

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. D. Syl

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).

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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

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Subject: New Flight Path and Increase in Noise Complaints

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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/

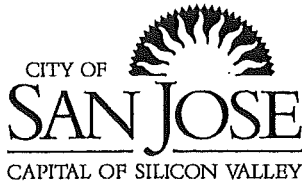
KIMBERLY J. BECKER
Director of Aviation

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





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. D. S. L.

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

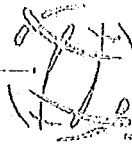
Attachment A: April 22, 2014 letter from SJC staff

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 I-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
 Airport Planner



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 A

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

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.

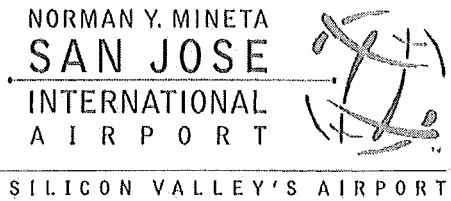
The Roundtable supports the San Francisco International Airport in its efforts to optimize the SERFR and BIG SUR routes in the greater Santa Cruz and Capitola areas. As a noise abatement stakeholder in the Bay Area, we look forward to working with the airport and FAA to find a solution for these routes.

Regards,

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

Cc: Congresswoman Speier
John Martin, San Francisco International Airport

Working together for quieter skies 



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.

Mr. Glen A. Martin – Regional Administrator/FAA

August 31, 2015

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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.

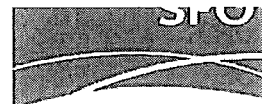
Sincerely,



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~~ Glen

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, ANIEE, 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

AIRPORT COMMISSION CITY AND COUNTY OF SAN FRANCISCO

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LINDA S. CRAYTON
 VICE PRESIDENT

ELEANOR JOHNS

RICHARD J. GUGGENHIME

PETER A. STERN

JOHN L. MARTIN
 AIRPORT DIRECTOR

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)

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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.

Mr. Glen A. Martin – Regional Administrator/FAA

August 31, 2015

Page 2 of 2

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.
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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)

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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

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AIRPORT DIRECTOR



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

Western-Pacific Region
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OCT 01 2015

Ms. Kimberly J. Becker
Director of Aviation
Norman Y. Mineta
San Jose International Airport
1701 Airport Boulevard, Suite B-1130
San Jose, CA 95110-1206

Dear Ms. Becker:

Thank you for your letter dated August 31, 2015, regarding your concerns about the flight path changes over Santa Cruz County.

Consistent with its statutory mission, the Federal Aviation Administration (FAA) continues to work to ensure the safe and efficient use of our national airspace system. The Northern California (NorCal) Optimization of Airspace and Procedures in the Metroplex (OAPM) is part of the national Next Generation Air Transportation System. The purpose of the project is to take advantage of the benefits of performance-based navigation by implementing Area Navigation (RNAV) procedures to help enhance the safety and efficiency of the airspace in the NorCal Metroplex.

On May 4, 2014, the comment period closed for the NorCal OAPM Environmental Assessment (EA). On August 6, 2014, the FAA issued its final decision. Therefore, it's too late for the FAA to host "one or more public outreach meetings with the Santa Cruz Mountains communities," as well as any public comment meetings with Santa Cruz citizens regarding SERFR1 Standard Terminal Arrival Route - or any NorCal OAPM procedure. However, the FAA remains willing to attend and listen to concerns from select community representatives at member-hosted public sessions, like the sessions hosted by Congressman Farr and Congresswoman Eshoo on July 24, 2015.

The FAA is responsible for complying with both the procedures and policies of the National Environmental Policy Act, (42 U.S.C. §§4321-4347) (NEPA), as implemented by the Council on Environmental Quality regulations, (40 Code of Federal Regulations parts 1500-1508). Before implementing any airspace changes for the NorCal OAPM, the FAA complied with NEPA, as well as all applicable environmental laws and requirements. Due to the number of airports involved and the geographic size of the study area, the FAA chose to prepare an EA. All proposed arrival and departure procedures were included in the FAA's detailed NorCal OAPM March 25, 2014, Draft EA.

Although public sessions were not required, the FAA hosted five public workshops from April 14 through April 18, 2014, to give the public an opportunity to better understand the proposed project and extended the public comment period, which—as noted above—closed on May 4, 2014. The NorCal OAPM environmental documentation and accompanying noise technical material, that supported our August 6, 2014, final decision can be accessed and viewed at the following site:

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

The NorCal OAPM EA explained, analyzed, and summarized the noise exposure. The analysis and noise model are contained in the technical material that accompanied the EA. The EA indicates that there are no significant noise impacts [i.e., a Day-Night average sound level (DNL) 1.5 decibel (dB) or more increase at or above DNL 65 dB noise exposure] as a result of the implementation of the proposed procedures and no “reportable increases” (i.e., changes of DNL 3 dB or more within the 60 – 65 noise exposure area, or a change of DNL 5 dB or more within the 45 – 60 dB noise exposure area). (FAA Order 1050.1E, Environmental Impacts: Policies and Procedures)

Based on the noise modeling analysis, there are no significant noise impacts and no reportable noise increases associated with the proposed NorCal Metroplex procedures. Further, although we haven’t independently verified the data, a recent June 21, 2015, noise monitoring report found noise levels consistent with the EA.

Due to the traffic from several major airports, smaller regional airports, and military activity, the Northern California airspace is very complex and existing aircraft noise has been an ongoing issue in this area for many years—long before the FAA began implementing the Northern California Metroplex procedures. While safety remains the FAA’s highest priority, the agency does attempt to address noise impacts by designing procedures over water and industrial areas when safety and efficiency permit. The FAA is also mindful that while changes to an approach may solve a noise issue in one area, they may simply shift the noise concern from one location to another.

Thank you for this opportunity to answer your inquiry. If you have any questions, please contact me or Tamara A. Swann, Regional Executive Manager, at (310) 725-3550.

Sincerely,



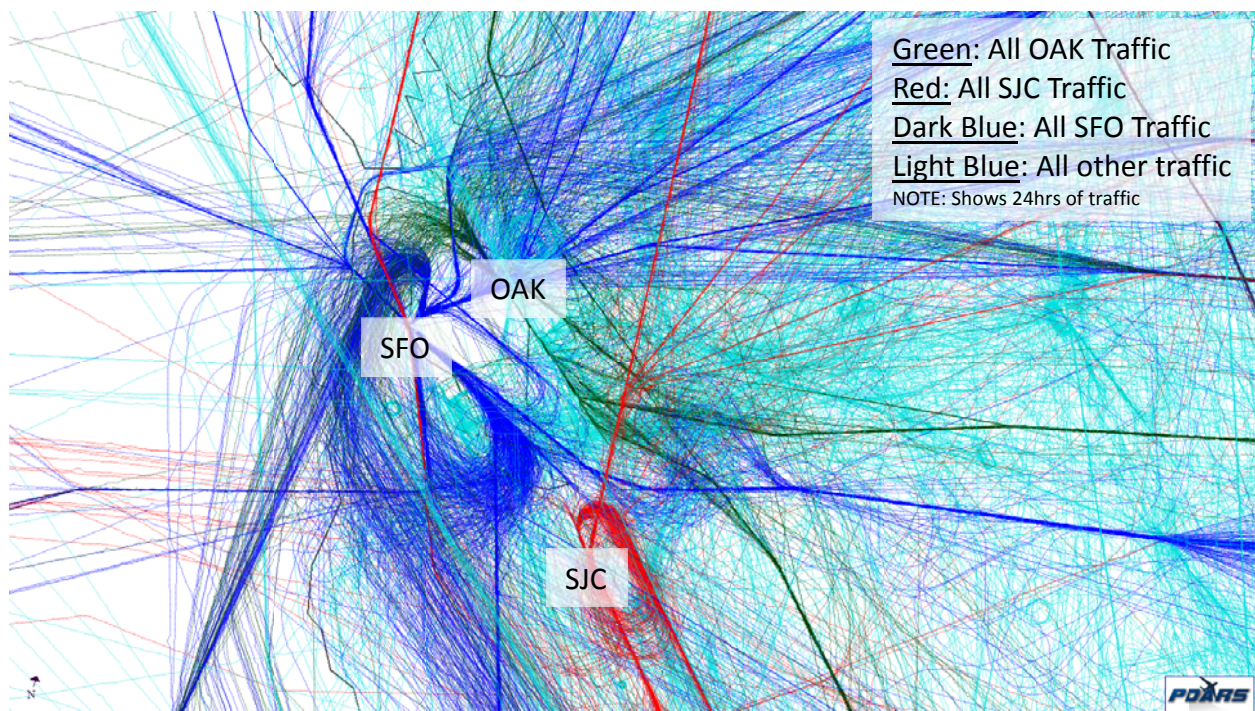
Glen A. Martin
Regional Administrator

FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties

Compiled at the Requests of Representatives Farr, Eshoo and Speier

Executive Summary

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 were designed to improve safety and efficiency within the National Airspace System (NAS).



Longstanding issues with, as well as changes to, the Northern California TRACON instrument approach and departure procedures have generated noise concerns from local residents of Santa Cruz, Santa Clara, San Mateo and San Francisco Counties. In meetings and correspondence with congressional offices and local community representatives, the Federal Aviation Administration (FAA) has received recommendations to adjust the current published procedures. In response, the FAA has undertaken the following noise initiative to explore such modifications. Airspace and air traffic procedures are highly dependent upon each other within the NAS and must be evaluated collectively to ensure safety and efficiency.

This initiative will be comprised of three phases. During the first phase, the FAA will conduct a detailed analysis and a preliminary feasibility study focusing on flight procedures criteria and overall fly-ability of the new Performance Based Navigation (PBN) procedures, potential

procedural modifications including speed/altitude adjustments, airspace changes and possibility of moving existing waypoints. An assessment of impacts to operations at the surrounding airports and associated procedures will be completed. In addition, coordination with the local stakeholders will be conducted during this first phase.

During the second phase, FAA will consider any amendments and/or new procedures that are determined to be initially feasible, flyable, and operationally acceptable from a safety point of view. As part of this effort, FAA will conduct the formal environmental and safety reviews, coordinate and seek feedback from existing and/or new community roundtables, members of affected industry, and the National Air Traffic Controllers Association (NATCA) before moving forward with the formal amendment process. During phase three, the FAA will implement procedures; conduct any required airspace changes and additional negotiated actions, as needed.

In addition to its mandate to ensure the safe and efficient use of the NAS, the FAA complies with the requirements of the National Environmental Policy Act (“NEPA”). As such, although not specifically detailed within this noise initiative, the FAA’s procedures and standards for evaluating noise impacts associated with all potential modifications to currently published procedures—consistent with FAA Order 1050.1F (effective July 16, 2015)—will be followed and undertaken before implementing any airspace changes. Finally, this document does not constitute either a final decision of the FAA or a re-opening of the FAA’s August 6, 2014 final decision for the Northern California (NorCal) Optimization of Airspace and Procedures in the Metroplex (OAPM).

Initiative:

Phase one: Initial Analysis, Feasibility, and Coordination

1. Instrument Flight Procedures/Airspace:

Planned Action: The FAA will conduct a detailed analysis to include preliminary feasibility from a procedures/criteria perspective and fly-ability from an aircraft perspective. Procedures will be analyzed, modeled, and flown in flight simulators. An assessment of the impact to operations and other procedures will be completed. The analysis should indicate whether the potential procedural changes could be made to effectively reduce noise.

- a. Altitude adjustments:** Raising the floor and/or ceiling of existing procedures may allow the FAA to do the same for other procedures and reduce noise concerns in certain locations.
 - i. Analyze raising the floor and ceiling of existing SERFR and BRIXX arrivals. (AJV-WOSG)
 - a) Evaluate raising the altitude at MENLO waypoint to 5,000 feet or establish a new waypoint to allow for crossing the MENLO area closer to 5,000 feet.
 - ii. Analyze reducing impacts of SSTIK, WESLA, and CNDLE departures. (AJV-WOSG)

Status: Analysis began October 2, 2015

Completion Date: TBD

- b. Track adjustments:** Where possible, tracks should be adjusted away from areas of concern and moved over water versus land.
 - i. Analyze moving the SSTIK and PORTE departures more over water. (AJV-WOSG)
 - ii. Analyze reducing the impacts of SSTIK, WESLA, and CNDLE departures. (AJV-WOSG)
 - iii. Analyze moving the ILS/Visual Approach to Runway 28L offshore. (AJV-WOSG)

- iv. Analyze offsetting Visual Approaches until passing the San Mateo Bridge. (AJV-WOSG)
- v. Analyze the impact of non-charted visual approaches to RWY 28 (AJV-WOSG)

NOTE: There are three charted visual approaches to San Francisco (SFO). Two are FAA published approaches, the TIPP TOE VISUAL and the QUIET BRIDGE VISUAL. The third approach is owned by United Airlines and is a special charted visual, also available to other airlines. If changes are made to the procedure, the FAA would request that United Airlines and each airline that uses this procedure update their databases.

Status: Analysis began October 2, 2015

Completion Date: TBD

c. Waypoint Adjustments:

- i. On the SERFR arrival, analyze moving EPICK waypoint south to approximately 36 54 52.8N and 121 56 32.7W, add restriction to speed of 280 knots and altitude of 15,000 feet. (AJV-WOSG)
- ii. Analyze making adjustments to PORTE departure to maximize offshore routing. (AJV-WOSG)
- iii. Evaluate adding a new waypoint roughly over the Highway 17 summit area, between EPICK and EDDYY, with at least a 10,000 feet and 250 knot restriction. (AJV-WOSG)

Status: Analysis began October 2, 2015

Completion Date: TBD

d. Speed Adjustments:

- i. Analyze moving speed adjustments over water instead of over land. (AJV-WOSG)
- ii. Analyze reducing the speed on the current SERFR arrival. (AJV-WOSG)
- iii. Analyze data to determine compliance with the requirement to maintain 250 knots or less below 10,000 feet Mean Sea Level (MSL). (AJV-WOSG)

Status: Analysis began October 2, 2015

Completion Date: TBD

e. Holding Patterns

- i. On the SERFR arrival, study current use of the holding pattern at EPICK and the possibility of moving the holding pattern to WWAVS. (AJV-WOSG)

Status: Analysis began October 2, 2015

Completion Date: TBD

f. PBN Procedures:

- i. Evaluate proposed PBN arrival procedures from local community groups for feasibility, fly-ability and safety concerns. (AJV-WOSG)
- ii. Evaluate the effect of dispersing flight tracks over a wider range. (AJV-WOSG)
- iii. Study the feasibility of creating new transitions for the NIITE departure for airports to southbound destinations. (AJV-WOSG)
- iv. Study the possibility of new SFO RNP approaches that will serve Runways 28 L/R that follow the Big Sur ground track, curved out over the Bay crossing MENLO at 5000-6000 feet. (AJV-WOSG)

Status: Analysis began October 2, 2015

Completion Date: TBD

2. Air Traffic Control:

Planned Action: The Western Service Center, on behalf of the Air Traffic Director of Operations, will work with the facilities to assess what opportunities exist to modify operations. Part of this assessment will include looking at the possibility of adjustments during reduced volume night operations, even if day operations cannot be changed. If changes can be made there will need to be a safety assessment, controller training, pilot briefings, and the SFO community roundtable may need to be engaged.

a. Sequencing and Vector Points: There may be actions air traffic controllers can take to reduce noise concerns such as assessing whether changes can be made to vectoring aircraft over water more.

- i. Analyze adjusting air traffic activity in the vicinity of Woodside VOR including altitudes. (AJT, AJV-WOSG)
- ii. Analyze adjusting air traffic to eliminate early turns over land. (AJT, AJV-WOSG)
 - a) Focus on leaving aircraft over water as long feasible.
 - b) Keep aircraft on the SSTIK departure until the SSTIK waypoint before turning.
 - c) Keep aircraft on the NIITE departure to at least the NIITE Waypoint as much as possible.

Completion Date: TBD

b. Use of Descend Via:

- i. Increase use of descend via procedures. (AJT, AJV-WOSG)
- ii. Increase use of descend via procedures for international flights. (AJT, AJV-WOSG)

Completion Date: TBD

c. Class B Containment: Some current procedures, as designed, are not fully contained within the existing SFO Class B airspace.

- i. Analyze current versus historic data to determine trends and risks to aircraft exiting and reentering Class B airspace. (AJT, AJI, AJV-WOSG)
- ii. Analyze current RNAV arrival and departure procedures to determine necessity and feasibility of redesign. (AJT, AJI, AJV-WOSG)
- iii. Analyze current RNAV arrival and departure procedures to determine necessity and feasibility of redesigning Class B airspace. (AJI, AJV-WOSG)

Status: Ongoing

Completion Date: TBD

d. Speed Brakes:

- i. Study the potential reduction and/or elimination of the use of speed brakes and conduct a track analysis to determine flight characteristics, utilizing the Aviation Safety Information Analysis and Sharing (ASIAS) database. (MITRE CAASD)
- ii. Work with stakeholders to determine feasibility of reducing the use of speed brakes and other surface controls over land.

Status: Ongoing

Completion Date: TBD

e. Runway Usage:

- i. Study the feasibility of increasing the use of Runway 10. (AJT)
- ii. Study the feasibility of increasing the use of RWY 01 for Departures (AJT). Study the feasibility of proceduralizing the 050 departure heading off RWY 01 at night. (AJT)
- iii. Study the necessity of extending nighttime operations at SFO. According to the SFO Standard Operating Procedure, the preferred Runway for operations between 0100 and 0600 local time is departing Runway 10 and landing Runway 28. (AJT)
- iv. When weather conditions permit, study the increase in use of the Shoreline 7 Departure off RWY 28R or 28L. (AJT, AJV-WOSG)

Completion Date: TBD

f. Instrument Flight Procedures (IFP):

- i. Study the feasibility of creating new transitions for the NIITE departure for airports to southbound destinations. (AJV-WOSG)
- ii. When weather operations permit, study the use of the Shoreline7 departure off of Runway 28R or 28L. (AJT, AJV-WOSG)
- iii. Study the use of offset visual approaches in lieu of straight in visual approaches. (AJT, AJV-WOSG)
- iv. Study the usage of GAP departure. (AJT, AJV-WOSG)

- v. Study whether international and domestic aircraft are handled the same by Air Traffic Control (ATC). (AJT, AJV-WOSG)
- vi. Study the feasibility of increasing the use of the SSTIK departure during the day and the NIITE departure at night. (AJT, AJV-WOSG)

Completion Date: TBD

g. Opposite Direction Operations (ODO): Operational changes related to ODO may have increased noise concerns at night in certain locations.

- i. Review recent implementation of ODO procedures and their impacts in the San Francisco Bay area. (AJT, AJI)
- ii. Assess potential options for night operations. (AJT, AJI)

Completion Date: TBD

3. Traffic Management

Planned Action: The Western Deputy Director of System Operations, on behalf of the Air Traffic Director of Operations, will work with the Western Service Center and local facilities to evaluate the actions and suggestions below. During the analysis, the focus will be on use of traffic management tools and initiative to ensure current practices are as effective and efficient as possible for the potential reduction of noise concerns.

a. Equitability: Concentration of noise should be reviewed, especially during nighttime operations.

- i. Review the current nighttime operations to determine if they adequately address preferential Runway usage. (AJT, AJV-WOSG)

NOTE: According to the SFO Standard Operating Procedure, the preferred Runway for operations between 0100 and 0600 local time is departing Runway 10 and landing Runway 28.

- ii. Evaluate the effect of dispersing flight tracks over a wider range or developing multiple parallel RNAV procedures. (AJT, AJV-WOSG)

Completion Date: TBD

b. Interactions and agreements: Facility agreements between Northern California TRACON (NCT), Oakland Air Route Traffic Control Center (ARTCC) (ZOA), and Los Angeles ARTCC (ZLA) might be amended to reduce the need for off-course vectors and speed adjustments to potentially reduce noise concerns in certain locations.

- i. Review facility agreements for possible changes to aircraft set up and sequencing. (AJT, AJV-WOSG)
- ii. Review facility agreements to ensure they are effective and efficient with regard to routing and speeds. (AJT, AJV-WOSG)

Completion Date: TBD

- c. **Time Based Flow Management (TBFM):** The use of TBFM to enhance sequencing may reduce the need for off course vectors and speed adjustments and may reduce noise concerns in certain locations.
 - i. Review the current and projected status of using TBFM procedures. (AJT, AJV, AJR)
 - ii. Review the impact of using TBFM on current noise issues. (AJT, AJV, AJR)

Completion Date: TBD

- d. **Nighttime Offloads/Routes:** Communities want a focus on reducing noise concerns at night.
 - i. Review nighttime operations. (AJT)
 - ii. Review cargo flight operations to determine if previous actions have adequately addressed all issues. (AJT)
 - iii. Review utilizing the current Big Sur for late night cargo arrivals. (AJT, AJV-WOSG)
 - iv. Review the current nighttime operations to determine if they adequately address preferential Runway usage. (AJT, AJV-WOSG)

NOTE: According to the SFO Standard Operating Procedure, the preferred Runway for operations between 0100 and 0600 local time is departing Runway 10 and landing Runway 28.

Completion Date: TBD

4. Operators:

Planned Actions: AJV will engage Airlines for America (A4A) and The International Air Transport Association (IATA) nationally to solicit perspective and input into defined issues. Operator involvement needs to be discussed, especially if the FAA does not utilize the roundtable concept to work issues with stakeholders. It is assumed that the

Office of the Associate Administrator for Airports (ARP) would want some level of input or engagement as SFO should also be involved directly in these conversations.

- a. **Use of speed brakes:** Operators can focus on reducing the use of speed brakes. Pilots have the sole responsibility to determine when speed brakes should be used. (A4A, IATA)

Completion Date: TBD

- b. **Runway choices:** Operators may request more “fly friendly” Runways, especially at night, to reduce noise concerns in certain locations. (A4A, IATA, SFO)

Completion Date: TBD

- c. **IFP choices:** Operators can file “fly friendly” procedures, especially at night, to reduce noise concerns in certain locations. (A4A, IATA, SFO)

Completion Date: TBD

- d. **Nighttime Offloads/Routes:** Communities want a focus on reducing noise concerns at night. (A4A, IATA, SFO)

Completion Date: TBD

- e. **Early Turns:** Operators can assist ATC in ensuring as much as possible of a flight is over water versus over land by not requesting early turns on course. (A4A, IATA)

Completion Date: TBD

- f. **International air carrier execution of Optimized Profile Descents (OPDs):** AJV will reach out to IATA to discuss and get input and perspective on this issue. (IATA)

Completion Date: TBD

5. Community Engagement

- a. **Community Forums:** Addressing noise concerns in a densely populated and operationally complex area like Northern California is best done in a forum (such as existing and/or new roundtables) that includes community leaders and is supported by the FAA and Bay Area Airports. (AWP, AGI)

- b. San Carlos Airport:** Apart from the efforts described in this report, there are TBD conversations with communities around the airport that are concerned about the increase in flights and noise. (AWP)

Phase two: Modifications and Review

Based on the outcome of the initial analysis, feasibility and coordination, modifications may be made to the proposed procedures and/or airspace or operating procedures using the guidance found in current FAA Orders, directives and labor agreements which includes conducting the Environmental Review; Safety Risk Management (SRM); and appropriate public outreach.

Completion Date: TBD

Phase three: Implementation

Based on the outcome of the modifications and review phase and assuming the proposed procedure(s) meet the purpose and need, as well as all applicable environmental laws and requirements, the controller workforce and operators will be trained/briefed on any operational or procedural changes before publication and operational use.

Completion Date: TBD