach and met with communities for six months.
  (d) FAA will conduct the normal environmental review [OSG].

FWG consensus to adopt the RNP as developed, which will link to the BRIXX STAR and result in significant operational advantage.

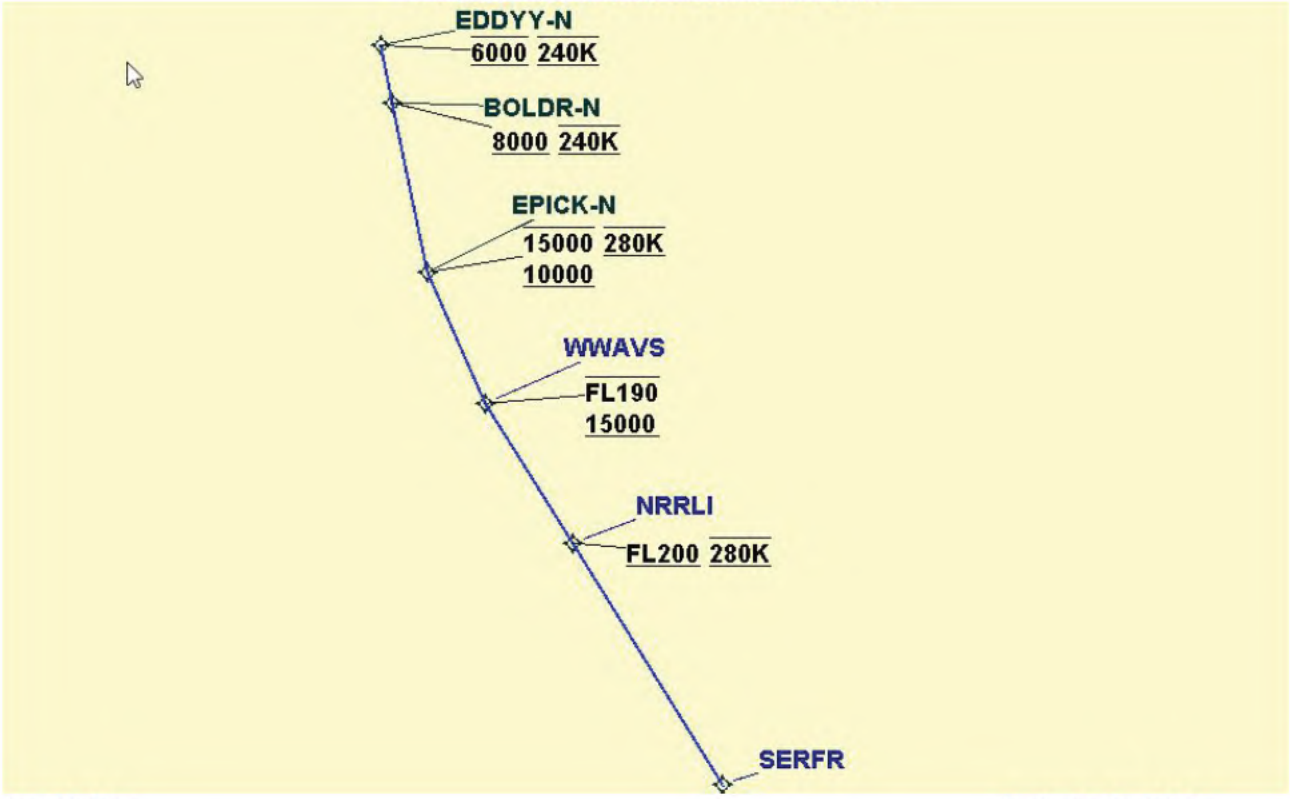
9. Meeting adjourned.

Graphics

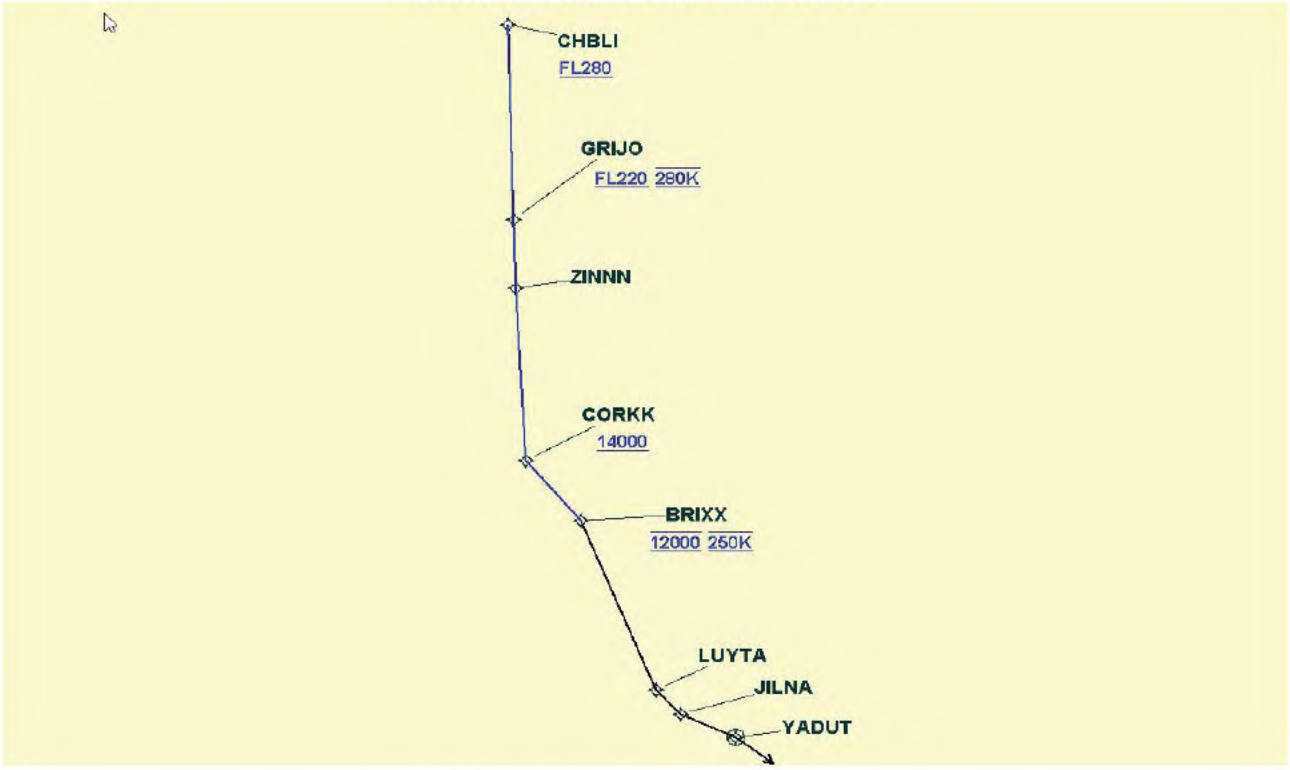
SERFR THREE ARRIVAL – BEFORE



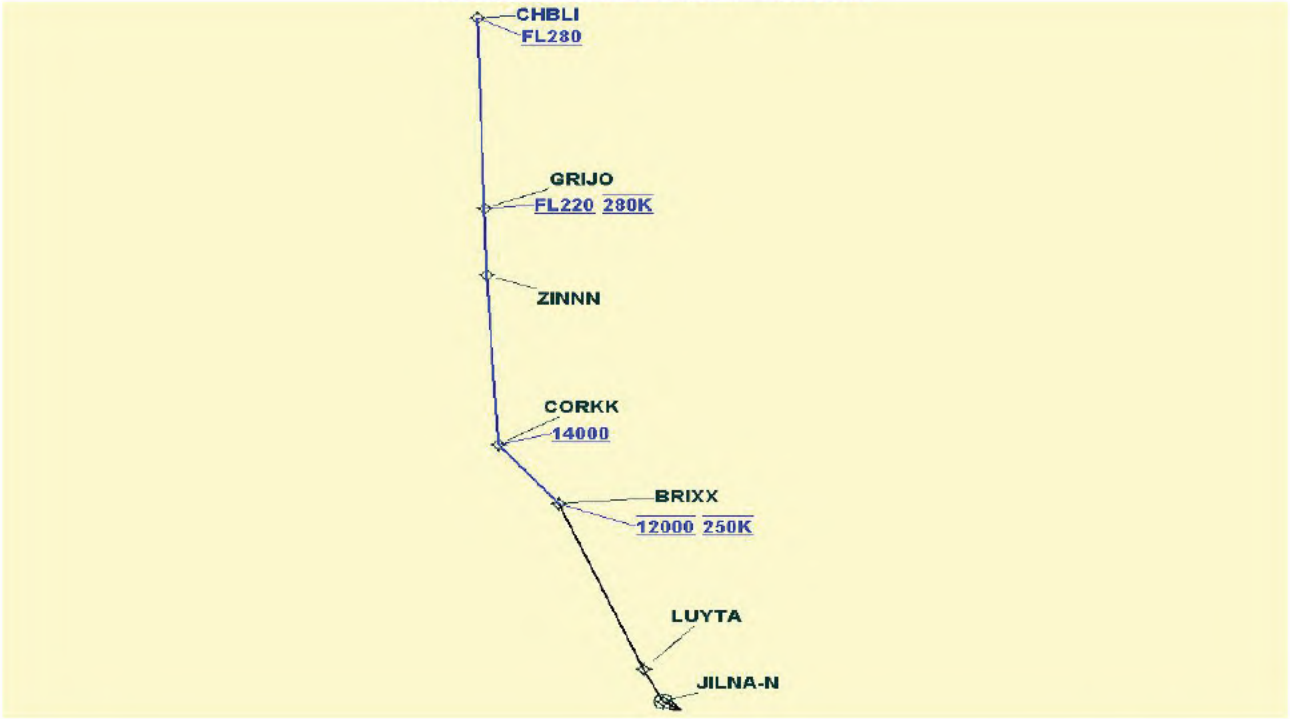
SERFR THREE ARRIVAL – AFTER

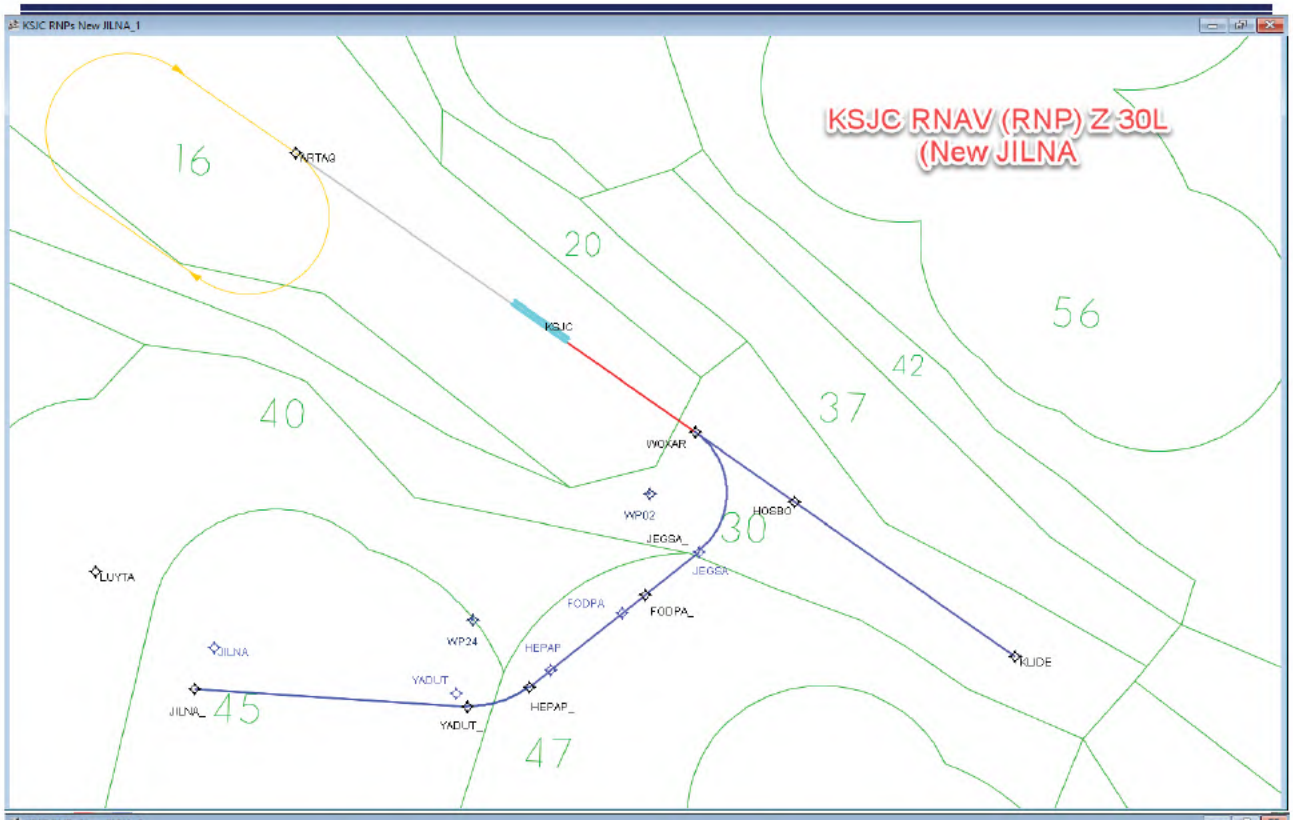


BRIXX TWO ARRIVAL – BEFORE



BRIXX TWO ARRIVAL – AFTER




KSJC RNAV (RNP) Z 30L
(New JILNA
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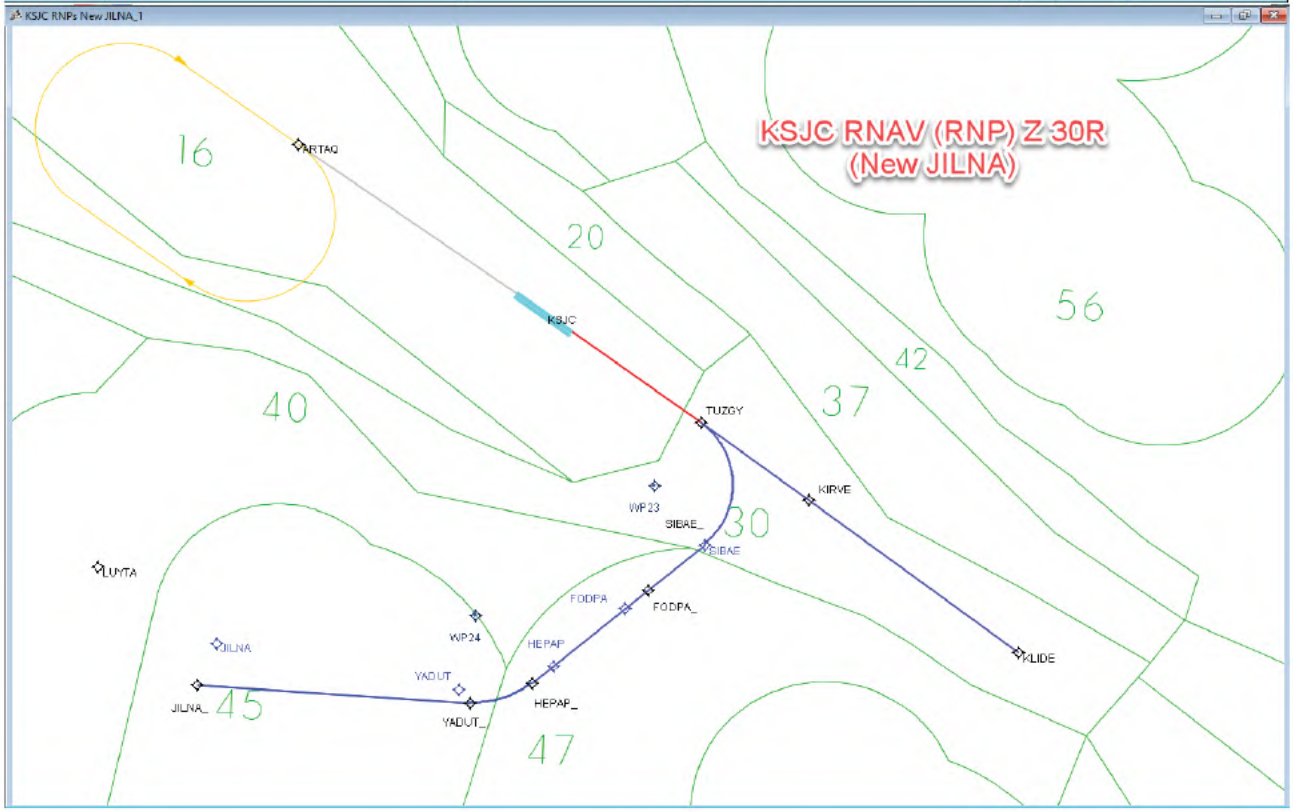
KSJC RNAV (RNP) Z 30R
(New JILNA)
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KSJC
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LUYTA
FODPA
FODPA_
JILNA
WP24
HEPAP
YADUT
HEPAP_
JILNA_
YADUT_
KLIDE

LIST OF CHANGES TO KSFO SERFR STAR:

1. Move EDDYY waypoint 0.36 NM west to align closer to Big Sur SID track. The new position of EDDYY will have a straight course from BOLDR to SIDBY via EDDYY. SIDBY is the next waypoint on the RNAV (RNP) Y RWY 28R after EDDYY. Industry and ATC requested a straight course from BOLDR to SIDBY via EDDYY. The movement of EDDY will require changes to the RNAV (RNP) Y RWY 28R and nine other procedures.
2. Remove NARWL waypoint. NARWL waypoint was removed because it sounds similar to another waypoint on the STAR (NRRLI) and is an ATSAP item (PTT #14316).
3. Add BOLDR waypoint with restrictions matching NARWL of At or Above (AOA) 8000 and AT 240 KIAS. BOLDR waypoint is on the Big Sur SID.
4. Move BOLDR waypoint 6.15 NM north for Descent Gradient (DG) criteria.
5. Move EPICK waypoint 3.67 NM west to align with Big Sur SID track and retain existing speed and altitude restrictions.
6. Change EPICK holding from 333 inbound to 323 inbound to align with new position of EPICK.
7. Delete 280 KIAS speed restriction from WWAVS waypoint because it is unnecessary.

LIST OF CHANGES TO KSJC BRIXX STAR:

1. Remove MEAs from Common Route to conform to criteria.
2. Delete YADUT waypoint to facilitate ATC vectors to final approach course and mitigate separation issues from the movement of SERFR STAR closer to BRIXX STAR.
3. Move JILNA waypoint 1.27 NM southwest to mitigate separation issues from the movement of SERFR STAR closer to BRIXX STAR. This movement provides approximately 3 miles separation from JILNA waypoint to the SERFR STAR course between EPICK and BOLDER.
4. Change JILNA from flyby (FB) to flyover (FO) waypoint to conform to criteria.
5. Add VM leg to JILNA heading 105 to facilitate ATC vectors to final approach course.

LIST OF CHANGES TO KSFO RNAV (RNP) Y RWY 28R:

1. As a minimum, EDDYY will need to move to align with EDDYY waypoint on SERFR STAR. There may be other changes when the RNP specialists draws the new approach.

LIST OF CHANGES TO KSJC RNAV (RNP) Z RWY 30L:

1. Move JILNA 1.27 NM southwest to align with BRIXX STAR.
2. Move YADUT 0.47 NM southeast for course adjustment reference JILNA. Change from AOA 4800 max 210 to AOA 5300 max 210.
3. Move HEPAP 0.74 NM west for criteria. Change from AOA 4000 to AOA 4700.
4. Move FODPA 0.78 NM west for criteria. Change from AOA 3600 to AOA 3400.
5. Move JEGSA slightly for criteria. Delete max speed 180 KIAS.

LIST OF CHANGES TO KSJC RNAV (RNP) Z RWY 30R:

1. Move JILNA 1.27 NM southwest to align with BRIXX STAR.
2. Move YADUT 0.47 NM southeast for course adjustment reference JILNA. Change from AOA 4800 max 210 to AOA 5300 max 210.
3. Move HEPAP 0.74 NM west for criteria. Change from AOA 4000 to AOA 4700.
4. Move FODPA 0.78 NM west for criteria. Change from AOA 3600 to AOA 3400.
5. Move SIBAE slightly for criteria. Delete max speed 180 KIAS.

Approval Letters needed:

SERFR STAR: from EPICK to BOLDR deceleration (RSO0179). FAAO 8260.3D, para 2-2-10.
BRIXX STAR: mandatory altitude restriction at JILNA when the procedure does not connect to an approach (RSO184). FAAO 8260.3D, para 2-2-7 F. (2).
RNAV (RNP) RWY 30R/L: Exceeds Maximum Bank Angle (SAO1.3.21).

Data redacted pursuant to
FOIA Exemption 5
5 U.S.C. Section 552(b)(5)

[redacted]

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Date: 2019.07.24 18:56:26 -07'00'

PBN Co-Lead (OSG)

JOSHUA R HAVILAND
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Date: 2019.07.22 08:18:00 -07'00'

PBN Co-Lead (Article 114)

Mark Allan Tellier
Digitally signed by Mark Allan Tellier
Date: 2019.07.26 11:29:08 -07'00'

Sr. ATC Specialist
NAVTAC Contract Support

July 27, 2020

From

John Miller

To

SCSC Roundtable

Message

New submission from Contact us

At the last meeting there was not time for the FAA update regarding the status of moving
the southern approach to SFO back to the Big Sur route. Please tell me when that FAA report will be reviewed and discussed by the Roundtable? Thank you.

John Miller

July 27, 2020

From

Steve Alverson / SCSC Roundtable - RESPONSE

To

John Miller

Message

New submission from Contact us

Dear Mr. Miller,

Thank you for your July 27, 2020 email regarding the Federal Aviation Administration's (FAA) update on the status of moving the southern approach to SFO back to the Big Sur route also known as the BSR Overlay. You indicated that you were under the impression that there was not time for the FAA to give an update on its BSR Overlay efforts, which is not true. The FAA did brief the SCSC Roundtable and public on its BSR Overly efforts early in the July 22, 2020 Roundtable meeting. The FAA's item was moved up on the agenda, so that the information the FAA provided could inform other decisions being made by the SCSC Roundtable later in the meeting. If you click on this link to viewthe video of the meeting, you will find the FAA's update begins at the 00:14:00 point on the video.

We trust this information is helpful to you.

Regards,

SCSC Roundtable Staff

July 27, 2020

From

John Miller

To

SCSC Roundtable

Message

New submission from Contact us

Thank you. I tuned in at the time I thought item 9 would be discussed not realizing it had been moved up.

July 28, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

CATEX inquiry for FAA

Dear Representative Eshoo, and members of the SCSC Roundtable,

Please find attached one of the foundational letters from the Congressional Quiet Skies Caucus, which considers CATEX.

4. Reform Section 213(c)(2) of the FAA Modernization and Reform Act af 2012 -
This provision provides a categorical exclusion from adequate environmental reviews for flight path changes implemented through the NextGen process. It was written in an overly broad way and should be revisited by your Committee. Environmental reviews were instituted by Congress to protect Americans from actions that could be detrimental to their lives, and we believe bypassing such reviews in order to expedite the process will be materially harmful and could set a dangerous precedent. More broadly, we hope that the Committee will encourage FAA and its industry partners to continue working to implement new systems in a manner that takes into account not just safety and efficiency, but noise as well.

As a further note to my inquiry,

7) Since it has been widely reported (but to be confirmed) that the CATEX passed in 2012 - meant for flight path changes implemented through the Nextgen process - was never used, what authority led the FAA to use regular vanilla FAA Catex?

8) Can the FAA please explain "overlays" - how they justify that there are no impacts with an overlay (Catex) because a ground track is not changing, yet various other noise variables are changed?

Thank you,

Jennifer

Attachment Name

20200728_J_Landesmann_Quiet Skies letter FINAL(3)

Congress of the United States
Washington, DC 20515

July 15, 2015

The Honorable Bill Shuster
U.S. House of Representatives
2268 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Peter DeFazio
U.S. House of Representatives
2134 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Shuster and Ranking Member DeFazio:

We write as members of the Quiet Skies Caucus, an organization in Congress dedicated to reducing the impact of aircraft noise on the communities we represent. Every day, millions of Americans are forced to contend with acute levels of noise from passing aircraft—noise that disrupts their homes and businesses, negatively affects their health, and reduces their overall quality of life. We believe the 2015 Federal Aviation Administration Reauthorization Act offers a unique opportunity to address this serious issue and respectfully request that you consider the following recommendations as you prepare the legislation for introduction:

1. **Mandate a robust community engagement process, including pre-decisional public hearings, for any new flight paths or procedures or changes to existing flight paths and procedures** – Along with improved capacity and fuel savings, the impact of aviation noise on affected communities should be considered when FAA assesses the overall benefits of proposed flight path changes. Meaningful, two-way communication with our communities is vital to ensuring that the concerns of residents are heard and incorporated into the final design of new airspace.

2. **Require FAA to use supplemental metrics when considering the impact of aviation noise on affected communities and lower the acceptable DNL threshold from 65 to 55 DNL** – FAA's current metric for quantifying aviation noise exposure, Day-Night Average Sound Level (DNL), reflects mean noise levels and does not adequately capture the complete effects of noise on affected residents. When considering flight path changes, FAA should take into account other variables, including the concentration of extended noise, the frequency of flights, air traffic from 10PM to 7AM and impacts of low-frequency noise. In addition, FAA should lower the current threshold from 65 to 55 DNL to reflect the fact that this standard, first established in the 1970's, is arbitrary and does not align with current health research and the lived experience of families in our congressional districts.

3. **Clarify that airport operators are legally allowed to implement—and should strongly consider—mitigation options in communities experiencing aircraft noise levels of less than 65 DNL** – Though FAA is no longer legally barred from doing so, the agency has resisted funding the mitigation of homes and businesses experiencing aircraft noise levels below a 65 DNL threshold. For the reasons described above, this metric may not adequately capture the impact of noise on the lives of affected residents and FAA should strongly consider allowing airport operators to mitigate residences experiencing less than 65 DNL where other metrics dictate that such measures are warranted.

4. **Reform Section 213(c)(2) of the FAA Modernization and Reform Act of 2012** –This provision provides a categorical exclusion from adequate environmental reviews for flight path changes implemented through the NextGen process. It was written in an overly broad way and should be revisited by your Committee. Environmental reviews were instituted by Congress to protect Americans from actions that could be detrimental to their lives, and we believe bypassing such reviews in order to expedite the process will be materially harmful and could set a dangerous precedent. More broadly, we hope that the Committee will encourage FAA and its industry partners to continue working to implement new systems in a manner that takes into account not just safety and efficiency, but noise as well.

5. **Mandate independent research on the health impacts of aviation noise** – Few federal studies have been conducted to measure the health outcomes and consequences of prolonged exposure to high levels of aviation noise. Better research will help to inform and improve FAA policies on this important issue.

Thank you for considering these recommendations. We look forward to working with you as you develop the 2015 FAA Reauthorization to ensure that this legislation addresses the harmful impacts of aircraft noise on our communities.

Sincerely,

Ruben Gallego
Member of Congress

Steve Israel
Member of Congress

Mike Quigley
Member of Congress

Grace Meng
Member of Congress

Katherine Clark
Member of Congress

Joseph Crowley
Member of Congress

Tammy Duckworth
Member of Congress

Ted Lieu
Member of Congress

Eleanor Holmes Norton
Member of Congress

Anna Eshoo
Member of Congress

Jan Schakowsky
Member of Congress

Sam Farr
Member of Congress

Stephen Lynch
Member of Congress

Kathleen Rice
Member of Congress

Alan Grayson
Member of Congress

Maxine Waters
Member of Congress

July 29, 2020

From

Steve Alverson

To

SCSC Roundtable

Message

SFO Roundtable Technical Working Group - FAA NIITE/HUSSH Presentation

Mary-Lynne and Anita,

As Chairs of the SCSC Roundtable and Technical Working Group, respectively, I wanted to make sure that you were aware that the FAA gave a presentation to the SFO Roundtable's Technical Working Group today on the NIITE/HUSSH procedure. The presentation is attached for your review/use.

Regards,

Steve

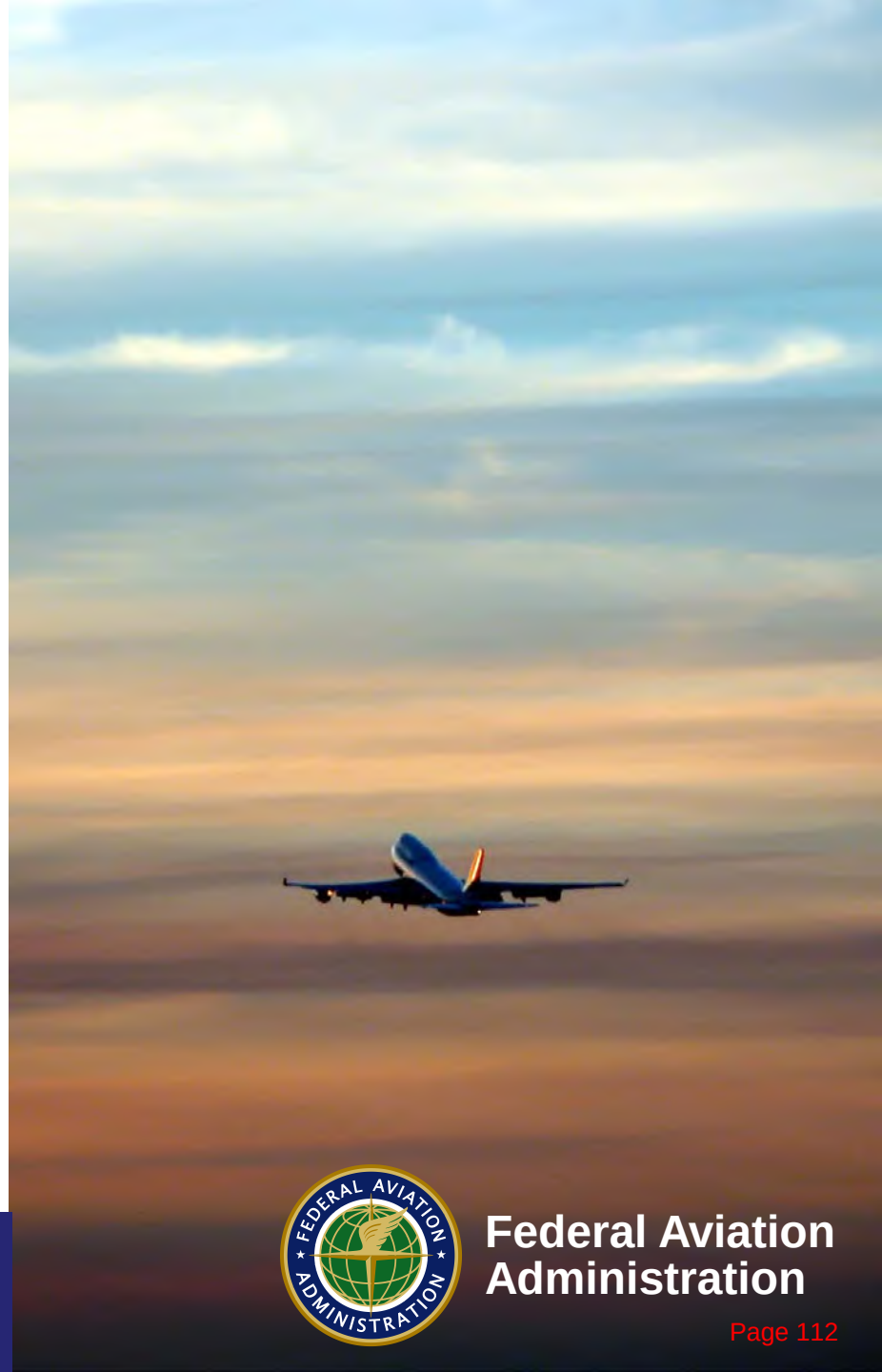
Steven R. Alverson
Senior Vice President
ESA | Environmental Science Associates

Attachment Name

20200729_S_Alverson_NIITE-HUSSH-Briefing-for-07292020

FAA Briefing to SFO International Airport/Community Roundtable Technical Working Group

July 29, 2020



Federal Aviation Administration

Purpose of this Briefing

This technical presentation is intended to provide information requested by the SFO RT in a letter dated June 15, 2020. The Google Earth files identified in Attachment B of the letter will be emailed to the SFO RT.

This presentation contains information on the following topics:

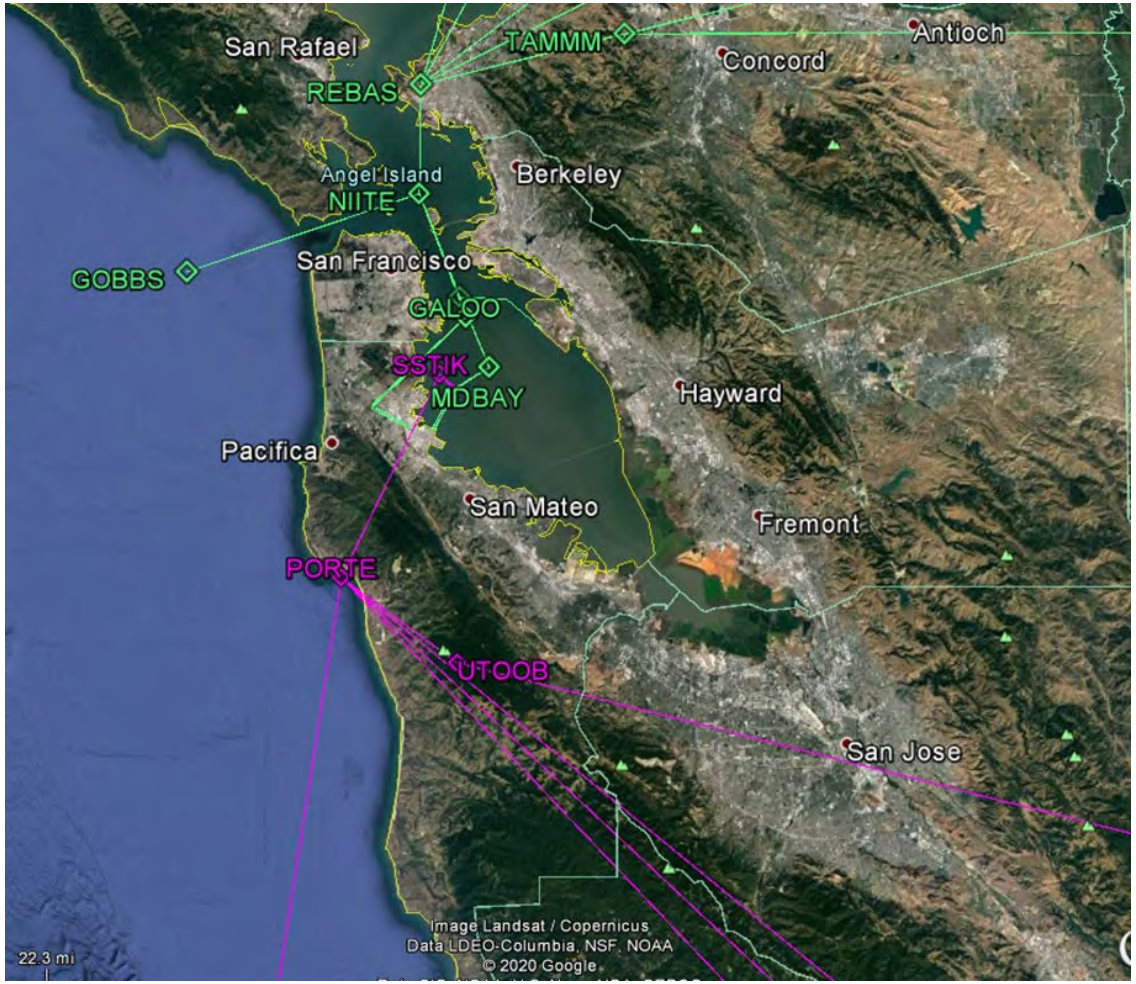
- **NIITE/HUSSH Departure Procedure**
- **NIITE/HUSSH Departure Procedure Environmental Review**
- **Special Use Airspace**
- **Conclusions**

NIITE/HUSSH Departure Procedure

The SFO RT, along with the Select Committee, asked the FAA to utilize the NIITE/HUSSH procedure for southbound SFO/OAK aircraft during nighttime hours instead of the SSTIK/CNDEL procedures.

SFO RT: Implement a south transition to the NIITE/HUSSH departure (NIITE for north and east; GOBBS for west and the to-be determined final fix on south transition) -- not turning early.

SC: Nighttime SSTIK departures use the NIITE procedure up to the NIITE waypoint, then the aircraft would head west out over the Golden Gate Bridge.

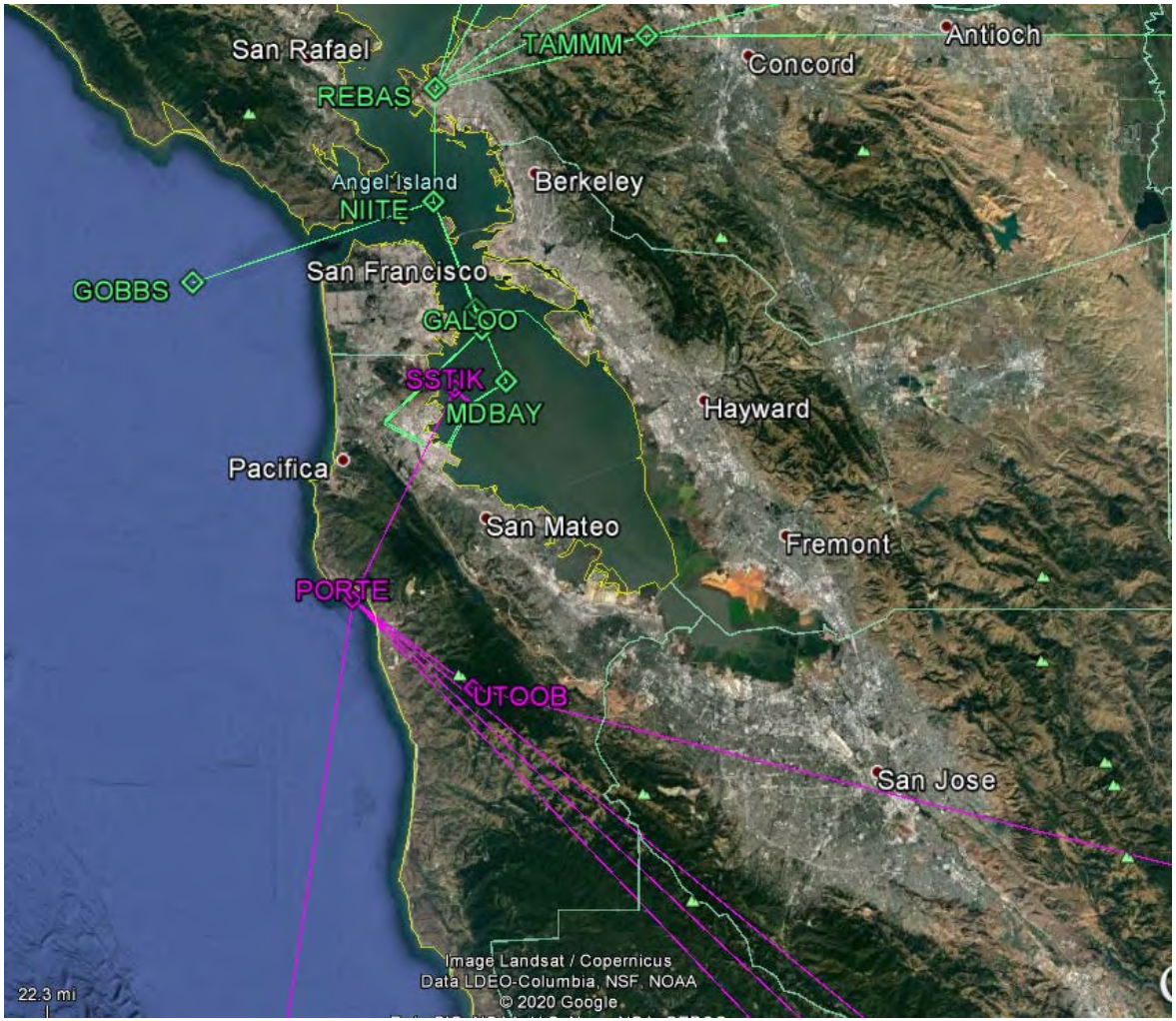


NIITE/HUSSH Departure Procedure

The NIITE/HUSSH departure procedures currently contains a transition from the NIITE waypoint to the GOBBS waypoint.

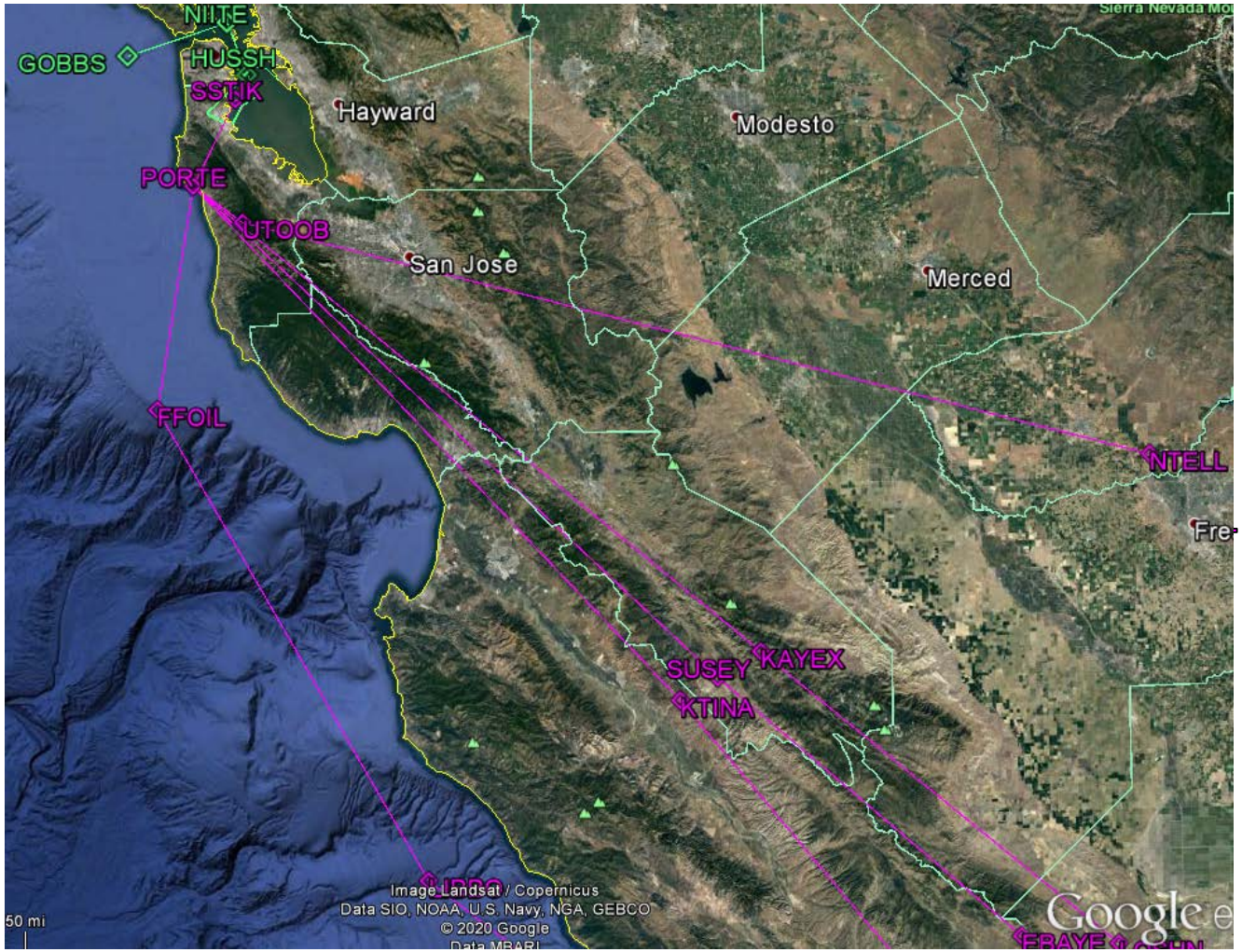
In response to the SFO RT and SC recommendations, the FAA proposes to utilize the GOBBS transition for southbound aircraft (with the exception of aircraft that require Runway 28).

No amendment to the procedure is necessary thereby reducing implementation time.



NIITE/HUSSH Departure Procedure

ATC will allow aircraft to turn to rejoin their route flight once they are over the ocean on the transition from NIITE to GOBBS by proceeding to waypoints to the south and southeast such as NTELL, KAYEX, SUSEY, KTINA, and LIBBO per ATC requirements.

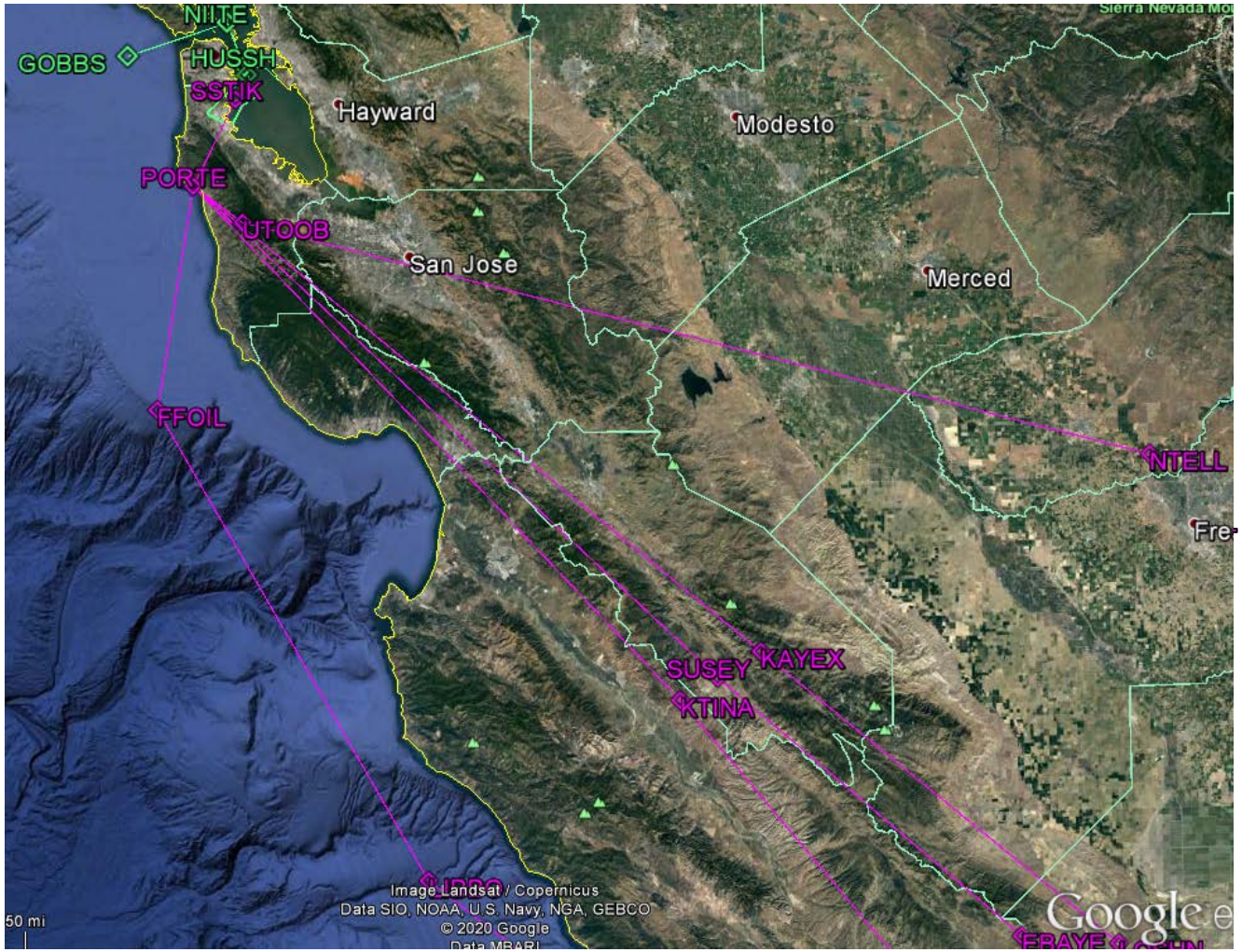


NIITE/HUSSH Departure Procedure

Next fix data for SSTIK and CNDEL departures:

- **LIBBO: 1%**
- **KTINA 2%**
- **SUSEY: 5%**
- **KAYEX: 48%**
- **NTELL: 44%**

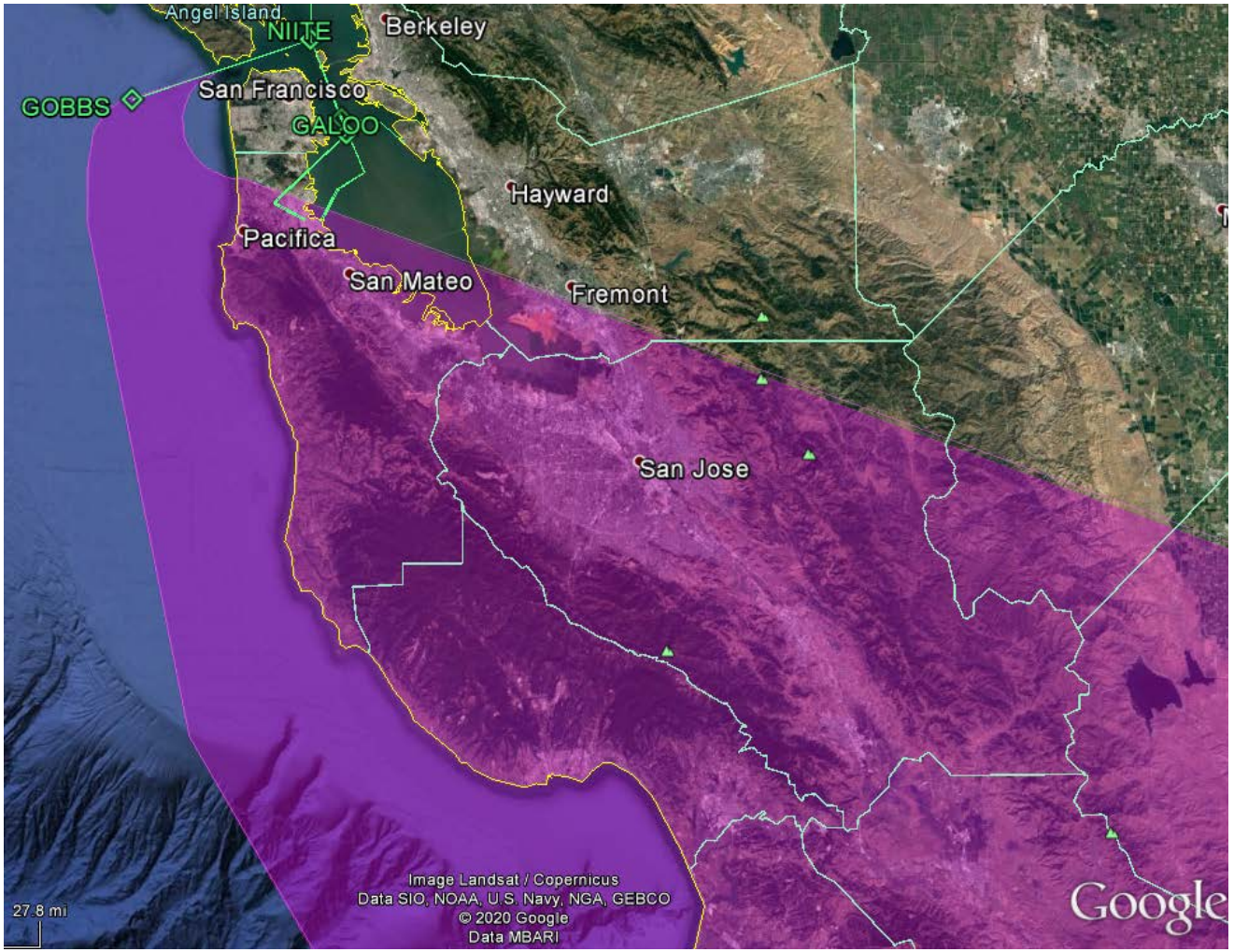
(Data is from 30 random days in 2019, 1-5 am.)



NIITE/HUSSH Departure Transition

The magenta shaded area depicts where aircraft may fly once they start their turn to rejoin their route of flight.

Aircraft passing over the Golden Gate Bridge will probably be anywhere from 10,000 feet AGL to 15,000 feet AGL.



NIITE/HUSSH Departure Procedure

Through collaboration with NCT and the airlines, the FAA determined that combining the southern departures from SFO and OAK into one stream was possible but it might shift noise and would require extra flying miles. Operational ATC analysis showed the max number of aircraft ATC can safely guide over SFO Bay on a single route (NIITE/HUSSH centerline) is 30 per hour, thus restricting the useable hours to 1-5 am.

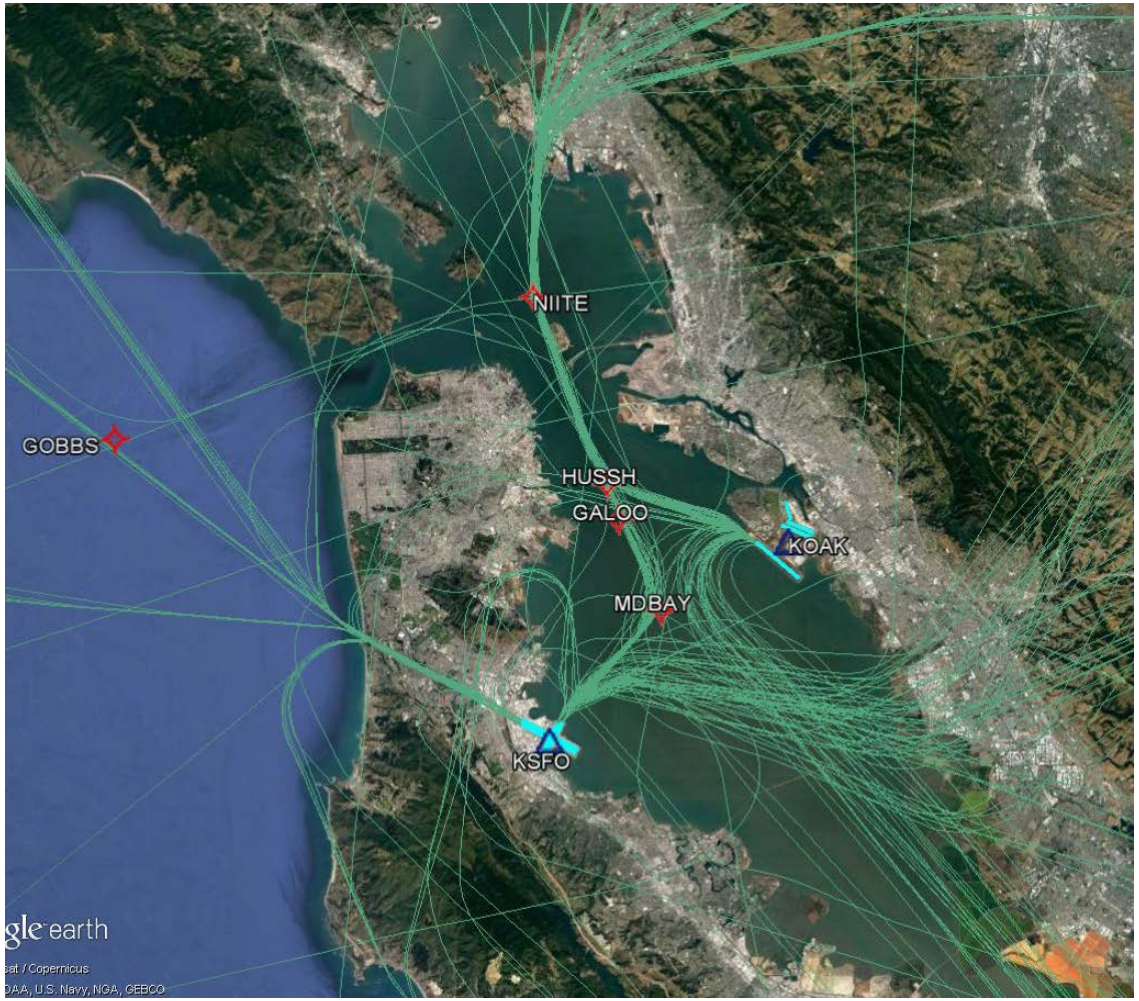


Image: All SFO & OAK departures, August 1-7, 2019, 1-5 am.

NIITE/HUSSH Departure Procedure Environmental Review

- **The Environmental Review process is currently being conducted to include:**
  - Noise Screening
  - Fuel Burn
  - CO2 Emissions
  - Section 106 Consultation

Special Use Airspace

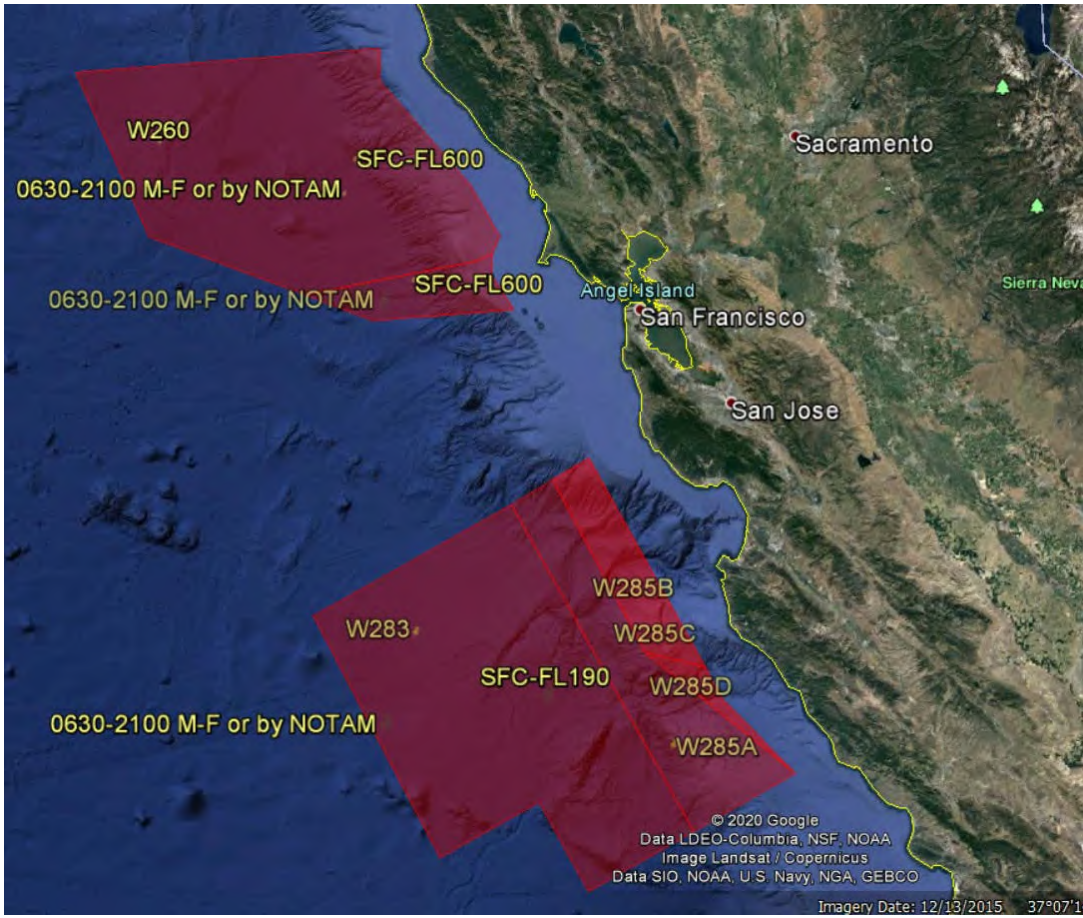
Separation from active SUA is 1,000 feet vertically and 3 NM laterally, unless above 41,000 feet then vertical separation increases to 2,000 feet.

Hours of operation are 0630L to 2100L or other times by NOTAM.

Altitudes are as follows:

- **W-260: SFC to 60,000 feet**
- **W-283 & W-285 A/B/C/D: SFC to 19,000 feet**

Activation of SUA is not anticipated to impact any of the aircraft on the NIITE/HUSSH nighttime procedure.



Conclusions

Conclusions

NIITE/HUSSH ➡ GOBBS:

- **Dependent upon consistent operational levels from SFO and OAK.**
- **External effort is being made to sync the operations at SFO and OAK airports.**
- **From 0100L to 0500L, the FAA can continue to operate the SFO and OAK departure routes as a single stream that will not exceed the 30 aircraft per hour capacity, absent unforeseen meteorological or other noteworthy events.**
- **Aircraft volume and the combining of SFO and OAK departure streams are the major factors in determining the usable hours.**
- **Maximum hours would not change with the additional waypoints south of GOBBS or a new departure procedure similar to NIITE/HUSSH.**

Conclusions (cont.)

- **Using the GOBBS transition for nighttime operations can be implemented in a much shorter timeframe than developing and implementing a new procedure.**
  - **Public comments could be submitted to the SFO RT if allowed by the RT.**
  - **Once the environmental review is completed, the SFO RT would coordinate with the FAA to determine the next steps.**

July 29, 2020

From

Anita Enander

To

Steve Alverson

Message

SFO Roundtable Technical Working Group - FAA NIITE/HUSSH Presentation

Thanks, Steve. We both were on the call. Hopefully they've included (or will later distribute) the supplemental slides used as well.
Anita

July 29, 2020

From

Steve Alverson

To

Anita Enander

Message

SFO Roundtable Technical Working Group - FAA NIITE/HUSSH Presentation

Anita, Excellent! Thanks for the prompt response. Regards,
Steve

July 29, 2020

From

Mary-Lynne Bernald

To

Steve Alverson

Message

SFO Roundtable Technical Working Group - FAA NIITE/HUSSH Presentation

Thank you, Steve. Anita and Lydia joined me online for the presentation.
Were you In on the zoom meeting? At the very end Adam Vetter did respond to three requests regarding what will happen where BDEGA and HUSSH overlap. It sounded like but not confirmed that BDEGA will be under HUSSH. I think the SCSCRT should be prepared to respond to future comments on this. Best! Mary-Lynne.

July 30, 2020

From

Jennifer Landesmann

To

Steve Alverson and SCSC Roundtable

Message

Recalled letter/Dispersion training

Steve,

Thank you,

BTW, the FAA briefing I referred to in my earlier email is as follows,

https://sforoundtable.org/wp-content/uploads/2019/10/20191002_FAA-Briefing.pdf

Page 16 has the info about noise management

Efforts Relating to Aircraft Operations

Opportunities for noise reduction:

–Airlines determine *what* aircraft fly and *when*

–There might be opportunities to change *where* aircraft fly (through precision navigation) and *how* aircraft are flown

–Must consider the entirety of the airspace and ensure the continued safety of operations

Jennifer

August 5, 2020

From

Andi Jordan

To

SCSC Roundtable

Message

Fwd: SCSC Roundtable - Brown Act & Public Records

Dear SCSC Roundtable Members & Alternates:
cc: Chantene Koplow, city managers/city & county staff
I wanted to follow up on a few items regarding *Brown Act* and *Public Records* as it pertains to the *SCSC Roundtable*.

The SCSC Roundtable is a "Brown Act" body. The SCSC Roundtable is made of elected officials and the financing comes from public entities.

THE BASICS: Meetings of public bodies must be "open and public," actions may not be secret, and action taken in violation of open meetings laws may be voided. (§§ 54953(a), 54953(c), 54960.1(d))

WHO'S COVERED:

- Local agencies, including counties, cities, school and special districts. (§ 54951)
- "Legislative bodies" of each agency, the agency's governing body, plus "covered boards," that is, any board, commission, committee, task force or other advisory body created by the agency, whether permanent or temporary. (§ 54952(b))
- Any standing committee of a covered board, regardless of number of members. (§ 54952(b))
- Governing bodies of non-profit corporations formed by a public agency or which includes a member of a covered board and receives public money from that board. (§ 54952(c))

Public Records: There may be confusion about what a public record is in regard to your communications. The California Supreme Court's July 2017 San José Decision held that the device or system of storage is irrelevant to whether emails from public officials is considered personal or public record. Generally speaking, any communication regarding public business is a public record, regardless of device and regardless of whether the device is considered "personal" or public property. Cal. Gov't Code § 6250 et seq.

From the League of California Cities, these factors are used to determine if the items are public records:

- **Content.** Does the content of the email relate in a substantive way to the conduct of the local agency's business? In San José, the court stated, "Whether a writing is sufficiently related to the public business will not always be clear. For example, depending on the context, an email to a 6 spouse complaining 'my coworker is an idiot' would likely not be a public record. Conversely, an email to a superior reporting the coworker's mismanagement of an agency project might well be."

- **Context/Purpose.** Why was the email written? Was it written to conduct the local agency's business or further the local agency's interest?

- **Audience.** To whom was the email sent? Was it sent to an agency employee, official, resident, consultant, agency stakeholder, etc.? Or was the email sent to a friend or family member?

- **Scope.** Was the email written in the individual's capacity as an agency official or employee representing the agency? Or was the email written as a private individual?

Please let Chantene & I know if you have any questions.
~Andi

Andi Jordan
Executive Director
Cities Association of Santa Clara County

August 5, 2020

From

Mark Janes

To

SCSC Roundtable

Message

New submission from Contact us

I live in the foothills of Los Gatos and we have seen greater number of planes passing low over our heads over the last year. It is getting to a point where it is becoming really noticeable.

I understand that on July 24th of last year, you attended a private FAA meeting regarding this matter and were quoted by the Mercury Times as saying 'any fixes would have to take the entire region into account and asked the FAA to develop short- and long-term strategies'. Could I therefore ask on behalf of the local residents of Saratoga and Los Gatos, if any headway has been made and what support we can offer to resolve this.

Kind regards

Mark Janes

August 5, 2020

From

Steve Alverson / SCSC Roundtable - RESPONSE

To

Mark Janes

Message

New submission from Contact us

Dear Mr. Janes,

Thank you for your August 5, 2020 email regarding your concerns about increased low-flying airplanes and the associated noise over the foothills of Los Gatos. You indicate that the Santa Clara/Santa Cruz Airport/Community Roundtable (SCSC Roundtable) attended a private meeting with the Federal Aviation Administration (FAA) on July 24, 2019. The SCSC Roundtable operates in accordance with the Brown Act, so all of its regular meetings and standing committee meetings are open to the public. The SCSC Roundtable met on July 24, 2019, but had no discussions with the FAA at that meeting. You may view the video from that meeting as well as all other SCSC Roundtable meetings by clicking on the "Meetings" tab on the SCSC Roundtable website.

You asked if any headway has been made on the FAA's effort to develop short- and long-term strategies to address airplane noise in the region. The primary effort that the FAA is focused on in our region is the development of the Big Sur arrival procedure overlay (BSR Overlay), which is intended to move aircraft from the SERFR Standard Terminal Arrival Route (STAR) to the BSR Overlay. The FAA's efforts to develop the BSR Overlay have been slow and now have been further impacted by the COVID-19 pandemic. It is not clear whether the BSR Overlay would address your concerns, but it is the only effort to address airplane noise that the FAA currently has underway in our region.

You also asked what support the residents of Saratoga and Los Gatos can provide to assist in resolving this issue. Identifying your concerns was an important first step. The next step is identifying, which airplane operations are affecting you. For example, are they flights to/from San Jose International Airport, San Francisco

International Airport, and/or Oakland International Airport? You could use SJC's flight track website to identify the events that are affecting you then file a complaint with the appropriate airport. Links to each airport's complaint page can be found under the frequently asked questions section of the "Resources" tab on the Roundtable website.

Finally, the City of Saratoga and County of Santa Clara are members of the SCSC Roundtable. The Town of Los Gatos is not. The current list of members can be accessed by clicking on the "Roundtable Membership" tab on the "About" page of the SCSC website.

We trust this information is helpful to you.

SCSC Roundtable Staff

www.scscroundtable.org

August 11, 2020

From

Steve Alverson / SCSC Roundtable

To

FAA Regional Administrator Raquel Girvin

Message

SCSC Roundtable Letter Requesting a Comprehensive Presentation on the BSR Overlay and a Detailed Project Schedule

Dear Regional Administrator Girvin,

On behalf of SCSC Roundtable Chairperson Bernald, I am transmitting to you a letter conveying the Roundtable's request for the FAA to provide a comprehensive presentation on the FAA's BSR Overlay project including a detailed project schedule with dates, milestones, and next steps through the completion of the process.

The Roundtable appreciated Sky Laron's brief update on the BSR Overlay project at its July 22, 2020 meeting, but found it lacking in detail and specificity; especially as it relates to the project schedule. Mr. Laron took an IOU regarding providing the Roundtable and public with a comprehensive project schedule.

Thank you for your consideration of the attached letter and for the FAA's continued support of the SCSC Roundtable. The Roundtable looks forward to receiving your response.

Regards,

Steve

Steven R. Alverson

SCSC Roundtable Facilitator

Attachment Name

20200811_S_Alverson_Roundtable_Letter_to_FAA_Request_BSR_Overlay_Schedule

SANTA CLARA/SANTA CRUZ COUNTIES
AIRPORT/COMMUNITY ROUNDTABLE
PO Box 3144
Los Altos, CA 94024

August 11, 2020

Ms. Raquel Girvin
Regional Administrator, AWP-1
FAA Western-Pacific Region
777 South Aviation Boulevard, Suite 150
El Segundo, CA 90245

Subject: Request for a Comprehensive Presentation on the FAA's Development of the Big Sur Overlay Including a Detailed Schedule, and a List of the FAA's Next Steps Through the Project's Completion

Dear Regional Administrator Girvin,

Thank you for having Sky Laron give a brief update on the status of the FAA's development of the Big Sur Overlay to the SCSC Roundtable at its July 22, 2020 regular meeting. From Sky's briefing, the Roundtable learned that the FAA has completed the procedure design and has initiated the environmental documentation process including conducting its initial consultation outreach. He noted the FAA has sent letters to the California State Historic Preservation Officer (SHPO), the Counties of Santa Clara and Santa Cruz, and Native American Tribes. While all of this was valuable information to learn, what Sky could not provide was an overall schedule for the project with dates, milestones, and next steps through project completion. As a result, the Roundtable and public have no idea how long this process will take, when there will be opportunities for the Roundtable and public to provide input into the environmental review process, and what the major milestones will be and when to expect them. Sky took an IOU to check and see if there is a schedule for the project that the FAA can share with the Roundtable and public. The Roundtable expects the FAA to deliver on that promise.

That notwithstanding, the Roundtable wants it to be crystal clear that it expects a full formal briefing on the BSR Overlay project, which would include depictions of the procedure design including the location of the ground track, minimum altitudes of aircraft at the waypoint/fixes along the procedure, and any speed restrictions and/or other limitations/directions that could affect aircraft noise as heard on the ground. The Roundtable also requests that the FAA compare the new procedure design to the BSR procedure prior to implementation of the NorCal Metroplex and identify any differences between the two procedures.

The Roundtable also expects that the FAA's presentation will include a detailed project schedule with dates, milestones, and next steps through the completion of the process. The Roundtable requests that as soon as possible the FAA place the project schedule on a public website dedicated to informing the public about the entirety of the procedure development process, which is a tool the FAA has used throughout the United States for its Metroplex processes. The Roundtable and public understands that the FAA's schedule has been and will continue to be affected by the COVID-19 pandemic. Therefore, any schedule the FAA publishes now will likely change. However, a changing project schedule is better than no project schedule at all.

As was pointed out by Roundtable members at our July 22, 2020 meeting, the Roundtable's request for the FAA to provide a schedule for procedures being developed in our region by the FAA has been a standing request for more than a year. Therefore, the Roundtable expects that it will take less than 45 days to produce a detailed project schedule with dates, milestones, and next steps through the completion of the process. In fact, it is our expectation that a schedule for the project already exists, so that you and your staff can execute the consultation process, track your efforts against key milestones, and plan your required staff resources for the duration of the project. Please forward the project schedule to me at your earliest convenience and I will have it distributed to the Roundtable members and will post it on our website.

Finally, the Roundtable is prepared to devote a substantial portion of a regular Roundtable meeting to you or your designee's full BSR Overlay presentation. The Roundtable has moved to a quarterly meeting schedule, so our next full Roundtable meeting will likely be held (virtually) on Wednesday, October 28, 2020. Please confirm that I may add the FAA's full BSR Overlay to that meeting's agenda.

Thank you for your immediate attention to this matter.

Most sincerely,

Mary-Lynne Bernald
Chairperson, Santa Cruz/Santa Clara Counties Airport/Community Roundtable

Cc: SCSC Roundtable Members and Alternates
Congressman Jimmy Panetta
Congresswoman Anna Eshoo
Congressman Ro Khanna

August 11, 2020

From

Faviola Garcia

To

Steve Alverson / SCSC Roundtable

Message

SCSC Roundtable Letter Requesting a Comprehensive Presentation on the BSR Overlay and a Detailed Project Schedule

Hello Steve, we have received your request and will work through a more detailed response.

Thank you,

Favi-

Faviola Garcia

Supervisory Senior Advisor

Federal Aviation Administration

Office of the Regional Administrator

August 11, 2020

From

Steve Alverson

To

Faviola Garcia

Message

SCSC Roundtable Letter Requesting a Comprehensive Presentation on the BSR Overlay and a Detailed Project Schedule

Favi,

Thank you for acknowledging receipt of the SCSC Roundtable's request. We look forward to receiving the FAA's more detailed response.

Regards,

Steve

Steven R. Alverson

SCSC Roundtable Facilitator

August 11, 2020

From

Evan Wasserman / SCSC Roundtable

To

SCSC Roundtable Members and Congressional Staff

Message

SCSC Roundtable Letter Requesting a Comprehensive Presentation on the BSR Overlay and a Detailed Project Schedule

Dear SCSC Roundtable Members and Congressional Staff,

On behalf of the SCSC Roundtable Chairperson Mary-Lynne Bernald, a letter dated August 11, 2020 requesting a comprehensive presentation on the BSR Overlay and a detailed project schedule has been sent to FAA Regional Administrator Girvin. For your reference, the letter has been attached to this email and posted on the SCSC Roundtable website at the link here.

Regards,

SCSC Roundtable Staff

Attachment Name

20200811_S_Alverson_Roundtable_Letter_to_FAA_Request_BSR_Overlay_Schedule

Same as previous attachment

August 13, 2020

From

Andi Jordan

To

SCSC Roundtable

Message

letter to SCSC Roundtable

Dear Chair Bernald & Members of the SCSC Roundtable:

Sending on behalf of the Executive Board of Directors.

Stay well,

Andi Jordan
Executive Director
Cities Association of Santa Clara County

Attachment Name

20200813_A_Jordan_CASCC Letter to RT signed

CITIES ASSOCIATION
OF SANTA CLARA COUNTY

P.O. Box 3144
Los Altos, CA 94024
https://citiesassociation.org
408-766-9534

August 11, 2020

Chair Mary-Lynne Bernald
Members of the Santa Clara/Santa Cruz Airport Community Roundtable
PO Box 3144
Los Altos, CA 94024

via EMAIL

Dear Chair Bernald & Members of the Santa Clara/Santa Cruz Counties Airport Community Roundtable:

The Cities Association of Santa Clara County (CASCC) appreciates the hard work and dedication you have committed to aircraft noise mitigation and to furthering the collaborative goals of the Santa Clara/Santa Cruz Counties Airport Community Roundtable. We see both the CASCC and the Roundtable as a team working toward increased collaboration between cities of Santa Clara, the County of Santa Clara, and our neighbors in Santa Cruz. In furtherance of our continued partnership, we have some guidance below.

As the CASCC is the Roundtable's fiscal agent, and in light of the successes of the Roundtable, the CASCC wants to ensure that the Roundtable is operating to continue that success by, among other things, taking proactive measures to comply with The Brown Act. Like the CASCC, the Roundtable is subject to The Brown Act and is obligated to comply with its requirements during, as well as outside of, a public meeting. We encourage you to utilize legal counsel to maintain compliance with The Brown Act and reference the Brown Act best practices guide that is available publicly on the Roundtable website. This will secure the Roundtable's operational success, protect the Roundtable from avoidable and foreseeable legal liability, as well as protect the CASCC as the Roundtable's fiscal agent.

Similarly, and to the same end, we encourage and insist that the SCSC Roundtable have legal counsel present at each of its meetings. We also recommend that you seek advice from legal counsel in between public meetings where helpful.

In addition, because the CASCC is the fiscal agent of the Roundtable, the CASCC is responsible for directing (including hiring, delegating assignments to, and managing) staff and managing the Roundtable's budget. As you know, the CASCC, in collaboration with the Chair of the Roundtable, recently approved a scope of work contract with Environmental Science Associates (ESA), which provides critical technical expertise for the Roundtable. We are aware that the Roundtable voted recently to amend that contract. However, per the terms of the Roundtable's bylaws, the direction of staff such as ESA falls within the purview of the CASCC as fiscal agent. For this reason, the CASCC's contract with the consultant, ESA, and the scope of work that has been agreed upon and approved by both the Chair of the Roundtable and CASCC, will remain unchanged at least until the Roundtable becomes fiscally and financially independent from CASCC.

We recognize that the Roundtable is working on establishing itself as an organization that is fully independent from the CASCC. We are happy to support the Roundtable's efforts to do so, and we recognize that one such result of independence is the ability of the Roundtable to hire and manage its own staff once the CASCC is no longer the fiscal agent of the Roundtable. Until that time, however, the CASCC remains the fiscal agent with the above-mentioned responsibilities and obligations. The Roundtable is urged to work toward independence in accordance with the terms established at the June 5, 2020 CASCC Executive Board meeting.

We hope to see the Roundtable continue to flourish and believe that this letter represents our best guidance to accomplish that goal. We recognize both the promise of the Roundtable as a collaborative, goal-oriented organization, as well as the past and future successes of this body, and will continue to provide our support to your mission.

Sincerely,

Mayor Larry Klein (Sunnyvale)
President
Cities Association of Santa Clara County

Councilmember Marico Sayoc (Los Gatos)
1st Vice President
Cities Association of Santa Clara County

August 15, 2020

From

Marie-Jo Fremont

To

Mary-Lynne Bernald

Message

FAA letters sent to Santa Clara County and Santa Cruz County as part of the SERFR/BRIXX environmental review process (section 106 - historic properties)

Mary-Lynne,

After the July 22 SCSC RT meeting, I had contacted Kris to try to track down the letter. She did and deserves a big thank you.

Enclosed is the Section 106 letter that the FAA sent to the Historical Heritage Commission of Santa Clara County on May 13, 2020. I have also enclosed as a reference a similar letter that the FAA sent to the equivalent Commission for Santa Cruz. Both letters seem identical, except for the addressees.

As stated on page 1 of each FAA letter, "The purpose of this letter is to initiate consultation under Section 106 of the NHPA and solicit any initial comments you may have on the undertaking and the identification of historic properties within the APE.". It is unclear to me how this consultation and comments process works:

- Do the Commissions validate the list of Historic Properties as described in Attachment A?

- How do the Commissions determine impact?

- Do the Commissions consult with the various cities before providing comments to the FAA?

- What is the FAA deadline for input?

- Were the same Commissions consulted before SERFR replaced the BSR procedure? And if so, what input, if any, did any of these Commissions provided.

Best,

mjf

Attachment Name

20200815_M_Fremont_SERFR_BRIXX_Sec106_Local_Govts_Properties_SantaClaraCO
20200815_M_Fremont_SERFR_BRIXX_Sec106_Local_Govts_Properties_SantaCruzCO

U.S. Department
of Transportation
Federal Aviation Administration

Office of the Air Traffic Organization
Western Service Area

2200 South 216th Street
Des Moines, Washington 98198-6547

May 13, 2020

Christopher Manning
Chairperson
County of Santa Clara
Historical Heritage Commission
70 West Hedding Street
10th Floor, East Wing
San Jose, CA 95110

RE: Section 106 Consultation for Identification of Historic Properties in the Area of Potential Effect for the Proposed SERFR FIVE Area Navigation (RNAV) Standard Terminal Arrival (STAR) Flight Procedure at San Francisco International Airport, and the BRIXX THREE RNAV STAR Flight Procedure at Norman Y. Mineta San Jose International Airport

Dear Mr. Manning:

The Federal Aviation Administration (FAA) proposes to amend two air traffic flight procedures for two airports in the San Francisco Bay Area. The first, the proposed SERFR FIVE RNAV STAR (SERFR FIVE STAR) arrival flight procedure serves San Francisco International Airport (KSFO). The second, the proposed BRIXX THREE RNAV STAR (BRIXX THREE STAR) arrival flight procedure serves Norman Y. Mineta San Jose International Airport (KSJC). The FAA has determined the proposed SERFR FIVE STAR and BRIXX THREE STAR flight procedures project is considered the undertaking subject to review under Section 106 of the National Historic Preservation Act of 1966 (NHPA)(16 U.S.C. § 470 *et seq.*) and its implementing regulations at 36 C.F.R. Part 800.

As part of the Section 106 review of the undertaking, the FAA has determined an appropriate Area of Potential Effect (APE), the efforts for identification of historic properties within the proposed APE, and the methodology for assessing potential effects of the undertaking to historic properties. The purpose of this letter is to initiate consultation under Section 106 of the NHPA and solicit any initial comments you may have on the undertaking and the identification of historic properties within the APE.

U.S. Department
of Transportation
Federal Aviation Administration

Office of the Air Traffic Organization
Western Service Area

2200 South 216th Street
Des Moines, Washington 98198-6547

May 13, 2020

Annie Murphy
Planner
County of Santa Cruz
Historic Resources Commission
Post Office Box 1812
Santa Cruz, CA 95061-1812

RE: Section 106 Consultation for Identification of Historic Properties in the Area of Potential Effect for the Proposed SERFR FIVE Area Navigation (RNAV) Standard Terminal Arrival (STAR) Flight Procedure at San Francisco International Airport, and the BRIXX THREE RNAV STAR Flight Procedure at Norman Y. Mineta San Jose International Airport

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As part of the Section 106 review of the undertaking, the FAA has determined an appropriate Area of Potential Effect (APE), the efforts for identification of historic properties within the proposed APE, and the methodology for assessing potential effects of the undertaking to historic properties. The purpose of this letter is to initiate consultation under Section 106 of the NHPA and solicit any initial comments you may have on the undertaking and the identification of historic properties within the APE.

The Undertaking

The proposed amendments are part of the recommendations submitted by the *Select Committee on South Bay Arrivals* and would continue to provide safe and efficient operations at KSFO and KSJC.[1] The proposed amendments would move the current SERFR FOUR RNAV STAR (SERFR FOUR STAR) to closely align with the existing BIG SUR THREE STAR conventional flight procedure, for the section from the north shore of Monterrey Bay to the end of the proposed SERFR FIVE STAR. Additionally, when developing the proposed amendments to the SERFR FOUR STAR, Air Traffic Control (ATC) identified an air traffic operational need to amend the BRIXX TWO RNAV STAR (BRIXX TWO STAR), as well as an opportunity to provide additional separation of aircraft between the two arrival flight procedures.[2]

In addition, the approach procedures associated with the proposed SERFR FIVE STAR, and those associated with the proposed BRIXX THREE STAR, would be amended to connect with these arrival flight procedures. With the shift of the location for the waypoints EDDYY and JILNA, the approach procedures into KSFO runway (RWY) 28 Left (L)/Right (R) and KSJC RWY 30 L/R would be amended to account for the change. The proposed changes are needed so that ATC can efficiently transition aircraft on approach to an assigned runway for landing at the airport.

Table-1 below lists the approach procedures requiring amendment to efficiently transition aircraft from the corresponding proposed STAR flight procedure.

[1] The *Select Committee on South Bay Arrivals* (*Select Committee)*, which is comprised of county and city officials from the San Francisco Peninsula, is tasked with addressing the airplane noise issue and reviewing the FAA's *Northern California Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties*. The *Select Committee* voted to recommend that the FAA design a flight procedure utilizing optimized profile descent that overlays as closely as possible the conventional Big Sur arrival flight procedure into KSFO. Three U.S. Congressional Representatives for California approved the *Select Committee's* recommendations and requested that the FAA implement those recommendations as soon as possible. To the extent the FAA determines a new requested procedure is initially feasible, flyable, and operationally acceptable from a safety point of view, then the FAA will conduct its formal environmental and safety reviews for this new federal action. (References: SC 1.2 R1 (Pg. 11), SC 1.2 R2 (Pg. 11), and SC 1.2 R4 (Pg. 12).

[2] FAA JO 7110.65Y, *Air Traffic Control*, Chapter 3 Airport Traffic Control − Terminal

Table-1: Proposed Instrument Approach Procedures Amendments at KSFO and KSJC		
Proposed Procedure(s)	**Airport**	**Instrument Approach Flight Procedure Type(s)**
SERFR FIVE STAR Proposed Approach Procedures to Runway 28L and Runway 28R	KSFO	• ILS OR LOC RWY 28L • ILS OR LOC RWY 28R • ILS RWY 28L (SA CAT II) • ILS RWY 28R (CAT II AND III) • ILS RWY 28R (SA CAT I) • QUIET BRIDGE VISUAL RWY 28L/R • TIPP TOE VISUAL RWY 28L/R • RNAV (GPS) RWY 28L • RNAV (GPS) Z RWY 28R • RNAV (RNP) Y RWY 28R • Visual approach
BRIXX THREE STAR Proposed Approach Procedures to Runway 30L and Runway 30R	KSJC	• RNAV (RNP) Z RWY 30L • RNAV (RNP) Z RWY 30R • FAIRGROUNDs Visual RWY 30L/R

Definition of Area of Potential Effects

Section 106 regulations define the APE as the geographic area or areas within which an undertaking may directly or indirectly cause alteration in the character or use of historic properties, if any such properties are present. "Effects" are further defined by the regulations as alterations to the characteristics of a historic property qualifying it for inclusion in, or eligibility for the National Register of Historic Places (National Register). The APE is influenced by the scale and nature of the undertaking and may vary for different kinds of effects caused by the undertaking. See 36 C.F.R. § 800.16(d).

For purposes of the undertaking, the FAA proposes to delineate an APE based on two factors. First, the APE includes the geographical area that would contain the proposed amendments to the SERFR FOUR STAR and BRIXX TWO STAR flight procedures. Secondly, the boundary of the APE would be based on the dispersion of current flight track data of aircraft on the SERFR FOUR STAR and the BRIXX TWO STAR flight procedures. Current flight track dispersion is based on ATC vectoring a large number of aircraft off of the SERFR FOUR STAR and the BRIXX TWO STAR prior to reaching the end of these flight procedures.[3] This vectoring is required in order for ATC to properly sequence and space arrival air traffic on the SERFR FOUR STAR and on the BRIXX TWO STAR with other aircraft on other arrival routes. ATC would continue to vector aircraft, as needed, with the implementation of the proposed SERFR FIVE STAR and BRIXX THREE STAR flight procedures. The proposed APE has been designed to account for the area outside of the standard expectation of dispersion of two nautical miles for an RNAV

[3] Vectors are directional headings issued to aircraft to provide navigational guidance and to maintain separation between aircraft and/or obstacles.

arrival route.[4] Table-2 lists the latitude and longitude coordinates of the geographical boundary of the APE.

Table-2: Proposed APE Perimeter Boundary Coordinates		
APE Perimeter Coordinates	**Latitude**	**Longitude**
northwest corner	37.470444	-122.447030
northeast corner	37.457146	-122.129475
southeast corner	36.957410	-122.004978
southwest corner	36.945221	-122.114087
west corner	37.182124	-122.410639

Figure-1 below depicts the geographical boundary of the proposed APE, with the latitude and longitude coordinates included for each corner point. Figure-1 also depicts the boundary lines for the local counties that are associated with the APE.

Figure-1: Proposed APE Geographical Boundary

Note: Figure not to scale.

[4] FAA JO 7110.65Y, "Air Traffic Control," Chapter 4 – Route Separation, Chapter 5 – Radar Separation

Figure-2 below depicts the location of the portion of the SERFR FOUR STAR and the BRIXX TWO STAR flight procedures that would be amended contained within the proposed APE.

Figure-2: Portion of SERFR FOUR STAR and BRIXX TWO STAR to Amend Within the Proposed APE

Note: Figure not to scale.

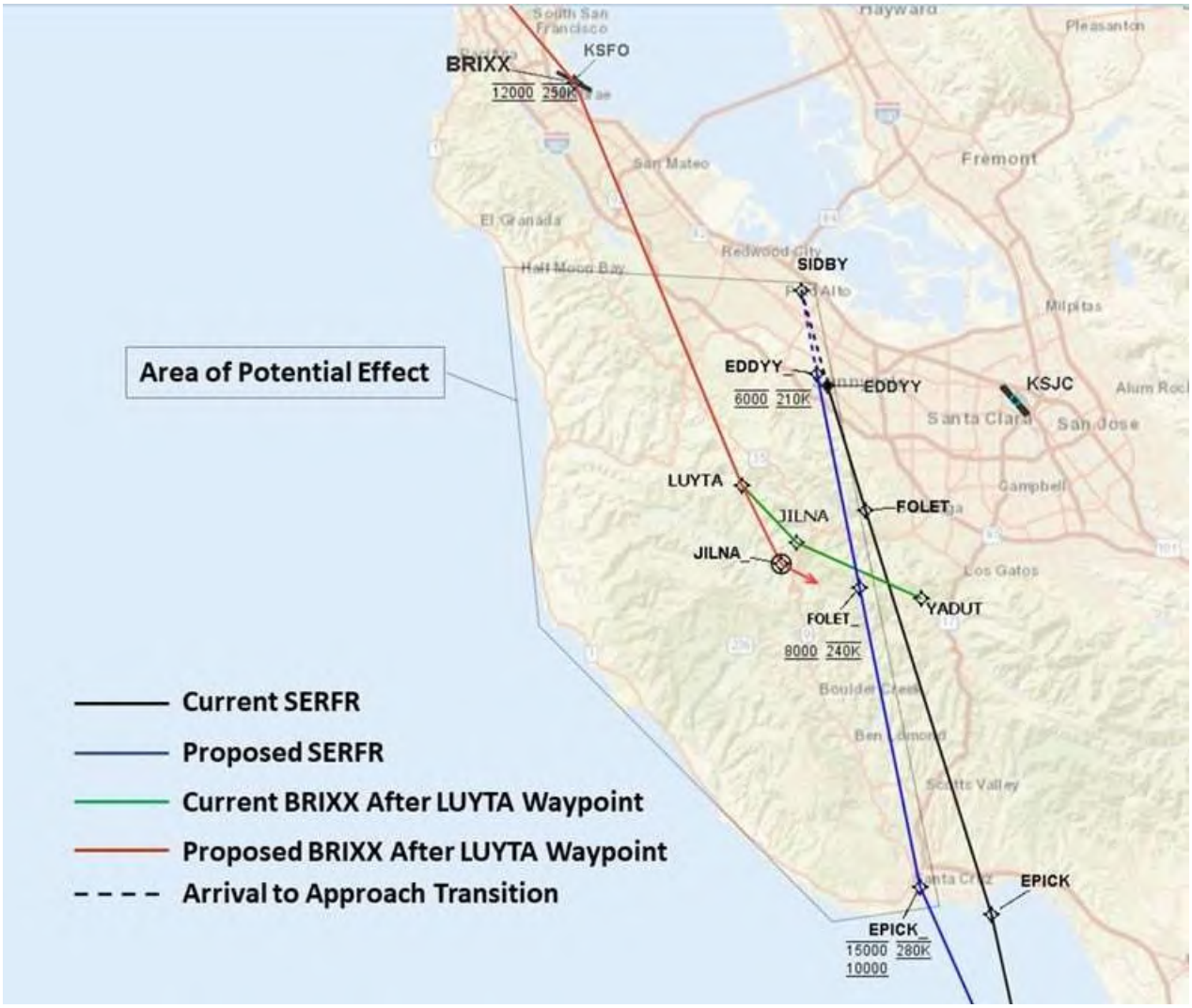
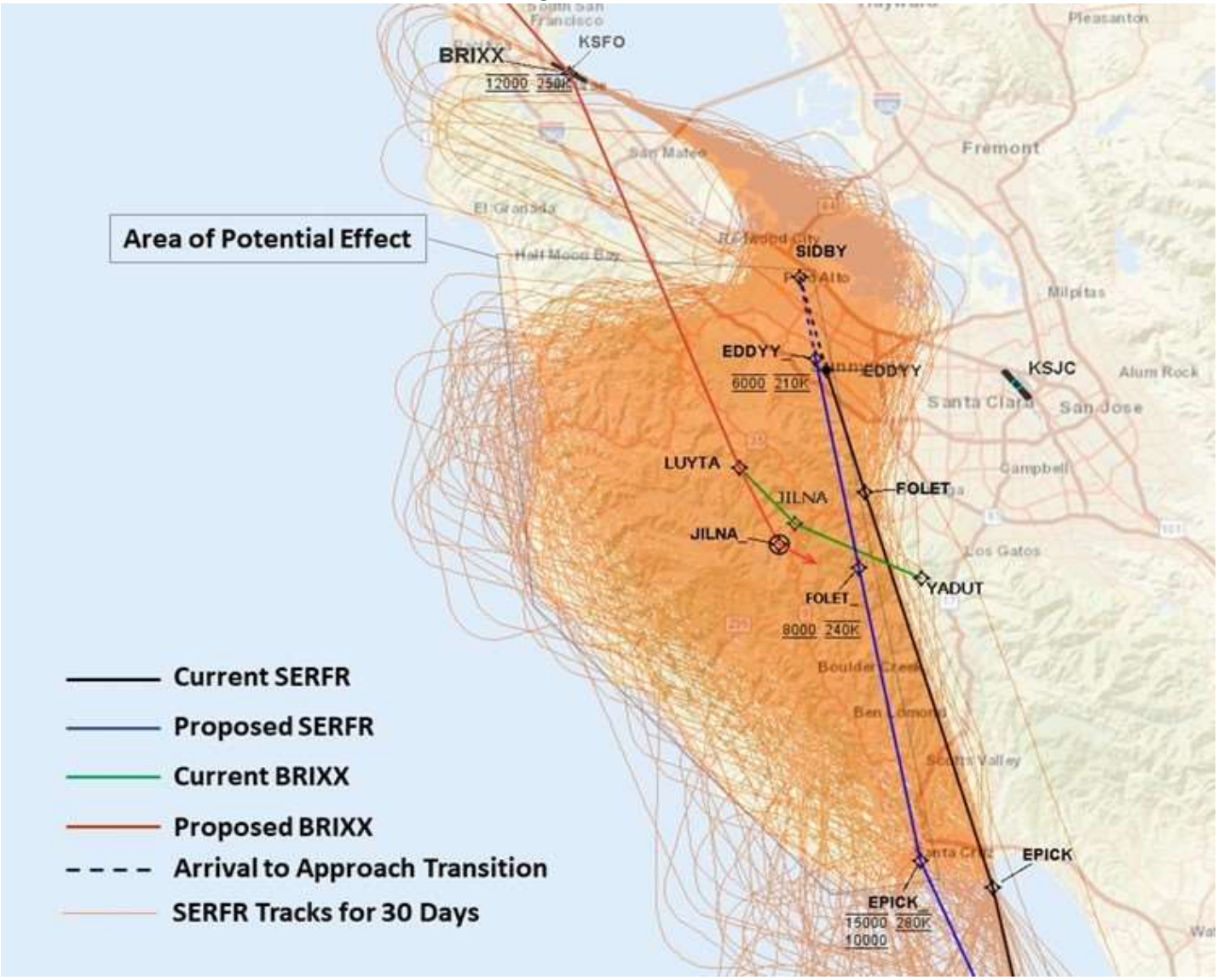


Figure-3 and Figure-4 depict the 30 days of current flight tracks of aircraft on the SERFR FOUR STAR and the BRIXX TWO STAR, which are used to define the boundaries of the proposed APE. Figure-5 depicts the 30 days flight tracks of the SERFR FOUR STAR, overlaid with the 30 days flight tracks of the BRIXX TWO STAR.[5]

Figure 3: Thirty Days of Flight Track Data for Aircraft on the SERFR FOUR STAR Vectored for Arrival to KSFO

Note: Figure not to scale.



[5] The flight track data is comprised of 30 random days from the calendar year 2019. The radar track data sampled randomly throughout the year provides a conservative representation of an average annual day of air traffic operations at an airport served by specific flight procedures. (*MITRE Guidance for Noise Screening of Air Traffic Actions, 2012*)

Figure-4: Thirty Days of Flight Track Data for Aircraft on the BRIXX TWO STAR Vectored for Arrival to KSJC

Note: Figure not to scale.

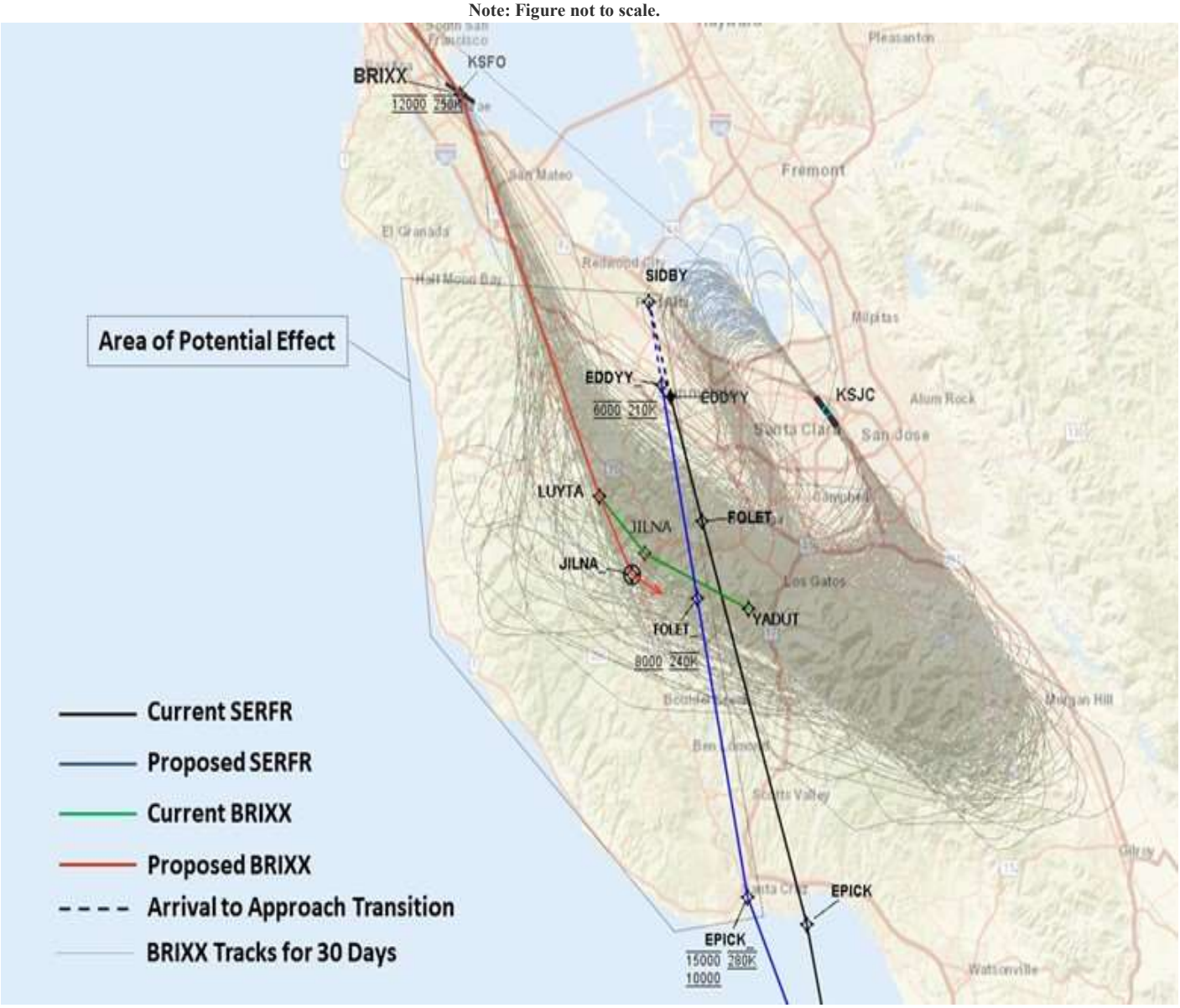
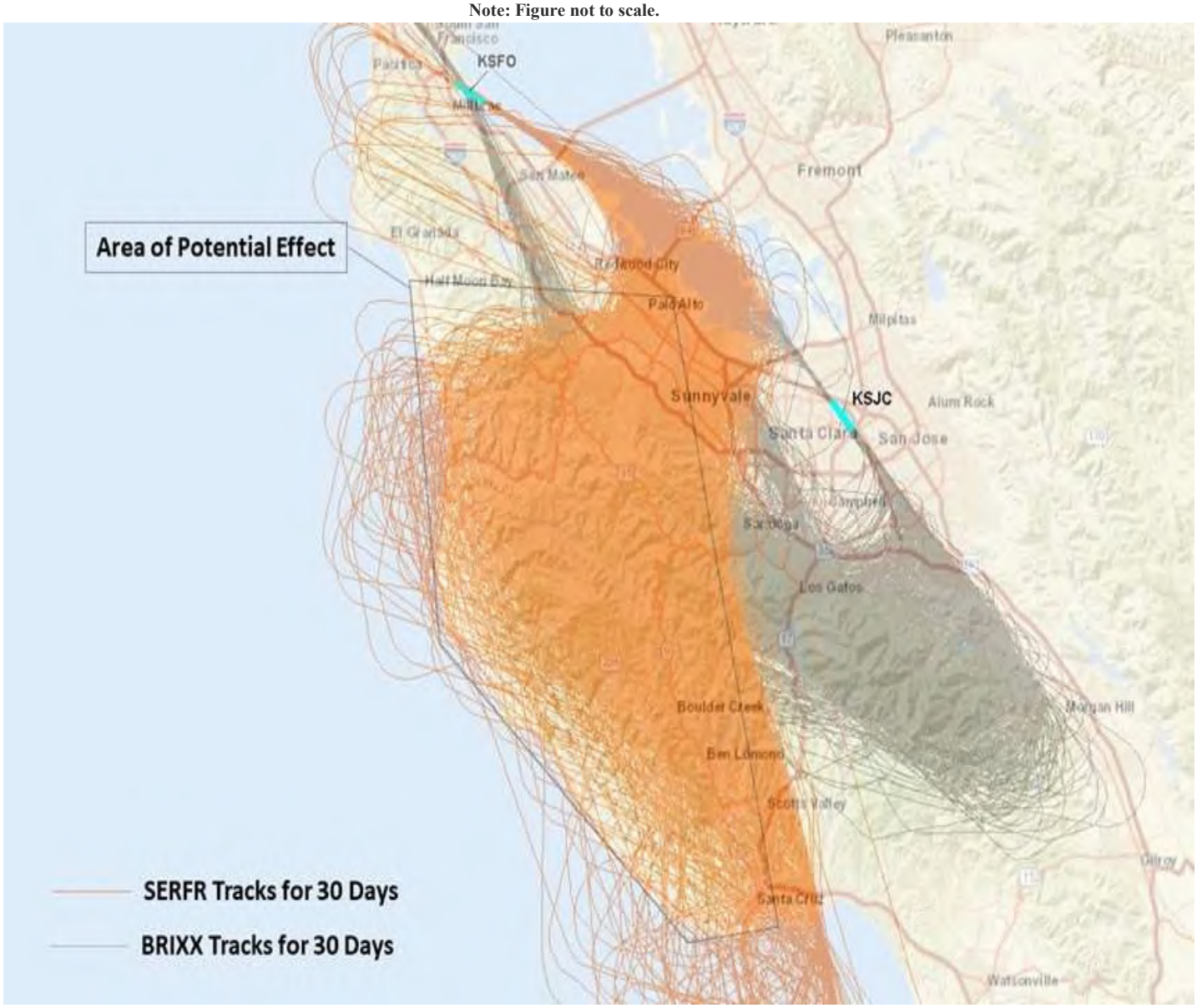


Figure-5: Thirty Days of Flight Track Data for Vectored Aircraft on the SERFR FOUR STAR Overlaid with the BRIXX TWO STAR Vectored Flight Track Data

Note: Figure not to scale.



Identification of Historic Properties

Section 106 regulations direct Federal agencies to make reasonable and good faith efforts to identify historic properties that are either on, or eligible for listing on, the National Register (36 C.F.R. § 800.4(b)(1)). For this undertaking, the FAA will focus its efforts on identifying historic properties within the APE to which an adverse effect would change the character of the property's use, or of physical features within the property's setting that contribute to its historic significance; or introduce an atmospheric, audible, or visual feature to the area that would diminish the integrity of the property's significant historic features (including its setting, provided that the setting has been identified as a contributing factor to the property's historical significance). For this undertaking, there would be no direct physical effects on historic resources. Therefore, potential effects are limited to noise, vibration, and visual intrusions from aircraft overflights.

The FAA is inviting local governments with jurisdiction over land within the proposed APE to participate in consultation. The FAA is inviting the California Native American Heritage Commission (NAHC) to participate in government-to-government consultation regarding any concerns that uniquely or significantly affect local Tribes related to the proposed project. Additionally, three local governments were identified to be associated with the proposed APE. We are affording Santa Clara County the same status in this consultation as the SHPO with respect to potential effects of this undertaking. Figure-1 above depicts the boundaries of the local governments where their boundaries are located within, or partially located within the proposed APE.

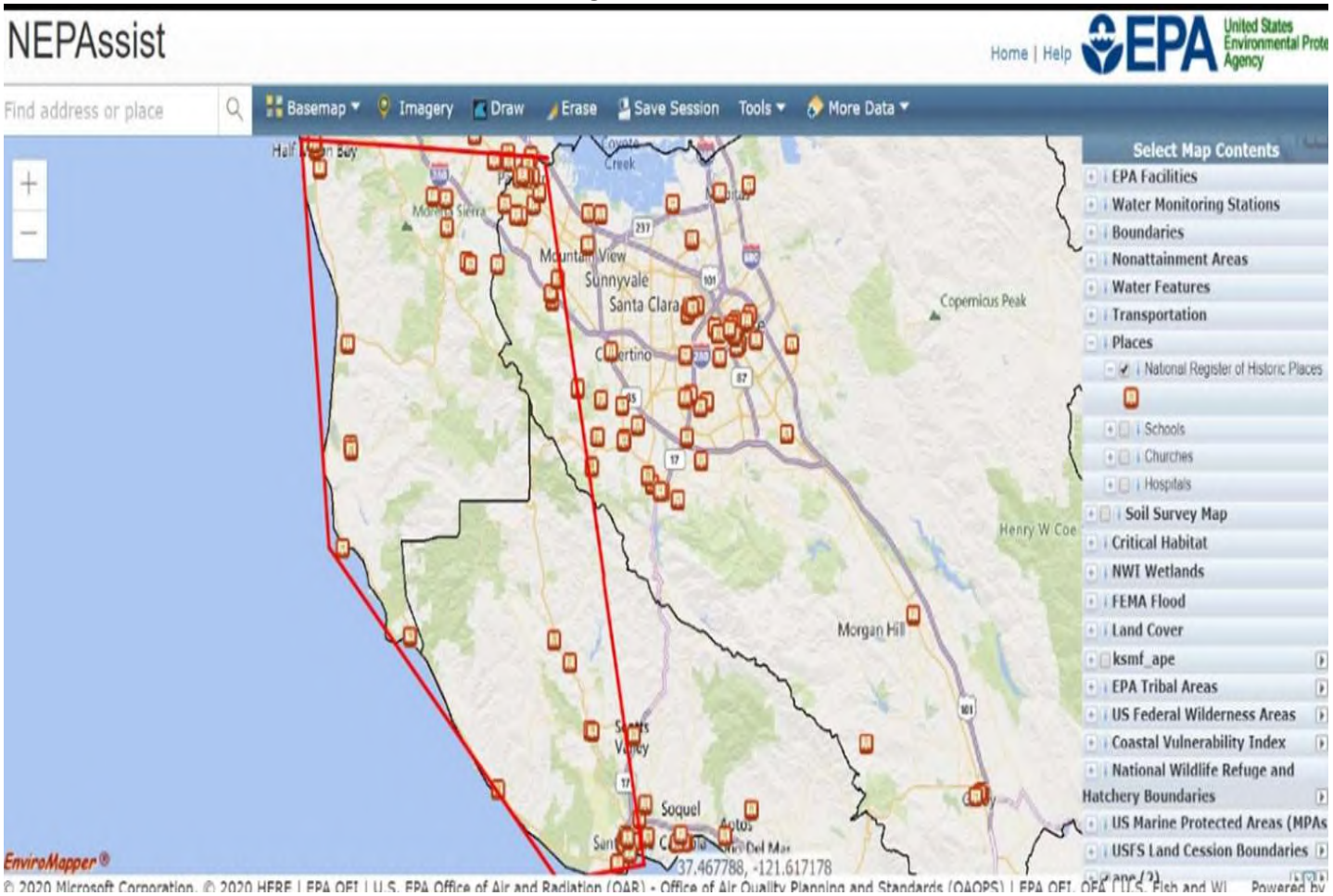
The FAA's initial efforts to identify historic properties within the APE include review of publicly available databases of properties listed on the National Register. A search of the National Register, accessed through NEPAssist, was completed to identify those properties listed on the National Register within the proposed APE.[6]

Figure-6 below depicts the approximate location of historic properties listed in the National Register accessed through NEPAssist, which are within the proposed APE. Attachment A contains Table-3, which lists the names of the historic properties depicted in Figure-6, and includes the URL link to the National Archives Catalog entry for each historic property. The name of a historic property listed in Table-3 would be formatted in **bold font**, where a quiet setting is noted as a qualifying characteristic for listing in the National Register.

[6] NEPAssist is a web-based application that draws environmental data dynamically from the Environmental Protection Agency Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest. Located: https://www.epa.gov/nepa/nepassist

Figure-6 Location of Historic Properties within the Proposed APE

Note: Figure not to scale.



The FAA requests your assistance in identifying other listed properties, as well as those properties eligible for listing, where a quiet setting is a contributing factor to the property's historic significance. Your office's expertise is invaluable in ensuring that appropriate consideration is given to these properties in assessing the effects of the undertaking.

Proposed Methodology for Determination of Effects

Under the NHPA, effects to historic properties and other cultural resources are evaluated. Federal agencies take into account the likely nature and location of historic properties within areas that may be affected, and the nature and extent of potential effects on historic properties. An undertaking would have an effect on a historic property if it altered the characteristics qualifying that property for the National Register. Such effects are considered "*adverse*" if they would diminish the integrity of a property's significant historic features (including its setting, provided the setting is a contributing factor to the property's historic significance).

The FAA proposes to assess the effects to historic resources within the proposed APE that change the character of a property's use, or physical features within the property's setting that contribute to its historic significance; or introduce atmospheric, audible, or visual features to an area that would diminish the integrity of the property's significant historic features (including its setting, provided that the setting has been identified as a contributing factor to the property's historical significance). For this undertaking, no land acquisition, construction, or other ground disturbance would occur. Implementation of the proposed SERFR FIVE STAR and BRIXX THREE STAR flight procedures would involve changes to aircraft flight procedures, and would not include any project components that would touch or otherwise directly affect the ground surface. Therefore, potential effects are limited to effects from aircraft overflights, primarily noise and visual effects.

The analysis for potential adverse effects considers the change in aircraft noise exposure level measured in decibels (dB). Consistent with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the FAA's noise screening analysis for this undertaking would include identifying any "significant" or "reportable" noise increases. The FAA's noise guidelines for compliance with NEPA define a significant impact as an increase of a day-night average sound level (DNL)[7] 1.5 dB in a noise sensitive area that is exposed to aircraft noise of DNL 65 dB and higher when compared to the No Action Alternative for the same timeframe. A reportable noise increase is an increase of:

- DNL 3.0 dB or more in areas exposed to aircraft noise of between DNL 60 and DNL 65 dB; or
- DNL 5.0 dB or more in areas exposed to aircraft noise of between DNL 45 and DNL 60 dB.

Recognizing that some types of historic properties may be affected by aircraft overflights even at a noise level below these criteria, the FAA proposes to consider the potential for the introduction of visual elements that could diminish the integrity of the property's historic features.

Pursuant to 36 CFR § 800.4(a)(1), the FAA is seeking your comments on the APE and the identification efforts for this undertaking. Based on the information gathered, and in consultation with the SHPO and any Indian tribe organization that might attach religious and cultural significance to properties within the APE, the FAA shall take the steps necessary to assess the effects to historic properties listed in the National Register, and those properties eligible for listing.

As the FAA was in the process of initiating consultation, the COVID-19 pandemic occurred. The FAA recognizes that this situation affects the consultation timetable and ultimately those of other Federal, state and local agencies. The FAA will continue to evaluate the situation in the coming weeks and will continue to reach out to other consulting and interested parties. We look forward to your response. In the meantime,

[7] DNL takes into account the noise level of each individual aircraft event, the number of times those events occur, and the time of day in which they occur. DNL includes a 10-decibel (dB) noise penalty added to noise events occurring from 10:00 p.m. to 7:00 a.m., to reflect the increased sensitivity to noise and lower ambient sound levels at night.

if you have any initial comments or questions about this undertaking, please contact Marina Landis at (206) 231-2238, or marina.landis@faa.gov.

Sincerely,

Shawn M. Kozica
Manager
Operations Support Group
Western Service Center

Attachment

Attachment A

Table-3 – Part 1: Historic Properties within the APE Listed in the National Register of Historic Places
Listed Historic Property Name with corresponding National Archives Catalog URL entry.
1. Allen Theophilus House, 601 Melville Ave., Palo Alto - https://catalog.archives.gov/id/123861639
2. Norris House, 1247 Cowper St., Palo Alto - https://catalog.archives.gov/id/123861750
3. de Lemos, Pedro, House, 100-110 Waverley Oaks, Palo Alto - https://catalog.archives.gov/id/123861661
4. Kee House, 2310 Yale St., Palo Alto - https://catalog.archives.gov/id/123861715
5. Griffin, Willard, House and Carriage House, 12345 S. El Monte Ave., Los Altos - https://catalog.archives.gov/id/123861689
6. Lantarnam Hall, 12355 Stonebrook Dr., Los Altos Hills - https://catalog.archives.gov/id/123857310
7. Picchetti Brothers Winery, SW of Cupertino at 13100 Montebello Rd., Cupertino - https://catalog.archives.gov/id/123861763
8. Welch-Hurst, 15800 Sanborn Rd., Saratoga - https://catalog.archives.gov/id/123861820
9. Scott, Hiram D., House, 4603 Scotts Valley Dr., Scotts Valley - https://catalog.archives.gov/id/123861898
10. Branciforte Adobe, 1351 N. Branciforte Ave., Santa Cruz - https://catalog.archives.gov/id/123861840
11. Neary-Rodriguez Adobe, 130-134 School St., Santa Cruz - https://catalog.archives.gov/id/123861881
12. Mission Hill Area Historic District, Mission St., Santa Cruz - https://catalog.archives.gov/id/123861879
13. US Post Office--Santa Cruz Main, 850 Front St., Santa Cruz - https://catalog.archives.gov/id/123857802
14. Veterans Memorial Building, 842--846 Front St., Santa Cruz - https://catalog.archives.gov/id/123861908
15. Bank of Santa Cruz County, 1502 Pacific Ave., Santa Cruz - https://catalog.archives.gov/id/123861834
16. Octagon Building, Corner of Front and Cooper Sts., Santa Cruz - https://catalog.archives.gov/id/123861883
17. Hotel Metropole, 1111 Pacific Ave., Santa Cruz - https://catalog.archives.gov/id/123861867
18. Robinson, Elias H., House, 363 Ocean St., Santa Cruz - https://catalog.archives.gov/id/123861867
19. Golden Gate Villa, 924 3rd St., Santa Cruz - https://catalog.archives.gov/id/123861859
20. Carmelita Court, 315--321 Main St., Santa Cruz - https://catalog.archives.gov/id/123861843
21. Looff Carousel and Roller Coaster on the Santa Cruz Beach Boardwalk, Along Beach St., Santa Cruz – 22. https://catalog.archives.gov/id/123858107
23. Live Oak Ranch, 105 Mentel Ave., Santa Cruz - https://catalog.archives.gov/id/123861873
24. Cope Row Houses, 412--420 Lincoln St., Santa Cruz - https://catalog.archives.gov/id/123861847
25. Hinds, A. J., House, 529 Chestnut St., Santa Cruz - https://www.nps.gov/subjects/nationalregister/database-research.htm#table
26. Santa Cruz Downtown Historic District, Santa Cruz - https://catalog.archives.gov/id/123861896
27. Garfield Park Branch Library, 705 Woodrow Ave., Santa Cruz - https://catalog.archives.gov/id/123857800
28. Davenport Jail - 1 Center St. Davenport - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/92000422.pdf
29. Felton Presbyterian Church - 6299 Gushee St., Felton - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/78000774.pdf
30. Felton Covered Bridge - Covered Bridge Rd., Felton - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/73000451.pdf

Table-3 Part 2: Historic Properties within the APE Listed in the National Register of Historic Places
31. Phillipshurst-Riverwood - CA 9, Ben Lomond - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/83004369.pdf
32. Grace Episcopal Church - 12547 CA 9, Boulder Creek - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/06001158.pdf
33. Dickerman Barn - Cabrillo Hwy., Pescadero - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/82002259.pdf
34. Pigeon Point Lighthouse - S of Pescadero at Pigeon Point off CA 1, Pescadero - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/77000337.pdf
35. First Congregational Church of Pescadero - San Gregorio St, Pescadero - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/80000856.pdf
36. Methodist Episcopal Church of Pescadero - 108 San Gregorio St. Pescadero - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/82002260.pdf
37. San Gregorio House - Old Stage Rd., San Gregorio - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/77000341.pdf
38. Johnston, James, House - Higgins-Purisima Rd., Half Moon Bay - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/73000446.pdf
39. Woodside Store - 471 Kings Mountain Rd., Woodside - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/85001563.pdf
40. Independence Hall - 129 Albion Ave. Woodside - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/78000772.pdf
41. Folger Estate Stable Historic District - 4040 Woodside Rd. Woodside - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/04000328.pdf
42. Our Lady of the Wayside - 930 Portola Rd. Portola Valley - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/77000338.pdf
43. Portola Valley School - 775 Portola Rd. Portola Valley - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/74000557.pdf
44. Casa de Tableta - 3915 Alpine Rd. Portola Valley - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/73000447.pdf
45. Palo Alto Stock Farm Horse Barn - Fremont Rd. Stanford - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/85003325.pdf
46. Hanna-Honeycomb House - 737 Frenchman's Rd. Palo Alt - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/78000780.pdf
47. Hoover, Lou Henry, House - 623 Mirada Rd. Stanford - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/78000786.pdf
48. MacFarland House - 775 Santa Ynez St. Stanford - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/06000659.pdf
49. Hewlett--Packard House and Garage - 367 Addison Ave. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/07000307.pdf
50. Palo Alto Medical Clinic - 300 Homer Ave, Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/10000357.pdf
51. Downing, T. B., House - 706 Cowper St. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/73000452.pdf
52. U.S. Post Office - 380 Hamilton Ave. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/81000175.pdf
53. Ramona Street Architectural District - 518--581 Ramona St. and 255--267 Hamilton Ave. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/86000592.pdf

Table-3 Part 3: Historic Properties within the APE Listed in the National Register of Historic Places
54. Fraternal Hall Building - 140 University Ave. and 514 High St. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/90000119.pdf
55. Palo Alto Southern Pacific Railroad Depot - 95 University Ave. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/96000425.pdf
56. Hostess House - W of University Ave. underpass of El Camino Real, Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/76000528.pdf
57. Squire, John Adam, House - 900 University Ave. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/72000255.pdf
58. Wilson House - 860 University St. Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/80000862.pdf

August 20, 2020

From

Evan Wasserman

To

SCSC Roundtable

Message

SCSC Roundtable - GAO Stage 3 Report

Dear SCSC Roundtable Members and Alternates,

An August 2020 report from the United States Government Accountability Office (GAO) has been posted to the SCSC Roundtable website here for your reference. The report was provided to congressional committees and covers aircraft noise and "**Information on a Potential Mandated Transition to Quieter Airplanes**". The report fulfills the requirements of Section 186, "Stage 3 Aircraft Study," of the 2018 FAA Reauthorization Act.

Regards,

Evan Wasserman

August 23, 2020

From

Jennifer Landesmann

To

SCSC Roundtable

Message

FAA Report to Congress on 176b - Community Involvement

Dear Legislative Committee,

Thank you for your work and discussions on the topics of metrics and health.

FAA's Report to Congress on Community Involvement pursuant to provision 176 of the 2018 Reauthorization is posted here,

https://www.faa.gov/about/plans_reports/congress/media/Community_Involvement_in_NextGen_Projects_PL_115-254_Sec176.pdf

Please note the following on page 5 of the report,

...." Elected and/or Appointed Officials

Elected and/or appointed officials should advise in determining the type of outreach to

the public and the number and location of public workshops, if needed."

This confirms what FAA stated in SCSC meetings - that they look to you to advise on "type of outreach" from FAA on airspace changes.

There's much to address in the FAA's report but I suggest there are a few items that are problematic and need attention.

1) CATEX - how can you know what "type of outreach" is appropriate if you (or the public) have no knowledge of what change is happening and what the potential impacts are?

2) Public outcry has been about both - being left out and uninformed with Catex and with the IFP gateway lacking environmental information. And also about *quality* of outreach in that to date there are no noise maps or baseline analysis using AEDT and more metrics.

These are urgent issues that do not need legislation but action and suggest that they please be taken up by the full roundtable.

Thank you,

Jennifer

August 24, 2020

From

Evan Wasserman / Steve Alverson / SCSC Roundtable

To

Marie-Jo Fremont

Message

FAA letters sent to Santa Clara County and Santa Cruz County as part of the SERFR/BRIXX environmental review process (section 106 - historic properties)

Dear Ms. Fremont,

Thank you for your August 15, 2020 email inquiring about the FAA's Section 106 consultation process under the National Environmental Policy Act. We have repeated your questions below with the associated responses.

1. Do the Commissions validate the list of Historic Properties as described in Attachment A?

Yes. Table 3 in Attachment A to the letter includes the historic properties currently listed on the National Register of Historic Places (National Register) the FAA has identified within the proposed Area of Potential Effects (APE) for the project. Section 106 of the National Historic Preservation Act (NHPA) requires the effects of a project on both listed and eligible to be listed properties be taken into account. The Commissions are being asked to confirm the status of their listed historic properties included in Table 3 as well as provide information on any historic properties that are eligible for listing, but not listed on the National Register and not included in Table 3 (See Page 10 of the FAA's letter where the FAA makes this request.)

2. How do the Commissions determine impact?

The Commissions do not determine impact. At this stage in the consultation process, the FAA is seeking comments from the Commissions on the proposed Area of Potential Effects (APE) and their assistance in identifying historic properties listed or eligible for listing on the National Register within their areas of authority. The FAA will make a determination of effect on historic properties as part of the environmental review process and then contact the Commissions again to seek concurrence with their determination.

3. Do the Commissions consult with the various cities before providing comments to the FAA?

The Commissions typically do not consult with various cities as the request for information is unique to their area of expertise.

4. What is the FAA deadline for input?

The FAA's letter provides no deadline for the Commissions to respond; however, it is common practice to respond within 30 days of the receipt of the request. Given the current pandemic, the FAA recognizes that it may take longer for the Commissions to respond.

5. Were the same Commissions consulted before SERFR replaced the BSR procedure? And if so, what input, if any, did any of these Commissions provided.

No. The SERFR ONE STAR arrival procedure was introduced in 2015 as part of the Northern California (NorCal) Metroplex project (formerly known as the Northern California Optimization of Airspace and Procedures in the Metroplex [OAPM]) Project. Only the State Historic Preservation Officer (SHPO) and relevant Tribal Historic Preservation Officers (THPOs) were consulted as part of the Section 106 consultation process for the NorCal Metroplex project.

Sincerely,

SCSC Roundtable Staff

August 25, 2020

From

Marie-Jo Fremont

To

Evan Wasserman / Steve Alverson / SCSC Roundtable

Message

FAA letters sent to Santa Clara County and Santa Cruz County as part of the SERFR/BRIXX environmental review process (section 106 - historic properties)

Evan,

Thank you very much for the follow up.

In a nutshell, it seems that the FAA is asking the Historical Heritage Commission of Santa Clara County to validate a list. I hope they do --I could not avoid seeing that item "50. Palo Alto Medical Clinic - 300 Homer Ave, Palo Alto - https://npgallery.nps.gov/pdfhost/docs/NRHP/Text/10000357.pdf" is listed in Attachment A - Table 3 page 14. That building was demolished in 2011....

I am not sure why the Commission was not directly consulted by the FAA for SERFR ONE (which was designed in 2013/2014 and implemented in March 2015) unless the State Historic Preservation Officer (SHPO) and the Historical Heritage Commission of Santa Clara County work very closely to ensure that records are synchronized in a timely manner.

mjf

August 25, 2020

From

SCSC Roundtable

To

Legislative Committee - SCSC Roundtable

Message

FAA Report to Congress on 176b - Community Involvement

Hi Lisa and Kathy,

In case you did not receive, I am forwarding the email from Jennifer Landesmann regarding the community input for the Legislative Committee.

Jennifer - in the future, please send any additional comments/emails on this topic and Legislative Committee matters directly to the Committee member emails as noted during the meeting (with the SCSC Roundtable Gmail address copied for correspondence tracking purposes).

Thank you,

SCSC Roundtable staff

September 11, 2020

From

Darlene Yaplee

To

Legislative Committee - SCSC Roundtable

Message

Response to 9/11/20 deadline - Legislative Committee, Input on Watanabe Document

Legislative Committee,

As a follow up to the August 17, 2020 Legislative Committee meeting, we are submitting the attached input to the document drafted by committee member Kathy Watanabe “Public Health & Environmental Impact of Noise and Emissions”.

Regards,

Darlene Yaplee and Marie-Jo Fremont

Attachment Name

20200911_D_Yaplee_Legislative Input re Watanabe Document

Input to Legislative Committee 9/11/20

Pertaining to the document by Kathy Watanabe:
Public Health & Environmental Impact of Noise and Emissions

Introduction:
We have identified several areas for legislative attention as described in the "Executive Summary". In the "Recommendations" section, we offer legislative recommendations to support a proposed bill, request amendment to a proposed bill, or request a new bill.

Executive Summary:
The FAA modernized the airspace with NextGen by fundamentally altering how and where aircraft are flown. NextGen drastically increased aircraft concentration, changed flight paths, lowered altitudes, decreased separation between planes, and increased noise and pollution over communities not previously impacted. The public health and environmental impacts of having 200-400 aircraft overhead per day compared to 20-40 are notably different. Yet, **the FAA did not update how it measures and enforces limits on the impacts of noise and emissions caused by NextGen environments.**

For noise impacts, a sizable disconnect exists between the FAA's predicted impacts (e.g., "no significant impact") of NextGen implementations and the actual impacts on communities. For emissions impacts, it's unclear what FAA analyses have been performed even though aircraft produce multiple air pollutants, including sulfur dioxides and nitrogen oxides, and that the limited and emerging academic research on submicron particles indicate adverse health impacts on people.

Existing legislation must be changed or new legislation must be enacted to address the FAA failures in determining the profound and negative health and environmental impacts that NextGen changes have had and continue to have on communities across the country.

The law (US Code 49, Section 44715) requires the FAA "to relieve and protect the public health and welfare from aircraft noise and sonic boom..."[1] However, the FAA consistently communicates and emphasizes aviation safety, efficiency, and predictability, while rarely recognizing its important responsibility to safeguard the public health and welfare of communities. Examples:

- Administrator Stephen Dickson told a Senate committee on June 6th, 2020: "Our space is aviation safety, and their space is public health"[2] ("their" refers to the Centers for Disease Control and Prevention as the agency responsible for safety precautions for the transmission of COVID-19).
- The FAA's mission statement on their website says (only): "Our continuing mission is to provide the safest, most efficient aerospace system in the world."[3]

[1] https://www.govinfo.gov/content/pkg/USCODE-2011-title49/pdf/USCODE-20
[2] https://www.usatoday.com/story/travel/airline-news/2020/06/17/coronavirus-faa-refuses-make-masks-mandatory-airlines/3209903001/
[3] FAA website, https://www.faa.gov/about/mission/

- The FAA's website says: "The Next Generation Air Transportation System (NextGen) is the FAA-led modernization of America's air transportation system to make flying even safer, more efficient, and more predictable."[4]

Recommendations:

1. Support proposed bill HR 976 - Aircraft Noise and Pollution Expert Consensus Act 2019,[5] sponsored by Stephen Lynch (D-MA-8) and co-sponsored by 30 members, including Anna Eshoo (D-CA-18) and Jackie Speier (D-CA-14).

- Directs the FAA to sponsor a study by the National Academies of Sciences, Engineering, and Medicine, an **independent** organization who will convene world experts from across the country to serve on the committee, **to examine the health impacts of air traffic noise and pollution**.
  - It is critical that this consensus report take place in the **Division of Medicine**, not the Division of Engineering, to maintain the focus on public health.
  - During the committee's work, strict requirements are put on committee members, e.g., no sharing of any committee material or information outside of the process.
- The study will be a **synthesis of evidence from experts in multiple fields of study** on the issue (examples of previous studies are secondhand smoke and indoor mold).
  - On average, National Academies consensus reports can be completed in 18 months.
  - The study will benefit all communities, including the ones outside the 65 dBA DNL contour.
- Their findings will be viewed by policy-makers as a **definitive "scientific" ruling** and will shape debate on the noise and pollution topics.
  - National Academies studies can accelerate policy changes - Congress defers to their findings over single or multiple-academic site studies.
- Senator Elizabeth Warren has a companion bill in the Senate S2506[6].

2. Support proposed bill HR 2351 - Protecting Airport Communities From Particles Emissions Act,[7] sponsored by Adam Smith (D-WA-9) and co-sponsored by 12 members, including Anna Eshoo (D-CA-18).

- Directs the FAA to contract the National Academies of Sciences to conduct an **independent**, national study on the natural characteristics, distributions, sources, and potential health effects of airborne ultrafine particles.
  - Aircraft engines produce ultrafine particles that are defined as particulate matter with a diameter ≤ 0.1 µm.
  - Ultrafine particles pose a serious health risk because they can penetrate the human body through the lungs.
  - The FAA has funded research on the topic in the past: see "An Integrated Measurement and Modeling Study of UFP due to Aircraft Operations at Boston Logan"[8] (presented at the UC Davis Aviation Noise and Emissions Symposium in March 2019). The research

[4]FAA website, https://www.faa.gov/nextgen/what_is_nextgen/
[5]https://www.congress.gov/bill/116th-congress/house-bill/976?q=%7B%22search%22%3A%5B%22hr976%22%5D%7D&s=1&r=1
[6]https://www.congress.gov/bill/116th-congress/senate-bill/2506
[7]https://www.congress.gov/bill/116th-congress/house-bill/2351?q=%7B%22search%22%3A%5B%22hr2351%22%5D%7D&s=2&r=1
[8]https://anes2019.aqrc.ucdavis.edu/sites/g/files/dgvnsk3916/files/inline-files/Emissions_S%20Arunachalam_An%20Integrated%20Measurement%20and%20Modeling%20Study%20of%20UFP%20due%20to%20Aircraft%C2%A0%20Operations%20at%20Boston%20Logan_0.pdf

analyzed ultrafine particles for some BOS arrivals in 2017 (phase 2, which extends the study to include both takeoffs and landings, had not been completed at the time of presentation).

- It is critical that the National Academies of Sciences, Engineering, and Medicine include medical experts in the study and in the creation of the consensus report.
- The study will benefit communities located in areas where planes fly at 3,000 feet or less above ground level. Note that the community locations may not always be right under the flight path because ultrafine particles may be distributed due to wind conditions.
    - The current rule-of-thumb is that particles emitted at 3,000 feet or less above ground level go downward. Above 3,000 feet above ground level, the particles get caught in the atmospheric mixing layer and get dispersed, thus not directly affecting communities underneath but potentially affecting other communities.
    - Typically, aircraft approaches at 10 miles out tend to be 3,000 feet or less above ground level. Departure altitudes vary based on climbing profiles but tend to be 3,000 feet or less a few miles out (less than 5 miles).
- Once the study results have been published, new bills or amendments to existing or proposed bills should be considered to define mitigation requirements, which could range from designing new flight paths to requiring HEPA air filters in schools and homes.
- Additional studies on the levels of aircraft emissions and health consequences may be needed in the future, including a validation of the current rule of thumb for the mixing layer.

3. Support proposed bill HR 3001 - Quiet Communities Act,[9] sponsored by (Grace Meng (D-NY-6) and co-sponsored by 40 members, including Anna Eshoo (D-CA-18) and Jackie Speier (D-CA-14).

- Re-establish the Office of Noise Abatement and Control in the Environmental Protection Agency.
- The FAA seems to be unable (or unwilling) to objectively evaluate and use noise metrics and standards that have "a highly reliable relationship between projected noise exposure and the surveyed reactions of people to noise..." as required by law.[10]
- Congress should task the Environmental Protection Agency to do such evaluations, objectively and independently of the FAA.

4. Request amendment of proposed bill HR 5106 - Restore Everyone's Sleep Tonight (REST) Act,[11] sponsored by Jackie Speier (D-CA-14) and co-sponsored by 15 members including Anna Eshoo (D-CA-18), Ro Khanna (D-CA-17), and Jimmy Panetta (D-CA-20).

- Amend proposed bill HR 5106, which would "allow airports to impose an access restriction for certain hours, to assess certain penalties against air carriers or aircraft operators, and for other purposes." The amended proposed bill would **replace "airports" with "local governments"** thus giving local governments the authority to impose access restrictions and penalties.
- Under current rules (PART 161—NOTICE AND APPROVAL OF AIRPORT NOISE AND ACCESS RESTRICTIONS, section 161.103),[12] the FAA does not permit restrictions unless several conditions are met such as "The restriction does not create an undue burden on interstate or foreign commerce." Virtually any restriction put on flights that travel interstate or

[9] https://www.congress.gov/bill/116th-congress/house-bill/3001/text?q=%7B%22search%22%3A%5B%22keeping+all+students%22%5D%7D&r=46&s=1

[10] Aviation Safety and Noise Abatement Act, 1979, https://uscode.house.gov/statutes/pl/96/193.pdf, Sec.102(1).

[11] https://www.congress.gov/bill/116th-congress/house-bill/5106/text

[12] https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=243d803bf33a2f497a575740f07a2010&ty=HTML&h=L&mc=true&r=PART&n=pt14.3.161#sp14.3.161.b

internationally would be considered as creating a burden on interstate or foreign commerce, and would be rejected by the FAA.

5. Support proposed bill HR 5109 - Fairness in Airspace Includes Residents Act or the F-AIR Act,[13] sponsored by Jackie Speier (D-CA-14) and co-sponsored by 15 members including Anna Eshoo (D-CA-18), Ro Khanna (D-CA-17), and Jimmy Panetta (D-CA-20).

- Redefines FAA priorities as (i) safety of aircraft; and (ii) co-equal priorities: the efficient use of airspace and the minimization of the impact of aviation noise, and other health impacts, on residents and communities, and other impacts of the use of airspace on the environment.

6. Track and comment on Section 187 - Aircraft Noise Exposure Study, FAA Reauthorization Act of 2018.[14] Then, if necessary, request a new bill to address potential gaps or perform additional follow up.

- Section 187 (enacted on October 5, 2018) states that the FAA shall conclude its "ongoing review of the relationship between aircraft noise exposure and its effects on communities around airports" and that the report shall be submitted to Congress within 2 years after the Reauthorization Act and include preliminary recommendations deemed appropriate for revising land use compatibility guidelines.
- The FAA did not deliver the original study expected in 2016. (Per FAA press release dated 2015.05.07,[15] the FAA was supposed to begin work soon on a multi-year survey with hopes to finish by 2016.)
- The FAA report based on Section 187 is due by October 5, 2020.
- Future legislative language can be crafted based on any gaps in the review and what is needed for representing the health and environmental impacts of NextGen implementations.
- Notes:
    - As far back as April 5, 2000, Congress required expert information on aviation noise from a National Academies study. To our knowledge, that study was never issued. Specifically, on November 22, 2000, Congress amended the April 5, 2000 legislation to request a study to examine "(1) the threshold of noise at which health begins to be affected; (2) the effectiveness of noise abatement programs at airports located in the United States; (3) the impacts of aircraft noise on communities, including schools; and (4) the noise assessment practices of the Federal Aviation Administration and whether such practices fairly and accurately reflect the burden of noise on communities." The specific study requirements 1-4 need to be examined in the context of NextGen.
        - The April 5, 2000 legislation[16] is also cited as the ''Wendell H. Ford Aviation Investment and Reform Act for the 21st Century''.
        - The November 22, 2000 amendment requires a National Academies of Sciences study, not a GAO study as written originally, and is documented in US Code 47501 Sec 745.[17]
    - As mandated by the 1979 Aviation Safety and noise Abatement Act (ASNA),[18] the FAA is required to "establish a single system of measuring noise for which there is a highly

[13] https://www.congress.gov/bill/116th-congress/house-bill/5109/text?r=7&s=1
[14] https://www.congress.gov/115/plaws/publ254/PLAW-115publ254.pdf
[15] https://www.faa.gov/news/press_releases/news_story.cfm?newsId=18774
[16] https://www.congress.gov/106/plaws/publ181/PLAW-106publ181.pdf
[17] https://www.govinfo.gov/content/pkg/USCODE-2011-title49/pdf/USCODE-2011-title49-subtitleVII-partB-chap475-subchapI.pdf
[18] Ibid.

reliable relationship between projected noise exposure and the surveyed reactions of people to noise to be used to measure noise at airports and surrounding areas." The FAA may be conducting a survey; however, it is unclear whether the survey is reflecting the new NextGen conditions.

7. Request amendment of proposed bill HR 5107 - Serious Noise Reduction Efforts (SNORE) Act,[19] sponsored by Jackie Speier (D-CA-14) and co-sponsored by 3 members, including Anna Eshoo (D-CA-18) and Jimmy Panetta (D-CA-20).

- **Amend HR 5107** to change the eligibility requirements for noise mitigation and other sound proofing strategies for communities surrounding airports to have a **national scope beyond the San Francisco International airport.**
- Under the current Program Requirements, residents would qualify if "in any 2 consecutive or nonconsecutive months in a fiscal year, a total of 10 or more measurements of 75 dBA or greater (on a noise monitor operated or approved by San Francisco International Airport) are taken within a single city or county between the hours of 10 p.m. and 7 a.m. due to San Francisco International Airport operations, including aircraft arriving or departing the airport." (Page 3, Program Requirements)
- Notes:
    - Residents living near an airport but **outside the 65 dB DNL contour would likely qualify based on the program requirements of the bill.**
    - Residents living further away from airports may or may not benefit. However, these residents are not asking for noise insulation mitigation programs. These residents want the FAA to use technology to design procedures and flight paths that reduce noise over their homes to a level similar to what existed pre-NextGen.

8. Support proposed bill HR 5112 - Low-frequency Energetic Acoustics and Vibrations Exasperate (LEAVE) Act,[20] sponsored by Jackie Speier (D-CA-14) and co-sponsored by 4 members, including Anna Eshoo (D-CA-18).

- Permits states to perform studies of Ground-Based-Noise (GBN) caused by aircraft operations at an airport to identify GBN levels and determine substantial impacts, including any decrease in property values.

[19] https://www.congress.gov/bill/116th-congress/house-bill/5107/text
[20] https://www.congress.gov/bill/116th-congress/house-bill/5112?s=1&r=8

September 11, 2020

From

Darlene Yaplee

To

Legislative Committee - SCSC Roundtable

Message

Response to 9/11/20 deadline - Legislative Committee, Input on Hendricks Document

Legislative Committee,

As a follow up to the August 17, 2020 Legislative Committee meeting, we are submitting the attached input to the document drafted by committee member **Hendricks "Language/Concepts the SCSC Roundtable Requests be Added to Appropriate Federal Aviation Administration (FAA) Legislation"**.

Regards,

Darlene Yaplee and Marie-Jo Fremont

Attachment Name

20200911_D_Yaplee_Legislative Input re Hendricks Document

Input to Legislative Committee 9/11/20

Pertaining to the document by Glenn Hendricks: Language/Concepts the SCSC Roundtable Requests be Added to Appropriate Federal Aviation Administration (FAA) Legislation

Introduction:

We have identified several major problems that require legislative attention as described in the "Executive summary". In the "Background and Recommendations" section, we outlined the problems and offered legislative recommendations to address them.

Executive Summary:

As evidenced by the millions of complaints received since NextGen started, **a sizable disconnect exists between the FAA's predicted impacts (e.g., "no significant impact") of NextGen implementations and the actual impacts on communities.** Existing legislation must be changed or new legislation must be drafted to address the FAA failures in determining the profound and negative impacts that NextGen changes have had and continue to have on communities across the country.

In implementing NextGen, the FAA pursued safety, which is of course paramount, and efficiency. On the other hand, human impacts seem to have been disregarded or severely underestimated when designing and implementing NextGen changes because of **serious shortcomings with the current rules and environmental review process** used by the FAA. Although not an exhaustive list, we have identified the following problems:

- **Community impacts are not a priority for the FAA:** Safety is the FAA' s top priority. Efficiency is the second priority. Community impacts (noise, health, and other environmental concerns) are not a priority.

- **Flawed assessments under represent the true impacts of NextGen**: As currently performed, the estimation of potential impacts is flawed for multiple reasons (including not evaluating impact all the way to the airport, inaccurate noise models, and inadequate metrics to name a few). The current assessments **do not capture the full community impacts.**

- **Outdated definition of "Significant Impact" allows the FAA to claim that there is no major noise problem caused by NextGen**: Since NextGen started to be implemented, millions of complaints from across the country have been submitted. NextGen has had a profound impact on many communities; therefore, it warrants an evaluation of the current definition of significant impact, which was established decades ago for a pre-NextGen environment and is based on a single metric (DNL) and 65 dBA threshold. The definition of significant impact must capture the full impacts of NextGen changes on communities, including the ones located far from an airport.

- **The analyses on the impacts of MAJOR changes are deficient**: Today, the FAA can "categorically exclude" major changes (such as implementing a new procedure) from a detailed environmental analysis if the FAA initial environmental review concludes that there will be no significant impact.

- **No review of actual impacts against predicted impacts of changes is performed**: Today the FAA can approve environmental reviews without having to address any future discrepancies between actual impacts and predicted impacts after implementation. There is no validation required to check that actual impacts are equal to or lower than predicted impacts.

- **Community consultation and communication occurs too late and lacks transparency**: The FAA does not consult with the community with the intent of acting on the input when considering a change. The FAA is not transparent in its communication: insufficient information, often incomprehensible to a lay person, is provided too late for communities to influence or understand a proposed change and the potential impacts. There is no robust process for the community to review and comment on assumptions, answers, tools, and metrics used in the environmental review.

Background and Recommendations:

1. Community impacts are not a priority for the FAA.

Background: The FAA has two priorities: safety and efficiency. However, Congress should require the FAA and industry partners to implement procedures that **take into account safety, efficiency, and community impacts.**

- An overly broad provision in Section 329 of the FAA Reauthorization Act of 2018 **requires the same or better safety for all new procedures without any mention of impacts on communities.**
    - The provision states "The Administrator shall, to the maximum extent possible and consistent with Federal law, and based on input by the public, ensure that regulations, guidance, and policies issued by the FAA on and after the date of enactment of this Act are issued in the form of performance-based standards, providing an equal or higher level of safety."
    - This overly broad provision does not mention community impacts. Residents should not be expected to bear the costs of the most marginal improvements to safety. This provision needs to be revisited and changed.
- In November 2019, Jackie Speier (D-CA-14) sponsored a bill to put noise and health impacts on an equal basis with efficiency. The bill was co-sponsored by 15 other members, including Anna Eshoo D-CA-18, Ro Khanna (D-CA-17), and Jimmy Panetta (D-CA-20).
    - HR 5109 F-AIR Act[1]: "This bill revises the priorities of the Federal Aviation Administration (FAA) in developing plans and policy for the use of navigable airspace.
      Specifically, the FAA must ensure (1) the safety of aircraft as a primary priority in developing such plans and policy; and (2) the minimization of the impact of aviation noise, and other health impacts, on residents and communities, and other impacts of the use of airspace on the environment as a secondary priority on an equal basis with the efficient use of airspace."

Furthermore, the FAA routinely claims that changes must be made for safety or efficiency reasons. However, when proposing a change, the FAA does not specify the specific safety or efficiency issues that must be addressed and does not quantify the expected improvements in safety or efficiency that may be

[1] https://www.congress.gov/bill/116th-congress/house-bill/5109?s=1&r=5

achieved by implementing the change. The objectives behind proposing a change are not fully articulated.

Recommendations:

- **Change the overly broad provision in Section 329 of the 2018 FAA Reauthorization Act of 2018** that currently requires the same or better safety for all new procedures **to ensure that residents do not bear the costs of the most marginal improvements to safety**.
- **Support proposed bill HR 5109**.
- **Require the FAA to systematically document**, with supporting data and as part of the full disclosure document described in item 6 recommendations, the **specific safety or efficiency issues** that a proposed change will address and the **expected improvements in safety or efficiency** that may be achieved if the change is implemented.

2. Flawed assessments of changes under represent the true impacts of NextGen.

Background: Assessments of potential impacts are flawed and do not capture the real impacts. **The FAA:**

- **Does not assess the impact of aircraft all the way to the airport.** Impact assessment is limited to the "end" of the procedure as defined by the FAA whereby a procedure may end many miles away from final approach. This means the FAA does not evaluate the impact of vectored aircraft all the way to final approach even when vectored aircraft fly in a narrow, concentrated path as if the procedure continued.
- **Uses invalid** assumptions, methods, tools, and metrics that are unsuitable for NextGen environments:
    - **The Initial Environmental Review (IER) is based on problematic** noise screening tools and faulty questionnaires.
        - **Subjective claims and interpretations** are not supported by evidence. "No traffic increase" is a common FAA assumption that pretty much guarantees a conclusion of no significant impact.
        - Statements are at times **misleading or inconsistent**.
        - The FAA can mark answers as "**UNKNOWN**" in initial environmental reviews and is not required to get answers even when they could get them through existing communication channels. A good example is the PIRAT RNAV procedure.
    - **Community recommendations are misused**. When the community asks for a change, the FAA at times implements something quite different and then claims it was a "Community Request."
    - **Estimated impacts** through Aviation Environmental Design Tool (AEDT) (or the Integrated Noise Model (INM), which preceded AEDT) **are not accurate representations of NextGen impacts:**
        - **The noise model is inaccurate** for communities far from an airport but now heavily impacted by NextGen.
        - Important factors that affect noise levels are **not fully considered or considered at all**: aircraft configuration, level of thrust/engine power, varying weather conditions, and man-made structures.
        - **Margin of errors or confidence intervals** on estimated DNL levels are **not provided**.
    - **DNL is inadequate** to represent the impact of NextGen changes because DNL:
        - Averages noise data over a 24-hour period using annual operations. In other words, DNL is calculated as the noise level for an average day based on an

annual number of operations. This average calculation assumes that traffic occurs in a constant manner across a 24-hour period, and does not reflect the bursts of high-frequency flight activity that occur multiple times a day and are very disturbing to residents. As a result, the calculated DNL level is always much lower than the DNL of peak periods (if a DNL-peak were calculated) and the total noise of each aircraft.
        - Sums up noise events as if each event was one-second long. Aircraft noise events last many seconds, not one second. This one-second simplification does not reflect the human experience: people hear noise for 30 seconds or more per aircraft.
    - The current definition of **cumulative impact is misleading** because impact estimates are:
        - Limited to the aircraft from and to the airport associated with the change. The FAA does not consider the **cumulative impact of all planes from multiple airports** even if they overfly the same community.
        - Done on an individual change basis. The FAA does not evaluate **the total impact** caused by all the **NextGen changes made over the years** over a community. Unfortunately, this incremental approach allows the FAA to **reset the "baseline noise level"** to the last time a change was made.

Recommendations:

- **Require the FAA to fix the current methods used in predicting the community impacts of NextGen changes:**
    - Estimate impacts **all the way to final approach**.
    - **Obtain answers to questions** when there are reasonable means for the FAA to obtain the answers (for instance, contact existing Roundtables or elected officials who made recommendations that are relevant to the change).
    - Provide **supporting evidence** on assumptions and answers.
    - **Improve the AEDT noise model** to estimate impacts on communities living outside the 65 dB noise contour and up to 50 miles away from a commercial airport. **Model must:**
        - Consider aircraft configuration, level of thrust/engine power, varying weather conditions, and man-made structures.
        - Be validated against some actual measurements that are representative of the affected communities.
    - **Metrics**
        - Provide **margins of error or confidence intervals** on estimated DNL values.
        - **Calculate DNL levels for peak periods** (e.g., high level of flight activity over a limited time) **or for 4-hour periods** in addition to current DNL levels for 24 hours. Using histograms, show the DNL data distribution of DNL peaks or DNL-4 hours, in 2 dB increments over the course of a year.
        - **Use alternative metrics** (such as N-Above) and report data in ranges (such as "N-Above ambient noise level," "N-Above ambient noise level +5 dBA," etc.)
- **Change the definition of cumulative impact** to include all aircraft traffic from **multiple airports <u>and</u>** consider the **aggregate impact** of all changes made since the first NextGen change was implemented in the area (i.e., compare the aggregate impact of all changes to the pre-NextGen environment before any NextGen implementation occurred).

3. Outdated definition of "Significant Impact" allows the FAA to claim that there is no noise problem caused by NextGen.

Background: The **current definition of significant impact**, established decades ago for a pre-NextGen environment, is **not appropriate for a NextGen environment** because:

- The definition relies on a single metric (DNL averaged over a 24-hour period). As described in the background section of item 2 above, DNL is not a true representation of the noise impact on communities.
- The DNL thresholds that are used to consider whether a change has a significant impact virtually guarantee that all changes will not have any significant impact.
    - DNL threshold values (+1.5 dB at 65 dBA or greater, +3 dB between 60 and 65 dBA, +5 dB between 45 dB and 60 dB) are set absurdly high: flying an additional several hundred noisy planes per day over some communities will still be considered as having no significant impact on these communities.
    - A 3 dB DNL increase represents a doubling of the noise level. A 6 dB DNL increase represents a quadrupling of the noise level. Today the FAA can claim that doubling or quadrupling the noise levels of some communities does not represent a significant impact.
    - Per current rules, communities with ambient noise levels below 45 dB would never experience any significant impact with thousands of noisy planes flying every day over these populations.

Recommendations:

- Create a **task force of experts (including academic experts) to evaluate the current definition of significant impact in the context of NextGen** and **make recommendations for a new definition** to better capture the impacts of NextGen implementations on communities, including the ones located far from an airport. Items to be considered include:
    - **Metrics:** Multiple metrics should be considered (at least 3 and not all DNL-related). Examples: DNL-24 hour (used today), DNL peak period, DNL-4-hour, N-Above, T-Above, Number of operations by altitude bands, and complaints. Furthermore, C-weighting (dBC) should be used in addition to A-weighting (dBA) to capture low-frequencies and tones.
    - **Metric thresholds:** each threshold for each metric must be representative of the NextGen impact experienced by communities and should be tied to pre-NextGen conditions whenever possible (e.g., Number of operations by altitude bands before any NextGen implementation; DNL increase between DNL level before any NextGen implementation and DNL level after the change) and/or current conditions (e.g., DNL increase relative to actual ambient noise levels).
    - **Definition of significant impact:** two aspects should be considered:
        - Different degrees of impact instead of just one: today, the impact is significant or it is not. Instead of a binary choice, one could consider a gradation of impacts (such as minor, moderate, major), which would require different corrective strategies and actions.
        - Criteria to determine the degree of impact based on multiple metrics: having at least one metric exceed a threshold level could be sufficient or isoquants (e.g., contour lines) of several metrics could be used to rate the degree of impact.
    - **Definition of cumulative impact:** as described in the last recommendation in item 2, cumulative impact should include all aircraft traffic from **multiple airports** that overfly

an area and consider the **aggregate impact** of all changes made since NextGen started to be implemented in the area.

- **Establish corrective requirements for different degrees of impact.** For instance, a minor impact could be considered acceptable and would not require the FAA to correct the impact; a minor impact would require the FAA to design alternatives even if such alternatives could reduce efficiency up to 20%; and a major impact would mandate the FAA to design alternatives even if such alternatives could reduce efficiency up to 50%.
- **Establish a maximum impact limit beyond which no incremental noise would be permitted**. There is currently no upper bound to the amount of aircraft noise over residential populations. The maximum impact limit could be determined using one or more of the metrics listed earlier.
- **Decouple existing and future insulation programs from the current definition of "significant impact**".
  As indicated in our comments on the Public Health & Environmental Impact of Noise and Emissions prepared by Kathy Watanabe, we recommend **requesting an amendment of proposed bill HR 5107 - Serious Noise Reduction Efforts (SNORE) Act**[2] (sponsored by Jackie Speier D-CA-14, and co-sponsored by 3 other members, including Anna Eshoo D-CA-18 and Jimmy Panetta D-CA-20):
    - **Amend proposed bill HR5107** to change the eligibility requirements for noise mitigation and other sound proofing strategies for communities surrounding airports to have a **national scope beyond the San Francisco International airport.**
    - Under the current Program Requirements, residents would qualify if "in any 2 consecutive or nonconsecutive months in a fiscal year, a total of 10 or more measurements of 75 dBA or greater (on a noise monitor operated or approved by San Francisco International Airport) are taken within a single city or county between the hours of 10 p.m. and 7 a.m. due to San Francisco International Airport operations, including aircraft arriving or departing the airport." (See Page 3, Program Requirements.)
    - Notes:
        - Residents living near an airport but outside the 65 dB DNL contour would likely qualify based on the program requirements of the bill.
        - Residents living further away from airports may or may not benefit. However, these residents are not asking for noise insulation mitigation programs. These residents want the FAA to use technology to design procedures and flight paths that reduce noise over their homes to a level similar to what existed pre-NextGen.

4. The analyses on the impacts of MAJOR changes are deficient.

Background: **The FAA does not have to conduct detailed environmental review analyses to determine the impact of major changes**, which include but are not limited to creating new procedures -- conventional or RNAV, modifying existing procedures, doing "overlays", or changing vectoring paths, headings, and altitudes. As described in the April 26, 2018 FAA presentation to Ad Hoc Advisory Committee on South Bay Arrivals,[3]

[2] https://www.congress.gov/bill/116th-congress/house-bill/5107/text
[3] https://www.flysanjose.com/sites/default/files/commission/FAA%20NEPA%20Presentation%20V2.pdf

- The National Environmental Policy Act (NEPA) defines three different levels of environmental analyses: CATEX (Categorical Exclusion), EA (Environmental Assessment), and EIS (Environmental Impact Assessment).
- Today, the FAA can use the CATEX level, which is the lowest, to "categorically exclude" a proposed project (e.g., a change) from a detailed environmental analysis by doing only a lightweight analysis that **incorrectly determines that the project does not have a significant impact.** Current rules allow the FAA to **"categorically exclude" many changes**, including major ones such as implementing new RNAV/RNP procedures, which are very different than conventional procedures, or creating overlays of existing flight tracks, which are problematic when moving from a radar-based system with widely separated planes to a GPS-based system with narrowly concentrated planes.
- The Quiet Skies Caucus July 2015 letter to Chairman Bill Shuster (PA-R), House Transportation and Infrastructure Committee, asked to "Reform Section 213(c)(2) of the FAA Modernization and Reform Act of 2012 - This provision provides a categorical exclusion from adequate environmental reviews for flight path changes implemented through the NextGen process. It was written in an overly broad way … ."

The impact of MAJOR changes should be evaluated through an EA or EIS level of environmental analysis given that major changes have extensive negative impacts on communities as evidenced by the millions of complaints that have been submitted since NextGen implementations started.

Recommendation:

- **Change legislation to require Level 2 (Environmental Assessment) or Level 3 (Environmental Impact Assessment) environmental reviews for <u>all major</u> changes**, including but not limited to new procedures (RNAV, RNP, or conventional), changes in existing procedures (including but not limited to changing or relocating waypoints as well as procedure endpoints, decreasing altitudes, adding or changing speed requirements), and vectoring modifications (including but not limited to new headings, new vectoring ceiling or floor altitudes). A CATEX would no longer be allowed for major changes.

5. No review of actual impacts against predicted impacts of changes is performed.

Background: Through its environmental review process, the FAA determines the predicted impacts of changes on communities. However, **the FAA does not have to address any discrepancies between actual impacts and predicted impacts** that may be discovered post implementation: there is no validation step to check that actual impacts are equal to or lower than predicted impacts. Environmental reviews are approved based on analyses and conclusions that are not verified after changes have been implemented.

Recommendations: For environmental reviews beyond the CATEX level:

- Modify the approval of environmental reviews to initially receive a **conditional approval** that is later reviewed after the **actual impacts of a major change have been compared to the predicted impacts** of the environmental review. A conditional approval would require the FAA to do an impact validation after implementing a major change.
- Require the FAA to include the **impact validation plan details in the environmental review**. Details should specify the locations of the noise monitors, the timing and duration of the noise measurements, the grid cell format, and the multiple metrics that will be used to report and evaluate actual impacts against predicted impacts.
- The impact validation plan would include the following steps:

- Measure noise **before and after** the implementation of a change, in multiple locations that represent affected communities.
  - **Before:** 6 to 12 months before the change is published (i.e., goes live), collect noise data for at least 3 months to create a baseline noise level (during the collection period, no aircraft should test the proposed change to avoid data contamination).
  - **After:** after the change has been published, collect noise data in the same locations for 12 months.
- Within 3 months following the "After" post-implementation noise data collection (i.e., no later than 15 months after a change has been implemented), **compare actual impacts against predicted impacts, publish the comparison results, and change the status of the environmental review to either fully approved or rejected.**
  - The comparison should be done using multiple metrics that represent community impacts (acoustic metrics like DNL and Lmax; alternative metrics like N-Above, T-Above, and Number of Operations; emission metrics; complaints) and use a grid cell format to display metric changes all the way to final approach and for several locations that are representative of the affected communities. The size of the cells must be commensurate with the degree of flight concentration and number of operations.
  - If the impact evaluation results show that actual noise levels are equal to or lower than the predicted noise levels in the environmental review and if other metrics do not show substantial increases ("substantial" would need to be defined to be consistent with the new definition of significant impact recommended earlier), then the environmental review would be fully approved, and no longer be conditionally approved. Otherwise, the change would be stopped: the FAA would need to restore the previous conditions that existed before the change was implemented and do so within 6 months of the environmental review being rejected.

6. Community consultation and communication occurs too late and lacks transparency.

Background: The FAA engages with communities too late in the process and with insufficient information. The FAA is not required to be transparent or timely, and does not have to seek community input in a systematic manner BEFORE an environmental review is completed or AFTER a change is posted on the IFP Gateway. Furthermore, the FAA is not obligated to consider and address community concerns when developing changes that affect communities.

- The FAA is **not required to share with the community information**, preliminary or final, on changes that are being considered. They post however future changes and published changes on the IFP gateway to allow airlines to comment on the safety of proposed changes. Given the target audience of the IFP gateway, the IFP postings are not comprehensible for non-industry audiences.
- The FAA **does not share sufficient information** on the full impacts of a proposed change and the details of the change. Communities need a full and comprehensible disclosure on predicted, cumulative community impacts (such as noise, increase in operations, increase in aircraft concentration or frequency) all the way to the airport, and the details of the change (such as changes in altitude, speed, headings, ground track, endpoints, waypoints, and vectoring instructions), including the implications for aircraft configuration (e.g., locations on flight path of expected deployment of flaps, slats, and landing gear; expected level of thrust).

- Once completed, documents are **not immediately made available or even made available**. FOIA requests are often necessary to obtain basic information. Communities should not be required to make FOIA requests to get information on FAA changes, especially after making the same requests to the FAA in person or in writing.
- The FAA does not offer **any mechanisms for communities to comment on changes BEFORE an environmental review is approved or AFTER a change is posted on the IFP Gateway**. Note: the IFP Gateway is only for industry input, not public input.
- The **Airport proprietor is not a mandatory participant** in Full Working Group meetings even though the FAA considers the Airport Proprietor as the Community Representative.
- There is **no robust process for the community review and comment** on the assumptions, answers, tools, and metrics used in the environmental review.
- A robust community engagement process was one of the recommendations of the Quiet Skies Caucus July 2015 letter to Chairman Bill Shuster (PA-R), House Transportation and Infrastructure Committee. Their recommendation was "Mandate a robust community engagement process, including pre-decisional public hearings, for any new flight paths or procedures or changes to existing flight paths and procedures."
- In November 2019, Jackie Speier (D-CA-14) sponsored three bills related to community participation and communication[4] (all bills were co-sponsored by many members, including Anna Eshoo (D-CA-18), Ro Khanna (D-CA-17), and Jimmy Panetta (D-CA-20)):
    - HR 5105 RESPECT Act[5]: "This bill requires the Federal Aviation Administration (FAA) to respond in writing within 90 days to requests for data and information from Congress. Specifically, the FAA must respond if
        - the data is within the control of the FAA; and
        - the data would be otherwise appropriate to provide if requested (1) by an airline, an airport, a flight procedure proponent, an Aviation Roundtable, or anyone not employed by the FAA; or (2) via a Freedom of Information request from any individual or any entity.

      The FAA must also provide staff at a private or public meeting with a Member of Congress if certain conditions are met."
    - HR 5110 APPRISE Act[6]: "This bill requires the Federal Aviation Administration to ensure that an aviation roundtable technical representative or consultant is allowed to participate in the Next Generation Air Transportation System (NextGen) performance-based navigation implementation process for new or modified flight procedures affecting their communities. (NextGen performance-based navigation is an advanced, satellite-enabled form of air navigation that creates 3-D flight paths.)"
    - HR 5111 NOTIFIED Act[7]: "This bill requires the Federal Aviation Administration to notify the public of any proposed new Performance Based Navigation flight procedure or flight procedure change affecting airspace at altitudes below 18,000 feet."

Recommendations: **Require the FAA to:**

- **Publish on the FAA website and within 5 business days after completion the following information**:
    - **The minutes of any Full Working Group meeting** that was held.

[4] https://sforoundtable.org/wp-content/uploads/2019/12/20191204_2019-Legislation.pdf
[5] https://www.congress.gov/bill/116th-congress/house-bill/5105
[6] https://www.congress.gov/bill/116th-congress/house-bill/5110?s=1&r=8
[7] https://www.congress.gov/bill/116th-congress/house-bill/5111?s=1&r=5

    - **A full and comprehensible disclosure document** of the proposed change. Such full disclosure, which does not exist today, would require more than a navigational chart. The disclosure should:
        - Explain the changes proposed and describe the differences between the current environment and the future environment in a manner that is comprehensible to the public.
        - Articulate in specific terms the objectives and reasons behind the proposed change (including safety or efficiency objectives and reasons).
        - Describe, in qualitative and quantitative terms, the expected benefits (including safety or efficiency improvements) that may be realized once the change is implemented.
    - The **environmental review document and its associated documentation** (including the description of all assumptions made and the methods and tools used in the analysis with their rationale) to describe the full, predicted community impacts on a cumulative basis.
    - The **actual impact validation results** (as described in item 5 above) and **final status of the conditionally-approved environmental review**.
- Implement a **90-day community comment period after each document publication.**
- Provide a **web or other mechanism for communities to submit comments** (similar to what industry can do on the IFP gateway).
- **Support proposed bills**: HR 5105 RESPECT Act, HR 5110 APPRISE Act, and HR 5111 NOTIFIED Act.

September 11, 2020

From

Robert Holbrook

To

Legislative Committee - SCSC Roundtable

Message

Input for the Leg Committee: Noise Metrics; Environmental Impacts

Please find attached my input for the Legislative Committee on noise metrics and the health and environmental impacts of aircraft noise and emissions.

My comment regarding the Center of Excellence for Public Health and Welfare applies to both topics, but the need for research on the effects to health and welfare is more acute.

Robert Holbrook

Attachment Name

20200911_R_Holbrook_CoE Public Health and Welfare 091120
20200911_R_Holbrook_Noise Metrics Input 091120
20200911_R_Holbrook_Standards of Significance and Mitigations for Aircraft Noise 091120

Robert Holbrook
September 11, 2020

Proposal for an FAA Center of Excellence for Public Health and Welfare

Congress might want to consider asking the FAA to establish a Center of Excellence dedicated exclusively to the FAA's statutory duty "To relieve and protect the public health and welfare from aircraft noise and sonic boom…" (49 USC 44715). This might be called the Center of Excellence for Public Health and Welfare.

Independent of this, Congress might want to consider asking the FAA to provide them with an annual report detailing where the FAA stands with regard to this duty. The FAA might be asked to include in the report an update on progress the FAA has made toward improving public health and welfare during the past year as well as identify initiatives in progress.

Congress mandated the establishment of FAA Air Transportation Centers of Excellence in the Omnibus Budget Reconciliation Act of 1990 and several Centers of Excellence ('CoE') now exist, some as fully self-funded entities. Unlike the other Centers of Excellence, a center of Excellence dedicated to the Public Health and Welfare would not necessarily serve the interests of industry and pilots and so the expectation that it is to become self-funding or require matching contributions should be waived.

Previously, A Center of Excellence of Aircraft Noise and Aviation Emissions Mitigation existed, but it was disbanded and replaced by the Center of Excellence for Alternative Jet Fuels and Environment. In light of the widespread concerns raised by the residential public in the wake of NextGen, it might be good to revisit this decision.

The FAA states, "The mission of the FAA's COE program is to help develop the nation's technology base while educating the next generation of aviation professionals…." If a CoE for Public Health and Welfare were to be established, this mission statement would need to be broadened to reflect the interests of residents as stakeholders in the nation's air transportation system.

Whether such an office is established as a CoE or elsewhere within the FAA, there would be value in having a central coordinating and administrative role within the FAA with regard to the following:

- Technical matters pertaining to Aircraft Noise and Emissions Mitigation
    - Initiating and coordinating research into the health effects of aircraft;
    - Initiating and coordinating research into the noise impacts of aircraft;
    - Definition of an expanded set of measures and mitigations that can be used to mitigate the negative effects of aircraft; and
    - Definition of thresholds of significance that can be used to enable or require these new mitigating measures to be taken and initiating and coordinating any research required to support these determinations.

- Full incorporation of residents affected by aircraft as stakeholders in the nation's air transportation system
    - Serving as a focal point for residential advocacy within the FAA - the office could be tasked with ensuring effective execution of the ombudsman role established by Congress;
    - More effective community engagement in the evolution of the nation's airspace.
    - Better definition of the process to involve communities impacted by aircraft noise and emissions in the rollout - before the fact, while change is still possible - of FAA procedures and standards; and
    - Preparation of any reports requested by Congress on progress toward Public Health and Welfare.
    - In the future, such an office might be asked to undertake a periodic survey of the various roundtables around the country for feedback and suggestions. This might be akin to a Customer Satisfaction Survey, which many corporations use to drive progress.

Requiring an annual report on the progress of the FAA toward relieving and protecting public health and welfare from aircraft noise and sonic boom would help ensure that the FAA understands the continuing interest of Congress in the FAA's execution of this duty – and this interest would be further driven home should a subcommittee or the Quiet Skies Caucus choose to follow up with the Administrator to discuss the report.

Robert Holbrook
September 11, 2020

A Few More Thoughts About Noise Metrics

DNL and Reverse Flow

The DNL standard suffers from a major problem. It is calculated as the annual average of 365 DNL values each of which is calculated over 24h. Consider the implications of this with regard to normal flow traffic and reverse flow of traffic. A location with no reverse flow could have twice as many airplanes overhead during normal flow conditions as a location with a 50/50 split of normal flow to reverse flow. More alarming, the DNL standard would permit an area where reverse flow occurs one in eight days to have seven times as many airplanes as the normal flow area during those hours. Alternately, it would permit each noise event to be ~8dB louder. This could be an issue with South Flow traffic into SJC, where residents can experience months of heavy south flow traffic – and where arrivals are expected to be louder than at present with new aircraft like the Boeing 737-8Max. The fundamental problem is that people are annoyed – annoyed enough to take action – in periods much shorter than a year, and these concerns should not be washed out by an overly broad metric.

Number of noise events

I don't believe that annoyance can be effectively characterized without understanding the number of noise events during the measurement period. It has been suggested that a simple enhancement to the DNL metric would be to report the number of events assumed per day (but see above), This would allow us to distinguish a DNL 63/n20 experience from a DNL 63/n350 experience.

It is Important to Tie out FAA Models with Real World Data

In 2001, the Wyle Acoustics Group indicated to the SFO Noise Abatement Office that meteorological effects are the major factor affecting sound propagation over long distances. Temperature inversions ad downwind propagation increase low-frequency noise levels. (Sharp, Gurovich, & Albee, Wyle Acoustics Group, for Noise Abatement Office, SFO, 2001)

It is important to model noise with real-world conditions, not an average or typical condition. The noise made flying into a 4 knot headwind and flying away from a 4 knot tailwind will not equal the noise made by two flights flying through still air.

To help verify FAA predictions, it would be helpful if the FAA were to provide a breakdown for its DNL assessments. Getting technical for a moment, if the FAA were to bin the projected noise events over a year into 4h buckets starting at 7am and then report the number of buckets in a year expected to exceed 65 DNL, 62 DNL, 59 DNL, etc., we would have a much better sense for the profile of noise the FAA expects – and whether that is likely to tie out with our expectations. Note that this would flag the normal/reverse flow effect I noted above.

Tone

Studies suggest that tone can be an important factor in annoyance. The shriek of the airbus whine affects us differently than the rumble of engines or the deployment of flaps and slats. In 1973, the EPA wrote "One difficulty in the use of the A-…weighted sound level is that psychoacoustic judgment data indicate that effects of tonal components are sometimes not adequately accounted for by a simple sound level." (p.4, Impact Characterization of Noise Including Implications of Identifying and Achieving Levels of Cumulative Noise Exposure ; EPA Aircraft/Airport Noise Study 27 July 1973, http://nepis.epa.gov/Exe/ZyPDF.cgi/9101DPQN.PDF?Dockey=9101DPQN.PDF)

"The psychologist John G. Neuhoff found that for the rising level our hearing is more sensitive than for the declining level. For the same sound level difference the change of loudness from quiet to loud is stronger than from loud to quiet." (John G. Neuhoff, "An adaptive bias in the perception of looming auditory motion", 2001,Ecological Psychology 13 (2) pp. 87 - 110 and John G. Neuhoff, "Perceptual Bias for Rising Tones", 1998, Nature, Volume 395, 10 September http://www.sengpielaudio.com/TableOfSoundPressureLevels.htm)

Noise Level

In 1973, the EPA wrote, "An outdoor Ldn of approximately 60 dB or less is required in order that no more than 23% of the population exposed to noise would be individually highly annoyed…. It therefore appears reasonable to propose an Ldn of 55 to 60 dB as the long range goal for maximum permissible average sound level with respect to health and welfare. (Note that this level is not considered optimum, merely the upper limit of permissibility. No endorsement is intended of degradation of existing areas having a lower noise level.)" (p.43, Impact Characterization of Noise Including Implications of Identifying and Achieving Levels of Cumulative Noise Exposure ; EPA Aircraft/Airport Noise Study 27 July 1973, http://nepis.epa.gov/Exe/ZyPDF.cgi/9101DPQN.PDF?Dockey=9101DPQN.PDF)

Low-frequency noise

Low-frequency sound travels further and better penetrates walls and windows than higher frequency sound. A Low Frequency Noise Study by the Partnership for AiR Transportation Noise & Emissions Reduction (FAA/NASA/Transport Canada, Hodgdon, Atchley, Bernhard, April 2007) cited work by researchers Tokita and Namura showing that the delta between being able to detect low frequency noise and being highly annoyed by it narrowed for low frequencies all the way down to 31.5 Hz. The Tokita & Nakamura annoyance thresholds were validated as predictors of annoyance due to low-frequency aircraft noise. They were found to relate favorably to the subjective annoyance assessments. Linear regression analysis showed that the C-weighted sound exposure level LCE was the best single-metric predictor of subjective annoyance response, explaining over 90% of the variability of the data set. LCE correlated better with the subjective data than metrics specifically designed to quantify low-frequency noise impact.

In 2001, the Wyle Acoustics Group indicated to the SFO Noise Abatement Office that C-weighting is preferred over A-weighting to describe backblast noise. (Sharp, Gurovich, & Albee, Wyle Acoustics Group, for Noise Abatement Office, SFO, 2001)

A-Weighting discounts the sound energy measured at 125Hz by 15.9 dB relative to A- weighting. At 64 Hz, the discount is 25.4dB.

Robert Holbrook
September 11, 2020

Standards of Significance and Mitigations for Aircraft Noise

The following contains my thoughts stated in the form of Roundtable findings and resolutions that have not yet been considered or adopted.

Mindful of the FAA's duty "To relieve and protect the public health and welfare from aircraft noise and sonic boom…" 49 USC 44715, the Roundtable finds that the increase in airplane noise since the introduction of NextGen has negatively impacted the public welfare of residents in our jurisdiction and that these negative impacts are not limited to the area immediately surrounding the airports, but extend across the metroplex.

The Roundtable observes that the DNL 65 standard, as applied, does nothing for people residing more than a few miles from an airport. The Roundtable calls upon the FAA to take measures to mitigate the significant negative impacts of airplane noise on the public welfare of residents throughout our jurisdiction and residents outside our jurisdiction who have been negatively affected by airports within our jurisdiction.

The Roundtable believes that the current DNL 65 standard of 'significance' cannot by itself fulfill the FAA's duty "to protect the public health and welfare" to the satisfaction of the Roundtable. The Roundtable therefore believes that the FAA is likely to require new metrics and standards of significance. Noting that a threshold of significance can have no more effect than the measures to be taken when that significance threshold is reached, and that the existing measures and mitigations have proven to be inadequate under NextGen, the Roundtable believes that a broader basket of measures and mitigations is required.

The Roundtable suggests that this broader basket could include the use of less-preferred operational practices with regard to efficiency and that this is not inconsistent with the FAA's charter.

- This might include routing airplanes over longer paths to avoid populated areas.
- This might include increasing the staffing of ATC controllers when unused tower capacity is available, to allow for more communication between ATC and pilots.
- This might include encouraging airplanes to fly slower, but quieter.
- This might include invoking procedures that optimize efficiency at the expense of noise only when the operational conditions actually demand that efficiency – and using less impactful procedures when operational conditions permit, for example, during off-peak periods.

The Roundtable suggests that Congress might want to consider asking the FAA to define significance standards pertaining to the safety of operational procedures. This would allow for the possibility of an acceptable compromise to safety, which might no longer exist under current law per section 329 of the FAA Reauthorization Act of 2018. Whereas aircraft manufacturers are permitted to (and, in fact, must) make cost-benefit tradeoffs to safety when making engineering design decisions, residents are now

expected to endure any cost when safety is raised as an issue, no matter how insignificant the tradeoff or how abstract the argument. More rigorous analysis is required.

The Roundtable further suggests that, based on the above, this broader basket could also include less-preferred operational practices with regard to safety that are nevertheless acceptably safe.

- This might include increasing the amount of communication between ATC and pilots to the level that was considered safe in the decades pre-NextGen when circumstances permit. Among other things, this might enable pilots and ATC to reintroduce dispersion into routes that NextGen concentrated into rails.

The Roundtable suggests that the FAA consider defining significance criteria associated with this broader basket of measures and mitigations. The significance criteria might apply to specific measures and mitigations (as the DNL 65 criteria does to soundproofing homes) or to baskets of mitigations. Importantly, the significance criteria would convey the authority and, where appropriate, the obligation to use them.

The following illustrates a possible application of the above suggestion:

> Significance Level 1 – The negative effects to public health and welfare require the FAA to consider and, if possible, use less preferred procedures and operations at a modest cost to efficiency or a less than 'significant' compromise to safety. *This might apply to the changes made to PIRAT.*
>
> Significance Level 2 – The negative effects to public health and welfare require the FAA to consider, and if possible, use less preferred procedures and operations at a significant cost (to be defined) to efficiency and to consider all procedures that provide 'acceptable' levels of safety. *This might apply to the changes made to South Flow to SJC.*
>
> Significance Level 3 - The negative effects to public health and welfare require the FAA to remediate or mitigate the effects even at substantial cost (to be defined). *This might apply to BSR/SERFR.*
>
> Significance level 4 – At this level, the negative effects to public health and welfare are so severe as to not allow operations under normal circumstances.

Note that each of these levels of significance could be accompanied by multiple independent tests.

September 11, 2020

From

Jen (Sunnyvale)

To

Legislative Committee - SCSC Roundtable

Message

Information for the Legislative committee regarding FAA Noise policy

Hi Steve, Evan, and Glenn:

Enclosed is a document for the legislative committee regarding FAA noise policy.

My apologies that the document is not polished - I did not realize the deadline was 5PM today, so I did not have a chance to finish.

Thanks,

Jennifer Tasseff

Attachment Name

20200911_J_Tasseff_Noise_metrics_FAA_V1

SUMMARY:

This document is a position paper from the SCSC Roundtable regarding proposed changes to the current FAA noise metrics in order to protect residents and noise sensitive resources. Please note, this is a working paper that will evolve & include more specific detail with time, as our understanding of noise, and proposals/legislation deem necessary.

BACKGROUND:

- Millions of aircraft noise complaints and public discord have resulted from the FAA's implement of Nextgen, and use of an antiquated FAA 65DNL metric for measuring residential noise impact.
- The current FAA metric of 65DNL has almost no value in determining whether an increase in airplane noise will cause significant annoyance to a community.
- The DNL 65 contours have no value outside the close proximity of an airport- Leaving areas outside the contour to be vulnerable to excessive noise increases
- The current metric being used is ineffective, and new effective FAA metrics need to be determined and implemented.

RECOMMENDED REMEDIATIONS (GENERAL):

- <u>NEW FAA NOISE METRICS:</u>
    - Establish new reasonable and realistic noise metrics for accurately assessing the impact of flight procedure changes to residents.
        - Consideration to be given for human annoyance, sleep, health, learning, public spaces, natural quiet, and normal ambient noise levels in communities and neighborhoods
    - Cumulative and single event-noise metrics to be developed
    - Modify existing procedure approval processes to use these new metrics when approving any and all flight procedure modifications.
    - FAA to collect pre and post noise measurement changes for all new flight procedures.
        - This includes actual pre-change conditions, post-change conditions, and a post-implementation review process to confirm the "after" noise condition is the same or better noise level than the pre-change noise level.
        - If post implementation shows a higher noise level than prior pre-change conditions, then the FAA would be required to modify the flight procedure in a way that meets or exceeds the new standard.
        - If post noise measurements exceed the new standards and remediation cannot be completed within 30 days, then the flight path must be reverted back to its prior conditions within 30 days of implementation.
        - Any anticipated increases in flight path usage over time, and corresponding expected noise levels must meet the newly designated FAA noise metrics.

        - This “before” and “after” noise information should be made readily available to the public.

- FUTURE ANTICIPATED FLIGHT PATH USAGE:
    - For newly created or concentrated flight paths, any new FAA noise metrics must also consider future anticipated increases in the flight path usage.
    - For example, FAA may have future expansion plans for usage of a new flight path, with initial flight usage low. In cases like this, FAA noise metrics, modeling, and post implementation analysis must consider future anticipated increases in flight path usage (i.e. over 10 years, 20 years), especially when creating a completely new or concentrated flight path.

- CREATE NOISE METRIC GRADIENTS FOR AREAS BEYOND AIRPORT VICINITY
    - Establish new graduated metrics for residential and noise sensitive areas outside an airport’s contour
        - For illustrative purposes only:
            - i.e. 5 miles from an airport runway, the DNL cannot exceed 55; 10 miles from an airport runway the DNL cannot exceed 53, etc.
        - Regarding number of flights overhead (for illustrative purposes only)

          (Please note- in the illustrations below, I refer to flights “directly in-line with a runway”. On approach to an airport, typically commercial airlines “line up” pointing straight at the runway approx. 10 miles out from an airport. Since the following examples propose to limit the number of flights per hour, areas in-line with the runway were excluded from this proposal, because flights must be in-line with the runway in order to land.)

            - i.e. For any areas 5 miles from airport and not directly in-line with the airport runway, for any 4-hour period, flights not to exceed 10 flights per hour directly overhead or within ¼ mile of location
            - 10 miles from airport and not directly in-line with the airport runway, for any 4 hour period, flights not to exceed 5 flights per hour directly overhead or within ¼ mile of location
            - 20 miles from airport (regardless of airport runway configuration), not to exceed 4 flights per hour, etc.

- WITHIN METROPLEXES NOISE OVER EFFICIENCY

  Metroplexes throughout the U.S. are heavily populated areas. Studies have shown that airplane noise can have serious health implications for residents under flight paths. Thousands of residents within a metroplex can and are impacted detrimentally by airplane noise and particulate matter.

- Because of the serious health impacts to residents and their children, noise considerations should take precedence over efficiency when developing new flight paths within the areas of a metroplex.

BACKGROUND:

- It is clear that one of the FAA's main objectives is to get "more planes in the air". This is an EFFICIENCY goal, not a safety goal. However, the FAA continually masks this goal ("more planes in the air") as a safety issue.
- In truth, getting "more planes in the air" is clearly an efficiency and economic goal only.
- In attempting to force more planes into the air, the FAA concentrates flights into rails, which creates serious health implications for residents under these flight paths.
- The FAA is currently trading the safety and health of residents under these flight paths, for efficiency standards.
- Per the FAA, safety should take precedence over efficiency. Yet, in this case, the FAA is backwards - The FAA is placing resident safety and health concerns at a level below efficiency (more planes in the air).
- This FAA mind set of efficiency at the expense of the safety/health of residents needs to be altered. The safety and health of residents under the flight paths should not be ignored.

- <u>FAA MODELING OF NEW FLIGHT PATHS</u>
  - Current models fall short of representing the true annoyance level to the community
  - Develop new FAA noise models that represent the true situation on the ground for residents
    - In modeling for noise impact, the future anticipated increases in flight path usage (i.e. 10 years, 20 years) should also be considered in new flight path development.

- <u>65 DNL NOT TO BE EXCEEDED OVER RESIDENTIAL AREAS</u>

  RECOMMENDATION:

  - When developing new flight paths, this 65 DNL should never be exceeded over residential areas.
  - If 65 DNL will be exceeded over residential, then flight path alterations will be required to meet 65 DNL as the maximum level.

  BACKGROUND:

  - Currently at and around airports, the 65 DNL can be exceeded
  - When the 65DNL is reached or exceeded, the only current remediation is economic.

- A city planning department decides that residential use of that space is prohibited in the future, OR
- There is monetary compensation for residents to purchase new windows

September 14, 2020

From

Jennifer Landesmann

To

Legislative Committee - SCSC Roundtable

Message

Legislative Committee - Public Health

Hi Kathy,

Thank you and to the SCSC Legislative Committee for the efforts to prioritize issues to raise for potential legislative initiatives and the focus on Health.

Am following up with the info on the Congressional survey that was done in 2015 that I mentioned in my public comment at your 8/17 meeting.

Here is the survey: https://iqconnect.lmhostediq.com/iqextranet/view_newsletter.aspx?id=168244&c=CA18AE

This three congressional district survey went to San Mateo, Santa Clara and Santa Cruz. The questions very much touched on health concerns. It would be great if the SCSC could help get these survey results to be made available for the public record. At the very least there needs to be some memorialization of this extensive outreach that eventually led to FAA senior management to come to the Bay Area that year.

For sure, there's quite a few bills out there about health studies but we need NEW incentives already for airports to address night time noise. ANCA reform is overdue (ANCA was premised on quieter aircraft but **a limit has been reached on how much quieter aircraft can get** thus *an update is needed to this law*).

Could the SCSC also pursue STATE initiatives?

At this point, it's very suspect that more "studies" would be needed to demonstrate the need for *proactive health risk management regarding night time noise*. SCSC communities have a notorious disruptor KE 214 making a hellish racket every night supposedly for that flight to rush to comply with **airport curfews in other countries**. **Why is the US so behind on this?** It was an absolute disgrace that at the last SFO Roundtable meeting Norcal TRACON appeared to be redefining nighttime as something like between 1 and 4 AM. FAA has been doing a good job of delaying policy changes about nighttime with a ***never ending FAA sleep study*** which literally puts me to sleep after years of hearing about it, with NOTHING ever coming out of it.

Could the state require an annual report from each airport on how they manage night time noise and address community concerns? Something like report cards on each airport are sorely needed.

Lastly, I leave you with an article about how US policy makers approach data and decision making

Why Does the U.S. Tolerate So Much Risk? NY Times Editorial Board. "The United States has a higher threshold than other developed nations for allowing corporations to risk the health and safety of consumers."

Time for change?

Thank you,

Jennifer

September 14, 2020

From

Robert Holbrook

To

Legislative Committee - SCSC Roundtable

Message

FAA web page on Centers of Excellence

A comment I submitted to the Legislative Committee on Friday suggested the creation of an FAA Center of Excellence for Public Health and Welfare. The Legislative Committee might be interested to know that more information on the FAA Center of Excellence program can be found here:

https://www.faa.gov/about/office_org/headquarters_offices/ang/grants/coe/

Among other things, this page states that the "The Center of Excellence for Aircraft Noise and Emissions Mitigation was re-competed and replaced by the Center of Excellence for Alternative Jet Fuels and Environment."

September 21, 2020

From

Robert Holbrook

To

SCSC Roundtable

Message

How Loud Will Supersonic Aircraft Really Be?

In addition to being of interest to the Roundtable, this information regarding the FAA's proposed supersonic standards might be helpful for the upcoming Quiet Skies Caucus meeting.

Attachment Name

20200921_R_Holbrook_How Loud Will Supersonic Aircraft Really Be 092120

Robert Holbrook
September 21, 2020

How Loud Will Supersonic Aircraft Really Be?

The FAA's comparison of the proposed noise for supersonic aircraft to the noise of the subsonic fleet may have misled people into thinking the noise will be more acceptable than is likely. **The FAA should update their comparison of supersonic aircraft noise to subsonic aircraft noise by using estimates of the *actual noise expected from subsonic aircraft.*** A GAO report published last month makes clear that this is critically important.

The recent NPRM for landing and takeoff noise standards for supersonic aircraft weighing up to 150,000 lbs compared the proposed noise of those aircraft to the subsonic fleet[1]. The NPRM estimated that the two-engine standard they proposed would permit those aircraft to be louder than the noise permitted to 57% of aircraft in the subsonic fleet in 2034 and the three-engine standard would permit those aircraft to be louder than the noise permitted to 74% of subsonic aircraft.

Unfortunately, those estimates can be misleadingly low for two reasons. First, and this is not new, the estimates compared only supersonic aircraft up to 150,000 lbs[2] with the entire fleet of subsonic aircraft, which includes loud aircraft weighing four times as much. This is a bit like comparing the noise made by Cessna aircraft to the noise made by the entire fleet. Even so, the noise of these smaller supersonic airplanes in that apples-to-oranges comparison is striking. The FAA should compare the noise of supersonic and subsonic aircraft of comparable weight.

More important, the FAA compared the noise standards they're proposing for supersonic aircraft to the noise *permitted to* aircraft in the subsonic fleet, not the noise the subsonic aircraft *actually make*, which we now know to be much less. A report last month by the GAO evaluating a potential phase-out of Stage 3 aircraft[3] showed that while aircraft certificated for Stage 3 comprised 63% of the large commercial airplane fleet in December 2017, *96% of large commercial jets were able to meet Stage 4 or Stage 5 standards*[4] [5], which are much quieter than the noise permitted to Stage 3 aircraft. If the FAA had used estimates of the actual noise of subsonic aircraft rather than the much louder noise permitted by their Stage certifications, we might have seen that the proposed supersonic regulations would allow supersonic aircraft to be louder than the vast majority of aircraft in the subsonic fleet – and more so when considering only aircraft of the same weight class.

In making rules for supersonic aircraft, the FAA should provide their stakeholders and themselves with a more balanced comparison of the noise expected from supersonic aircraft relative to the subsonic fleet.

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[1] Supersonic NPRM: 85 FR 20431, April 13, 2020. Comparison of supersonic with the subsonic fleet, 85 FR 20439.
[2] FAA standards for heavier supersonic aircraft have yet to be published
[3] GAO-20-661, A report to congressional committees, "Information on a Potential Mandated Transition to Quieter Airplanes", August, 2020, https://www.gao.gov/assets/710/708913.pdf
[4] January 2020 GAO estimate from above report. Large commercial aircraft were defined as 75,000 lbs and up.
[5] The report also showed that 50% of the generally smaller regional fleet is certificated at Stage 3, but that 72% of those Stage 3 jets are able to meet Stage 4 or Stage 5 standards.

September 22, 2020

From

SCSC Roundtable

To

Roundtable Members and Alternates; House Committee on Transportation & Infrastructure; Quiet Skies Caucus Co-Chair Norton and Co-Chair Suozzi; Congressman Panetta's Office; Congressman Khanna's Office; Congresswoman Eshoo's Office; and FAA Representatives

Message

SCSC Roundtable - Letter Regarding Upcoming Quiet Skies Caucus Meeting - 9/24/2020

At the direction of the Santa Clara/Santa Cruz Counties Airport/Community Roundtable (SCSC Roundtable), we are attaching a letter that provides the Roundtable's input to Congressional Representatives regarding the upcoming Quiet Skies Caucus meeting with FAA Administrator Dickson on Thursday September 24, 2020.

For our reference, please confirm receipt of the letter, and direct any questions you may have to scscroundtable@gmail.com. Thank you.

Regards,

SCSC Roundtable Staff

www.scscroundtable.org

Attachment Name

20200922_SCSC Leg Comm Letter re Quiet Skies Caucus Sept 22 2020September 22, 2020

From

Marry Lynne Bernald / SCSC Roundtable

To

Roundtable Members and Alternates; House Committee on Transportation & Infrastructure; Quiet Skies Caucus Co-Chair Norton and Co-Chair Suozzi; Congressman Panetta's Office; Congressman Khanna's Office; Congresswoman Eshoo's Office; and FAA Representatives

Message

SCSC Roundtable - Letter Regarding Upcoming Quiet Skies Caucus Meeting - 9/24/2020

Dear All,

This email is to confirm that on July 22 the SCSC Roundtable met as a (virtual) body and voted to support the letter signed by the Legislative Subcommittee Chair, Lisa Maichak, and sent to you today. This approval occurred only after animated discussion regarding the topic of dispersion. At our next full Roundtable meeting, scheduled for October 28th, ESA will provide a presentation on the feasibility of dispersion in the Bay Area Metroplex airspace. Until that time, the Roundtable is interested in having the Quiet Skies Caucus and FAA Dickson be aware of the Roundtable's desire to alleviate noise impacts through all measures, including dispersion, where feasible.

Thank you for your attention to this matter.

Sincerely,

Mary-Lynne Bernald
Chair
Santa Clara/Santa Cruz Counties/Airport Community Roundtable

SANTA CLARA/SANTA CRUZ COUNTIES
AIRPORT/COMMUNITY ROUNDTABLE
PO Box 3144
Los Altos, CA 94024

September 22, 2020

Mr. Steve Dickson
Administrator
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

The Honorable Anna Eshoo
698 Emerson Street
Palo Alto, California 94301

The Honorable Ro Khanna
3150 De La Cruz Blvd
Suite 240
Santa Clara, CA 95054

The Honorable Jimmy Panetta
100 W. Alisal Street
Salinas, CA 93901

Re: Upcoming Quiet Skies Caucus Meeting with FAA Administrator Dickson

Dear FAA, the House Committee on Transportation & Infrastructure, the Quiet Skies Caucus, Congresswoman Eshoo, Congressman Khanna, and Congressman Panetta,

The Santa Clara/Santa Cruz Counties Airport/Community Roundtable (Roundtable) is pleased to hear that the Quiet Skies Caucus is meeting with the FAA Administrator Dickson on Thursday, September 24, 2020. We hope it is a productive meeting. To that end, we have three topics that we request you convey to Administrator Dickson during the meeting.

First, the Roundtable would like to see the FAA use different noise metrics to measure noise from air traffic that residents experience. The FAA was required to evaluate alternative noise metrics in Section 188 of the FAA Reauthorization Act of 2018, and concluded that their current metric (DNL) is the appropriate one to use for assessing aircraft noise impacts. The Roundtable has concerns about this conclusion, as DNL is a 24-hour measurement that artificially diminishes the noise impact that each

individual flight has on our shared constituents. The Roundtable has plans to propose policies to drive new noise metrics. In the meantime, we would appreciate the Quiet Skies Caucus raising our concerns about the FAA's use of the DNL metric to assess noise impacts at the meeting with the FAA Administrator.

Second, the Roundtable would like the FAA to hold newly manufactured supersonic airplanes to the same noise certification requirements as subsonic airplanes. We recently submitted comments to the FAA stating our position in response to the Notice of Proposed Rulemaking 20-06. A copy of our comments are attached. We would appreciate the Quiet Skies Caucus supporting this position and bringing it up during the meeting with Administrator Dickson.

Third, our shared constituents continue to have serious concerns about the negative impacts of the implementation of NextGen in the Northern California Metroplex. Until COVID-19 affected the aviation industry, the noise from flights that were shifted and concentrated over residents was unbearable, and there has been little movement by the FAA on the recommendations of the Select Committee and the Ad-Hoc Committee. We have heard that at least one airport (Boston Logan) is working with MIT to develop methods to disperse concentrated NextGen flight tracks. Since flight paths were dispersed prior to the implementation of NextGen, we support adding dispersion back into flight paths to eliminate the concentration of noise over the same set of residents. We would appreciate the Quiet Skies Caucus getting to the root of the FAA's resistance to dispersion and support adding dispersion of flights back into the National Airspace System, and in particular, the Northern California Metroplex.

We appreciate the Quite Skies Caucus meeting with the FAA Administrator. If we can provide additional information on our requests or if you would like to talk about these topics, do not hesitate to reach out to me.

Sincerely,

Lisa Matichak
Chair, Legislative Committee of the Santa Clara/Santa Cruz Airport/Community Roundtable

cc: FAA Western-Pacific Regional Administrator, Raquel Girvin

Attachment: May 29, 2020 letter from the Santa Clara/Santa Cruz Airport/Community Roundtable to the FAA re Notice of Proposed Rulemaking 20-06, Docket Number FAA-2020-0316, Noise Certification of Supersonic Airplanes, 14 CFR Parts 21 and 36

Federal Aviation Administration

Memorandum

Date: February 21, 2018

To: Executive Director, Office of Environment and Energy, AEE-1

From: Assistant Chief Counsel for Regulations, AGC-200

Prepared by: Karen Petronis, Senior Attorney for Regulations, AGC-210

Subject: Applicability of part 36 to new supersonic aircraft

My staff was recently asked whether 14 CFR part 36, Noise Standards: Aircraft Type and Airworthiness Certification, would apply to an application for type certification of a new supersonic aircraft. Our interpretation is that it does not apply. A different means of noise certification of a supersonic aircraft would be required.

The applicability of part 36, as listed in §36.1(a)(1) is limited to "*subsonic* transport category large airplanes, and for *subsonic* jet airplanes regardless of type" (emphasis added). Section 36.1(a)(3) adds "Concorde airplanes." No supersonic airplane other than the Concorde is included in the applicability for the part.

Regulatory history related to noise from supersonics

Historically, the FAA has never had the data to support promulgation of actual noise levels for supersonic aircraft, and thus never took an opportunity to broaden the applicability section to supersonic aircraft other than the Concorde.

In the 1970s, the FAA chose to call out the Concorde specifically for regulation as that airplane was beginning worldwide operations. The Concorde is specifically addressed in part 36 subpart D (including the Noise Control Act standard of §36.301(b)) concerning the lowest noise levels that were practicable and appropriate for the Concorde type design. The FAA would have to promulgate a change to part 36 applicability and new regulations on noise levels in Subpart D to account for any other supersonic aircraft design.

As early as 1986, the FAA expressed its interest in amending its regulations to account for the development of supersonic aircraft other than the Concorde. In an Advance Notice of Proposed Rulemaking (ANPRM), the FAA published notice of its intent to amend parts 36 and 91 to account for noise type certification and civil operation of supersonic aircraft (other than the Concorde, which was already covered).[1] The disposition of comments to that ANPRM[2] notes that commenters stated that there could be no focus on noise reduction technology until an aircraft manufacturer selects a propulsion system and the characteristics are known. Similarly, commenters said that the method of noise type certification could not be determined without knowledge of the aircraft design.

As noted in our subsequent proposed rule (NPRM) in 1990, commenters to the ANPRM also stated that Stage 3 (the certification standard then) should be a minimum requirement, and that anything less would be regressive. The 1990 NPRM proposed to remove the subsonic designation from §36.1, and to require future supersonic aircraft to meet (the then-current) Stage 3 noise levels. It also proposed an amendment to part 91 to require that any supersonic aircraft operating to or from a U.S. airport comply with Stage 3 noise levels, so as to preclude the operation of any future Stage 2 supersonic aircraft produced outside the United States. This proposal for mandatory operation at Stage 3 predated the Airport Noise and Capacity Act (1990), which required Stage 3 as an operational minimum for subsonic aircraft as of January 1, 2000.

In 1994, the FAA withdrew the 1990 NPRM.[3] The withdrawal document stated only that further investigation and research was necessary before developing a final rule. On the same day the proposal was withdrawn, however, the FAA published a policy statement indicating that despite withdrawing the proposed rule, "the FAA has not changed its policy on noise issues involving the development of future-generation civil supersonic airplanes." The published policy included a statement that any future supersonic aircraft would be expected to "produce no greater noise impact on a community than a subsonic airplane certified to Stage 3 noise limits." (59 FR 39679, August 4, 1994). The FAA reiterated this expectation in a similar 2008 policy statement when the subsonic noise certification standard was Stage 4: "The latest noise limit in Part 36 is Stage 4, which applies to the development of future supersonic airplanes operating at subsonic speeds" (73 FR 62871, October 22, 2008). The same historic lack of data to establish full supersonic noise standards continues today.

New supersonic type certification today

If a person applies for a type certificate for a supersonic aircraft today, we are of the opinion that part 36 does not apply based on the language of §36.1. However, that lack

[1] ANPRM: 51 FR 39663 (October 30, 1986)
[2] Comment disposition in the NPRM preamble, 55 FR 22020 (May 30, 1990)
[3] Withdrawal: 59 FR 39711 (August 4, 1994)

of regulation in part 36 does not mean that the applicant is free of noise requirements at certification.

The FAA has a statutory mandate to "protect the public health and welfare from aircraft noise and sonic boom" in 49 USC 44715. That language came from 49 USC App 1431 (the former codification of the Federal Aviation Act) and the Noise Control Act of 1972.

§44715(a) states that the Administrator "shall prescribe" –

> i) standards to measure aircraft noise and sonic boom, and
> ii) regulations to control and abate aircraft noise and sonic boom.

This duty continues to apply even in the absence of current regulations that would cover a particular type of aircraft. Accordingly, if a manufacturer applies for a type certificate for a supersonic aircraft before the FAA adopts noise standards for the aircraft type, that application would trigger the need for the FAA to do rulemaking to describe the noise standards that would apply to the aircraft. This is reinforced by the statute in §44715(a)(3) that states:

> (3) An original type certificate may be issued under section 44704(a) of this title for an aircraft for which substantial noise abatement can be achieved only after the Administrator of the [FAA] prescribes standards and regulations under this section that apply to that aircraft.

Section 44715 also specifies that when prescribing such standards and regulations, the FAA "shall consider relevant information related to aircraft noise and sonic boom" (§44715(b)(1)), consult with other government authorities (§44715(b)(2)), and consider safety (§44715(b)(3)). Section 44715(b)(4) states that the Administrator must "consider whether the standard or regulation is economically reasonable, technologically practicable, and appropriate for the applicable aircraft." This latter language comes from the Noise Control Act[4] (1970), under which the FAA must make a determination at the time of each new type certification. The FAA had specifically incorporated the core of the Noise Control Act language in §36.301(b) that applied to the Concorde, requiring that:

> …the noise levels of the airplane are reduced to the lowest levels that are economically reasonable, technologically practicable, and appropriate for the Concorde type design.

The FAA has a statutory duty to conduct rulemaking for any requirement that the Administrator finds appropriate for carrying out the purpose of §44715, and we would be

[4] Most of the recodification of FAA authority in 1991 broke up pieces of older authorizing legislation, including the Noise Control Act standards, into new sections.

required to publish any proposed standards for public comment, even if the standards eventually apply only to one aircraft. The Administrative Procedure Act states that a --

> "rule" means the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy.... 5 USC 551 (4).

A new type certification application for a supersonic aircraft might well require adoption of standards that end up applying solely to that applicant for that aircraft (though it could form the basis for general rules that apply to future applicants). Legally, it would function as a rule of particular applicability rather than a rule of general applicability.

In forming an initial matrix of what noise requirements would apply to a supersonic aircraft design, we may first want to determine what current regulations may be appropriate rather than start from scratch. For example, the noise measurement standards of part 36 Appendix B were found to be appropriate for the Concorde, and could serve as the starting point for noise certification of a supersonic aircraft unless demonstrated by an applicant that the standards are not appropriate. Further, our policy history states that a new supersonic aircraft, when operating subsonically, would be expected to comply with the noise limits for subsonic aircraft unless the applicant can show that subsonic operation of its aircraft will differ so significantly from operation of subsonic aircraft of similar size and weight that different standards should apply. It would be up to the applicant both to suggest such a requirement and justify why it is appropriate for the FAA to consider. The special condition process defined in 14 CFR §§21.16, 11.19, and 11.38, including the development of issue papers to define the appropriate standards, may serve as a useful model for adopting other specific parts of a new set of noise standards. All of these processes are data driven.

The question of how a supersonic aircraft might be tested or its noise limits determined when operating at supersonic speed are still to be solved as a matter of certification. The operating rules of part 91 applicable to supersonic aircraft are discussed below. Operating rules neither drive nor limit certification standards under our regulatory scheme, since by definition operating rules apply to aircraft that were previously certificated and already in service.

Current supersonic operating rules

While this memo was intended to address the state of our certification rules, we are briefly addressing the operating rules in part 91 subpart I that have been the subject of recent questions.

The operating rule in §91.817(a) prohibits supersonic flight over land in the United States; it has no effect on the development of appropriate noise requirements under part 36. In fact, development of such requirements would be necessary before §91.817

could be changed to allow such flights if the FAA is to comply with its statutory duty to protect the public health and welfare.[5] Similarly, §91.817(b) places limits on operations that might cause a sonic boom created outside U.S. airspace to reach the U.S. coastline. In order to determine how far out the supersonic signature (sonic boom) of an aircraft can be detected, there must be some kind of testing of the aircraft under those conditions to know what flight limitations would be appropriate; the FAA did this with the Concorde on approach to the east coast in the 1970s as its basis for this regulation. Other noise parameters that can only be created at supersonic speed may well be suggested and described by other entities of the U.S. government such as NASA, with whom the FAA has a significant historical working relationship regarding aircraft noise, and with whom the FAA is required to consult under §44715(b)(2).

Section 91.819 states that it applies to "supersonic airplanes that have not been shown to comply with the stage 2 noise limits of part 36 in effect" in 1977.

Read with historical context, this section placed limits on aircraft that met only Stage 1 noise limits.[6] Since a reference to part 36 noise levels is made, there has been question whether part 36 actually applies to supersonic aircraft (other than the Concorde). We do not infer that an operating rule can, by historical reference, act to change the stated applicability of part 36. Further, any reference to the Stage 2 noise levels of part 36 suggests that the application is only to the subsonic operation of supersonic aircraft since no other noise levels exist in part 36.

Finally, concern has been raised about the effect of §91.821, an operating rule, which states that no one may operate a civil supersonic airplane unless it complies with the Stage 2 noise levels of part 36. Similar to the applicability of §91.819, the presence of this regulation raises the question whether new supersonic aircraft would have to be any quieter than Stage 2 to operate (the current *operational* minimum for subsonic airplanes is Stage 3).

The regulation was promulgated in 1978 (as an operating rule applicable to then-certificated, operational aircraft) and it remains in effect until the FAA changes it. When the regulation was adopted, the FAA stated in the final rule preamble that it was intended to apply to then-current supersonic airplane designs, and not to define requirements for future designs -

> The rules do not establish certification noise limits for future design SST's, since the technological feasibility of such standards is at present unknown. The FAA's

---

[5] The development of supersonic aircraft was foreseen and a method of authorizing developmental flights was adopted as Appendix B to part 91 at the same time the operational limits were put in place. The procedure remains available to all operators flying supersonic aircraft for development.

[6] The FAA amended part 36 to include the Stage 3 noise limit in 1977 for new subsonic type certification. When the term "does not meet" is used, it means an aircraft does not meet the minimum, not that an airplane that "does not meet Stage 2" might actually refer to Stage 3. All aircraft that meet stage 3 are presumed to meet Stage 2 since the levels are progressively quieter.

> goal is not to certificate, or permit to operate in the United States, any future design SST that does not meet standards then applicable to subsonic airplanes....
>
> Accordingly, consistent with technological developments, the noise limits in this rule are expected to be made more stringent before a future design SST is either type certificated or permitted to operate in the U.S.
>
> 43 FR 28406 (June 29, 1978)

As an operating rule, §91.821 addressed the airplanes existing at the time of its adoption that would be operated in the United States, and was aimed at distinguishing the first Concordes produced from those produced later, and from other supersonic aircraft that were in development. Noise operating rules historically and necessarily lag significantly behind the certification standards because they apply to aircraft certificated to earlier standards. Although the FAA took the next step toward more stringent supersonic airplane operating requirements in 1990 when it proposed to increase the Stage 2 limit to Stage 3, that proposed rule was withdrawn.

For reference, we also note our legal interpretation provided to your office on February 29, 2016, that addresses §91.817 in greater detail.

September 23, 2020

From

Steve Alverson / SCSC Roundtable

To

Tamara Swann

Message

SCSC Roundtable - Letter Regarding Upcoming Quiet Skies Caucus Meeting - 9/24/2020

Tamara,

Thank you for acknowledging receipt of the letter.

Since it is addressed to Administrator Dickson and Regional Administrator Girvin serves as the liaison to the SCSC Roundtable, we thought it would be a good idea to give Regional Administrator Girvin a heads up that the letter had been sent. We received very short notice of Administrator Dickson's meeting with the Quiet Skies Caucus, so we thought it best to write Administrator Dickson directly and copy Regional Administrator Girvin.

Please don't hesitate contact Roundtable Chairperson Bernald, Legislative Committee Chair Matichak, or me should you have any questions regarding the letter.

Regards,

Steve

September 24, 2020

From

Marie-Jo Fremont

To

SCSC Roundtable

Message

Dispersion Training - thank you and input

At the July 22nd SCSC RT meeting, the Chair suggested a training session on dispersion. We thank the Chair for this suggestion as it will help the Roundtable identify potential next steps to pursue.

Here is our input on content for consideration in a future presentation. We believe the Roundtable members and its constituents would benefit the most from both policy and technical content. We also encourage that potential next steps be discussed as part of the agenda topic.

We hope you will find our comments helpful for this important dispersion training.

Best regards,

Marie-Jo and Darlene

ATTACHMENT: BOS MIT Block 2 Assessment - FAA - Combined.pdf

Input to SCSC RT training session on dispersion

- **Focus on arrivals dispersion** (not departures dispersion) given that this is the main concern for the SCSC RT.
  - Provide context by showing the 5 SFO arrivals routes with typical usage (pre-Covid-19).
  - Note that BDEGA-east and BDEGA-west is a dispersion of the BDEGA arrivals, though there is no longer an equal split between the 2 legs.

- **Define dispersion and clarify common misunderstandings**. For instance,
  - Dispersion could mean that below a certain TBD Above Ground Level altitude, multiple arrival paths (instead of one) are used, and that the center lines of the ground tracks overflying residential communities are at least 3 miles apart.
  - A common misunderstanding is that vectoring is dispersion:
    - Vectoring is sometimes dispersed but not always (PIRAT ends at ARGGG; flights after ARGGG are vectored to SIDBY in a narrow, concentrated path, and are not dispersed).
    - Dispersion does not require vectoring although vectoring paths that are widely separated would result in dispersion.
- **Describe how dispersion could be achieved**. For instance,
  - Use simple diagrams to show what dispersion could look like and apply the concepts to the Peninsula:
    - See MIT mechanisms in Appendix A as examples.
    - See Herringbone analysis.
  - Discuss feasibility of dispersion through current practices or future technologies.
    - Current practices may include:
      - Airport reconfiguration: new arrival paths are used due to weather conditions, thus resulting in dispersion.
        - SFO (rarely) and SJC (often) go into reverse flows due to weather changes. Reverse flow means that different procedures are used to land; reverse flow results in dispersion because different routes are used. BOS has 5 runway configurations that are used frequently due to their highly variable weather conditions. Rotating through multiple procedures on a frequent basis is therefore possible and results in dispersion.

        - The same concept of rotating through multiple procedures could be applied locally to provide dispersion (not in response to variable weather conditions). Alternating between procedures is a much simpler change than using a new airport configuration because aircraft would continue to land on the same runway.
    - Alternate runways: pre-COVID-19, Heathrow alternated runways every week and within each day (what they did in the evening in one week is what they use in the morning the next week; every day, they use one runway for landings and one for take-offs, then they switch in the middle of the day).
  - Future practices include using multiple SFO innovative GBAS approaches.
- **Describe safety, technical feasibility, and operational constraints**. For instance,
  - Safety examples could include items such as:
    - Minimum lateral and vertical separations from other aircraft (SFO DYAMD arrivals, SFO BDEGA-east arrivals, SJC BRIXX arrivals, SJC South Flow arrivals)
    - Minimum separations between procedures
    - Minimum altitudes
    - Airspace boundaries (SJC and OAK)
  - Technical feasibility examples could include items such as:
    - Intercept angle with SFO ILS landing system
    - Intercept locations with SFO ILS landing system
    - Design restrictions on PBN procedures (including altitude and speed requirements for stable final approach, turn angles, glide slope angles)
  - Operational examples could include items such as:
    - Flight Management System (FMS):
      - Procedure updates to FMS.
      - Selection process of alternate procedures.
      - Software incompatibility.
    - Sequencing of aircraft for final approach
- **Comment on how the FAA concerns in dispersing traffic could be addressed**. For instance,
  - FAA concerns could include for example: predictability, pilot workload, ATC workload, frequency of Pilot-ATC communications, length of flight path, impacts on other procedures, shifting noise, congestion, sequencing of aircraft.
  - Examples on how concerns could be addressed:
    - Predictability: Rotate among procedures or vectoring patterns per agreed upon schedule.
    - Workload and communication: Create procedures that extend to final approach.
    - Length of flight path: Agree to efficiency loss (i.e., increasing flight path by 10 miles is acceptable)
    - Impacts on other procedures: Design procedures that minimize the impacts on other procedures.
    - Shifting noise: Maximize flying over water, uninhabited areas, light industrial areas, and freeways to reduce the noise impact on residential populations. Build community consensus on equitable sharing of noise.
    - Congestion: Develop additional procedures that can be used when traffic volume is low (during night-time hours or when hour-long usage gaps exist --DYAMD is rarely busy between 1 AM and 9 AM).
    - Sequencing of aircraft: Sequence aircraft without concentrating three SFO arrival routes over a residential neighborhood (i.e., SIDBY).
  - Comment specifically on the FAA reasons for rejecting the MIT dispersion proposal for BOS (see attachment) given that it was a multi-year undertaking that communities had been hoping to leverage to find similar dispersion solutions for their areas. Note: the MIT work was mentioned in the recent Legislative committee letter to the QSC members for the June 24th FAA Administrator Dickson meeting.
- **Summarize key observations and recommend possible next steps for the Roundtable.** For instance,
  - An important next step could be for the SCSC RT to develop a position on dispersion. The Select Committee had 2 sections related to dispersion (2.15 and 2.16) although there was no formal recommendation (see Appendix B). The FAA' s objections to dispersion were: shifting of noise, congested airspace, and lack of metering tools to sequence aircraft.
    - Shifting of noise: true indeed because planes would be distributed across more routes, with some of the routes possibly going over the Bay and light industrial areas. Understanding the noise increase, decrease, or shifting for specific instances would be a necessary and important step.
    - Congested airspace: this reason does not seem applicable for night traffic when there is no congestion (note also that traffic volumes are currently much lower due to COVID-19). Understanding when specific congestion issues exist would be helpful to determine if solutions could be developed for times that are not congested.

- Lack of metering tools: it could be helpful to understand this further.
    - Today, ATC sequences airplanes for 5 SFO arrival routes (DYAMD, SERFR, BDEGA-west, BDEGA-east, PIRAT). Could ATC then sequence airplanes with new sets of 5 arrival routes (not all routes would need to change --BDEGA-east is great noise abatement) by using one set of arrival routes at a time and rotating periodically across the sets?
    - Has the FAA described why metering algorithms have not been developed or could not be developed?
    - Has the FAA explained either why sequencing requires concentrating 3 SFO arrival routes (SERFR, BDEGA-west, and PIRAT) near SIDBY?
        - Why must these 3 routes converge near a single point before connecting to the ILS (instead of having each route connect to a different location on the ILS)?
        - If a single convergence point before the ILS is absolutely necessary, could such convergence point be over the Bay (converging over the Bay would separate routes overflying residential communities)?

- Other examples of specific next steps for **illustrative purposes only** could include:
    - Request nighttime SFO arrival procedures that overfly residential communities at TBD ft Above Ground Level minimum.
    - Request the FAA to describe the specific constraints in dispersing SFO arrival routes and whether some constraints could be relaxed and how.
    - Ask FAA questions about feasibility and potential impact of:
        - Lining up SFO arrivals over the Bay as opposed to doing it near SIDBY.
        - Having arrival routes intersect the SFO ILS landing system at different points.

APPENDIX A

In section 8 of a 2019 MIT report, Aircraft noise modeling of dispersed flight tracks and metrics for assessing impacts, the authors identified five dispersion mechanisms:

- Arrivals Dispersion (page 97): the authors illustrated the concept in figure C2 but did not go further because, according to them, it would lead to shifting noise from one community to another.

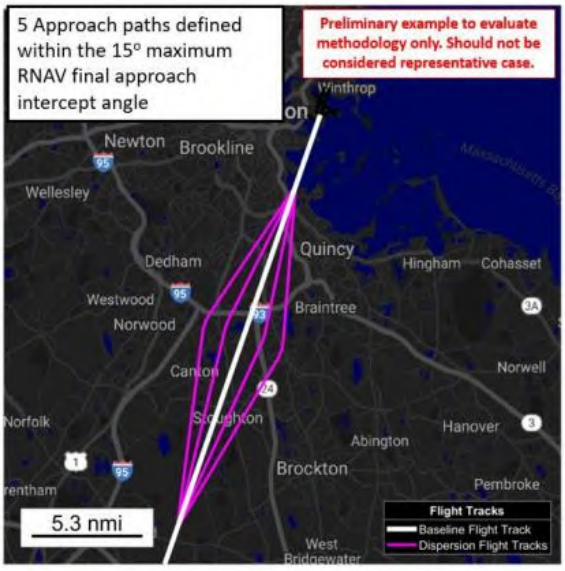


Figure C2. BOS 4L/R Arrival Dispersion Flight Tracks

- Altitude-Based Dispersion for departures: aircraft reach a certain altitude at different points due to different climbing profiles

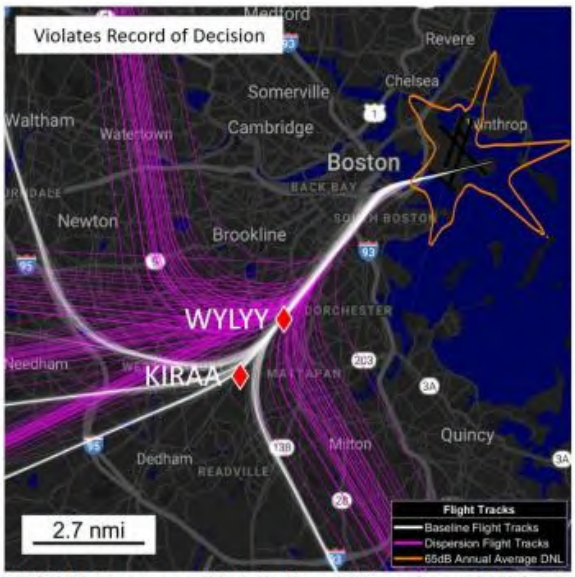


Figure D3. BOS 27 Departures Altitude-Based Dispersion at 3000ft Flight Tracks

- Controller-Based Dispersion

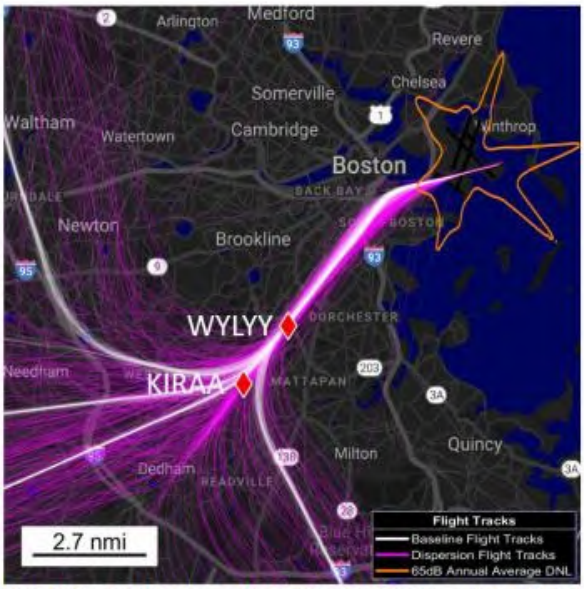


Figure D6. BOS 27 Departures Controller-Based Dispersion Flight Tracks

- Divergent Heading Dispersion

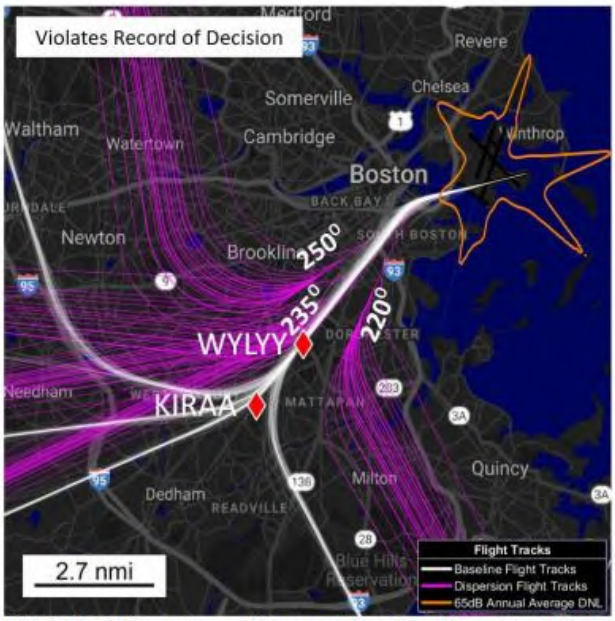


Figure D9. BOS 27 Departures Divergent Heading Dispersion Flight Tracks

- RNAV Turning Waypoint Relocation

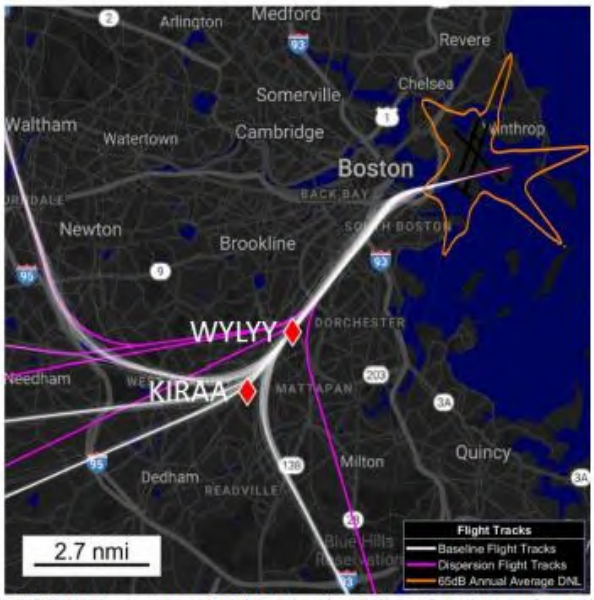


Figure D11. BOS 27 Departures RNAV Turning Waypoint Relocation Flight Tracks

APPENDIX B

Source: Select Committee Final Report November 2016

2.15 Fan-in Overseas Arrivals (OCEANIC) into SFO

The OCEANIC arrival procedure into SFO comes in from the west from overseas locations, such as Asia, and Hawaii, with aircraft converging into a single path at the PIRAT waypoint which is off the coast. Once on a single path, the aircraft cross the San Francisco Peninsula at the Woodside VOR, a navigational beacon located in the Woodside area, and proceed to the final approach into SFO (See Appendix C, Page C4: Map of BDEGA, OCEANIC, SERFR, and DYAMD).

It has been suggested that the arriving OCEANIC aircraft could instead be "fanned-in" into the area of the Woodside VOR, using that point and other new waypoints to achieve dispersion of the arriving aircraft. The FAA has advised the Committee that it lacks the technology, i.e., metering tools, to implement this proposed solution. The presence of Special Use Airspace (SUA) along the coastline at this location (which restricts civilian aircraft from using that airspace), further constrains the FAA. The FAA has advised the Committee that while this solution might be feasible, there are a very low number of OCEANIC flights (roughly 31 flights per day in June 2016) per day. In addition, the FAA has advised the Committee that this solution also potentially moves noise to other communities. For these reasons, the Select Committee has not endorsed this solution.

Adopted by the Select Committee.
(Vote: __12__ Aye, __0__ Nay, __0__ Absent or Abstain)

2.16 Herringbone Approach to SFO Arrivals

It has been suggested that noise exposure along a specific corridor/flight path could be reduced if flights joined the path at various points, thus creating a "herringbone" or "trident" effect.

The "herringbone" or "trident" is a multiple approach concept for dispersion of arrivals to reduce the number of overflights along a single path. Using this concept, Air Traffic Control would be instructed to distribute arriving aircraft to multiple transition locations along the arrival path, hence the "herringbone" or "trident" patterns.

It has also been suggested that the herringbone approach could be applied to the SERFR arrival procedure, which approaches SFO from the south over the Santa Cruz Mountains. The FAA, however, has advised the Committee that it currently lacks the technology, i.e., metering tools, to implement this proposed solution. The congested San Francisco Bay Area airspace, with three major commercial airports in close proximity to each other, also potentially limits the applicability of this solution. Finally, the FAA has advised the Committee that a herringbone approach would likely result in an increase in vectoring. For these reasons, the Select Committee has not endorsed this solution. The FAA may, however, wish to examine whether this proposed solution, or a variation thereof, could be effectively implemented once the needed technological tools have been developed.

Adopted by the Select Committee.
(Vote: __11__ Aye, __1__ Nay, __0__ Absent or Abstain)

Attachment Name

20200924_M_Fremont_BOS MIT Block 2 Assessment - FAA - Combined

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Regional Administrator
New England Region

1200 District Avenue
Burlington, MA 01803-5299

August 14, 2020

Mr. Matthew A. Romero, Executive Director
Massport Community Advisory Committee
One Broadway, 14th Floor
Cambridge, MA 02142

Dear Mr. Romero:

You requested on May 15 that the Federal Aviation Administration (FAA) provide an early feasibility assessment to a series of Block 2 Area Navigation (RNAV) design concepts for Runways 33 Left and 22 Right/Left at Boston Logan International Airport. We appreciate this opportunity.

We assembled a panel of stakeholders consisting of representatives from the airline industry, the FAA Air Traffic Organization (Mission Support Services, Air Traffic Services, System Operations and the National Air Traffic Controllers Association), the FAA Office of Environment and Energy, and FAA Flight Standards. Enclosed is a consolidated assessment of the proposed concepts by the participating FAA and industry stakeholders.

I would welcome a meeting with you to discuss this assessment further. In the meantime, if you or your staff have any questions, please feel free to call me or Lorna Christian, Senior Advisor, at (781) 238-7020.

Sincerely,

COLLEEN M D'ALESSANDRO

Digitally signed by COLLEEN M D'ALESSANDRO
Date: 2020.08.14 12:24:51 -04'00'

Colleen M. D'Alessandro
Regional Administrator

CC: Flavio Leo (Massport), Dr. John Hansman (MIT), Reginald E. Davis (FAA)

Enclosure

MIT BLOCK 2

Response to MIT Block 2 RWY 33L, 22L/R Preliminary Proposals
August 13, 2020

The Operations Support Group assembled a panel of stakeholders consisting of representatives from the Airline Industry, the Air Traffic Organization (Mission Support Services, Air Traffic Services, System Operations and the National Air Traffic Controllers Association), the Office of Environment and Energy, and Flight Standards to evaluate the preliminary Boston MIT Block 2 proposals related to RWY 33L/22L/R. Note: All procedure design and air traffic operational changes will follow the NEPA process.

The following represents the consolidated FAA/Industry stakeholder assessment of eight proposals. The impacts and merits of each proposal were carefully considered and evaluated based on local and national operational experiences, expertise, knowledge, and perspectives.

Each reviewer was challenged to compare and contrast operations at KBOS with those of other major airports where the proposed concepts are implemented and utilized. The airports discussed were KDFW, KCLT, and KORD. Review facilitators encouraged reviewers to consider how other airports operate using similar concepts to ensure stakeholders based objections and concerns on the uniqueness of KBOS's runway configuration, its airspace constraints, and its reliance on easterly departures.

The review also identified and emphasized the significant interdependencies of the current instrument flight procedure designs and infrastructure at KBOS. The current airspace and flight procedure design is optimized to ensure maximum safety and efficiency within the national airspace system. Boston airspace has vertical and lateral constraints that make it challenging to adjust operations without significant systemic impacts.

Additionally, reviewers noted three common areas of concern throughout the feedback provided by FAA Air Traffic Control, NATCA, Office of Environment and Energy, and Flight Standards.

- **Flight Track and Altitude Predictability -** This concern stems from the potential of creating an operational environment in which variations in aircraft performance characteristics and human judgment can lead to variations in ground track and climb rates. Unpredictability in departure operations requires controllers to increase spacing and increase controller to pilot transmissions. Both of these lead to measurable increases in controller and pilot workload.

- **Frequency of Pilot and Controller Transmission -** A known correlation exists between high pilot and controller transmission rates and operational errors, including losses in separation, as there is a greater chance for human error to be introduced. Controllers must verbally transmit information that must be accurately heard and processed by the pilot. The pilot must speak the instructions back to the controller for validation. Any error must be detected, and the instruction reissued. A controller will have many pilots on a single frequency that may be trying to speak simultaneously, leading to frequency congestion, further increasing the probability of errors. Utilizing PBN procedures drastically reduces the need for pilot and controller transmissions resulting in enhanced safety.

- **Presence of Acceptable Levels of Safety (for criteria deviations)** - Often referred to as an equivalent level of safety, this term applies to FAA instrument flight procedures or FAA actions that deviate from FAA rules or regulations. A nonstandard IFP is not substandard; however, it must be approved by special studies that demonstrate no derogation of safety is involved with the action. The review members are among the same subject matter experts who supply acceptable levels of safety for such deviation to standards.

Finally, the review panel also noted that it is not practical to consider RWY 33L proposals for low traffic periods because the current noise abatement practice is to use RWY 15R for nighttime departures.

The FAA has invested significant time and resources to explore various solutions for the aircraft noise over the Boston area, beginning with BONS (Boston Overflight Noise Study)/BLANS (Boston Logan Airport Noise Study) in the early 2000s. Throughout this period, the Boston area has benefited from the advances in NextGen safety and efficiency, and the FAA remains committed to its primary mission of aviation safety and efficiency in the National Airspace System.

Proposal 1: Altitude Based Dispersion RWY 33L

MIT design proposal:

To utilize an Altitude-based dispersion by using natural variability in aircraft climb gradients. Upon reaching a specific altitude, aircraft would proceed directly to the transition waypoint.

FAA/Industry response:

This departure design is called Vector to Altitude/Direct-to-Fix (VA/DF) departure. In this design, departing aircraft climb on a designated heading until reaching a specified altitude, at which point the aircraft turns direct to an assigned fix. Boston-Logan Intl aircraft types and performance characteristics vary widely, which is at the center of the panel's concern should Boston rely on this type of procedure. For example, a typical heavy aircraft climbs at a slower rate than a higher-performing aircraft. When a higher-performing aircraft departs in trail of a heavier, less maneuverable aircraft, there is the potential that the trailing aircraft to reach the prescribed turn altitude earlier (than the leading heavy) despite departing later. In doing so, the potential for the loss of separation between the two aircraft is greatly enhanced. This scenario is common in VA/DF situations where a turn at the VA point is anticipated. This scenario results in compression, unpredictability, leaves little margin for deviation, and introduces safety concerns.

In contrast, the current departure procedure is very predictable and reliable, which enhances safety and is preferred by ATC.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- Reduces predictability, increases potential safety concerns.
- Significant departure ground track turn variations are discouraged at Boston, which this proposal will introduce, thereby risking separation violations.
- Confined airspace restricts the ability to take advantage of VA/DF design legs, so little benefit realized.

Proposal 2: Controller-based Dispersion (Logan Two) RWY 33L and RWY 22L/R

MIT design proposal:

Controller-based dispersion arising from radar vectoring.

FAA/Industry response:

The Logan Two Departure is a conventional procedure known as a 'Vector SID.' Departing aircraft receive instructions to fly the appropriate heading, followed by "expect RADAR vectors to route/NAVAID/fix…"

The panel acknowledges this type of instruction affords air traffic control (ATC) some latitude to vary ground tracks to assist with dispersion. However, the panel highlighted additional burdens this proposal places on ATC to ensure separation and manage a corresponding increase in the frequency of radio transmissions. Additionally, Boston-Logan's runway configuration, varied aircraft performance characteristics, and nearby airspace boundaries caused the panel additional concerns that ATC would need to improvise routing, which leaves very little room for error should something unexpected occur (e.g., a controller gives a late instruction).

Finally, the Logan Two SID is heavily used for non-turbojet aircraft and jet departures, not requesting climb above 10,000 MSL. Increasing usage by jets climbing above 10,000 MSL introduces new safety concerns of sector/ATC overload and frequency congestion during a critical phase of flight.

For all the above reasons, users of Boston-Logan airspace favor PBN-based departure procedures over conventional.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- Increases pilot to controller transmissions.
- Introduces new safety concerns through frequency congestion in critical phases of flight.
- Elevates the concern of read back and hear back errors.
- The existing PBN procedure alternatives provide more efficiency and throughput. RNAV procedures are preferred over conventional throughout the NAS.
- Decreases track predictability requiring increased controller vigilance.
- Removes procedural separation introducing the possibility of human error and frequency-congestion induced errors.

Proposal 3: Divergent Heading Dispersion – Charted by Enroute Fix RWY 33L

MIT design proposal:

Divergent heading dispersion utilizing 15° divergent headings either off the runway or after flying an initial runway heading. The aircraft would then fly a direct routing to the transition waypoint.

FAA/Industry response:

This concept requires relocating the RNAV waypoint TEKKK. Placing TEKKK where it currently resides was very difficult to achieve due to an airspace boundary 1.5 NM to the east. Alternatives to the current location were carefully evaluated, and the panel is confident the fix cannot be relocated.

The easterly movement of TEKKK would conflict with JFUND RNAV STAR arrivals, and the westerly movement of TEKKK shortens the leg length between TEKKK and COUSY. COUSY has an altitude restriction to allow positive separation from RWY 27 departure traffic, and reducing TEKKK to COUSY presents fly-ability issues.

MIT indicates options of using VI/CF and VA/DF legs; however, the panel discovered issues with passing FAA design criteria preventing certification and publication (Issues have been identified with VA/DF departure legs in another section).

To the question of whether a waiver could be pursued for any criteria failures, industry indicates there is no equivalent level of safety to justify such a proposal.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- The proximity of conflicting airspace.
- Failure of the procedure construction due to leg length and altitude criteria.
- The proposal creates design criteria failures.

Proposal 4: RNAV Waypoint Relocation RWY 33L

MIT design proposal:

Repositioning the waypoint TEKKK so that the RNAV tracks branch off could allow for population exposure reduction.

FAA/Industry response:

As previously discussed in proposal 3, relocating TEKKK is not practical. Additionally, the anticipated benefit to this proposal is based upon unrestricted climb to 14,000, which Boston-Logan controllers agree is not a normal or standard possibility.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- Relocating TEKKK is not practical.
- The unrestricted climb would not be possible due to conflicting airspace/traffic flows.
- Refer to reasons listed in Proposal 3.

Proposal 5: Variable Rotation Departures (VRD) RWY 33L

MIT design proposal:

Variable Rotation Departure (VRD) is a community proposed departure procedure. Controllers would rotate between waypoints during operations on departing aircraft.

FAA/Industry response:

As noted in the MIT proposal, this concept has many hurdles: "RNAV Procedure Naming Convention is Major Operational Barrier to VRD" FAA Order 8260.46G 3-1-2(d) states: "DPs designed using conventional, RNAV, or required navigation performance (RNP) guidance must be named to correspond with the enroute fix/NAVAID name where the DP ends." Industry indicated significant concerns regarding FMS memory issues as chart naming convention requires 48 separate procedures accompanied by the establishment of 42 new exit waypoints. The panel is concerned about the complexity of this proposal, the requirement to create 48 individually named departure procedures, and Air traffic Control's requirement to develop excessively complicated Letters of Agreement and Standard Operating Procedures to accommodate the new exit waypoints. Additionally, panel concerns arose over uncertainty whether or not the FAA ATC software is capable and equipped to handle variable waypoints within charted SIDs/Transitions. Absent Pilot Direct to Controller (PDC) automation, clearances must be relayed verbally for flight plans containing the incorrect SID. The potential pilot and controller workload increase is of great concern to the review panel.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- Industry indicated significant concerns regarding FMS memory issues.
- Support of this concept requires numerous changes to the ATC Letters of Agreements and Standard Operating Procedures.
- FAA indicated concerns with ATC software with its ability to handle variable waypoints within charted SIDs/Transitions.
- Increases pilot, dispatcher, and controller workloads, which introduces potential safety concerns into the Boston airspace system.
- Refer to reasons listed in Proposal 3 and Proposal 4.

Proposal 6: VI-CF Rev 2 RWY 22L/R (for when RWY 27 in use) and VI-CF Rev 2 (for when RWY27 not in use)

MIT design proposal:

Revision of current RNAV VI-CF procedure to move tracks farther north, away from the Hull peninsula. MIT is requesting a waiver to separation standards.

FAA/Industry response:

As noted in the MIT proposal, this concept, if used when RWY 27 is in use for arrivals, requires a waiver for the 45-degree separation rule (7110.65Y 6-3-1). It also requires guidance for VI-CF turn > 90 degrees (no existing guidance in 8260.58A). Under this proposal, the initial turn would be 111/113 degrees, and industry panel members indicate that their FMS systems will not fly the procedure. MIT also includes this proposal for use when RWY 27 is not in use.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- ATC does not support having a departure procedure available only when RWY 27 is not in use due to the human factors and subsequent safety concerns that could arise.
- Does not comply with RNAV design criteria.
  - Turn is greater than 90 degrees.
- Would require a waiver to air traffic control separation standards.
  - Waivers are not available for separation standards, particularly with no acceptable level of safety.
- MIT claims aircraft are separated by altitude.
  - Aircraft must also be procedurally separated.
- FAA/Industry does not support the necessary waivers absent acceptable levels of safety for procedural separation.
- Industry concerns over their FMS incompatibility with the proposal.

Proposal 7: Vector SID (RNAV with initial vectors) RWY 22L/R

MIT design proposal:

MIT is requesting new RNAV SID for 22L/R that relies on initial vectors off the runway. Rejoins the current RNAV tracks at waypoint BRRRO.

FAA/Industry response:

Issuing a heading off 22L/R is an issue. If the tower gives heading on takeoff clearance, some airplanes will be turning just over the runway. Others will be turning up to 2 NM south of the field. ATC will lose predictability on where the aircraft turns.

Assessment: Not a Candidate for Further Evaluation, however, an alternative has been proposed

Reason(s):

- Radio transmissions may be delayed causing late turns.
- Loss of predictability.
- Climb rate varies by aircraft type.
- Airspace constraints may limit turn angles.

Proposal 8: Thrust cutback RWY 22L/R

MIT design proposal:

Aircraft continue to fly the current RNAV path off 22L/R, but execute a thrust cutback when flying by the Hull peninsula to reduce engine noise.

FAA/Industry response:

This concept has many hurdles. Industry states that a clearance is to climb to assigned altitude, and a level off is not an assigned altitude. Leveling off aircraft, in the vicinity of the HULL intersection, could cause conflictions with adjacent airspace and traffic flows. In addition, this process could create issues while crossing back over the minimum shoreline altitude. ATC advises this is not possible due to compression and airspace separation.

Assessment: Not a Candidate for Further Evaluation

Reason(s):

- Voluntary reduction in thrust during level off, in the vicinity of HULL, would not be possible due to increased compression issues with trailing aircraft, creating a potential loss of separation.
- Voluntary compliance is not an option.
- ATC issues unrestricted climb to 14,000. Due to conflicts with other procedures and airspace boundaries, ATC does not want to level aircraft. By leveling off aircraft, ATC runs the risk for potential safety concerns with adjacent airspace and/or potential loss of separation with inbound traffic.
- May create issues with crossing back over the shoreline at or above the expected charted altitude.
- Aircraft climb rate during summer and peak loads could impact climb criteria during this phase of flight.

September 24, 2020

From

Marie-Jo Fremont

To

SCSC Roundtable

Message

Request -- Ask the FAA to follow the Select Committee recommendation on the BSR Overlay ground track

Dear Congresswoman Eshoo and Congressman Panetta,

In my February 4, 2020 email to you, I had asked for your assistance in getting the FAA to state whether replacing SERFR with an OPD procedure along the entire BSR ground track prior to EPICK, as recommended by the Select Committee, was feasible or not.

To date, I have not received an answer to my request, from either of your offices or the FAA attendees at the Santa Clara Santa Cruz (SCSC) Roundtable meeting of February 26, 2020 or subsequent meetings.

However, I learned recently that **the FAA concluded on May 8, 2018 that relocating the SERFR STAR to the BSR arrival track is "not feasible"** (see supporting FOIA documentation below). In other words, **according to the FAA, Select Committee recommendation 1.2 R1 is "not feasible".**

To the best of my knowledge, this significant May 8, 2018 conclusion, reached through a Full Working Group (FWG) meeting almost 2.5 years ago, was never made public. It was not mentioned at any SFO Roundtable or SCSC Roundtable meetings that occurred after May 2018, or in the FAA Further Update on PHASE TWO (July 2019), which refers to the FWG meeting of June 4-5, 2019 but does not refer to the FWG meeting May 8, 2018 meeting.

In light of this recent discovery, I have three questions:

- **Why was the May 8, 2018 conclusion on the infeasibility of the BSR Overlay not disclosed to the public given its significance**?
  - On page 3 of their FAA Further Update on phase 2 (April 2018), the FAA stated that "*the FAA is currently engaged in the design stage work of this Optimized Profile Descent (OPD) overlay and anticipates the Full Work Group will meet on May 8, 2018. We anticipate a more detailed timeline to accompany the next quarterly Update. That update will occur no later than 90 business days after the publication of this April 2018 update.*"
  - The FAA did not provide any public update 90 days after the April 2018 update. As a result, I, like many other residents, assumed that the May 8, 2018 meeting did not occur and had been postponed to June 2019. It is quite disconcerting to discover 2+ years later that an FWG meeting occurred in 2018 in which a significant conclusion was reached but that none of the information was made public. Such lack of transparency is appalling.

- **Did the FAA share their May 8, 2018 FAA conclusion on the infeasibility of the BSR Overlay with you/your office**?
  - If so, please describe what was shared with whom and when as well as what responses, if any, your offices provided to the FAA.

- **Why is the FAA allowed to develop an alternative to a recommendation deemed infeasible without any input from the SCSC Roundtable,** who is the successor committee to the Select Committee**, given that the partial BSR Overlay alternative was not recommended by any community Roundtable?**
  - The FAA did not pursue other recommendations from the Select Committee (or the SFO Roundtable) that the FAA deemed infeasible. Why is the BSR Overlay recommendation treated differently? Why the lack of consistency?
  - We already have one example with PIRAT where the FAA unilaterally implemented a new procedure that was NOT recommended by the Select Committee and resulted in shifting noise to communities. We don't need another PIRAT.

- The permanent entity that succeeded the Select Committee is the SCSC Roundtable, who has been operating since February 2019.
  - In their unanimous recommendation 1.2 R4, the Select Committee defined the mechanism (e.g., the SCSC Roundtable) to work with the community after the Select Committee was disbanded: **"...** *the FAA, in consultation with the permanent entity and the community, search for and develop a new flight procedure for arrivals into SFO from the south that: (a) meets each of the criteria in Recommendation 2 above; (b) takes maximum advantage of areas of non-residential use, such as unpopulated mountainous areas, industrial areas, parkland, cemeteries, etc; and (c) reduces noise exposure to the maximum extent possible. The Committee further recommends that this procedure be implemented as soon as feasible; however, the Committee recognizes that it will take considerably longer to implement than the procedure referenced in Recommendations 1 and 2 above."*
- Per recommendation 1.2 R4, the FAA needs to work with the SCSC Roundtable in developing an alternative solution, and the SCSC Roundtable needs to provide feedback.

I look forward to getting answers from your offices.

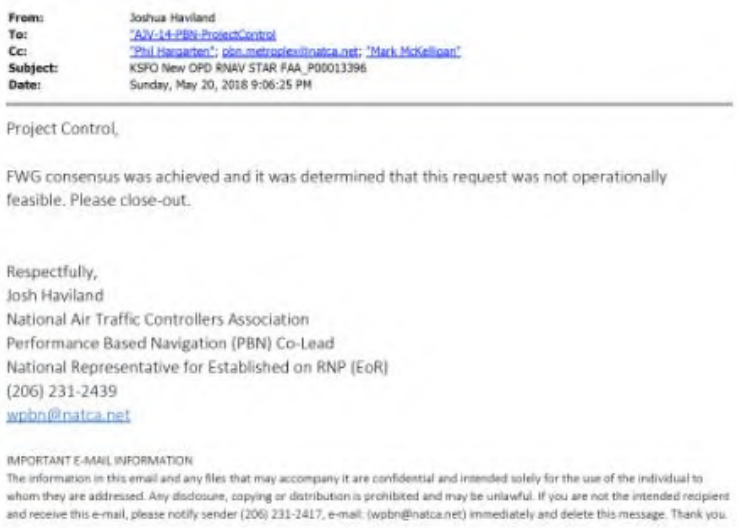
With concern,

Marie-Jo Fremont

Attachment: BSR Overlay - 20180508 KSFO Meeting Minutes Final Signed(1)_Redacted

Supporting documentation on the FAA conclusion that relocating the SERFR STAR to the BSR arrival track is not feasible

- The FAA held a Full Working Group (FWG) meeting on May 8, 2018. See attachment called *BSR Overlay - 20180508 KSFO Meeting Minutes Final Signed(1)_Redacted* and signed on May 10, 2018. The consensus opinion as documented in the meeting was "Do not proceed with the redesign/relocation of the SERFR STAR to the BSR arrival track" (see page 13 of the meeting minutes that are attached).
- As shown below, the May 20, 2018 email from Joshua Haviland (who was among the FAA participants at the 20180508 FWG meeting) states that "FWG consensus was achieved and it was determined that this request was not operationally feasible. Please close out."



From: Joshua Haviland
To: "AJV-14-PBN-ProjectControl
Cc: "Phil Hargarten"; pbn.metroplex@natca.net; "Mark McKelligan"
Subject: KSFO New OPD RNAV STAR FAA_P00013396
Date: Sunday, May 20, 2018 9:06:25 PM

Project Control,

FWG consensus was achieved and it was determined that this request was not operationally feasible. Please close-out.

Respectfully,
Josh Haviland
National Air Traffic Controllers Association
Performance Based Navigation (PBN) Co-Lead
National Representative for Established on RNP (EoR)
(206) 231-2439
wpbn@natca.net

IMPORTANT E-MAIL INFORMATION
The information in this email and any files that may accompany it are confidential and intended solely for the use of the individual to whom they are addressed. Any disclosure, copying or distribution is prohibited and may be unlawful. If you are not the intended recipient and receive this e-mail, please notify sender (206) 231-2417, e-mail: (wpbn@natca.net) immediately and delete this message. Thank you.

Attachment Name
20200924_M_Fremont_BSR Overlay - 20180508 KSFO Meeting Minutes

MEETING MINUTES

Performance Based Navigation (PBN)
Full Work Group (FWG) Design Meeting
KSFO Big Sur RNAV STAR
May 8, 2018

Prepared By: Derrick Aubuchon, NAVTAC WSC-OSG

Location: Northern California TRACON (NCT)

PTT #: FAA_P00013396

PURPOSE OF MEETING: Develop a new procedure to transition SERFR traffic to the Big Sur (BSR) STAR track.

ATTENDEES:

Name	Organization
Derek Wolfe	PBN Co-Lead OSG
Josh Haviland	PBN Co-Lead NATCA
Jeanette Roller	NAVTAC
Derrick Aubuchon	NAVTAC
Joe Brooke	FAA - OSG
Faviola Garcia	FAA - WP RA
Justin Gillmor	FAA - AWO
George Gonzales	FAA - AJV-14
Rohn Grant	FAA - OSG
Stephanie Harris	FAA - FPT
Kyle Thompson	FAA - FPT
Chris Harris	FAA - AWO
Jeff Koger	FAA - ZOA
Katherin Matolcsy	FAA - WSA
Thann McLeod	FAA - NCT
Deborah Price	FAA - ZOA
Adam Domitrovich	FAA - NCT
Stephanie Malody	FAA - NCT
Dan Stender	FAA - NCT
Matthew Miller	FAA - NCT
Mathew Greene	FAA - NCT
Lisa Dussell	FAA - ZOA
Raphell Taylor	FAA - ZOA
Brian Townsend	American Airlines
Ron Renk	United Airlines
Glenn Morse	United Airlines

PROJECT KICKOFF AND GENERAL DISCUSSION:

1. Josh Haviland (JH) and Derek Wolfe (DW) opening comments and introductions
   a. JH & DW presented an overview on the following topics:
      a. Five phases of the 7100.41 PBN process
      b. Community Involvement (CI)
      c. JH explained RNAV STAR design basics, specific to descent gradient criteria
         (a) Stabilized arrival and approach concept
         (b) Application of speed restrictions
         (c) Class B airspace containment
         (d) Deceleration considerations
         (e) Design criteria
      d. JH provided a brief overview of the project, encouraging the FWG participants to be deliberate and objective during the design discussion, and to be mindful of the Select Committee recommendations.

2. JH presented the proposed Mission Statement:

   "Per the Select Committee recommendations: Develop a new procedure to transition SERFR traffic to the Big Sur (BSR) STAR track."

   a. Question from ZOA as to why the need for the STAR
      a. Answer from JH: noise abatement interests
         (a) NCT: the Select Committee recommendations were a direct result of community action
   b. George Gonzalez (GG): understanding was that the idea of work group meeting was to convert conventional BSR into RNAV STAR procedure
      a. JH: the purpose of the meeting is to design an RNAV STAR that overlies the conventional BSR track
      b. (b) (5) [redacted]
   d. The FWG engaged in additional discussions regarding the mission statement wording and came to an agreement that the Mission Statement as proposed
   e. **FWG consensus achieved on the Mission Statement**

3. JH presented the NorCal Select Committee recommendations and corresponding PBN Co-Lead comments for design considerations:
   a. Recommendation 1: *Results in noise modeling of the proposed new procedure that has an equivalent or less DNL noise exposure along its entire route when compared to the noise modeling of the BSR 2014 procedure;*
      (1) PBN Co-Lead comments: *The new STAR design will be based on an OPD model, which inherently reduces descent level-offs. Continuous descent should also naturally reduce DNL noise exposure.*
      (2) ZOA expressed concerns regarding conflictions between arrival & departures and wanted to know where the actual area of concern was located, stating that this information would be important to know prior to proceeding with a re-design.

(3) Stephanie Harris (SH) explained that community interests were collected separately by the Select Committee for a FWG to discuss and address. Communities are clear that they are requesting a BSR overlay.

b. Recommendation 2: *Uses flight altitudes at least as high as (and preferably higher) than the historic BSR procedure along its entire route;*

(a) PBN Co-Lead comments: *OPD model inherently requires higher starting altitudes when compared to conventional STARs. Procedure design will be governed by FAA Flight Standards criteria.*

c. Recommendation 3: *Starts from a point over the Monterey Bay and reaches the shoreline at an altitude no lower than 12,500 feet mean sea level;*

(a) PBN Co-Lead comments: *FAA Flight Standards criteria require that the segment from ANJEE to SKUNK must not exceed 330 ft/nm. Preliminary data of the notional design projects crossing Santa Cruz Beach (shoreline) at approximately 13,000.*

d. Recommendation 4: Utilizes a new BSR waypoint equivalent to the EDDYY waypoint at or above 6,000 feet to ensure flights cross the MENLO waypoint at or above 5,000 feet and maintain idle power until the HEMAN waypoint;

(a) PBN Co-Lead comments: *FAA Flight Standards criteria require that the segment from MENLO to HEMAN must not exceed 318 ft. /nm. Crossing MENLO at 5,000 would require a descent gradient of 441 ft. /nm (deceleration excluded).*

e. Recommendation 5: *Prioritizes and adheres as closely as possible to an OPD terminating at the HEMAN waypoint;*

(a) PBN Co-Lead comments: *HEMAN can be used to aide STAR design; however, it can only serve as an approach fix for Runway 28L. Both the SERFR and conventional BSR STAR serve multiple runways, which require a terminus waypoint located south of the extended centerline of Runway 28L.*

f. Recommendation 6: *Incorporates a modification to Class B airspace if needed;*

(a) PBN Co-Lead comments: *Intermediate waypoints with altitude restrictions will coincide with future Class B design and synchronize with descent gradients. The need for Class B modification is highly unlikely.*

g. Recommendation 7: *Uses flight altitudes that are as high as possible while still allowing idle power flight;*

(a) PBN Co-Lead comments: *The new STAR design will be based on an OPD model while also not exceeding FAA Flight Standards criteria.*

h. Recommendation 8: Is designed to avoid the use of speed brakes;

(a) PBN Co-Lead comments: *Exclusive to application of significant historical tailwind during design, speed brakes are unlikely to be required if design is kept within FAA Flight Standards criteria.*

i. Recommendation 9: Will be subject to future capacity limitations, particularly during nighttime hours and when vectoring exceeds current levels.

(a) PBN Co-Lead comments: *This action is outside of the purview of the full work group.*

DESIGN DISCUSSION:

1. ZOA expressed concerns regarding the WWAVS STAR and questioned whether a new design would be required.

a. NCT: redesign will not affect the WWAVS STAR.

2. JH presented a notional RNAV STAR design demonstrating the location of speed and altitude restrictions overlying the BSR lateral track that would be required to comply with design criteria. Also presented were illustrations comparing the Select Committee recommendations and the resultant design challenges for FWG consideration (See **Figure 1.**).
   a. ZOA expressed concerns regarding the initial portion of the STAR from BSR to ANJEE and the potential negative impact that could result due to an interaction with OAK and SFO departure routing.
   b. Industry explained how the FMS will anticipate published speed reductions and how operationally the aircraft may not perform as expected by ATC.
   c. ZOA commented that Special Use Airspace (Warning Areas) could constrain operations.

3. JH proposed a methodology as to how the FWG should proceed for analyzing and discussing the notional design (See **Figure 2**.), suggesting starting from WP01 and working southward to the BSR VOR.

FIGURE 1. Big Sur RNAV STAR Notional Design: Descent Gradient Criteria

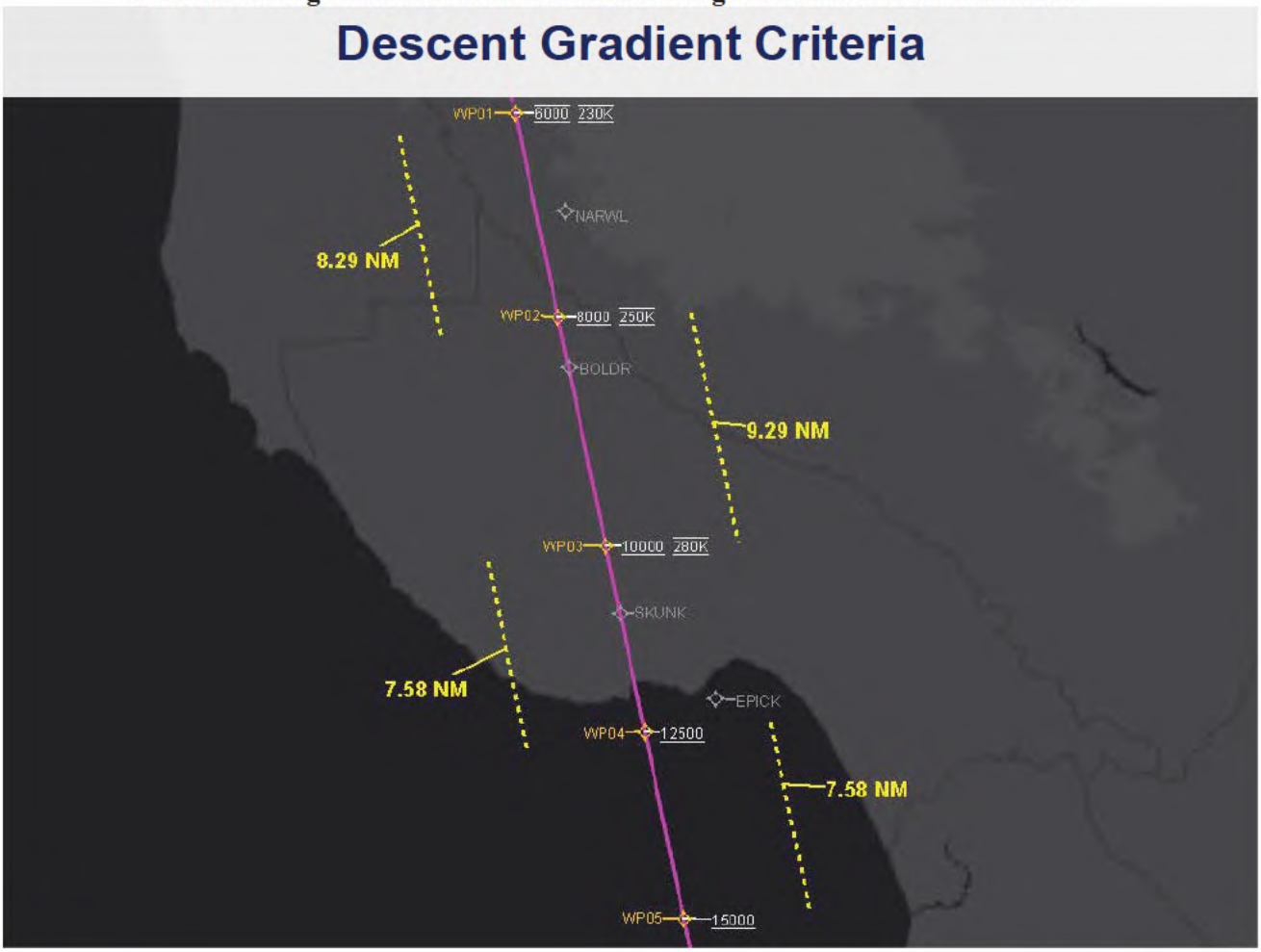
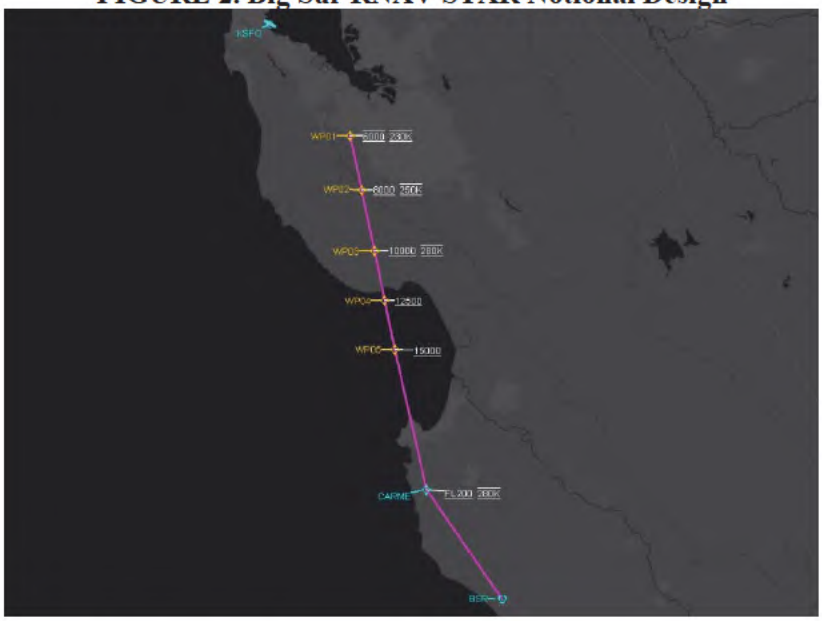


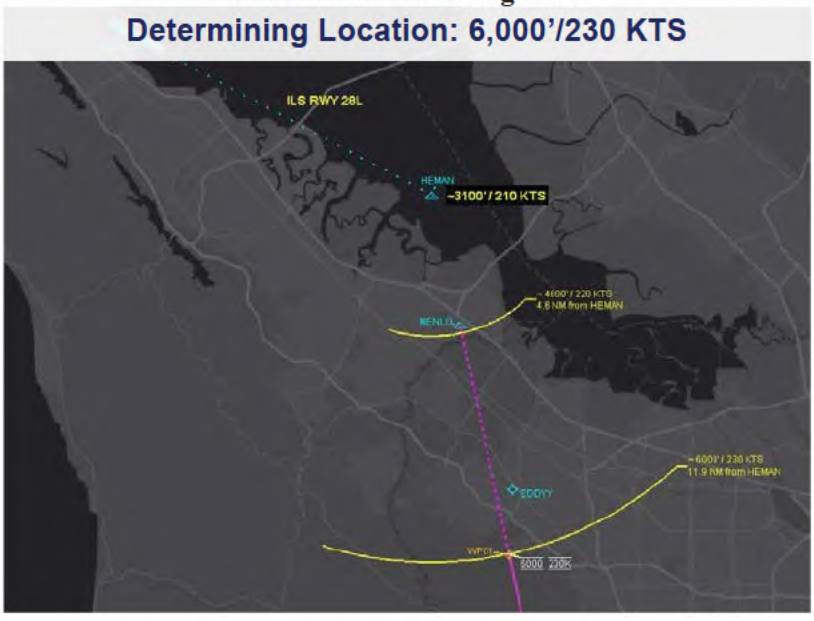
FIGURE 2. Big Sur RNAV STAR Notional Design



a. JH queried the FWG as to feasibility of 6,000' at WP01 (See **Figure 3**.)

(1) NCT responded that 6,000' was acceptable but requested to review the SJC BRIXX STAR and assess the 7,000' altitude restriction interaction with the notional design.

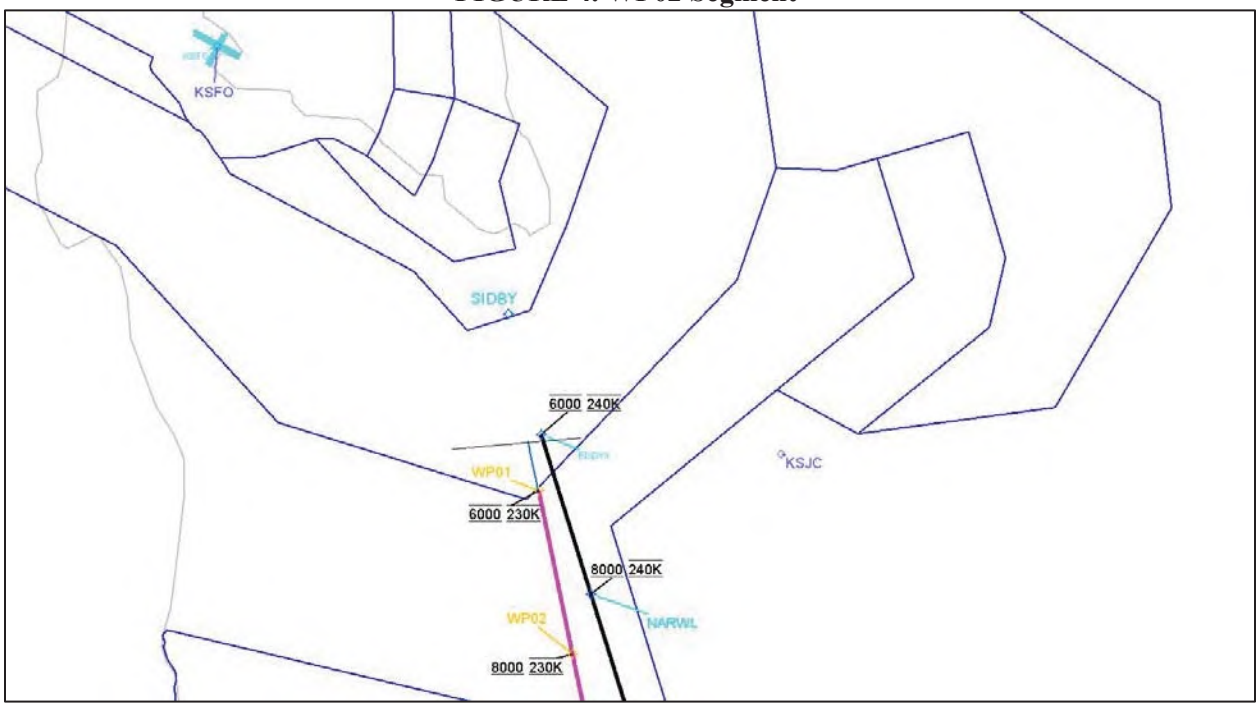
FIGURE 3. WP01 Segment



b. JH queried the FWG as to feasibility of the WP02 segment (See **Figure 4**.)

(1) The FWG experimented with moving WP02 2NM to the north, At Or Above (AOA) 8,000'. The Targets Operator (TO) adjusted the notional design and the relocated WP02, still meeting design criteria.

FIGURE 4. WP02 Segment



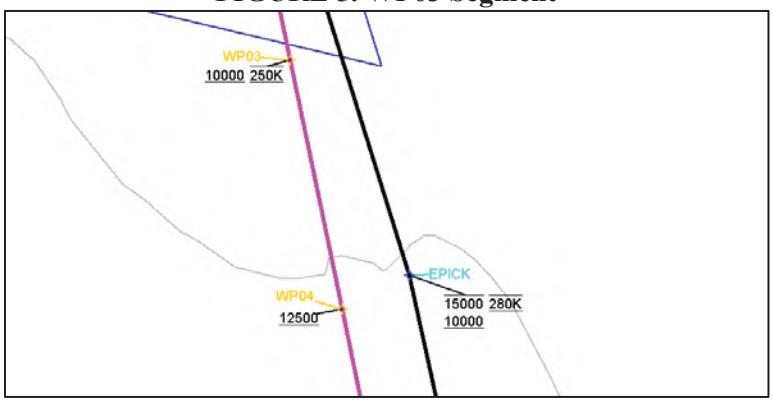
c. JH queried the FWG as to feasibility of the WP03 segment (See **Figure 5**.)

(1) The TO also moved WP03 to a location that criteria allowed 10,000' @ 250KTS. This is the criteria changeover point from 318'/NM to 330'/NM (descent gradient criteria)

d. The TO created an additional waypoint (WP215) on the procedure at the 11,000' mark, to allow for TARGETS rounding errors

(a) (Note: WP215 was later removed as it was deemed unnecessary for criteria)

FIGURE 5. WP03 Segment



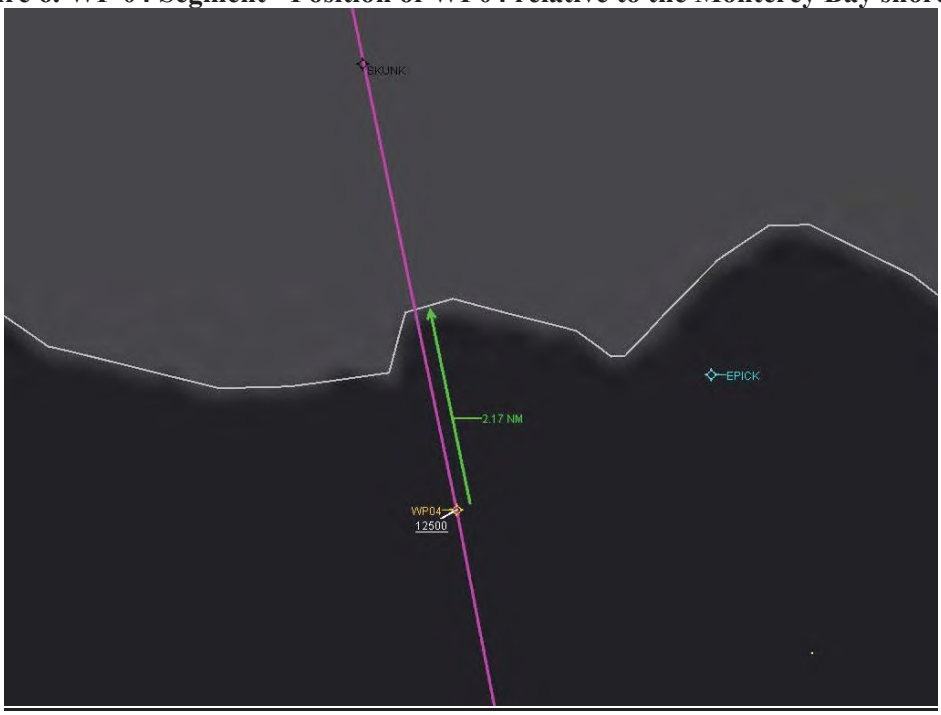
e. JH queried the FWG as to feasibility of the WP04 segment (See **Figure 6**.)

(1) The FWG experimented with where 12,500' @ 280KTS would be located (WP04) on the procedure and if it would resemble the Select Committee recommendation (over Monterey Bay)

(a) WP04's new location is approximately 2.2NM from the shoreline

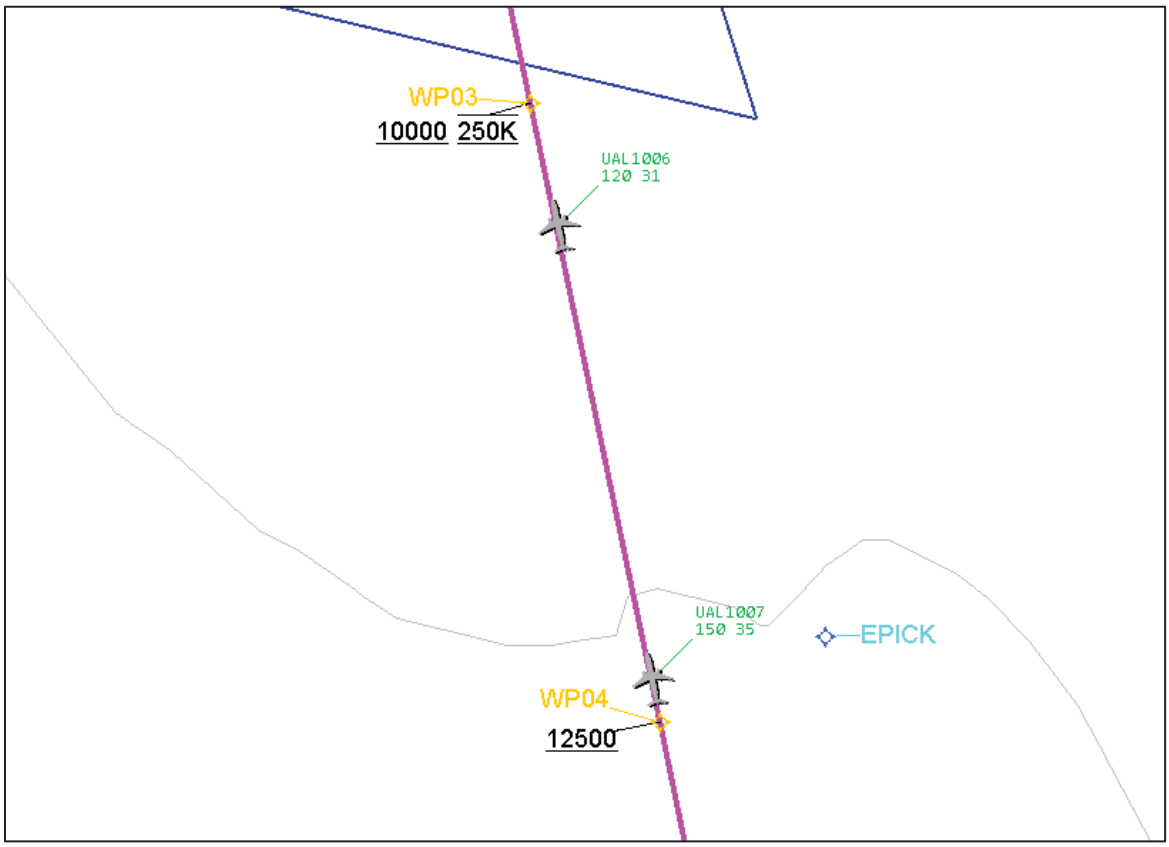
(2) The TO performed a TARGETS flight simulation to demonstrate approximate aircraft altitudes near the 12,500' restriction at WP04 (based on average B737 performance with no winds aloft).

Figure 6. WP 04 Segment - Position of WP04 relative to the Monterey Bay shoreline



b. TO performed a TARGETS Flight Evaluation to demonstrate average aircraft performance when approach the AoA12,500' restriction at WP04. (See **Figure 7**.)

Figure 7. TARGETS Simulation Results near WP04



c. JH queried the FWG as to feasibility of the WP05 segment and remaining points beyond (See **Figures 8-10.**)

(1) WP05 required relocation (south) to allow the procedure to conform to descent gradient criteria.

(2) JH asked about the requirement of the 15,000' restriction at WP05. The FWG concluded that there was a need for an At Or Below (AOB) FL190 restriction to ensure separation from ZOA sector 11 and that the revised procedure should mimic the restriction at WWAVS.

(3) The TARGETS operator located a corresponding point on the notional and relocated WP05 with a 15,000'- FL190 restriction.

(4) ZOA commented that there is an existing fix: ANJEE, close to the new location of WP05, and suggested that ANJEE be utilized vs WP05, with the 15,000'- FL190 restriction.

(5) When addressing the procedure beyond WP05, ZOA commented that the SERFR was developed to resolve conflictions between arrivals and departures, and to relieve congestion in ZOA sector 14. This was accomplished by moving the arrivals inland from the present day CARME. ZOA stated that moving the arrivals back to the west, to or near CARME is not operationally feasible. The BSR arrival track over CARME does not provide enough lateral separation from the Bay Area departures, especially during periods when vectoring for spacing is required.

(6) ZOA also requested to review notional holding patterns at ANJEE to assess potential conflicts with the departure routes. ZOA stated that ANJEE was the holding fix when the

conventional BSR STAR was previously used, but changed to NRRLI once the SERFR STAR was implemented. (b) (5) [redacted]

FIGURE 8. WP04 - ANJEE Segment

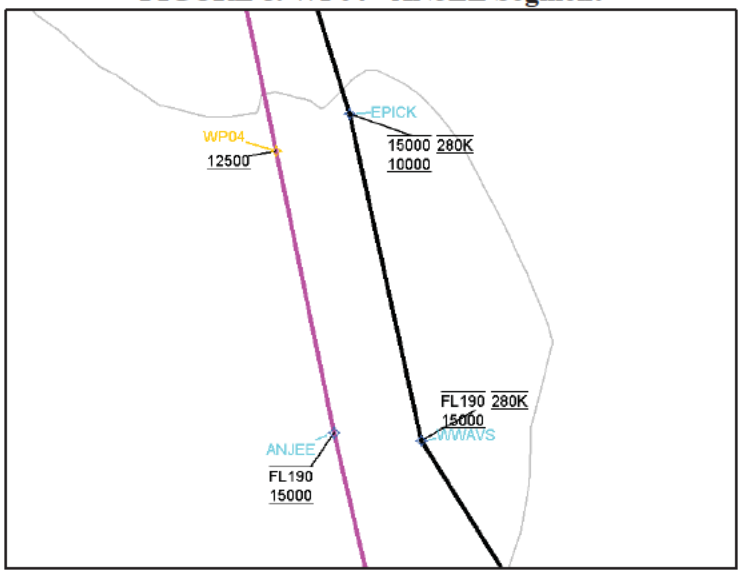


FIGURE 9. ANJEE - CARME Segment

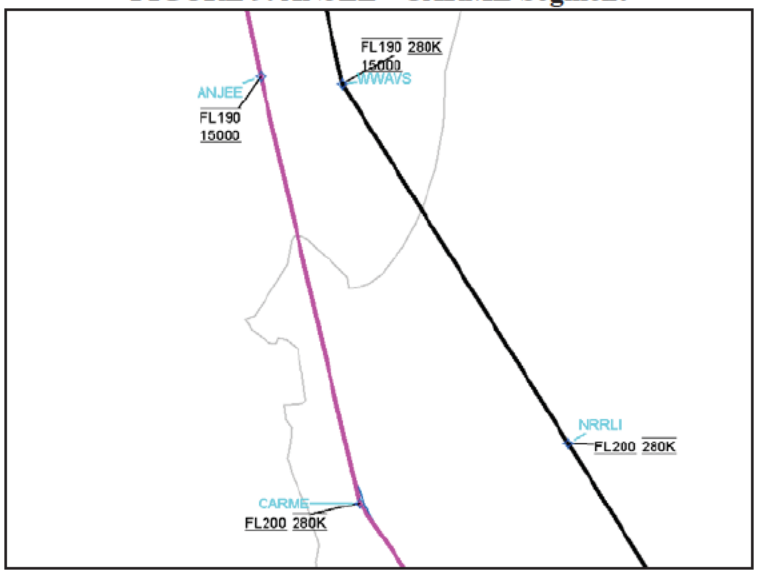
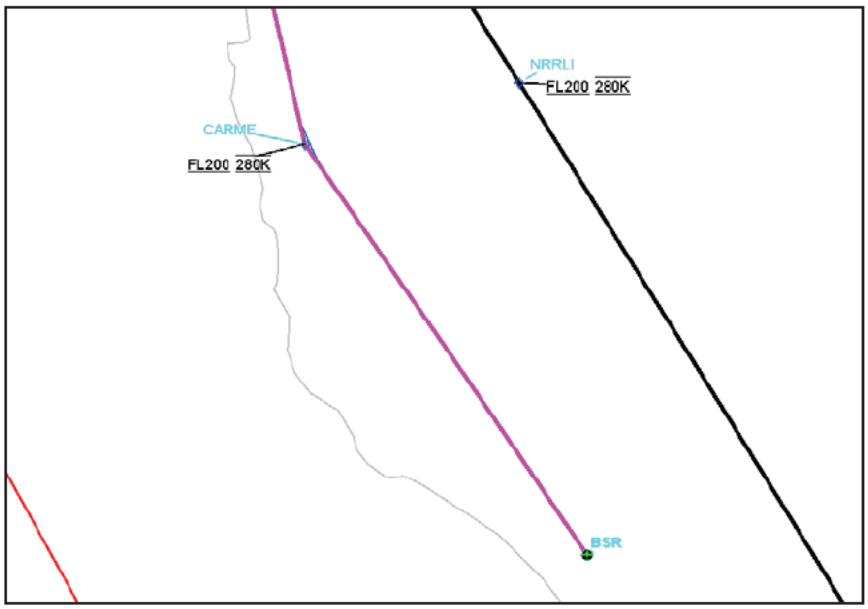


FIGURE 10. CARME – BSR Segment



4. (b) (5) [redacted]

   b. DW asked what options may be available to accommodate turbo-props with the new route. NCT & ZOA stated that there is not feasible alternative. Because turboprops currently use the conventional BSR arrival route, the introduction of jet traffic would require new arrival & departure procedures—specifically for turboprops. Additionally, several corresponding changes to the Standard Operating Procedures (SOP) and existing Letters of Agreement (LOA) would be required.
   c. NCT mentioned that these concerns were already addressed and resolved during the development of the original SERFR

5. After completion of the notional design discussion, JH proposed that the FWG reanalyze the notional design once again to identify the pros and cons of each segment.
   a. WP01 – WP02
      (1) **Pros:**
         (a) Class B airspace containment
      (2) **Cons:**
         (a) Complicates the interaction between SFO and SJC BRIXX STAR arrivals and would increase operational complexity. A redesign of the BRIXX STAR is not feasible and is already optimized for very congested airspace.
         (b) Would require at least 14 corresponding revisions to other instrument flight procedures.
         (c) Would increase conflictions with SQL, PAO, and SJC East operations due to a required earlier descent from 6,000'.

   b. WP02 – WP04

(1) Pros:
(a) Would increases separation from the WVI parachute jump zone.
(2) Cons:
(a) Would conflict with the SJC Oceanic Departures.

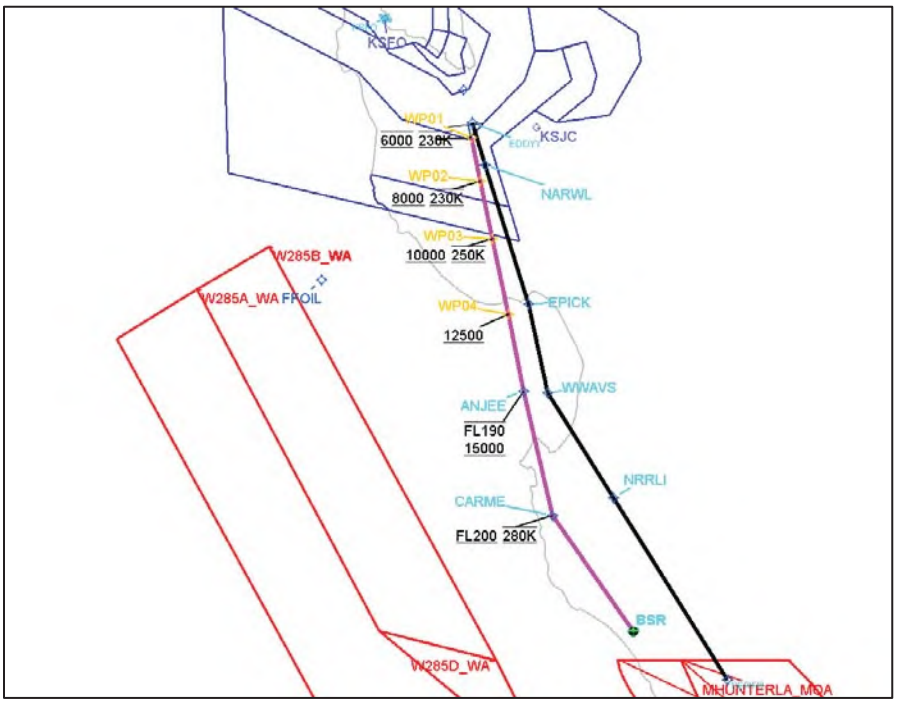
c. WP04 – ANJEE
(1) Pros:
(a) Provides increased separation from the OAR Jump Zone
(2) Cons:
(a) Holding at ANJEE is not protected from the OAK/SFO SIDs (CNDEL, SSTIK, WESLA). The FWG evaluated changes to published holding patterns, including right vs left turns. None of the changes evaluated provide adequate separation from the departures. Removing published holding at NRRLI in exchange for ANJEE would eliminate a solution that is procedurally separated.

d. ANJEE – CARME
(1) Pros:
(a) None identified.
(2) Cons:
(a) Arrivals not procedurally separated from departure routes at CARME.
(b) ANJEE to BSR not procedurally separated from the turboprop departure route.
(c) ANJEE to BSR not procedurally separated from the SFO turboprop arrival route.
(d) See Table 1 for a list of procedures that will require amendments associated with the redesign of the SERFR RNAV STAR

e. CARME – BSR
(1) Pros:
(a) None identified.
(2) Cons:
(a) Reduced airspace to achieve required in-trail separation.
(b) See Table 1 for a list of procedures that will require amendments associated with the redesign of the SERFR RNAV STAR.

f. Overview of entire notional design: WP01 – BSR
(1) Pros:
(a) None identified.
(2) Cons:
(a) Inclement weather vectoring area reduced. This concern was stated from both an ATC and industry.
(b) Increased flying miles with a corresponding increase in fuel burn and CO2 emissions.
(c) Increased workload for pilots when changing runway configurations at SFO.

Figure 11. Overview of FWG Notional (Modified)
BSR RNAV STAR (Magenta)
SERFR RNAV STAR (Black)



6. Additional awareness items:
- **a.** Any changes to existing procedures require corresponding ERAM adaptation and terminal automation amendments.
- **b.** Changes to LOAs and SOPs.
- **c.** Additional ATC training.

7. JH: Since the BSR STAR was successfully used for several years prior, why is it no longer a viable arrival route?
- ***a.*** NCT: "*The BSR STAR is a legacy arrival procedure that utilizes ground based navigation, and does not contain altitudes that allow for an optimized descent. The BSR STAR is not procedurally separated from the RNAV arrivals and departures that were developed and implemented as part of the NextGen Metroplex project. The Northern California airspace is very complex with traffic from several major airports, smaller regional airports and military activity. All arrival and departure procedures within the Northern California airspace are interconnected, interdependent, and designed to improve safety and efficiency within the National Airspace System (NAS). NextGen is the FAA-led modernization of our nation's air transportation system. Its goal is to increase the safety, efficiency, capacity, predictability, and resiliency of American aviation. Airlines, general aviation operators, pilots, and air traffic controllers gain better information and tools that help passengers and cargo arrive at their destinations more quickly, while aircraft consume less fuel and produce fewer emissions.*"

8. The Co-Leads summarized the design meeting discussion and asked the FWG to consider the collective input.

9. JH asked the FWG if the request to reposition the SERFR arrivals back to the BSR arrival track was feasible, flyable, and operationally acceptable.
   a. ZOA: No.
   b. NCT: No. NCT commented that the additional complexity for South Bay, PAO, and SQL arrival traffic was unacceptable. SJC traffic has increased over time and the BSR arrival track vs the BRIXX STAR is no longer a viable option.
   c. Industry: No. Industry shares the same concerns with ATC regarding increased complexity within congested airspace.
   d. Flight Standards commented: From a system-centric design perspective, optimized flight procedures have many interdependencies; moving one piece introduces additional complexities.

10. **FWG consensus:**
    Do not proceed with the redesign/relocation of the SERFR STAR to the BSR arrival track.

11. Meeting adjourned.

Table 1. Procedures that will require amendments associated with the redesign of the SERFR RNAV STAR

1	FMS BRIDGE VISUAL (CARRIER)
2	RNAV RWY 1 VISUAL (SPECIAL)
3	OCEANIC ARRIVAL (CARRIER)
4	ILS OR LOC RWY 28L
5	ILS OR LOC RWY 28R
6	ILS RWY 28L
7	RNAV RNP Y RWY 28R
8	RNAV GPS RWY 28L
9	RNAV GPS Z RWY 28R
10	QUIET BRIDGE VISUAL
11	TIPP TOE VISUAL
12	SERFR STAR (WILL NEED TO BE CANCELLED)
13	GLS OVERLAY RNAV GPS RWY 28R (PROPOSED)
14	GLS OVERLAY RNAV GPS RWY 28L (PROPOSED)

DECISIONS:

Decisions
FWG consensus on the Mission Statement.
FWG consensus: Do not to proceed with the redesign/relocation of the SERFR STAR to the BSR arrival track.

ACTION ITEMS:

Action Items	Due Date	Responsible Party
Compile list of procedures that will require amendments associated with a replacement to the SERFR STAR	ASAP	WSA FPT

Provide NCT Congressional Response	ASAP	NCT

Submission Cut-off Date:
N/A

Scheduled Publication Date:
N/A

DEREK L WOLFE
Digitally signed by DEREK L WOLFE
Date: 2018.05.10 10:50:34 -07'00'

PBN Co-Lead (OSG)

JOSHUA R HAVILAND
Digitally signed by JOSHUA R HAVILAND
Date: 2018.05.10 11:05:22 -07'00'

PBN Co-Lead (Article 114)

Derrick Lane Aubuchon
Digitally signed by Derrick Lane Aubuchon
Date: 2018.05.10 11:30:15 -07'00'

Sr. ATC Specialist
NAVTAC Contract Support

October 8, 2020

From
Mike McClintok
To
SCSC Roundtable
Message

Fwd: Another Bad Idea From The FAA

FYI. Draft minutes to go out with agenda materials on 10/10.

Mike McClintock

Attachment Name
20201008_M_McClintok_Fwd_ Another Bad Idea From The FAA

Gmail

SCSC Roundtable <scscroundtable@gmail.com>

Fwd: Another Bad Idea From The FAA

1 message

Mike McClintock Thu, Oct 8, 2020 at 12:52 PM
Reply-To: Mike McClintock

FYI. Draft minutes to go out with agenda materials on 10/10.

Mike McClintock
415-203-9097

-----Original Message-----
From: Save Our Skies East Bay
To: Mike McClintock
Sent: Wed, Oct 7, 2020 8:42 pm
Subject: Another Bad Idea From The FAA

View this email in your browser

SAVE OUR SKIES EASTBAY

Another Bad Idea From The FAA!

Presented at the July 2020 Noise Forum Meeting

The FAA is proposing moving the WNDSR fight path from a bad location to a terrible one!

WNDSR is the flight corridor (designed as part of the FAA's NextGen program) for planes flying to the Oakland Airport from the north and east.
Planes currently fly down the spine of the East Bay Hills, turn eastward past the intersection of the 13 and 580 Freeways and then basically make a u-turn to land at the Oakland Airport. The FAA proposal would move a large part of this path southwest of its current location. Instead of flying over the hills north of the 24 Freeway, planes would fly over the hearts of Richmond, El Cerrito, Berkeley, and a larger portion of Piedmont and Oakland, and then continue following a path very similar to the current path. For more technical information, and a map (Page 22) of this proposed flight path change, see the 5-28-2020 FAA Briefing to the Oakland Airport Noise Forum - NextGen Technical Subcommittee.

The main changes would be experienced by people living north of the 24 Freeway. Some people would have less noise but a much larger number of people would experience an increase in noise!

Why is the FAA proposing this change? Because the FAA admits that WNDSR created flight-related problems that need to be fixed. Sadly, in the FAA's eyes, these problems do not include community noise issues. This is made clear by the fact that the FAA rejected the two alternative WNDSR paths proposed by the Noise Forum that could correct both the flight and noise related problems created by WNDSR. (go to page 17 in the Sept 2018 - FAA Updated Response).

At the VERY LEAST, the FAA should have offered a procedure to relieve WNDSR noise during night flights. Instead, and despite the objections of the Noise Forum members and NextGen Technical Subcommittee, the

FAA opted for a path of their own design that doubles the number of people who would suffer from airplane noise!

What can you do about this?

- Send an email to Mike McClintock, Noise Forum Facilitator (Glomike65@aol.com), objecting to the FAA's proposal. You are welcome to use the points below as a template for your email.
- Join the Oakland Airport Community Noise Management Forum mailing list to get information about their meetings. https://www.flyquietoak.com/sign-receive-emails
- Attend the next Zoom Noise Forum meeting on Oct. 21 to follow this topic and comment during the meeting. https://www.flyquietoak.com/about-noise-forum
- The FAA suggests going to their Community Involvement Site for Oakland Airport to keep updated their proposals. https://www.faa.gov/air_traffic/community_involvement/oak/

PLEASE NOTE: SOSEB was hoping that the Noise Forum would provide details of the FAA's WNDSR proposal in the minutes of the July 2020 Noise Forum meeting. Since those minutes have not yet been published we are doing our best to share this information with you. We regret the time lag in sharing this information.

Yours,

The SOSEB Team

OBJECTIONS TO THE FAA'S SPRING/SUMMER 2020 PROPOSAL TO MOVE WNDSR SOUTHWEST OF ITS CURRENT LOCATION

I strongly object to the FAA's proposal for the following reasons:

1. The proposed change does not solve any noise issues created by WNDSR. Instead, it moves the noise over more people!
2. No alternative routes are being offered. If the FAA is serious about planning with communities and resolving the noise problems they created, they must offer alternative flight paths. Without that, they are continuing along the same course as with NextGen planning and implementation - demonstrating no concern for the people on the ground, under their flight paths.
3. It's hard to believe that the FAA seriously considered and evaluated the NF proposal. They repeated the same, unsupported justifications for the proposed path and provided no specific safety, flight procedure, and noise impact comparisons between the NF proposed paths and the FAA proposal.
4. Bay Area airspace has not changed pre & post NextGen. The only things that have changed are the new NextGen flight procedures and the resultant noise impacts. Despite these facts, the FAA continues to use the airspace as an excuse for everything related to changing NextGen flight procedures. This makes no sense. If NextGen is the only change then NextGen is the problem, not the airspace.
5. Some of the communities that would fall under the FAA's proposed path are areas where social and environmental justice are of major concern. The FAA needs to address that.
6. The FAA's proposal does not address ANY community concerns. It clearly only addresses problems the FAA cares about, problems they created when designing WNDSR! This is UNACEPTABLE. They are not listening to or addressing community needs, they are paying us lip service.
7. At the VERY least the FAA should have offered a procedure to relieve the WNDSR noise during night operations

It's time for the FAA to be honest and truly engage with communities. They need to offer alternatives that respond to community concerns. They need

to plan with the NextGen subcommittee and not offer one FAA plan to the committee. Attending meetings and then providing one proposal that conflicts with everything the community requested shows a clear lack of sincerity.

I thank the Oakland Airport Noise Forum, especially the NextGen Subcommittee, for all their hard work.

October 10, 2020

From

Mike McClintok

To

SCSC Roundtable

Message

OAK Forum 10/21/2020 Meeting Agenda Package

All Attachments Found Here - https://www.flyquietoak.com/documents

Attached are the agenda materials for the October 21, 2020 Forum meeting. The meeting will be a virtual meeting via zoom. Login instructions are included on the agenda/meeting notice.

Please contact me if any questions.

Be safe.

Mike McClintock
Forum Facilitator

Mike McClintock

Attachment Name

Attachments available at link above

20201010_M_McClintok_Forum Memo (Responses to questions and comments received)
20201010_M_McClintok_Forum 10-21-2020 Agenda
20201010_M_McClintok_Minutes 7-15-20 Forum Mtg (DRAFT)
20201010_M_McClintok_Noise Abatement Report 2Q 2020
20201010_M_McClintok_2020_QuarterlyAircraftNoise_02

October 13, 2020

From

Marie-Jo Fremont

To

SCSC Roundtable

Message

Request -- Ask the FAA to follow the Select Committee recommendation on the BSR Overlay ground track

Dear Congressman Eshoo and Congressman Panetta,

I understand that you may be dealing with many issues, including the upcoming elections on November 3. However, I reached out to you and your offices almost 3 weeks ago to express my concerns about the FAA pursuing a change that was NOT recommended by the Select Committee in November 2016, and I have not got any response.

I would also like to add that I discovered after sending my email on September 24 that the FAA provided a brief status update on the BSR Overlay in their NorCal December 2018 update: the status was that "The FAA anticipates a new Full Working Group (FWG) session in early 2019." It is quite surprising that the FAA did not reveal in their December 2018 update the fact that they had concluded 6 months before that the BSR Overlay, as recommended by the Select Committee, was not feasible.

I, and many other constituents of your districts, would appreciate receiving a response to the 3 questions listed in my previous email:

- **Why was the May 8, 2018 conclusion on the infeasibility of the BSR Overlay not disclosed to the public given its significance**?
- **Did the FAA share their May 8, 2018 FAA conclusion on the infeasibility of the BSR Overlay with you/your office**?
- **Why is the FAA allowed to develop an alternative to a recommendation deemed infeasible without any input from the SCSC Roundtable,** who is the successor committee to the Select Committee**, given that the partial BSR Overlay alternative was not recommended by any community Roundtable?**

I hope that you will agree that we all need more than ever some level of transparency, including on issues like airplane noise that affects the lives and healths of many people.

Again, I hope to get answers from your offices.

With concern,

Marie-Jo Fremont

October 13, 2020

From
Mike McClintok
To
SCSC Roundtable
Message

FAA Noise Complaint Portal and Community Involvement Website

All concerned:

FAA Noise Portal:

Because the FAA is no longer accepting noise complaints at its 9-awp-noise@faa.gov web address, please use the following link to the FAA's noise portal for noise complaints, as well as for comments and concerns:

https://noise.faa.gov/noise/pages/noise.html

FAA Community Involvement:

To learn more about aircraft noise in this region and how to submit a noise complaint or inquiry, please visit the Western-Pacific Region Aircraft Noise and Community Involvement Information website:

https://www.faa.gov/about/office_org/headquarters_offices/arc/western_pacific/noise_complaint/

October 19, 2020

From

Lydia Kou

To

SCSC Roundtable

Message

Lydia Kou Summary - SFO RT Meeting 10/07/20

SCSC Roundtable,

I attended the SFO-RT meeting on October 7, 2020 and wanted to summarize items that are relevant to the SCSC RT, including some possible next steps to consider. The meeting packet, agenda, and video are available at this link.

Chairman's Update

- Introduction - Michele Rodriguez new Roundtable Coordinator.
- Noise monitor methodology discussion at a future TWG. Methodology refers to how SFO aircraft noise events are identified.
- Upcoming Aviation Noise & Emissions (ANE) conference, February 23-26, 2021, four-day virtual symposium. Early bird rate ends 12/18.

FAA presentation – Sky Laron

- New Noise Portal to submit complaints to the FAA (page 38-49 of SFO RT packet). FAA will not accept noise complaints from 3rd party applications such as stopjetnoise.net.
- NIITE/HUSSH Update (timestamp 38:35)
  - FAA: still under environmental review (ER); once completed RT and FAA to discuss next steps
  - Q&A: 1) what options will FAA come back with? FAA: only looking at increasing utilization of existing procedure as currently drawn 2) will there be discussion about GOBBS and around GOBBS , which are not part of the current procedure? FAA: yes there will be discussion with Congressionals, especially if there are changes in the noise profile 3) will there be noise modeling? FAA: don't know 4) timing? No information available on timing of the ER.

Presentation from Noise Office

- GBAS video, timestamp 1:10:47
  - In October, GBAS team will share the concept of GBAS Overlay of ILS landing system with TWG, Nov/Dec publish for feedback and January SFO reviews feedback with RT and TWG. Targeted implementation of ILS Overlay is Q1 2021.
- Noise app from SFO, timestamp 1:59:42
  - https://www.flysfo.com/community/noise/submit-noise-report
  - Slide: The developer of StopJetNoise.net would like to cease operating if a suitable replacement can be found.
  - Bert mentioned:
    - ~98% reports from StopJetNoise.
    - ß"If people are accepting of our (SFO app) and community groups come in with positive response Adam Worrall said he would sunset his app and rollover to this" (timestamp 2:09:30).
- ***SCSC RT Consideration: provide input on SFO app as a suitable replacement to Stop.jetnoise.***

Roundtable Budget

- Approval of annual budget $337K including $50K for Ground-Based Noise Study.

Appoint Strategic Plan and Ad-Hoc Committee

- Formed committee and sent a survey (strategic plan and work plan) to the public who are on SFO RT notification list.

General Aviation Noise Issues Update

- Letter from Members of Congress to Administrator Dickson on Sections 188 and 173 of the FAA Reauthorization Act of 2018 - September 23, 2020 (page 58 of SFO RT packet).

- Noise Annoyance Survey due October 5, 2020 mandated in the FAA Reauthorization Act of 2018 is not published yet. Response from the FAA…expected to release soon and then will take comments and questions.

Kind regards,

Lydia Kou - Council Member

October 20, 2020

From

Karen Chapman

To

SCSC Roundtable

Message

FW: Santa Cruz County and FAA Briefings

Dear Chair and Vice Chair of the Santa Cruz/Santa Clara County Roundtable,

I'm writing to convey we have requested that the FAA defer briefings to the Roundtables on any issues impacting Santa Cruz County until next year in light of the ongoing crisis in Santa Cruz County relating to the devasting CZU Fire and its ongoing impacts. All constituents impacted by the CZU Fire should have the ability to participate in FAA briefings and right now thousands of them are without water, power and housing.

Thank you in advance for your understanding given the situation faced by so many constituents. Our office with help from some of our colleagues has been working 7 days a week on site in Santa Cruz County to help victims register with FEMA. It has been very hard to see so many in need of truly basic services.

Please stay safe.

Karen Chapman
Rep. Eshoo

October 21, 2020

From

Andi Jordan

To

SCSC Roundtable

Message

FW: Letter To SCSC Roundtable regarding independence from CASCC

Dear SCSC Roundtable Chair Bernald, SCSC Roundtable Members & Alternates:

CC: US Representatives Eshoo, Khana, Panetta; Cities Association Board of Directors; City Managers of Santa Clara County; Chantene Koplow, Legal Counsel for CASCC

As requested from the Executive Board of the Cities Association of Santa Clara County, attached is a letter to the SCSC Roundtable Chair, SCSC Roundtable Members & Alternates.

My best,

~Andi

Andi Jordan
she | hers
Executive Director
Cities Association of Santa Clara County

Attachment Name

20201021_A_Jordan_2020-10-21 final Letter to RT on independence w attachment (Attached earlier in the 10/28/2020 Agenda Packet with Agenda Item 5)

October 21, 2020

From

Mike McClintok

To

SCSC Roundtable

Message

Port of Oakland Letter to FAA Administrator

Forum members and all:

Attached FYI is a copy of the letter from the Port to the FAA Administrator that was discussed at tonight's Forum meeting.

Mike McClintock
Forum Facilitator

Attachment Name

20201021_M_McClintok_12_38_23

PORT OF OAKLAND

BRYANT L. FRANCIS, C.M.
Director of Aviation
Telephone: (510) 627-1133
Fax: (510)835-0178

October 20, 2020

The Honorable Steve Dickson
Administrator
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591

RE: Proposed NextGen Modifications to the Northern California Metroplex

Dear Administrator Dickson:

On behalf of the Port of Oakland and the Oakland International Airport (OAK), I am writing regarding the Federal Aviation Administration's (FAA's) apparent intention to make additional Air Traffic Control (ATC) modifications to the Northern California Metroplex. We understand that the most recently described modifications to the WNDSR Area Navigation (RNAV) procedure could impact the path of certain flights arriving to OAK from the north.

We are appreciative of the close partnership between OAK and the FAA, and rely on this partnership for numerous planning, funding, operational, and safety-related initiatives that ensure that OAK can continue to successfully meet the transportation, travel and goods movement needs of the region and nation. We also acknowledge that Air Traffic Control decisions and the Northern California Metroplex are under the exclusive direction and control of the FAA. However, since the introduction of the NextGen program in the San Francisco Bay Area in 2015, OAK and other airports throughout the region have continued to receive a tremendous number of noise-related complaints from local constituents due to ATC changes that resulted from NextGen, including a concentration of aircraft activity and noise impact in certain locations in the East Bay.

Despite OAK's lack of jurisdiction over changes instituted over the airspace by the FAA, for over two decades we have convened the Oakland Airport/Community Noise Management Forum ("Noise Forum"), which aims to facilitate an open dialogue and to encourage cooperation between neighboring communities, OAK officials, and the FAA regarding airport noise-related issues. The ongoing participation of FAA representatives in the Noise Forum is greatly appreciated, as is the continued participation of FAA officials in the Noise Forum's NextGen Subcommittee, a working group of Noise Forum members dedicated exclusively to the 2015 Metroplex changes.

PORT OF OAKLAND

Recently, OAK was notified of the FAA's intention to implement a modification to the WNDSR Standard Terminal Arrival route into OAK. Although the Forum has communicated interest in modifying the WNDSR procedure on numerous occasions to reduce the frequency of flights over inhabited areas (including most recently in letter from the Forum to the Regional Administrator on January 17, 2019), this proposed procedure shifts flights from their current course along the East Bay hills and moves them westward to a course that overflies a denser population situated among certain unincorporated areas of West Contra Costa County and the cities of Richmond, El Cerrito, Albany, and Berkeley, among other impacted areas.

At the July 15, 2020 OAK Noise Forum, FAA representatives presented on the proposed change. The presentation and subsequent discussion with members of the Noise Forum and the public-at-large have raised a concern that the FAA is not adequately prepared to conduct a meaningful public outreach and engagement process to inform potentially impacted community and municipal stakeholders of the proposed change. While the OAK Noise Forum is intended to facilitate dialogue and engagement between the FAA and regional stakeholders, the Noise Forum cannot be used as a substitute or a surrogate for direct outreach and engagement on the part of the FAA to constituents who might be impacted by decisions that the Agency makes.

We understand that the FAA Reauthorization Act of 2018 directed the FAA to enhance the Agency's community engagement practices related to airplane noise impacts on communities. The Act included a direction to the FAA to create additional regional ombudspersons to serve as liaisons with community groups on issues related to issues such as aircraft noise, pollution and safety. As the FAA Western-Pacific Region has appointed multiple ombudspersons, we believe that these individuals could facilitate a direct line of communication between regional constituents and the FAA about both this proposed change and the additional modifications to the Metroplex that have been recommended by the Forum.

Thank you in advance for your attention to this matter, and we are committed to continuing to support any efforts to improve the line of communication between the FAA and our local residents.

Sincerely,

Bryant L. Francis, C.M.
Director of Aviation

cc: Senator Dianne Feinstein
Senator Kamala Harris
Representative Barbara Lee
Representative Mark DeSaulnier
Representative Eric Swalwell
Raquel Girvin, FAA Western-Pacific Regional Administrator
Danny Wan, Executive Director, Port of Oakland
Oakland Airport/Community Noise Management Forum Members

One Airport Drive ▪ Box 45 ▪ Oakland, California 94621
Telephone: (510) 627-1100 ▪ Facsimile: (510) 627-1826 ▪ Web Page: www.portofoakland.com

October 22, 2020

From

Lydia Kou

To

SCSC Roundtable

Message

FW: DRAFT of PIRAT Response to FAA PIRAT letter dated May 27, 2020

Dear Anita,
Please find attached the PIRAT response draft (see Word document) that I volunteered to write for you and Mary-Lynne to review before sending it to the FAA. This is related to the July 22nd SCSC RT's approved motion to send letters. Note that I have also attached the PIRAT CATEX file because it is referenced in the response. Please let me know if you have any questions.
Cheers,

Lydia Kou - Council Member

Attachment Name

20201022_L_Kou_PIRAT Response Draft 20201021 (Attached earlier in the 10/28/2020 Agenda Packet with Agenda Item 4)

20201022_L_Kou_2018-06-11 KSFO.ARCHI.PIRAT.CATEX_ROD_20180517 (Attached earlier in the 10/28/2020 Agenda Packet with Agenda Item 4)

October 22, 2020

From

Lydia Kou

To

SCSC Roundtable

Message

FW: BDEGA - draft letter to the FAA

Anita,

Please find attached the draft BDEGA letter that I volunteered to write for you and Mary-Lynne to review before sending it to the FAA. This is one of the items related to the July 22nd SCSC RT's approval of the TWG requests.

Based on the FAA's response, we can inform the SFO RT and/or OAK Noise Forum to attend the FAA's presentation to the SCSC RT TWG similar to what the SFO RT TWG did for the NIITE HUSSH topic or other appropriate follow up depending on how the FAA proceeds. Of course, the timing of any potential FAA presentation on BDEGA would be a lower priority to an FAA presentation on the Big Sur Overlay.

Please let me know if you have any questions.

Cheers,

Lydia Kou - Council Member

Attachment Name

20201022_L_Kou_2020Aug_BDEGA_FAA_Letter_ESA_Edits_Clean_20201022_V2 (Attached earlier in the 10/28/2020 Agenda Packet with Agenda Item 4)