

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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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.

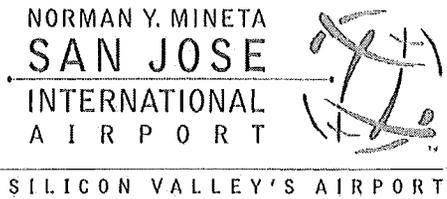
The Roundtable supports the San Francisco International Airport in its efforts to optimize the SERFR and BIG SUR routes in the greater Santa Cruz and Capitola areas. As a noise abatement stakeholder in the Bay Area, we look forward to working with the airport and FAA to find a solution for these routes.

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.

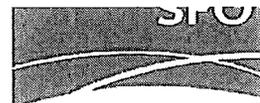
Sincerely,



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

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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

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