



September 11, 2017

TO: Mid-Coast Community Members, Roundtable Members and Interested Parties

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Roundtable Technical Consultant - HMMH

SUBJECT: Mid-Coast Communities - SFO Roundtable Recommendations and FAA Responses

The San Francisco International Airport/Community Roundtable (Roundtable)¹ has been long engaged in advocating for all San Mateo County residents and the purpose of this technical memorandum is to provide a summary/overview of the FAA Initiative Phase 2 Report responses to the Roundtable documented recommendations response to the FAA Initiative Phase 1 Report that could have a potential effect to the mid-coast communities. Communities such as, but not limited to, Montara, Moss Beach, El Granada, Princeton/Princeton-by-the-Sea, Miramar, and Half Moon Bay are considered to be Mid-Coast for the purposes of this technical memorandum.

1. Overview

The Northern California Metroplex² is the update of the airspace in the Bay Area. Federal regulations required the FAA complete an Environmental Assessment (EA)³ for the project, determining any environmental effects to the project study area. The Final EA⁴ was released in July 2014 and the Record of Decision (ROD)⁵ on the Final EA was issued on August 7, 2014; Metroplex procedures related to SFO operations were fully operational prior to April 2015. The FAA's first response to the Roundtable was provided in a FAA Initiative Phase 1 Report⁶ released November 2015. The FAA's first response contained 29 adjustments that were under the purview of the Roundtable; of this total, 13 were deemed by the FAA as "Feasible" while 16 were deemed by the FAA as "Not Feasible." The Roundtable released a

¹ <http://sforoundtable.org/>

² <https://www.faa.gov/nextgen/snapshots/metroplexes/?locationId=14>

³ http://metroplexenvironmental.com/norcal_metroplex/norcal_introduction.html

⁴ Final Environmental Assessment for Northern California Optimization of Airspace and Procedures in the Metroplex, July 2014.

⁵ http://www.metroplexenvironmental.com/docs/norcal_metroplex/NorCal_OAPM_FONSI-ROD.pdf

⁶ FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties, PHASE ONE, Compiled at the Requests of Representatives Farr, Eshoo and Speier, November 2015.

documented recommendations response⁷ to the FAA Initiative Phase 1 Report on November 17, 2016.

In July 2017, the FAA issued a FAA Initiative Phase 2 Report⁸ that provided information on the feasibility and status of each of the recommendations put forward by the Roundtable and Select Committee on South Bay Arrivals.

2. Summary Matrices

Tables 1-4 provide summary information for the following four categories of the FAA Initiative Phase 2 Report responses to the Roundtable documented recommendations response that could have a potential effect to the mid-coast communities, respectively:

1. Addressed Concern
2. Feasible and Could Be Implemented in the Short Term (<2 Years)
3. Feasible and Could be Implemented in the Long Term (>2 Years)
4. Under Evaluation

The columns within each table are Roundtable recommendation, FAA response and potential mid-coast community effect.

⁷ FAA Initiative Phase 1, SFO Airport/Community Roundtable Response, November 17, 2016.

⁸ FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties, PHASE TWO, Compiled at the Requests of Representatives Farr (Panetta), Eshoo and Speier, July 2017.

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 3 of 8

Table 1. SFO Roundtable Recommendations with FAA Response of “Addressed Concern”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
When Runways 01L/R are being used for departures, use a 050° heading rather than the STTIK procedure for south-bound departures. This is not a request to increase the use of Runways 01L/R.	Northern California Tracon will continue to reinforce the use of this procedure to personnel through training and briefings. Reduction in airport arrivals/departures may increase usage.	Aircraft using a 050° heading rather than the STTIK procedure is expected to reduce the number of south-bound departures that fly overhead or adjacent to the coast if aircraft remain over the Bay after using this heading.

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 4 of 8

Table 2. SFO Roundtable Recommendations with FAA Response of “Feasible and Could Be Implemented in the Short Term (<2 Years)”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
Work with the SFO Roundtable to determine where aircraft can be vectored with the least noise impact.	Northern California Tracon will continue to be an active participant in SFO Roundtable meetings, providing leadership in seeking solutions.	Vectoring is often used to compensate for high aircraft operation volumes at SFO and to avoid flight delays. Vectoring provides for a more dispersed flight path, which can be beneficial to people on the ground, particularly if the vectoring occurs over less populated areas.
SFO and the FAA should coordinate to maintain nighttime preferential runway use program, including Runways 10L/R as the preferred nighttime runway for takeoffs.	Northern California Tracon will continue to be an active participant in SFO Roundtable meetings, providing leadership in seeking solutions. Ongoing discussions with SFO to update the Fly Quiet program, which includes a night time preferential runway element.	Using Runways 10L/R for takeoffs may likely reduce the number of south-bound departures that fly overhead or adjacent to the coast if aircraft remain over the Bay.
Design and implement NIITE southbound transition that flies up the Bay, over the Golden Gate Bridge, then South. Keep away aircraft from shore as much possible. Aircraft would head up the Bay to NIITE, then west to GOBBS, then south-southeast to the PORTE or WAMMY waypoint, remaining clear of the shore.	The NIITE – GOBBS transition currently exists. Increased usage is under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.
The south transition on the NIITE SID should also be made available to HUSSH departures from OAK.	Currently under evaluation.	Moving aircraft southbound departures further away from the Bay coastline may likely result in additional noise relief. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.
SFO Roundtable requests a timeline from the FAA for implementation of NIITE southbound transition procedure, factoring in requirements to run the procedure through FAA Order JO 7100.41A process.	Currently under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline.

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 5 of 8

Table 3. SFO Roundtable Recommendations with FAA Response of “Feasible and Could Be Implemented in the Long Term (>2 Years)”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
Increase in-trail separation on SERFR, DYAMD and possibly BDEGA to reduce vectoring.	The FAA is continuously working to improve aircraft set up and sequencing between facilities. Reduction in airport arrivals/departures may decrease the need for vectoring.	Vectoring is often used to compensate for high flight volumes at SFO and to avoid flight delays. Increasing in-trail separation may reduce the need for vectoring, which would likely provide noise relief.

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 6 of 8

Table 4. SFO Roundtable Recommendations with FAA Response of “Under Evaluation”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
The FAA should determine altitudes to turn aircraft for vector purposes that minimizes noise.	Currently under evaluation.	Vectoring is often used to compensate for high aircraft operation volumes at SFO and to avoid flight delays. If altitudes of vectored aircraft arrivals were higher than that could reduce the noise effect.
Use the Bay, Ocean and compatible land use as much as possible.	Currently under evaluation.	If aircraft remain over the Bay, Ocean and compatible land uses then it could reduce the noise effect.
Determine if upgraded radar equipment or map notations would be helpful to controllers to increase the use of less impact areas when vectoring.	Currently under evaluation.	Vectoring is often used to compensate for high aircraft operation volumes at SFO and to avoid flight delays. Determining the areas that would have the least impact could reduce the noise effect.
While formal process of creating NIITE/HUSSH transition from GOBBS to an offshore southbound course is underway, determine if aircraft can file QUIET or SILENT, and/or Northern California Tracon utilize vectors, to approximate it’s path. One possibility: vector southbound aircraft via 330° and up the Bay, then out to the ocean and south; or off SFO – 050° and down the Bay.	Currently under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.
Raise the altitudes of vectored aircraft on the SERFR.	Currently under evaluation.	Vectoring is often used to compensate for high aircraft operation volumes at SFO and to avoid flight delays. If altitudes of vectored aircraft arrivals were higher than that could reduce the noise effect.
Fly over SSTIK/CNDEL to PORTE as published; avoid vectoring down the peninsula direct to waypoints beyond PORTE.	Currently under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 7 of 8

Table 4 Continued. SFO Roundtable Recommendations with FAA Response of “Under Evaluation”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
<p>Assign the OFFSHORE departure to flights which historically were assigned the OFFSHORE departure, which guides the aircraft to the ocean and WAMMY waypoint. Wide dispersal of flight paths is preferred.</p>	<p>Currently under evaluation.</p>	<p>There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.</p>
<p>In the existing SSTIK procedure, use the Bay and ocean as well as use existing areas of compatible land use for overflights as much as possible.</p>	<p>Currently under evaluation.</p>	<p>There is a potential for more relief of southbound departures since aircraft will be further away from the coastline.</p>
<p>Define the airspace limitations over the Bay, Golden Gate Bridge and the Ocean to the west for placement of a waypoint to replace or augment PORTE and or STTIK waypoint. Present these limitations to the Roundtable in graphic and memo format.</p>	<p>Currently under evaluation.</p>	<p>There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.</p>
<p>Fly the CNDEL procedure as published – don’t vector aircraft early. Determine if flight tracks after CNDEL waypoint could ‘contained’ to a more limited area such as west of the eastern shore of the Bay that would decrease potential conflicts with SSTIK. From CNDEL, direct aircraft to a waypoint in the Pacific Ocean – potentially GOBBS, then WAMMY before flying to PORTE.</p>	<p>Currently under evaluation.</p>	<p>There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. Using the WAMMY waypoint in lieu of the PORTE waypoint, would result in moving aircraft further away from the coastline. One alternative that can be analyzed is use a portion of the OFFSHORE ONE departure, with aircraft flying to the WAMMY waypoint.</p>

Mid-Coast Communities – SFO Roundtable Recommendations and FAA Responses

September 11, 2017

Page 8 of 8

Table 4 Continued. SFO Roundtable Recommendations with FAA Response of “Under Evaluation”

SFO Roundtable Recommendation	FAA Response	Potential Mid-Coast Community Effect
Create an OFFSHORE RNAV overlay that would allow for an RNAV procedure that keeps aircraft over the water.	Currently under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline.
Remain over the Bay/Pacific Ocean until attaining a high altitude.	Currently under evaluation.	There is a potential for more relief of southbound departures since aircraft will be further away from the coastline. If altitudes of aircraft departures were higher than that could reduce the noise effect.
Assign southeast bound aircraft the TRUKN departure with a transition at TIPRE or SYRAH.	Currently under evaluation.	There is a potential for more relief of southbound departures since some aircraft with destinations to the southeast will be rerouted to a different procedure where aircraft will fly to the east over the bay immediately after departing SFO and avoid the coastline.