

# **Appendix C: Public Comments**

## **For the Report of the Ad Hoc Advisory Committee on South Flow Arrivals**

**Received after 4/27/18**

Previously submitted written public comments are available in the appendix for the Ad Hoc Committee meeting documents

## Kazmierczak, Matthew

---

**From:** rturner@cityofmontesereno.org  
**Sent:** Saturday, April 28, 2018 3:24 PM  
**To:** 'Gary C. Waldeck'; 'Glenn Hendricks'  
**Cc:** Kazmierczak, Matthew  
**Subject:** RE: Reid-Hillview Airport

R-H is currently used as a reliever site.  
I know it cannot support jet aircraft.  
But, are there any SMALL planes that will help alleviate the noise at all?

Rowena

---

**From:** Gary C. Waldeck <gcwaldeck@losaltoshills.ca.gov>  
**Sent:** Saturday, April 28, 2018 11:49 AM  
**To:** Glenn Hendricks <HendricksCouncil@sunnyvale.ca.gov>  
**Cc:** rturner@cityofmontesereno.org; Kazmierczak, Matthew <Matthew.Kazmierczak@sanjoseca.gov>  
**Subject:** Re: Reid-Hillview Airport

Glen, I agree with you.  
In addition the hub airports can handle the passengers, but Reid-Hillview has no facilities to do so.  
R-H might make a good emergency site, but so would Moffett Field.

Gary Waldeck  
[GCWaldeck@gmail.com](mailto:GCWaldeck@gmail.com)  
Cell (510) 219-9464

Brevity, Typos and Incorrect Words! are (usually) courtesy of my iPhone's AutoCorrect feature

On Apr 28, 2018, at 9:21 AM, Glenn Hendricks <[HendricksCouncil@sunnyvale.ca.gov](mailto:HendricksCouncil@sunnyvale.ca.gov)> wrote:

Rowena,  
From my perspective:

- Smaller planes are not the issue with South-flow (at least over Sunnyvale). Its the jet passenger planes
- Reid-Hillview does not support jet aircraft
- If we did this, it would clearly be moving the traffic to someone else

Just my initial thoughts

**Glenn Hendricks**  
**Mayor**  
Cell: 408 242 8384  
Office: 408 730 7473  
[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)

---

**From:** [rturner@cityofmontesereno.org](mailto:rturner@cityofmontesereno.org) <[rturner@cityofmontesereno.org](mailto:rturner@cityofmontesereno.org)>

**Sent:** Saturday, April 28, 2018 7:12 AM

**To:** [GCWaldeck@losaltoshills.ca.gov](mailto:GCWaldeck@losaltoshills.ca.gov); Glenn Hendricks

**Cc:** 'Kazmierczak, Matthew'

**Subject:** Reid-Hillview Airport

Hi:

Has anyone ever looked at using the Reid-Hillview Airport for the smaller airplanes?

I do realize that the runways are shorter. At this time, that airport is used as a reliever airport for SJ Mineta.

Reid-Hillview is also used for pilot training and for the classes from SJ State University Aeronautics Program.

It is used for emergencies like Cal-Fire, Angel-flights, etc.

I think this may be worth looking at even a cursory look.

Rowena

## Kazmierczak, Matthew

---

**From:** jeanmordo@gmail.com  
**Sent:** Tuesday, May 01, 2018 4:51 PM  
**To:** hendrickscouncil@sunnyvale.ca.gov  
**Cc:** 'Matichak, Lisa'; lydia.kou@cityofpaloalto.org; 'Chris Jordan'; Kazmierczak, Matthew  
**Subject:** RE: Updated Ad Hoc Committee Draft report  
**Attachments:** 180430 FAA -- south flow arrival -- 4-2018.v2 -- final.docx

Glenn

I had the Cities of Los Altos Mountain View and Palo Alto sign the attached letter to the FAA regarding the proposed new ILS procedure. The language in it is perfect for including in the ad hoc Committee Report.

### Jean (John) Mordo

[jeanmordo@gmail.com](mailto:jeanmordo@gmail.com)

(650) 279-8461 (M)

---

**From:** Kazmierczak, Matthew <MKazmierczak@sjc.org>  
**Sent:** Tuesday, May 1, 2018 4:20 PM  
**To:** Kazmierczak, Matthew <MKazmierczak@sjc.org>; mayor@sunnyvale.ca.gov  
**Cc:** Lupita Alamos <LAlamos@sunnyvale.ca.gov>; Adams, Janelle <JAdams@sjc.org>  
**Subject:** Updated Ad Hoc Committee Draft report

Attached from Mayor Hendricks is the latest draft of the Ad Hoc Advisory Committee on South Flow Arrivals report to the FAA. It includes all the notes and changes that Mayor Hendricks had from last week's meeting.

Please note that this does not yet reflect the comments/language from the Committee or the public. The request at the last meeting was for Committee members and the public to send language to Mayor Hendricks that could be put into the report.

Some of the places that need new language:

- Language from Bob N for page 10 to capture his ideas/changes to the Eastern Approach
- Dispersion language for various cities for page 8-9
- Other items related to the excel spreadsheet

You can "respond-to-all" in this email with any additional language you want included. Please don't send an email to the Committee as a whole. Because of the Brown Act, we will not be responding or corresponding individually. To follow the Brown Act, **all emails with new language for the report will be pooled together and released publicly on the Ad Hoc Committee website before our next meeting.** Please also do not have a dialogue with your other Committee members on the report or your proposed language as we want to avoid any serial communication violations.

All written comments provided by the public have been capture on the website:

[https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)

One element will be whether to reference these public comments in the report with a link to the website or to reproduce all the public comments and documents in the appendix of the report.

Thank you,

Matthew



**Matthew Kazmierczak** | Manager of Strategy and Policy  
Director's Office  
Office: 408.392.3640 | Mobile: 202.374.9098 | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)

---

Mineta San José International Airport  
1701 Airport Blvd. Ste B-1130, San José, CA 95110  
[flysanjose.com](http://flysanjose.com) | [facebook](#) | [twitter](#) | [linkedin](#)



April 30, 2018

Mr. Dennis Roberts  
Regional Administrator  
FAA Western-Pacific Region  
15000 Aviation Blvd  
Lawndale, CA 90261

Dear Mr. Roberts:

It has come to our attention that the Federal Aviation Administration (FAA) recently published a notice on the Instrument Flight Procedures Information Gateway on the FAA website that a new arrival procedure is being designed by the FAA for use at Mineta San Jose International Airport (SJC) during certain South Flow configurations. This possible new procedure is deeply concerning to our communities.

Our cities suffer from the constant challenges presented by aircraft noise and emissions in and out of San Francisco International Airport and, now, with the South Flow arrivals, in to SJC. We have participated on various regional committees and are currently actively involved in the San Jose ad hoc committee on south flow arrivals. That is why we are shocked that this new arrival path was not brought to the attention of that group in a timely manner, nor has public input been sought for this significant change to the flight path. In addition, our research indicates there are no environmental reports available for public inspection.

This new flight path could have a significant impact on our communities as the track moves closer to the foothills than currently and moves the track further north. And, the impacts would be even greater as the proposal lowers the altitude of the flight path over our communities, including directly over schools and potentially over historic districts.

We respectfully request that the FAA delay implementation of this plan until a robust public and community input strategy can be formulated and implemented. We offer the services our agencies to assist you in publicizing opportunities for the public to participate in this important process.

Please let us know how you plan to proceed.

Sincerely,

Jean Mordo, Mayor  
City of Los Altos

Lenny Siegel, Mayor  
City of Mountain View

Liz Kniss, Mayor  
City of Palo Alto

cc: Hon. Anna G. Eshoo, Member of Congress

## **Kazmierczak, Matthew**

---

**From:** Kazmierczak, Matthew  
**Sent:** Thursday, May 03, 2018 7:57 AM  
**To:** Kazmierczak, Matthew  
**Cc:** Adams, Janelle  
**Subject:** South Flow on May 1  
**Attachments:** SJC Ad Hoc Committee 5-1-18 SF Data.pdf

Committee Members,

On May 1, SJC was in South-Flow.

I checked with Mathew to get the weather at SJC.

At 8:53am it was reported at 6 knot (~7 MPH) wind from the 130 degree direction (a SE wind that blows to the NW)

I also asked to get a single day map of the South-Flow flights. I was hoping that it would be easier to see the actual patterns, as opposed to the monthly images we had seen.

It's a very interesting picture to see the single-day impacts our residents experience.

I think this makes it easier to identify the patterns of traffic.

Thanks

**Glenn Hendricks**

**Mayor**

Cell: 408 242 8384

Office: 408 730 7473

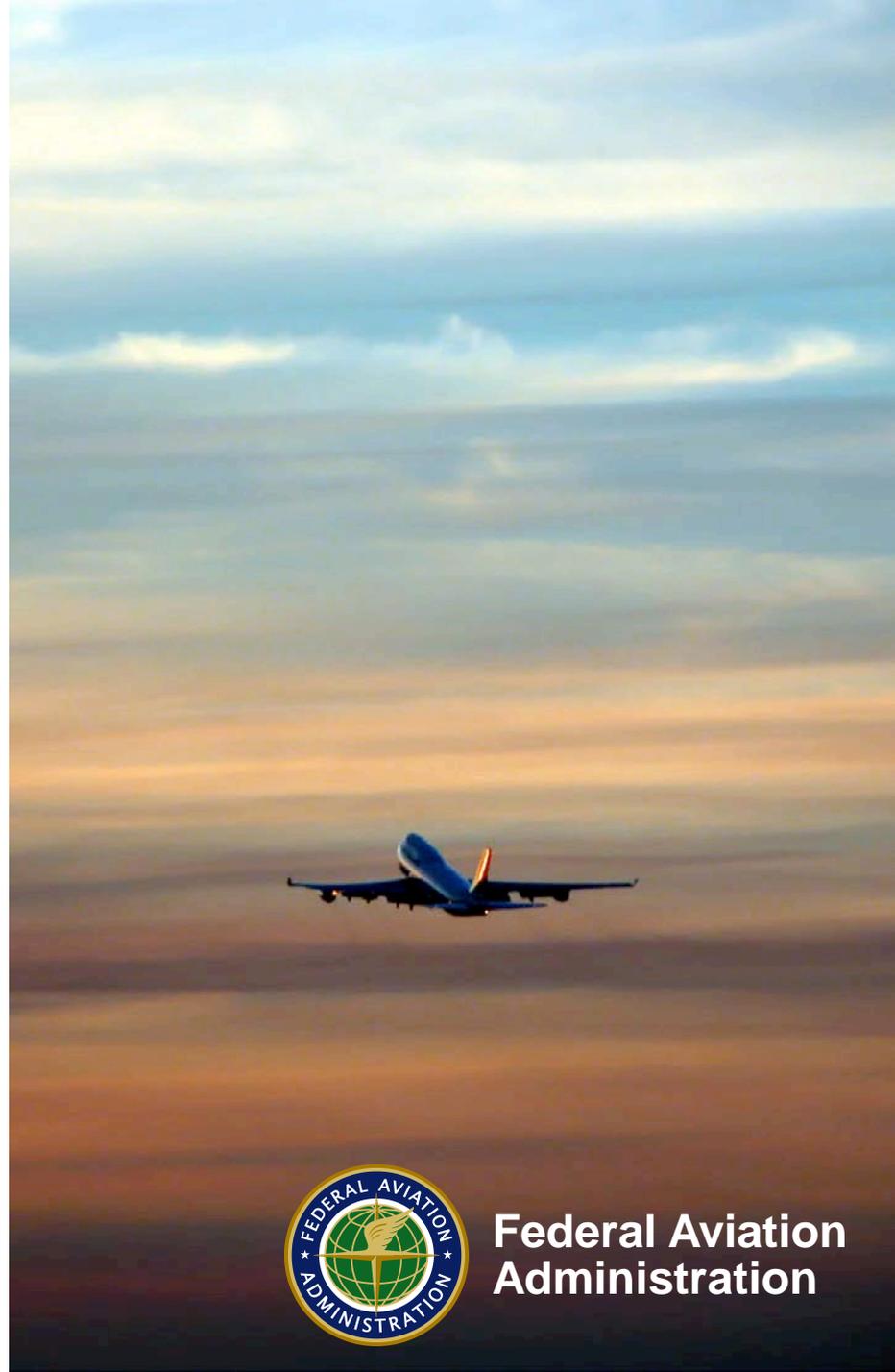
[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)

# San Jose Ad Hoc Advisory Committee on South Flow Arrivals

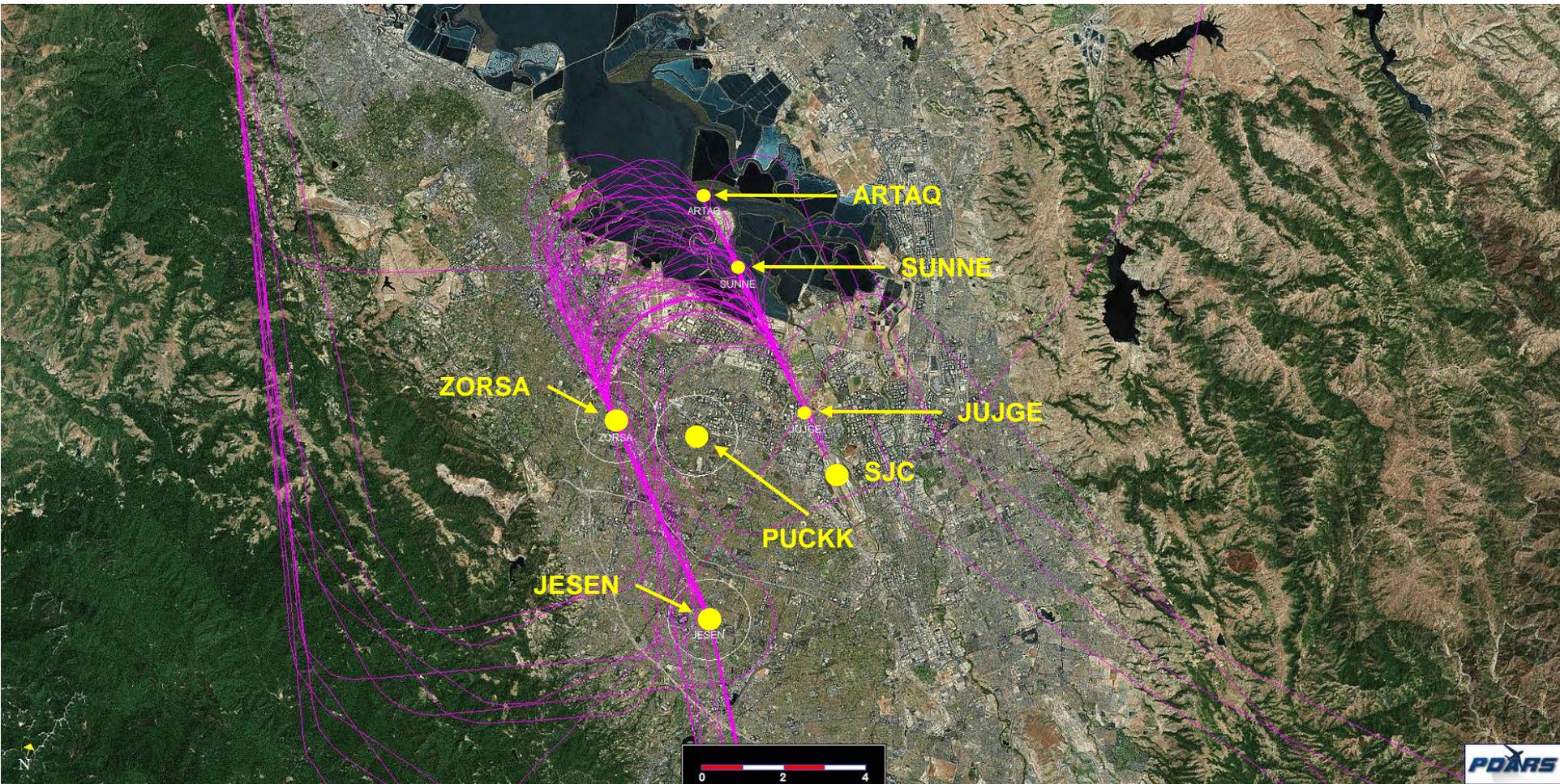
SJC South Flow Data  
5/1/2018



Federal Aviation  
Administration



# SJC South Flow May 1, 2018



58 Total Tracks

RNAV = 14 (24%)

East = 5 (9%)

Est. ILS = 10 (17%)

Other = 29 (50%)



Federal Aviation  
Administration

## Kazmierczak, Matthew

---

**From:** Katy Nomura <KatyN@cupertino.org>  
**Sent:** Monday, May 07, 2018 4:34 PM  
**To:** Kazmierczak, Matthew  
**Cc:** Savita Vaidhyanathan; Lauren Sapudar; Adams, Janelle; mayor@sunnyvale.ca.gov; LAlamos@sunnyvale.ca.gov; HendricksCouncil@sunnyvale.ca.gov  
**Subject:** RE: New Draft to be published  
**Attachments:** SJ Adhoc Cmte Report v6 Cupertino.docx

Hi Matthew,

Please find the below language for the City of Cupertino to be included in the “Request to the FAA #1”:

### Cupertino

For the City of Cupertino – dispersion would mean that flight paths are distributed and not concentrated over a narrow flight path. Current south flow flight paths appear to be from JESEN to ZORSA and not from JESEN to PUCKK, or from JESEN to any point between waypoints ZORSA and PUCKK. It would be preferable for flight paths to be more evenly distributed between JESEN/ZORSA flight paths and JESEN/PUCKK flight paths. Alternative flight paths from JESEN to any point between waypoints ZORSA and PUCKK may also be good options for achieving dispersion and avoiding narrow flight path concentrations.

This language is also incorporated in the attached Draft. Please let me know if you have any questions.

Best,  
Katy Nomura  
Senior Management Analyst | City Manager’s Office  
City of Cupertino | 10300 Torre Avenue | Cupertino, CA 95014  
408-777-4844 | [katyn@cupertino.org](mailto:katyn@cupertino.org) | [www.cupertino.org](http://www.cupertino.org)

---

**From:** Kazmierczak, Matthew [<mailto:MKazmierczak@sjc.org>]  
**Sent:** Monday, May 07, 2018 9:00 AM  
**To:** Kazmierczak, Matthew <[MKazmierczak@sjc.org](mailto:MKazmierczak@sjc.org)>  
**Cc:** Adams, Janelle <[JAdams@sjc.org](mailto:JAdams@sjc.org)>; [mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov); [LAlamos@sunnyvale.ca.gov](mailto:LAlamos@sunnyvale.ca.gov)  
**Subject:** FW: New Draft to be published

This version of the Draft includes updates that I have received from several committee members and some members of the public.

Please turn in any commits to me ASAP.

The last meeting is on May 18. The earlier we get comments, the more likely they can be incorporated into the document and revised Drafts shared with the committee and the public.

I would like to limit changes to the Draft document in the May 18 - as much as possible. (I want to provide comments in advance of the meeting as much as possible.)

**Glenn Hendricks**

**Mayor**

Cell: 408 242 8384

Office: 408 730 7473

[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)



**Matthew Kazmierczak** | Manager of Strategy and Policy

Director's Office

Office: 408.392.3640 | Mobile: 202.374.9098 | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)

---

Mineta San José International Airport  
1701 Airport Blvd. Ste B-1130, San José, CA 95110  
[flysanjose.com](http://flysanjose.com) | [facebook](#) | [twitter](#) | [linkedin](#)

## Kazmierczak, Matthew

---

**Subject:** FW: Ad Hoc committee report - LK edits

---

**From:** Kou, Lydia [<mailto:Lydia.Kou@CityofPaloAlto.org>]

**Sent:** Monday, May 07, 2018 4:47 PM

**To:** Kazmierczak, Matthew <[Matthew.Kazmierczak@sanjoseca.gov](mailto:Matthew.Kazmierczak@sanjoseca.gov)>

**Cc:** Mayor AnswerPoint <[mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)>; Adams, Janelle <[JAdams@sjc.org](mailto:JAdams@sjc.org)>

**Subject:** Ad Hoc committee report - LK edits

Glenn and Matt,

Thank you again for your dedicated time for our important effort to address the South Flow noise problem.

Please find attached my edits to the Report.

**The highlights are as follows:**

- We should concur on the **Committees' objective** to ensure that all the recommendations in the report help achieve this objective.
  - I believe the main objective is to eliminate the NextGen rail corridors in order to return to a pre-NextGen distribution of flights such as the one in 2011.
- I have **grouped under the first recommendation** “Fly an alternate or more dispersed approach” **three items** related to dispersion
  - “Disperse flights over a broad area”
    - To underscore the committee's unity on dispersion we should support the **same request** —we do not want any rail corridor and we want a return to the 2011 distribution. Therefore individual cities should not be describing their unique dispersion needs. Details could be captured as appropriate in the spreadsheet.
  - “Explore Eastern approach”
  - **Added new item - "Evaluate SJC South Flow remedies in the NorCal Metroplex context"**
    - As a regular attendee of the SFO Roundtable it is evident that there are many interdependencies among SJC/SFO/OAK, therefore we must ask the FAA to look for solutions in context of the NorCal Metroplex.
- In **“Modify procedures to reduce the ground noise generated by aircraft”**, the FAA shared that for suggestions D, E, and F, it would be 200ft and 500ft increases which will have little or no impact on noise. Do we want to ask the FAA to spend their limited resources on these recommendations given the minimal benefit?
- Edited text in the **“Sound Monitoring” section** which is for both FAA and the airports. The airports, not the FAA do noise monitoring. A separate point is for the FAA to use actual noise data.
- The “explore single regional noise complaint reporting system” item is an action for **SJC, OAK and SFO and not the FAA.**
  - FYI the developer of the “stop.netnoise” tool shared that he needs SJC and OAK to agree to accept complaints data from the site and load it into their complaints system as SFO already does. Then the noise offices from all three airports can work to make all complaint data available.
- **Thank you for adding a request for “Improve Public Outreach”** especially after the recent surprise ILS procedure publication of a route that would go over Mt. View, Los Altos and Palo Alto.
- **Lastly, I am assuming the committee will vote on priorities for the final submission of the report.**

Kind regards,



-----

Lydia Kou - Council Member

Contact Info: <https://goo.gl/BcgCQS>

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Tuesday, May 08, 2018 10:36 AM  
**To:** Kazmierczak, Matthew; mayor@sunnyvale.ca.gov  
**Cc:** LAlamos@sunnyvale.ca.gov  
**Subject:** Comment on Draft Report - Altitude

Several of us in the community would like to request that the Committee soften the language in the Report around the asks pertaining to altitude. I'd like to explain why we make this suggestion.

While it's true that other things being equal more altitude is better for noise on the ground, other things are often not equal. We're concerned that the FAA will grant the request and we'll be worse off.

The problem is that the physics of airplane noise are weird – unlike almost anything else we encounter in life. If you want to make some noise, you can:

- **Fly closer to the ground.** If you fly at **half** the altitude, the sound energy on the ground will increase **four-fold** (actually a little more, because air is denser at lower altitudes). That part isn't weird.
- **Use more jet thrust.** If you **double** the speed of the exhaust, the sound energy produced by the **jet engine** will increase **sixty-four** fold – maybe less with newer engines.
- **Fly faster (or dirtier).** If you **double** the speed of the airplane, the sound energy produced by the **airframe** will increase **32-fold**. And that effect applies to NEW SOURCES of noise, like flaps, slats and speed brakes.

Vectored airplanes are loud because they fly level, with flaps (or slats) and jet thrust. An airplane flying level could VERY easily be louder than the same airplane at lower altitudes flying 'cleaner' without jet thrust.

Suggestion: if you want to stick with "altitude is your friend", add, "other things being equal". And if you want to suggest "keep the aircraft as high as possible (for as long as possible)" add "without requiring added lift, brakes or jet thrust." Otherwise, we might get what we ask for.

Regards,  
Robert Holbrook

P.S. I always add that I'm a layman. But I confirmed the fifth power (32x) claim with an MIT Professor who is an expert in this area.

---

**From:** Kazmierczak, Matthew [mailto:MKazmierczak@sjc.org]  
**Sent:** Monday, May 7, 2018 9:03 AM  
**To:** Kazmierczak, Matthew <MKazmierczak@sjc.org>  
**Cc:** mayor@sunnyvale.ca.gov; LAlamos@sunnyvale.ca.gov  
**Subject:** Draft of South Flow report

Attached is the most recent draft of the report from the Ad Hoc Advisory Committee on South Flow Arrivals. They are still editing and contributing to the report. Please submit any edits or comments that you have for this report to Mayor Hendricks and me (just reply-to-all). Please note that any and all emails are public documents and will become part of the public record.

Thanks,

Matthew



**Matthew Kazmierczak** | Manager of Strategy and Policy

Director's Office

Office: 408.392.3640 | Mobile: 202.374.9098 | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)

---

Mineta San José International Airport

1701 Airport Blvd. Ste B-1130, San José, CA 95110

[flysanjose.com](http://flysanjose.com) | [facebook](#) | [twitter](#) | [linkedin](#)

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Tuesday, May 08, 2018 6:21 PM  
**To:** Kazmierczak, Matthew; mayor@sunnyvale.ca.gov  
**Cc:** LAlamos@sunnyvale.ca.gov  
**Subject:** Comments on the Draft Report  
**Attachments:** SJ Adhoc Cmte Report v6 RH.DOCX; SJ Adhoc Cmte Report v6 RH 050816 1800.pdf

Please find attached comments on the draft report. These documents comprise the collected effort of several of us in the community. Items of special importance are marked 'HIGH' or 'MEDIUM'.

The attachments include:

- 1) A word file with changes to the Draft Report that was circulated yesterday. Note: "track changes" has been used. I strongly recommend selecting the Review option that displays 'ALL MARKUP' so that the comments can be seen alongside the proposed changes. The comments provide rationale for the changes and also show the priorities we have assigned.
- 2) A pdf printout of 'All Markup' from that document.

Regards,  
Robert Holbrook

**Report of the  
Ad Hoc Advisory Committee  
on South Flow Arrivals**

**Approved May 18, 2018**

**DRAFT**

Dear Tony DiBernardo:

With this letter, I convey to you the final recommendations of the Ad Hoc Advisory Committee on South Flow Arrivals.

These recommendations reflect the work of the fourteen-member Committee (see list below), over the course of eight meetings during the past six months.

The focus of this Committee has been the south flow arrival path into San Jose International Airport (SJC). During times of inclement weather, some mornings, or during frontal passages, the wind at SJC will blow from the south. For safety reasons, aircraft must take off and land into these southerly winds, requiring the airport to operate in "south flow," an alternate arrival path into SJC that allows aircraft to land and take off into the wind.

During these times, aircraft have followed a basic traffic pattern covering the area to the west of SJC over San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and Santa Clara, before turning east to return to the airport. As these weather changes - the airport returns to "north flow," the most common configuration, and Air Traffic Control begins directing aircraft to arrive over downtown San Jose.

It is noted that the airspace over Santa Clara County and the entire San Francisco Bay Area is one of the most complex airspace for the Federal Aviation Administration (FAA) to conduct safe flight operations. There are three major international airports as well as numerous smaller airports. The interactions of all these facilities and weather play a part in the flight procedures that are used at SJC. The focus of this Committee is on the procedures that are used for south flow arrivals at SJC.

The Committee's recommendations can succinctly be prioritized as:

- Fly ~~an alternate or a~~ more dispersed approach;
- Modify procedures to reduce the ground noise generated by aircraft;
- FAA Policy Changes;
- Avoid noisy flight maneuvers;
- Recommendations for SJC;
- Explore single regional noise reporting system.

The Ad Hoc Committee reviewed and prioritized numerous noise mitigation recommendations (Attachment X) and has listed the top ranked mitigations under the appropriate category.

**Commented [RH1]:** MEDIUM: The emphasis should be on dispersion not alternate approaches. As discussed at the last meeting, alternate approaches could be considered a form of dispersion, but the suggested phrasing emphasizes the desire to get away from rails.

Having conveyed these recommendations, ~~we~~ the Committee requests that the FAA and SJC:

- Evaluate and report on the consequences/impact of each recommendation in Attachment X
- Consult with the committee/Cities Association to determine which appropriate recommendations to implement
- Provide written responses documenting the FAA and SJC evaluation and conclusions on the feasibility of implementing what has been requested for each recommendation
- Provide a timeline for when the committee can expect documented responses
- Continue to prioritize safety of flight as its number one priority, but also to raise the issue priority of ground level aircraft noise so that the FAA can better mitigate the impact to our residents
- 

**Commented [RH2]:** HIGH: It is important to remove ambiguity about what the FAA is being asked to evaluate.

**Commented [RH3]:** HIGH: More clarification.

The Committee believes timely assessment, prioritization and implementation of the recommendations will provide noise mitigation to the community experiencing the impacts of noise from south flow arrivals.

Sincerely,

Glenn Hendricks  
Mayor, Sunnyvale

Chair, Ad Hoc Advisory Committee on South Flow Arrivals Committee

### **List of Committee Members**

- Councilmember Jeffery Cristina – Campbell
- Mayor Savita Vaidhyanthan – Cupertino
- ~~Vice~~ Mayor Jean (John) Mordo – Los Altos
- Mayor Gary Waldeck – Los Altos Hills
- Councilmember Bob Nunez – Milpitas
- Councilmember Rowena Turner – Monte Sereno
- Councilmember Rene ~~Sper~~ing – Morgan Hill
- Vice Mayor Lisa Matichak – Mountain View
- Councilmember Lydia Kou – Palo Alto
- Mayor Mary-Lynne Bernald – Saratoga
- Councilmember Charles “Chappie” Jones – San Jose (Vice Chair)
- Councilmember Raul Peralez – San Jose
- Vice Mayor Kathy Watanabe – City of Santa Clara
- Mayor Glenn Hendricks – Sunnyvale (Chair)

### **List of Committee Alternate Members**

- Mayor Liz Gibbons – Campbell
- Councilmember Steven Scharf – Cupertino
- Vice Mayor Lynette Lee Eng – Los Altos
- Vice Mayor Marsha Grilli – Milpitas
- Vice Mayor Evert Wolsheimer – Monte Sereno
- Councilmember Larry Carr – Morgan Hill
- Mayor Lenny Siegel – Mountain View
- Vice Mayor Eric Filseth – Palo Alto
- Councilmember Howard Miller – Saratoga
- Councilmember Johnny Khamis – San Jose
- Councilmember Teresa O’Neill – City of Santa Clara
- Vice Mayor Larry Klein – Sunnyvale

### **List of Meeting Dates**

- November 27, 2016 – Organizational Meeting – City of San José Committee Room
- January 26, 2018 – City of San José Council Chambers
- February 23, 2018 – SJC, Boeing Conference Room
- March 9, 2018 – SJC, Boeing Conference Room
- March 23, 2018 - SJC, Boeing Conference Room
- April 13, 2018 – SJC, Boeing Conference Room
- April 27, 2018 – SJC, Boeing Conference Room
- May 18, 2018 – SJC, Boeing Conference Room

## Acknowledgements

The level and intensity of aviation noise experienced by residents of Santa Clara County is dependent on various factors including proximity to existing flight paths, time of day, and weather conditions. The noise consequences from the implementation of NextGen and overall increase of flights in our region, are having a negative impact on the quality of life of our residents. In response to growing community complaints and concerns about aviation noise, Committee members request that the FAA assess, prioritize and implement timely noise mitigation solutions.

The Committee would like to thank the San Jose City Council for initiating the Ad Hoc Committee on South Flow Arrivals, thereby demonstrating through the Committee their commitment to proactively identify mitigations to these challenges.

The Committee would also like to acknowledge and thank the Federal Aviation Administration (FAA), as they have attended every meeting with knowledgeable and committed staff. Through various presentations and guest speakers, the FAA demonstrated a real effort to share information and educate the Committee and public about the complexity of the airspace among other issues. The committee feels the FAA participated in these meetings as a willing partner in search of practical solutions.

The San Jose Airport staff has been fantastic and true partners in this effort. The Committee is appreciative of the meeting space and coordination provided by the staff. In particular, the Committee would like to recognize Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport for his outstanding knowledge support.

I want to thank all the members of the Committee for the countless hours spent trying to problem solve such a complex issue. The calm, rational thoughtfulness that the members brought to every meeting created a great collaborative environment.

Most importantly, the Committee wishes to thank the members of the public who attended these meetings and/or provided input. Our residents clearly showed a passion for this topic and a zeal for wanting to find transparent solutions that would work for all parties involved. They are focused on sharing their experiences, learning about the constraints and offering perspective on possible mitigations.

**Commented [RH4]:** Knowledge was missing in critical areas. 1) The participants' lack of knowledge of the ILS approach was startling. 2) The charts they repeatedly showed minimized the effect of concentration over us. It was unclear if they appreciated how extensive that concentration was. 3) Their answers on GBAS were incomplete at best.

**Commented [RH5]:** Aside from two suggestions made one day by one attendee, the FAA refused to search for solutions. They were willing to tell us if what we proposed was feasible or not, but that's not participating in a search.

## What Are South Flow Operations?

Normally, aircraft at SJC land descending from the south (over parts of downtown San José) and take off heading north. However, under certain weather conditions (mostly when the wind shifts direction at the Airport and flows from the south at higher speeds), for the sake of operational safety, the FAA requires pilots of arriving aircraft to follow an arrival procedure that can take descending aircraft over parts of San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and other communities as they prepare to land at SJC approaching from the North flying South. When that arrival procedure is used, air operations are in “south flow.”

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. In recent years, the FAA has altered its guidance on the path airplanes must take on arrival, resulting in a shift of the corridor of air traffic. In addition, since 2015, new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and compacted arrival patterns, especially over San Jose, Sunnyvale, Cupertino and Mountain View. Use of the NextGen technology has increased per-flight noise for residents. While ~~this~~ the narrow corridor has reduced noise for some residents, noise has increased for those residents living directly under the more precise arrival and approach flight paths.

**Commented [RH6]:** HIGH: It is important to acknowledge that traffic was shifted as well as concentrated. Whereas the final waypoint on the STAR Arrival procedure that planes use to reach Sunnyvale was PUCKK in East Sunnyvale until 2012, it was JESSEN from 2012 to 2015 and since 2015 has been ZORSA in West Sunnyvale.

## South Flow and the Bay Area Metroplex

The FAA has testified that the Bay Area is the second most complicated metroplex location after New York City for air traffic given the proximity and flight patterns of its three primary airports: SFO, SJC, and OAK. For safety purposes, air traffic procedures are required to maintain a safe vertical and horizontal distance from other aircrafts and approach and departure flight paths.

FAA staff has presented that a south flow arrival approach is a more complicated procedure than north flow given its proximity to other flight procedures for SFO traffic, and as such it is a less preferred procedure when compared with north flow. The FAA stated that they only switch to south flow when wind and weather conditions require it. The preferred approach is north flow where planes approach SJC from the south flying north, as there is less air traffic from other airports.

## Formation of the Ad Hoc Advisory Committee on South Flow Arrivals

In November 2016, Sunnyvale and Mountain View residents attended the SJC Airport Commission meeting to ask the Commission to address their noise concerns. The Commission requested staff to write the FAA to ask for solutions to address the south flow noise issue. While the FAA responded to staff’s correspondence, the response offered no adjustments in the procedure.

Sunnyvale and Mountain View residents returned to the Commission in February 2017 to request the Commission’s support for the formation of a body to address south flow noise issues. In response, the Commission voted unanimously to recommend the formation of a body that includes FAA participation.

In March 2017, the Airport hosted a meeting organized by Congressman Ro Khanna's office. Elected officials from Sunnyvale, Mountain View, Cupertino, San José, the FAA, and the Airport attended to discuss the south flow issue and possible solutions. There was consensus that it would be constructive to have public information and discussion forums to understand why the south flow procedure is used and to review possible solutions to reduce the noise for the most impacted residents. The FAA and the Airport would participate in the forums.

In response to the SJC Commission's recommendation, Airport staff reviewed the formation and structure of the SFO Select Committee on South Bay Arrivals, which was an ad hoc noise committee formed in May 2016 by Congresswoman Anna Eshoo, Congresswoman Jackie Speier, and former Congressman Sam Farr. The Select Committee brought together elected officials from the jurisdictions of three counties to look at the noise impacts of the FAA's 2015 implementation of its NextGen technology. The Committee ultimately made a series of consensus-based recommendations before disbanding in November 2016. The three Congressional offices endorsed and transmitted the Committee's recommendations to the FAA for review. The FAA is now studying those recommendations.

In reviewing the Select Committee model, Airport staff determined that the ad hoc model is a good process for conducting a regional discussion on possible solutions to address the noise impacts of the south flow procedure at SJC. Based on this, the City of San José formed the Ad Hoc Advisory Committee on South Flow Arrivals to discuss possible solutions. The Committee is an advisory body with no legal authority. Its purpose is to provide potentially feasible and consensus-based recommendations to the FAA to mitigate the noise impacts of the south flow procedure.

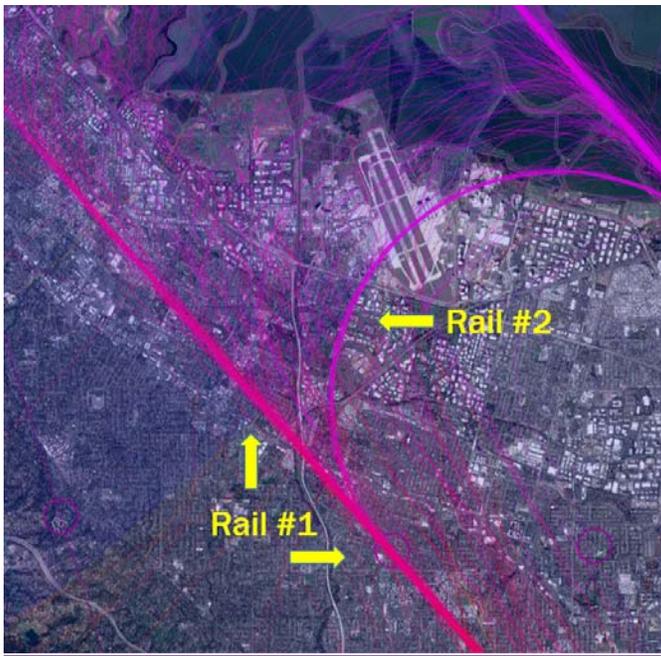
To encourage ~~the maximum degree of~~ inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support. To encourage the maximum degree of inclusiveness and consensus, the Committee voted to recommend that East Palo Alto, Fremont and Newark be invited to participate. This recommendation was not adopted, however:

**Commented [RH7]:** MEDIUM: Since the Committee itself voted to recommend the inclusion of affected cities outside of Santa Clara County, the current form of the committee cannot be considered the MAXIMUM degree of conclusiveness and consensus.

**Commented [RH8]:** MEDIUM: This section describes the formation of this Committee and, by extension, its scope. The vote of the Committee to recommend Cities that ultimately were not invited to participate should be noted as exclusion of those cities limited what the Committee could recommend.

• **Fly an alternate or more dispersed approach**

One of the changes that has come with NextGen navigation into San Jose International Airport (SJC) is switching from a radar-based approach to a GPS approach. That in conjunction with OPD, our residents experience a concentration of the path that aircraft fly through the sky. This creates the effect of having aircraft fly through the same space in the sky more consistently. The resident's perceptions of this is the creation of a "rails" over certain neighborhoods and houses. In effect, causing a fewer number of residents to bear the brunt of the ground effect noise from aircraft flying overhead. [See figure 1.](#)



[Figure 1.](#)

It should be noted that RNP is one of the tools and procedures used by the FAA that contributes to creating this "rail" impact to residents.

Prior to the implementation of NextGen, the aircraft flying overhead were dispersed over a broader area ([see figure 2](#)). This had the effect of not concentrating ground effect air noise over specific neighborhoods and houses. Thereby, reducing the negative effects on residents. A dramatic increase in noise complaints appeared after the implementation of Nextgen.

**Commented [RH9]:** MEDIUM: As noted above, the focus should remain on dispersion.

**Commented [RH10]:** HIGH: The FAA has, at times, described the 'rails' differently than the Committee has, so it's important to be clear. If it's inappropriate to embed a picture, consider stating, "please see Appendix, *Community Recommendations for the Ad Hoc Advisory Committee - 4/24/18, Figure 2*"

**Formatted:** Centered

**Formatted:** Font: 10 pt

**Commented [RH11]:** If it is inappropriate to embed a picture, consider stating, "please see Appendix, *Community Recommendations for the Ad Hoc Advisory Committee - 4/24/18, Figure 1*"

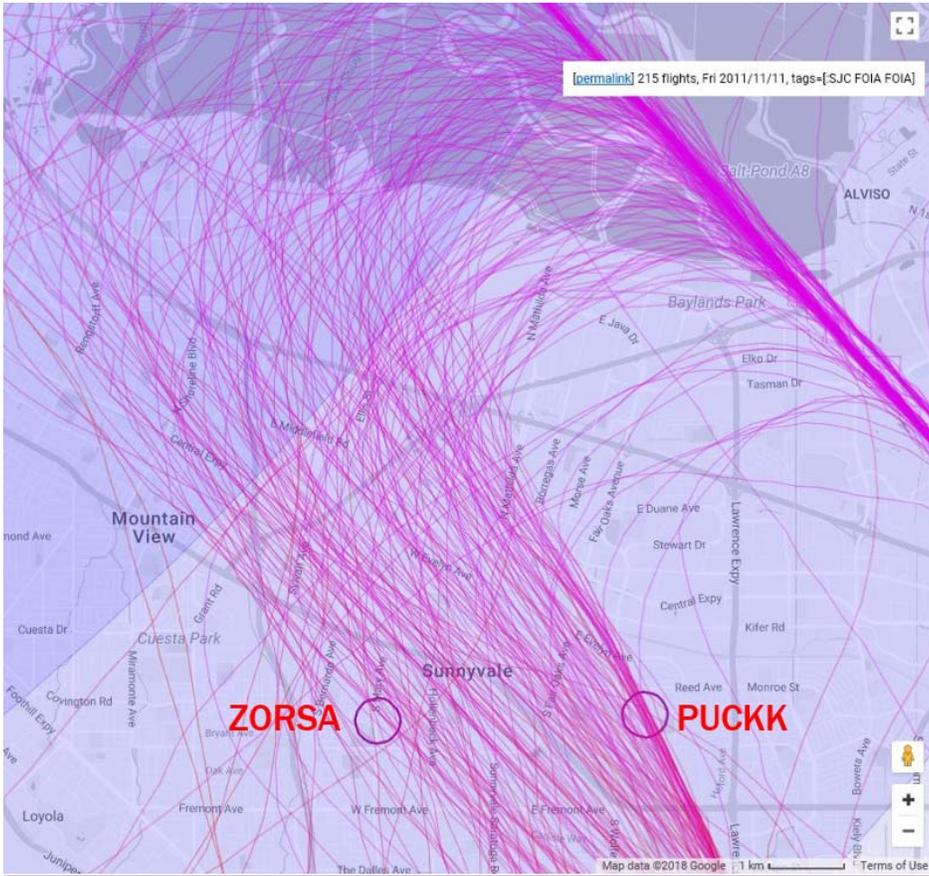


Figure 2.

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings.

The attached spreadsheet identifies many suggestions for “how” this might be accomplished. (See spreadsheet items Q through CC).

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. Directionally, this means 1) Alternatives to routing

**Commented [RH12]:** HIGH: It is important to establish the degree of dispersion and the historical location of the dispersion. This context is important to understanding why residents are upset and what they are asking to revert to. Also, this graph also shows the location of the ZORSA and PUCKK waypoints referred to in the Sunnyvale section.

**Formatted:** Centered

**Commented [RH13]:** HIGH: We owe it to ourselves to be clear about what we want to see. If we aren't clear, we can't be disappointed if there is no progress toward the change we seek. These statements are as important for the 'long game' as anything.

airplanes over fixed rails should be sought (figure 1); noise should revert to where it was prior to 2012, in the same geographic proportions (figure 2). (Using Please see also the success criteria listed below.)

**Commented [RH14]:** Add the word *success*. It took me a long time to realize that the criteria being referred to are the 'success criteria' in the following paragraphs.

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

### **San Jose**

San Jose representative needs to define what we want here

### **Cupertino**

Cupertino representative needs to define what we want here

### **Sunnyvale**

For the City of Sunnyvale – dispersion would mean even distribution of aircraft between the ZORSA and PUCKK waypoints. Not that aircraft would fly over these specific points, but rather use these waypoints (ZORSA and PUCKK) as an eastern and western outside logical boundary of where aircraft would fly over the city. Define a set of procedures, rules or processes, that would enable FAA to safely and semi-evenly distribute traffic over Sunnyvale between these two designated waypoints (measured over time).

### **Mountain View**

For the City of Mountain View – dispersion of aircraft is essential to a solution. Two rails (straight and semi-circular) have sharply concentrated noise over Mountain View in recent years. These rails come from use of an RNP approach and a new vectoring procedure. Mountain View would like to see the dispersion that existed before 2012, even if that means returning some control to pilots. Can airplanes that are capable of turns that are tighter than the RNP turn begin their turn prior to reaching ZORSA, dispersing traffic to the East of the RNP rail? Can traffic on the STAR procedures make their turn at or after JESEN at slightly different locations and with slightly different headings, perhaps by recreating PUCKK as the terminal waypoint (infrequently reached) on the arrival procedure? This could ‘spray’ traffic across Sunnyvale and Mountain View and along the length of Hwy 101 as before. Would creation of a charted visual approach help? With different procedures, could ATC contribute to these ends? Recreating the long-standing traffic patterns that existed prior to 2012 would reduce complaints significantly.

### **Palo Alto**

Palo Alto representative needs to define what we want here

## One Possible Alternative Approach

The following is one possible alternative approach for the FAA to explore. There may be others and the Committee encourages any and all options to be fully reviewed.

When the south flow arrival pattern is initiated for San Jose International (SJC) airport, most traffic flies toward and through the ZORSA waypoint over San Jose, Cupertino, Sunnyvale, Mountain View and Palo Alto to make a right-hand turn to intersect the final approach pattern to land.

In reviewing radar traffic, there is some amount of traffic that lands at SJC during south flow that is vectored to land from the East. That traffic comes in and makes a left-hand turn to intersect the final approach.

**Request to the FAA #2:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to explore creating a Procedure that aircraft could use to land at SJC that would take advantage of this Eastern arrival option.

Further, without being prescriptive of “how” to achieve this Eastern approach for south-flow – the success criteria for such an approach would be for a minimum of 25% of the south-flow traffic to use this approach. Having aircraft land from over the bay would reduce the ground level impact noise to the previously identified cities.

The success criteria and FAA evaluation process would also need to ensure that we are not moving ground level impacting noise to other residential communities.

The Committee notes that if the FAA is successful at reducing the need for vectoring in the future, traffic currently flying the Eastern Approach will, by default, shift to published procedures on the Western Approach, resulting in an overall shift of south-flow traffic. Therefore, a second success criteria for this item is to develop alternative arrival and possibly approach procedures on the Eastern side that are able to counteract this shift.

**Commented [RH15]:** MEDIUM: The FAA's Time Based Flow Management (TBFM) program, in development, is designed to reduce the need for vectoring.

The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See spreadsheet items M, N, P).

Regardless of the outcome of this evaluation, the Committee requests the FAA to not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC.

**Commented [RH16]:** MEDIUM (remove this sentence in favor of the paragraph above). ATC has made clear that they vector airplanes only because they have to. If technology advances, they will certainly 'lose or stop' the vectored approach.

- **Modify procedures to reduce the ground-per-flight noise generated by aircraft, as heard from the ground**

It has been mentioned multiple times that the objective the Ad Hoc Committee is trying to achieve is the reduction and/or mitigation of ground level impacting noise from aircraft. Items A through K from the spreadsheet are suggestions for how to achieve some of this noise reduction.

Per information that was provided by the FAA at the April 13, 2018 Ad Hoc Committee meeting, the highest probability items to implement are D, E, F of the spreadsheet. (The FAA's comments were not a commitment that these particular items could be implemented or that they would achieve the desired results.)

**Request to the FAA #3:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to implement item E and F. The purpose being to implement the concept of item D.

These items are based in the concept that, other things being equal, "altitude is our friend" as it relates to ground impacting noise from aircraft. The higher the aircraft, the less its noise will impact residents on the ground.

If there are other suggestions that the FAA could suggest to be reviewed to raise the altitude of aircraft, these should also be included in the evaluations.

The Ad Hoc Committee wants to acknowledge that the whole purpose of the South Flow arrival pattern or any arrival pattern is to get aircraft safely to the ground and land.

The success criteria for this set of items is to safely land aircraft at SJC but keep the aircraft as high as possible (for as long as possible) without requiring added lift, brakes or jet thrust, while still allowing for safety and appropriate decent paths and sequencing to land at the airport.

**Commented [RH17]:** This might seem overly persnickety, but the FAA has a convoluted answer prepared for the title as originally drafted: it uses the "Net Noise Reduction" model. It sounds good: "minimize the number of people impacted by noise", but in practice it leads to rails. Three people's noise could be reduced a little bit while two people get A LOT more noise. If so, it's a win. The new title disallows "net noise reduction" logic.

**Commented [RH18]:** The section "Avoid Noisy Flight Maneuvers" could be combined with this section. The proposed heading would apply equally well to both.

- **FAA Policy Changes**

- **Sound Monitoring in the Impacted Cities**

Since the implementation of NexGen, the FAA has not changed how it reviews noise impacts to communities. Noise impacts due to changes in aviation paths and procedures have been reviewed using noise modeling technology instead of actual measurement of noise generated from aircraft. The Committee requests the FAA to monitor actual noise generated and furthermore establish a benchmark to measure pre and post implementation of recommended changes; thereby making it easier to analyze effectiveness.

**Request to the FAA #4:** Implement monitoring in areas throughout Santa Clara County to measure the effectiveness of noise mitigation solutions. Noise data captured by sound monitoring should be used by the FAA to validate the modeling tools the FAA uses as part of its environmental impact evaluations.

**The point of noise modeling is to simulate real-world conditions.** The noise models used by the FAA should be calibrated to sound on the ground under varying weather conditions. If certain south flow flight procedures have been optimized for sound, the procedure designers should ensure that they have calibrated their procedures to the weather conditions most prevalent when those procedures are to be deployed.

The attached spreadsheet identified suggestions for “how” this might be accomplished. (See items K and OO).

**Request to the FAA #5:** The Ad Hoc Advisory Committee on South Flow Arrivals is aware that for each new potential Aviation route into the San Francisco Metroplex, that a noise simulation and prediction is/was required. The Committee requests that the FAA provide those simulation results that include predicted noise levels and all other associated data.

The committee requests the FAA’s environmental reports that have been prepared for routes into the Metroplex for the past three years be provided to the Committee for the examination, analysis and comment.

The committee requests that environmental analyses, including noise assessments, be posted at the IFP Gateway at the same time new procedures are posted for public comment.

**Commented [RH19]:** Consider adding East Palo Alto and Fremont.

**Commented [RH20]:** Is this in fact true? An environmental assessment is required, Not sure about simulation and prediction.

**Commented [RH21]:** MEDIUM: At the last meeting, the Committee learned that the proposed ILS procedure had not had an environmental study done, let alone posted for review, ten days before the public comment period was set to end.

- **Improve Public Outreach**

Near the end of this committee’s duration, it was discovered that the FAA was in the process of evaluating a change for the approach procedures for SJC (ILS). No one representing the FAA at these meetings or the public was aware this change was being considered.

Once the FAA project was brought to FAA representatives' attention, the evaluation was slowed down so that a full process including improved public input could take place. (Thank you to the FAA Officials).

But, this item highlighted the transparency and ease (or lack thereof) for members of the public and even the FAA to keep track and become aware of procedures changes that can impact local residents.

Included in the Appendix is a letter from the Mayors of Los Altos, Mountain View and Palo Alto concerning the lack of transparency on this issue.

**Request to the FAA #6:** The Committee is requesting the FAA to improve the notification mechanisms to better alert local communities when procedures are being reviewed. Just posting to the FAA’s IFP Gateway website at the National level is not sufficient to provide clear, layman understandable language and transparent information to the public. There needs to be better regionalization or categorization of the possible changes. There should also be a mechanism for public officials and members of the public to be notified of changes that are being proposed in their region.

**Commented [RH22]:** The notification mechanism was recently improved. Residents can sign up for email updates. (Verify this works for newly posted procedures.)

- **Avoid noisy flight maneuvers**

The Committee spent a considerable amount of time discussing and hearing from FAA, traffic control and airport officials on noise mitigation through airplane flight modifications. Committee members explored scenarios where changing airplane speed, altitude, and aircraft vectoring could have a noise reduction impact, below are the recommended mitigations:

Items A, B, G, H, J, K

Given the technical complexity of these items, the Committee does not have a specific ranking for these. But the success criteria for any of these are the same. Implement changes that allow for the continued safe flight operations of aircraft while reducing the impact of ground level noise on our impacted communities.

**Request to the FAA #7:** The Committee is requesting the FAA to review these suggestions and provide a written response about the feasibility of implementing these/

**Commented [RH23]:** It doesn't work to list this action for this section only. Either a parallel action needs to be added for every section or a similar action should apply globally to every recommendation in the report. The letter of conveyance, as I redrafted it, calls for every item in the spreadsheet to be considered.

- **Recommendations for SJC to explore implementing noise reducing retrofits where possible**

Mitigating noise should also be explored from an airport operator perspective ~~and consideration should be given to airfield design, such as evaluating the feasibility of runway extensions, new runway construction, or relocation of runway thresholds.~~ Operationally, consideration should be given to modifying arrival flight profiles and capitalizing on advanced navigational technologies, as well as reviewing noise curfews. Other noise management options include working with airlines and pilots to manage airplane noise, examples include the Fly Quiet Program, and creating a Pilot Awareness Program.

**Commented [RH24]:** HIGH: While the general topic of runways may have come up in the context of raising the trigger for South Flow, I don't believe there was any consensus that the runways should be extended or relocated. Runway extensions would lead to bigger, louder airplanes. Before this recommendation is included, it should be discussed and agreed by the Committee as a whole.

**Request to SJC #A:** The Committee recommends that the San Jose Airport respond to the following recommendations and provide a response on feasibility of implementation. Prioritized items DD through LL

- **Explore single regional noise reporting system**

Currently, when any resident wants to register a complaint about aircraft noise, there is ~~undue severe~~ burden that is placed on the resident. The person reporting the issue, needs to research and find information about the aircraft, determine the destination airport, look up the noise reporting contact information for that arrival airport and then file the actual complaint. And then if they are registering complaints for a situation like south flow at SJC – they need to re-contact and go through the reporting process for each flight or noise incident.

This is an undue burden placed on the residents reporting noise concerns that have already been clearly defined and documented as occurring.

**Request to the FAA #8 (or SJC, if they are the more appropriate body):** The Ad Hoc Committee requests the FAA to initiate a study to look at creating a single Aircraft Noise Reporting System for the area, including, but not limited to: simplified reporting of information by the reporting person, analysis and publicly available reporting. The user interface for this system should minimize the number of clicks required to log a complaint.

## Responses from the FAA

The Ad Hoc Advisory Committee on South Flow Arrivals was designed to be a limited term, ending after six-months from initiation. The Committee believes it is important to define a contact protocol once the Ad Hoc Advisory Committee on South Flow Arrivals has concluded, in order for the FAA to provide its response to the recommendations.

**Commented [RH25]:** The Committee's charter from the SJ City Council runs for 120 days. The clock started ticking with the first non-organizational meeting, on January 26<sup>th</sup>.

**Recommendation:** When the FAA has any feedback on the Committee's requests or additional questions, the FAA should contact:

- Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport
  - [matthew.Kazmierczak@sanjoseca.gov](mailto:matthew.Kazmierczak@sanjoseca.gov)
- Glenn Hendricks, Mayor of Sunnyvale and Committee Chair Person
  - [mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)
- Andi Jordan – Santa Clara County Cities Association
  - [andi@citiesassociation.org](mailto:andi@citiesassociation.org)

Depending on the information provided by the FAA, the designated contact representatives may:

- Pass information on from the FAA to Committee members
- Post information on the Committee website hosted by SJC
  - [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
- Convene an informal meeting of the former committee members
- Provide responses to FAA questions
- Other actions, as may be deemed necessary

## Appendix

- **Link to meeting minutes**
  - [www.flysanjose.com/Ad\\_Hoc\\_Advisory\\_committee](http://www.flysanjose.com/Ad_Hoc_Advisory_committee)
- **FAA provided materials**
  - All FAA presentations are available on the Ad Hoc Advisory Committee website:  
[https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
  - FAA Presentations
    - January 26, 2018 – SJC North and South Flow: Pre and Post OAPM
    - March 23, 2018 – FAA Data regarding February 28, 2018 Request, Questions, and Next Steps
    - April 13, 2018 – FAA Data response to March 23, 2018 meeting
- **Spreadsheet of mitigation idea**
- **Letter from the Mayors of Los Altos, Mountain View and Palo Alto**
- **Electronic files received from residents**

## Kazmierczak, Matthew

---

**From:** Kazmierczak, Matthew  
**Sent:** Tuesday, May 08, 2018 7:34 AM  
**To:** 'Mayor AnswerPoint'; Lupita Alamos; 'Kwatanabe@santaclaraca.gov'  
**Subject:** FW: Santa Clara's edit/insert

Forwarding to Lupita with Mayor Hendricks' Office who is putting this all together



**Matthew Kazmierczak** | Manager of Strategy and Policy  
Director's Office  
Office: 408.392.3640 | Mobile: 202.374.9098 | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)

---

Mineta San José International Airport  
1701 Airport Blvd. Ste B-1130, San José, CA 95110  
[flysanjose.com](http://flysanjose.com) | [facebook](https://www.facebook.com/sjc) | [twitter](https://twitter.com/sjc) | [linkedin](https://www.linkedin.com/company/sjc)

---

**From:** Kathy Watanabe [mailto:KWatanabe@SantaClaraCA.gov]  
**Sent:** Monday, May 07, 2018 5:38 PM  
**To:** Kazmierczak, Matthew <MKazmierczak@sjc.org>  
**Subject:** Santa Clara's edit/insert

Santa Clara

The City of Santa Clara is on the "Rail" in the North part of the City. The City is interested in determining how any changes would affect the City, but also finding modifications to the flight path to significantly decrease sound levels. One of the key inputs should be what an acceptable noise level is, and how can residents be empowered to have real-time information to assure that noise levels stay at acceptable levels. Are there better ways for residents to measure and report noise to the FAA (such as an App where residents can measure noise and report concerns immediately)?

---

The information contained in this email may be privileged, confidential and exempt from disclosure under applicable law. The information is intended only for the use of the individual or entity to which it is addressed. If you are not the intended recipient or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any use, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, or are not the named recipient(s), please notify the sender immediately by reply email and delete this message from your computer. Thank you

## Kazmierczak, Matthew

---

**From:** Renee Lorentzen <rlorentzen@ci.milpitas.ca.gov>  
**Sent:** Wednesday, May 09, 2018 1:13 PM  
**To:** Kazmierczak, Matthew  
**Cc:** Bob Nuñez  
**Subject:** SJ Adhoc Cmte Report v6  
**Attachments:** SJ Adhoc Cmte Report v6.docx

**Importance:** High

Hi Matthew!

Thank you for the VM and email this morning.

Attached reflect Milpitas Councilmember Nuñez's changes as to what the discussions and agreements at the last Ad Hoc Committee meeting were when it came to Eastern approach.

Please let us know if you have any questions.

Sincerely,



### **Renee Lorentzen**

Acting Assistant City Manager/Director of  
Recreation and Community Services

**Phone** (408) 586-3409 **Fax** (408)586-3296

**Email** [rlorentzen@ci.milpitas.ca.gov](mailto:rlorentzen@ci.milpitas.ca.gov)

457 E. Calaveras Blvd., Milpitas CA 95035

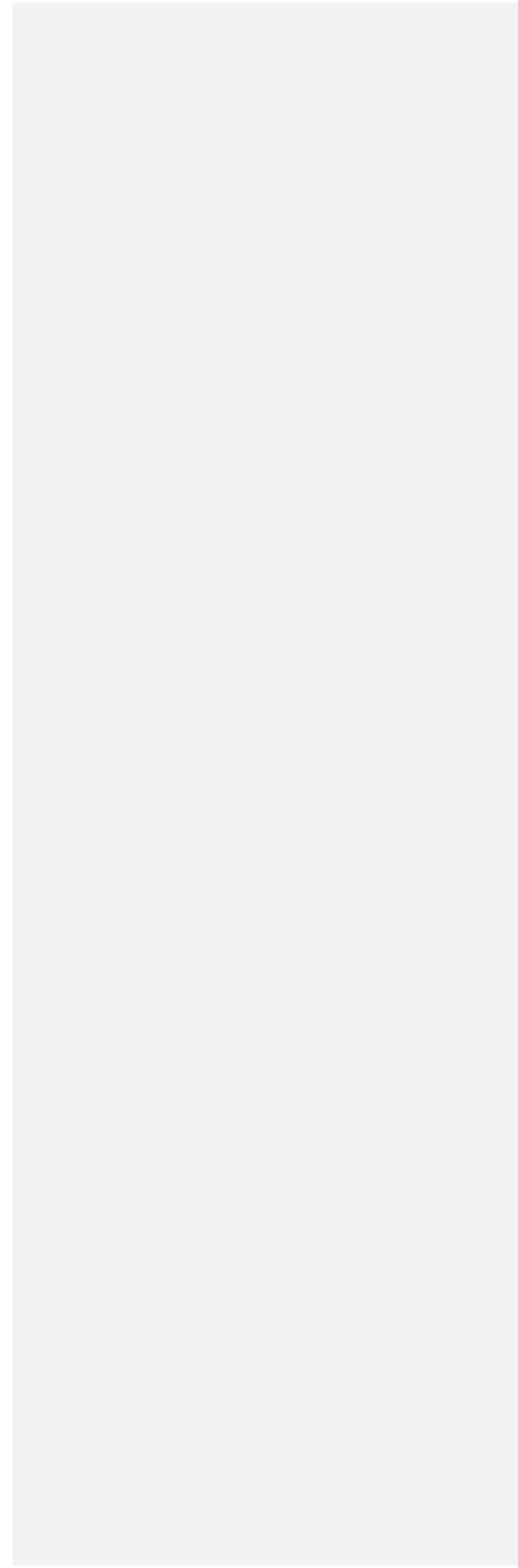
[www.ci.milpitas.ca.gov](http://www.ci.milpitas.ca.gov)



**Report of the  
Ad Hoc Advisory Committee  
on South Flow Arrivals**

**Approved May 18, 2018**

**DRAFT**



Dear Tony DiBernardo:

With this letter, I convey to you the final recommendations of the Ad Hoc Advisory Committee on South Flow Arrivals.

These recommendations reflect the work of the fourteen-member Committee (see list below), over the course of eight meetings during the past six months.

The focus of this Committee has been the south flow arrival path into San Jose International Airport (SJC). During times of inclement weather, some mornings, or during frontal passages, the wind at SJC will blow from the south. For safety reasons, aircraft must take off and land into these southerly winds, requiring the airport to operate in "south flow," an alternate arrival path into SJC that allows aircraft to land and take off into the wind.

During these times, aircraft have followed a basic traffic pattern covering the area to the west of SJC over San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and Santa Clara, before turning east to return to the airport. As these weather changes - the airport returns to "north flow," the most common configuration, and Air Traffic Control begins directing aircraft to arrive over downtown San Jose.

It is noted that the airspace over Santa Clara County and the entire San Francisco Bay Area is one of the most complex airspace for the Federal Aviation Administration (FAA) to conduct safe flight operations. There are three major international airports as well as numerous smaller airports. The interactions of all these facilities and weather play a part in the flight procedures that are used at SJC. The focus of this Committee is on the procedures that are used for south flow arrivals at SJC.

The Committee's recommendations can succinctly be prioritized as:

- Fly an alternate or more dispersed approach;
- Modify procedures to reduce the ground noise generated by aircraft;
- FAA Policy Changes;
- Avoid noisy flight maneuvers;
- Recommendations for SJC;
- Explore single regional noise reporting system.

The Ad Hoc Committee reviewed and prioritized numerous noise mitigation recommendations (Attachment X) and has listed the top ranked mitigations under the appropriate category.

Having conveyed these recommendations, we request that the FAA and SJC:

- Evaluate and report on the consequences/impact of each recommendation
- Consult with the committee/Cities Association to determine which appropriate recommendations to implement
- Provide written responses documenting the FAA and SJC evaluation and conclusions on what has been requested
- Provide a timeline for when the committee can expect documented responses
- Continue to prioritize safety of flight as its number one priority, but also to raise the issue of ground level aircraft noise so that the FAA can better mitigate the impact to our residents

The Committee believes timely assessment, prioritization and implementation of the recommendations will provide noise mitigation to the community experiencing the impacts of noise from south flow arrivals.

Sincerely,

Glenn Hendricks  
Mayor, Sunnyvale

Chair, Ad Hoc Advisory Committee on South Flow Arrivals Committee

### **List of Committee Members**

- Councilmember Jeffery Cristina – Campbell
- Mayor Savita Vaidhyanthan – Cupertino
- Vice Mayor Jean (John) Mordo – Los Altos
- Mayor Gary Waldeck – Los Altos Hills
- Councilmember Bob Nuñez – Milpitas
- Councilmember Rowena Turner – Monte Sereno
- Councilmember Rene Soring – Morgan Hill
- Vice Mayor Lisa Matichak – Mountain View
- Councilmember Lydia Kou – Palo Alto
- Mayor Mary-Lynne Bernald – Saratoga
- Councilmember Charles “Chappie” Jones – San Jose (Vice Chair)
- Councilmember Raul Peralez – San Jose
- Vice Mayor Kathy Watanabe – City of Santa Clara
- Mayor Glenn Hendricks – Sunnyvale (Chair)

### **List of Committee Alternate Members**

- Mayor Liz Gibbons – Campbell
- Councilmember Steven Scharf – Cupertino
- Vice Mayor Lynette Lee Eng – Los Altos
- Vice Mayor Marsha Grilli – Milpitas
- Vice Mayor Evert Wolsheimer – Monte Sereno
- Councilmember Larry Carr – Morgan Hill
- Mayor Lenny Siegel – Mountain View
- Vice Mayor Eric Filseth – Palo Alto
- Councilmember Howard Miller – Saratoga
- Councilmember Johnny Khamis – San Jose
- Councilmember Teresa O’Neill – City of Santa Clara
- Vice Mayor Larry Klein – Sunnyvale

### **List of Meeting Dates**

- November 27, 2016 – Organizational Meeting – City of San José Committee Room
- January 26, 2018 – City of San José Council Chambers
- February 23, 2018 – SJC, Boeing Conference Room
- March 9, 2018 – SJC, Boeing Conference Room
- March 23, 2018 - SJC, Boeing Conference Room
- April 13, 2018 – SJC, Boeing Conference Room
- April 27, 2018 – SJC, Boeing Conference Room
- May 18, 2018 – SJC, Boeing Conference Room

## **Acknowledgements**

The level and intensity of aviation noise experienced by residents of Santa Clara County is dependent on various factors including proximity to existing flight paths, time of day, and weather conditions. The noise consequences from the implementation of NextGen and overall increase of flights in our region, are having a negative impact on the quality of life of our residents. In response to growing community complaints and concerns about aviation noise, Committee members request that the FAA assess, prioritize and implement timely noise mitigation solutions.

The Committee would like to thank the San Jose City Council for initiating the Ad Hoc Committee on South Flow Arrivals, thereby demonstrating through the Committee their commitment to proactively identify mitigations to these challenges.

The Committee would also like to acknowledge and thank the Federal Aviation Administration (FAA), as they have attended every meeting with knowledgeable and committed staff. Through various presentations and guest speakers, the FAA demonstrated a real effort to share information and educate the Committee and public about the complexity of the airspace among other issues. The committee feels the FAA participated in these meetings as a willing partner in search of practical solutions.

The San Jose Airport staff has been fantastic and true partners in this effort. The Committee is appreciative of the meeting space and coordination provided by the staff. In particular, the Committee would like to recognize Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport for his outstanding knowledge support.

I want to thank all the members of the Committee for the countless hours spent trying to problem solve such a complex issue. The calm, rational thoughtfulness that the members brought to every meeting created a great collaborative environment.

Most importantly, the Committee wishes to thank the members of the public who attended these meetings and/or provided input. Our residents clearly showed a passion for this topic and a zeal for wanting to find transparent solutions that would work for all parties involved. They are focused on sharing their experiences, learning about the constraints and offering perspective on possible mitigations.

## **What Are South Flow Operations?**

Normally, aircraft at SJC land descending from the south (over parts of downtown San José) and take off heading north. However, under certain weather conditions (mostly when the wind shifts direction at the Airport and flows from the south at higher speeds), for the sake of operational safety, the FAA requires pilots of arriving aircraft to follow an arrival procedure that can take descending aircraft over parts of San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and other communities as they prepare to land at SJC approaching from the North flying South. When that arrival procedure is used, air operations are in “south flow.”

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. In addition, since 2015, new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and compacted arrival patterns, especially over San Jose, Sunnyvale, Cupertino and Mountain View. Use of the NextGen technology has increased per-flight noise for residents. While this has reduced noise for some residents, noise has increased for those residents living directly under the more precise arrival and approach flight paths.

## **South Flow and the Bay Area Metroplex**

The FAA has testified that the Bay Area is the second most complicated metroplex location after New York City for air traffic given the proximity and flight patterns of its three primary airports: SFO, SJC, and OAK. For safety purposes, air traffic procedures are required to maintain a safe vertical and horizontal distance from other aircrafts and approach and departure flight paths.

FAA staff has presented that a south flow arrival approach is a more complicated procedure than north flow given its proximity to other flight procedures for SFO traffic, and as such it is a less preferred procedure when compared with north flow. The FAA stated that they only switch to south flow when wind and weather conditions require it. The preferred approach is north flow where planes approach SJC from the south flying north, as there is less air traffic from other airports.

## **Formation of the Ad Hoc Advisory Committee on South Flow Arrivals**

In November 2016, Sunnyvale and Mountain View residents attended the SJC Airport Commission meeting to ask the Commission to address their noise concerns. The Commission requested staff to write the FAA to ask for solutions to address the south flow noise issue. While the FAA responded to staff’s correspondence, the response offered no adjustments in the procedure.

Sunnyvale and Mountain View residents returned to the Commission in February 2017 to request the Commission’s support for the formation of a body to address south flow noise issues. In response, the Commission voted unanimously to recommend the formation of a body that includes FAA participation.

In March 2017, the Airport hosted a meeting organized by Congressman Ro Khanna's office. Elected officials from Sunnyvale, Mountain View, Cupertino, San José, the FAA, and the Airport attended to discuss the south flow issue and possible solutions. There was consensus that it would be constructive to have public information and discussion forums to understand why the south flow procedure is used and to review possible solutions to reduce the noise for the most impacted residents. The FAA and the Airport would participate in the forums.

In response to the SJC Commission's recommendation, Airport staff reviewed the formation and structure of the SFO Select Committee on South Bay Arrivals, which was an ad hoc noise committee formed in May 2016 by Congresswoman Anna Eshoo, Congresswoman Jackie Speier, and former Congressman Sam Farr. The Select Committee brought together elected officials from the jurisdictions of three counties to look at the noise impacts of the FAA's 2015 implementation of its NextGen technology. The Committee ultimately made a series of consensus-based recommendations before disbanding in November 2016. The three Congressional offices endorsed and transmitted the Committee's recommendations to the FAA for review. The FAA is now studying those recommendations.

In reviewing the Select Committee model, Airport staff determined that the ad hoc model is a good process for conducting a regional discussion on possible solutions to address the noise impacts of the south flow procedure at SJC. Based on this, the City of San José formed the Ad Hoc Advisory Committee on South Flow Arrivals to discuss possible solutions. The Committee is an advisory body with no legal authority. Its purpose is to provide potentially feasible and consensus-based recommendations to the FAA to mitigate the noise impacts of the south flow procedure.

To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support.

- **Fly an alternate or more dispersed approach**

One of the changes that has come with NextGen navigation into San Jose International Airport (SJC) is switching from a radar-based approach to a GPS approach. That in conjunction with OPD, our residents experience a concentration of the path that aircraft fly through the sky. This creates the effect of having aircraft fly through the same space in the sky more consistently. The resident’s perceptions of this is the creation of a “rail” over certain neighborhoods and houses. In effect, causing a fewer number of residents to bear the brunt of the ground effect noise from aircraft flying overhead.

It should be noted that RNP is one of the tools and procedures used by the FAA that contributes to creating this “rail” impact to residents.

Prior to the implementation of NextGen, the aircraft flying overhead were dispersed over a broader area. This had the effect of not concentrating ground effect air noise over specific neighborhoods and houses. Thereby, reducing the negative effects on residents. A dramatic increase in noise complaints appeared after the implementation of Nextgen.

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings.

The attached spreadsheet identifies many suggestions for “how” this might be accomplished. (See spreadsheet items Q through CC).

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. (Using the criteria listed below)

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

**San Jose**

San Jose representative needs to define what we want here

**Cupertino**

Cupertino representative needs to define what we want here

**Sunnyvale**

For the City of Sunnyvale – dispersion would mean even distribution of aircraft between the ZORSA and PUCKK waypoints. Not that aircraft would fly over these specific points, but rather use these waypoints (ZORSA and PUCKK) as an

eastern and western outside logical boundary of where aircraft would fly over the city. Define a set of procedures, rules or processes, that would enable FAA to safely and semi-evenly distribute traffic over Sunnyvale between these two designated waypoints (measured over time).

### **Mountain View**

For the City of Mountain View – dispersion of aircraft is essential to a solution. Two rails (straight and semi-circular) have sharply concentrated noise over Mountain View in recent years. These rails come from use of an RNP approach and a new vectoring procedure. Mountain View would like to see the dispersion that existed before 2012, even if that means returning some control to pilots. Can airplanes that are capable of turns that are tighter than the RNP turn begin their turn prior to reaching ZORSA, dispersing traffic to the East of the RNP rail? Can traffic on the STAR procedures make their turn at or after JESEN at slightly different locations and with slightly different headings, perhaps by recreating PUCKK as the terminal waypoint (infrequently reached) on the arrival procedure? This could ‘spray’ traffic across Sunnyvale and Mountain View and along the length of Hwy 101 as before. Would creation of a charted visual approach help? With different procedures, could ATC contribute to these ends? Recreating the long-standing traffic patterns that existed prior to 2012 would reduce complaints significantly.

### **Palo Alto**

Palo Alto representative needs to define what we want here

## One Possible Alternative Approach

The following is one possible alternative approach for the FAA to explore. There may be others and the Committee encourages any and all options to be fully reviewed.

When the south flow arrival pattern is initiated for San Jose International (SJC) airport, most traffic flies toward and through the ZORSA waypoint over San Jose, Cupertino, Sunnyvale, Mountain View and Palo Alto to make a right-hand turn to intersect the final approach pattern to land.

In reviewing radar traffic, there is some amount of traffic that lands at SJC during south flow that is vectored to land from the East. That traffic comes in and makes a left-hand turn to intersect the final approach.

**Request to the FAA #2:** ~~The Ad Hoc Committee requests-requests the FAA to initiate a full procedure evaluation to explore creating a Procedure that aircraft could use to land at SJC that would take advantage of this Eastern arrival option.~~ maintain the current percentage of use (10%) of the Eastern approach for south-flow arrivals.

~~Further, without being prescriptive of “how” to achieve this Eastern approach for south flow the success criteria for such an approach would be for a minimum of 25% of the south flow traffic to use this approach. Having aircraft land from over the bay would reduce the ground level impact noise to the previously identified cities.~~

~~The success criteria and FAA evaluation process would also need to ensure~~ Maintaining the current frequency of use of the Eastern approach ensures that we are not “just” moving ground level impacting noise to other residential communities. The Ad Hoc Committee requests that should there be increased flight volume at SJC, the FAA implement an equal dispersment of those flights to all approaches so that one zone or area of communities is not burdened.

~~The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See spreadsheet items M, N, P).~~

~~Regardless of the outcome of this evaluation, the Committee requests the FAA to not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC.~~

**Commented [RL1]:** Per Milpitas Councilmember Nuñez, this is not what the recommendation at the last Ad Hoc committee was. It was to maintain current level of use of the Eastern approach, not to increase it. Also, this approach does not take the aircraft over the bay, but the exact opposite.

- **Modify procedures to reduce the ground noise generated by aircraft**

It has been mentioned multiple times that the objective the Ad Hoc Committee is trying to achieve is the reduction and/or mitigation of ground level impacting noise from aircraft. Items A through K from the spreadsheet are suggestions for how to achieve some of this noise reduction.

Per information that was provided by the FAA at the April 13, 2018 Ad Hoc Committee meeting, the highest probability items to implement are D, E, F of the spreadsheet. (The FAA's comments were not a commitment that these particular items could be implemented or that they would achieve the desired results.)

**Request to the FAA #3:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to implement item E and F. The purpose being to implement the concept of item D.

These items are based in the concept that "altitude is our friend" as it relates to ground impacting noise from aircraft. The higher the aircraft, the less its noise will impact residents on the ground.

If there are other suggestions that the FAA could suggest to be reviewed to raise the altitude of aircraft, these should also be included in the evaluations.

The Ad Hoc Committee wants to acknowledge that the whole purpose of the South Flow arrival pattern or any arrival pattern is to get aircraft safely to the ground and land.

The success criteria for this set of items is to safely land aircraft at SJC but keep the aircraft as high as possible (for as long as possible), while still allowing for safety and appropriate decent paths and sequencing to land at the airport.

- **FAA Policy Changes**

- **Sound Monitoring in the Impacted Cities**

Since the implementation of NexGen, the FAA has not changed how it reviews noise impacts to communities. Noise impacts due to changes in aviation paths and procedures have been reviewed using noise modeling technology instead of actual measurement of noise generated from aircraft. The Committee requests the FAA to monitor actual noise generated and furthermore establish a benchmark to measure pre and post implementation of recommended changes; thereby making it easier to analyze effectiveness.

**Request to the FAA #4:** Implement monitoring in areas throughout Santa Clara County to measure the effectiveness of noise mitigation solutions. Noise data captured by sound monitoring should be used by the FAA to validate the modeling tools the FAA uses as part of its environmental impact evaluations.

**The point of noise modeling is to simulate real-world conditions.** The noise models used by the FAA should be calibrated to sound on the ground under varying weather conditions. If certain south flow flight procedures have been optimized for sound, the procedure designers should ensure that they have calibrated their procedures to the weather conditions most prevalent when those procedures are to be deployed.

The attached spreadsheet identified suggestions for “how” this might be accomplished. (See items K and OO).

**Request to the FAA #5:** The Ad Hoc Advisory Committee on South Flow Arrivals is aware that for each new potential Aviation route into the San Francisco Metroplex, that a noise simulation and prediction is/was required. The Committee requests that the FAA provide those simulation results that include predicted noise levels and all other associated data.

The committee requests the FAA’s environmental reports that have been prepared for routes into the Metroplex for the past three years be provided to the Committee for the examination, analysis and comment.

- **Improve Public Outreach**

Near the end of this committee's duration, it was discovered that the FAA was in the process of evaluating a change for the approach procedures for SJC (ILS). No one representing the FAA at these meetings or the public was aware this change was being considered.

Once the FAA project was brought to FAA representatives attention, the evaluation was slowed down so that a full process including improved public input could take place. (Thank you to the FAA Officials).

But, this item highlighted the transparency and ease (or lack thereof) for members of the public and even the FAA to keep track and become aware of procedures changes that can impact local residents.

Included in the Appendix is a letter from the Mayors of Los Altos, Mountain View and Palo Alto concerning the lack of transparency on this issue.

**Request to the FAA #6:** The Committee is requesting the FAA to improve the notification mechanisms to better alert local communities when procedures are being reviewed. Just posting to the FAA's IFP Gateway website at the National level is not sufficient to provide clear, layman understandable language and transparent information to the public. There needs to be better regionalization or categorization of the possible changes. There should also be a mechanism for public officials and members of the public to be notified of changes that are being proposed in their region.

- **Avoid noisy flight maneuvers**

The Committee spent a considerable amount of time discussing and hearing from FAA, traffic control and airport officials on noise mitigation through airplane flight modifications. Committee members explored scenarios where changing airplane speed, altitude, and aircraft vectoring could have a noise reduction impact, below are the recommended mitigations:

Items A, B, G, H, J, K

Given the technical complexity of these items, the Committee does not have a specific ranking for these. But the success criteria for any of these are the same. Implement changes that allow for the continued safe flight operations of aircraft while reducing the impact of ground level noise on our impacted communities.

**Request to the FAA #7:** The Committee is requesting the FAA to review these suggestions and provide a written response about the feasibility of implementing these/

- **Recommendations for SJC to explore implementing noise reducing retrofits where possible**

Mitigating noise should also be explored from an airport operator perspective and consideration should be given to airfield design, such as evaluating the feasibility of runway extensions, new runway construction, or relocation of runway thresholds. Operationally, consideration should be given to modifying arrival flight profiles and capitalizing on advanced navigational technologies, as well as reviewing noise curfews. Other noise management options include working with airlines and pilots to manage airplane noise, examples include the Fly Quiet Program, and creating a Pilot Awareness Program.

**Request to SJC #A:** The Committee recommends that the San Jose Airport respond to the following recommendations and provide a response on feasibility of implementation. Prioritized items DD through LL

- **Explore single regional noise reporting system**

Currently, when any resident wants to register a complaint about aircraft noise, there is severe burden that is placed on the resident. The person reporting the issue, needs to research and find information about the aircraft, determine the destination airport, look up the noise reporting contact information for that arrival airport and then file the actual complaint. And then if they are registering complaints for a situation like south flow at SJC – they need to re-contact and go through the reporting process for each flight or noise incident.

This is an undue burden placed on the residents reporting noise concerns that have already been clearly defined and documented as occurring.

**Request to the FAA #8 (or SJC, if they are the more appropriate body):** The Ad Hoc Committee requests the FAA to initiate a study to look at creating a single Aircraft Noise Reporting System for the area, including, but not limited to: simplified reporting of information by the reporting person, analysis and publicly available reporting. The user interface for this system should minimize the number of clicks required to log a complaint.

## Responses from the FAA

The Ad Hoc Advisory Committee on South Flow Arrivals was designed to be a limited term, ending after six-months from initiation. The Committee believes it is important to define a contact protocol once the Ad Hoc Advisory Committee on South Flow Arrivals has concluded, in order for the FAA to provide its response to the recommendations.

**Recommendation:** When the FAA has any feedback on the Committee's requests or additional questions, the FAA should contact:

- Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport
  - [matthew.Kazmierczak@sanjoseca.gov](mailto:matthew.Kazmierczak@sanjoseca.gov)
- Glenn Hendricks, Mayor of Sunnyvale and Committee Chair Person
  - [mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)
- Andi Jordan – Santa Clara County Cities Association
  - [andi@citiesassociation.org](mailto:andi@citiesassociation.org)

Depending on the information provided by the FAA, the designated contact representatives may:

- Pass information on from the FAA to Committee members
- Post information on the Committee website hosted by SJC
  - [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
- Convene an informal meeting of the former committee members
- Provide responses to FAA questions
- Other actions, as may be deemed necessary

## Appendix

- **Link to meeting minutes**
  - [www.flysanjose.com/Ad\\_Hoc\\_Advisory\\_committee](http://www.flysanjose.com/Ad_Hoc_Advisory_committee)
- **FAA provided materials**
  - All FAA presentations are available on the Ad Hoc Advisory Committee website:  
[https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
  - FAA Presentations
    - January 26, 2018 – SJC North and South Flow: Pre and Post OAPM
    - March 23, 2018 – FAA Data regarding February 28, 2018 Request, Questions, and Next Steps
    - April 13, 2018 – FAA Data response to March 23, 2018 meeting
- **Spreadsheet of mitigation idea**
- **Letter from the Mayors of Los Altos, Mountain View and Palo Alto**
- **Electronic files received from residents**

## Kazmierczak, Matthew

---

**From:** Kazmierczak, Matthew  
**Sent:** Wednesday, May 09, 2018 7:39 AM  
**To:** Lupita Alamos; 'Glenn Hendricks'  
**Cc:** Lockhart, Bob; Eikerman, Curt; Adams, Janelle  
**Subject:** San Jose's Dispersion Statement

Hi Lupita

Here is the San José statement on diversion for page 8.

While the City of San José does not have a prescription for the dispersion of aircraft on the western south flow approach to the SJC, San José strongly opposes any prescription for dispersion that would move more aircraft towards an eastern approach to SJC during south flow. A move to fly more aircraft than currently diverted onto an eastern approach has the potential to put more aircraft over some of the lower-income communities of San José and could present environmental justice and socioeconomic fairness concerns. When aircraft are in the normal north flow approach to SJC, San José residents already experience the largest share of aircraft noise, some 85 percent of the time.



**Matthew Kazmierczak** | Manager of Strategy and Policy  
Director's Office  
Office: 408.392.3640 | Mobile: 202.374.9098 | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)

---

Mineta San José International Airport  
1701 Airport Blvd. Ste B-1130, San José, CA 95110  
[flysanjose.com](http://flysanjose.com) | [facebook](https://www.facebook.com/sjc) | [twitter](https://twitter.com/sjc) | [linkedin](https://www.linkedin.com/company/sjc)

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Friday, May 11, 2018 1:00 PM  
**To:** Kazmierczak, Matthew; mayor@sunnyvale.ca.gov  
**Cc:** LAlamos@sunnyvale.ca.gov  
**Subject:** Suggestion for FAA input for next Friday's meeting

Chairman Hendricks,

Regarding the presentation from the FAA entitled 'South Flow Data for May 1', now posted at the SJC website for the upcoming meeting, the breakdown in traffic by type is quite interesting.

I expect that many members of the Committee will be particularly interested in the FAA's estimate of ILS traffic for that date (17%), since that is relevant to the new ILS approach that the FAA has proposed. Moreover, while 24% of the traffic is categorized as RNAV, fully 50% of the traffic is categorized as 'Other'.

I believe that many members of the Committee will be interested in better understanding that 'Other' category but, more important, in getting a sense from the FAA for the proportions of each type of traffic (RNAV, ILS, East, Other) that could be expected for the future, say five and ten years out. It would be very helpful if the FAA were able to speak to those questions at the upcoming meeting.

Regards,  
Robert Holbrook  
Mountain View

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Monday, May 14, 2018 2:00 PM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Cc:** Mayor AnswerPoint; Lupita Alamos  
**Subject:** Fw: Recommended revisions to SJC South Flow report  
**Attachments:** SJ ADHOC REPORT\_May 7\_VERSION\_ORIGINAL3.pdf

Hi Matthew:

I'm noticing that the changes I had forwarded for the draft SJC South Flow report did not seem to incorporate into the latest report Version 8. These changes were sent previously on May 9 - See below email.

In addition, these changes do not appear to be part of the "Draft of Public Comments appendix". **Can you please add the suggested changes below (along with the attached PDF showing additional changes) to the "Draft of Public Comments appendix" so they are part of the public record for discussion on Friday?**

Thanks,  
Jennifer

----- Forwarded Message -----

**From:** Jen (Sunnyvale) <>  
**To:** Kazmierczak, Matthew <MKazmierczak@sjc.org>  
**Cc:** mayor@sunnyvale.ca.gov <mayor@sunnyvale.ca.gov>; LAlamos@sunnyvale.ca.gov <LAlamos@sunnyvale.ca.gov>  
**Sent:** Wednesday, May 9, 2018, 3:15:13 AM PDT  
**Subject:** Recommended revisions to SJC South Flow report

Hi Glenn and Matthew:

Attached are some suggested changes to the SJC South Flow report (**attached PDF showing the changes in red**).

In addition to these changes, I would recommend a few overall additions to the report: (The three items below were discussed on multiple occasions during the adhoc committee meetings, and it would be good to have these basic issues/concepts addressed in the report.)

1. Over dense residential areas, FAA should prioritize safety, impact to communities, and efficiency **in that order**.

- Quality of life of citizens on the ground must take priority over airline profit and efficiency.
- It has become clear that the FAA and the airlines have clearly prioritized efficiency over noise (even over metroplexes, which involve dense populations noise is currently not a priority for the FAA).
- This is a systemic failure of the FAA.

**2. Analysis of proposed change should continue after implementation & success criteria defined**

➤ Success criteria needs to be defined and measured

- Success criteria needs to include effective metrics to confirm significant resident relief/mitigation

➤ If the changes result in little or no improvement, then re-evaluation of the changes needs to take place & further mitigations will be necessary

- Our team would like to see a marked improvement in this flight path; preserving quality of life and impacting no single resident dis-proportionally
- Historical flight tracks should to be preserved.

**3. Make sure the South flow flight path and any proposed changes do not dis-proportionally impact any one resident**

- Flight paths need to be dispersed (miles wide)
- No rails

Thanks,  
Jennifer Tasseff

**Report of the  
Ad Hoc Advisory Committee  
on South Flow Arrivals**

**Approved May 18, 2018**

**DRAFT**

Dear Tony DiBernardo:

With this letter, I convey to you the final recommendations of the Ad Hoc Advisory Committee on South Flow Arrivals.

These recommendations reflect the work of the fourteen-member Committee (see list below), over the course of eight meetings during the past six months.

The focus of this Committee has been the south flow arrival path into San Jose International Airport (SJC). During times of inclement weather, some mornings, or during frontal passages, the wind at SJC will blow from the south. For safety reasons, aircraft must take off and land into these southerly winds, requiring the airport to operate in "south flow," an alternate arrival path into SJC that allows aircraft to land and take off into the wind.

During these times, aircraft have followed a basic traffic pattern covering the area to the west of SJC over San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and Santa Clara, before turning east to return to the airport. As these weather changes - the airport returns to "north flow," the most common configuration, and Air Traffic Control begins directing aircraft to arrive over downtown San Jose.

It is noted that the airspace over Santa Clara County and the entire San Francisco Bay Area is one of the most complex airspace for the Federal Aviation Administration (FAA) to conduct safe flight operations. There are three major international airports as well as numerous smaller airports. The interactions of all these facilities and weather play a part in the flight procedures that are used at SJC. The focus of this Committee is on the procedures that are used for south flow arrivals at SJC.

The Committee's recommendations can succinctly be prioritized as:

- Fly a ~~alternate or~~ more dispersed approach;
- Modify procedures to reduce the ground noise generated by aircraft;
- FAA Policy Changes;
- Avoid noisy flight maneuvers;
- Recommendations for SJC;
- Explore single regional noise reporting system.

Formatted: Strikethrough

The Ad Hoc Committee reviewed and prioritized numerous noise mitigation recommendations (Attachment X) and has listed the top ranked mitigations under the appropriate category.

Having conveyed these recommendations, we request that the FAA and SJC:

- Evaluate and report on the consequences/impact of each recommendation
- Consult with the committee/Cities Association to determine which appropriate recommendations to implement
- Provide written responses documenting the FAA and SJC evaluation and conclusions on what has been requested
- Provide a timeline for when the committee can expect documented responses
- Continue to prioritize safety of flight as its number one priority, but also to raise the issue of ground level aircraft noise so that the FAA can better mitigate the impact to our residents

The Committee believes timely assessment, prioritization and implementation of the recommendations will provide noise mitigation to the community experiencing the impacts of noise from south flow arrivals.

Sincerely,

Glenn Hendricks  
Mayor, Sunnyvale

Chair, Ad Hoc Advisory Committee on South Flow Arrivals Committee

### **List of Committee Members**

- Councilmember Jeffery Cristina – Campbell
- Mayor Savita Vaidhyanthan – Cupertino
- Vice Mayor Jean (John) Mordo – Los Altos
- Mayor Gary Waldeck – Los Altos Hills
- Councilmember Bob Nunez – Milpitas
- Councilmember Rowena Turner – Monte Sereno
- Councilmember Rene Soring – Morgan Hill
- Vice Mayor Lisa Matichak – Mountain View
- Councilmember Lydia Kou – Palo Alto
- Mayor Mary-Lynne Bernald – Saratoga
- Councilmember Charles “Chappie” Jones – San Jose (Vice Chair)
- Councilmember Raul Peralez – San Jose
- Vice Mayor Kathy Watanabe – City of Santa Clara
- Mayor Glenn Hendricks – Sunnyvale (Chair)

### **List of Committee Alternate Members**

- Mayor Liz Gibbons – Campbell
- Councilmember Steven Scharf – Cupertino
- Vice Mayor Lynette Lee Eng – Los Altos
- Vice Mayor Marsha Grilli – Milpitas
- Vice Mayor Evert Wolsheimer – Monte Sereno
- Councilmember Larry Carr – Morgan Hill
- Mayor Lenny Siegel – Mountain View
- Vice Mayor Eric Filseth – Palo Alto
- Councilmember Howard Miller – Saratoga
- Councilmember Johnny Khamis – San Jose
- Councilmember Teresa O’Neill – City of Santa Clara
- Vice Mayor Larry Klein – Sunnyvale

### **List of Meeting Dates**

- November 27, 2016 – Organizational Meeting – City of San José Committee Room
- January 26, 2018 – City of San José Council Chambers
- February 23, 2018 – SJC, Boeing Conference Room
- March 9, 2018 – SJC, Boeing Conference Room
- March 23, 2018 - SJC, Boeing Conference Room
- April 13, 2018 – SJC, Boeing Conference Room
- April 27, 2018 – SJC, Boeing Conference Room
- May 18, 2018 – SJC, Boeing Conference Room

## **Acknowledgements**

The level and intensity of aviation noise experienced by residents of Santa Clara County is dependent on various factors including proximity to existing flight paths, time of day, and weather conditions. The noise consequences from the implementation of NextGen and overall increase of flights in our region, are having a negative impact on the quality of life of our residents. In response to growing community complaints and concerns about aviation noise, Committee members request that the FAA assess, prioritize and implement timely noise mitigation solutions.

The Committee would like to thank the San Jose City Council for initiating the Ad Hoc Committee on South Flow Arrivals, thereby demonstrating through the Committee their commitment to proactively identify mitigations to these challenges.

The Committee would also like to acknowledge and thank the Federal Aviation Administration (FAA), as they have attended every meeting with knowledgeable and committed staff. Through various presentations and guest speakers, the FAA demonstrated a real effort to share information and educate the Committee and public about the complexity of the airspace among other issues. The committee feels the FAA participated in these meetings as a willing partner in search of practical solutions.

The San Jose Airport staff has been fantastic and true partners in this effort. The Committee is appreciative of the meeting space and coordination provided by the staff. In particular, the Committee would like to recognize Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport for his outstanding knowledge support.

I want to thank all the members of the Committee for the countless hours spent trying to problem solve such a complex issue. The calm, rational thoughtfulness that the members brought to every meeting created a great collaborative environment.

Most importantly, the Committee wishes to thank the members of the public who attended these meetings and/or provided input. Our residents clearly showed a passion for this topic and a zeal for wanting to find transparent solutions that would work for all parties involved. They are focused on sharing their experiences, learning about the constraints and offering perspective on possible mitigations.

## What Are South Flow Operations?

Normally, aircraft at SJC land descending from the south (over parts of downtown San José) and take off heading north. However, under certain weather conditions (mostly when the wind shifts direction at the Airport and flows from the south at higher speeds), for the sake of operational safety, the FAA requires pilots of arriving aircraft to follow an arrival procedure that can take descending aircraft over parts of San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and other communities as they prepare to land at SJC approaching from the North flying South. When that arrival procedure is used, air operations are in “south flow.”

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. ~~In addition, In recent years, since 2015,~~ new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and compacted arrival patterns, especially over San Jose, Sunnyvale, Cupertino and Mountain View. ~~In addition, since 2012, the FAA has implemented multiple changes to the SJC south flow arrival flight path, which has resulted in a shifting and concentrating of this air traffic corridor.~~ Use of the NextGen technology has increased per-flight noise for residents. While this has reduced noise for some residents, noise has increased for those residents living directly under the more precise arrival and approach flight paths.

## South Flow and the Bay Area Metroplex

The FAA has testified that the Bay Area is the second most complicated metroplex location after New York City for air traffic given the proximity and flight patterns of its three primary airports: SFO, SJC, and OAK. For safety purposes, air traffic procedures are required to maintain a safe vertical and horizontal distance from other aircrafts and approach and departure flight paths.

FAA staff has presented that a south flow arrival approach is a more complicated procedure than north flow given its proximity to other flight procedures for SFO traffic, and as such it is a less preferred procedure when compared with north flow. The FAA stated that they only switch to south flow when wind and weather conditions require it. The preferred approach is north flow where planes approach SJC from the south flying north, as there is less air traffic from other airports.

## Formation of the Ad Hoc Advisory Committee on South Flow Arrivals

In November 2016, Sunnyvale and Mountain View residents attended the SJC Airport Commission meeting to ask the Commission to address their noise concerns. The Commission requested staff to write the FAA to ask for solutions to address the south flow noise issue. While the FAA responded to staff’s correspondence, the response offered no adjustments in the procedure.

Sunnyvale and Mountain View residents returned to the Commission in February 2017 to request the Commission’s support for the formation of a body to address south flow noise issues. In

**Commented [JT1]:** On multiple occasions during the adhoc committee meetings, FAA personnel have mentioned that the flight path for south flow was altered. During the last AdHoc meeting (in addition to information from SJC and FAA flight plates), it was confirmed by the FAA that PUCKK was the prior final waypoint in 2011, and that PUCKK was shifted to a new waypoint JESEN. Then in 2015 or 2016, additional new final waypoints were added (HITIR and ZORSA). These changes have resulted in a major shift in the south flow flight path, and a concentrating of that flight path. When describing South flow operations, these changes in the flight path should be mentioned.

response, the Commission voted unanimously to recommend the formation of a body that includes FAA participation.

In March 2017, the Airport hosted a meeting organized by Congressman Ro Khanna's office. Elected officials from Sunnyvale, Mountain View, Cupertino, San José, the FAA, and the Airport attended to discuss the south flow issue and possible solutions. There was consensus that it would be constructive to have public information and discussion forums to understand why the south flow procedure is used and to review possible solutions to reduce the noise for the most impacted residents. The FAA and the Airport would participate in the forums.

In response to the SJC Commission's recommendation, Airport staff reviewed the formation and structure of the SFO Select Committee on South Bay Arrivals, which was an ad hoc noise committee formed in May 2016 by Congresswoman Anna Eshoo, Congresswoman Jackie Speier, and former Congressman Sam Farr. The Select Committee brought together elected officials from the jurisdictions of three counties to look at the noise impacts of the FAA's 2015 implementation of its NextGen technology. The Committee ultimately made a series of consensus-based recommendations before disbanding in November 2016. The three Congressional offices endorsed and transmitted the Committee's recommendations to the FAA for review. The FAA is now studying those recommendations.

In reviewing the Select Committee model, Airport staff determined that the ad hoc model is a good process for conducting a regional discussion on possible solutions to address the noise impacts of the south flow procedure at SJC. Based on this, the City of San José formed the Ad Hoc Advisory Committee on South Flow Arrivals to discuss possible solutions. The Committee is an advisory body with no legal authority. Its purpose is to provide potentially feasible and consensus-based recommendations to the FAA to mitigate the noise impacts of the south flow procedure.

To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support.

- **Fly an ~~alternate~~ or more dispersed approach**

One of the changes that has come with NextGen navigation into San Jose International Airport (SJC) is switching from a radar-based approach to a GPS approach. That in conjunction with OPD, our residents experience a concentration of the path that aircraft fly through the sky. This creates the effect of having aircraft fly through the same space in the sky more consistently. The resident's perceptions of this is the creation of a "rail" over certain neighborhoods and houses. In effect, causing a fewer number of residents to bear the brunt of the ground effect noise from aircraft flying overhead.

It should be noted that RNP is one of the tools and procedures used by the FAA that contributes to creating this "rail" impact to residents.

Prior to the implementation of NextGen, the aircraft flying overhead were dispersed over a broader area. This had the effect of not concentrating ground effect air noise over specific neighborhoods and houses. Thereby, reducing the negative effects on residents. A dramatic increase in noise complaints appeared after the implementation of Nextgen.

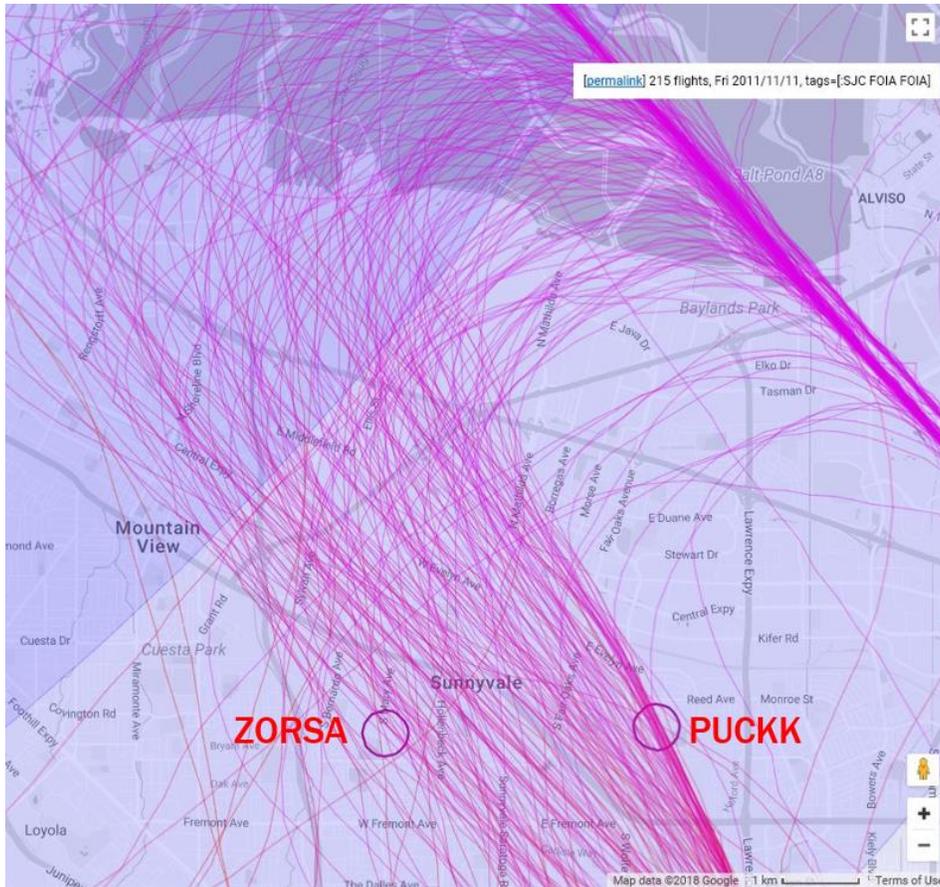


Figure XX

**Commented [JT2]:** Would be helpful to have a picture of the historical dispersion in this section, so the historical dispersion level is clear to all parties.

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings.

The attached spreadsheet identifies many suggestions for “how” this might be accomplished. (See spreadsheet items Q through CC).

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. (Using the criteria listed below)

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

### San Jose

San Jose representative needs to define what we want here

### Cupertino

Cupertino representative needs to define what we want here

### Sunnyvale

For the City of Sunnyvale – dispersion would mean even distribution of aircraft between the ZORSA and PUCKK waypoints. Not that aircraft would fly over these specific points, but rather use these waypoints (ZORSA and PUCKK) as an eastern and western outside logical boundary of where aircraft would fly over the city. Define a set of procedures, rules or processes, that would enable FAA to safely and ~~semi~~-evenly distribute traffic over Sunnyvale between these two designated waypoints (measured over time).

II

Formatted: Highlight

Sunnyvale would like to see full dispersion to the pre-2012 levels. Prior to 2012, flights were dispersed evenly over an approximately 2.5 mile wide corridor between waypoints ZORSA and PUCKK (See Figure XX for sample desired dispersion – SJC Historical tracks prior to 2012).

OR

Formatted: Font: 14 pt, Highlight

Formatted: Font: 14 pt

See Figure XX above for desired 2.5 mile wide dispersion level (based on SJC historical tracks prior to 2012)

Commented [JT3]: Added verbiage to clarify desired dispersion level

II

Formatted: Highlight

### Mountain View

For the City of Mountain View – dispersion of aircraft is essential to a solution. Two rails (straight and semi-circular) have sharply concentrated noise over Mountain View in recent years. These rails come from use of an RNP approach and a new vectoring procedure. Mountain View would like to see the dispersion that existed before 2012, even if that means returning some control to pilots. Can airplanes that are capable of turns that are tighter than the RNP turn begin their turn prior to reaching ZORSA, dispersing traffic to the East of the RNP rail? Can traffic on the STAR procedures make their turn at or after JESEN at slightly different locations and with slightly different headings, perhaps by recreating PUCKK as the terminal waypoint (infrequently reached) on the arrival procedure? This could ‘spray’ traffic across Sunnyvale and Mountain View and along the length of Hwy 101 as before. Would creation of a charted visual approach help? With different procedures, could ATC contribute to these ends? Recreating the long-standing traffic patterns that existed prior to 2012 would reduce complaints significantly.

**Palo Alto**

Palo Alto representative needs to define what we want here

## **One Possible Alternative Approach**

The following is one possible alternative approach for the FAA to explore. There may be others and the Committee encourages any and all options to be fully reviewed.

When the south flow arrival pattern is initiated for San Jose International (SJC) airport, most traffic flies toward and through the ZORSA waypoint over San Jose, Cupertino, Sunnyvale, Mountain View and Palo Alto to make a right-hand turn to intersect the final approach pattern to land.

In reviewing radar traffic, there is some amount of traffic that lands at SJC during south flow that is vectored to land from the East. That traffic comes in and makes a left-hand turn to intersect the final approach.

**Request to the FAA #2:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to explore creating a Procedure that aircraft could use to land at SJC that would take advantage of this Eastern arrival option.

Further, without being prescriptive of “how” to achieve this Eastern approach for south-flow – the success criteria for such an approach would be for a minimum of 25% of the south-flow traffic to use this approach. Having aircraft land from over the bay would reduce the ground level impact noise to the previously identified cities.

The success criteria and FAA evaluation process would also need to ensure that we are not moving ground level impacting noise to other residential communities.

The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See spreadsheet items M, N, P).

Regardless of the outcome of this evaluation, the Committee requests the FAA to not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC.

- **Modify procedures to reduce the ground noise generated by aircraft**

It has been mentioned multiple times that the objective the Ad Hoc Committee is trying to achieve is the reduction and/or mitigation of ground level impacting noise from aircraft. Items A through K from the spreadsheet are suggestions for how to achieve some of this noise reduction.

Per information that was provided by the FAA at the April 13, 2018 Ad Hoc Committee meeting, the highest probability items to implement are D, E, F of the spreadsheet. (The FAA's comments were not a commitment that these particular items could be implemented or that they would achieve the desired results.)

**Request to the FAA #3:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to implement item E and F. The purpose being to implement the concept of item D.

These items are based in the concept that "altitude is our friend" as it relates to ground impacting noise from aircraft. The higher the aircraft, the less its noise will impact residents on the ground.

If there are other suggestions that the FAA could suggest to be reviewed to raise the altitude of aircraft, these should also be included in the evaluations.

The Ad Hoc Committee wants to acknowledge that the whole purpose of the South Flow arrival pattern or any arrival pattern is to get aircraft safely to the ground and land.

The success criteria for this set of items is to safely land aircraft at SJC but keep the aircraft as high as possible (for as long as possible), while still allowing for safety and appropriate decent paths and sequencing to land at the airport.

- **FAA Policy Changes**

- **Sound Monitoring in the Impacted Cities**

Since the implementation of NexGen, the FAA has not changed how it reviews noise impacts to communities. Noise impacts due to changes in aviation paths and procedures have been reviewed using noise modeling technology instead of actual measurement of noise generated from aircraft. The Committee requests the FAA to monitor actual noise generated and furthermore establish a benchmark to measure pre and post implementation of recommended changes; thereby making it easier to analyze effectiveness.

**Request to the FAA #4:** Implement monitoring in areas throughout Santa Clara County to measure the effectiveness of noise mitigation solutions. Noise data captured by sound monitoring should be used by the FAA to validate the modeling tools the FAA uses as part of its environmental impact evaluations.

**The point of noise modeling is to simulate real-world conditions.** The noise models used by the FAA should be calibrated to sound on the ground under varying weather conditions. If certain south flow flight procedures have been optimized for sound, the procedure designers should ensure that they have calibrated their procedures to the weather conditions most prevalent when those procedures are to be deployed.

The attached spreadsheet identified suggestions for “how” this might be accomplished. (See items K and OO).

**Request to the FAA #5:** The Ad Hoc Advisory Committee on South Flow Arrivals is aware that for each new potential Aviation route into the San Francisco Metroplex, that a noise simulation and prediction is/was required. The Committee requests that the FAA provide those simulation results that include predicted noise levels and all other associated data.

The committee requests the FAA’s environmental reports that have been prepared for routes into the Metroplex for the past three years be provided to the Committee for the examination, analysis and comment.

- **Improve Public Outreach**

Near the end of this committee's duration, it was discovered that the FAA was in the process of evaluating a change for the approach procedures for SJC (ILS). No one representing the FAA at these meetings or the public was aware this change was being considered.

Once the FAA project was brought to FAA representatives attention, the evaluation was slowed down so that a full process including improved public input could take place. (Thank you to the FAA Officials).

But, this item highlighted the transparency and ease (or lack thereof) for members of the public and even the FAA to keep track and become aware of procedures changes that can impact local residents.

Included in the Appendix is a letter from the Mayors of Los Altos, Mountain View and Palo Alto concerning the lack of transparency on this issue.

**Request to the FAA #6:** The Committee is requesting the FAA to improve the notification mechanisms to better alert local communities when procedures are being reviewed. Just posting to the FAA's IFP Gateway website at the National level is not sufficient to provide clear, layman understandable language and transparent information to the public. There needs to be better regionalization or categorization of the possible changes. There should also be a mechanism for public officials and members of the public to be notified of changes that are being proposed in their region.

- **Avoid noisy flight maneuvers**

The Committee spent a considerable amount of time discussing and hearing from FAA, traffic control and airport officials on noise mitigation through airplane flight modifications. Committee members explored scenarios where changing airplane speed, altitude, and aircraft vectoring could have a noise reduction impact, below are the recommended mitigations:

Items A, B, G, H, J, K

Given the technical complexity of these items, the Committee does not have a specific ranking for these. But the success criteria for any of these are the same. Implement changes that allow for the continued safe flight operations of aircraft while reducing the impact of ground level noise on our impacted communities.

**Request to the FAA #7:** The Committee is requesting the FAA to review these suggestions and provide a written response about the feasibility of implementing these.

- **Recommendations for SJC to explore implementing noise reducing retrofits where possible**

Mitigating noise should also be explored from an airport operator perspective ~~and consideration should be given to airfield design, such as evaluating the feasibility of runway extensions, new runway construction, or relocation of runway thresholds.~~ Operationally, consideration should be given to modifying arrival flight profiles and capitalizing on advanced navigational technologies, as well as reviewing noise curfews. Other noise management options include working with airlines and pilots to manage airplane noise, examples include the Fly Quiet Program, and creating a Pilot Awareness Program.

**Commented [JT4]:** Runway extensions would allow larger aircraft to land at SJC. This suggestion would need full consensus of the adhoc committee, since this would clearly increase the level of noise over already impacted residents.

**Request to SJC #A:** The Committee recommends that the San Jose Airport respond to the following recommendations and provide a response on feasibility of implementation. Prioritized items DD through LL

- **Explore single regional noise reporting system**

Currently, when any resident wants to register a complaint about aircraft noise, there is severe burden that is placed on the resident. The person reporting the issue, needs to research and find information about the aircraft, determine the destination airport, look up the noise reporting contact information for that arrival airport and then file the actual complaint. And then if they are registering complaints for a situation like south flow at SJC – they need to re-contact and go through the reporting process for each flight or noise incident.

This is an undue burden placed on the residents reporting noise concerns that have already been clearly defined and documented as occurring.

**Request to the FAA #8 (or SJC, if they are the more appropriate body):** The Ad Hoc Committee requests the FAA to initiate a study to look at creating a single Aircraft Noise Reporting System for the area, including, but not limited to: simplified reporting of information by the reporting person, analysis and publicly available reporting. The user interface for this system should minimize the number of clicks required to log a complaint.

## Responses from the FAA

The Ad Hoc Advisory Committee on South Flow Arrivals was designed to be a limited term, ending after six-months from initiation. The Committee believes it is important to define a contact protocol once the Ad Hoc Advisory Committee on South Flow Arrivals has concluded, in order for the FAA to provide its response to the recommendations.

**Recommendation:** When the FAA has any feedback on the Committee's requests or additional questions, the FAA should contact:

- Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport
  - [matthew.Kazmierczak@sanjoseca.gov](mailto:matthew.Kazmierczak@sanjoseca.gov)
- Glenn Hendricks, Mayor of Sunnyvale and Committee Chair Person
  - [mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)
- Andi Jordan – Santa Clara County Cities Association
  - [andi@citiesassociation.org](mailto:andi@citiesassociation.org)

Depending on the information provided by the FAA, the designated contact representatives may:

- Pass information on from the FAA to Committee members
- Post information on the Committee website hosted by SJC
  - [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
- Convene an informal meeting of the former committee members
- Provide responses to FAA questions
- Other actions, as may be deemed necessary

## Appendix

- **Link to meeting minutes**
  - [www.flysanjose.com/Ad\\_Hoc\\_Advisory\\_committee](http://www.flysanjose.com/Ad_Hoc_Advisory_committee)
- **FAA provided materials**
  - All FAA presentations are available on the Ad Hoc Advisory Committee website: [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
  - FAA Presentations
    - January 26, 2018 – SJC North and South Flow: Pre and Post OAPM
    - March 23, 2018 – FAA Data regarding February 28, 2018 Request, Questions, and Next Steps
    - April 13, 2018 – FAA Data response to March 23, 2018 meeting
- **Spreadsheet of mitigation idea**
- **Letter from the Mayors of Los Altos, Mountain View and Palo Alto**
- **Electronic files received from residents**

## Kazmierczak, Matthew

---

**From:** Louis Perrochon <>  
**Sent:** Monday, May 14, 2018 4:22 PM  
**To:** mayor@sunnyvale.ca.gov; Matichak, Lisa; Lenny.Siegel@mountainview.gov  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov

Dear Chairman Hendricks, Vice-Mayor Matichak, Mayor Siegel

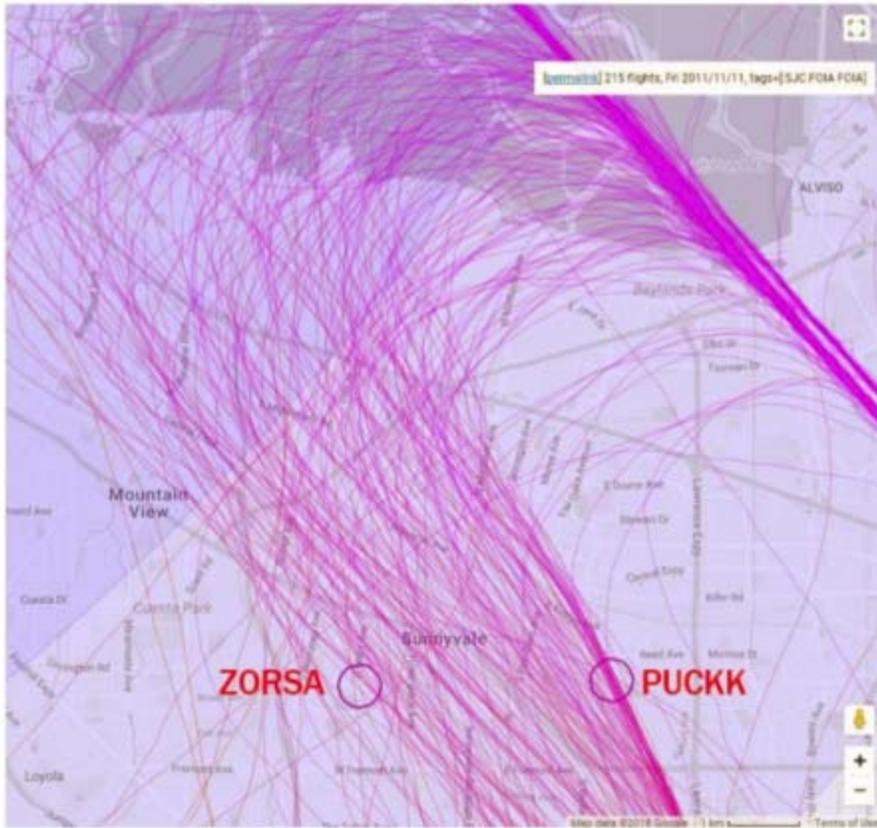
I am writing to you as you are the chair of the SJC Ad Hoc Committee on South Flow Arrivals, and Ms Matichak and Mr. Siegel are the Mountain View members.

I am glad that we as a community are finally recognizing aircraft noise pollution a a problem and doing something about it. There is plenty of scientific evidence it impacts health, including cognitive development of children. It's critical that we continue that work as especially airplane noise will only go up as traffic into SJC continues to grow (and SFO, to a lesser extend for the South Bay).

I'd like to comment on the situation with airplane noise, and the upcoming Report with Recommendations for the FAA. In particular, I wish it could be a lot stronger in it's recommendation to disperse traffic over populated areas.

- **We should add some graphics depicting the situation, as in this case a picture speaks more than a thousand words.**
- **We should state very clearly that traffic was shifted by design This is not organically grown, and it can be mitigated/reversed. Noise (i.e. health) needs to come before efficiency.**

The two illustrations below are important. The first one shows dispersed traffic up to 2012. It shows a situation that is somewhat bearable, and the situation most people knew about when they purchased their properties. You get a few planes overhead every day of South Flow, it's not that disturbing. Our home not being under a flight path for an airport (or next to a freeway) was one of the important criteria when we purchased it.

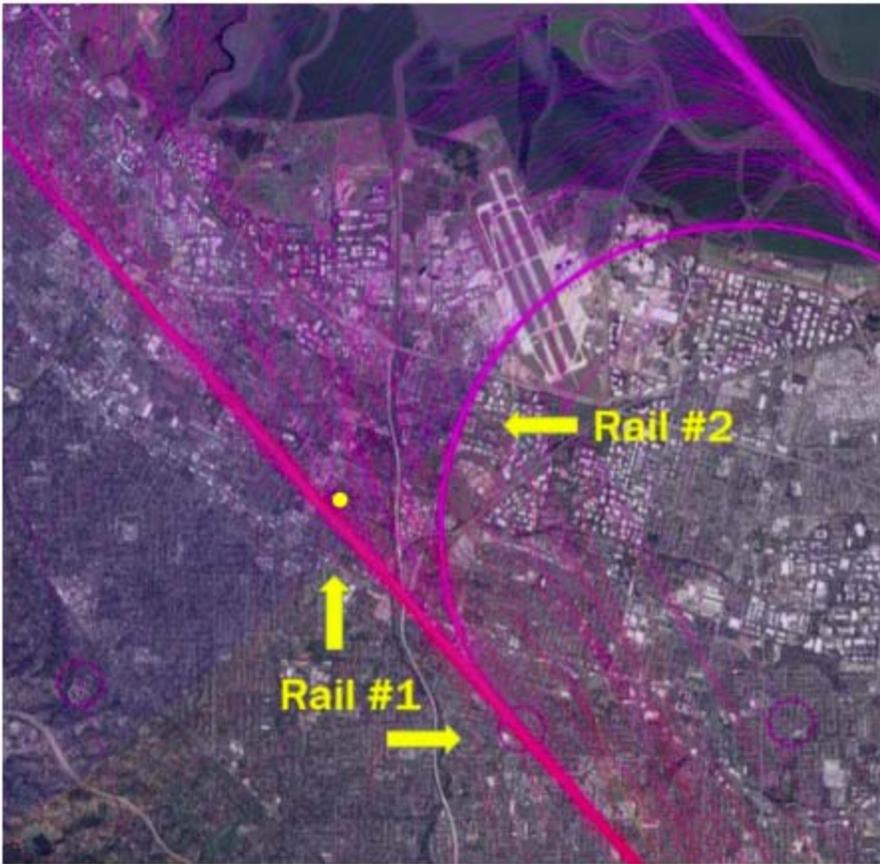


*South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SJC*

The picture below shows today's situation: The yellow dot shows our house. A San Jose flight path has been moved pretty much on top of our back yard. There are also plenty of schools and day care locations around. On South Flow days, we now get low flying planes every few minutes. If we sit outside, we cannot converse while they fly by. And because they are so frequent, we are basically waiting for the next one. South Flow days are miserable outside, and not very pleasant inside either. I can only imagine how bad it is for people directly under the rail. With the traffic growth expected in San Jose, this situation will just get worse and basically prevent e.g. school activities outside.

We must get back to dispersed traffic. It's a lot less impacting to the community than the hyper concentration on top of a narrow slice.

We also need to start working - on the federal legislative level it seems - to base landing fees on noise. It's common in Europe, and doesn't create an undue burden on their commerce... It's one reason why airbus planes don't emit the "A320 Whine" in Europe (they do here). There is no better motivation for pilots (and airlines) to descent efficiently and quietly than saving money on landing fees.



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

Regards

Louis Perrochon

## Kazmierczak, Matthew

---

**From:** Jeanne Waldman <>  
**Sent:** Tuesday, May 15, 2018 10:40 AM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; Lupita Alamos  
**Subject:** Sunnyvale airplane noise

Hello,

I bought my house in SV in 2011. I've lived in the South Bay for most of my life. I have noticed that the planes go right over my house, one after another. This wasn't the case when we moved here.

My neighbor who has lived here for 35+ years complained to me months ago how noisy it is now. He is really bothered by the noise as well. I told him to complain, but I don't know if he gets on a computer much, if at all.

I'm here to tell you that everyone around me in our neighborhood are bothered by this. I think dispersing the planes would help some. The way it is now, we never get a quiet moment. You hear a plane coming, then overhead, then leaving, and by the time that plane can't be heard, here comes a new one!

This constant noise is definitely hard on the nerves. And who knows what the air pollution is doing to us?

Please help our neighborhood.

Thanks,

Jeanne

## Kazmierczak, Matthew

---

**From:** Xiaoyue Jiang <>  
**Sent:** Monday, May 14, 2018 10:14 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Report to FAA

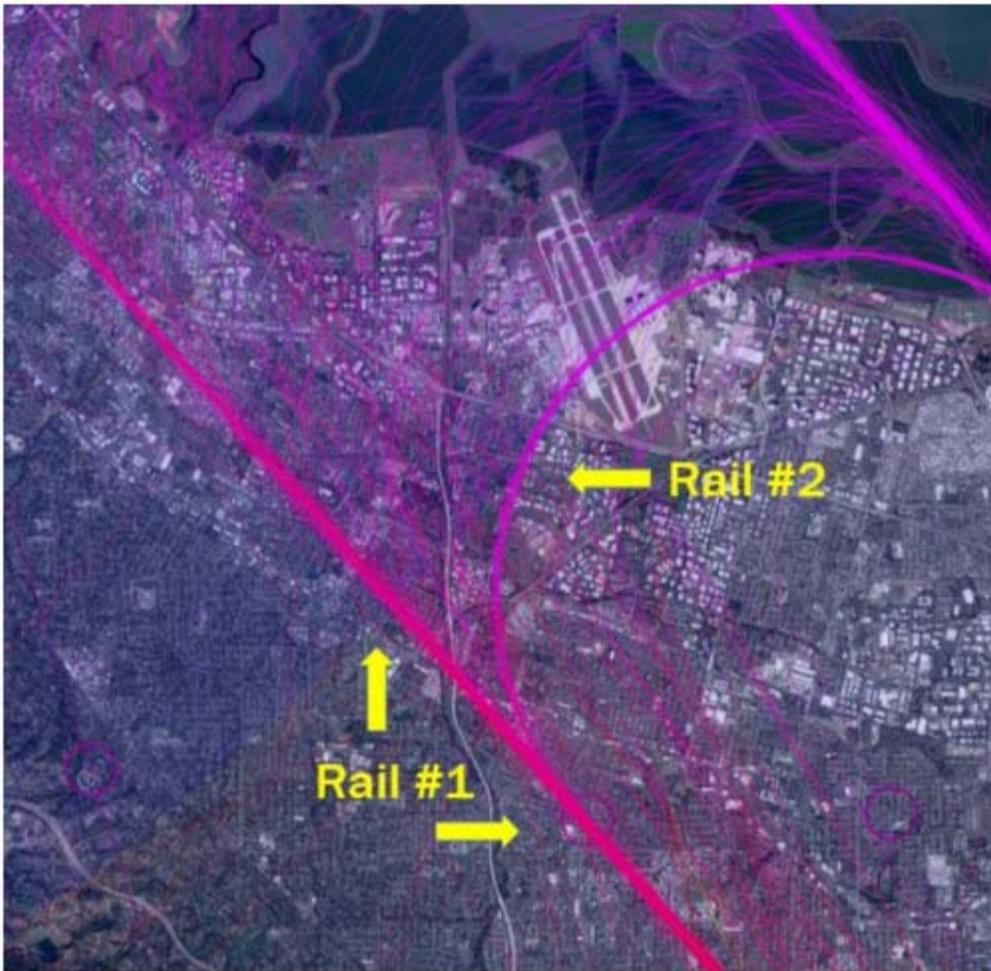
Hello dear Chairman Hendricks,

I heard you are preparing a report to FAA regarding the south flow airplane noise over sunnyvale and mountain view. I have some comments:

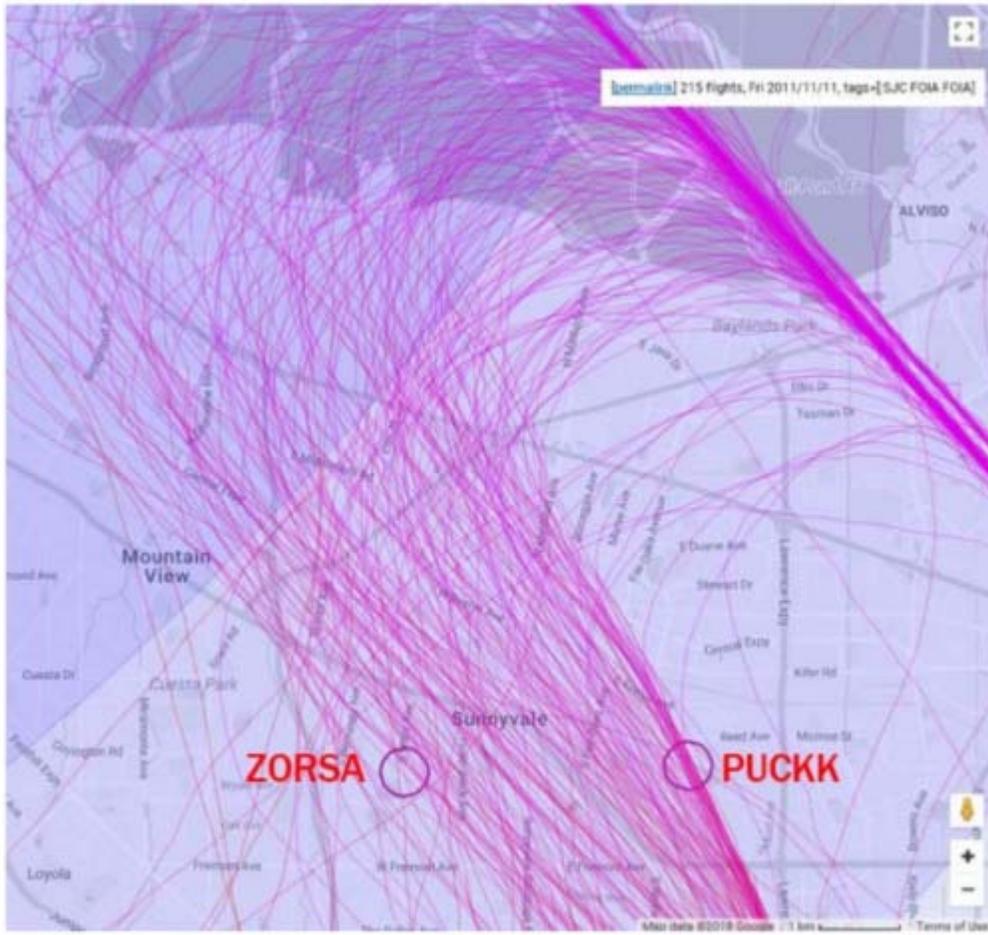
- 1) A map showing the two rails emerging over sunnyvale and moutain view as below should be included. This did not happen before 2012. This westward shift significantly affected our life. I could hardly enjoyed mother's day in the yard due to the loud and unstopped noise a couple of days ago.
- 2) Please consider suggesting stopping routing traffic on "rails". It is not working in high density neighborhood, when plane is landing. It is horrible to use rails.
- 3) I am fine with dispersion routes in south bay. FAA cannot concentrate all noise in narrow neighborhood.
- 4) SJC's location at the center of high density neighborhood is wrong. SJC should consider moving SJC to less populated area.

Regards,

Xiaoyue



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJCA*



**Westward Shift of Flight Corridor 2012-2015**  
*Superimposed on 3/10/16, 224 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Toni Rath <>  
**Sent:** Monday, May 14, 2018 11:51 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Cc:** lisa.matchak@mountainview.gov; Siegel, Lenny  
**Subject:** South Flow Ad Hoc Committee: Public comments on final report draft dated 5/11  
**Attachments:** Maps.pdf

Thank you for your work on the Ad Hoc Advisory Committee On South Flow Arrivals. After reading the draft of the final report dated May 11 I would like to make some recommendations to amend and correct the report:

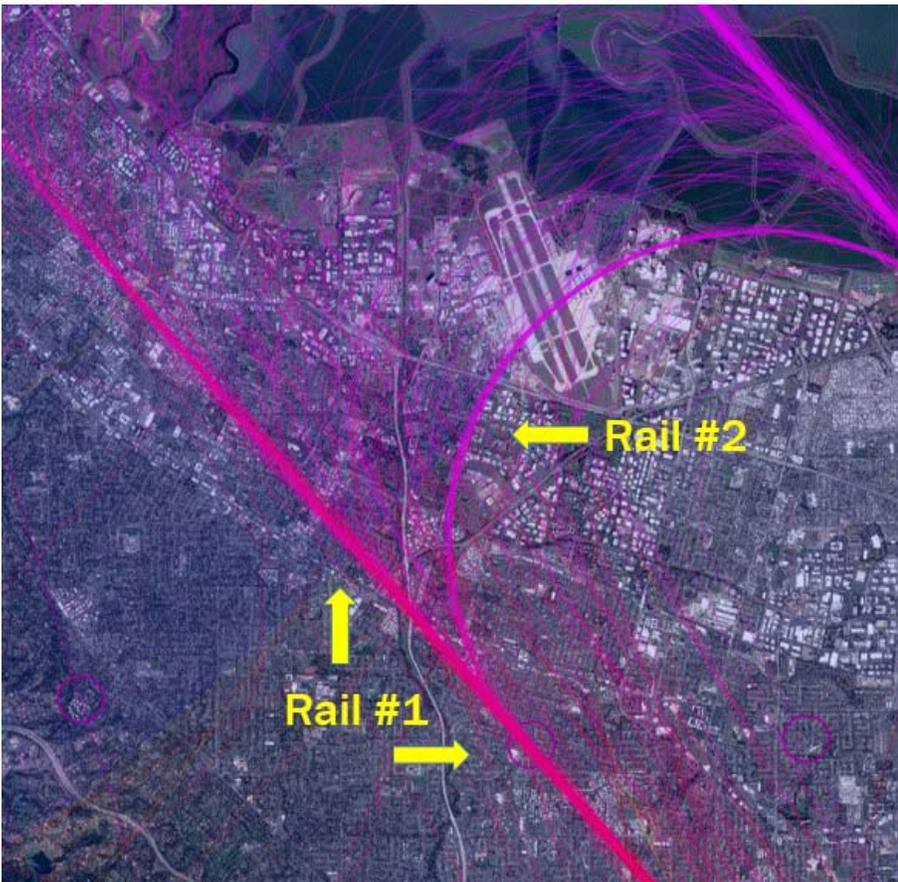
1. The report is lacking a clear problem statement. Recent years have brought big changes in the path airplanes take before landing at San Jose airport. These changes are best illustrated by pictures of the situation before and after these changes (I suggest using the before and after pictures in the attachment). A picture is worth a thousand words: Airplane traffic used to be dispersed over a corridor about 2.5 miles wide, spreading the burden of airplane noise. Now the flight path has been shifted westward and there is sharp concentration into "rails", putting undue burden on a different group of residents. **The westward shift in traffic and the creation of two rails need to be called out unambiguously in the report and substantiated with pictures** (NOT the ones from the FAA as they obscure the location and extent of the problem).
2. Recent statements by FAA representative Tony DiBernardo have called into question the existence of "rails", that is, sharply increased concentration of airplane traffic along specific routes. **A picture that clearly shows the two "rails" along which traffic now flows need to be included** to set the record straight (please use the attached picture). This is even more important since the FAA has made it clear that it would like to reduce vectoring, which means that more and more traffic will move onto these rails, causing further increases in noise.
3. The report does not clearly articulate the solution that residents predominantly spoke to at public meetings: **the two rails along which traffic now flows must be broken and the original dispersion of traffic in 2011 must be returned** to spread the load of airplane noise. The report should recommend the FAA evaluate all recommendation in the spreadsheet that restore this dispersion.
4. The report states that the use of the "Eastern approach" should remain at the current level of 10%. This is less than historical averages and would mean a further shift of traffic to residents living on the Southern peninsula. **In the last 5 years, 22.3% of traffic have taken the Eastern approach.** The report should adopt this number instead.
5. The report includes a spreadsheet of recommendations, but why is the FAA being asked to evaluate only some of them? Some items are even specifically excluded from evaluation (see items M, N, P). Instead, **the report should ask the FAA to evaluate all items in the spreadsheet** for feasibility, to provide a written response with their findings and to implement feasible recommendations that reduce noise on the ground.
6. The report misses the opportunity to make recommendations that have a longer term, even lasting, and positive impact regardless of the perceived feasibility. The bay area is a leader in technology and forward thinking and the report should reflect this by recommending the following:
  1. Recommend the FAA work on technologies to provide automatic dispersion of aircraft instead of routing them along 'rails'. **The rails must be broken.**
  2. The FAA should adopt noise metrics that closely model noise as it is observed by residents on the ground.
  3. The FAA should work on technologies that can fly airplanes as quietly as human pilots under 98% of weather conditions.

4. Require airline companies to implement noise mitigation measures, such as the vortex generator to fix the airbus whine.
5. The FAA should prioritize safety, noise/health and then efficiency, in that order, over residential areas.
7. The report states "To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee". This is misleading and should be corrected. A maximum degree of inclusiveness would be to invite **all cities affected** by South Flow. The report does not mention that the committee had indeed asked the San Jose City Council to include all affected cities. The San Jose City Council denied the request. This is important information that should not be omitted.

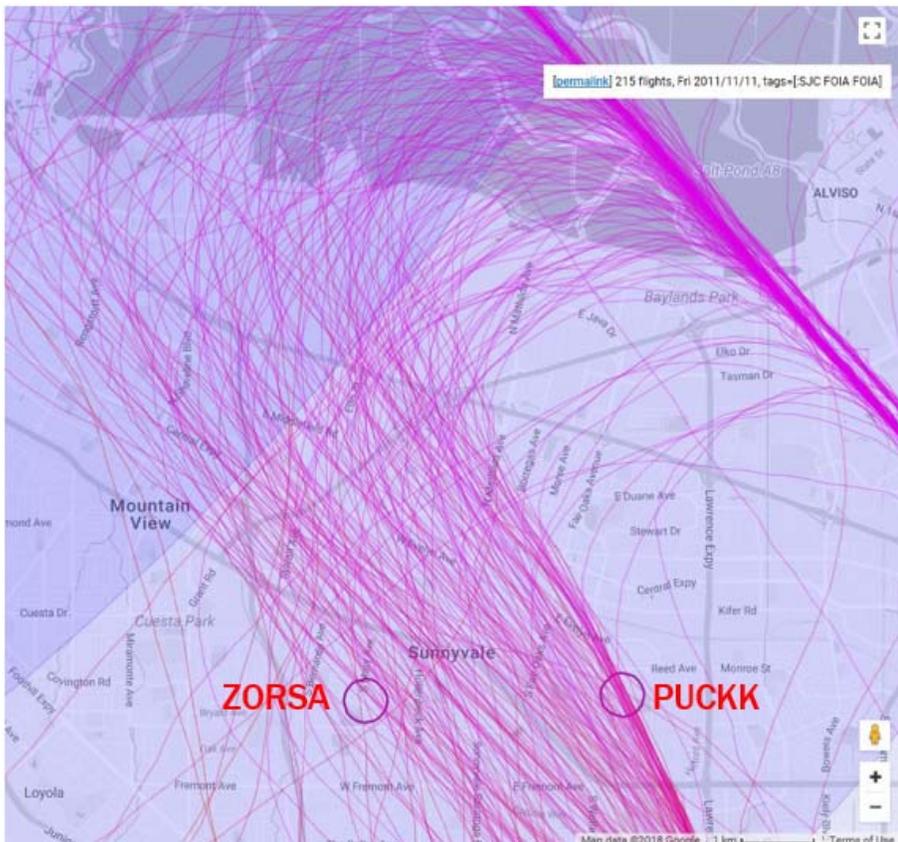
Let's make the report count.

Thank you.

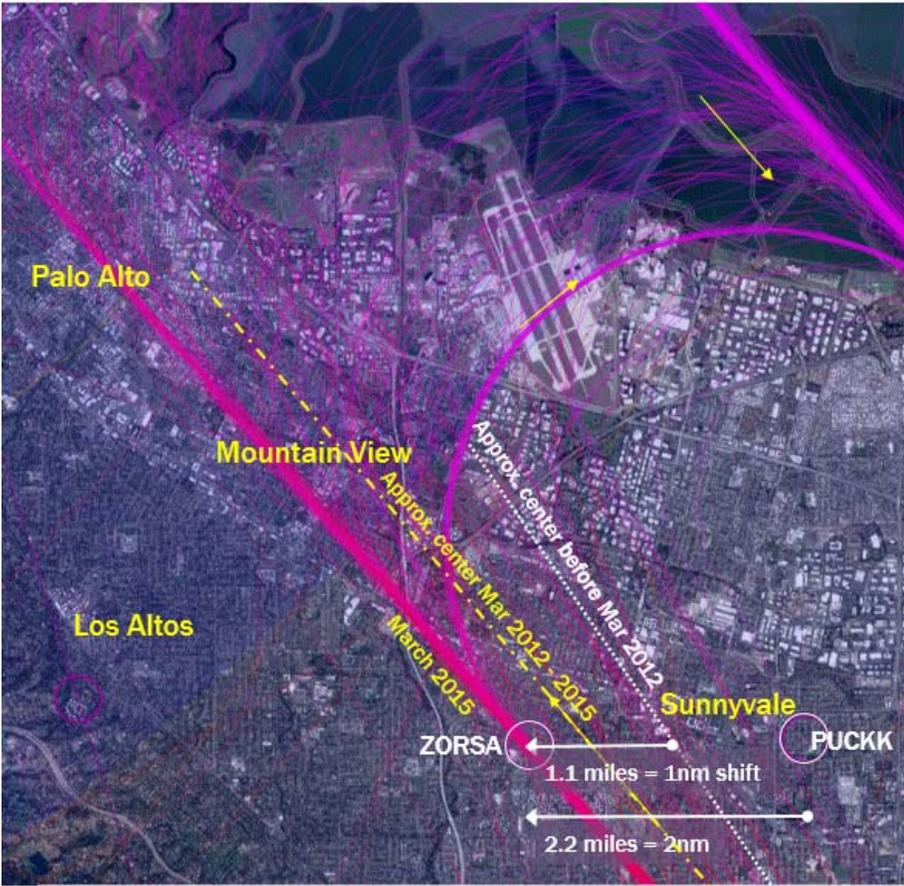
Toni Rath



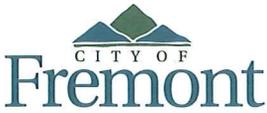
Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC



South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SJC



*Westward Shift of Flight Corridor 2012-2015*  
*Superimposed on 3/10/16, 224 arrivals to SJC*



*Office of the Mayor*

3300 Capitol Avenue, Building A | P.O. Box 5006, Fremont, CA 94537-5006  
510 284-4011 *ph* | 510 284-4001 *fax* | [www.fremont.gov](http://www.fremont.gov)

May 14, 2018

Mayor Hendricks, Sunnyvale, Committee Chair  
Ad Hoc Advisory Committee on South Flow Arrivals  
Mineta San Jose International Airport  
1701 Airport Boulevard, Suite B-1130  
San Jose, CA 95110

**Subject: South Flow Arrivals to San Jose International Airport**

Dear Mayor Hendricks:

The City of Fremont has been sending a staff member to observe the proceedings of the Ad Hoc Advisory Committee on South Flow Arrivals to San Jose Airport. Among the Committee's proposed recommendations for reducing noise for peninsular and south bay cities, inclusion of a new or busier eastern approach to the airport has been proposed and discussed by Committee members as a possible means of dispersing flights.

We understand that the City of San Jose has gone on record as being opposed to moving more flights to such an eastern approach. Likewise, the City of Fremont is concerned that an eastern approach could move noise over Fremont. Planning for an increase in low-flying planes in new areas would simply move the issue and would be disruptive to residents, park users, and environmentally sensitive natural ecosystems alike.

Consistent with the guiding principles of the Committee, the City of Fremont recommends that your report to the FAA specifically exclude moving more noise over our community. If the eastern approach is at all being considered, much more needs to be done to engage potentially impacted communities like Fremont before making a decision.

Sincerely,

A handwritten signature in blue ink that reads "Lily Mei".

Lily Mei  
Mayor

cc: Committee Vice-Chair Chappie Jones (San Jose Councilmember)



## Kazmierczak, Matthew

---

**From:** Ellen Zhao <>  
**Sent:** Tuesday, May 15, 2018 12:59 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Residents feed back on draft report for the Ad Hoc Committee

As one of the impacted Sunnyvale residents, I strongly feel the current draft from Ad Hoc Committee is very weak. The report needs to better represent the residents of Sunnyvale and Cupertino!

The root cause of the noise issue from SJC is the narrow flight path, and it needs to be broken. FAA wants rails for efficiency not for safety reason. Efficiency should never be the priority over the life of our community. If we allow the FAA to force planes into rails, then FAA will never develop the technology to re-disperse the flights, and the rails will continue to get worse.

What's fair needs to be fair. The changes/rails was started in 2012. The hidden impact was not ever being notified to the impacted communities. We strongly requesting FAA to changed back to 'pre-2012'. Please note, this is NOT noise shifting. It is just correcting the current mistake FAA did over the past several years! We need to stop the current madness. Our elected officials needs to better present us in this case.

The suggestion from Sunnyvale city in the report is totally unacceptable. Between the 2 waypoints (ZORSA and PUKKA), all the south flow flights will be more concentrated into the narrow flight path within Sunnyvale. This will be the nightmare for our Sunnyvale residents. This report is obviously NOT representing the voice of Sunnyvale residents!

Best Regards,  
Ellen (Sunnyvale resident)

## Kazmierczak, Matthew

---

**From:** Marie-Jo Fremont <>  
**Sent:** Tuesday, May 15, 2018 9:12 PM  
**To:** District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; Glenn Hendricks; KleinCouncil@sunnyvale.ca.gov; svaidhyanathan@cupertino.org; sscharf@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; Mary-Lynne Bernald; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; Larry.Carr@morganhill.ca.gov; Gary C. Waldeck; Kou, Lydia; Filseth, Eric (Internal); Jean Mordo; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com  
**Cc:** Kazmierczak, Matthew  
**Subject:** Feedback for the final report of the Ad Hoc Advisory Committee on SJC South Flow Arrivals

Dear Ad Hoc Advisory Committee member,

I have spent quite a few hours reviewing various versions of the draft report, struggling on how to best provide you feedback given that the draft report has been a moving target.

Instead of trying to wordsmith the language, I want to emphasize three objectives that I would like you to keep in mind when you will be creating the final report:

### 1. Include critical facts:

- State that the **NextGen** implementation of SJC south flow arrivals resulted in **shifting the traffic to the west in a narrow flight path** (such narrow path is also known as a “**rail corridor**”) and **attach maps of the before and after NextGen** (as shown by the FAA in their presentations to the Committee and by Mountain View resident Robert Holbrook) as supporting evidence. See summary pictures at the end of this message.
- As a result of this westward shift and tremendous increase in the flight path concentration, communities that did not suffer from aircraft noise before NextGen are now exposed to an incessant stream of very noisy jets.
  - I have lived in the **same house** in a quiet Palo Alto neighborhood **for 22 years**. I had **NO airplane noise problem until 2015** or so. **Since NextGen** started to be implemented in the NorCal Metroplex, I have been **bombarded with hundreds of noisy flights per day at all hours of the night and the day**. Most of the noise is due to SFO arrivals but I also get a fair amount of SJC south flow arrivals on top of them –in fact, I should say below them because SJC arrivals must pass under the infamous SERFR rail corridor that typically flies around 4,000 ft over my house. SJC south flow arrivals turn over my house at very low altitudes, sometimes below 2,000 ft. I, like many Palo Alto, East Palo Alto, and west Menlo Park residents, get double whammy on SJC south flow days. We get both SFO arrivals (from the south, north, and west) **and** SJC south flow arrivals. These SFO and SJC arrivals are **at the lowest altitudes over any residential community in the Peninsula**.
- State that the **FAA has neither shared the expected noise impacts** of the NextGen SJC south flow changes **nor compared them to the actual noise** experienced by people on the ground.

### 2. Represent residents

- Residents across cities are united in asking for dispersion in very clear terms. We are not asking for city-specific solutions. **We are asking for dispersion**, which means that the FAA should not route planes in a narrow path over the same communities, over and over again (unless aircraft fly at high altitudes). Planes that are vectored along the same narrow flight path or guided through an RNP procedure create **low altitude rail corridors that are harmful to any community that is living below**. **Such corridors are not acceptable for any community**. Residents are asking that the FAA **eliminate low altitude rail corridors**.
- **Ask for what the community needs, not what you think might be feasible or what the FAA might be willing to accept**.
  - Don't second guess what is feasible or not feasible. You are not technical experts, and should not be.

- **Represent the interests of the community at large. Show leadership and courage in asking for solutions that will put people first, before efficiency.** No need to mention safety because no one has ever asked for the unsafe routing of planes. But you must mention the impact on people. Research has shown that repeated high levels of noise have negative health impacts on people. It is not just lack of sleep or inability to concentrate. It's also exhaust from jet aircraft: low altitude rail corridors concentrate jet emissions on the ground (jet emissions include ultra-fine particles), which represent a serious health hazard. See a [recent presentation made at the SFO RoundTable by Mary Ellen Eagan](#), president of HMMH, which is a consulting firm on Environmental and Transportation Planning.
- **Don't ask for things that will make no difference to people on the ground.** Raising flying altitudes by a few hundred feet will NOT reduce the noise on the ground. Even the FAA admitted to that in a meeting. The laws of physics are that one must double the altitude of an aircraft to decrease the noise by half (everything else being equal: aircraft type, speed, weather conditions, level of thrust, use of flaps & slats, etc.). Higher is of course always better, but a 200 or 500-ft altitude increase will make no difference to people on the ground. On the other hand, 20 planes versus 100 planes over a person's home will make a big difference. That's called dispersion.

### 3. Be transparent and ask for transparency

- Ask the **FAA to respond in writing to every suggestion** in the Excel file **and all questions that have been asked** in the meetings or by email after the meetings.
- Ask the **FAA to share all environmental analyses** related to SJC south flow changes, **including noise modeling results and traffic assumptions** made for modeling purposes (volume, aircraft types, altitudes, etc.)
- **Create a minority report if necessary.** Important content that is not included in the final report must be made public. Dissenting opinions should be recognized.
- **Share all FAA communication with all Committee members.**
- For the record, **document that East Palo Alto, Fremont, and Newark were not invited to participate** in the Ad Hoc Advisory Committee even though the request to include them was made in the discussions leading to the creation of the Ad Hoc Advisory Committee

Thank you for considering my feedback.

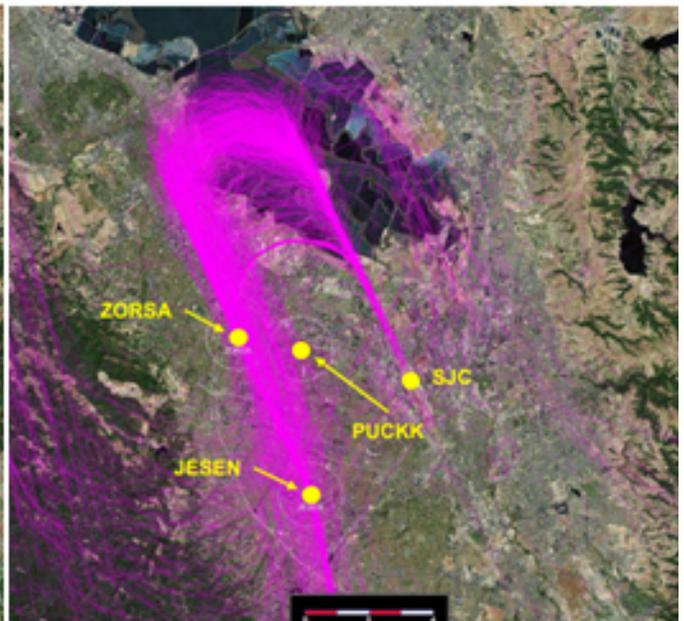
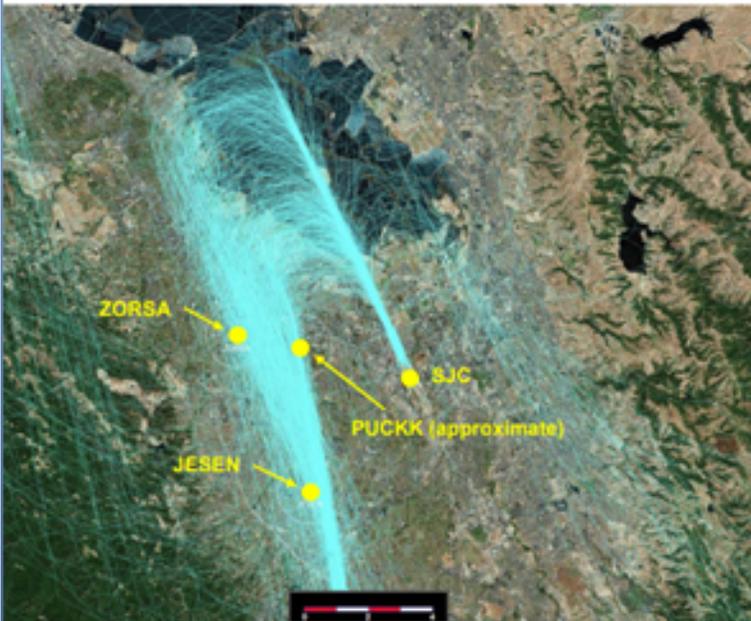
See you on Friday.

Best regards,

Marie-Jo Fremont

**SJC 2011 South Flow  
1,111 Arrivals**

**SJC 2018 South Flow  
1,262 Arrivals**

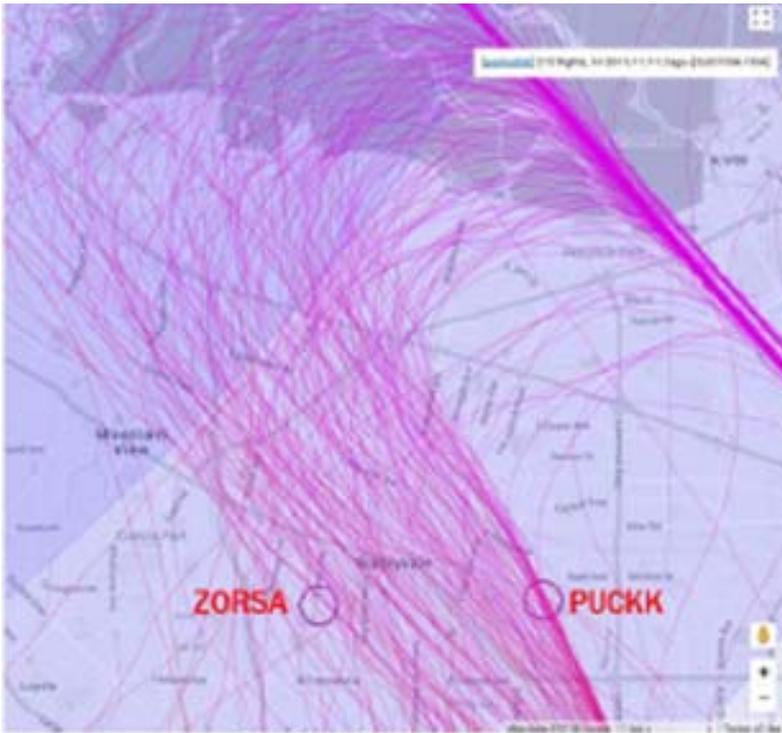


Federal Aviation  
Administration



Federal A  
Administ

Source: 03-23-2018 FAA Presentation to the Ad Hoc Advisory Committee on South Flow Arrivals (slides 3 and 5)

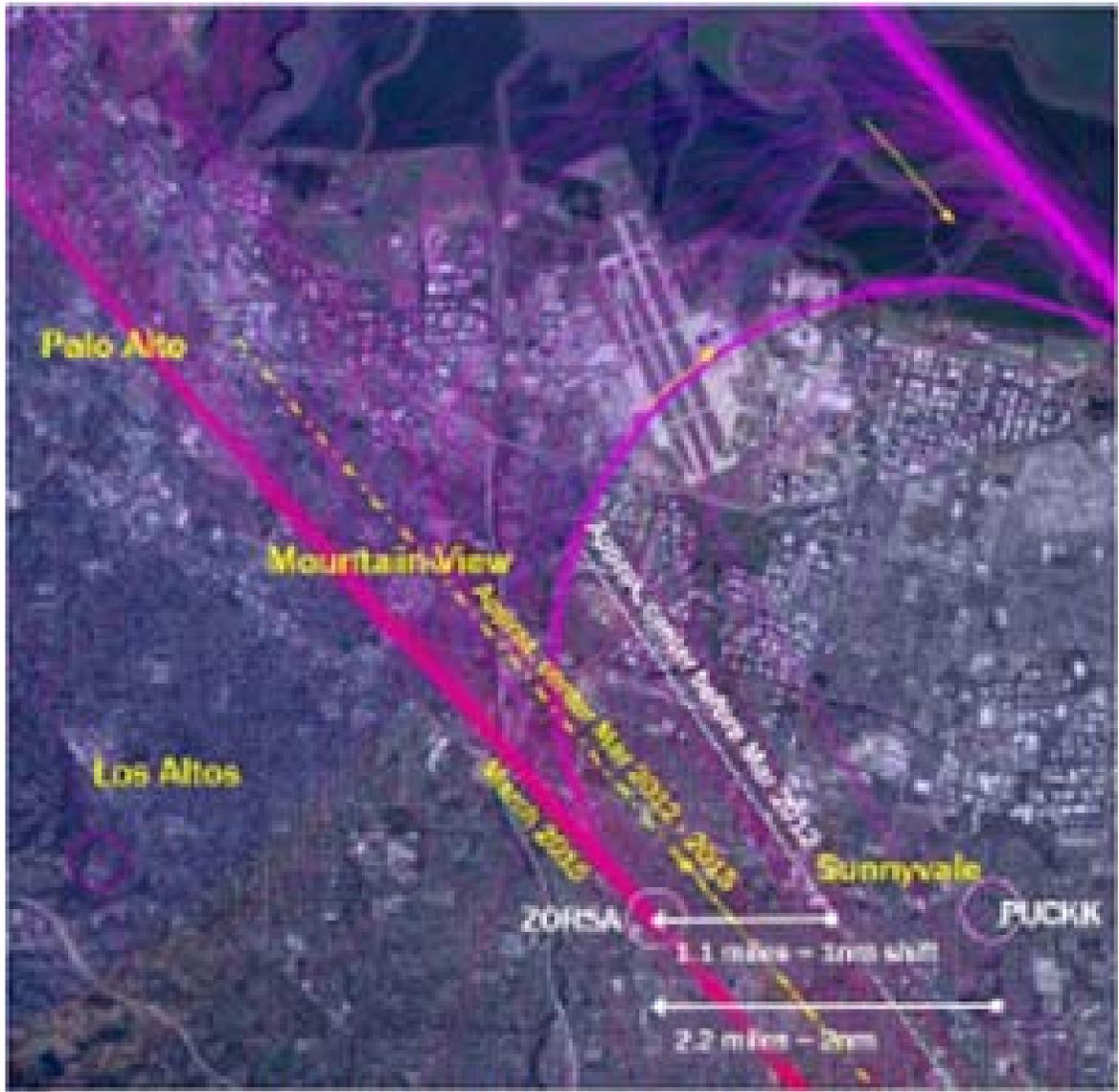


South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SIC



Two 'Rails' Have Emerged  
3/20/16, 224 Arrivals to SIC

Source: Robert Holbrook



**Westward Shift of Flight Corridor 2012-2015**  
*Superimposed on 3/20/16, 324 arrivals to SJ*

Source: Robert Holbrook

## Kazmierczak, Matthew

---

**From:** Silicon Valley Cyclist <>  
**Sent:** Tuesday, May 15, 2018 9:41 PM  
**To:** mayor@sunnyvale.ca.gov  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov; lisa.matichak@mountainview.gov  
**Subject:** South Flow Arrivals to SJC

Dear Chairman Hendricks:

Thank you for all your time and hard work with the Ad Hoc Advisory Committee on South Flow arrivals to SJC.

I am a resident of Centre Street in Mountain View, CA 94041. This past Sunday, the South Flow arrivals to SJC occurred morning through evening with airplanes flying over every couple to several minutes during the morning to late afternoon. In the later afternoon through evening, airplanes flew over every few to 15 minutes or so. It negatively impacts quality of life. It disturbs sleep.

I dread rain storms due to the South Flow arrivals from SJC and disturbed night time sleep. I believe there are also SFO airplanes who fly over during rain storms too.

1. Can the South Flow be more dispersed (less concentrated) to reduce the noise impact on residents?

2. Can the planes operate (pilot flying style) and function quieter?  
With increased air traffic, the air traffic noise pollution will continue to increase.

3. Can something be done to measure and report actual sound levels from airplanes?  
Perception and reality can be clarified with these. Residents hear and report, but what the FAA believes are different. With actual data both parties can see eye to eye help resolve the matter.

Again, thank you for all your hard work with this complex challenge of airplane traffic on South Flow arrivals to SJC.

I am copying a couple of other people in this email. I would also like to thank everyone else involved with the Ad Hoc Advisory Committee on South Flow arrivals to SJC for their time and hard work.

Sincerely,

Cathy Wong  
Centre Street  
Mountain View 94041

## Kazmierczak, Matthew

---

**From:** Jack Yu <>  
**Sent:** Tuesday, May 15, 2018 11:09 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; Lupita Alamos  
**Subject:** South flow noise concern

Hi,

As a resident of Sunnyvale, I am suffering the noise pollution caused by SJC south flow operation. Prior to Oct 2016, I never filed a single complaint to SJC regarding the noise. But after Oct. 2016, the airplane noise from south flow became unbearable pollution to my and my family's daily life. You are important people working on SJC Ad Hoc committee. Thanks your effort to address the issue for Sunnyvale citizens. I expect the solution or mitigation you propose should consider the facts below.

1. The flight path and procedure has been modified by FAA/SJC and shifted or worse the airplane noise over Sunnyvale. The solution should revert this change in term of the path/procedure change since it shifted the noise and violated the policy set by FAA itself. The historical path used by South flow never caused so many complaints. And it was also safe and in place for well over decades without any issues. It should be easy to revert the path back to the original one.

2. There is east approach for south flow and it has been using for many years too. It effectually eases the over burdened noise for the resident of Sunnyvale. But the solution you proposed seems limiting the usage of east approach under certain percentage. With such restriction, basically Sunnyvale will take more noise than the current existing situation. It again will shift more noise to Sunnyvale. It is unacceptable and violates FAA policy again.

3, FAA put Efficiency over Noise, It has been proved to interrupt the people's life and impact the environment too much. It is not sustainable priority order. With more and more people realizing the noise impact to their life, FAA and SJC will hit more resistance on their operation. Please request FAA reconsider the priority order and put the noise issue over the efficiency especially for over densely populated communities.

Sincerely,  
Jack

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Wednesday, May 16, 2018 2:08 AM  
**To:** 'District1@sanjoseca.gov'; 'District10@sanjoseca.gov'; 'District3@sanjoseca.gov'; 'Lisa.Matichak@mountainview.gov'; 'lennysiegel@mountainview.gov'; 'toneill@santaclaraca.gov'; 'HendricksCouncil@sunnyvale.ca.gov'; 'KleinCouncil@sunnyvale.ca.gov'; 'svaidhyanathan@cupertino.org'; 'sscharf@cupertino.org'; 'rturmer@cityofmontesereno.org'; 'ewolsheimer@cityofmontesereno.org'; 'mlbernal@saratoga.ca.us'; 'hmiller@saratoga.ca.us'; 'Rene.Spring@morganhill.ca.gov'; 'Larry.Carr@morganhill.ca.gov'; 'GCWaldeck@losaltoshills.ca.gov'; 'Lydia.Kou@cityofpaloalto.org'; 'eric.filseth@cityofpaloalto.org'; 'jmordo@losaltosca.gov'; 'lleeng@losaltosca.gov'; 'kwatanabe@santaclaraca.gov'; 'jeffc@cityofcampbell.com'; 'bnunez@ci.milpitas.ca.gov'  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Ad Hoc Advisory Committee - The Eastern Approach

Members of the Committee,

The public will have a lot to say on Friday, and not a lot of time to say it. Mayor Hendricks has advised us to submit comments in advance of the meeting. This is the first of several emails I plan to send.

### EASTERN APPROACH

**Changes to the most recent Report weakened the recommendations for the Eastern approach.** The earlier drafts of the Report called for "a minimum of 25% of South Flow traffic to use this [Eastern] approach". The latest draft "requests the FAA maintain the current percentage of use (10%) of the Eastern approach for south-flow arrivals". The earlier drafts refer the FAA to suggestions M, N and P from the spreadsheet. The latest draft adds "The Ad Hoc Committee is **not** requesting the options [M, N, P] to be explored." [emphasis added]

**The Eastern approach handles a significant portion of South flow traffic.** My analysis of flight data from the FAA shows that the Eastern approach was used by 24% of all South flow arrivals in 2013, 16% in 2014, 32% in 2015, 22% in 2016 and 18% in 2017 through July (the last month for which I have FOIA data). This analysis included every single flight reported by the FAA for this period (a few days were not provided). **During this period, 21% of all South flow arrivals approached from the East.** A significant percentage of these were large and heavy airplanes although not as high as seen on the Western approach.

**If nothing is done, use of the Eastern approach will drop, shifting traffic west to Sunnyvale.** At the last meeting, the FAA stated that the Eastern approach is only used for vectoring. The FAA has also told the Committee that vectoring is only used to sequence airplanes and that ATC does not vector airplanes for noise. To the contrary, ATC seeks to minimize vectoring and the FAA is working on an important initiative called Time Based Flow Management (TBFM) which aims to dramatically reduce the need for vectoring by sequencing airplanes far from the airport. Flights that are currently vectored to approach SJC from the East will, in the absence vectoring, be routed to Sunnyvale and all the other cities along the Western approach.

This suggests that, **to ensure use of the Eastern approach remains at current levels, an Eastern arrival procedure must be formalized.** But perhaps the FAA has another proposal to address the matter.

### Suggested Changes

- Add a **finding:** *The FAA has told the Committee that vectoring is only used to sequence airplanes and that they do not vector airplanes for noise. The Committee notes that if the FAA is successful at reducing the need for vectoring in the*

*future, South flow traffic currently being vectored to the Eastern approach will, by default, be shifted to the Western approach.*

- Reword **Request to the FAA #2** to: *The Committee requests that the FAA maintain the percentage of flights directed to the Eastern approach at the five-year average for 1/1/13-12/31/17. If the FAA can propose no other means to achieve this objective in the face of reduced need for vectoring, the Committee requests a written response to item N.*

**Notes:**

- The Report claims that the current percentage use of the Eastern approach is 10%. How was this calculated? Rather than specify a percentage, we should ask for an average calculated over a period of time.
- The average historical level of use should be calculated over thousands of flights and several years. The percentage of traffic using the Eastern approach has come down in recent years – it may be that the shift has begun. The baseline should be **before** residents complained. I have proposed a five-year average centered on 7/1/15, just after Nextgen was rolled out.

**Why this is important:** Residents living near the rails have been heavily impacted already. Looking forward, these residents have three additional causes for concern: 1) SJC is well on its way to achieving the doubling of traffic they projected for the 12-year period 2015-2027, 2) Traffic currently not on the rails will continue to gravitate to the rails if nothing is done; 3) Traffic on the Eastern approach will, by default, shift to the Western approach if nothing is done and vectoring is reduced per FAA plans.

Robert Holbrook  
Mountain View

P.S. The analysis of FOIA data is technical and errors are possible. I would be happy to share my results for inspection.

## Kazmierczak, Matthew

---

**From:** Ellen Zhao <>  
**Sent:** Wednesday, May 16, 2018 12:47 PM  
**To:** Glenn Hendricks  
**Cc:** Lupita Alamos; Kazmierczak, Matthew  
**Subject:** Re: Fw: POLICY--FW: Residents feed back on draft report for the Ad Hoc Committee

Mr. Hendricks,

Thank you for taking your time to address my concern on the draft report. I agree with you that "Pre-2012" is a not a measurable language to us as we are not the aviation experts. However it should not be the unmeasurable language to FAA as they have all the historical data. Referring to "pre-2012", alternatively, we can say the success criteria is that 'none of the eight 0.25nm corridors between PUCKK and ZORSA should have more than twice as many flights as any other corridor, or the closest approximation to this possible'.

In the report, "equivalently" distribute traffic over Sunnyvale between these two designated waypoints (measured over time)"- That kind of makes it sound like 2 rails over Sunnyvale would be acceptable. Also, the dispersion should be distributed evenly on all the impacted cities, instead of just Sunnyvale and Cupertino.

Best Regards,  
Ellen

On Tue, May 15, 2018 at 3:46 PM, Glenn Hendricks <[HendricksCouncil@sunnyvale.ca.gov](mailto:HendricksCouncil@sunnyvale.ca.gov)> wrote:  
Hello Ms. Zhao,

Thank you for sending your comments.

There are multiple recommendations in the Draft report that address issues over Sunnyvale.

Dispersion of air traffic over Sunnyvale to eliminate the raise is the first recommendation. This was requested by almost every public comments in the meetings. The report lists requirements and success criteria to disperse air traffic similar to what it was before. Using the phrase "change it back to pre-2012" is not a measurable requirement to give to the FAA.

The way points of ZORSA and PUKKA are essentially the boundaries of where the traffic used to fly.

I have asked everyone who wants to comment on the doc - Please send me specific language changes you would like to see in the Draft. This is the best way for me to understand what you would like to be different in the document

Please feel free to call my cell if you want to discuss.

**Glenn Hendricks**  
**Mayor**  
Cell: 408 242 8384  
Office: 408 730 7473  
[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)

---

**From:** Ellen Zhao [[link](#)]  
**Sent:** Tuesday, May 15, 2018 12:59 PM  
**To:** Mayor AnswerPoint <[mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)>; [MKazmierczak@sjc.org](mailto:MKazmierczak@sjc.org); Lupita Alamos  
<[LAlamos@sunnyvale.ca.gov](mailto:LAlamos@sunnyvale.ca.gov)>  
**Subject:** Residents feed back on draft report for the Ad Hoc Committee

As one of the impacted Sunnyvale residents, I strongly feel the **current draft from Ad Hoc Committee is very weak**. The report needs to better represent the residents of Sunnyvale and Cupertino!

The root cause of the noise issue from SJC is the narrow flight path, and it needs to be broken. FAA wants rails for efficiency not for safety reason. Efficiency should never be the priority over the life of our community. If we allow the FAA to force planes into rails, then FAA will never develop the technology to re-disperse the flights, and the rails will continue to get worse.

What's fair needs to be fair. The changes/rails was started in 2012. The hidden impact was not ever being notified to the impacted communities. We strongly requesting FAA to changed back to 'pre-2012'. Please note, this is NOT noise shifting. It is just correcting the current mistake FAA did over the past several years! We need to stop the current madness. Our elected officials needs to better present us in this case.

The suggestion from Sunnyvale city in the report is totally unacceptable. Between the 2 waypoints (ZORSA and PUKKA), all the south flow flights will be more concentrated into the narrow flight path within Sunnyvale. This will be the nightmare for our Sunnyvale residents.

Best Regards,

Ellen (Sunnyvale resident)

## Kazmierczak, Matthew

---

**From:** Toni Rath <>  
**Sent:** Wednesday, May 16, 2018 1:32 PM  
**To:** mayor@sunnyvale.ca.gov; LAlamos@sunnyvale.ca.gov; District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; HendricksCouncil@sunnyvale.ca.gov; KleinCouncil@sunnyvale.ca.gov; svaidthyanathan@cupertino.org; sscharf@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; mlbernal@saratoga.ca.us; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; Larry.Carr@morganhill.ca.gov; GCWaldeck@losaltoshills.ca.gov; Lydia.Kou@cityofpaloalto.org; eric.filseth@cityofpaloalto.org; jmordo@losaltosca.gov; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com; bnunez@ci.milpitas.ca.gov  
**Cc:** Kazmierczak, Matthew  
**Subject:** South Flow Ad Hoc Committee: Public comments on final report draft dated 5/11  
**Attachments:** Maps.pdf

Dear Committee members,

I would like to amend previously sent comments with specific modification suggestions for the final report (draft as of May 11). My original comments as attached still stand. In general, the main shortcomings of the report in its current form are:

1. **the report lacks a clear problem statement.** Where are the before and after pictures? (NOT the ones from the FAA that obscure the problem). Where is the picture that calls out the two rails?
2. the report lacks an unambiguous statement of the main goal: **undoing the two rails and returning dispersion as it existed in 2011** (2.5 mile wide corridor).
3. **the report does not ask the FAA to evaluate all items in the spreadsheet.** Most of the work on mitigation measures went into the spreadsheet. Let's have the FAA provide written responses on all of them and consider the feasible and effective ones for implementation.

Specific modifications requests for the report:

**page 2:**

Under "Having conveyed these recommendations, we request that the FAA and SJC:", the first item should read "Evaluate and report on the consequences and impact of each mitigation measure in the spreadsheet in the appendix".

**page 6:**

Add attached pictures (showing the before and after situation) and change 2nd paragraph under "What Are South Flow Operations?" to

"More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. The approach path over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto has been altered substantially in 2012 and 2015 with two effects:

1. airplanes that were previously flying in a corridor about 2.5 miles wide are now flying along two narrow "rails" (see picture), causing residents living under the rails to take on most of the burden of airplane noise.

2. the flight path was shifted westward (see picture), affecting new residents.

While this may have reduced noise for some residents, noise has definitely increased for those residents living directly under the more precise arrival and approach flight paths.

The effect of these changes is very evident in a sharp increase in noise complaints made to the San Jose airport. Between 2015 and 2016 noise complaints increased 859%."

**page 7:**

2nd last paragraph ("To encourage the maximum...") should be changed to

"To encourage inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support. For maximum degree of inclusiveness the Committee asked the San Jose City Council to include all cities that experience South Flow overflights. The San Jose City Council denied the request."

**page 8:**

- After "(See spreadsheet items Q through CC)." add the following objective:

"The objective is to move away from the existing two rails and return dispersion of airplanes between PUCKK and ZORSA that matches that experienced on November 11 2011 (to pick a representative date from 2011)." If a technical success criterion is desired, please use

"Success criterion: None of the eight 0.25nm corridors between PUCKK and ZORSA should have more than twice as many flights as any other corridor, or the closest approximation to this as possible."

- Modify request to FAA #1 to read "The Ad Hoc Committee requests the FAA to evaluate and consider for implementation spreadsheet items Q through CC."  
The current 'explore options' and 'more dispersed' does leave a wide range of possible interpretations of what is to be achieved: more dispersed could mean 100 feet. The issue of returning dispersion to 2011 levels and undoing the rails has been the most consistent request from the public and must be represented in the report.

**page 10:**

- Change the request to the FAA #2 to "The Committee requests that the FAA maintain the percentage of flights directed to the Eastern approach at the five-year average for 1/1/13-12/31/17. If the FAA can propose no other means to achieve this objective in the face of reduced need for vectoring, the Committee requests a written response to item N".  
Instead of 10%, it should be "21.3%", which is the average percentage of flights taking the Eastern approach between 1/1/2013 and 7/31/2017.
- remove the sentence "The Ad Hoc Committee is not requesting the options to be explored." All options should be evaluated and considered for implementation.

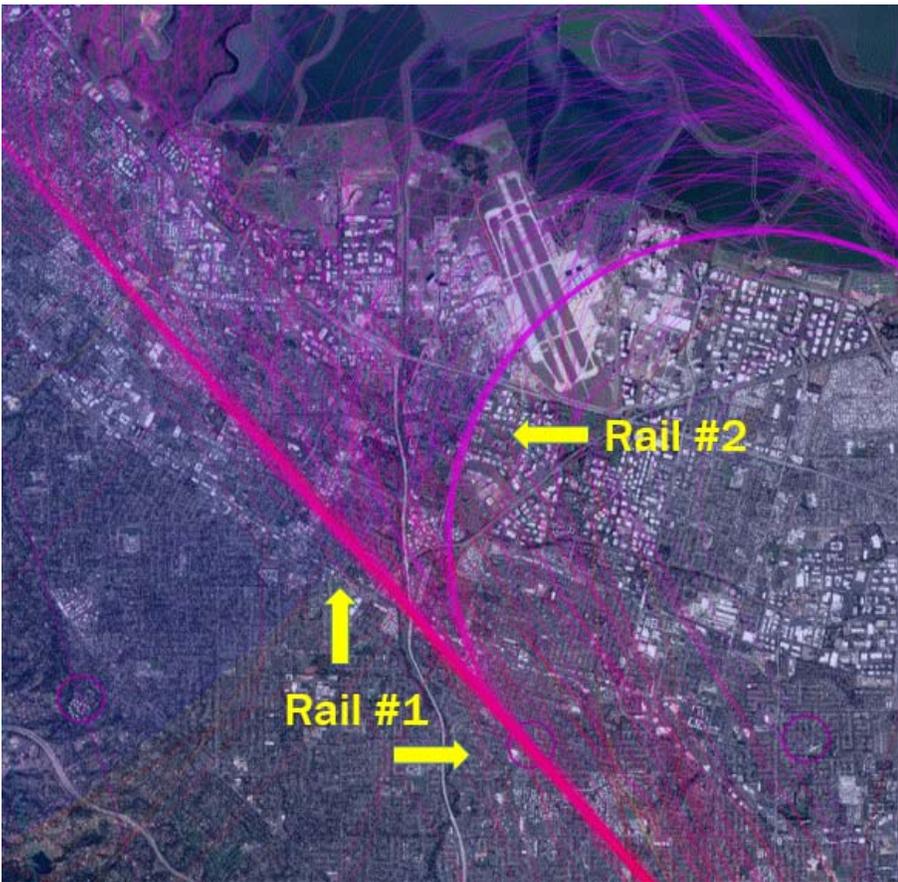
Thank you,

Toni Rath

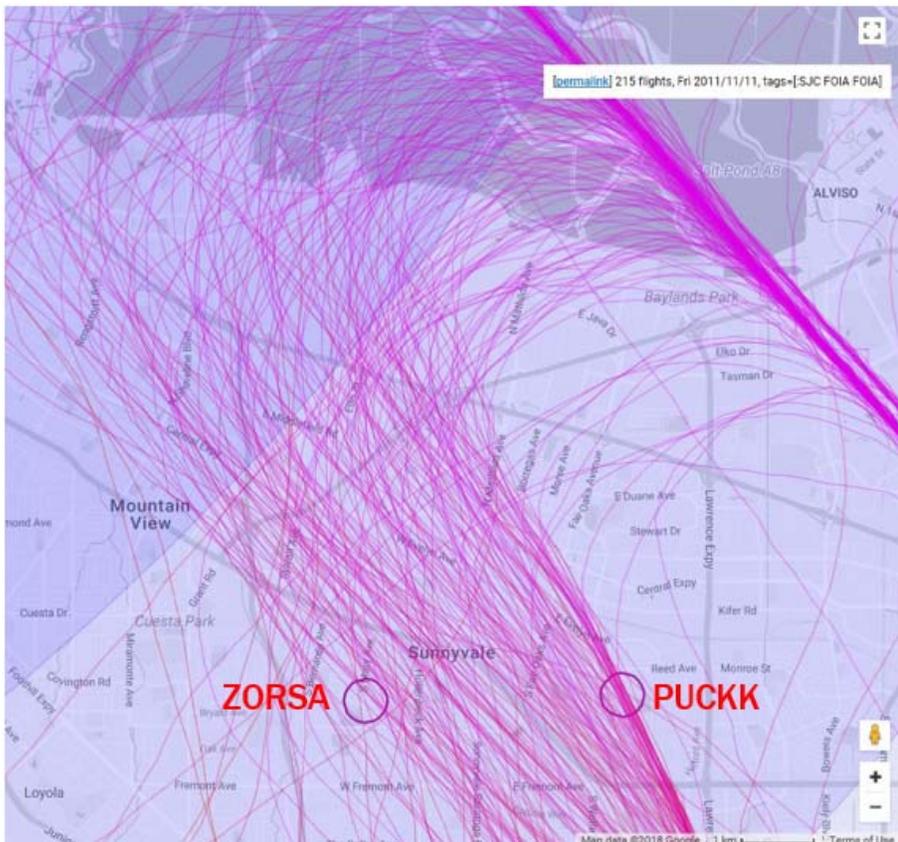
On Mon, May 14, 2018 at 11:50 PM, Toni Rath <> wrote: [\\_\\_\\_\\_\\_](#)

- >
- > Thank you for your work on the Ad Hoc Advisory Committee On South Flow Arrivals. After reading the draft of the final report dated May 11 I would like to make some recommendations to amend and correct the report:
- >
- > The report is lacking a clear problem statement. Recent years have brought big changes in the path airplanes take before landing at San Jose airport. These changes are best illustrated by pictures of the situation before and after these changes (I suggest using the before and after pictures in the attachment). A picture is worth a thousand words: Airplane traffic used to be dispersed over a corridor about 2.5 miles wide, spreading the burden of airplane noise. Now the flight path has been shifted westward and there is sharp concentration into "rails", putting undue burden on a different group of residents. The westward shift in traffic and the creation of two rails need to be called out unambiguously in the report and substantiated with pictures (NOT the ones from the FAA as they obscure the location and extent of the problem).
- > Recent statements by FAA representative Tony DiBernardo have called into question the existence of "rails", that is, sharply increased concentration of airplane traffic along specific routes. A picture that clearly shows the two "rails" along which traffic now flows need to be included to set the record straight (please use the attached picture). This is even more important since the FAA has made it clear that it would like to reduce vectoring, which means that more and more traffic will move onto these rails, causing further increases in noise.
- > The report does not clearly articulate the solution that residents predominantly spoke to at public meetings: the two rails along which traffic now flows must be broken and the original dispersion of traffic in 2011 must be returned to spread the load of airplane noise. The report should recommend the FAA evaluate all recommendation in the spreadsheet that restore this dispersion.
- > The report states that the use of the "Eastern approach" should remain at the current level of 10%. This is less than historical averages and would mean a further shift of traffic to residents living on the Southern peninsula. In the last 5 years, 22.3% of traffic have taken the Eastern approach. The report should adopt this number instead.
- > The report includes a spreadsheet of recommendations, but why is the FAA being asked to evaluate only some of them? Some items are even specifically excluded from evaluation (see items M, N, P). Instead, the report should ask the FAA to evaluate all items in the spreadsheet for feasibility, to provide a written response with their findings and to implement feasible recommendations that reduce noise on the ground.
- > The report misses the opportunity to make recommendations that have a longer term, even lasting, and positive impact regardless of the perceived feasibility. The bay area is a leader in technology and forward thinking and the report should reflect this by recommending the following:
- >
- > Recommend the FAA work on technologies to provide automatic dispersion of aircraft instead of routing them along 'rails'. The rails must be broken.
- > The FAA should adopt noise metrics that closely model noise as it is observed by residents on the ground.
- > The FAA should work on technologies that can fly airplanes as quietly as human pilots under 98% of weather conditions.
- > Require airline companies to implement noise mitigation measures, such as the vortex generator to fix the airbus whine.
- > The FAA should prioritize safety, noise/health and then efficiency, in that order, over residential areas.
- >
- > The report states "To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee". This is misleading and should be corrected. A maximum degree of inclusiveness would be to invite all cities affected by South Flow. The report does not mention that the committee had indeed asked the San Jose City Council to include all affected cities. The San Jose City Council denied the request. This is important information that should not be omitted.
- >
- > Let's make the report count.
- > Thank you.

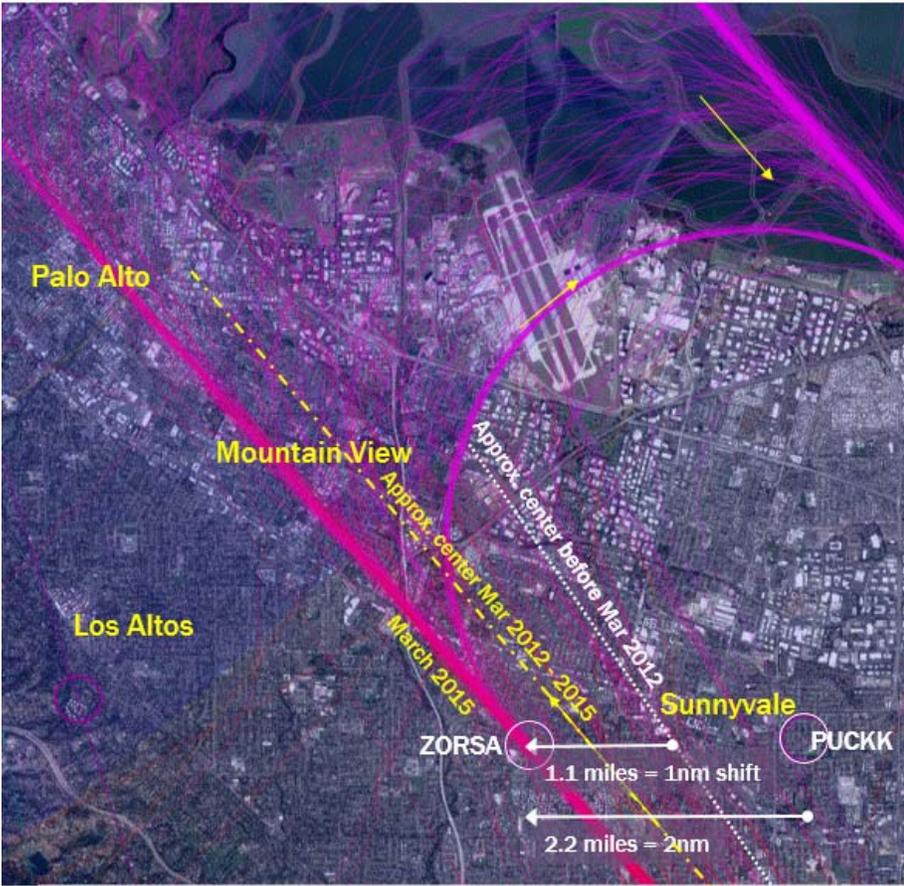
>  
> Toni Rath



Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC



South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SJC



*Westward Shift of Flight Corridor 2012-2015*  
*Superimposed on 3/10/16, 224 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Yolanda Yu <>  
**Sent:** Wednesday, May 16, 2018 1:32 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; lAlamos@sunnyvale.ca.gov  
**Subject:** SJC southflow arrival  
**Attachments:** BEFORE AND AFTER FLIGHT PATH CHANGES\_1.pdf

Hi Mayor Hendrick,

Thanks for leading the SJC Ad Hoc Advisory Committee to come up with a recommendation report. My concern is the report doesn't point out the root cause of the surge of noise complaints about SJC south flow. The root cause, based on the analysis from a grass-root resident group, is due to FAA moved the flight path and significantly concentrated the flight path since 2012. This has moved the airplane noise over a narrow corridor that was not impacted by the SJC southflow arrival as significantly before. Due to the impacted area is close to the Moffet Field military airport, many residents get confused about the noise from these two different sources but we have graphic proof to show the flight path change over the years.

Can you make sure this root cause is specifically pointed out in the report? Identifying the root cause will help us direct the efforts to resolve the problem. FAA needs to follow the order of safety, noise, efficiency in arranging flight path in high-density residential area. It is the city representatives' responsibility to get the fact presented to FAA and press them for an improvement in their standard procedure.

Thanks again,

Yolanda Yu

## Kazmierczak, Matthew

---

**From:** Susan Gilbert <>  
**Sent:** Wednesday, May 16, 2018 2:47 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; lalamos@sunnyvale.ca.gov  
**Subject:** Ad Hoc Committee draft comments

Please disregard previous comments that were just sent inadvertently by me, and without signature, as the email was not yet edited and finalized. This should be my message of record please. Sue

Hello,

I am writing in response to the draft report for the Ad Hoc Committee. I find that the report does not give full voice to Sunnyvale residents, in spite of Mayor Hendricks being from Sunnyvale himself. Specifically, I find that the report does not fairly represent the residents of Sunnyvale.

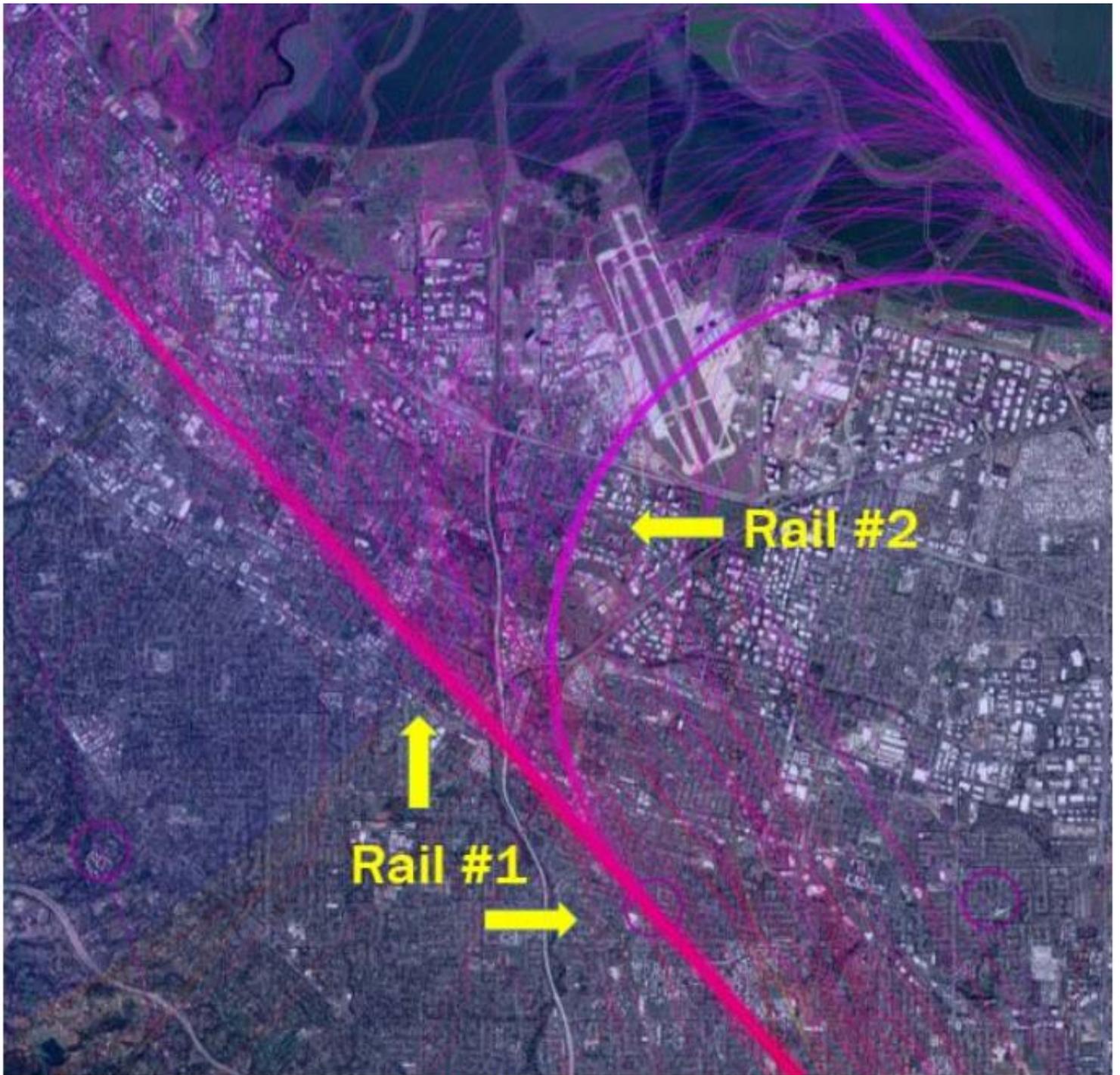
The root cause for the impact on Sunnyvale residents from SJC (Southflow) airplane noise comes from the shifting and concentrating of a flight path west 2 miles into a narrow rail of planes. These flight path changes have shifted the flight path over quiet Sunnyvale neighborhoods which previously had little or no airplanes overhead. (My Mother's Day afternoon celebration was RUINED due to an inability to hear one another talking due to LOUD and bothersome Southflow airplane noise!) . Sunnyvale residents request a more equitable solution.

I request that flight paths/ procedures revert back to historical pre-2012 standards. I request that the FAA find ways to return to levels or per flight noise levels as quiet as we had before Nextgen.

Thank you for your consideration.

Sue Gilbert  
Quetta Avenue  
Sunnyvale

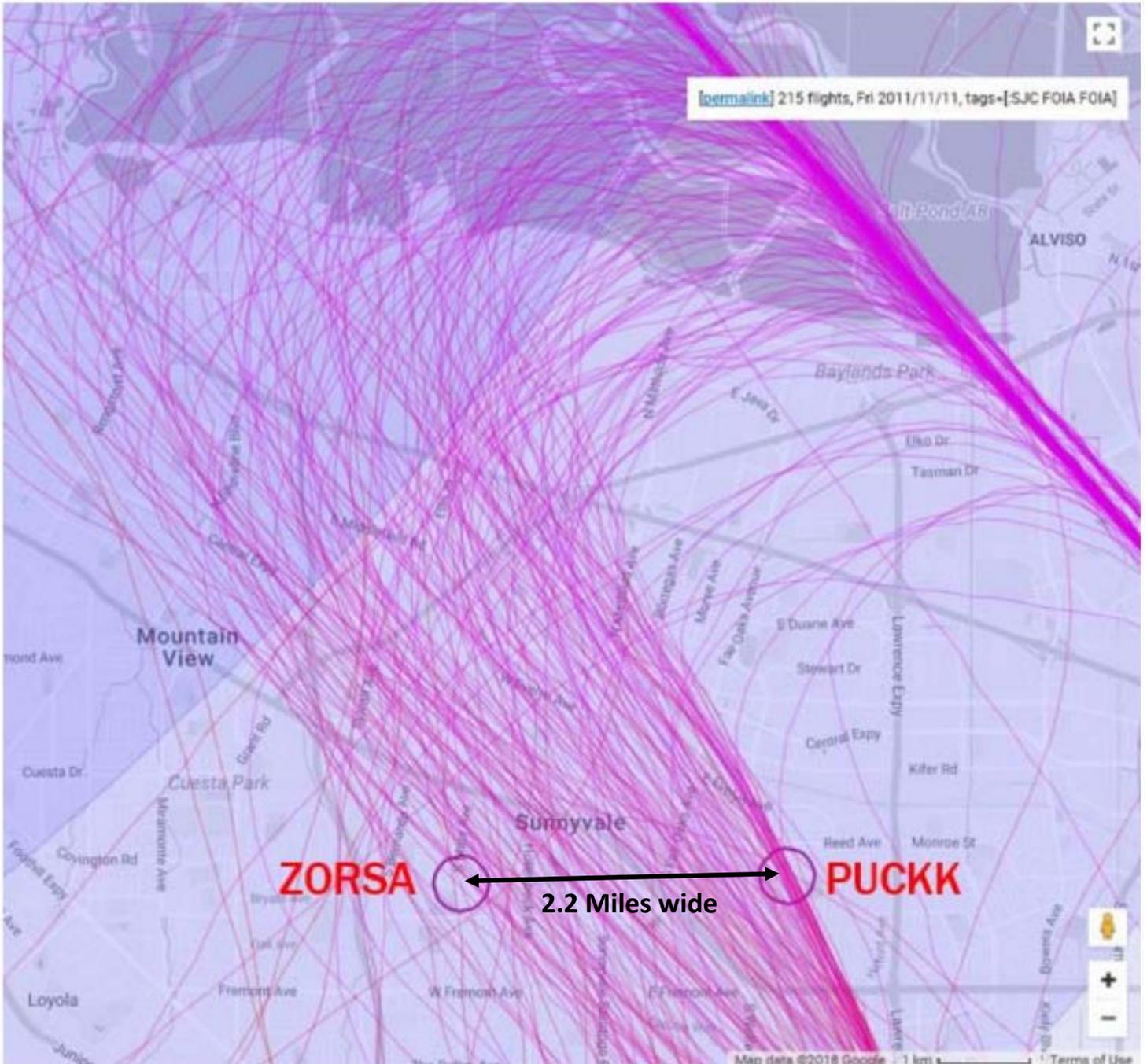
# AFTER FLIGHT PATH CHANGES / CURRENT



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

# FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Susan Gilbert <>  
**Sent:** Wednesday, May 16, 2018 2:47 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; lalamos@sunnyvale.ca.gov  
**Subject:** Ad Hoc Committee draft comments

Please disregard previous comments that were just sent inadvertently by me, and without signature, as the email was not yet edited and finalized. This should be my message of record please. Sue

Hello,

I am writing in response to the draft report for the Ad Hoc Committee. I find that the report does not give full voice to Sunnyvale residents, in spite of Mayor Hendricks being from Sunnyvale himself. Specifically, I find that the report does not fairly represent the residents of Sunnyvale.

The root cause for the impact on Sunnyvale residents from SJC (Southflow) airplane noise comes from the shifting and concentrating of a flight path west 2 miles into a narrow rail of planes. These flight path changes have shifted the flight path over quiet Sunnyvale neighborhoods which previously had little or no airplanes overhead. (My Mother's Day afternoon celebration was RUINED due to an inability to hear one another talking due to LOUD and bothersome Southflow airplane noise!) . Sunnyvale residents request a more equitable solution.

I request that flight paths/ procedures revert back to historical pre-2012 standards. I request that the FAA find ways to return to levels or per flight noise levels as quiet as we had before Nextgen.

Thank you for your consideration.

Sue Gilbert  
Quetta Avenue  
Sunnyvale

## **Kazmierczak, Matthew**

---

**From:** Elizabeth Gupta <>  
**Sent:** Wednesday, May 16, 2018 3:19 PM  
**To:** Kazmierczak, Matthew  
**Subject:** Incessant Airplane Noise Complaint

Mr. Kazmierczak:

I have lived in Sunnyvale for the last ten years and always thought this was the best place ever. But in the last few months as more and airplane traffic has flown directly over my house at low altitudes, I realize Sunnyvale may be unfairly shouldering the burden of airplane traffic. The San Jose South flow can have flights overhead every 30 seconds at times. On Mother's Day this year the plane noise was incessant. It's just really unfair that we have the burden of flights going to San Jose going directly over the residents of Las Palmas park. Please remember the residents of Sunnyvale in doing everything you can to eliminate the rail that has made life unpleasant for us. Thank you for your consideration. We are relying on you to help make this terrible situation better.

Elizabeth Gupta

Rubis Drive, Sunnyvale

## Kazmierczak, Matthew

---

**From:** Lan Xu <>  
**Sent:** Wednesday, May 16, 2018 3:23 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; Lupita Alamos  
**Subject:** feedback on SJC South Flow Adhoc Committee Report draft  
**Attachments:** BeforeAndAfter.png

I have to admit the masterminds behind FAA's NextGen are geniuses, albeit crafty and devious. With its implementation, the aircraft are now flying along tightly constrained and precise paths (please see the graph compared a daily flight pattern in 2012 and 2016 attached, a courtesy from a Mountain View resident). What it translates to is that fewer people on the ground are now bearing a lot more and louder air traffic noise burden. Situated in the center of Silicon Valley, with the inevitable and ambitious business expansion plans from the various airports nearby, the issue can only get worse and worse for those of us who are living right under the path in this community, a place used to be so peaceful in comparison. Without exaggeration, NextGen has turned our lives upside down in the past couple of years - instead of shifting between work and family, I now have to juggle with fighting against the airplane noise added to the equation. Please make no mistake, though - just because there are less of us doesn't mean the few of us should be ignored or sacrificed. We will keep fighting and raising our voice louder and louder till we can find those who are willing to help. As long as the issue persists, we won't go away. We want our peace back - it is a life and place worth fighting for. And now a question for Mr Mayor - In the SJ Adhoc Cmte Report v7 draft that you sent out on 5/10, on Page 10, it is proposed that a minimum of 25% of the south flow traffic to use the Eastern arrival approach. Why is it taken off from the list so quickly from the v8 draft sent out the next day (5/11)? East Side arrival approach is the exact approach Thann McLeodin, the air traffic controller from FAA, suggested to the committee on 2/23/2018 in order to alleviate the south flow issue (shown at the 2:29:50 mark at the YouTube link - <https://youtu.be/PUBy6Hf0kyc>). She is the subject expert when it comes to the flight path design. It is rare for an FAA official to volunteer a solution - I'm certain she must have put a lot of thought before offering that solution to us. Please don't take it lightly, Mr Mayor and the adhoc committee.

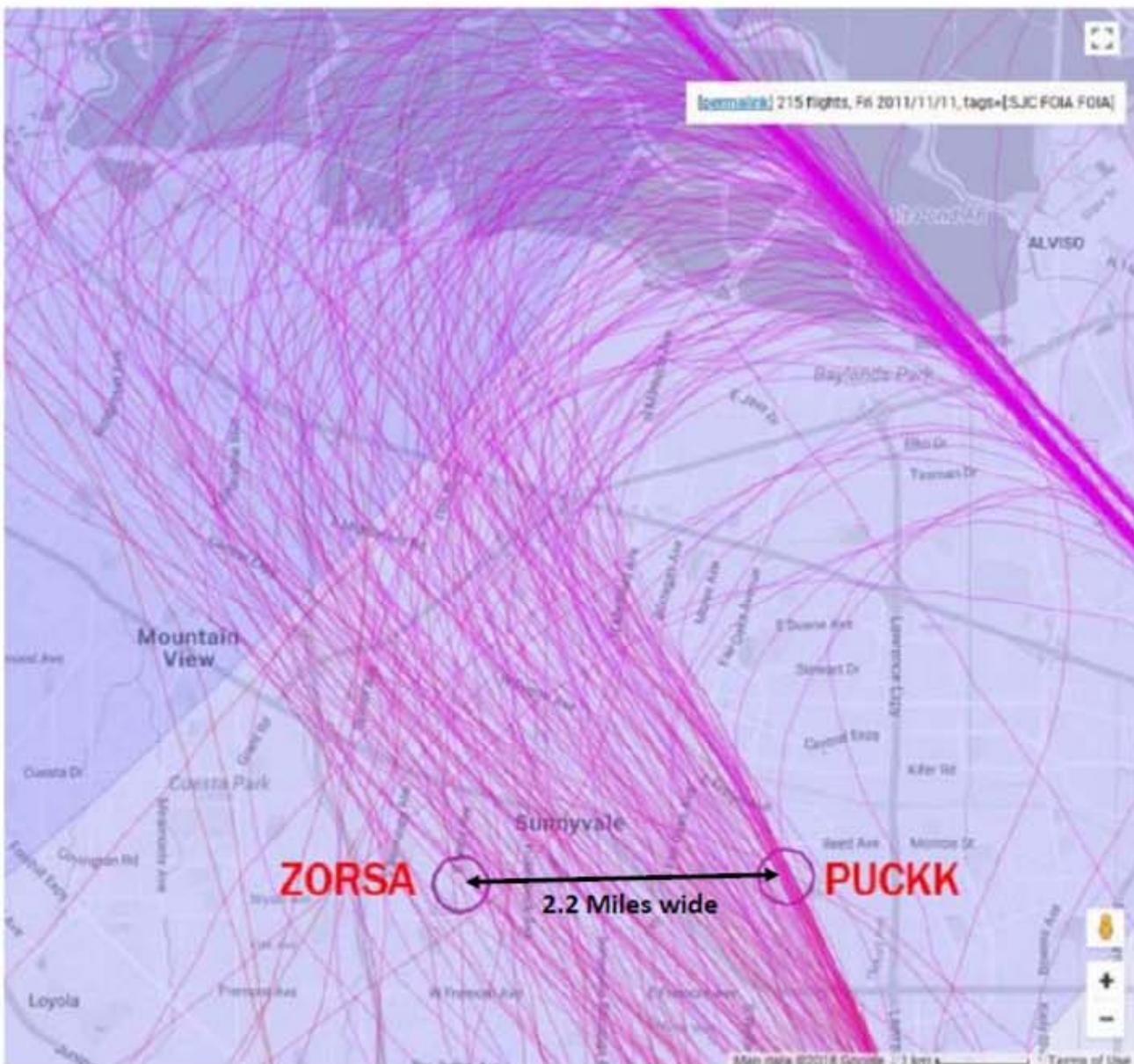
I strongly urge the committee to put the option back to the discussion table with FAA.

Thank you!

Lan

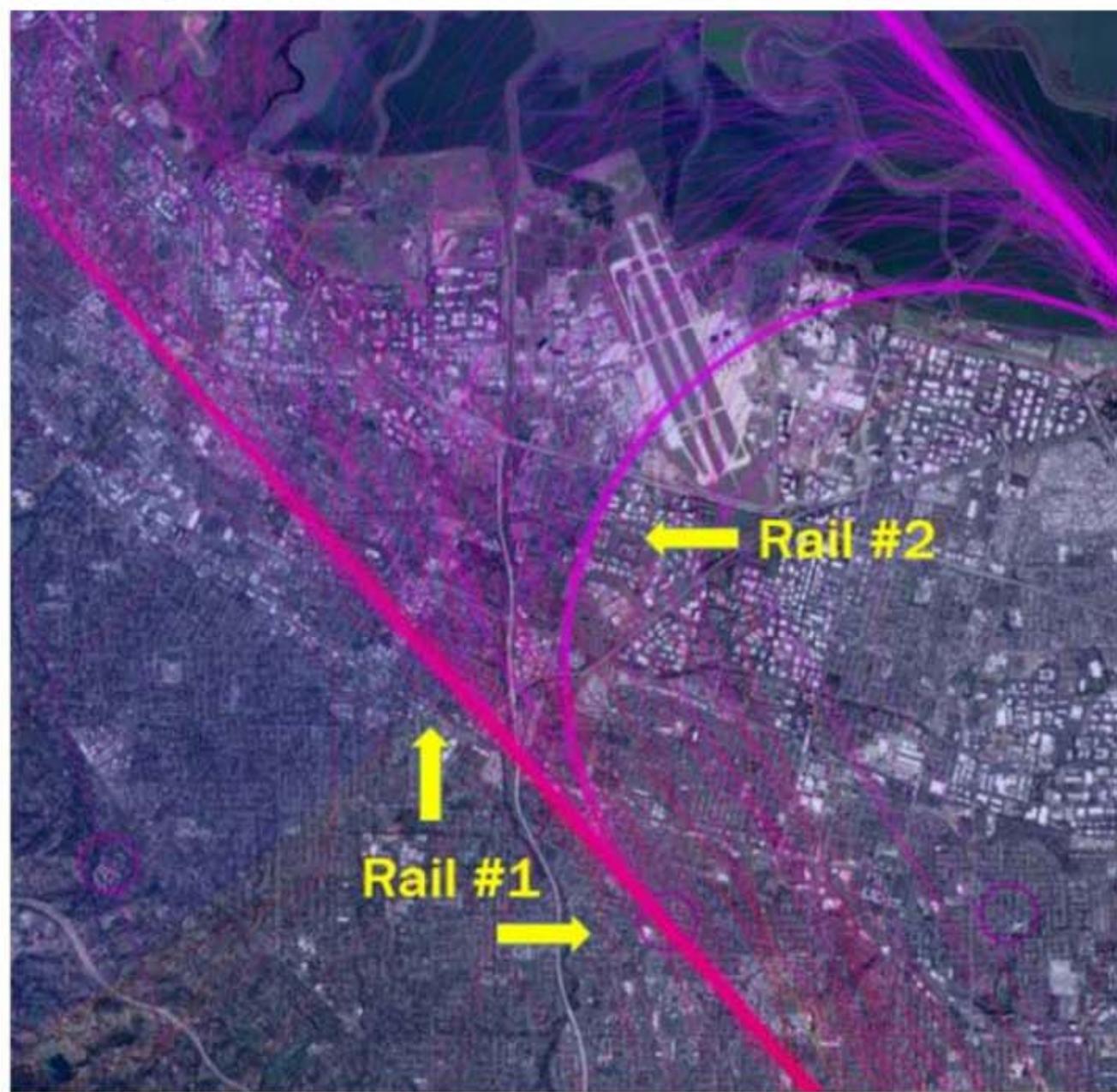
# FULLY DISPERSED FLIGHT PATH

Prior to FAA flight path changes



South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SJC

# AFTER FLIGHT PATH CHANGES / CURRENT



Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC

## Kazmierczak, Matthew

---

**From:** Mary Shefveland <>  
**Sent:** Wednesday, May 16, 2018 3:48 PM  
**To:** District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; HendricksCouncil@sunnyvale.ca.gov; KleinCouncil@sunnyvale.ca.gov; sscharf@cupertino.org; svaidhyanathan@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; mlbernal@saratoga.ca.us; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; GCWaldeck@losaltoshills.ca.gov; Lydia.Kou@cityofpaloalto.org; eric.filseth@cityofpaloalto.org; jmordo@losaltosca.gov; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com; bnunez@ci.milpitas.ca.gov; Kazmierczak, Matthew  
**Subject:** Comments/Edits -- south flow report  
**Attachments:** Report Language Changes.M.Shefveland.5.16.18.Final.doc.docx

May 16, 2018

Dear Mayor Hendricks and Committee Members:

Thank you for your participation and work on the Ad Hoc Advisory Committee on South Flow Arrivals and for your work on the committee report to date. To ensure the best outcome to the south flow noise problem, the report needs to meet two goals as follows: i) be clear and accurate and ii) clearly state the committee's expectations of and deliverables expected from the FAA. The residents have been doing everything in their power to suggest and encourage needed changes to the report; however, we are now dependent on you, as our elected officials, to ensure the final report meets these goals.

Therefore, I respectfully ask that:

1. You agree to make the following changes to the latest report draft posted to the committee website on 5/11/18.
2. If there is resistance by some committee members to including these comments, I hope you can facilitate what will possibly be a robust discussion of these points at this Friday's meeting. The below points are critical to the report.
  3. Consider making arrangements to meet past 5pm. Many of us in the community feel the meeting may need to go long to allow adequate time for discussion. It is possible to stay in the room longer than 5:00 pm? May I suggest that you alert all involved (Committee, public, SJC Staff) if you foresee that possibility of a long meeting so that they can make appropriate arrangements?

**A. Section -- “Fly More Dispersed Western Approach”:**

1. For clarity on what has been discussed in every meeting and to avoid any confusion to the FAA and other readers of the report, please consider changing the language per the suggestions in boxes below. The changes are needed to clarify:

a. the breadth of dispersion that existed before 2012 when the FAA began its move to NextGen. Without dispersion as wide as the 2.2 miles between PUCK and ZORSA, mitigations will not adequately spread the noise and relieve the impacts residents experience from south flow today. This language requests the FAA to move the noise back to where it was prior to 2012 when the south flow noise experienced today did not exist and before the FAA began shifting noise to the west. This is essential to restore the residents’ quality of life and to preserve home values.

b. that the rails actually exist – not that there is a “perception” that they exist.

c. that there are two rails and exactly how we define these rails. This is necessary as of the last meeting, there was still confusion by the FAA on the quantity and location of the rails.

Pg. 6

Prior to the implementation of NextGen, aircraft were dispersed over a broader area of air space thereby limiting concentrated negative effects on residents and neighborhoods. *See the map in Figure 1 below showing the dispersion of aircraft between the ZORSA and PUCK waypoints prior to 2012.* A dramatic increase in noise complaints resulted from the implementation of NextGen. NextGen, a program which switched a radar-based approach to a GPS approach, has resulted in the use of Required Navigation Performance (RNP) and Optimal Profile Descent (OPD). These tools and procedures create a concentration of flight paths *or “rails”* over specific neighborhoods and homes, which now bear the brunt of ground effect noise. *See the map in Figure 2 below showing the two rails that developed with the FAA’s move to NextGen.*

**See Attachments to this email for Figure 1. Dispersion prior to 2012. (1/11/11) and Figure 2. Two rails after Nextgen (3/10/16)**

2. Comments on Request to the FAA #1:

1. I was surprised to see that the report does “not” include the requirement that **all items in the spreadsheet regarding dispersion, items Q through CC, be reviewed by the FAA.** While the FAA can come up with other ideas, e.g. “explore options” as the language reads, they need to, **at a minimum, review and respond in writing to all the mitigations put forth in the spreadsheet on dispersion.**

2. The request to remove the two rails was expressed in every meeting. The report must clearly state our wants and expectations that rails be removed; otherwise, we cannot expect that this will be considered, much less determined as a viable option. This is even more important given that at the last meeting Mr. diBernardo spoke of only one rail. The revised language below clearly sets forth the premise on which we want the FAA to find solutions.

**Pg. 8. Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes *including, examining and providing a written response to items Q through CC in the attached mitigations spreadsheet*, that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. *Directionally, the Committee recommends that the FAA drive toward 1) alternatives to routing airplanes over fixed rails (figure 1); and 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 2).* (Using the success criteria listed below)

### **B. Section – What Are South Flow Operations?**

When the FAA implemented NextGen, it shifted and concentrated noise. It is essential that this be clearly stated in the report as follows:

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. Since 2015, new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and narrowly concentrated arrival patterns, especially over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto. Use of the NextGen technology has increased per-flight noise for residents. *While this may have reduced noise for some residents, it significantly shifted and concentrated the noise, greatly increasing it for those residents living directly under the more precise arrival and approach flight paths.*

### **C. Fly Other Dispersed Approach**

Please see the changes requested by Robert Holbrook for this section.

Please note that the FAA has said on multiple occasions that the eastern approach is something they are willing to look into.

### **D. Avoid Noisy Flight Maneuvers**

Please include item C on the mitigations spreadsheet as an item to be reviewed by the FAA.

Items A, B, **C**, G, H, J, K

### **E. Request to the FAA #5**

The FAA's environmental analysis should be provided to the community to help them comment on flight paths that the FAA proposes, like the new ILS approach. As such, please add the language below:

*The committee requests that environmental analyses, including noise assessments, be posted at the IFP Gateway at the same time proposed procedures are posted for public comment.*

## **F. Implement FAA Policy Changes**

Due to the negative noise impacts residents have experienced since the FAA began implementing NextGen, including precision based navigation, I would like the committee to consider adding the following policy change request to the FAA. This policy change would help enable the FAA personnel, residents, city and federal government officials and airport personnel nationally to invest the hundreds of thousands of hours spent collectively on trying to remediate the noise impacts of NextGen, on other endeavors.

*Request to FAA #5A: re-prioritize safety and noise" over "safety and efficiency" over highly-impacted residential areas.*

Thank you.

Sincerely,

Mary Shefveland

Mountain View

May 16, 2018

Dear Mayor Hendricks and Committee Members:

Thank you for your participation and work on the Ad Hoc Advisory Committee on South Flow Arrivals and for your work on the committee report to date. To ensure the best outcome to the south flow noise problem, the report needs to meet two goals as follows: i) be clear and accurate and ii) clearly state the committee's expectations of and deliverables expected from the FAA. The residents have been doing everything in their power to suggest and encourage needed changes to the report; however, we are now dependent on you, as our elected officials, to ensure the final report meets these goals.

Therefore, I respectfully ask that:

1. You agree to make the following changes to the latest report draft posted to the committee website on 5/11/18.
2. If there is resistance by some committee members to including these comments, I hope you can facilitate what will possibly be a robust discussion of these points at this Friday's meeting. The below points are critical to the report.
3. Consider making arrangements to meet past 5pm. Many of us in the community feel the meeting may need to go long to allow adequate time for discussion. It is possible to stay in the room longer than 5:00 pm? May I suggest that you alert all involved (Committee, public, SJC Staff) if you foresee that possibility of a long meeting so that they can make appropriate arrangements?

**A. Section -- "Fly More Dispersed Western Approach":**

1. For clarity on what has been discussed in every meeting and to avoid any confusion to the FAA and other readers of the report, please consider changing the language per the suggestions in boxes below. The changes are needed to clarify:
  - a. the breadth of dispersion that existed before 2012 when the FAA began its move to NextGen. Without dispersion as wide as the 2.2 miles between PUCK and ZORSA, mitigations will not adequately spread the noise and relieve the impacts residents experience from south flow today. This language requests the FAA to move the noise back to where it was prior to 2012 when the south flow noise experienced today did not exist and before the FAA began shifting noise to the west. This is essential to restore the residents' quality of life and to preserve home values.

- b. that the rails actually exist – not that there is a “perception” that they exist.
- c. that there are two rails and exactly how we define these rails. This is necessary as of the last meeting, there was still confusion by the FAA on the quantity and location of the rails.

Pg. 6

Prior to the implementation of NextGen, aircraft were dispersed over a broader area of air space thereby limiting concentrated negative effects on residents and neighborhoods. *See the map in Figure 1 below showing the dispersion of aircraft between the ZORSA and PUCK waypoints prior to 2012.* A dramatic increase in noise complaints resulted from the implementation of NextGen. NextGen, a program which switched a radar-based approach to a GPS approach, has resulted in the use of Required Navigation Performance (RNP) and Optimal Profile Descent (OPD). These tools and procedures create a concentration of flight paths or “rails” over specific neighborhoods and homes, which now bear the brunt of ground effect noise. *See the map in Figure 2 below showing the two rails that developed with the FAA’s move to NextGen.*

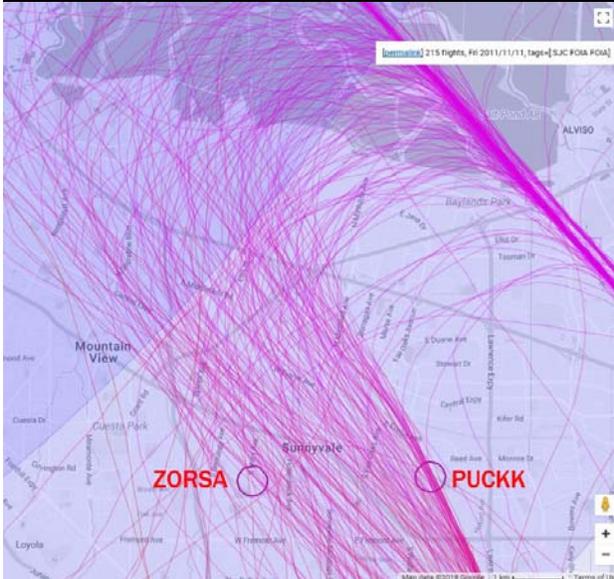


Figure 1. Dispersion prior to 2012. (1/11/11)

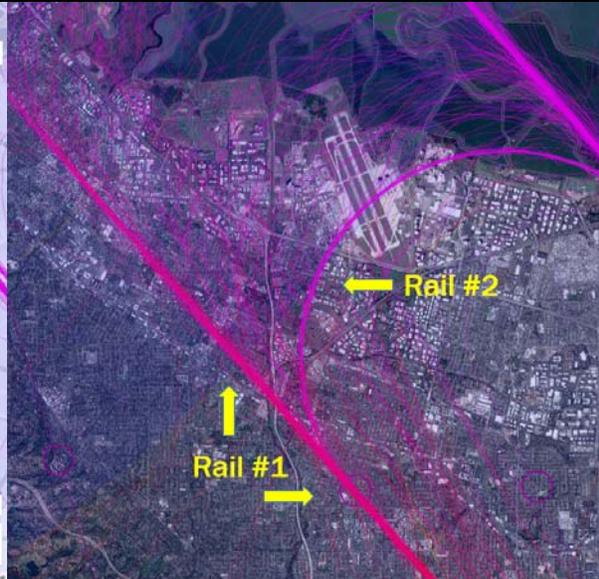


Figure 2. Two rails after Nextgen (3/10/16)

2. Comments on Request to the FAA #1:

- 1. I was surprised to see that the report does “not” include the requirement that **all items in the spreadsheet regarding dispersion, items Q through CC, be reviewed by the FAA.** While the FAA can come up with other ideas, e.g. “explore options” as the language reads, they need to, at a minimum, review and respond in writing to all the mitigations put forth in the spreadsheet on dispersion.
- 2. The request to remove the two rails was expressed in every meeting. The report must clearly state our wants and expectations that rails be removed; otherwise, we cannot expect that this will be considered, much less determined as a viable option. This is even more important given that at the last meeting Mr. diBernardo spoke of only one

rail. The revised language below clearly sets forth the premise on which we want the FAA to find solutions.

**Pg. 8. Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes *including, examining and providing a written response to items Q through CC in the attached mitigations spreadsheet*, that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. *Directionally, the Committee recommends that the FAA drive toward 1) alternatives to routing airplanes over fixed rails (figure 1); and 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 2).* (Using the success criteria listed below)

## B. Section – What Are South Flow Operations?

When the FAA implemented NextGen, it shifted and concentrated noise. It is essential that this be clearly stated in the report as follows:

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. Since 2015, new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and narrowly concentrated arrival patterns, especially over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto. Use of the NextGen technology has increased per-flight noise for residents. *While this may have reduced noise for some residents, it significantly shifted and concentrated the noise, greatly increasing it* for those residents living directly under the more precise arrival and approach flight paths.

## C. Fly Other Dispersed Approach

Please see the changes requested by Robert Holbrook for this section.

Please note that the FAA has said on multiple occasions that the eastern approach is something they are willing to look into.

## D. Avoid Noisy Flight Maneuvers

Please include item C on the mitigations spreadsheet as an item to be reviewed by the FAA.

Items A, B, **C**, G, H, J, K

## E. Request to the FAA #5

The FAA's environmental analysis should be provided to the community to help them comment on flight paths that the FAA proposes, like the new ILS approach. As such, please add the language below:

*The committee requests that environmental analyses, including noise assessments, be posted at the IFP Gateway at the same time proposed procedures are posted for public comment.*

## F. Implement FAA Policy Changes

Due to the negative noise impacts residents have experienced since the FAA began implementing NextGen, including precision based navigation, I would like the committee to consider adding the following policy change request to the FAA. This policy change would help enable the FAA personnel, residents, city and federal government officials and airport personnel nationally to invest the hundreds of thousands of hours spent collectively on trying to remediate the noise impacts of NextGen, on other endeavors.

***Request to FAA #5A: re-prioritize safety and noise" over "safety and efficiency" over highly-impacted residential areas.***

Thank you.

Sincerely,

Mary Shefvland  
Mountain View

## Kazmierczak, Matthew

---

**From:** maria pazos <>  
**Sent:** Wednesday, May 16, 2018 3:56 PM  
**To:** Kazmierczak, Matthew  
**Subject:** Jet Noise abatement

Dear M Kazmierczak:  
May 15, 2018

For those concerned on the noise abatement issue.

I hope you take into consideration my (and the majority of my neighbors' ) concern regarding this subject.

It is appalling to me that the FAA and whoever else were party to the Nextgen decision found it acceptable to take a community (one who had never had the airplane noise) and saddle them with ALL the loud and relentless flights in and out of the airport without any real noise study nor community input. This is what happened when the dispersion from before 2012 was abandoned. It is further insulting that at the meetings I have attended the feeling is: well, we can't just move the noise elsewhere. But you DID move the noise when Nextgen was instigated. I have lived in Mountain View since 2000 and the move was obvious. Where it was a rare day that I would notice airport traffic, I get planes, many under 3000 ft flying directly overhead in a relentless manner, sometimes as close as every 2 to 3 seconds. Is this what is called 'rails'? It renders my life in my house unbearable on many days. And I'm talking about INSIDE the house—the outdoors becomes impossible to enjoy. It can begin as early as 6 am and doesn't end until well after 10PM. We even have noted flights as low as 1800 feet through the app StopJetNoise!

Whatever the FAA hoped to achieve seems to have been based on something besides real world study and with complete disregard of who will bear the burden, how it impacts the community and, apparently with zero hope that as the traffic grows it will be mitigated in some way. I understand that Silicon Valley has become a very populated area with a lot of air traffic but I do not see why, all of a sudden, MY area is the one who has been chosen to bear the entirety of it.

I have read the paperwork that the FAA has put out as well as the recommendations from the committees involved. I have also heard (from others that have done research) that there are many possibilities to mitigate this impact but I am sensing that many of the solutions are 'difficult' or 'expensive' and folks in power seem reluctant to seriously consider them. Let me point out it is currently very difficult for us to live here. It will be expensive not only to try and retrofit the windows but eventually, when word is out that we are a 'rail' of jet noise, property values will go down. So I urge all the powers that be, regarding this problem, to revisit the assessments and conclusions with some actual real world study, find ways to return to levels of per flight noise as quiet as we had before Nextgen as well as assess the impact on the individual communities with an eye towards fairly distributing the problem instead of burdening one select group of people.

Thank you

Maria Pazos  
Minton Lane, Mountain View, CA

## Kazmierczak, Matthew

---

**From:** Hans Qian <>  
**Sent:** Wednesday, May 16, 2018 4:30 PM  
**To:** Kazmierczak, Matthew  
**Subject:** disagree with the south flow adhoc report - the "final draft"

To whom it concerns,

As a long time Sunnyvale resident, I do not agree with the south flow adhoc committee report of the final draft. It does not really solve our problem.

- 1.SJC should take FAA recommendation (made on 2/23/2018) to use south flow east approach for at least 40% of total flights.
2. Spread out the flights using south flow west approach.

Thanks, Hans  
A long time Sunnyvale resident

## Kazmierczak, Matthew

---

**From:** Hans Qian <>  
**Sent:** Wednesday, May 16, 2018 9:14 PM  
**To:** Kazmierczak, Matthew  
**Subject:** Disagree with the south flow adhoc report - the "final draft"

To whom it may concern,

As a long time Sunnyvale resident, I do not agree with the south flow adhoc committee report of the final draft. It does not really solve our problem. I request:

- 1.SJC should take FAA recommendation (made on 2/23/2018) to use south flow east approach for at least 40% of total south flow flights.
2. Spread out the flights using south flow west approach.
3. No more expansion for SJC.

Thanks, Hans  
A long time Sunnyvale resident

## Kazmierczak, Matthew

---

**From:** Diane Sparks <>  
**Sent:** Wednesday, May 16, 2018 9:35 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Noise pollution above my neighborhood

Please understand that flights over Sunnyvale and Cupertino specifically, have very disturbing volume over the last several years. Sometimes (mostly Winter) it is a constant throughout the day and past 1 AM and starts back at day break. It is not only the noise that is disturbing. Emissions are changing our air quality to be unhealthy with higher particulates that can cause disease.

Please correct the flight pattern to as it was around 2012 where there was about 3 miles wide of disbursement for the noise pollution. Monitor the noise, safety and air quality to see for yourself, committee members and officials. Monitor these three criteria as value to your important decisions. Among the reports you will get from noise, safety and air quality the residents are also to be a large part of your consideration/motivation.

Our quality of life here has greatly been diminished living here.

I will not be able to attend the meeting Friday afternoon. This email to all of you are my expression of my feelings ahead of the meeting. Please take this and other residents comments seriously. Our tax dollars support this community of Silicon Valley. Our families are wanting a quality of life that you have control of, can make a difference for us.

Diane Sparks  
Cupertino resident

## Kazmierczak, Matthew

---

**From:** Peggy Prendergast <>  
**Sent:** Wednesday, May 16, 2018 10:24 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; Lisa Matichak  
**Subject:** South Flow Arrival meeting

Dear Advisory Committee,

I understand there will be a final meeting on South Flow Arrivals to SJC this Friday. Many residents who live under this "south flow area of arrivals" have many concerns and we urge the committee to take serious action on some of the issues our community have.

Committee members, can you please require/mandate that the FAA find alternatives to routing traffic on 'rails'. As I learn more about rails, it makes sense now since they make flight noise louder. Creating rails, as Nextgen is doing, is simply not appropriate over noise-sensitive areas, which include densely populated communities like ours. The two rails that have been created over us need to be re-routed please. If this does not occur soon, this rail traffic will be used by more aircrafts in the future.

For example I am not sure how Moffett air traffic is related to these rails but our neighborhoods in MV can hear very loud military air traffic as well as the commercial traffic from SJC. We can high noise levels from both airports too often.

I am now just learning about Nextgen. After going on their website, I see a lot of information on efficiency and performance but I don't see information on how Nextgen is trying to reduce the noise levels of aircrafts and how they may or may not be finding ways to re-route flights over dense populations. I am concerned that Nextgen does not find noise or re-routing a priority one can easily find on their site. I see they are working with industries and government agencies but are they working with homeowners? The very people their new, efficient technology will impact the most?

Regardless of Nextgen's goals, the FAA needs to redefine what is an acceptable noise level. I am learning that flights in our area meet the noise level parameters. Those parameters or levels of acceptability need to be stricter and lowered. All flight procedures over noise-sensitive areas should decrease significantly. The Bay Area is much too crowded and more populated than ever. Please require the FAA lower the overhead aircraft noise. Understandably each said than done but this is where Nextgen can retarget its focus perhaps.

I sincerely appreciate the time you have taken to read my email and for participating on this committee.

Best regards,

Peggy Prendergast

Please consider our resources before printing this email

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Wednesday, May 16, 2018 11:40 PM  
**To:** 'District1@sanjoseca.gov'; 'District10@sanjoseca.gov'; 'District3@sanjoseca.gov'; 'Lisa.Matichak@mountainview.gov'; 'lennysiegel@mountainview.gov'; 'toneill@santaclaraca.gov'; 'HendricksCouncil@sunnyvale.ca.gov'; 'KleinCouncil@sunnyvale.ca.gov'; 'svaidhyanathan@cupertino.org'; 'sscharf@cupertino.org'; 'rturmer@cityofmontesereno.org'; 'ewolsheimer@cityofmontesereno.org'; 'mlberald@saratoga.ca.us'; 'hmiller@saratoga.ca.us'; 'Rene.Spring@morganhill.ca.gov'; 'Larry.Carr@morganhill.ca.gov'; 'GCWaldeck@losaltoshills.ca.gov'; 'Lydia.Kou@cityofpaloalto.org'; 'eric.filseth@cityofpaloalto.org'; 'jmordo@losaltosca.gov'; 'lleeng@losaltosca.gov'; 'kwatanabe@santaclaraca.gov'; 'jeffc@cityofcampbell.com'; 'bnunez@ci.milpitas.ca.gov'  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Ad Hoc Advisory Committee - Dispersion  
**Attachments:** Dispersion Summary of Changes.pdf  
**Importance:** Low

Members of the Committee,

With this message, I would like to make suggestions for how dispersion is handled in the report.

### **DISPERSION**

**The section on dispersion should be strengthened.** While the report does call for dispersion, it does not:

- Identify success criteria put forward by Cities that might be agreed by the Committee as a whole;
- Clearly show how the problem has evolved, contrasting the current situation with the past – pictures are needed;
- Speak to the likely future if nothing is done;
- Ask the FAA to respond to the relevant items in the spreadsheet.

**Public comments have unanimously and forcefully advocated two things:** 1) Dispersion as it existed before 2012 and 2) breakup of the 'rails' created in recent years. We have seen how new rails have pitted communities against each other and sowed distrust and intense frustration. People focus on their narrow interests when property values, health and well-being are at stake, causing community spirit and good will to suffer.

**If the report does not ask for what we want, we should not be disappointed if we don't get it.** The FAA will not engage directly with residents in discussions that impact policy. The public relies on you, our elected officials, to be our voice with the FAA. It is proper that the report should clearly call for change. Former FAA Administrator Huerta and Western Administrator Roberts have both said that efficiency can be traded off against noise and I think we all sense that efficiency is the primary motivator for rails. Moreover, the Committee's report will be read by the Congressional and Senatorial offices representing us and will add weight to similar reports being prepared nationwide. Our primary audience is the FAA, but our secondary audience includes other influencers who can help bring about the change we seek.

### **Suggested Changes**

*NOTE: The changes below are summarized in the attached document, which shows how the first page of the Dispersion section would look if ALL of the suggestions below were adopted. I recommend that you look at that document before reading the section below – it's a lot easier to digest!*

- **Add a diagram that shows the dispersion we previously had and seek to return to.**
  - **Add:** Figure 1. Suggested location: after first paragraph, page 8. The dispersion of November 11, 2011 describes historical patterns that existed for many years. A picture is worth 1000 words, and it is important for this picture to be included in the report so that all parties are clear on what was lost and what we would ideally return to. It is too easy to be confused about what is sought otherwise. This is also too important to be left to an appendix.
  - **Add:** "*see figure 1*". Suggested location: end of first sentence, page 8.
- **Clearly acknowledge the two rails. The report only acknowledges one!**
  - **Replace** the text on p8: "NextGen, a program which switched a radar-based approach to a GPS approach, has resulted in the use of Required Navigation Performance (RNP) and Optimal Profile Descent (OPD). These tools and procedures that create a concentration of flight paths. Residents perceive this as the creation of a "rail"..."  
**with** "*NextGen, a program which switched a radar-based approach to a GPS approach, has resulted in tools and procedures that create a concentration of flight paths. Two 'rails' have emerged over our communities and residents near these rails bear the brunt of airplane noise, see figure 2.*"
  - Rationale: only the semi-circular rail is mentioned or explained by OPD and RNP. Other procedural changes explain the straight rail running through Mountain View and Palo Alto. The references to OPD and RNP can be removed.
  - **Add** a diagram (figure 2) showing the two rails. Suggested location: after first paragraph, page 8. The current report does not reference the other rail and at the last meeting Mr. diBernardo seemed not to acknowledge it either. Proof that the ambiguity is too important to be left to the appendix!
- **Add a finding that the balance of traffic was shifted significantly west.**
  - **Add:** "*The use of these rails has also resulted in a significant westward shift of the corridor of air traffic in recent years.* (Suggested location: end of paragraph 1, page 8.)
  - Rationale: Current flight patterns should not be considered an historic baseline by the FAA or anyone else. Vector maps that I have presented to the committee show that the center of traffic was shifted over a mile west along the line from PUCKK to ZORSA between early 2012 and mid-2015, after Nextgen's introduction.
- **Add a statement addressing the future**
  - **Add:** *The Committee has reason to believe that if nothing is done to address dispersion, over time still more concentration will occur as flights increasingly gravitate to the rails.* Suggested location: after the sentence on p8 referencing the FAA's desire for a consistent set of procedures.
- **Add strong directional recommendations for the FAA.**
  - **Add:** *The Committee finds that the creation of heavily-used 'rails' over highly populated areas pits neighborhoods against one another, sows distrust and seeds deep frustration. People tend to focus on their narrow interests when property values, health and well-being are at stake; community spirit suffers.*
  - (Suggested location: after the paragraph referencing the FAA's desire for a consistent set of procedures)
  - **Add:** *Directionally, the Committee recommends that the FAA drive toward: 1) alternatives to routing airplanes over fixed rails; 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 1).* (Suggested location: after the paragraph recommended in the preceding bullet.)
  - Rationale: If we don't ask, we won't create the motion required for an eventual solution. The FAA should prioritize R&D into technologies that will address these issues. (This could also be a recommendation.)
- **Call for written evaluations of the recommendations in the spreadsheet for dispersion.**
  - **Delete:** "The attached spreadsheet identifies many suggestions for "how" to achieve a more dispersed Western approach. (See spreadsheet items Q through CC)."  
**Add:** *In addition, the Committee is requesting the FAA to review items Q through CC in the spreadsheet and provide a written response addressing the feasibility of their implementation.* Suggested location: after "(Using the success criteria listed below)."

I believe these changes would greatly strengthen the report.

Robert Holbrook  
Mountain View

P.S. If it is necessary to specify success criteria for dispersion in words, rather than with a picture, we can do so, at the loss of immediacy. I would suggest, *"The success criterion is that none of eight 0.25nm wide corridors spread between PUCKK and ZORSA should have more than twice as many flights as any other corridor, or the closest approximation to this as possible."*

## • Fly More Dispersed Western Approach

Prior to the implementation of NextGen, aircraft were dispersed over a broader area of air space thereby limiting concentrated negative effects on residents and neighborhoods, *see figure 1*. A dramatic increase in noise complaints resulted from the implementation of NextGen. NextGen, a program which switched a radar-based approach to a GPS approach, has *resulted in tools and procedures that create a concentration of flight paths. Two 'rails' have emerged over our communities and residents near these rails bear the brunt of airplane noise, see figure 2. The use of these rails has also resulted in a significant westward shift of the corridor of air traffic in recent years.*

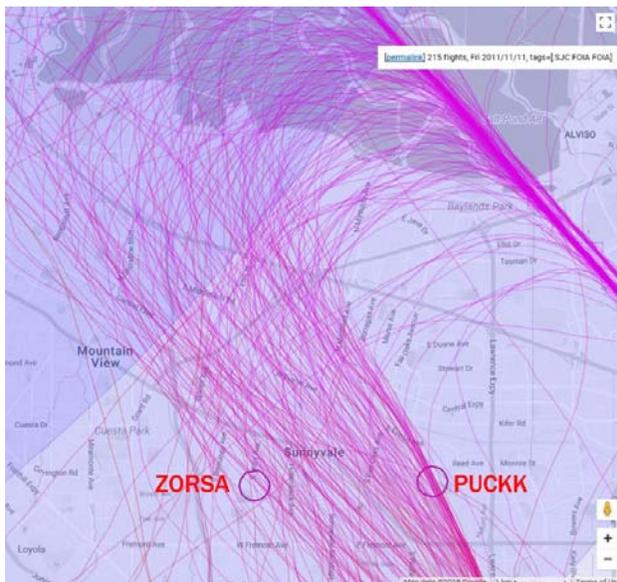


Figure 1. Dispersion prior to 2012. (11/11/2011)  
ZORSA is ~2nm (2.3 miles) west of PUCKK

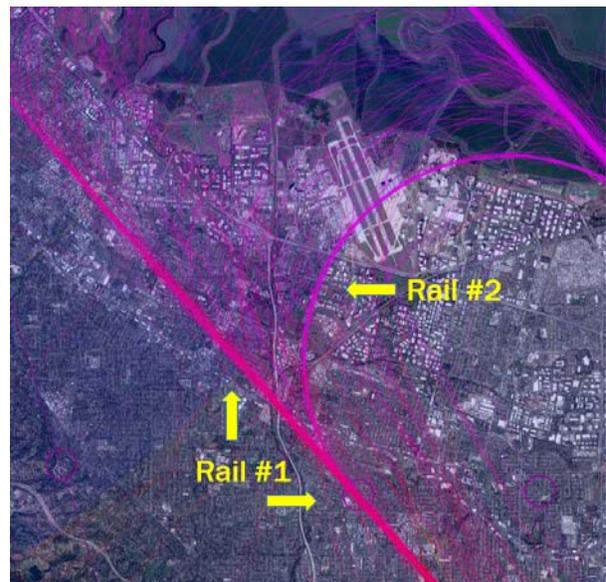


Figure 2. Two rails after Nextgen. (3/11/2016)

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings. *The Committee has reason to believe that if nothing is done to address dispersion, over time still more concentration will occur as flights increasingly gravitate to the rails.*

*The Committee finds that the creation of heavily-used 'rails' over highly populated areas pits neighborhoods against one another, sows distrust and seeds deep frustration. People tend to focus on their narrow interests when property values, health and well-being are at stake, causing community spirit and good will to suffer.*

*Directionally, the Committee recommends that the FAA drive toward: 1) alternatives to routing airplanes over fixed rails; 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 1).*

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a

more dispersed distribution of aircraft. (Using the success criteria listed below). *In addition, the Committee is requesting the FAA to review items Q through CC in the spreadsheet and provide a written response addressing the feasibility of their implementation.*

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

### **San Jose**

## **Kazmierczak, Matthew**

---

**From:** Leah Hails <>  
**Sent:** Wednesday, May 16, 2018 11:49 PM  
**To:** LAlamos@sunnyvale.ca.gov; mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Subject:** FAA Ad Hoc Advisory

Dear Committee,

I have lived my whole life in Sunnyvale, in the same house. I have noticed that the planes are much louder and more often than they used to be. While a youngster, I enjoyed the occasional plane overhead – but now as a college student I find the disrupted sleep and interruptions to my concentration and studies a big hindrance to my success.

It is my understanding that your Committee can urge the FAA to go back to the pre-NextGen flight pattern, one that shares this noise burden as it used to be, with many more residents. I emphatically implore you to do this very thing. It is the only equitable thing to do!

Please stand strong for your constituents and help share this flight pattern – so once again the sight of a plane is not a headache but an occasional occurrence.

Thank you very much,

Leah Hails

## Kazmierczak, Matthew

---

**From:** Kelly Hails <>  
**Sent:** Wednesday, May 16, 2018 11:56 PM  
**To:** LAlamos@sunnyvale.ca.gov; mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Subject:** Ad Hoc Advisory Committee  
**Attachments:** BEFORE AND AFTER FLIGHT PATH CHANGES\_1.pdf

Dear Ad Hoc Advisory Committee Members,

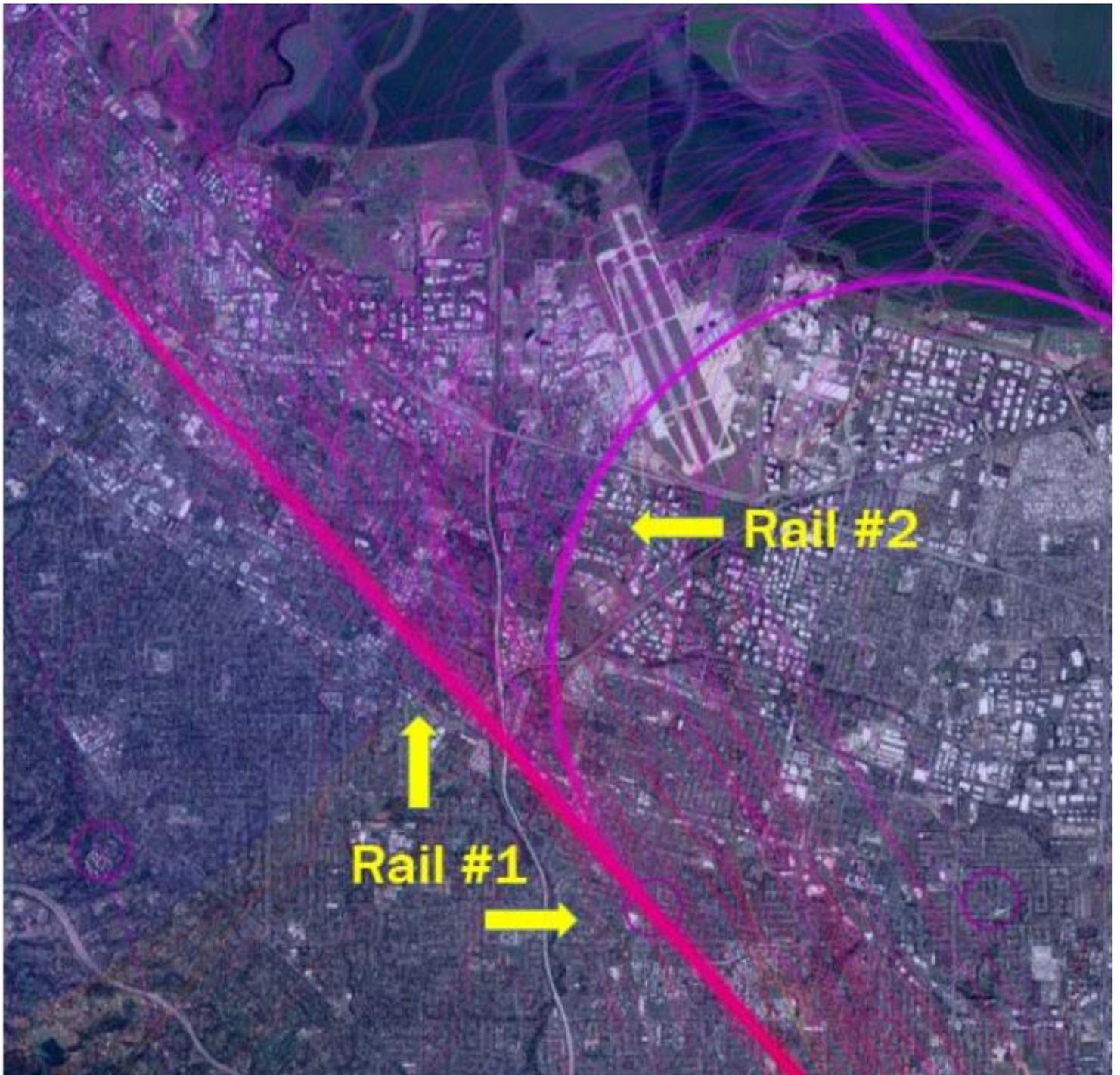
I am a long time resident of Sunnyvale and have lived at my current home for nearly 30 years. It was once a quiet neighborhood, with Moffett planes flying at times. It is now a neighborhood inundated with planes from SFO, San Carlos, Palo Alto, OAK, Reid Hillview and SJC south flow. I understand about the south flow operations and I realize they have been in effect for a long time, but I do not understand how my neighborhood needs to be under a flight path with nearly all planes flying over my home every few minutes during south flow. It used to be, prior to 2012, that many neighborhoods shared this burden – but now only a few under the unlucky “highway in the sky” suffer with continual noise and pollution. In nice weather with windows open, you cannot hear each other in the family speak, and you cannot sleep with the windows open on a warm night – both reasonable desires of a suburban resident. Please, please go back to the pre-2012 flight dispersion. Please include the maps shown in the attachment.

It might be important to add that our home is directly under the turning point of the flights so they are lower and consequently louder than in other neighborhoods. They are usually low enough for me to read the carrier. I urge you to clearly direct the FAA to share this burden with a wider area – a burden shared is a lighter burden than one put on only a few.

The FAA has a responsibility to keep air travel safe, but they also have a responsibility to protect the noise impacts to residents. The safety is priority one, followed by noise (and pollution) and **then** efficiency – in that order. Please reflect this in your report!

Thank you very much,  
Kelly Hails

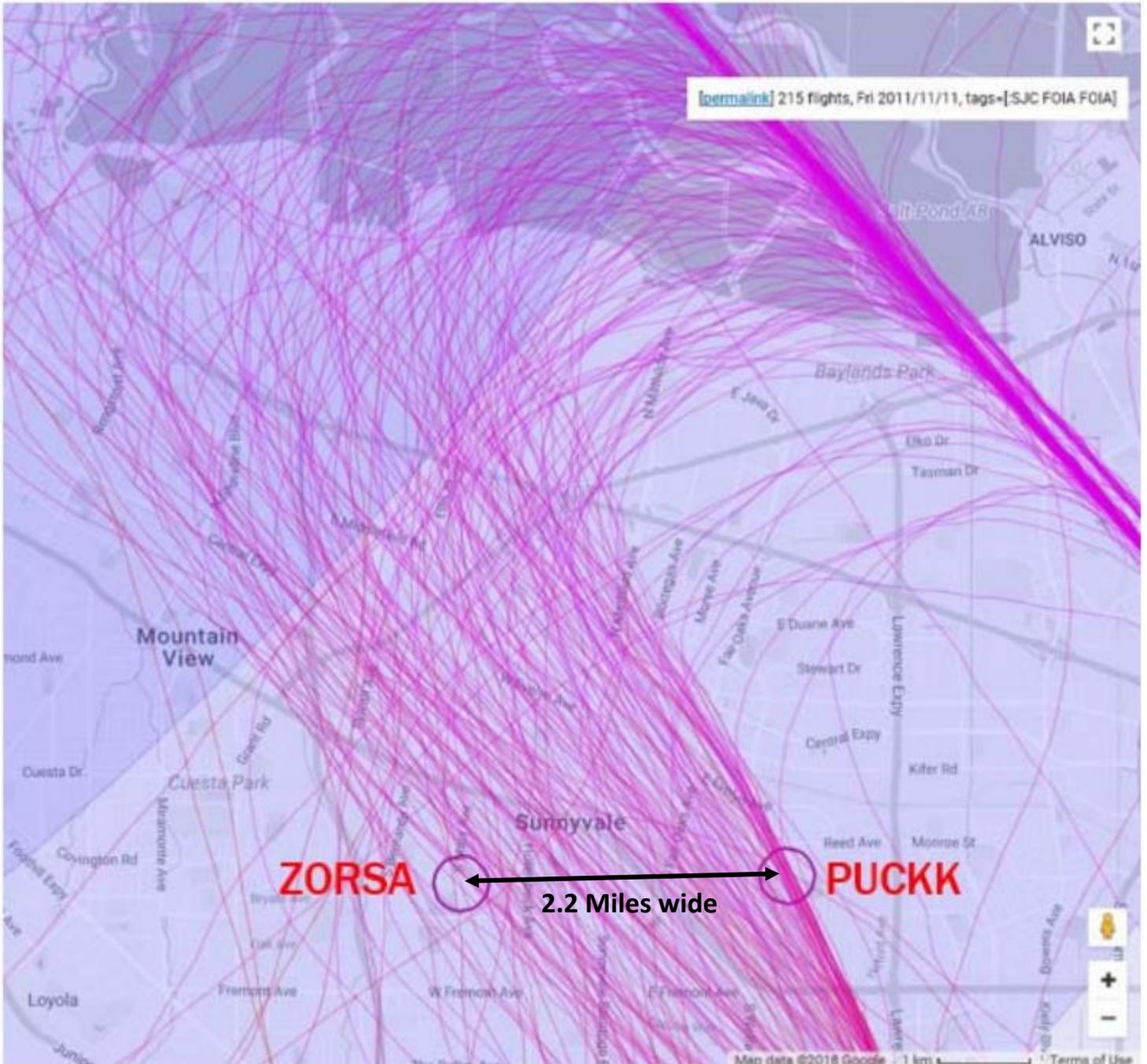
# AFTER FLIGHT PATH CHANGES / CURRENT



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

# FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

## **Kazmierczak, Matthew**

---

**From:** Eileen Hails <>  
**Sent:** Wednesday, May 16, 2018 11:59 PM  
**To:** Lupita Alamos; mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Subject:** Airplane issues

Dear Committee Members,

Thank you for your efforts to find a solution to the south flow airplane issues.

I strongly urge you to mention in clear and strong language that your Committee requests the FAA to go back to pre-2012 flight dispersion. It is truly the only fair and right solution to this noise and pollution issue.

Please clearly indicate that the Committee implores the FAA to prioritize Safety, Noise and Efficiency – in that order. Flight safety is crucial, but consideration of those on the ground is of the utmost importance as well. Dispersing the flights reduces the noise and health consequences for those under the “Rail” and shares the burden equally among a range of residences.

Thank you for including these important issues in your report.

Eileen Hails

## Kazmierczak, Matthew

---

**From:** Toni Rath <>  
**Sent:** Wednesday, May 16, 2018 11:55 PM  
**To:** Glenn Hendricks  
**Cc:** Lupita Alamos; Kazmierczak, Matthew  
**Subject:** Re: Fw: South Flow Ad Hoc Committee: Public comments on final report draft dated 5/11

Thanks Glenn,

please consider making the other changes as well. In particular, include a clear problem statement (loss of dispersion, westward path shift) with pictures and describe the goal most public speakers demanded: break the two rails and return to dispersion in the year 2011. I believe the report will be stronger with these changes.  
Regards,

Toni Rath

On Wed, May 16, 2018 at 2:25 PM, Glenn Hendricks <[HendricksCouncil@sunnyvale.ca.gov](mailto:HendricksCouncil@sunnyvale.ca.gov)> wrote:  
Hello Toni Rath,

I made the change you suggested on page 2.

Your comment for page 10 has already been changed. We didn't remove the sentence. It was changed to request the FAA to respond in writing to those items.

Mathew,  
Please include the email from Toni Rath on the Appendix.

**Glenn Hendricks**  
**Mayor**  
Cell: 408 242 8384  
Office: 408 730 7473  
[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)

---

**From:** Toni Rath []  
**Sent:** Wednesday, May 16, 2018 1:32 PM  
**To:** Mayor AnswerPoint <[mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)>; Lupita Alamos <[LAlamos@sunnyvale.ca.gov](mailto:LAlamos@sunnyvale.ca.gov)>;  
[District1@sanjoseca.gov](mailto:District1@sanjoseca.gov); [District10@sanjoseca.gov](mailto:District10@sanjoseca.gov); [District3@sanjoseca.gov](mailto:District3@sanjoseca.gov); [Lisa.Matichak@mountainview.gov](mailto:Lisa.Matichak@mountainview.gov);  
[lennysiegel@mountainview.gov](mailto:lennysiegel@mountainview.gov); [toneill@santaclaraca.gov](mailto:toneill@santaclaraca.gov); Glenn Hendricks <[HendricksCouncil@sunnyvale.ca.gov](mailto:HendricksCouncil@sunnyvale.ca.gov)>;  
Larry Klein <[KleinCouncil@sunnyvale.ca.gov](mailto:KleinCouncil@sunnyvale.ca.gov)>; [s vaidhyanathan@cupertino.org](mailto:s vaidhyanathan@cupertino.org); [sscharf@cupertino.org](mailto:sscharf@cupertino.org);

[rturner@cityofmontesereno.org](mailto:rturner@cityofmontesereno.org); [ewolsheimer@cityofmontesereno.org](mailto:ewolsheimer@cityofmontesereno.org); [mlbernal@saratoga.ca.us](mailto:mlbernal@saratoga.ca.us); [hmiller@saratoga.ca.us](mailto:hmiller@saratoga.ca.us); [Rene.Spring@morganhill.ca.gov](mailto:Rene.Spring@morganhill.ca.gov); [Larry.Carr@morganhill.ca.gov](mailto:Larry.Carr@morganhill.ca.gov); [GCWaldeck@losaltoshills.ca.gov](mailto:GCWaldeck@losaltoshills.ca.gov); [Lydia.Kou@cityofpaloalto.org](mailto:Lydia.Kou@cityofpaloalto.org); [eric.filseth@cityofpaloalto.org](mailto:eric.filseth@cityofpaloalto.org); [jmordo@losaltosca.gov](mailto:jmordo@losaltosca.gov); [lleeeng@losaltosca.gov](mailto:lleeeng@losaltosca.gov); [kwatanabe@santaclaraca.gov](mailto:kwatanabe@santaclaraca.gov); [jeffc@cityofcampbell.com](mailto:jeffc@cityofcampbell.com); [bnunez@ci.milpitas.ca.gov](mailto:bnunez@ci.milpitas.ca.gov)  
**Cc:** [MKazmierczak@sjc.org](mailto:MKazmierczak@sjc.org)

**Subject:** South Flow Ad Hoc Committee: Public comments on final report draft dated 5/11

Dear Committee members,

I would like to amend previously sent comments with specific modification suggestions for the final report (draft as of May 11). My original comments as attached still stand. In general, the main shortcomings of the report in its current form are:

1. **the report lacks a clear problem statement.** Where are the before and after pictures? (NOT the ones from the FAA that obscure the problem). Where is the picture that calls out the two rails?
2. the report lacks an unambiguous statement of the main goal: **undoing the two rails and returning dispersion as it existed in 2011** (2.5 mile wide corridor).
3. **the report does not ask the FAA to evaluate all items in the spreadsheet.** Most of the work on mitigation measures went into the spreadsheet. Let's have the FAA provide written responses on all of them and consider the feasible and effective ones for implementation.

Specific modifications requests for the report:

**page 2:**

Under "Having conveyed these recommendations, we request that the FAA and SJC:", the first item should read "Evaluate and report on the consequences and impact of each mitigation measure in the spreadsheet in the appendix".

**page 6:**

Add attached pictures (showing the before and after situation) and change 2nd paragraph under "What Are South Flow Operations?" to

"More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. The approach path over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto has been altered substantially in 2012 and 2015 with two effects:

1. airplanes that were previously flying in a corridor about 2.5 miles wide are now flying along two narrow "rails" (see picture), causing residents living under the rails to take on most of the burden of airplane noise.

2. the flight path was shifted westward (see picture), affecting new residents.

While this may have reduced noise for some residents, noise has definitely increased for those residents living directly under the more precise arrival and approach flight paths.

The effect of these changes is very evident in a sharp increase in noise complaints made to the San Jose airport. Between 2015 and 2016 noise complaints increased 859%."

**page 7:**

2nd last paragraph ("To encourage the maximum...") should be changed to

"To encourage inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support. For maximum degree of inclusiveness the Committee asked the San Jose City Council to include all cities that experience South Flow overflights. The San Jose City Council denied the request."

**page 8:**

- After "(See spreadsheet items Q through CC)." add the following objective:

"The objective is to move away from the existing two rails and return dispersion of airplanes between PUCKK and ZORSA that matches that experienced on November 11 2011 (to pick a representative date from 2011)." If a technical success criterion is desired, please use

"Success criterion: None of the eight 0.25nm corridors between PUCKK and ZORSA should have more than twice as many flights as any other corridor, or the closest approximation to this as possible."

- Modify request to FAA #1 to read "The Ad Hoc Committee requests the FAA to evaluate and consider for implementation spreadsheet items Q through CC."  
The current 'explore options' and 'more dispersed' does leave a wide range of possible interpretations of what is to be achieved: more dispersed could mean 100 feet. The issue of returning dispersion to 2011 levels and undoing the rails has been the most consistent request from the public and must be represented in the report.

**page 10:**

- Change the request to the FAA #2 to "The Committee requests that the FAA maintain the percentage of flights directed to the Eastern approach at the five-year average for 1/1/13-12/31/17. If the FAA can propose no other means to achieve this objective in the face of reduced need for vectoring, the Committee requests a written response to item N".  
Instead of 10%, it should be "21.3%", which is the average percentage of flights taking the Eastern approach between 1/1/2013 and 7/31/2017.
- remove the sentence "The Ad Hoc Committee is not requesting the options to be explored." All options should be evaluated and considered for implementation.

Thank you,

Toni Rath

On Mon, May 14, 2018 at 11:50 PM, Toni Rath <[tonirath@gmail.com](mailto:tonirath@gmail.com)> wrote:

>

> Thank you for your work on the Ad Hoc Advisory Committee On South Flow Arrivals. After reading the draft of the final report dated May 11 I would like to make some recommendations to amend and correct the report:

>

> The report is lacking a clear problem statement. Recent years have brought big changes in the path airplanes take before landing at San Jose airport. These changes are best illustrated by pictures of the situation before and after these changes (I suggest using the before and after pictures in the attachment). A picture is worth a thousand words: Airplane traffic used to be dispersed over a corridor about 2.5 miles wide, spreading the burden of airplane noise. Now the flight path has been shifted westward and there is sharp concentration into "rails", putting undue burden on a different group of residents. The westward shift in traffic and the creation of two rails need to be called out unambiguously in the report and substantiated with pictures (NOT the ones from the FAA as they obscure the location and extent of the problem).

> Recent statements by FAA representative Tony DiBernardo have called into question the existence of "rails", that is, sharply increased concentration of airplane traffic along specific routes. A picture that clearly shows the two "rails" along which traffic now flows need to be included to set the record straight (please use the attached picture). This is even more important since the FAA has made it clear that it would like to reduce vectoring, which means that more and more traffic will move onto these rails, causing further increases in noise.

> The report does not clearly articulate the solution that residents predominantly spoke to at public meetings: the two rails along which traffic now flows must be broken and the original dispersion of traffic in 2011 must be returned to spread the load of airplane noise. The report should recommend the FAA evaluate all recommendation in the spreadsheet that restore this dispersion.

> The report states that the use of the "Eastern approach" should remain at the current level of 10%. This is less than historical averages and would mean a further shift of traffic to residents living on the Southern peninsula. In the last 5 years, 22.3% of traffic have taken the Eastern approach. The report should adopt this number instead.

> The report includes a spreadsheet of recommendations, but why is the FAA being asked to evaluate only some of them? Some items are even specifically excluded from evaluation (see items M, N, P). Instead, the report should ask the FAA to evaluate all items in the spreadsheet for feasibility, to provide a written response with their findings and to implement feasible recommendations that reduce noise on the ground.

> The report misses the opportunity to make recommendations that have a longer term, even lasting, and positive impact regardless of the perceived feasibility. The bay area is a leader in technology and forward thinking and the report should reflect this by recommending the following:

>

> Recommend the FAA work on technologies to provide automatic dispersion of aircraft instead of routing them along 'rails'. The rails must be broken.

> The FAA should adopt noise metrics that closely model noise as it is observed by residents on the ground.

> The FAA should work on technologies that can fly airplanes as quietly as human pilots under 98% of weather conditions.

- > Require airline companies to implement noise mitigation measures, such as the vortex generator to fix the airbus whine.
- > The FAA should prioritize safety, noise/health and then efficiency, in that order, over residential areas.
- >
- > The report states "To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee". This is misleading and should be corrected. A maximum degree of inclusiveness would be to invite all cities affected by South Flow. The report does not mention that the committee had indeed asked the San Jose City Council to include all affected cities. The San Jose City Council denied the request. This is important information that should not be omitted.
- >
- > Let's make the report count.
- > Thank you.
- >
- > Toni Rath

## Kazmierczak, Matthew

---

**From:** swelahc <>  
**Sent:** Thursday, May 17, 2018 12:37 AM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Cc:** Lisa Matichak  
**Subject:** JET NOISE

Dear Committee Members,

We have been incredibly patient with the FAA concerning the horrific noise and pollution increase from air traffic route changes since 2012 - but that patience has evaporated. There are three major offenses that have caused the majority of difficulty to our group of 350 individuals:

1. **NOISE INCREASE:** the FAA, in narrowing the jet paths to much smaller width areas of flight, has increased noise to a damaging effect. Residents cannot be outside without constant roaring jets overhead and often appearing to fly much too low. It is difficult to have family time outside, and very difficult for children to sleep. This is causing anxiety and restlessness that is actually damaging to health.
2. **POLLUTION:** It is clear that the pollution from the increased and narrowed jet paths is damaging to the health of those bombarded by this massive increase of airplane traffic. The emissions are carcinogenic at worse, and allergenic at best. To concentrate them in the way that has been done, over narrow paths, is abusive and borders on destructive. Tests have already proven this to be true, and more are coming forth. Does the FAA really want this liability?
3. **SWITCHING JET PATHS WITHOUT PUBLIC INPUT:** It is untenable that the long term, pre 2012 jet paths were changed dramatically, without giving the public the opportunity to protest or even comment. Residents chose to live in their areas according to the real world. Those of us living in quiet areas, were required to pay a premium for this benefit. Those who bought under jet paths, bought with that reality and made that decision for their own reasons. The FAA suddenly - without consulting those whom they were affecting - switched the jets to fly in a vastly concentrated path over the quieter areas. There is no explanation or excuse that could call this fair. It is the equivalent of a nasty "bait and switch", but this time we weren't even a bait. It was an abusive and punitive move, with those affected having no input or warning.

The ONLY solution is to return to the pre-2012 jet paths, or to take the jets up the Bay affecting even fewer than before. Whatever is done, the jets must either return to the previous paths (where the jet noise was much more fairly dispersed) or the FAA needs to develop new jet paths up the Bay that make the routes more quiet for ALL - even those who previously to 2012 had the original jet noise. The FAA's switching these jet paths without public input, narrowing them to the disgusting extent now done, and damaging quality of life, health and values, is astoundingly unfair. The FAA admitted it was a mistake - now they must resolve to restore the pre-2012 levels.

We expect no delay in action and reversion to these pre-2012 paths - and we demand public input that counts. We have been promised this would be done, and NOW is the time.

Sincerely,  
Shari Emling  
President, Bentley Square Homeowners' Association  
(350 individuals)  
Mountain View, CA

## **Kazmierczak, Matthew**

---

**From:** Laura Kostinsky <>  
**Sent:** Thursday, May 17, 2018 11:55 AM  
**To:** mayor@sunnyvale.ca.gov  
**Cc:** Kazmierczak, Matthew; lalamos@sunnyvale.ca.gov; lisa.matichak@mountainview.gov  
**Subject:** Airplane Noise --Final Report of the Ad Hoc Committee

Chairman Hendricks and Ad Hoc Committee on South Flow Arrivals to SJC:

I am grateful to the Ad Hoc Committee for the time, thought, and energy that has gone into the issue of unacceptable levels of airplane noise caused by FAA changes made starting in 2012.

However, if the Final Report leaves out information that would give the most complete description of the problems, their causes, and the specific requests for mitigations, then much of that time, thought, and energy will be to no avail and the voices of the community that you heard will be silenced. Clearly, the FAA representatives have demonstrated intransigence. But this report will be read and referred to by other personnel within and beyond FAA, and will be cited in future struggles when the noise gets even worse and frustration rises. At the least, there is nothing to lose by making the Final Report as inclusive and detailed as possible.

The overriding issue is that airplane noise has been shifted so that, beginning in 2012, I feel like the roar should alert me to run for a bomb shelter and it feels like the airplanes are flying right through the house, making daily routines, sleeping, working at home next to impossible. Prior to 2012, I had no problem living between two major airports. These changes should be noted in The Report.

Emphasize that “Rails” should be avoided. By definition, they concentrate the airplane noise over narrow corridors. The Report should include a map showing that now two rails run over us!

The current situation should not be made worse. The Report should strongly request that South Flow traffic routed to SJC airport from the East Bay not be shifted over us.

The Report should include specific suggestions for creating dispersion of flights – clearly possible because we had dispersion previously. The Report should ask of the FAA to write evaluations of the suggestions that are clear and specific, directly addressing the suggestions.

The Report should state that the importance of noise mitigation over densely populated communities should be second only to safety concerns in FAA’s priorities. Why do individual planes have to create a deafening roar? The FAA should be requested to study ways to reduce noise production. Efficiency is desirable, but should not take precedence over issues of safety and noise.

Please make The Report really count and represent us, even if it does not bring about immediate significant change.

Sincerely,

Laura Kostinsky

Mountain View

## Kazmierczak, Matthew

---

**From:** Tony Guan <>  
**Sent:** Thursday, May 17, 2018 1:31 PM  
**To:** Kazmierczak, Matthew  
**Cc:** mayor@sunnyvale.ca.gov  
**Subject:** Re: Latest Draft of Ad Hoc Advisory Committee report  
**Attachments:** image001.png

Hi Matthew and Mayor Hendricks,

Thanks for working tirelessly for the residents. As a resident from Sunnyvale, I have a couple of suggestions to the draft:

1. We have FAA FIOA flight data to show that in the last few years, the east approach was gradually decreasing, and almost all the east approach flights were concentrated only onto Sunnyvale. So it's our righteous request that east approach be changed back to the proportion as the year 2013. If needed, we can give the numbers, but I am sure FAA and SJC can find it out.
2. In the last few drafts, I can see the east approach rate dropped from 25%, to 15% and to 10%, so are we trying to please only San Jose officials in this way? Yes, they do not like any flights over San Jose, but we are just requesting them to take back what they have pushed over to us. Why the time line is drawn only after we were already a victim of the noise shifting?
3. We should put an upper limit for all the SJC South Flow Flights per year, so the economic growth of SJC can be aligned well with the life quality of Sunnyvale, Cupertino, Mountain View and Palo Alto people, where they have no benefit out of the SJC revenue at all.
4. The curfew fine part of SJC revenue should be put away for fund to alleviate the noise impact by the curfew violators, instead of just put on to the balance sheet as income of the airport. It doesn't sound right that local residents only pay the cost by hearing late night noise, and SJC only increases the revenue because of the curfew violation.

Thanks & Regards,

Tony Guan

On Thu, May 17, 2018 at 1:09 PM Kazmierczak, Matthew <[MKazmierczak@sjc.org](mailto:MKazmierczak@sjc.org)> wrote:

Dear Stakeholders,

Attached is the latest draft (5/17/18) of the report for the Ad Hoc Advisory Committee Report. Please note that this report is available on the Committee website:

[https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)

You can also find the most recent copy of the Appendix of this report that includes all the written public comments (received by me to date). You can find this appendix under the meeting date for May 18 or via the direct link here:

[https://www.flysanjose.com/sites/default/files/commission/Ad%20Hoc%20Advisory%20Committee%20Report%20-%20Appendix%20-%20Public%20Comments\\_2.pdf](https://www.flysanjose.com/sites/default/files/commission/Ad%20Hoc%20Advisory%20Committee%20Report%20-%20Appendix%20-%20Public%20Comments_2.pdf)

Tomorrow's meeting (5/18/18) will start at 1pm at the San José Airport in the Boeing/McDonnell Douglas Conference Room. Directions to our Administration Offices are located at:

[https://www.flysanjose.com/sites/default/files/commission/Directions%20to%20SJC%20Administration%20Offices\\_0.pdf](https://www.flysanjose.com/sites/default/files/commission/Directions%20to%20SJC%20Administration%20Offices_0.pdf)

Please remember to take your parking voucher with you so we can provide you so we can validate. Don't use your credit card as your parking voucher as we cannot validate those.

Thank you,

Matthew

**Matthew Kazmierczak** | Manager of Strategy and Policy

Director's Office

Office: [408.392.3640](tel:408.392.3640) | Mobile: [202.374.9098](tel:202.374.9098) | [mkazmierczak@sjc.org](mailto:mkazmierczak@sjc.org)



---

Mineta San José International Airport  
1701 Airport Blvd. Ste B-1130, San José, CA 95110

[flysanjose.com](http://flysanjose.com) | [facebook](#) | [twitter](#) | [linkedin](#)

## Kazmierczak, Matthew

---

**From:** Susumu Agari <>  
**Sent:** Thursday, May 17, 2018 2:06 PM  
**To:** mayor@sunnyvale.ca.gov  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov; Susumu Agari  
**Subject:** Airplane Noise Over Sunnyvale and Draft Report for Ad Hoc Committee

Dear Mayor Glenn Hendricks,

My wife and I are 33 year residents of Sunnyvale. We've lived in Serra Park neighborhood for most of this time and Sunnyvale was very peaceful until the FAA shifted airplane noise over Sunnyvale and Cupertino. I never write letters to elected officials but this incessant airplane noise over our house (on South Flow days) from before I wake up to when I'm trying to go to sleep has really disturbed our peaceful Sunnyvale community and is the first topic which has gotten me to write a letter.

The initial draft report for the Ad Hoc Committee appears to me that it does not represent the wishes of Sunnyvale residents CLEARLY and CRISPLY. Important suggestions that many of my neighbors have made to sharpen the recommendations for the FAA have been rejected by the report author. The report doesn't appear to give full voice of the residents and I appreciate your consideration in modifying the report to include many of the following points. In particular:

- The Report should include a map showing the two rails that have emerged over us. It should also include a map showing the dispersion that existed before the FAA started making changes in 2012 to prepare for Nextgen.
- The Report should include a statement that in 2012 airplane noise has been shifted west, HEAVILY impacting communities that didn't have much noise before. On South Flow days I can't even eat outside or work with my window open without stopping a conversation I'm having to let the downshifting of the airplane engines pass me by.
- The report should call for the FAA to provide written evaluations of all suggestions that address dispersion.
- The report should make strong asks/recommendations regardless of whether or not the FAA considers them feasible. We must propose and ask for what we want, otherwise, we will not get a satisfying solution to this incredible noise problem that was shifted away from other communities and over us without approval or warning.
  - o The report should clearly recommend that the FAA find alternatives to routing traffic on 'rails'. Rails concentrate noise and make per-flight noise louder. Creating rails, as Nextgen is doing, is simply not appropriate over noise-sensitive areas, which include densely populated communities like ours. The two rails that have been created over us need to be broken! If they are not, the traffic that is not on those rails will gravitate to them over time. SJC is the nation's fastest growing airport, according to SJ Mayor Liccardo, and the noise will only get worse.
  - o The report should clearly call on the FAA to recreate the dispersion we had prior to 2012, when airplanes were spread evenly across a corridor that was 2.5 miles wide over Sunnyvale. Residents attending the various meetings on this airplane noise have been united in this request.
  - o The FAA needs to calibrate their noise models to real-world conditions, including wind and temperature. We have been told that noise models are not calibrated to actual noise on the ground.
  - o The FAA needs to find ways to return to levels of per flight noise as quiet as we had before Nextgen.
  - o The FAA should prioritize Safety, Noise and then Efficiency, in that order, over noise-sensitive communities.
  - o The FAA should consider health as well as safety. The Report repeatedly emphasizes safety, but makes no mention of health.

Thanks you very much,  
Susumu Agari

## Kazmierczak, Matthew

---

**From:** Carol and David Lewis <>  
**Sent:** Thursday, May 17, 2018 3:01 PM  
**To:** Mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov; lisa.matichak@mountainview.gov  
**Subject:** Report on SJC South Flow Noise Issues

To Chairman Hendricks, Council Member Matichak et al.:

I would strongly encourage you to make the final report of our Advisory Committee as strong and as specific as possible. You need to make the point, in a very obvious way, that the FAA and changes they have brought about, combined with GPS navigation in newer aircraft, have concentrated air traffic into very small corridors, with every aircraft passing over exactly the same waypoint, making horrendous noise problems for those below those corridors and waypoints. Robert Holbrook has excellent graphics showing this problem that definitely should be included in your report. The real trick here is for the FAA and the airlines to figure out some way to spread out the air traffic and the consequent noise problems, which is only going to get worse with increasing traffic into SJC and possible 24 hr operation of the airport. The FAA needs to find some scheme that will get aircraft noise back to where it was 10 years ago, and the FAA needs to realistically consider the impacts of aircraft noise on those on the ground, and not just work to maximizing airline traffic and profits.

I would note that when we purchased our present house in Old Mountain View, on Oak Street, there was virtually no aircraft noise, aside from occasional SAR helicopters out of Moffett and occasional Air National Guard C-130's in and out of Moffett. Now, during south flow conditions, we frequently have noisy aircraft over our house every 1-2 minutes, at low altitude turning onto final approach for SJC. Many these are loud enough we can hear them with our windows closed, and the noise runs, on some days, from 6:30AM to past 11:00PM. I didn't buy a home with an aircraft noise problem—the FAA and the airlines conspired to bring this problem to me, and I would guess a potential home buyer, who happened to visit on a south flow day, wouldn't be so eager to purchase my home.

Another note, out of the scope of your committee, but directly related, is the other noise problems engendered by FAA action (or inaction). My daughter recently purchased a property in Los Altos, and built a new house here, at very considerable expense. With the changes arranged by the FAA, she now has all the northbound traffic into SFO routed through a waypoint almost directly over her house. Now, after a year in a new house, she and her husband are seriously considering selling the property and moving, to get away from the incessant aircraft noise. Is the FAA going to pay the cost of her move? The other thing we get to suffer from are the commuter flights for the ultra wealthy provided by SurfAir, whose customers have so much money they don't have to drive to work on our highways like most of us. For years, we have had SurfAir flights going over our house on the way to San Carlos Airport, frequently below minimum required altitudes, and in the noisiest single engine aircraft currently being flown. One note here is that SurfAir was supposedly purchasing new aircraft (Pilatus PC-12NG, with quieter 5-bladed propellers, but I have yet to see one of the new aircraft over our house). Now we have SurfAir flights, with the older Pilatus PC-12 with the 4-bladed propeller clearly going into Palo Alto Airport, at lower altitudes, with gear down, making much more noise. I assume the FAA thinks this is a wonderful idea, as SurfAir is making so much money, transporting the wealthy back and forth to work, and I would guess the weather air commuter on their aircraft don't worry at all about the impact on those living below their flight path.

Clearly the FAA needs to drastically change the way it does business, and what it considers in its decisions, and your report need to make the strongest possible case in that direction. The FAA is there to regulate aviation operations in the best interests of the citizens of the U.S., and not act as an arm on the Commerce Department, maximizing profits for commercial airlines and their owners.

--

*Carol and David Lewis*

## Kazmierczak, Matthew

---

**From:** Robert Holbrook <>  
**Sent:** Thursday, May 17, 2018 4:26 PM  
**To:** Kazmierczak, Matthew; mayor@sunnyvale.ca.gov  
**Cc:** lisa.matichak@gmail.com  
**Subject:** A few comments on Draft 9

Mayor Hendricks,

A few minor suggestions for the Report:

- On p13, the report states that the proposed ILS procedure was set to take effect in June 2018. I believe the publication date for this procedure was originally July 19, 2018.
- I suggest that item MM be added to items K and OO on p12. We should ask for a written response to all three of these items.

And a bigger issue:

- p3 “Evaluate and report on the consequences and impact of each mitigation measure in the spreadsheet in the appendix, prior to the implementation of any change”

I had thought the earlier version of this statement meant that we were asking for a written response to every item in the report, which would, of course, include feasibility. The addition of the last clause has transformed the meaning of this request for me, neutering it. I now read this as a request to the FAA to perform an impact assessment prior to taking a procedure live, which, I believe they are already required to do. I do not read this as a requirement to share this information with the community in advance of deciding to take the procedure live. **If the intent is to ask the FAA to do something they are not already required to do, that should be clarified.** As written, this request would not, in my opinion, prevent the situation we saw with the proposed ILS approach, where the procedure was set to be published (go live) on July 19<sup>th</sup> with the public comment period ending before the environmental assessment was complete.

I would like to suggest once again that the following item be added to the report as an addendum to **Request to the FAA #5:**

The Committee requests that when the FAA posts a procedure for public comment at the IFP gateway, environmental analyses, including noise assessments, pertaining to that procedure shall be posted along with it, and at the same time.

Robert Holbrook

## Kazmierczak, Matthew

---

**From:** Marie-Jo Fremont <>  
**Sent:** Thursday, May 17, 2018 4:44 PM  
**To:** District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; Glenn Hendricks; KleinCouncil@sunnyvale.ca.gov; svaidhyanathan@cupertino.org; sscharf@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; Mary-Lynne Bernald; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; Larry.Carr@morganhill.ca.gov; Gary C. Waldeck; Kou, Lydia; Filseth, Eric (Internal); Jean Mordo; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com  
**Cc:** Kazmierczak, Matthew  
**Subject:** Edit request to the Excel file attached to report of Ad Hoc Advisory Committee on South Flow Arrivals

Dear Committee Members,

In reviewing the latest materials for the meeting tomorrow, I saw that item 6 in my April 12 additional suggestions (see email below) has not been addressed.

I had proposed on March 8 a scenario to allow SJC south flow arrivals to use new flight paths on the western side of the Bay. The scenario was broken down into 3 distinct items (although they were all part of one scenario) and categorized under "Provide SJC with more airspace". On April 12, I had mentioned that the categorization was not appropriate and suggested to categorize items PP, QQ, and RR under a category such as "create new procedures". However, upon reviewing all materials today, I realized that they could be classified under an existing category.

**Please categorize items PP, QQ, and RR under the "Disperse flights" category because these 3 items are part of a scenario that has the same objective as item R, namely create additional paths to the West of current paths.** If items PP, QQ, and RR were implemented, then the FAA would have more space to create additional flight paths on the western side of the Bay. As shown below, item R is currently categorized under "Disperse flights" but items PP, QQ, and RR are currently categorized under a separate category "Provide SJC with more airspace".

R	Disperse flights	New parallel flight paths to West	Create additional flight paths to the West of current paths by vectoring planes toward different locations along the Bay.	The objective is to reduce the noise from JESN to ZORSA and beyond. Planes would be vectored off this rail alignment resulting in their crossing Hwy 1
---	------------------	-----------------------------------	---------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------

PP	Provide SJC with more airspace	Reduce SFO BDEGA West arrivals into SFO	Route more SFO arrivals through the BDEGA East over the Bay so that there are fewer BDEGA West arrivals from the North.	Balanced Runway usage is the goal. If runways are free, they should use it.
QQ	Provide SJC with more airspace	Route SFO SERFR South arrivals over South East corner of Bay	Have SERFR South arrivals join DYAMD or fly a similar route parallel to and/or above DYAMD.	Could also address the noise problem. Noise could be increased because SERFR is a SJC arrival route that flies under
RR	Provide SJC with more airspace	Route SFO West oceanic arrivals to BDEGA over ocean and change vectors of BDEGA West arrivals	Have SFO oceanic arrivals from the West join BDEGA over the ocean West of the Golden Gate Bridge rather than use MENLO. SJC South Flow would then only compete with BDEGA West arrivals. Vector BDEGA West arrivals to maximize vertical and lateral separations for aircraft flying in opposite directions (BDEGA flights going North and SJC flights going South).	This is the Golden Gate 7 approach. Must be done with adequate time

Note that I cannot speak for item SS as I am not the author of that suggestion.

Thank you for considering my request.

Best regards,

Marie-Jo Fremont

----- Forwarded message -----

From: **Marie-Jo Fremont** <>

Date: Thu, Apr 12, 2018 at 9:34 AM

Subject: Additional Suggestions on SJC South Flow arrivals

To: [District1@sanjoseca.gov](mailto:District1@sanjoseca.gov), District10 San Jose <[District10@sanjoseca.gov](mailto:District10@sanjoseca.gov)>, [District3@sanjoseca.gov](mailto:District3@sanjoseca.gov), [Lisa.Matichak@mountainview.gov](mailto:Lisa.Matichak@mountainview.gov), [lennysiegel@mountainview.gov](mailto:lennysiegel@mountainview.gov), [toneill@santaclaraca.gov](mailto:toneill@santaclaraca.gov), [HendricksCouncil@sunnyvale.ca.gov](mailto:HendricksCouncil@sunnyvale.ca.gov), [KleinCouncil@sunnyvale.ca.gov](mailto:KleinCouncil@sunnyvale.ca.gov), [svaidhyanathan@cupertino.org](mailto:svaidhyanathan@cupertino.org), [sscharf@cupertino.org](mailto:sscharf@cupertino.org), [rturner@cityofmontesereno.org](mailto:rturner@cityofmontesereno.org), [ewolsheimer@cityofmontesereno.org](mailto:ewolsheimer@cityofmontesereno.org), Mary-Lynne Bernald <[mlbernal@saratoga.ca.us](mailto:mlbernal@saratoga.ca.us)>, [hmiller@saratoga.ca.us](mailto:hmiller@saratoga.ca.us), [Rene.Spring@morganhill.ca.gov](mailto:Rene.Spring@morganhill.ca.gov), [Larry.Carr@morganhill.ca.gov](mailto:Larry.Carr@morganhill.ca.gov), [GCWaldeck@losaltoshills.ca.gov](mailto:GCWaldeck@losaltoshills.ca.gov), "Kou, Lydia" <[Lydia.Kou@cityofpaloalto.org](mailto:Lydia.Kou@cityofpaloalto.org)>, "Filseth, Eric (Internal)" <[eric.filseth@cityofpaloalto.org](mailto:eric.filseth@cityofpaloalto.org)>, Jean Mordo <[jmordo@losaltosca.gov](mailto:jmordo@losaltosca.gov)>, [lleeeng@losaltosca.gov](mailto:lleeeng@losaltosca.gov), [kwatanabe@santaclaraca.gov](mailto:kwatanabe@santaclaraca.gov), [jeffc@cityofcampbell.com](mailto:jeffc@cityofcampbell.com)

Dear Committee member,

First and foremost, thank you for your continued work and support to resolve the severe noise problems created by the FAA NextGen implementation in our Metroplex, and in particular the changes to the SJC south flow arrivals.

I was not able to attend the March 23, 2018 meeting but listened to the audio tape and reviewed the associated materials.

Below are some proposed additional suggestions that I would like the Committee to consider:

**1. Ask the FAA to share what the airlines requested when they asked for new procedures.**

a. Having examples of previous requests would help the Committee understand how to better communicate its needs to the FAA.

**2. Ask the FAA to share the Environmental Assessment report (data, analyses, and conclusions) for the changes in the SJC South Flow procedures.**

a. The FAA presentation on March 23, 2018 demonstrates clearly that changes have occurred. Did the FAA conduct an environmental analysis? If so, can the FAA share the report?

**3. Ask the FAA if the SJC south flow flights that are vectored north to turn over Palo Alto come in and out of the SJC airspace.** If they do, does this create a potential safety issue given the proximity of the Palo Alto Airport (PAO) and the SFO SERFR arrivals that routinely fly below 4,000 ft near the MENLO waypoint?

Anecdotal evidence: I routinely experience SJC south flow arrivals over my Palo Alto house at altitudes below 2,500 ft (few are between 2500 ft and 3,000 ft; I have also experienced some as low as 1,800 ft).

**4. Simplify Mitigation List spreadsheet**

a. **Remove Feasibility column** because Feasibility can encompass multiple aspects (such as technical, change management, acceptance by stakeholders). Instead ask the FAA to assess the technical feasibility of the proposals and the implementation impact on Air Traffic Control.

b. **Create fewer categories of proposed change and group individual line items.** Examples of possible new categories:

i. "Modify existing procedures": this category could include things such as raise altitude, limit speed, modify ground track.

ii. "Create new procedures": this category could include things such as create new procedure on the east side, create charted visual procedure

iii. "Vector planes over large area": this category could include things such as create multiple vectoring paths, rotate planes between vectoring paths, route planes further north and west

**5. Stay away from using technical terms such as "OPD" and "SFO airspace"** because they have serious implications for people on the ground and the FAA may interpret these words literally

a. "Gliding" or "Flying at idle power" are much better words than OPD (Optimized Profile Descent) because they are easier to understand and they probably reflect what you want. OPD is a procedure that does NOT require planes to fly idle. Although portrayed as "gliding down the banister" on the FAA literature, OPDs are not quiet at low altitudes. Many residents who live under the SERFR OPD (SERFR is an SFO arrival route) can attest to the high level of noise created by the planes on that procedure. Furthermore, OPDs concentrate planes in a narrow corridor, which is why residents have labeled them "sacrificial noise corridors". Please do not request OPDs for SJC south

flow arrival procedures unless flying altitudes over residential areas are at least 7,000 ft Above Ground Level.

b. Any reference to "SFO airspace" may be interpreted by the FAA as a request to modify the existing Class B SFO airspace. Requesting a change to the SFO airspace is a big undertaking.

**6. Combine items PP, QQ, and RR into one item.**

a. In my March 8 email, I proposed a scenario to allow SJC south flow arrivals to use new flight paths. This scenario was built upon 3 different actions that must all take place to represent a viable solution.

b. In addition, the proposed changes should not be labeled as a request to "Provide SJC with more airspace" given that the new SJC south flow flight paths may not conflict with the existing SFO Class B airspace. The proposed changes should be under a broad category such as "create new procedures".

Finally, I have attached below different images of the airspace controlled by each airport in the Bay area to help committee members better understand the current layout and constraints.

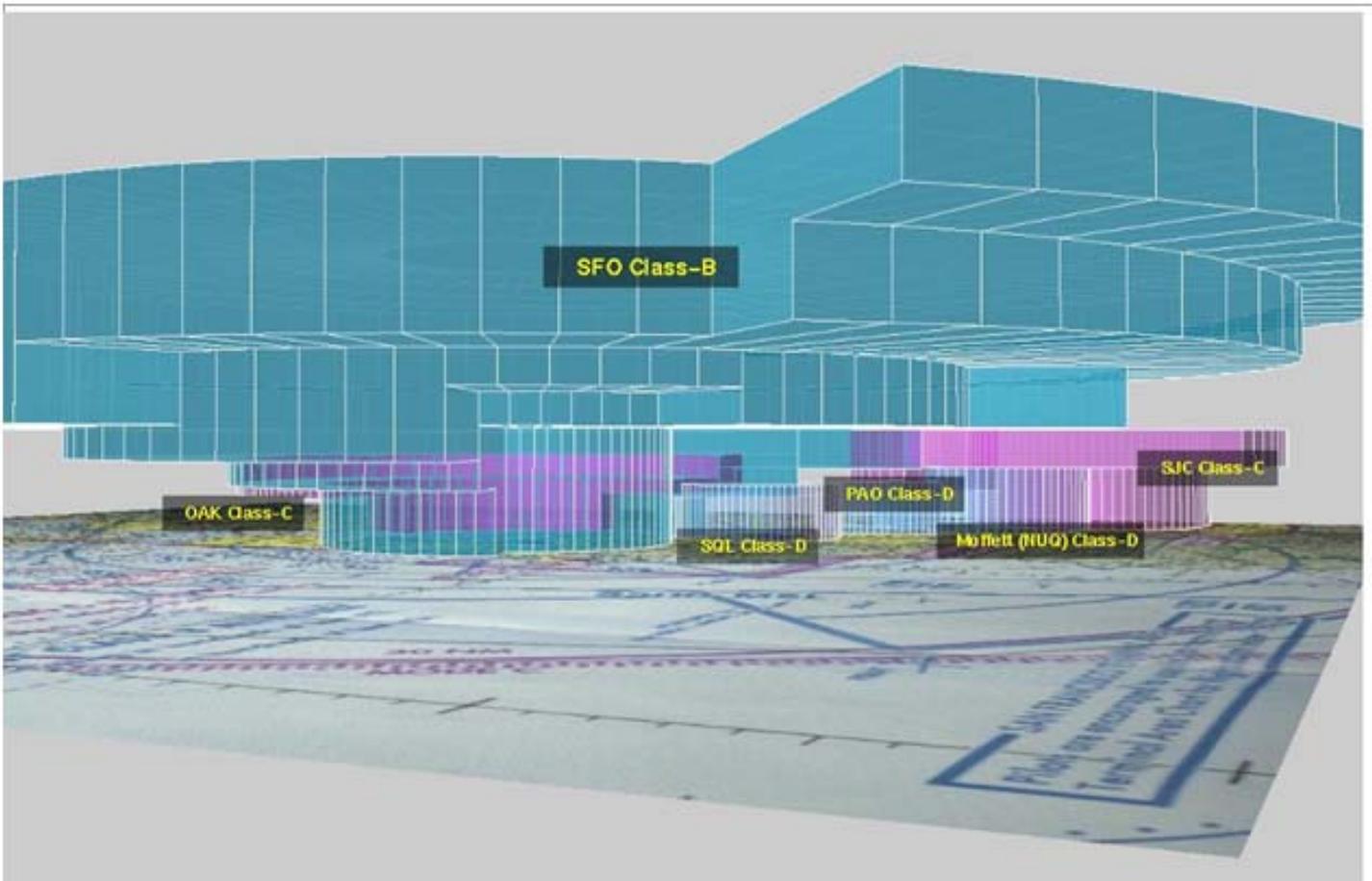
Thank you for considering my input. I plan to attend the meeting tomorrow.

Best regards,

Marie-Jo Fremont

Palo Alto resident





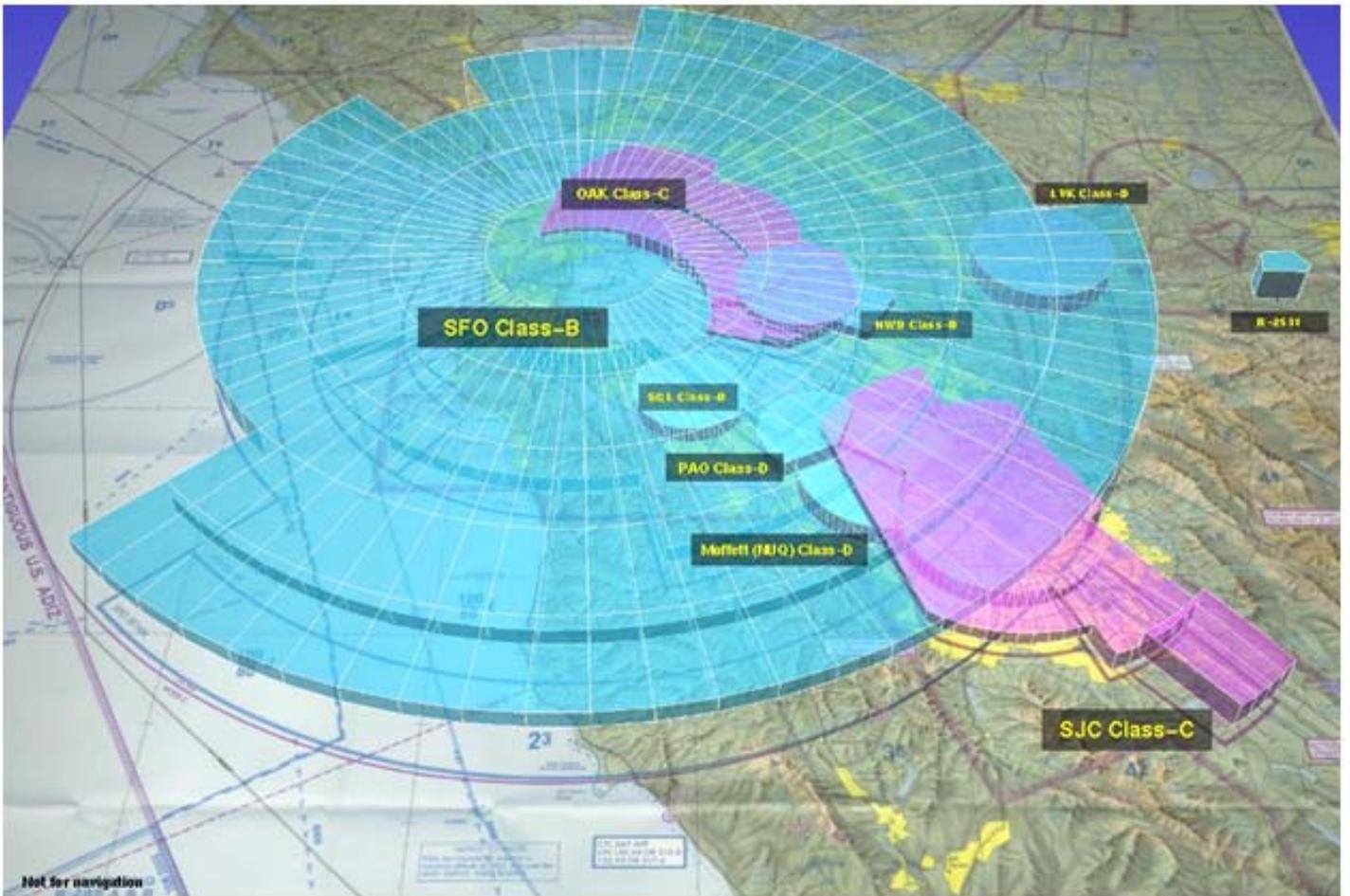
"View from above the Pacific Ocean"

### SAN FRANCISCO Class-B airspace

Not to scale. Vertical scaling is approx. 6.075:1 for better visualization of altitudes.  
Not to be used for navigation

3D models and image Created by: Gaber Nagy, using EQUINOX-3D:  
<http://www.equinox3d.com>

"Fly-Through" animations coming soon!



"A view from space (~120000 feet)"

**SAN FRANCISCO Class-B airspace**

Not to scale. Vertical scaling is approx. 3,037:1 for better visualization of altitudes (1 horizontal unit= 1NM, 1 vertical unit =2000 feet).

3D models and image Created by: Gabor Nagy, using EQUINOX-3D™, <http://www.equinox3d.com/flying.html>

"Fly-through" animations coming soon!

## **Kazmierczak, Matthew**

---

**From:** Grace Chin <>  
**Sent:** Thursday, May 17, 2018 5:36 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Cc:** Save My Sunny Sky Group; Council AnswerPoint  
**Subject:** My comments for the South Flow Final Draft Report

Dear Mayor Hendricks & Matthew,

Since 2012, the FAA executed a series of major flight path changes without any notice which shifted and concentrated the flight path west over 2 miles into a narrow rail of planes. These flight path changes shifted the flight path over to quiet Sunnyvale neighborhoods which previously had no commercial airplanes overhead.

Recently, the annual passenger of SJC airport has grown by double-digit percentages for 2016 & 2017 and will have a billion dollars' airport expansion soon. It means during south flow day we will have more and more airplanes noise pollution day by day.

Therefore, the wider dispersion back to pre 2012 is necessary to alleviate the pain created by FAA's narrow rails. Moreover, there is only one sky so it is a Zero –Sum battlefield. The less people are being impacted the better result we get. Therefore, East Approach should be used as much as possible (50 % or more) since this approach leads to significantly less residential noise impact.

Residents are being bombed several years. Due to many people's effort, finally we got a 7 month Ad hoc committee to solve this dramatic problem for us. So the report should state FAA needs to provide written response for all suggestions listed in the ad hoc committee spreadsheet. If FAA does not deem a suggestion feasible, then FAA needs to provide a clear technical explanation that details why a suggestion is not feasible.

The followings are requests for two sections of the final report:

### **Fly More Dispersed Western Approach Section**

As a Sunnyvale resident, I am not satisfied with Sunnyvale's proposal under this section. Sunnyvale wrote, "dispersion would mean even distribution of aircraft between the ZORSA and PUCKK waypoints". That means Sunnyvale residents need to absorb those airplane noises together. Originally, I expect it is greater dispersion not limited to in the city of Sunnyvale only. Why do Sunnyvale residents need to absorb 15% air traffic noise during south flow day especially SJC has more and more airplanes than it used to have. SJC earns money and city of San Jose gets taxes. What will our city of Sunnyvale get? More and more airplane noise pollution day by day. Before 2016 except military airplanes, I seldom saw commercial airplanes flying over my house. Therefore, please revert back to the full dispersion levels and flight path prior to 2012.

Mountain View mentioned it in their draft report. "Mountain View would like to see the dispersion that existed before 2012, even if that means returning some control to pilots. Can airplanes that are capable of turns that are tighter than the RNP turn begin their turn prior to reaching ZORSA, dispersing traffic to the East of the RNP rail? Can traffic on the STAR procedures make their turn at or after JESEN at slightly different locations and with slightly different headings, perhaps by recreating PUCKK as the terminal waypoint (infrequently reached) on the arrival procedure? This could 'spray' traffic across Sunnyvale and Mountain View and along the length of Hwy 101 as before." Please also mention it in the report. Sunnyvale would like to revert back to historical "pre-2012" flight paths/procedures.

## **East Approach Section**

**"When the south flow arrival pattern is initiated for San Jose International (SJC) airport, most traffic flies toward and through the ZORSA waypoint over San Jose, Cupertino, Sunnyvale, Mountain View and Palo Alto makes a right-hand turn to intersect with the final approach pattern in order to land.**

**In reviewing radar traffic, there is some amount of traffic that lands at SJC during south flow that is vectored to land from the East. That traffic comes in and makes a left-hand turn to intersect the final approach. "**

**East Approach is the best way to alleviate south flow airplane noise for all impacted cities like Palo Alto/Los Altos/Mountain View/Sunnyvale/Cupertino/Campbell/West San Jose, etc. Please raise the percentage of usage (50% or more) in the draft report for East Approach. Moreover, please don't decrease the usage of East Approach to further shift your airplane noise to the impacted cities mentioned above.**

**The video clip of the East Approach suggestion from FAA can be found at the 2:29:40 mark in the following YouTube link - <https://youtu.be/PUBy6Hf0kyc>**

**Sincerely,  
Grace**

## Kazmierczak, Matthew

---

**From:** Christine Imazumi <>  
**Sent:** Thursday, May 17, 2018 5:46 PM  
**To:** mayor@sunnyvale.ca.gov  
**Cc:** Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Airplane Noise

Dear Mayor Hendricks,

Airplane noise has shifted and is impacting our Sunnyvale community where we didn't have much noise before. In the past, we only heard an occasional plane flying in or out of Moffett Field. Now when relaxing, gardening or playing outside, we can hear multiple planes flying overhead. The FAA needs to find alternative ways to help our noise-sensitive community return to our previous peace and quiet. The FAA could recreate the dispersion prior to 2012 where planes scattered evenly across a 2.5 mile-wide corridor over Sunnyvale. This is very important to my neighbors and myself. Thank you,

Christine Imazumi  
Carson Drive  
Sunnyvale, CA 94086

## Kazmierczak, Matthew

---

**From:** udin salim <>  
**Sent:** Thursday, May 17, 2018 5:59 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Ad Hoc Advisory Committee on South Flow Arrivals  
**Attachments:** flightpaths.pdf

Dear Mayor Hendricks and Mr. Kazmierczak,

First of all, I would like to thank you guys for leading the effort to balance the request from all interested parties regarding South Flow Arrivals for San Jose Airport.

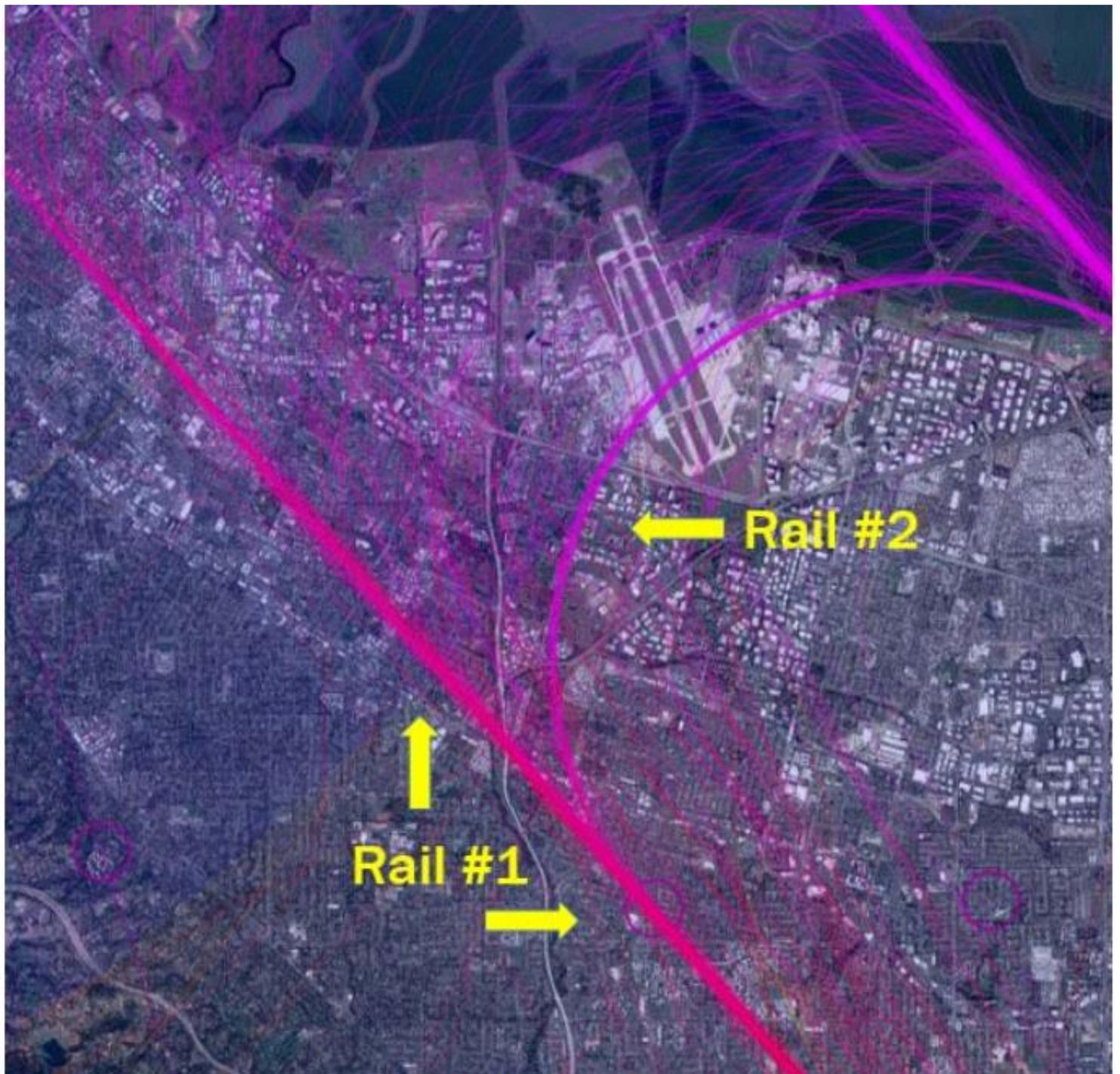
I would like to emphasize one main issue regarding the South Flow Arrivals, and it's not all about me.

I managed to get a hold of flight paths pattern in 2011 and in 2016. Please see attachment below. Beginning in 2012, FAA implemented a series of flight path changes which resulted in concentrating flight path west over 2 miles into narrow path. The unlucky residents underneath the narrow rail of planes are now bombarded by the noise and other pollution. To be fair, we can't have a narrow flight path. And ideally, the flight paths should be reverted back to flight paths prior to 2012. One argument is for the flight path restoration is that you can't intentionally take away people's investment who made decision based on known existing flight paths. Please give a lot of thought into this request.

And if everything equal, Mayor Hendricks should put more weight on Sunnyvale residents interests. After all, sunnyvale residents elected you to represent us for all issues.

Sincerely,  
Udin Salim

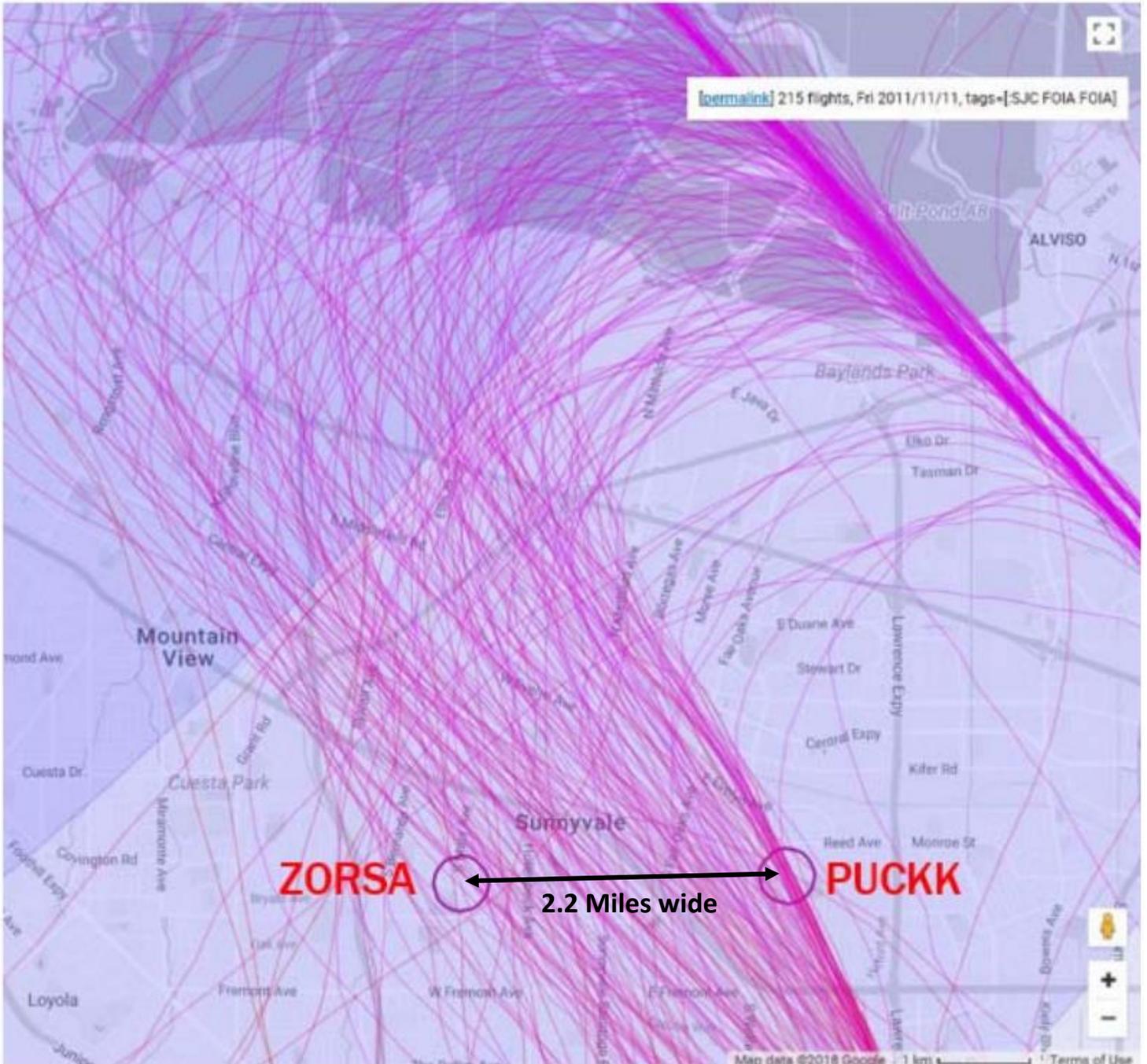
# AFTER FLIGHT PATH CHANGES / CURRENT



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

# FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

## **Kazmierczak, Matthew**

---

**From:** Bruce <>  
**Sent:** Thursday, May 17, 2018 6:50 PM  
**To:** Kazmierczak, Matthew  
**Subject:** Aircraft Noise

Dear Committee Members,

As a long time Sunnyvale resident, I ask your committee to use the strongest possible language to urge the FAA to go back to pre-2012 flight dispersion during South Flow operations. This is the only fair solution to the noise and pollution issues.

NextGen has been a horrible program for residents and the best solution is to go back to pre-NextGen flight patterns. Going back to these pre-NextGen flight paths should be easy to do. Those historical flight paths are proven safe and were in place for well over a decade without any issues.

In addition, please clearly state in the report that South Flow traffic currently being routed to San Jose Airport from the East (over San Jose and Milpitas) must not be shifted over Sunnyvale as FAA technology evolves.

Thank you for including my concerns in the report.

Bruce Euzent

Dominion Avenue

## Kazmierczak, Matthew

---

**From:** Vivian <>  
**Sent:** Thursday, May 17, 2018 7:00 PM  
**To:** Kazmierczak, Matthew  
**Subject:** Southbay air traffic

Dear Committee,

As a long time Sunnyvale resident - 42 years , I ask your committee to use the strongest possible language to state that South Flow traffic currently being routed to SJC from the East (San Jose and Milpitas) must not be shifted over Sunnyvale as FAA technology changes.

Please also insist the FAA to go back to pre-2012 flight patterns during South Flow operations. This is the only fair solution to the current noise and pollution issues. As it is now, an unfair burden is being put upon those residents that live under the "Rail". There can be no Rails. Rails are unfair and there should not be any narrow single-line flight paths.

The FAA has a responsibility to keep air travel safe, but they also have a responsibility to protect the noise and health impacts to residents. The safety is priority one, followed by noise (and pollution) and **then** efficiency – in that order. Please reflect this in your report!

Thank you for including my concerns,

Vivian Euzent  
Dominion Avenue  
Sunnyvale

Sent from my BlackBerry - the most secure mobile device

## Kazmierczak, Matthew

---

**From:** Colleen Vandevoorde <>  
**Sent:** Thursday, May 17, 2018 7:13 PM  
**To:** LAlamos@sunnyvale.ca.gov; mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Subject:** NextGen flight paths for SJC: Please revert to the pre-2012 flight path!

Dear Committee,

San Jose Airport is the fastest growing airport in the United States, and during South Flow operations the impact to those families that live under the current NextGen flight paths is horrific. To think this will grow in noise and pollution and emissions, I can't image such terrible living conditions!

I urge your Committee to advise the FAA in clear and strong language to go back to the pre-2012 flight dispersion. It is truly the only fair and right solution to this noise and pollution issue. The pre-2012 flight paths were fair to all residents and were in place for many, many years without any issues.

Please clearly indicate that the Committee urges the FAA to prioritize Safety, Noise and Efficiency – in that order. Flight safety is crucial, but consideration of those on the ground is of the utmost importance as well. Dispersing the flights reduces the noise and health consequences for those under the "Rail" and shares the burden equally among a range of residences.

Thank you for including these crucial issues in your report.

Colleen Vandevoorde  
Corral Avenue, Sunnyvale

## Kazmierczak, Matthew

---

**From:** Colleen Vandevoorde <>  
**Sent:** Thursday, May 17, 2018 7:13 PM  
**To:** LAlamos@sunnyvale.ca.gov; mayor@sunnyvale.ca.gov; Kazmierczak, Matthew  
**Subject:** NextGen flight paths for SJC: Please revert to the pre-2012 flight path!

Dear Committee,

San Jose Airport is the fastest growing airport in the United States, and during South Flow operations the impact to those families that live under the current NextGen flight paths is horrific. To think this will grow in noise and pollution and emissions, I can't image such terrible living conditions!

I urge your Committee to advise the FAA in clear and strong language to go back to the pre-2012 flight dispersion. It is truly the only fair and right solution to this noise and pollution issue. The pre-2012 flight paths were fair to all residents and were in place for many, many years without any issues.

Please clearly indicate that the Committee urges the FAA to prioritize Safety, Noise and Efficiency – in that order. Flight safety is crucial, but consideration of those on the ground is of the utmost importance as well. Dispersing the flights reduces the noise and health consequences for those under the "Rail" and shares the burden equally among a range of residences.

Thank you for including these crucial issues in your report.

Colleen Vandevoorde  
Corral Avenue, Sunnyvale

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Thursday, May 17, 2018 8:41 PM  
**To:** District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; HendricksCouncil@sunnyvale.ca.gov; KleinCouncil@sunnyvale.ca.gov; svaidthyanathan@cupertino.org; sscharf@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; mlberald@saratoga.ca.us; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; Larry.Carr@morganhill.ca.gov; GCWaldeck@losaltoshills.ca.gov; Lydia.Kou@cityofpaloalto.org; eric.filseth@cityofpaloalto.org; jmordo@losaltosca.gov; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com; bnunez@ci.milpitas.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov; LAlamos@sunnyvale.ca.gov; Mayor AnswerPoint  
**Subject:** Recommended Changes to AD HOC COMMITTEE REPORT - Draft 9 version of report  
**Attachments:** BEFORE AND AFTER FLIGHT PATH CHANGES\_1.pdf; Ad Hoc report updates from Jen\_May 17\_V2.docx; Ad Hoc report updates from Jen\_May 17\_V2.pdf

Hello Ad Hoc Committee Members:

Thank you all for your dedication and time spent in trying to solve the San Jose Airport south flow issue.

I am writing to you regarding draft 9 (May 17, 2018) of the Ad Hoc report.

After discussions with many residents, the following are recommendations which are currently lacking in the existing Ad Hoc Committee report. Without these enhancements, the report lacks clarity, and desired requests are likely to be misinterpreted or ignored.

The memo below is divided into four sub-sections: (This document in MS Word and PDF format is attached)

1. REQUESTED CHANGES OVERVIEW -Quick summary of the requested addl info from the residents
2. VERBIAGE DETAILS - Section detailing where to embed these suggestions in the report
3. EXPLANATION DETAILING WHY THE REQUESTED CHANGE IS NECESSARY
4. Appendixes and maps attached

-

### **REQUESTED CHANGES - OVERVIEW**

These important items are currently missing or are not clear in draft 9 (May 17, 2018) of the Ad Hoc report-

1. **The root cause of the issue is never specified in the report**, and this information needs to be included
  - Root cause - A series of major flight path changes implemented by the FAA beginning in early 2012, which has resulted in a significant westward shift and concentrating of the air traffic corridor.

2. **Over densely populated residential areas, the FAA should prioritize safety, impact to communities, then efficiency *In that order*** (i.e. over Metroplexes). This priority statement should be included in the report.

3. **Updates For the section titled “Fly Other dispersed Approach”** page 10

- **Change the percentage to 21.3%, which is the 5 year average** of historical usage of the East approach from Jan 1, 2013 to July 2017
- **A published FAA East approach should be explored (per recommendation directly from FAA personnel during Ad hoc Committee meeting on Feb 23, 2018).** This is not clearly specified in the report.
- **The current east approach occurs through vectoring, and this percentage is quickly decreasing.** The number of planes flying the East approach needs to be preserved at the 5 year average of 21.3%, and these East SJC planes should not be “rolled / shifted” into the Western rail.

4. **Updates For the section titled “Fly More Dispersed Western Approach”** page 8

- **Embed Before and After pictures** showing the prior dispersion and resulting narrow flight path (rail) directly into the section titled “Fly More Dispersed Western Approach”. Pictures attached below in file titled “BEFORE AND AFTER” and are actual flight tracks created via FAA data.
- **Include clear instructions stating the desired dispersion level should be reverted back to historical 2011 levels** (flight path 2.3 miles wide). See attachment “BEFORE AND AFTER”.
- **A clear statement that the narrow flight paths (rails) need to be broken,** and that the rails significantly impact residents

**VERBIAGE DETAILS - SUGGESTED:** (Changes specified in **red**)

**Suggestion 1- Root cause of the issue:**

Page 6 - Paragraph 2 - Section “What Are South Flow Operations?”:



More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. **Since 2015, In recent years,** new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and narrowly concentrated arrival patterns, especially over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto. **In addition, beginning in 2012, the FAA implemented a series of changes to the SJC south flow arrival flight path, which has resulted in a significant shift westward and concentrating of this air traffic corridor. Airplanes that were previously flying in a corridor approximately 2.5 miles wide are now flying along very narrow flight paths, often called “rails”.** Use of the NextGen technology has increased per-flight noise for residents. While this may have reduced noise for some residents, noise has definitely increased for those residents living directly under the more precise arrival and approach flight paths.

**Suggestion 2 - Over densely populated residential areas, the FAA should prioritize safety, impact to communities, then efficiency *In that order***

Place verbiage somewhere in the report –

Perhaps on page 2 Section “South Flow and the Bay Area Metroplex”



Over densely populated residential areas, such as the Bay Area metroplex, the FAA should prioritize safety, impact to communities, then efficiency *in that order*.



**Suggestion 3 - Updates For the section titled “Fly Other dispersed Approach” page 10 / Paragraph 3:**

Request to the FAA #2: The Ad Hoc Committee requests the FAA maintain ~~the current percentage of use (10%) of the Eastern approach for south-flow arrivals.~~ the percentage of flights directed to the Eastern approach at the five-year average for Jan 1, 2013 to July 31, 2017. During this period, 21.3% of all South flow arrivals approached from the East.

During the course of the Ad Hoc committee meetings, two suggested mitigations were offered as solutions to the SJC south flow issue. The first solution was a possible Chartered Visual Approach, and the second was to explore the feasibility of a published Eastern approach.

**Overview:**

In the past, the Eastern approach into San Jose Airport has handled a significant portion of South flow traffic. However, in recent years, the percentage of flights approaching from the east has decreased. This has occurred because the East approaching flights are vectored by FAA Air Traffic control (ATC), and the percentage of ATC vectored flights has decreased with time. This has effectively shifted flights from the East approach onto the newly formed Western “rail” over cities like Sunnyvale, Cupertino, and Mountain View. If nothing is done, use of the Eastern approach will continue to drop, effectively shifting more air traffic to the Western rail.

**Page 10 paragraph 6 – Section Fly Other Dispersed Approach**

The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See spreadsheet items M, N, P). The Ad Hoc Committee is requesting written responses from the FAA to these items.

Regardless of the outcome of this evaluation, the Committee requests the FAA not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC. It is important we do not reduce the amount of traffic using this path. ~~The East approach percentage should be maintained at approximately 21.3% (The five year average from 11/13/13 to 12/31/17).~~

**Suggestion 4 - Updates For the section titled “Fly More Dispersed Western Approach” page**

**Copy of Info from R. Holbrook regarding dispersion – Recommended text to be included in Ad hoc report**

## • Fly More Dispersed Western Approach

Prior to the implementation of NextGen, aircraft were dispersed over a broader area of air space thereby limiting concentrated negative effects on residents and neighborhoods, *see figure 1*. A dramatic increase in noise complaints resulted from the implementation of NextGen. NextGen, a program which switched a radar-based approach to a GPS approach, has *resulted in tools and procedures that create a concentration of flight paths. Two 'rails' have emerged over our communities and residents near these rails bear the brunt of airplane noise, see figure 2*. The use of these rails has also resulted in a significant westward shift of the corridor of air traffic in recent years.

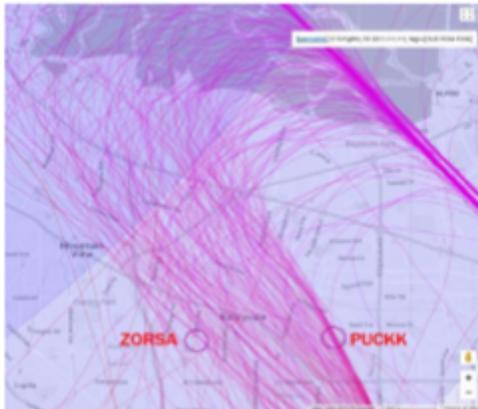


Figure 1. Dispersion prior to 2012. (11/11/2011)  
ZORSA is ~2nm (2.3 miles) west of PUCKK

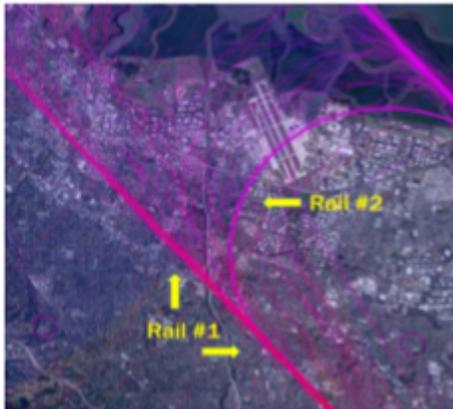


Figure 2. Two rails after Nextgen. (3/11/2016)

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings. *The Committee has reason to believe that if nothing is done to address dispersion, over time still more concentration will occur as flights increasingly gravitate to the rails.*

*The Committee finds that the creation of heavily-used 'rails' over highly populated areas pits neighborhoods against one another, sows distrust and seeds deep frustration. People tend to focus on their narrow interests when property values, health and well-being are at stake; community spirit suffers.*

*Directionally, the Committee recommends that the FAA drive toward: 1) alternatives to routing airplanes over fixed rails; 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 1).*

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a

---

more dispersed distribution of aircraft. (Using the success criteria listed below). *In addition, the Committee is requesting the FAA to review items Q through CC in the spreadsheet and provide a written response addressing the feasibility of their implementation.*

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of "how" to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

### San Jose

## **EXPLANATION DETAILING WHY THE REQUESTED CHANGE IS NECESSARY:**

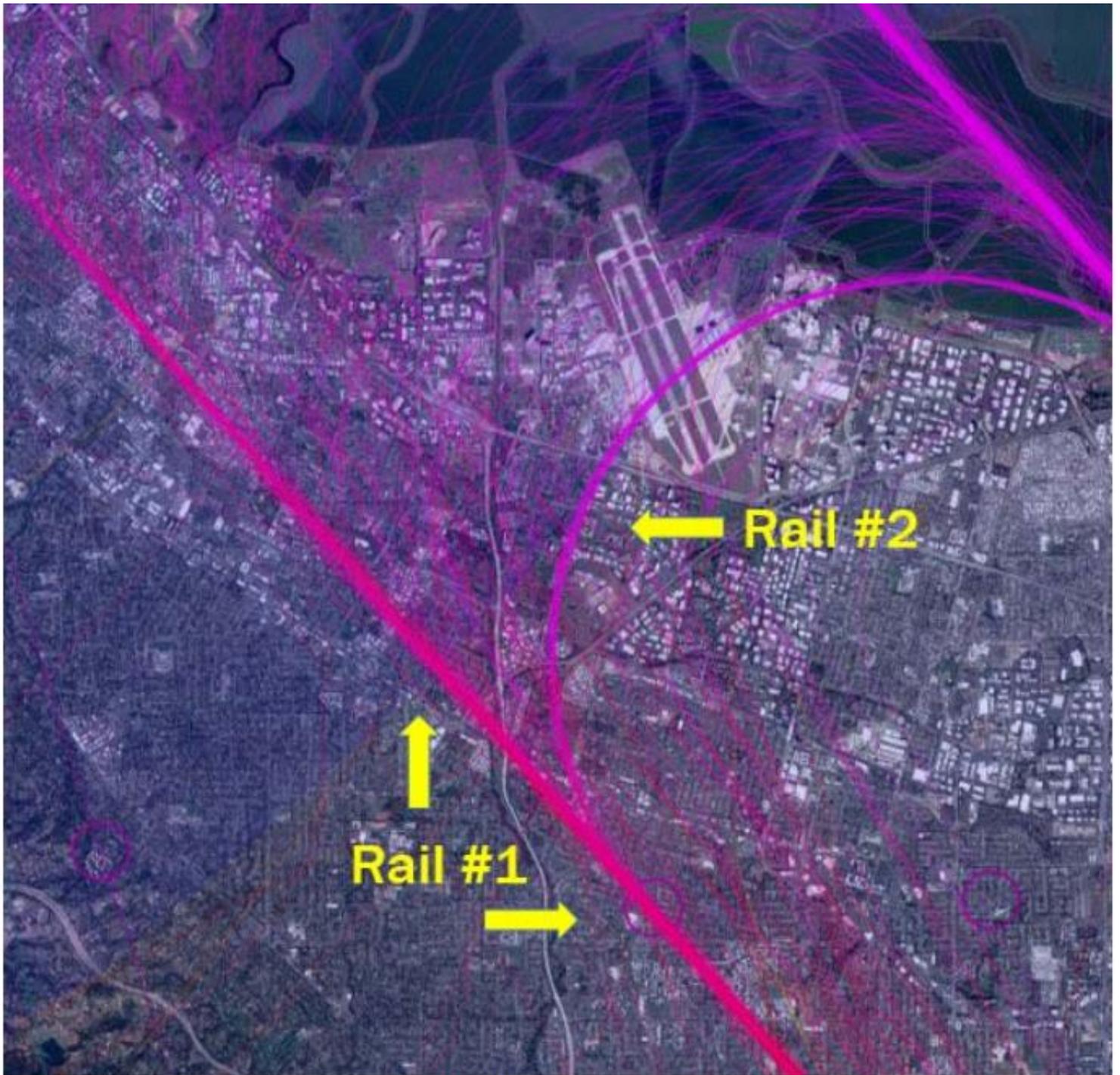
1. **Root cause** is necessary, because it clearly indicates that the flight path was shifted by the FAA. The path was shifted west by miles and concentrated into a narrow air traffic corridor, and the report never clearly acknowledges this fact. Without knowing what actually occurred, there is likely less motivation by the FAA to correct the issue or solve the problem for residents. The FAA caused this problem, and they need to fix it. The flight path changes involved a series of implementations beginning in early 2012. That fact needs to be clear in the report. FAA flight **plates** are available for reference showing the major changes in flight path instructions between 2012 and 2015/ 2016.
2. **FAA priority** - During the AdHoc Committee meetings, it has become apparent that the FAA is prioritizing efficiency over airplane noise. For example, there was a series of meetings between the FAA and Southwest airlines executives to discuss the new SJC RNP path; No city officials nor residents were invited to attend, despite direct impact to these cities. This indirectly indicates a close relationship between the airlines and the FAA, potentially at the expense of residents. In dense residential areas, quality of life of citizens on the ground must take priority over efficiency.
3. **Eastern approach 5 year average is 21.3%, and that is where the usage percentage should be set.** To reduce the usage amount to 10% (as currently shows in the report p 10) is effectively shifting airplane noise from the Eastern approach to the Western approach, since the number of flights has already been reduced in recent years. We are simply trying to get back to the 5 year average, before much of the air traffic was shifted to the Western rail. To set the percentage at 10% would be to accept the air traffic shifting that has already occurred through the FAA.
4. **Embedded flight tracks** - Although residents have attempted multiple times to have flight tracks showing the “before” and “after” dispersion embedded directly into the report (page 8), these requests have been rejected. (See attachment below of the “before” and “after” flight tracks.)

The embedded flight tracks are necessary, since the FAA and various ad hoc committee members have been confused at the expected dispersion level (miles wide) and the definition of the narrow flight paths (rails). Without these pictures, the dispersion level & rails are unclear. Even at the last Ad Hoc committee meeting, FAA personnel were clearly still confused as to the desired dispersion level (2.3 miles wide) & what the residents are defining as the narrow flight path (rail).

FAA personnel evaluating the report likely will not have attended the Committee meetings, so expectations need to be clear in the report & it is the responsibility of this committee to make this “ask” clear. Only pictures ensure proper understanding. There can be no rail, and dispersion needs to be miles wide.

Thanks,  
Jennifer Tasseff

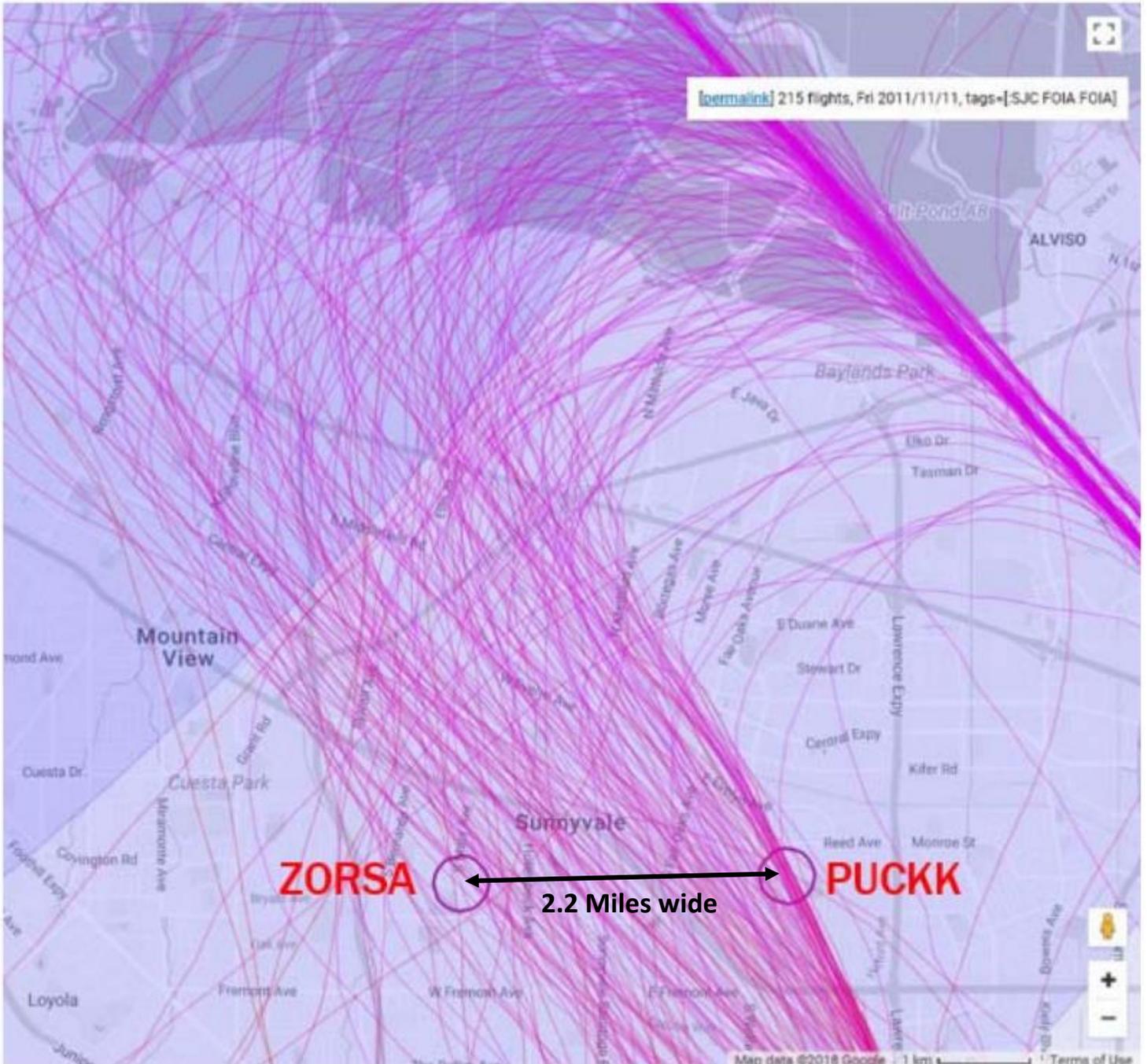
# AFTER FLIGHT PATH CHANGES / CURRENT



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

# FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

Hello Ad Hoc Committee Members:

Thank you all for your dedication and time spent in trying to solve the San Jose Airport south flow issue.

I am writing to you regarding Draft 9 (May 17, 2018) of the Ad Hoc report.

After discussions with many residents, the following are recommendations which are currently lacking in the existing Ad Hoc Committee report. Without these enhancements, the report lacks clarity, and desired requests are likely to be misinterpreted or ignored.

The memo below is divided into three sub-sections:

1. REQUESTED CHANGES OVERVIEW -Quick summary of the requested addl info from the residents
2. VERBIAGE DETAILS - Section detailing where to embed these suggestions in the report
3. EXPLANATION DETAILING WHY THE REQUESTED CHANGE IS NECESSARY

### **REQUESTED CHANGES - OVERVIEW**

These important items are currently missing or are not clear in draft 9 (May 17, 2018) of the Ad Hoc report-

1. **The root cause of the issue is never specified in the report**, and this information needs to be included
  - Root cause - A series of major flight path changes implemented by the FAA beginning in early 2012, which has resulted in a significant westward shift and concentrating of the air traffic corridor.
2. **Over densely populated residential areas, the FAA should prioritize safety, impact to communities, then efficiency *In that order*** (i.e. over Metroplexes). This priority statement should be included in the report.
3. **Updates For the section titled “Fly Other dispersed Approach”** page 10
  - **Change the percentage to 21.3%, which is the 5 year average** of historical usage of the East approach from Jan 1, 2013 to July 2017
  - **A published FAA East approach should be explored (per recommendation directly from FAA personnel during Ad hoc Committee meeting on Feb 23, 2018)**. This is not clearly specified in the report.
  - **The current east approach occurs through vectoring, and this percentage is quickly decreasing**. The number of planes flying the East approach needs to be preserved at the 5 year average of 21.3%, and these East SJC planes should not be “rolled / shifted” into the Western rail.
4. **Updates For the section titled “Fly More Dispersed Western Approach”** page 8
  - **Embed Before and After pictures** showing the prior dispersion and resulting narrow flight path (rail) directly into the section titled “Fly More Dispersed Western Approach”. Pictures attached below in file titled “BEFORE AND AFTER” and are actual flight tracks created via FAA data.
  - **Include clear instructions stating the desired dispersion level should be reverted back to historical 2011 levels** (flight path 2.3 miles wide). See attachment “BEFORE AND AFTER”.
  - **A clear statement that the narrow flight paths (rails) need to be broken**, and that the rails significantly impact residents

**VERBIAGE DETAILS - SUGGESTED: (Changes specified in red)**

**Suggestion 1- Root cause of the issue:**

Page 6 - Paragraph 2 - Section "What Are South Flow Operations?":

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have started earlier in the day and have been lasting longer. ~~Since 2015, In recent years,~~ new air traffic control technology installed by the FAA and in aircraft have resulted in more precise and narrowly concentrated arrival patterns, especially over San Jose, Sunnyvale, Cupertino, Mountain View, and Palo Alto. ~~In addition, beginning in 2012, the FAA implemented a series of changes to the SJC south flow arrival flight path, which has resulted in a significant shift westward and concentrating of this air traffic corridor. Airplanes that were previously flying in a corridor approximately 2.5 miles wide are now flying along very narrow flight paths, often called "rails".~~ Use of the NextGen technology has increased per-flight noise for residents. While this may have reduced noise for some residents, noise has definitely increased for those residents living directly under the more precise arrival and approach flight paths.

**Suggestion 2 - Over densely populated residential areas, the FAA should prioritize safety, impact to communities, then efficiency *In that order***

Place verbiage somewhere in the report –

Perhaps on page 2 Section "South Flow and the Bay Area Metroplex"

~~Over densely populated residential areas, such as the Bay Area metroplex, the FAA should prioritize safety, impact to communities, then efficiency *in that order*.~~

**Suggestion 3 - Updates For the section titled "Fly Other dispersed Approach" page 10 / Paragraph 3:**

Request to the FAA #2: The Ad Hoc Committee requests the FAA maintain ~~the current percentage of use (10%) of the Eastern approach for south flow arrivals.~~ the percentage of flights directed to the Eastern approach at the five-year average for Jan 1, 2013 to July 31, 2017. During this period, 21.3% of all South flow arrivals approached from the East.

~~During the course of the Ad Hoc committee meetings, two suggested mitigations were offered as solutions to the SJC south flow issue. The first solution was a possible Chartered Visual Approach, and the second was to explore the feasibility of a published Eastern approach.~~

**Overview:**

~~In the past, the Eastern approach into San Jose Airport has handled a significant portion of South flow traffic. However, in recent years, the percentage of flights approaching from the east has decreased. This has occurred because the East approaching flights are vectored by FAA Air Traffic control (ATC), and the percentage of ATC vectored flights has decreased with time. This has effectively shifted flights from the East approach onto the newly formed Western "rail" over cities like Sunnyvale, Cupertino, and Mountain View. If nothing is done, use of the Eastern approach will continue to drop, effectively shifting more air traffic to the Western rail.~~

The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See spreadsheet items M, N, P). The Ad Hoc Committee is requesting written responses from the FAA to these items.

Regardless of the outcome of this evaluation, the Committee requests the FAA not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC. It is important we do not reduce the amount of traffic using this path. **The East approach percentage should be maintained at approximately 21.3% (The five year average from 11/13/13 to 12/31/17).**

**CONTINUED ON NEXT PAGE**

Suggestion 4 - Updates For the section titled “Fly More Dispersed Western Approach” page

Copy of Info from R. Holbrook regarding dispersion – Recommended text to be included in Ad hoc report

• **Fly More Dispersed Western Approach**

Prior to the implementation of NextGen, aircraft were dispersed over a broader area of air space thereby limiting concentrated negative effects on residents and neighborhoods, *see figure 1*. A dramatic increase in noise complaints resulted from the implementation of NextGen. NextGen, a program which switched a radar-based approach to a GPS approach, has resulted in tools and procedures that create a concentration of flight paths. *Two ‘rails’ have emerged over our communities and residents near these rails bear the brunt of airplane noise, see figure 2. The use of these rails has also resulted in a significant westward shift of the corridor of air traffic in recent years.*

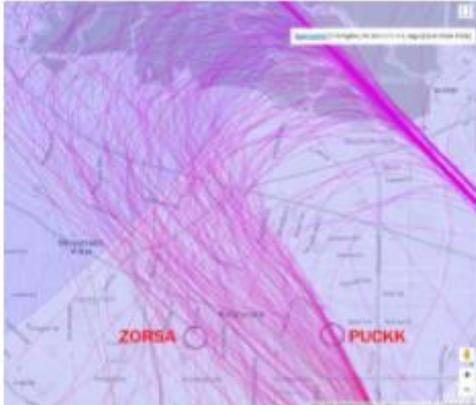


Figure 1. Dispersion prior to 2012. (11/11/2011)  
ZORSA is ~2nm (2.3 miles) west of PUCKK



Figure 2. Two rails after Nextgen. (3/11/2016)

The FAA has stated that having a predictable, repeatable and consistent set of procedures improves safety, workload and communication for aircraft preparing for landings. *The Committee has reason to believe that if nothing is done to address dispersion, over time still more concentration will occur as flights increasingly gravitate to the rails.*

*The Committee finds that the creation of heavily-used ‘rails’ over highly populated areas pits neighborhoods against one another, sows distrust and seeds deep frustration. People tend to focus on their narrow interests when property values, health and well-being are at stake; community spirit suffers.*

*Directionally, the Committee recommends that the FAA drive toward: 1) alternatives to routing airplanes over fixed rails; 2) reversion to ground noise patterns prior to 2012, in the same geographic proportions (figure 1).*

**Request to the FAA #1:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a

---

more dispersed distribution of aircraft. (Using the success criteria listed below). *In addition, the Committee is requesting the FAA to review items Q through CC in the spreadsheet and provide a written response addressing the feasibility of their implementation.*

Dispersion can mean different things in each of the impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

**San Jose**

## **EXPLANATION DETAILING WHY THE REQUESTED CHANGE IS NECESSARY:**

1. **Root cause** is necessary, because it clearly indicates that the flight path was shifted by the FAA. The path was shifted west by miles and concentrated into a narrow air traffic corridor, and the report never clearly acknowledges this fact. Without knowing what actually occurred, there is likely less motivation by the FAA to correct the issue or solve the problem for residents. The FAA caused this problem, and they need to fix it. The flight path changes involved a series of implementations beginning in early 2012. That fact needs to be clear in the report. FAA flight **plates** are available for reference showing the major changes in flight path instructions between 2012 and 2015/ 2016.
2. **FAA priority** - During the AdHoc Committee meetings, it has become apparent that the FAA is prioritizing efficiency over airplane noise. For example, there was a series of meetings between the FAA and Southwest airlines executives to discuss the new SJC RNP path; No city officials nor residents were invited to attend, despite direct impact to these cities. This indirectly indicates a close relationship between the airlines and the FAA, potentially at the expense of residents. In dense residential areas, quality of life of citizens on the ground must take priority over efficiency.
3. **Eastern approach 5 year average is 21.3%, and that is where the usage percentage should be set.** To reduce the usage amount to 10% (as currently shows in the report p 10) is effectively shifting airplane noise from the Eastern approach to the Western approach, since the number of flights has already been reduced in recent years. We are simply trying to get back to the 5 year average, before much of the air traffic was shifted to the Western rail. To set the percentage at 10% would be to accept the air traffic shifting that has already occurred through the FAA.
4. **Embedded flight tracks** - Although residents have attempted multiple times to have flight tracks showing the “before” and “after” dispersion embedded directly into the report (page 8), these requests have been rejected. (See attachment below of the “before” and “after” flight tracks.)

The embedded flight tracks are necessary, since the FAA and various ad hoc committee members have been confused at the expected dispersion level (miles wide) and the definition of the narrow flight paths (rails). Without these pictures, the dispersion level & rails are unclear. Even at the last Ad Hoc committee meeting, FAA personnel were clearly still confused as to the desired dispersion level (2.3 miles wide) & what the residents are defining as the narrow flight path (rail).

FAA personnel evaluating the report likely will not have attended the Committee meetings, so expectations need to be clear in the report & it is the responsibility of this committee to make this “ask” clear. Only pictures ensure proper understanding. There can be no rail, and dispersion needs to be miles wide.

## Kazmierczak, Matthew

---

**From:** Sara Hecht <>  
**Sent:** Thursday, May 17, 2018 9:39 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** Requests for Recommendations to FAA on South Flow Arrivals to SJC  
**Attachments:** Maps.pdf

Dear Ad Hoc Advisory Committee on South Flow Arrivals to SJC --

Thank you so very much for considering this issue, and for investing time in helping us resolve it.

I wish I could attend Friday's meeting, but ironically, will be traveling.

**In lieu of attending, I wanted to share a few specific requests I have for the recommendation to the FAA.**

Thanks for taking my concerns into account!  
Regards,  
Sara Hecht, Mountain View

-----

### **Background**

I am a 14-yr resident of Mountain View. In recent years, airplane noise has increased significantly, to the point that we consider leaving.

Specifically, **under South Flow Arrivals conditions to SJC, we now receive planes directly overhead at frequencies as high as every 2 minutes, for hours on end.** This was not the case when we purchased the property. It has changed as a result of the new waypoints which concentrate traffic directly overhead.

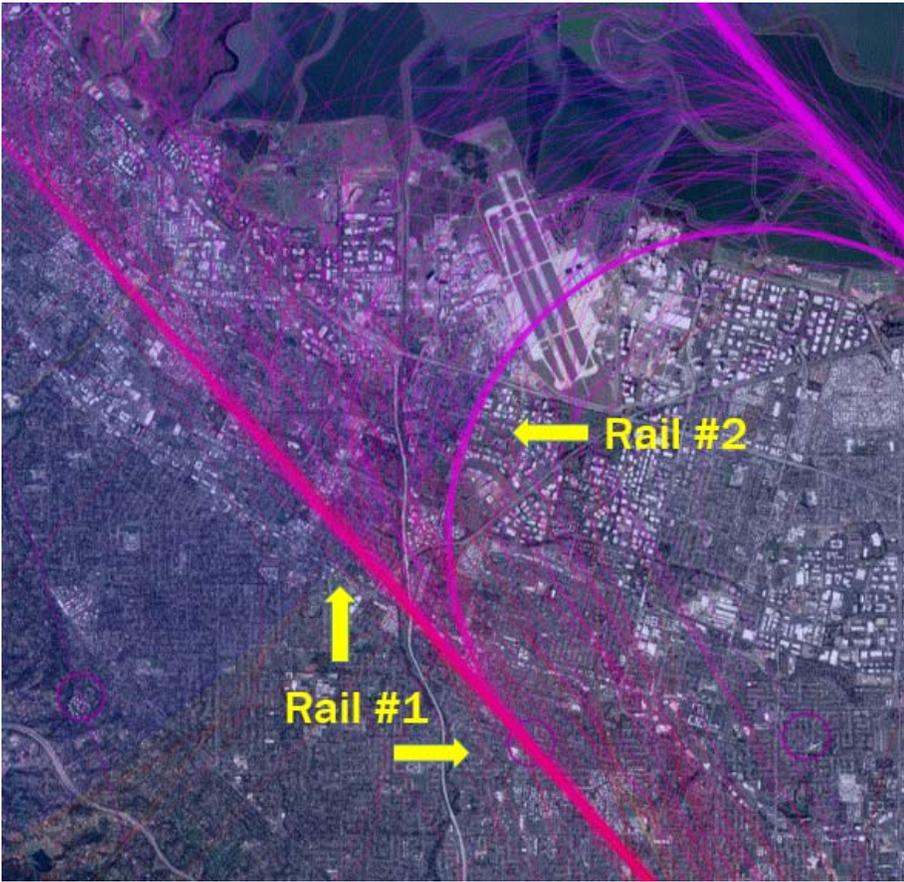
As a user of SJC airport (including on Friday!), I'm open to sharing in the noise that my usage creates. However, due to the new rails, I feel that I'm doing more than my fair share.

### **My Top 5 Requests for the Report**

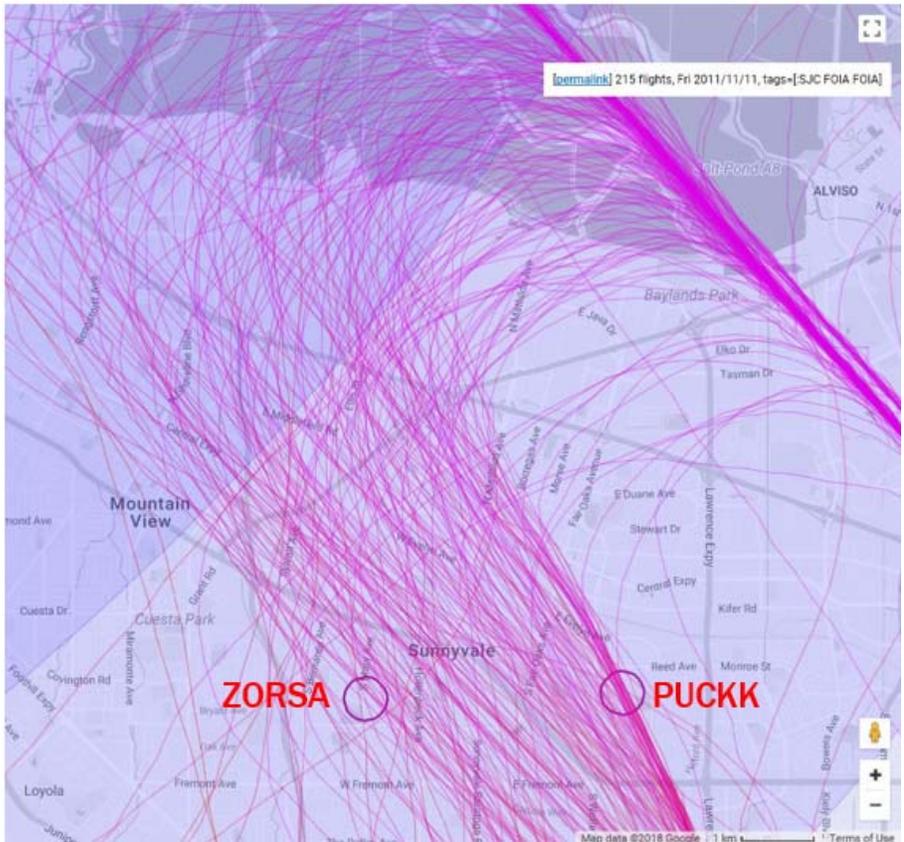
- 1. Please call for the FAA to provide written evaluations of all suggestions in the spreadsheet that address dispersion.** Dispersion is key. I'm happy to take some traffic, but feel it should be shared. I am concerned that the suggestions for dispersion are muddled in the current report.
- 2. Please include a map showing the two rails that have emerged over us.** This goes back to the dispersion issue. It should also include a map showing the dispersion that existed before the FAA started making changes in 2012 to prepare for Nextgen. (See maps attached).
- 3. Please clearly recommend that the FAA find alternatives to routing traffic on rails, especially through noise-sensitive areas.** These rails are concentrating the noise over my house and making the per-flight noise much louder.

**4. Please clearly call on the FAA to recreate the dispersion we had prior to 2012,** when we shared the traffic more broadly across a wider 2.5 mile corridor.

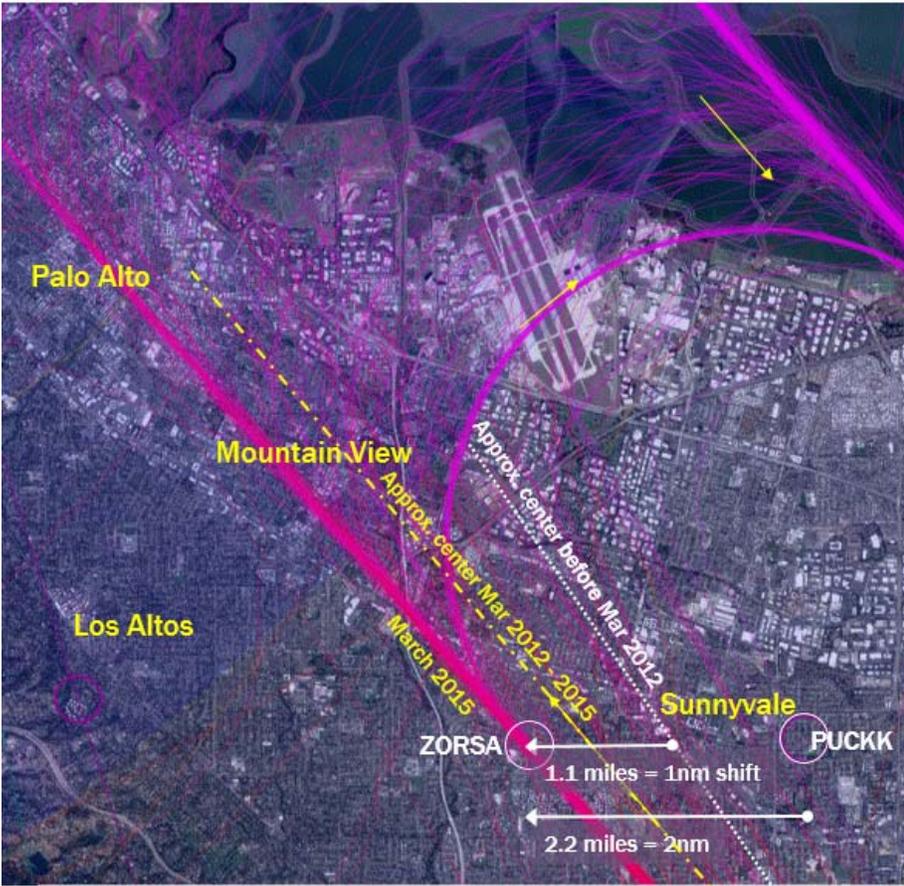
**5. Please recommend that the FAA should prioritize Safety, Noise and then Efficiency, in that order,** over noise-sensitive communities. They should also calibrate their noise models to real-world conditions, including wind and temperature. They are welcome to come visit my home during peak South Flow house to enjoy it personally! I am concerned that their technical criteria for 'significance' are extremely permissive, and some first hand experience in the "users" shoes could be of value.



Two 'Rails' Have Emerged  
 3/10/16, 224 Arrivals to SJC



South Flow Dispersion up to 2012  
 11/11/2011, 215 arrivals to SJC



*Westward Shift of Flight Corridor 2012-2015*  
*Superimposed on 3/10/16, 224 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Toni Rath <>  
**Sent:** Thursday, May 17, 2018 10:46 PM  
**To:** mayor@sunnyvale.ca.gov; District1; District 10; District3; Lisa.Matichak@mountainview.gov; lennysiegel@mountainview.gov; toneill@santaclaraca.gov; Glenn Hendricks; KleinCouncil@sunnyvale.ca.gov; svaidthyanathan@cupertino.org; sscharf@cupertino.org; rturner@cityofmontesereno.org; ewolsheimer@cityofmontesereno.org; mlberald@saratoga.ca.us; hmiller@saratoga.ca.us; Rene.Spring@morganhill.ca.gov; Larry.Carr@morganhill.ca.gov; GCWaldeck@losaltoshills.ca.gov; Lydia.Kou@cityofpaloalto.org; eric.filseth@cityofpaloalto.org; jmordo@losaltosca.gov; lleeng@losaltosca.gov; kwatanabe@santaclaraca.gov; jeffc@cityofcampbell.com; bnunez@ci.milpitas.ca.gov  
**Cc:** Kazmierczak, Matthew; Lupita Alamos  
**Subject:** Re: South Flow Ad Hoc Committee: Public comments on final report draft dated 5/11

Dear committee members,

[this is an earlier email I had sent to Committee Chair Glenn Hendricks and a few other people. I am resending it here to make sure it is seen by all committee members. Another email with specific modifications to the draft report as of May 11 were sent afterwards.]

Thank you for your work on the Ad Hoc Advisory Committee On South Flow Arrivals. After reading the draft of the final report dated May 11 I would like to make some recommendations to amend and correct the report:

1. The report is lacking a clear problem statement. Recent years have brought big changes in the path airplanes take before landing at San Jose airport. These changes are best illustrated by pictures of the situation before and after these changes (I suggest using the before and after pictures in the attachment). A picture is worth a thousand words: Airplane traffic used to be dispersed over a corridor about 2.5 miles wide, spreading the burden of airplane noise. Now the flight path has been shifted westward and there is sharp concentration into "rails", putting undue burden on a different group of residents. **The westward shift in traffic and the creation of two rails need to be called out unambiguously in the report and substantiated with pictures** (NOT the ones from the FAA as they obscure the location and extent of the problem).
2. Recent statements by FAA representative Tony DiBernardo have called into question the existence of "rails", that is, sharply increased concentration of airplane traffic along specific routes. **A picture that clearly shows the two "rails" along which traffic now flows need to be included** to set the record straight (please use the attached picture). This is even more important since the FAA has made it clear that it would like to reduce vectoring, which means that more and more traffic will move onto these rails, causing further increases in noise.
3. The report does not clearly articulate the solution that residents predominantly spoke to at public meetings: **the two rails along which traffic now flows must be broken and the original dispersion of traffic in 2011 must be returned** to spread the load of airplane noise. The report should recommend the FAA evaluate all recommendation in the spreadsheet that restore this dispersion.
4. The report states that the use of the "Eastern approach" should remain at the current level of 10%. This is less than historical averages and would mean a further shift of traffic to residents living on the Southern peninsula. **In the last 5 years, 22.3% of traffic have taken the Eastern approach.** The report should adopt this number instead.
5. The report includes a spreadsheet of recommendations, but why is the FAA being asked to evaluate only some of them? Some items are even specifically excluded from evaluation (see items M, N, P). Instead, **the report should ask the FAA to evaluate all items in the spreadsheet** for feasibility, to provide a written response with their findings and to implement feasible recommendations that reduce noise on the ground.
6. The report misses the opportunity to make recommendations that have a longer term, even lasting, and positive impact regardless of the perceived feasibility. The bay area is a leader in technology and forward thinking and the report should reflect this by recommending the following:
  1. Recommend the FAA work on technologies to provide automatic dispersion of aircraft instead of routing them along 'rails'. **The rails must be broken.**
  2. The FAA should adopt noise metrics that closely model noise as it is observed by residents on the ground.

3. The FAA should work on technologies that can fly airplanes as quietly as human pilots under 98% of weather conditions.
4. Require airline companies to implement noise mitigation measures, such as the vortex generator to fix the airbus whine.
5. The FAA should prioritize safety, noise/health and then efficiency, in that order, over residential areas.
7. The report states "To encourage the maximum degree of inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee". This is misleading and should be corrected. A maximum degree of inclusiveness would be to invite **all cities affected** by South Flow. The report does not mention that the committee had indeed asked the San Jose City Council to include all affected cities. The San Jose City Council denied the request. This is important information that should not be omitted.

Let's make the report count.  
Thank you.

Toni Rath

## Kazmierczak, Matthew

---

**From:** Andrew Wu <>  
**Sent:** Thursday, May 17, 2018 11:48 PM  
**To:** mayor@sunnyvale.ca.gov; Kazmierczak, Matthew; LAlamos@sunnyvale.ca.gov  
**Subject:** On the Issue of Airplane Noise and Pollution from SJC South Flow Flights ...

To Whom This May Concern:

Thank you for listening to your community, taking up this matter, and considering the impact of recent changes (within the last 6 years) in South Flow flights into SJC, and proposals to address the adverse effects of those changes.

I have been a Sunnyvale resident in the same home for over 10 years, and in recent years has noise from airplane paths landing at SJC become particularly noticeable, not just during daytime hours, but also into the night. While there are other contributing factors to this increase in airplane noise, including a shift of flight paths into San Carlos Airport in San Mateo County, such as an increase in commuter flights by a new service (like Surf Air), a narrowing of the flight path into SJC has resulted in a concentration of airplane noise over specific parts of Cupertino, Sunnyvale, and Mountain View.

As the ad-hoc committee meets to discuss issues surrounding South Flow arrivals into SJC, my family and I would appreciate if the committee reviews and recommends the following in the ad-hoc committee report:

- \* The report should state clearly the root cause for the noise issue - that the flight changes had been explicitly shifted. Beginning in 2012, the FAA implemented a series of major flight path changes which shifted and concentrated the flight path west over 2 miles into a narrow rail of planes. These flight path changes shifted the flight path over to quiet Sunnyvale neighborhoods which previously had little or no airplanes overhead.
- \* The report should clearly recommend that the FAA find alternatives to routing traffic on 'rails'. Rails concentrate noise and make per-flight noise louder. Creating rails, as Nextgen is doing, is simply not appropriate over noise-sensitive areas, which include densely populated communities like ours. The two rails that have been created over Sunnyvale should be diffused, or reverted to the diffusion that had existed before the path updates in 2012. If they are not, the traffic that is not on those rails will likely gravitate to them over time. That, combined with the increased traffic projected for SJC (the nation's fastest growing airport according to San Jose Mayor Liccardo), will only serve to exacerbate the noise, frequency of noise, and emissions.
- \* The report should more strongly recommend use of the East Approach, given that the report already notes how such an approach reduces noise over residential areas, particularly in light of how use of the approach has been declining in favor of the South Flow approach.

Thank you again for the work you have already devoted to working with your community, working with our neighbors, and in drafting this report. We hope you will take feedback from your community seriously and incorporate our suggestions.

Best Regards,

Andrew & Family

Sunnyvale resident

## Kazmierczak, Matthew

---

**From:** Kou, Lydia <Lydia.Kou@CityofPaloAlto.org>  
**Sent:** Friday, May 18, 2018 1:56 AM  
**To:** Kazmierczak, Matthew  
**Cc:** Kou, Lydia  
**Subject:** Re: Thursday Draft

Matthew,

Please add the following to the report for Palo Alto's Request to the FAA #1

### **Fly More Dispersed Western Approach**

#### **Palo Alto**

Palo Alto wants to return to the same level of dispersion as the one that existed before NextGen and as illustrated by the Feb 2011 data presented by the FAA. It means that:

- Palo Alto should not get about 50% of the SJC south flow arrivals making their turn over residential communities, especially in light of SFO arrivals that are highly concentrated near the MENLO waypoint due to NextGen changes
- Vectored flights are NOT always vectored in the the exact same way (otherwise, it creates a rail corridor of vectored aircraft). Air Traffic Control (ATC) could use multiple headings to create separate vectoring paths and disperse noise.
- Every effort should be made to take advantage of compatible land use (e.g. industrial, commercial, water, uninhabited areas, freeways) to minimize noise over residential communities.
- The FAA should seek solutions at the Metroplex level to create opportunities to decrease noise substantially for the many residents that have been affected by the NextGen changes. See items PP, QQ, RR in the Excel file.



-----  
Lydia Kou - Council Member  
Contact Info: <https://goo.gl/BcgCQS>

---

**From:** Kazmierczak, Matthew <MKazmierczak@sjc.org>  
**Sent:** Thursday, May 17, 2018 12:56 PM  
**To:** Kazmierczak, Matthew; hendricks council@sunnyvale.ca.gov; LAlamos@sunnyvale.ca.gov  
**Subject:** Thursday Draft

This Draft is being provided so that all members of the Committee can see and read the latest changes before Friday.

If any Committee member has any things to changes, feel free to send them to me.

The plan in the meeting will be to open it up to the committee for any last changes before the vote. We will have the ability to edit the document in the meeting, if that change is the will of the Committee.

Two thoughts to be included in our motion to vote on the document.

1) I would like to request that Staff be allowed the latitude to make any non-content changes for final publication. In case they need to make any spelling or format changes.

2) I would also like to request, that we allow the public until Tuesday at 5:00pm for them to provide any last input emails that they would want added to the Appendix. (If you haven't noticed, the Appendix contains many of the emails we have received forms the public - regardless if their requested changes were added to the Report of not).

**Glenn Hendricks**

**Mayor**

Cell: 408 242 8384

Office: 408 730 7473

[Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)

## Kazmierczak, Matthew

---

**From:** Harish Ganapathy <>  
**Sent:** Friday, May 18, 2018 8:55 AM  
**To:** Kazmierczak, Matthew; mayor@sunnyvale.ca.gov  
**Cc:** Lupita Alamos  
**Subject:** Comments on the South Flow Final Draft Report  
**Attachments:** BEFORE AND AFTER FLIGHT PATH CHANGES\_1.pdf

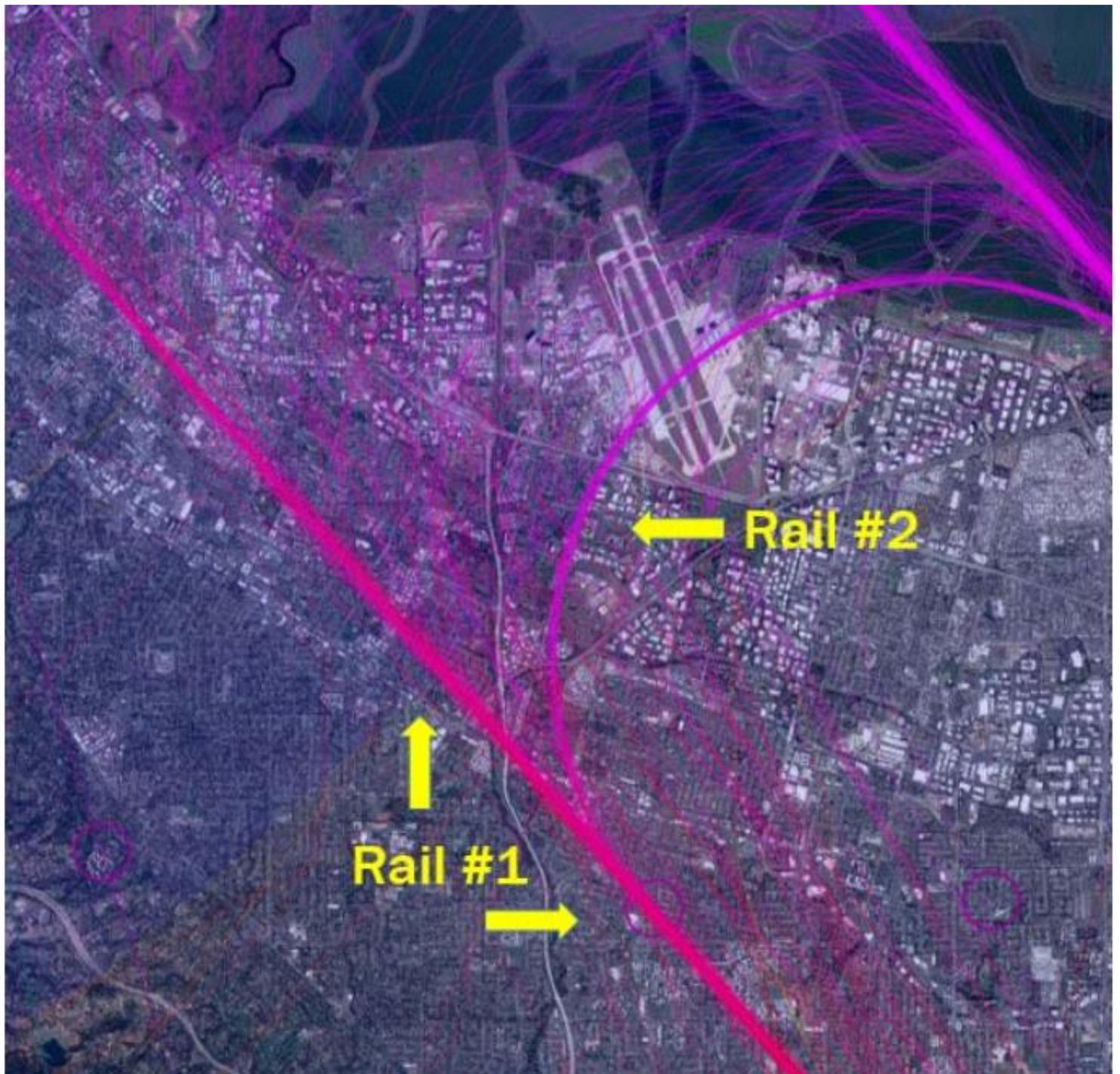
Dear Mayor Hendricks & Matthew,

I feel that the report does not adequately address some the the residents' concerns. In particular, the following points need to be further emphasized in my opinion:

1. The narrow flight paths ("rails") need to be dispersed. It is absolutely not fair to the residents that live right under it. I have attached pictures of how it used to be pre-2012 with dispersed paths. The report needs to emphasize the root cause of the noise issue in that flight paths were concentrated post 2012. As admitted by the FAA in response to a Committee member's question, noise was not a part of the optimization problem that the FAA solved to generate these paths.
2. We need to return to pre-2012 noise levels and flight dispersions. Currently, during South Flow, we have planes flying over our atrium every couple of minutes which completely spoils the peace. Additionally, I have serious safety concerns when planes fly over my home every few minutes.
3. The FAA needs to calibrate their noise models to real-world conditions by using noise sensors on the ground, not just simulations.
4. On the East Approach proposal, the report needs to strongly state that we will not accept more traffic shifted over us from the East.

Thanks for your time,  
Harish Ganapathy  
Fairbrae, Sunnyvale

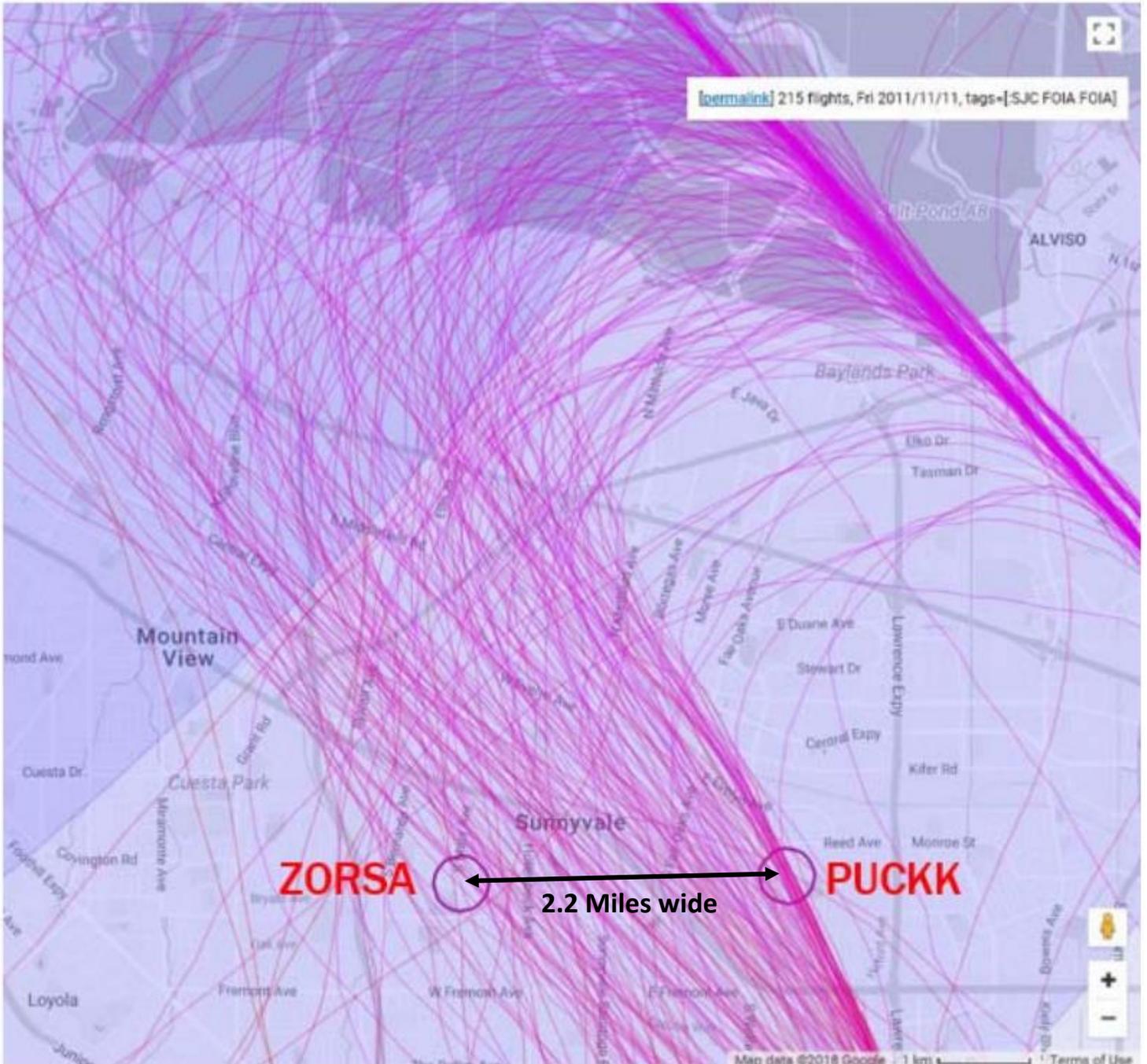
# AFTER FLIGHT PATH CHANGES / CURRENT



*Two 'Rails' Have Emerged  
3/10/16, 224 Arrivals to SJC*

# FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Hans Qian <>  
**Sent:** Friday, May 18, 2018 10:59 AM  
**To:** Kazmierczak, Matthew  
**Subject:** Fw: Disagree with the south flow adhoc report - the "final draft"

To whom it concerns,

This ad hoc committee was formed to solve the Sunnyvale south flow noise problem. We Sunnyvale residents want to see a real solution of reducing the number of flights over us.

Thanks, Hans

--- On Wed, 5/16/18, Hans Qian <hansqian2003@yahoo.com> wrote:

> From: Hans Qian <hansqian2003@yahoo.com>  
> Subject: Disagree with the south flow adhoc report - the "final draft"  
> To: MKazmierczak@sjc.org  
> Date: Wednesday, May 16, 2018, 9:14 PM To whom it may concern,  
>  
> As a long time Sunnyvale resident, I do not agree with the south flow  
> adhoc committee report of the final draft. It does not really solve  
> our problem. I  
> request:  
>  
> 1.SJC should take FAA recommendation  
> (made on 2/23/2018) to use south flow east approach for at least 40%  
> of total south flow flights.  
> 2. Spread out the flights using south  
> flow west approach.  
> 3. No more expansion for SJC.  
>  
> Thanks, Hans  
> A long time Sunnyvale resident

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Friday, May 18, 2018 11:24 AM  
**To:** Mayor AnswerPoint; Kazmierczak, Matthew; Lupita Alamos  
**Cc:** Save My Sunny Sky Group  
**Subject:** IMPORTANT - Recommended change to the report for dispersion section Sunnyvale

Hi Glenn:

I really think in the Sunnyvale section for dispersion, the following verbiage needs to be added - Because the information is still not completely clear in the report.

Simply add this verbiage underneath the existing verbiage for Sunnyvale -

"See figure XX above for desired 2.3 mile wide dispersion level (based on SJC historical tracks prior to 2012)"

The XX would be replaced by a figure number corresponding to the flight tracks in 2011. I'm assuming after all of the discussion this picture will make it into the report.

Sunnyvale

For the City of Sunnyvale - Dispersion would mean even distribution.... [continued]

See figure XX above for desired 2.3 mile wide dispersion level (based on SJC historical tracks prior to 2012)

---

Just an FYI- I have sent a request for this particular verbiage change a number of times previously assuming the picture of the flight tracks would get into the final report.

IMO addition of the verbiage above allows for many options - including even dispersion between PUCKK and ZORSA or multiple flight tracks over time or interval. But it clarifies the level of dispersion desired.

Please call me if you would like to discuss (

Thanks,  
Jennifer

## Kazmierczak, Matthew

---

**From:** Marie-Jo Fremont <>  
**Sent:** Saturday, May 19, 2018 5:51 PM  
**To:** Glenn Hendricks; Kou, Lydia; Kazmierczak, Matthew  
**Subject:** SJC Ad Hoc Advisory Committee --Clarification on additional question to the FAA regarding SJC south flow arrivals coming in and out of SJC Class C airspace.

Given that time is of the essence, I took the liberty to email you all at the same time.

At the May 18, at the Ad Hoc Advisory Committee on South Flow Arrivals, Glenn requested to clarify the language regarding one question that was submitted to the FAA and now included in the Excel file.

The original language was: "Ask the FAA if the SJC south flow flights that are vectored north to turn over Palo Alto come in and out of the SJC airspace. If they do, does this create a potential safety issue given the proximity of the Palo Alto Airport (PAO) and the SFO SERFR arrivals that routinely fly below 4,000 ft near the MENLO waypoint."

Given that I am the author of that question, let me explain what I meant. If my explanations do not make sense, please contact me directly to discuss.

- I believe that, for safety reasons, flights approaching an airport should remain within the confines of that airspace (they should not enter the airspace, then exit it, then re-enter again) unless exceptional circumstances require them to do so.
- SJC south flow arrivals that fly north past ZORSA all the way to Palo Alto where they take their turn could be coming in and out of Class C airspace.
  - As shown on the picture below, aircraft at ZORSA are within the western sector of the SJC airspace (with altitude restrictions of 2500 to 4000 ft).
  - Then they are vectored north to make their turn over Palo Alto.
  - Some of the SJC south flow arrivals turn over over parts of Palo that are outside the SJC Class C airspace. Some are out because they are below the 2500 ft floor of the western sector or they are outside the lateral boundary of the western sector.
- After making their turn, these arrivals then re-enter the SJC Class C airspace through the north sector (with altitude restrictions of 1500 to 2500 ft).

So the questions for the FAA are:

1. Do some of the SJC south flow arrivals that make their turn over Palo Alto come in and out of the SJC Class C airspace? If yes, please specify the order of magnitude (% of flights) and whether these flights are reported in some Safety Reports.
2. Does the proximity of the PAO airport create a safety risk for SJC south flow arrivals that make their turns at very low altitudes (at times below 2000 ft) over parts of Palo Alto?

FYI: the FAA used their Performance Data Analysis and Reporting System (PDARS) to review the number of the SERFR-related excursions for the SFO Class B airspace. These excursions (e.g. coming in and out of the Class B airspace) constituted a safety issue.

South Flow arrivals that turn over Palo Alto are not always in the SJC Class C airspace : they go outside the horizontal boundary OR vertical boundary (when they fly below 2500 ft in the western sector) before they re-enter the north sector of the SJC airspace

This sector is 1500 ft to 4000 ft

This sector is 2500 ft to 4000 ft



ZORSA  
(approximate position)

mjf

**MEMORANDUM**

---

To:	Lisa Matichak, City of Mountain View; Jean Mordo, Los Altos	Project Name:	San Jose South Flow Arrivals Ad Hoc Committee
Cc:	Christina Gilmore, City of Mountain View	Project Number:	1810.01
From:	Randy Waldeck, CSDA Dennis Hughes, Hughes AV	Subject:	Proposed Visual South Flow Arrival Route
Date:	April 27, 2018		

---

As a follow-up to our preliminary noise reduction alternatives memo dated March 7 (updated on March 22), we have further refined the proposed visual approach for South Flow. This approach extends the current turn that aircraft execute over Mountain View (shown in white in the figure on the following) page, and routes aircraft over Highway 85 and then over the Google campus before executing the right “u-turn” over the Bay to line up for final approach with RWY 12R. The benefits to this approach are as follows:

1. Level flight over Mountain View, Los Altos, and other South Peninsula communities.
2. Turn executed over the Bay. Since descending aircraft typically apply power (thrust) in a turn, turning aircraft often generate higher noise levels than descending aircraft flying straight. We plan to investigate this further in the AEDT.
3. Higher altitude due to longer track length. Currently, aircraft cross ZORSA at 3,000 feet (on average). With this proposed arrival path, aircraft will likely be approximately 1,500 to 2,000 feet higher (as our proposed track is approximately 6 nautical miles longer than the track which turns over Moffett Field). Roughly speaking, this increased altitude would result in 4 dBA decrease in noise levels due to the increased altitude.

Our proposed visual approach would take those aircraft currently being vectored at low altitude to an instrument procedure at higher altitudes utilizing a stable descent. Figure 1 illustrates the proposed path.

Note that this approach can only be used under Visual Flight Rules (i.e., when visibility is at least 5 nautical miles and the ceiling is at least 2,500 feet). This approach could be coded into the Flight Management Computer and avoids the need for the pilot to “hand fly” this procedure which results in the procedure being more tightly followed.

The proposed flight path, shown in red, generally follows the same flight path as currently utilized, but the turn for final approach is initiated later (currently it occurs around Moffett NAS); we propose that it occur midway between the Dumbarton Bridge and Moffett NAS. While the overall flight path is longer (approximately six nautical miles), we do not expect fuel burn/emissions to be significantly increased if aircraft follow a continuous descent profile (e.g., idle thrust). Flight times may be increased by a few minutes.



Figure 1: Proposed Charted Visual Approach (in red)

We plan to model this new arrival path to quantify the expected noise reduction as compared to the current flight path in the AEDT software.

## Kazmierczak, Matthew

---

**From:** Zachary Kaufman <>  
**Sent:** Tuesday, May 22, 2018 4:57 PM  
**To:** Kazmierczak, Matthew  
**Subject:** South Flow Report public input appendix--a tad of text if time remains.

Hi Mathew.

Please delete my e-mail address and "toss" this into the report in the appropriate designated appendix for public input. [From our conversation, I'm under the impression a tiny bit of time might still remain for this.]

Apart from raising altitude, modifying procedures to allow for gliding in without power, reducing air speed, wake vortex generators, dropping waypoints, etc., the following was discussed at an airplane noise group meeting more than a year ago. The F.A.A. should have the ability to specify a certainty for a waypoint. For example, for a given waypoint, a 0.25 certainty value would indicate, if you are within a 1/4 nautical mile or less offset of a waypoint, that effectively you have reached it. In practice, it would work something like this. A plane's flight computer would generate a random number to use as a percentage. This percentage would be applied against a waypoint's specified certainty number. In the example, say 50% was generated. Fifty percent of 0.25 nautical miles certainty is 0.125. For the given trip, the flight computer would take the longitude and latitude for the given waypoint, adjust them by 0.125 nautical miles, and substitute them for the waypoint. Obviously, there is a bit more to it. You have to determine whether it is plus or minus for instance. That should stay consistent across the procedure; but essentially, the navigation algorithm remains unchanged. Conceptually, this strikes me as easy to add as you are likely only tacking in a few things.

Each plane trip that sports the advanced/modified software, potentially could have a slightly different path or even a majority different one if so enabled via the procedure's waypoint certainty values. Certainty values of zero maintain the current exhibited behavior. Legacy systems (regrettably) behave exactly as before. As this isn't the most imaginative concept, it should be explored if it has come up anywhere before and if it was adequately explored. Irrespective of the F.A.A. position, the technological feasibility should be assed.

The ideal solution is not to generate extra noise in the first place. Adding certainty values attempts to tackle how it is placed--still an important factor. The certainty value specifies a channel width. Channel width for noise dispersion is determined by some multiple of the aircraft ground noise footprint cross-section and any relevant local constraints. Too small of a value and it does little. Likewise, a historical broad flight path might be simulated with satellite navigation by appropriately large certainty values. The F.A.A. clearly indicated ANY offset from a waypoint constituted a new procedure and would require environmental review and other specified analysis. Perhaps boundary conditions are all that need to be analyzed, being conscious of elevation hazards, and how surrounding air traffic would interact... Solutions can be found.

Thoughts on how to utilize satellite navigation without overly concentrating noise for what it is worth.  
--Zach--

## Kazmierczak, Matthew

---

**From:** Mary Shefvland <>  
**Sent:** Tuesday, May 22, 2018 11:15 PM  
**To:** Glenn Hendricks; Kazmierczak, Matthew  
**Subject:** please add to public comments for Ad Hoc Advisory Committee

I am writing to explain my experience with airplane noise and why the FAA's oppressive noise created by the FAA's NextGen program must be undone.

I have lived in my home for 21 yrs. It was peaceful. I never heard airplane noise except periodic noise from Moffett Field airplanes and small private planes here and there. In 2015, this changed drastically. I began hearing low loud airplanes and I could see them from my living room. I had never seen or heard these before. I could (can) hear them over my TV, when going to sleep, before I'm out of bed in the morning and then occur nearly nonstop, often every 2 mins or less. I have also since learned that I'm hearing both the RNP flights as they approaching the turn and then turning as well as the flight from HTR to Zorsa which fly NW over Palto Alto, East Palo and the Bay after which they land into SJC. Below is what occurred:

1. Noise shifted to over me and my neighbors.
2. Noise became significantly concentrated into tight paths or rails over my home and my neighbors' homes, creating unbearable, excessive noise for those under or near these track or rails
3. My quality of life is downgraded since NexGEn was initiated.
4. The value in my home has gone down due to this airplane noise
5. I DREAD the day I'm retired and need to be hone more.
6. I will get less \$\$ when I sell my home to go to a retirement home due to NexGen

Animals: I'm also concerned about the outdoor and indoor animals. They hear noise multiple times louder than humans. The airplane noise they are experiencing is terrible. There are eagles, high in trees, trying to lay eggs and having to endure excruciating airplane noise due to the way flight are flying via NextJen.

The FAA has a moral obligation, if nothing else, to undo the noise burden placed on residents due to NextGen.

I urge the FAA to, as Dennis Roberts of the FAA said was possible during our first Ad Hoc Committee meeting, forgo some efficiency for the sake of solving the Next Gen noise problem.

Regards,  
Mary Shefvland  
Mountain View, CA

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Tuesday, May 22, 2018 10:40 PM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** Fw: Update to SJC AdHoc Committee report  
**Attachments:** ZORSA to PUCKK dispersion prior to 2012.jpg

Hi Matthew:

Can you please add this to the public record for the Ad Hoc Report. It was a requested enhancement to the report that was sent on May 5.

Thanks,  
Jennifer  
Sunnyvale Resident

----- Forwarded Message -----

**From:** Jen (Sunnyvale) <j>  
**To:** Glenn Hendricks <hendrickscouncil@sunnyvale.ca.gov>; Glenn Hendricks <hendricks40@yahoo.com>  
**Sent:** Saturday, May 5, 2018, 12:35:13 AM PDT  
**Subject:** Update to SJC AdHoc Committee report

Hi Glenn:

I have slightly rewritten the section of the SJC Adhoc Committee report for Sunnyvale -

Here are the modifications I would recommend for that section-

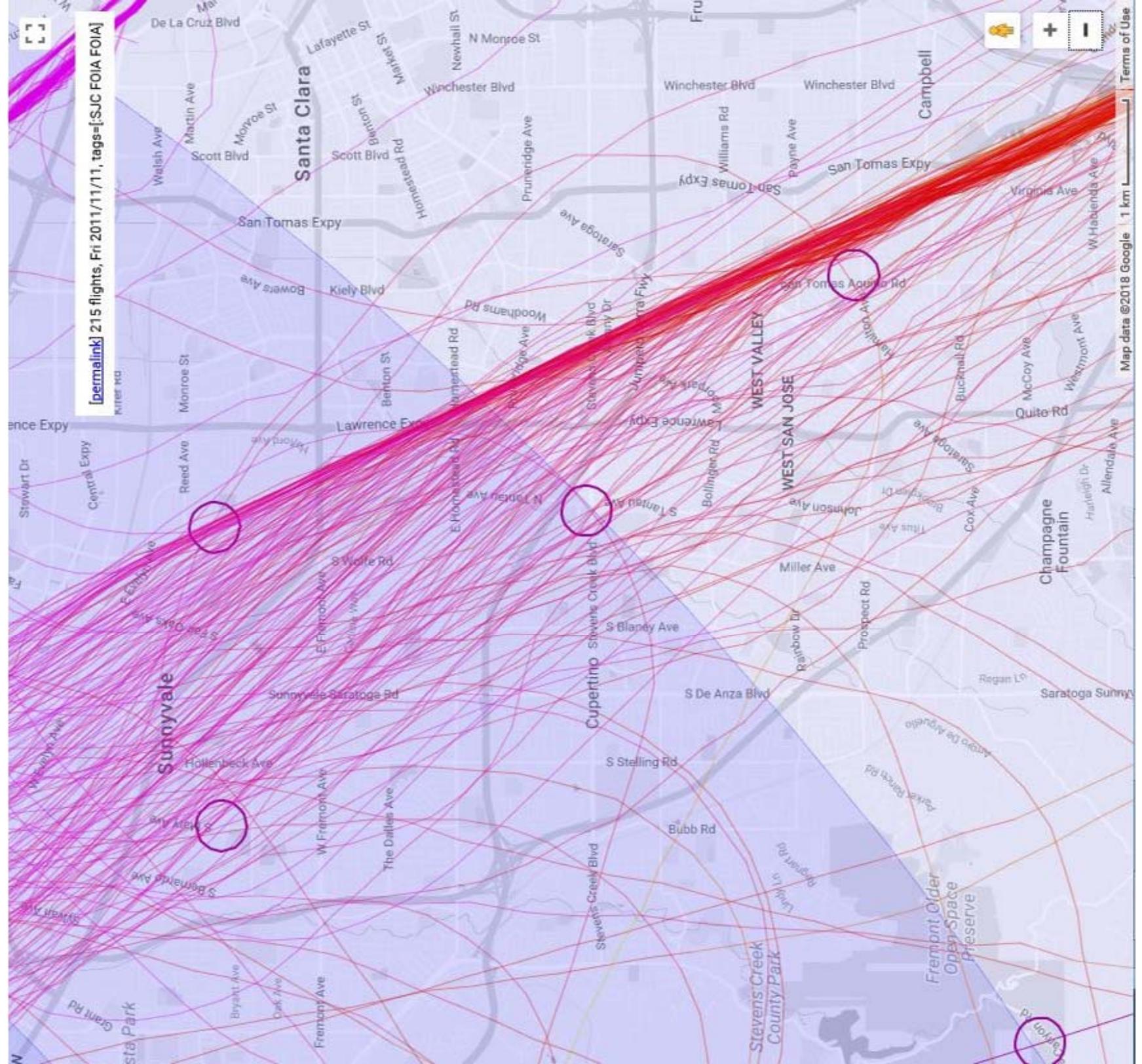
For the City of Sunnyvale –

**Disperse flights evenly between waypoints ZORSA and PUCKK (historical waypoint).** ~~dispersion would mean more even distribution of aircraft between the ZORSA and PUCKK waypoints.~~ Not that aircraft would fly over these specific points, but rather use these **waypoints (ZORSA and PUCKK)** as an eastern and western outside logical boundary of where we would prefer aircraft to fly over the city. Define a set of procedures, rules or process that would enable FAA to safely and **semi-**evenly distribute traffic over the city **between these two designated waypoints** (measured over time). **Sunnyvale would like to see the dispersion that existed prior to 2012. Flights would be dispersed evenly over an approximately 2.5 mile wide corridor (See image 1 for sample desired dispersion – SJC Historical tracks prior to 2012).**

(Image 1 below)

Thanks,  
Jennifer Tasseff

[permalink] 215 flights, Fri 2011/11/11, tags=[SJC FOIA FOIA]



## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <  
**Sent:** Tuesday, May 22, 2018 11:10 PM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** For public record - SJC AdHoc Committee report with updates from Jennifer (and some updates from Robert Holbrook)  
**Attachments:** SJC Adhoc report\_updated by Jen\_V3.pdf

Hi Matthew:

Can you please include this document and the corresponding attachment to the public comments section of the adhoc report? Below were recommended report enhancements and comments that were submitted to Mayor Glenn Hendricks on May 6 for possible update in the report. (PDF of recommended changes is attached below.)

Thanks,  
Jennifer  
Sunnyvale

----- Forwarded Message -----

**From:** Jen (Sunnyvale) <>  
**To:** Glenn Hendricks <hendrickscouncil@sunnyvale.ca.gov>  
**Sent:** Sunday, May 6, 2018, 4:33:17 AM PDT  
**Subject:** SJC AdHoc Committee report with updates from Jennifer (and some updates from Robert Holbrook)

Hi Glenn:

Attached is the updated SJC AdHoc Committee report with my updates.

My updates are in **RED**.

I have also included **Robert Holbrook's updates in BLUE** (which I'm assuming Lisa Matichak has likely already sent to you.)

Also, I added a couple of pictures/screen shots to the document - For example a couple of East approach pictures.

Please let me know if you have any questions or concerns. I'll also look over and update the spreadsheet in the next couple of days just to clarify a few of the suggested items.

BTW- In the adhoc report, I updated the Sunnyvale section for dispersion. After looking carefully at the document, I realized that my prior suggestion (for Sunnyvale dispersion) needed to be updated. The attached doc is updated, but I'll also send the "Sunnyvale dispersion" info to you in a separate email.

Thanks,  
Jen

On Saturday, May 5, 2018, 12:51:46 AM PDT, Jen (Sunnyvale) <jtsunnyvale1@yahoo.com> wrote:

Hi Glenn:

I'll be working on the SJC AdHoc committee report tomorrow (Saturday, May 5). I will forward my modifications to you late on Saturday night. I hope that is OK.

Sorry for the delay in getting back to you with modifications. Over the past 7 days I've been booked up, but I have time tomorrow (Saturday) to go carefully through the report.

In the meantime, I have attached a Priority list for SJC South flow mitigations-  
(These are all items that have been discussed during prior public comments at the AdHoc Committee meetings, but it shows the general recommended order for the mitigations.)

Please feel free to give me a call if you have any questions.

Thanks,  
Jennifer  
Sunnyvale

**Report of the  
Ad Hoc Advisory Committee  
on South Flow Arrivals**

**Approved May 18, 2018**

**DRAFT**

Dear Tony DiBernardo:

With this letter, I convey to you the final recommendations of the Ad Hoc Advisory Committee on South Flow Arrivals.

These recommendations reflect the work of the fourteen member Committee (see list below), over the course of eight meetings during the past six months.

The focus of this Committee has been the South Flow arrival path into San Jose International Airport (SJC). ~~During times of inclement weather, some mornings, or during frontal passages, At times, particularly during the cooler winter months,~~ the wind at SJC will blow from the south. For safety reasons, aircraft must take off and land into these southerly winds, requiring the airport to operate in "south flow," an alternate arrival path into SJC that allows aircraft to land and take off into the wind.

During these times, aircraft have followed a basic traffic pattern covering the area to the west of SJC over San Jose, Cupertino, Sunnyvale, Mountain View and Santa Clara, before turning east to return to the airport. As these weather systems pass - the airport returns to "north flow," our most common configuration, and Air Traffic Control begins directing aircraft to arrive over San Jose downtown.

It ~~is~~ ~~should be~~ noted that the airspace over Santa Clara County and the entire San Francisco Bay Area is ~~one of the most~~ complex. ~~airspace, for the Federal Aviation Administration (FAA) to conduct safe flight operations.~~ There are three major international airports as well as numerous smaller airports. The interactions of all these facilities play a part in the flight procedures that are used at SJC, the focus of this Committee is on the procedures that are used for South Flow arrivals at SJC.

**Formatted:** Font color: Red, Strikethrough

**Formatted:** Font color: Red, Strikethrough

The Committee's recommendations can succinctly be prioritized as:

- Fly ~~an alternate or~~ more dispersed approach ~~and explore alternate flight paths,~~ ~~which will aid in dispersing the flights;~~
- Modify procedures to reduce the ground noise generated by aircraft;
- FAA Policy Changes;
- Avoid noisy flight maneuvers;
- Recommendations for SJC to explore;
- Explore single regional noise reporting system.

**Commented [RH1]:** Dispersion is not optional.

**Commented [JT2]:** In addition to Dispersion of the main flight path, alternate flight paths (like the East approaching flights) need to be examined and preserved (I agree that dispersion should not be optional.) I tried to incorporate the comments made during the prior AdHoc Committee meeting.

The Ad Hoc Committee reviewed and prioritized numerous noise mitigation recommendations (Attachment X) and has listed the top ranked mitigations under the appropriate category.

Having conveyed these recommendations, we request that the FAA:

- Evaluate and report consequences/impact of recommendations

- Consult with the committee/Cities to determine which appropriate recommendations to implement
- Provide written response documenting the FAA ~~evaluation and~~ conclusions of what has been requested along with specific rationale supporting those conclusions if a suggestion is deemed to be infeasible.
- Provide a timeline for when the committee can expect documented responses
- Consistent with the FAA's charter to address safety, efficiency and noise, ~~Continue to prioritize safety of flight as its number one priority, but also to raise~~ bring more attention to the ~~issue~~ reduction of ground level aircraft noise where FAA findings of 'no significant impact' are expected, so that ~~the~~ FAA can better mitigate the impact to our residents.

Formatted: Underline

The Committee believes timely implementation of the recommendations will provide noise mitigation to the community experiencing the impacts of South Flow arrivals.

Sincerely,

Glenn Hendricks  
Mayor, Sunnyvale

Chair, Ad Hoc Advisory Committee on South Flow Arrivals Committee

## List of Committee Members

- Councilmember Jeffery Cristina – Campbell
- Mayor Savita Vaidhyanthan – Cupertino
- ~~Vice~~ Mayor Jean (John) Mordo – Los Altos
- Mayor Gary Waldeck – Los Altos Hills
- Councilmember Bob Nunez – Milpitas
- Councilmember Rowena Turner – Monte Sereno
- Councilmember Rene ~~Sp~~ering – Morgan Hill
- Vice Mayor Lisa Matichak – Mountain View
- Councilmember Lydia Kou – Palo Alto
- Mayor Mary-Lynne Bernald – Saratoga
- Councilmember Charles “Chappie” Jones – San Jose (Vice Chair)
- Councilmember Raul Peralez – San Jose
- Vice Mayor Kathy Watanabe – City of Santa Clara
- Mayor Glenn Hendricks – Sunnyvale (Chair)

## List of Committee Alternate Members

- Mayor Liz Gibbons – Campbell
- Councilmember Steven Scharf – Cupertino
- ~~Councilmember~~ Vice Mayor Lynette Lee Eng – Los Altos
- Vice Mayor Marsha Grilli – Milpitas
- Vice Mayor Evert Wolsheimer – Monte Sereno
- Councilmember Larry Carr – Morgan Hill
- ~~Councilmember~~ Mayor Lenny Siegel – Mountain View
- Vice Mayor Eric Filseth – Palo Alto
- Councilmember Howard Miller – Saratoga
- Councilmember Johnny Khamis – San Jose
- Councilmember Teresa O’Neill – City of Santa Clara
- Vice Mayor Larry Klein – Sunnyvale

## List of Meeting Dates

- November 27, 2016 – Organizational Meeting – City of San José Committee Room
- January 26, 2018 – City of San José Council Chambers
- February 23, 2018 – SJC, Boeing Conference Room
- March 9, 2018 – SJC, Boeing Conference Room
- March 23, 2018 - SJC, Boeing Conference Room
- April 13, 2018 – SJC, Boeing Conference Room
- April 27, 2018 – SJC, Boeing Conference Room
- May 18, 2018 – SJC, Boeing Conference Room

## Acknowledgements

The level and intensity of aviation noise experienced by residents of Santa Clara County is dependent on various factors including proximity to existing flight paths, time of day, and weather conditions. The ~~unintended~~ noise consequences from the implementation of NextGen ~~and overall increase of flights in our region~~, are having a negative impact on the quality of life of our residents and these consequences will be amplified by growth at SJC, the fastest growing airport in the country, per San Jose Mayor Liccardo. In response to growing community complaints and concerns ~~on~~ about aviation noise, Committee members request that the FAA implement timely noise mitigation solutions.

The Committee would like to thank the San Jose City Council for initiating the Ad Hoc Committee on South Flow Arrivals, thereby demonstrating through the Committee their commitment to proactively identify mitigations to these challenges.

The Committee would also like to acknowledge and thank the Federal Aviation Administration (FAA), they have attended every meeting ~~with knowledgeable and committed staff~~. Through various presentations and guest speakers, the FAA ~~demonstrated a real effort to~~ shared information and educated the Committee and public about the complexity of the airspace among other issues. ~~The committee feels the FAA participated in these meetings as a willing partner in search of practical solutions.~~

The San Jose Airport staff has been fantastic and true partners in this effort. The Committee is appreciative of the meeting space and coordination provided by the staff. In particular, the Committee would like to recognize Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport for his outstanding support.

I want to thank all the members of the Committee for the countless hours spent trying to problem solve such a complex issue. The calm, rational thoughtfulness that the members brought to every meeting created a great collaborative environment.

Most importantly, the Committee wishes to thank the members of the public who attended these meetings and/or provided input. Our residents clearly showed a passion for this topic and a zeal for wanting to find transparent solutions that would work for all parties involved. They were focused on sharing their experiences, learning about the constraints and offering perspective on possible mitigations.

Commented [RH3]:

Commented [JT4]: Although FAA was helpful with explanations, they did not offer any solutions for the issue, and discouraged possible suggestions as not feasible. Only Thann offered 2 possible solutions, and her attendance was limited to only one meeting. However, FAA did participate in the process and that is certainly appreciated.

Commented [RH5]:

## What Are South Flow Operations?

Normally, aircraft at SJC land descending from the south (over parts of downtown San José) and take off heading north. However, under certain weather conditions (~~mostly when the wind shifts direction at the Airport and~~ flows from the south at higher speeds), for the sake of operational safety, the FAA requires pilots of arriving aircraft to follow an arrival procedure that can take descending aircraft over parts of San Jose, Cupertino, Sunnyvale, Mountain View, Palo Alto and other communities as they prepare to land at SJC approaching from the north flying south. When that arrival procedure is used, air operations are in “south flow.” South flow is sometimes also called “reverse flow”.

More recently, the use of the south flow procedure has increased significantly as wind conditions that cause the need for south flow operations have ~~started earlier in the day and have been lasting longer~~ occurred more often. In addition, since 2015, use of new ~~air traffic control~~ technology installed by the FAA and in aircraft have resulted in more precise and compacted arrival patterns, especially over San Jose, Sunnyvale, Cupertino and Mountain View. In addition, since 2012, the FAA has twice altered its guidance on the path airplanes should take on arrival, resulting in a shift of air traffic. Some residents believe that the use of new Nextgen technology has increased per-flight noise. While ~~this has reduced~~ noise has been reduced for some residents, ~~it~~ noise has increased the ~~noise for those~~ many residents living directly under the more precise arrival ~~flight and approach~~ paths.

**Commented [JT6]:** There have been occasions when South flow starts in the evenings around 10PM – So I might avoid saying “earlier in the day” – Although most south flow does occur in the mornings (but not all southflow is in the mornings).

## South Flow and the Bay Area Metroplex

The FAA has testified that the Bay Area is the second most complicated metroplex location after New York City for air traffic given the proximity and flight patterns of its three primary airports: SFO, SJC, and OAK. For safety purposes, air traffic procedures are required to maintain a safe vertical and horizontal distance from other aircrafts and approach and departing flight paths.

FAA staff has presented that a South Flow arrival approach is a more complicated procedure than North Flow given its proximity to other flight procedures for SFO traffic, and as such it is a less preferred procedure when compared with North Flow. The FAA stated that they only switch to South Flow when wind and weather conditions require it. The preferred approach is North Flow where planes approach SJC from the south flying north, as there is less air traffic from other airports.

## Formation of the Ad Hoc Advisory Committee on South Flow Arrivals

In November 2016, Sunnyvale ~~and Mountain View~~ residents attended the Airport Commission meeting to ask the Commission to address their noise concerns. The Commission requested staff to write the FAA to ask for solutions to address the south flow noise issue. While the FAA responded to staff’s correspondence, the response offered no adjustments in the procedure.

**Commented [RH7]:** I attended the November meeting

Sunnyvale and Mountain View residents returned to the Commission in February 2017 to request the Commission’s support for the formation of a body to address south flow noise issues. In

response, the Commission voted unanimously to recommend the formation of a body that includes FAA participation.

In March 2017, the Airport hosted a meeting organized by Congressman Ro Khanna’s office. Elected officials from Sunnyvale, Mountain View, Cupertino, San José, the FAA, and the Airport attended to discuss the south flow issue and possible solutions. There was consensus that it would be constructive to have public information and discussion forums to understand why the south flow procedure is used and to review possible solutions to reduce the noise for the most impacted residents. The FAA and the Airport would participate in the forums.

In response to the Commission’s recommendation, Airport staff reviewed the formation and structure of the Select Committee on South Bay Arrivals, which was an ad hoc noise committee formed in May 2016 by Congresswoman Anna Eshoo, Congresswoman Jackie Speier, and former Congressman Sam Farr. The Select Committee brought together elected officials from the jurisdictions of three counties to look at the noise impacts of the FAA’s 2015 implementation of its NextGen technology. The Committee ultimately made a series of consensus-based recommendations before disbanding in November 2016. The three Congressional offices endorsed and transmitted the Committee’s recommendations to the FAA for review. The FAA is now studying those recommendations.

In reviewing the Select Committee model, Airport staff determined that the ad hoc model is a good process for conducting a regional discussion on possible solutions to address the noise impacts of the south flow procedure. Based on this, the City of San José formed the Ad Hoc Advisory Committee on South Flow Arrivals to discuss possible solutions. The Committee is an advisory body with no legal authority. Its purpose is to provide potentially feasible and consensus-based recommendations to the FAA to mitigate the noise impacts of the south flow procedure.

To encourage ~~the maximum degree of~~ inclusiveness and consensus, all Santa Clara County cities were invited to participate on the Committee. ~~To encourage the maximum degree of inclusiveness and consensus, the Committee voted to recommend that the San Jose City Council change the Committee's charter to include East Palo Alto, Fremont and Newark, cities that are also overflown by south flow traffic. The San Jose City Council rejected the Committee's recommendation.~~ FAA staff and San José Airport staff have also participated in the discussions with the FAA providing technical support and the Airport providing non-technical support.

**Commented [JT8]:** I would recommend NOT including this “blue comment”. IMO - This is not the correct forum to display this information. This is an FAA document – Not a discussion about the AdHoc Committee and San Jose Council inclusion or exclusion of particular cities. (I leave this decision to others.)

• Fly an ~~alternate~~ or more dispersed approach

One of the changes that has come with NextGen navigation into San Jose International Airport (SJC) is switching from a Radar based approach to a GPS approach. In addition, since 2012, the FAA has implemented multiple changes to the SJC south flow flight path, which has shifted and concentrated this south flow air traffic. That in conjunction with OPD, During South flow operations, our residents now experience a concentration of the path that aircraft fly through the sky. This creates the effect of having aircraft fly through the same space in the sky more consistently. The resident’s perception of this is the creation of a “Rail” over certain neighborhoods and houses. In effect, causing a fewer number of residents to bear the brunt of the ground effect noise from aircraft flying overhead.

It should be noted that RNP is one of the tools and procedures used by the FAAS that helps contributes to create this “Rail” impact to on residents.

Prior to the implementation of NextGen, the aircraft flying overhead were dispersed over a much broader area approximately 2.5 miles wide. This had the effect of not concentrating ground effect air noise and fine particulate matter over specific neighborhoods and houses. Thereby, reducing the negative effects on residents. A dramatic increase in noise complaints appeared with Nextgen.

The FAA has found-stated that having a predictable and consistent repeatable set of procedures improves safety, workload and communication for aircraft preparing for landings.

The attached spreadsheet identifies many suggestions for “how” this might be accomplished. (See items Q through CC).

**Request to the FAA:** The Ad Hoc Committee requests the FAA to explore options and procedure changes that will still allow for the safe landing of aircraft at SJC, AND return to a more dispersed distribution of aircraft. (Using the criteria listed below)

Dispersion can mean different things in each of the the-impacted cities:

Without being prescriptive of “how” to achieve dispersion over each city, the following details will try and define success criteria for dispersion of aircraft over each city.

**San Jose**

San Jose representative needs to define what we want here

**Cupertino**

Cupertino representative needs to define what we want here

**Sunnyvale**

Commented [JT9]:

Commented [JT10]: OPD refers to Optimized profile descent, and I believe does not cause a concentrating of flights. OPD is associated with a plane’s glide slope. Concentration was caused by increased use of GPS technology and the multiple flight path changes implemented by the FAA beginning in early 2012. Three new waypoints were added (JESEN, HITIR, and ZORSA) – My understanding that these waypoints did not exist prior to 2012. PUCKK was the final waypoint in early 2012. & late 2011 . Flight path changes occurred in two main phases – The first in early 2012 (in preparation for Nextgen)- removing PUCKK waypoint and shifting to JESEN, and the second in 2015 incorporating ZORSA and HITIR into the flight path.

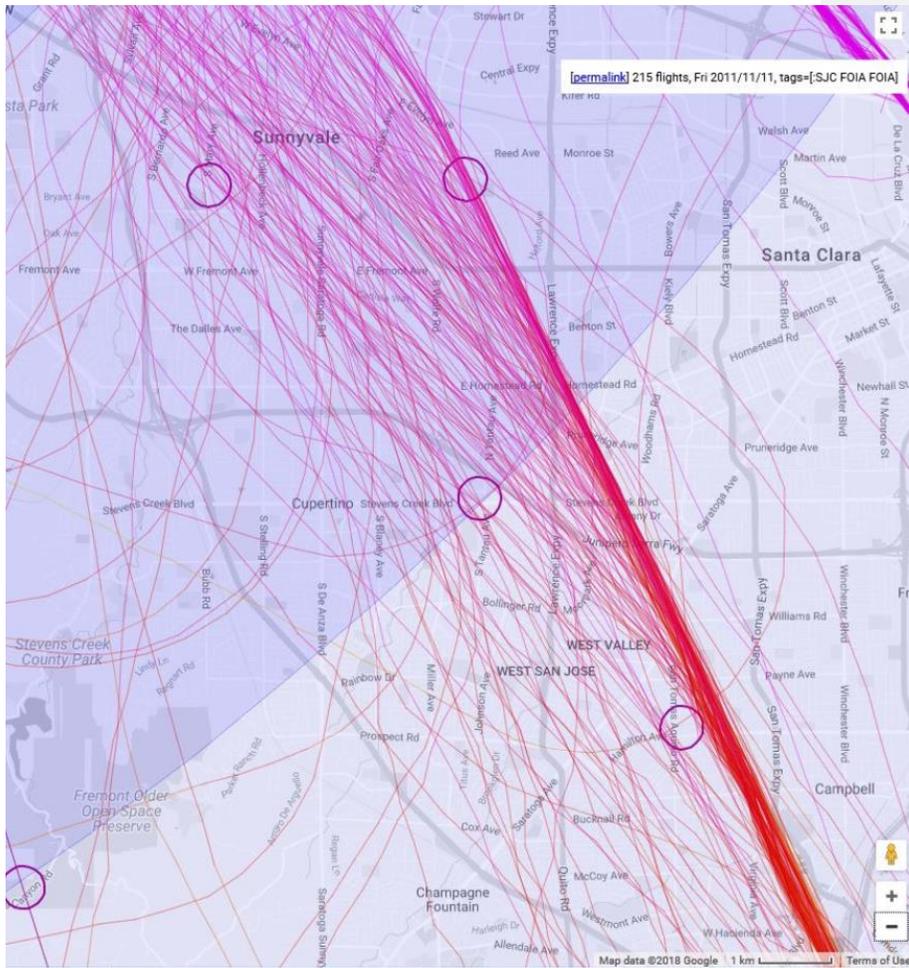
Commented [JT11]: I believe the FAA used the terms predictable and “repeatable” – So may be better to use this verbiage

Commented [RH12]:

For the City of Sunnyvale – **Disperse the flights.** Dispersion would mean **more** even distribution of aircraft between the ZORSA and PUCKK waypoints. Not that aircraft would fly over these specific points, but rather use these as an eastern and western outside logical boundary of where **we would prefer** aircraft **to would** fly over the city. Define a set of procedures, rules or processes, **agreed to by the city**, that would enable FAA to safely and **semi-**evenly distribute traffic over **Sunnyvale the city** (measured over time).

A possible success criteria: Sunnyvale to see the level of dispersion that existed prior to 2012. Flights were dispersed evenly over an approximately 2.5 mile wide corridor between waypoints ZORSA and PUCKK (See image 1 for sample desired dispersion – SJC Historical tracks prior to 2012).

Image 1 - SJC Historical tracks prior to 2012 over Sunnyvale



## Mountain View

(Section to be replaced by comments from Lisa) I took a crack at this for Mountain View. Mountain View representatives need to review and determine if this is correct.

For the City of Mountain View – dispersion of aircraft is essential to a solution. Two “rails” (straight and semi-circular) have sharply concentrated noise over Mountain View in recent years. These rails come from use of an RNP approach and a new vectoring procedure. Mountain View would like to see the dispersion that existed before 2012, even if that means returning some control to pilots. Can airplanes that are capable of turns that are tighter than the RNP turn begin their turn prior to reaching ZORSA, dispersing traffic to the East of the RNP rail? Can traffic on the STAR procedures make their turn at or after JESEN at slightly different locations and with slightly different headings, perhaps by recreating PUCKK as the terminal waypoint (infrequently reached) on the arrival procedure? This could ‘spray’ traffic across Sunnyvale and Mountain View and along the length of Hwy 101 as before. Would creation of a charted visual approach help? With different procedures, could ATC contribute to these ends? Recreating the long-standing traffic patterns that existed prior to 2012 would reduce complaints significantly.

~~For the City of Mountain View—dispersion of aircraft has more to do with aircraft making a right hand turn to bring them around for final approach to SJC. When looking at the Radar tracks, this has the effect of creating a rail over parts of the city. (This may be OPD). It appears the procedure is trying to reduce ground effect aircraft noise to residents as it fly’s specifically over Moffett Airfield. Can the procedures, rules or process be modified such that aircraft are more evenly distributed crossing the length of the Moffett runway, thereby eliminating the concentration of flights over certain neighborhoods and houses as they approach Moffett? In effect use the northern and southern boundary of the runway as the outermost points that aircraft could fly and semi evenly distribute traffic (measured over time).~~

## Palo Alto

Palo Alto representative needs to define what we want here

## ~~One Possible~~ An Existing Alternative Approach

~~The following is one possible alternative approach for the FAA to explore. There may be others and the Committee encourages any and all options to be fully reviewed.~~

When the South-flow arrival pattern is initiated for San Jose International (SJC) airport, most traffic flies toward and through ZORSA over San Jose, Cupertino, Sunnyvale, Mountain View and Palo Alto to make a right-hand turn to intersect the final approach pattern to land.

In reviewing Radar traffic, there is some amount of traffic that lands at SJC during South Flow that is vectored to land from the East. That traffic comes in and makes a left-hand~~ed~~ turn to intersect the Final Approach.

**Request to the FAA:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to explore creating a Procedure that aircraft could use to land at SJC that would take advantage of this Eastern arrival option. ~~Traffic vectored to the Eastern Approach has been a minor, but significant, component of dispersion. The FAA should develop a strategy to prevent that traffic from being shifted (by default) to cities under the Western Approach as the FAA deploys procedures that reduce the requirement for vectoring.~~

~~Further, ~~W~~without being prescriptive of “how” to achieve this Eastern approach for South-flow – the success criteria for such an approach would be for a minimum of 25% of the South-flow traffic to use this approach. Having aircraft land from over the bay would reduce the ground level impact noise to the previously identified city~~ies~~.~~

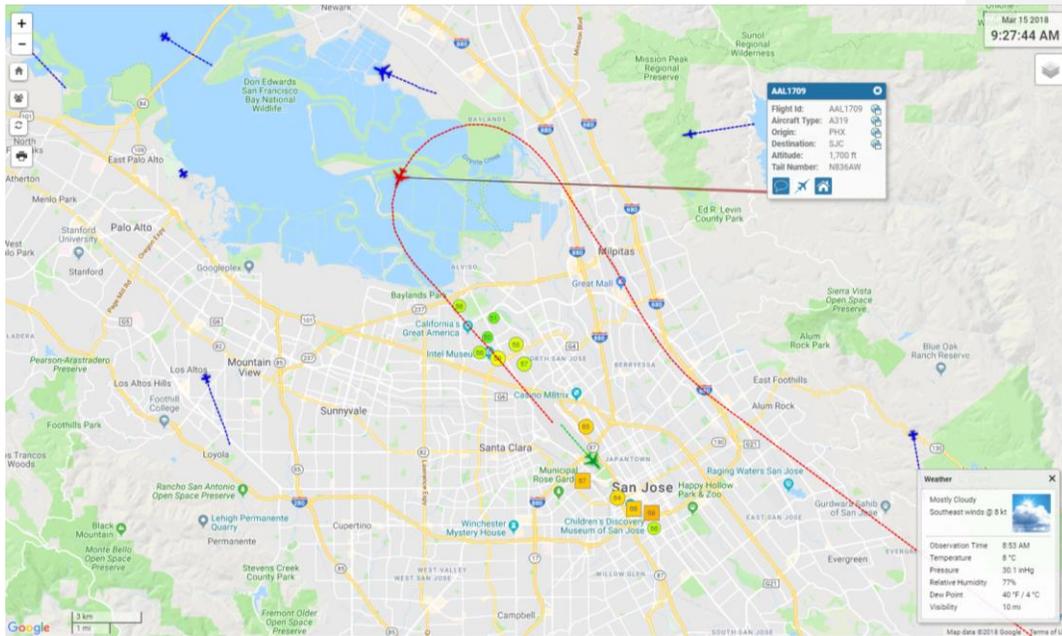
The success criteria and FAA evaluation process would also need to ensure that we are not moving ground level impacting noise to other residential communities.

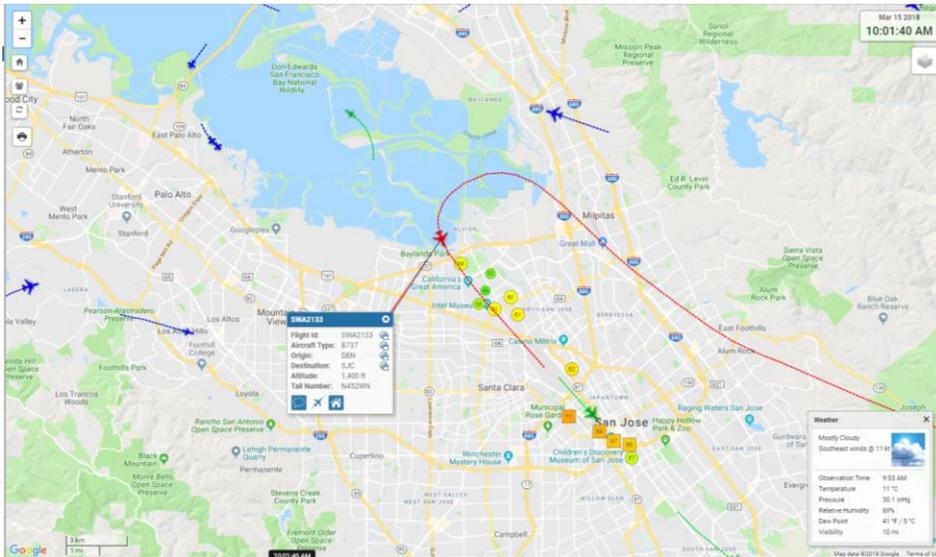
The attached spreadsheet identifies suggestions for “how” this might be accomplished. (See ~~spreadsheet~~ items M, N, P).

~~Regardless of the outcome of this evaluation, the Committee requests the FAA to not lose or stop the vectored approach that some aircraft currently use to approach and land at SJC.~~

Commented [RH13]:

Examples of Vectored planes approaching from east side of SJC:





• **Modify procedures to reduce the ground noise generated by aircraft per flight noise, as experienced on the ground**

**Commented [RH14]:** Combine this item with 'Avoid Noisy Flight Maneuvers'

It has been mentioned multiple times that the objective the Ad Hoc Committee is trying to achieve is the reduction and/or mitigation of ground level **impacting** noise from aircraft. Items A through K from the spreadsheet are **possible** suggestions for how to achieve some of this noise reduction.

Per information that was provided by the FAA at the April 13, 2018 Ad Hoc Committee meeting, the **highest probability items to implement are items D, E, F of the spreadsheet.** (The FAA's comments were not a commitment that these **particular items** could be implemented or that they would achieve the desired results.)

**D = Raise Altitude provided airplanes do not fly dirty or use jet thrust**

**E = Raise Altitude at waypoint ZORSA**

**F = Relax altitude at HITIR**

**Request to the FAA:** The Ad Hoc Committee requests the FAA to initiate a full procedure evaluation to implement item E & F. The purpose being to implement the concept of item D.

~~These items are based in the concept that “altitude is our friend” as it relates to ground impacting noise from aircraft. The higher the aircraft, the less its noise will impact residents on the ground.~~

~~If there are other suggestions that the FAA could suggest to be reviewed to raise the altitude of aircraft, these should also be included in the evaluations.~~

~~The Ad Hoc Committee wants to acknowledge that the whole purpose of the South Flow arrival pattern or any arrival pattern is to get aircraft safely to the ground and land.~~

The success criteria for this set of items is to minimize per flight noise over residential areas. safely land aircraft at SJC but keep the aircraft as high as possible (for as long as possible), while still allowing for safety and appropriate decent paths and sequencing to land at the airport.

**Commented [RH15]:** Higher altitude could potentially create more noise. The FAA can give us altitude by asking airplanes to fly level, but that would require use of flaps and jet thrust. The accompanying increase in noise could easily outweigh the reduction we'd get from the additional altitude. This is a complex optimization that must not be oversimplified. (Sound energy falls off with altitude at the 2<sup>nd</sup> power, but sound energy increases with speed at the 5<sup>th</sup> power – and that applies to 'flying dirty' - and with the speed of jet exhaust at about the 6<sup>th</sup> power.)

**Commented [JT16]:** At one point during the adhoc committee meetings, An FAA representative mentioned that higher altitude may help residents at the top of the descent, but implied that at the bottom of the descent the noise may become worse, since air brakes may be necessary at bottom of descent (due to steeper descent). Bottom of descent would likely be Sunnyvale. Unknown implications of altitude increase. Could improve the noise or make it worse.

- **FAA Policy Changes**

Commented [RH17]:

- **Sound Monitoring in the Impacted Cities**

Since the implementation of NexGen, the FAA has not changed how it reviews noise impacts to communities. Noise impacts due to changes in aviation paths and procedures have been reviewed using noise modeling technology instead of actual measurement of noise generated from aircraft. The Committee requests the FAA to monitor actual noise generated and furthermore establish a benchmark to measure pre and post implementation of recommended changes; thereby making it easier to analyze effectiveness.

**Recommendation:** The Committee is requesting implementation of permanent noise monitoring in areas throughout Santa Clara County (EPA, Fremont?) to measure effectiveness of noise mitigation solutions. ~~Noise data captured by sound monitoring should be used by the FAA to validate the modeling tools the FAA uses as part of its environmental impact evaluations.~~

The point of noise modeling is to simulate real-world conditions. The noise models used by the FAA should be calibrated to sound on the ground under varying weather conditions. Moreover, if certain south flow flight procedures have been optimized for sound, as the FAA has testified, the procedure designers should ensure that they have calibrated their procedures to the weather conditions most prevalent when those procedures are to be deployed. For south flow, that means a tail wind and a temperature average of the winter months.

Items K\*, OO\*

[Possible Addition] Direct from the “Report of the Select Committee on South Bay Arrivals” (Page 3 of report)

6. Meaningful metrics for measuring aircraft noise should be used when working with the Committee’s Recommendations. Limiting the metrics to use of DNL is inadequate and unacceptable. A baseline of aircraft noise should also be established. The recent agreement between the FAA and the Massachusetts Port Authority (which owns and operates three

**Commented [RH18]:** If the modeled conditions are met, maybe the flight path is reasonably quiet (and maybe not if capacity, not noise, is the objective), but add in a tail wind that requires use of speed brakes to keep to a highly constrained flight path, and you have a huge amount of noise. Not accounting for weather has derailed other FAA programs.

**Commented [JT19]:** As Robert mentions, it is possible that the flight paths are not accounting for wind. Do the FAA noise simulations account for the varying wind conditions seen especially during inclement weather associated with South flow? (Kind of like car cruise control- It can get really loud on a hill when the engine engages to try to keep a constant speed – This may be the same issue when a plane is flying against the wind or with varying wind speeds – Perhaps Engine thrust might keep changing with the FMS Flight management systems. An interesting hypothesis.)

**Commented [JT20]:** (Robert Holbrook had brought this up a number of times during discussions.) You may want to mention the FAA flawed noise metrics of 65 DNL somewhere in this report. I included an excerpt from the Select Committee on South Bay Arrivals (page 3), because they had a full section dedicated to the noise metrics issue through the FAA. I’m sure you are already aware of the metric used by the FAA to determine acceptable noise levels, and how it is flawed. Basically, the DNL is based on a Yearly average of sound events – So for South flow operations, which occur approx. 15% of the time, we would never hit the 65 DB DNL for FAA. Even areas right on flight paths very close to airport runways and with constant flights do not often hit the 65 DNL average. It is almost an impossible FAA threshold to hit. Environmental impacts by the FAA use this 65 DNL, so (with this flawed tool) we will never be out of compliance for the FAA. One would likely have to be directly on the runway to be out of compliance, and with the SJC curfew, likely even at the runway they are not exceeding the 65 DNL range. Check out the Select committee report section 3.3 page 24 <https://eshoo.house.gov/wp-content/uploads/2016/12/111716-Report-of-the-Select-Comm-on-SoBayArrvls-FINAL.pdf>

airports: Boston Logan International Airport; Hanscom Field; and Worcester Regional Airport), to use real-world single-event noise data from communities in order to develop a supplemental noise metric to measure and track noise and flight concentration is a development the Committee supports and points to as an example of a meaningful metric.

- **Improve Public Outreach**

Near the end of this committee’s duration, it was ~~found-out~~ discovered that the FAA was in the process of evaluating a change for the approach procedures for SJC (ILS). No one representing the FAA at these meetings or the public was aware this change was being considered.

Once the FAA project was brought to FAA representatives' attention, the evaluation was slowed down so that a full process including improved public input could take place. ~~(Thank you to the FAA Officials).~~

Commented [RH21]:

But, this item highlighted the ~~transparency and ease (or lack thereof) for~~ difficulty members of the public ~~or and~~ even the FAA ~~to keep track and be aware of~~ have in becoming aware of procedures changes that can impact local residents.

**Recommendation:** The Committee is requesting the FAA to improve the notification mechanisms to better alert local communities when procedures are being reviewed. Just posting to the FAA’s website (~~What is the name of this?~~) at the National level is not sufficient to provide clear, layman language and transparent information to the public. There needs to be better regionalization or categorization of the possible changes. There should also be a mechanism for public officials ~~and interested members of~~ the public to be notified of changes that are being proposed in their region.

Commented [RH22]: The IFP Gateway

Commented [RH23]:

- **Review and Optimize Draft Procedures for Noise before Finalizing Them**

**Recommendation:** Draft flight plates would be reviewed by a team of noise specialists to see if they can be further optimized for noise before publishing them for review.

Formatted: Normal, Indent: Left: 0.25", No bullets or numbering

Formatted: Font: (Default) Times New Roman, Bold

- **Avoid noisy flight maneuvers**

The Committee spent a considerable amount of time discussing and hearing from FAA, traffic control and airport officials on noise mitigation through airplane flight modifications. Committee members explored scenarios where changing airplane speed, altitude, and aircraft vectoring could have a noise reduction impact, below are the recommended mitigations:

Items A, B, C\*, G, H, J, K\*

Given the technical complexity of these items, the Committee does not have a specific ranking for these. But the success criteria for any of these are the same. Implement changes that allow for the continued safe flight operations of aircraft while reducing the impact of ground level noise on our impacted communities.

**Commented [RH24]:** Combine with Minimize Per Flight Noise

**Commented [RH25]:** The starred items are listed at the end of this paper. I suggest recasting the existing descriptions as I have suggested there.

• **Recommendations for SJC to explore implementing noise reducing retrofits where possible**

Mitigating noise should also be explored from an airport operator perspective and consideration should be given to airfield design, such as evaluating the feasibility of runway extensions, new runway construction, or relocation of runway thresholds. Operationally, consideration should be given to modifying arrival flight profiles and capitalizing on advanced navigational technologies, as well as reviewing noise curfews. Other noise management options include working with airlines and pilots to manage airplane noise, examples include the Fly Quiet Program, creating a Pilot Awareness Program.

**Recommendation:** The Committee recommends that the San Jose Airport respond to the following recommendations and provide a response on feasibility of implementation. Prioritized Items DD through LL

• **Explore single regional noise reporting system**

Currently, when any resident wants to register a complaint about aircraft noise, there is severe burden that is placed on the resident. The person reporting the issue, needs to research and find information about the aircraft, find out what determine the destination airport, look up the noise reporting contact information for that arrival airport and then file the actual complaint. And then if they are registering complaints for a situation like South Flow at SJC – they need to re-contact and go through the reporting process for each flight or noise incident.

This is an undue burden placed on the residents reporting noise concerns that have already been clearly defined and documented as occurring.

**Request to the FAA (or SJC, if they are the more appropriate body):** The Ad Hoc Committee requests the FAA to initiate a study to look at creating a single Aircraft Noise Reporting System for the area, including, but not limited to: simplified reporting of information by the reporting person, analysis and publicly available reporting. The user interface for this system should minimize the number of clicks required to log a complaint. (~~stop.jetnoise.net, the most widely used site for reporting noise to SFO has reduced the number of clicks to one.~~)

**Commented [RH26]:**

**Commented [JT27]:** Would strongly recommend against including any verbiage promoting runway extensions or new runway construction. Longer runways would mean bigger planes- Like 747s. Also, I don't think SJC has any impact on navigational technologies, so this portion should be removed (Per strike through for blue sections by Robert Holbrook)

**Commented [RH28]:**

**Commented [RH29]:** Advanced navigational technologies (GLS) are likely to be more desirable than what we have but not as desirable as what we had prior to Precision Based Navigation. GLS approaches recently appeared in the IFP Gateway for SFO, with a rollout date of March 2020. GLS is a three-dimensional rail that can be 'bent' any way the designers want. But it's still a rail

**Commented [RH30]:** ANCA effectively prohibits the expanding of curfews. One actionable idea would be for the Committee to enforce the payment of curfews rigorously, but an SJC Staff memo to the SJ City Council on the topic from 2015 stated that there are only 2 citations issued per month.

**Commented [RH31]:** ANCA effectively prohibits the expanding of curfews. But perhaps it is worth stating that the Committee strongly recommends that the current curfews should be preserved by the City of San Jose.

**Commented [JT32]:** IMO - Reference to stop.jetnoise.net should NOT be included in this document. It is a compliant system built by a private resident for SFO complaints, and not applicable to SJC.

## Responses from the FAA

The Ad Hoc Advisory Committee on South Flow Arrivals was designed to be a limited term, ending after six-months from initiation. The Committee believes it is important to define a contact protocol once the Ad Hoc Advisory Committee on South Flow Arrivals has concluded, in order for the FAA to provide its response to the recommendations.

**Recommendation:** When the FAA has any feedback on the Committee’s requests or additional questions, the FAA should contact:

- Mathew Kazmierczak, Manager of Strategy & Policy at San Jose International Airport
  - [matthew.Kazmierczak@sanjoseca.gov](mailto:matthew.Kazmierczak@sanjoseca.gov)
- Glenn Hendricks, Mayor of Sunnyvale and Committee Chair Person
  - [mayor@sunnyvale.ca.gov](mailto:mayor@sunnyvale.ca.gov)
- Andi Jordan – Santa Clara County Cities Association
  - [andi@citiesassociation.org](mailto:andi@citiesassociation.org)

Depending on the information provided by the FAA, the designated contact representatives may:

- Pass information on from the FAA to Committee Members
- Post information on the Committee Website hosted by SJC
  - [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
- Convene an informal meeting of the former committee members
- Provide responses to FAA questions
- Other actions, as may be deemed necessary

The items in the spreadsheet that were omitted and I feel are important could be recast as follows:

- C\*: The FAA should initiate R&D to enable ATC procedures that would encourage vectored airplanes to descend at a glide. [This suggestion distills C, I, K and NN]
- K\* To the extent OPD procedures are designed to mitigate noise, the procedure designers should optimize those procedures for the wind direction, wind speed and temperature that are most common when the procedures are to be deployed. In this case, South Flow is used in the cooler winter months and is only triggered when a tailwind of 5 knots or more is expected. [This sharpens up and restates K. I included similar verbiage as a comment above.]
- OO\* The FAA should model changes to procedures prior to implementation, assuming (varying) real-world weather conditions. Ground noise monitors should be used to validate the models. [This sharpens up and restates OO.]

Formatted: Font: +Body (Calibri)



## Appendix

- **Link to Meeting minutes**
  - [www.flysanjose.com/Ad\\_Hoc\\_Advisory\\_committee](http://www.flysanjose.com/Ad_Hoc_Advisory_committee)
- **FAA Provided Materials**
  - All FAA presentations are available on the Ad Hoc Advisory Committee website: [https://www.flysanjose.com/Ad\\_Hoc\\_Meetings](https://www.flysanjose.com/Ad_Hoc_Meetings)
  - FAA Presentations
    - January 26, 2018 – SJC North and South Flow: Pre and Post OAPM
    - March 23, 2018 – FAA Data regarding February 28, 2018 Request, Questions, and Next Steps
    - April 13, 2018 – FAA Data response to March 23, 2018 meeting
- **Spreadsheet of Mitigation idea**
- **Electronic files received from residents**

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Tuesday, May 22, 2018 11:37 PM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** Please add to SJC Ad Hoc committee report under public comments section  
**Attachments:** Pre\_2012 levels \_Version 4.pdf

Hi Matthew:

Can you please add the following comment to the SJC Ad Hoc report public comments section? This comment was presented during the Ad Hoc Committee meeting of April 13, 2018 - A copy of the speech is also attached below in PDF format.

(Speaker Jennifer From Sunnyvale)

Speech below:

As speaker after speaker has mentioned, the rail needs to be broken. And we don't mean simply widening the flight path a bit- We are talking about reverting back to the pre-2012 level of even dispersion 2.5 miles wide. The way airplane noise travels, you need a very wide path.

We know this can be done. These old flight paths were safely in place for over a decade and need to be reverted back. If needed, hire additional air traffic control agents to ensure SAFE full even dispersion. The rail needs to be removed. FAA put us in this position, they need to fix this.

Second – An East approach

In 2015, FAA data shows that 32% of all south flow flights approached the San Jose airport from the east side.

In recent years, use of the East approach has been decreasing, and these flights are folding into the rail.

The East approach needs to be preserved. This East approach impacts very little residential area. In contrast, the West approach from Los Gatos to Sunnyvale impacts tens of thousands of residents and over 15 miles of dense residential.

Three – As flights approach residual areas for landing, they need to be optimized for noise - Not for efficiency. During these meetings, it has become clear that the FAA and the airlines have optimized for efficiency and gas consumption, and noise is not considered. Likely The flight management systems, which control the flights, have been built with one goal – And that is efficiency. This has resulted in unbearable noise for residents. This needs to change. Over dense residential areas, safety and noise need to be the sole priority – Not efficiency.

Let's work together to solve these issues.

END OF SPEECH

Thanks,  
Jennifer  
Sunnyvale

Public comment presented during the Ad hoc Committee meeting of April 13, 2018 – 2 minute public comment

(Speaker Jennifer From Sunnyvale)

As speaker after speaker has mentioned, the rail needs to be broken. And we don't mean simply widening the flight path a bit- We are talking about reverting back to the pre-2012 level of even dispersion 2.5 miles wide. The way airplane noise travels, you need a very wide path.

We know this can be done. These old flight paths were safely in place for over a decade and need to be reverted back. If needed, hire additional air traffic control agents to ensure SAFE full even dispersion. The rail needs to be removed. FAA put us in this position, they need to fix this.

Second – An East approach

In 2015, FAA data shows that 32% of all south flow flights approached the San Jose airport from the east side.

In recent years, use of the East approach has been decreasing, and these flights are folding into the rail.

The East approach needs to be preserved. This East approach impacts very little residential area. In contrast, the West approach from Los Gatos to Sunnyvale impacts tens of thousands of residents and over 15 miles of dense residential.

Three – As flights approach residual areas for landing, they need to be optimized for noise - Not for efficiency. During these meetings, it has become clear that the FAA and the airlines have optimized for efficiency and gas consumption, and noise is not considered. Likely The flight management systems, which control the flights, have been built with one goal – And that is efficiency. This has resulted in unbearable noise for residents. This needs to change. Over dense residential areas, safety and noise need to be the sole priority – Not efficiency.

Let's work together to solve these issues.

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Wednesday, May 23, 2018 12:01 AM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** Please include brain storming list in the public comment section of the ad hoc report

Hi Matthew:

Can you please add the following information to the adhoc committee report public comment section? This was a document submitted during the March 9, 2018 ad hoc committee meeting, and it contains a compilation of the brain storming list prepared by the Sunnyvale/ Cupertino Airport noise group.

You have referenced this brain-storming list in the following SJC link:

<https://www.flysanjose.com/sites/default/files/commission/18-03-09%20Public%20Comments%20Distributed%20at%20Meeting%20v2.pdf>

Can you please include this brain storming document in the public comment section of the report?

Thanks,  
Jennifer  
Sunnyvale

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Wednesday, May 23, 2018 1:48 AM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** Re: Please include brain storming list in the public comment section of the ad hoc report  
**Attachments:** Sunnyvale\_Cupertino Groups\_ Brainstorming List\_FINAL\_V4.pdf; Sunnyvale\_Cupertino Groups\_ Brainstorming List\_FINAL\_V4.docx

Hi Matthew:

Sorry for bombarding you... Slight correction to the email I just sent to you.

I just realized that the document link in the attached email contains 34 pages of documents from various sources.

Instead, I have attached the original Brain storming List from the Sunnyvale /Cupertino Airplane noise group - The original list is only 3 pages long, and was presented to the committee on March 9.

Page 3 of the document is a picture of representative flights tracks from November 2011, which shows the prior dispersion level for the south flow flight path prior to early 2012. These flight tracks were generated through FAA FOIA raw data.

Document attached in PDF and MS Word format. **Can you please attach the 3 page PDF/Docx to the ad hoc committee Report public comments section?**

Thanks,  
Jennifer  
Sunnyvale

On Wednesday, May 23, 2018, 12:01:17 AM PDT, Jen (Sunnyvale) <> wrote:

Hi Matthew:

Can you please add the following information to the adhoc committee report public comment section? This was a document submitted during the March 9, 2018 ad hoc committee meeting, and it contains a compilation of the brain storming list prepared by the Sunnyvale/ Cupertino Airport noise group.

You have referenced this brain-storming list in the following SJC link:

<https://www.flysanjose.com/sites/default/files/commission/18-03-09%20Public%20Comments%20Distributed%20at%20Meeting%20v2.pdf>

Can you please include this brain storming document in the public comment section of the report?

Thanks,  
Jennifer  
Sunnyvale

## **Brainstorming List – SJC Southflow Mitigations**

### **Sunnyvale / Cupertino Airplane Noise Groups**

#### **Overall Suggestions:**

- 1. Full dispersion to the pre-2012 levels (Phase 1), or designation of multiple published flight paths that will accomplish similar dispersion.**
  - Sunnyvale group has possible suggestions that could provide “calculated” dispersion.
- 2. The tight turn (RNP path) needs to be optimized or eliminated.**
  - Preliminary decibel meter testing is indicating that the RNP flight path (tight loop) is generating excessive noise
  - RNP needs to be optimized to reduce noise impact
- 3. FAA recommended - EAST approach flight paths**
  - Planes already fly these routes, but the number of planes using these routes is reducing
  - Increasing this approach leads to significantly less residential noise impact
- 4. Examine North approach into SJC from the bay**
  - Current published flight path exists, but is no longer frequently used
  - Increasing this approach leads to significantly less residential noise impact
- 5. Discourage narrow concentrated (single line) flight paths**
  - These single line flight paths are causing large spikes in noise for residents
  - Discretionary paths currently being flown into San Jose Airport are being eliminated
  - This elimination needs to be stopped
- 6. Stop disproportionately impacting residents**
  - Changes should consider historical use, and account for all parties involved
  - Changes should not affect any one resident over another
- 7. Limit flights between 10PM and 6:30AM over high density residential**
  - Taper/alter flights prior to curfew
  - Reduce planes overhead during hours that residents are at home most
- 8. Modify procedures**
  - Gliding in without power (reduces engine noise)
  - Reduce air speed (reduces airframe noise)
  - Utilize wake vortex generators (reduces engine whine)
  - Dropping/remove waypoints (creates dispersion)
  - Verify if wind speed trigger for South flow can be increased (reduces South flow flights)
  - Raising altitudes (alleviates noise)

## **Brainstorming List – SJC Southflow Mitigations (continued)**

### **Strategic Suggestions:**

- **Make sure the South flow flight path and any proposed changes do not disproportionately impact any one resident**
  
- **Initiate Technical working group**
  - Due to limited technical expertise and time, it is advised that a technical working group be created to study each of the proposals along with the FAA
  - Recommend that an aviation expert and all affected parties will be invited to participate in the working group; Sessions to be open to the public
  - The technical group will then present its' findings & recommendations during adhoc committee meetings for full discussion, findings, and final decision(s)
  
- **All changes should be FAA computer modelled prior to implementation in order to minimize excessive impact to single residents**
  - If forecasted impact does not match expected result, then the change may need to be rolled back and alternate mitigations considered
  
- **Analysis of proposed change should continue after implementation**
  - Because of time constraints, no noise studies will likely be completed before recommendations are implemented.
  - If the changes result in little or no improvement, then re-evaluation of the changes needs to take place & further mitigations will be necessary
  - Our team would like to see a marked improvement in this flight path; preserving quality of life and impacting no single resident disproportionately
  - Historical flight tracks need to be preserved.

### **Administrative Suggestions**

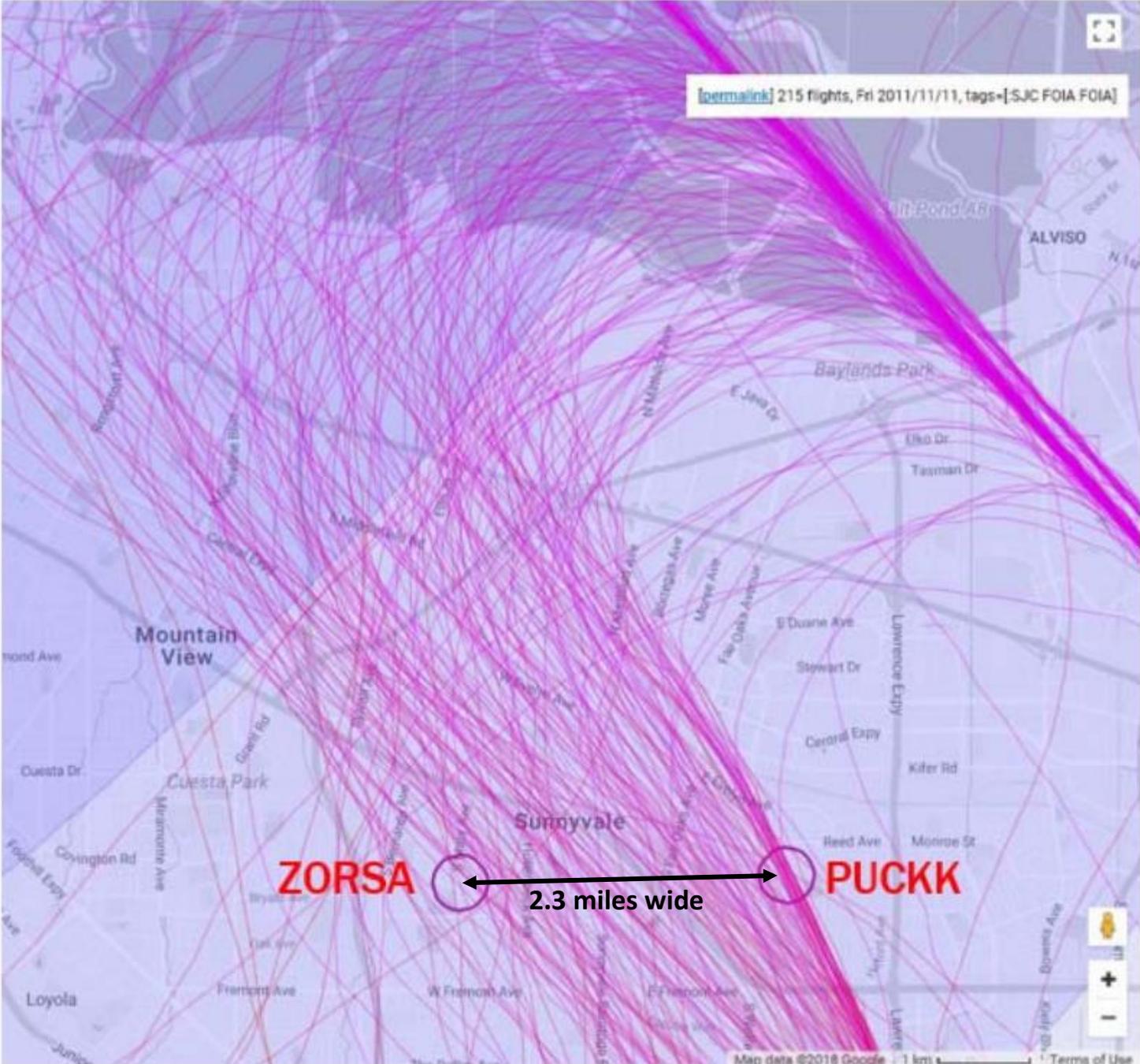
- **SJC to increase fines for curfew violators**
  
- **Establish landing fees based on flight noise generated by the plane(s) during arrival procedures**

**This AdHoc Committee has the power to really improve the South flow noise issue.**

**Together community leaders and residents can solve this problem.**

# Phase 1 - FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012*  
*11/11/2011, 215 arrivals to SJC*

## Kazmierczak, Matthew

---

**From:** Jen (Sunnyvale) <>  
**Sent:** Wednesday, May 23, 2018 3:14 AM  
**To:** Kazmierczak, Matthew; Kazmierczak, Matthew  
**Subject:** To be added to the SJC Ad Hoc Report Public Comments Section  
**Attachments:** Priority List\_FINAL Version 3.pdf; Priority List\_FINAL Version 3.docx

Hi Matthew:

One last item to add to the SJC Ad Hoc report public comments section-

This is a document that was prepared by the Sunnyvale/ Cupertino team during discussions.

Can you please include this document as part of the public comments section of the SJC Ad Hoc report? This is a priority list (generally in priority order) from our team.

Document attached in PDF and MS word format.

Thanks,  
Jennifer  
Sunnyvale/ Cupertino Airplane Noise Group

# Priority List – SJC Southflow Mitigations

## Sunnyvale / Cupertino Airplane Noise Groups

### Overall Suggestions:

1. **Full dispersion to the pre-2012 levels (Phase 1), or designation of multiple published flight paths that will accomplish similar dispersion. (Specifically, Rows Q, W, R, T, X spreadsheet)**
  - Revert back to historical “pre-2012” flight paths/procedures
  - Proven safe historic flight path in use for decades – Can be re-implemented easily
  - Historic flight path was approx. 2.5 miles wide with even dispersion
  - Hire addl. ATC agents to ensure even 2.5 mile wide dispersion/ Vectoring done currently
  - Full dispersion will stop the rail from seriously impacting residents under the flight path\*  
\*For effective noise mitigation, flight paths miles wide are needed (because of the way plane noise travels)
  
2. **FAA recommended – Create EAST approach flight path(s)**
  - Planes already fly these routes, but the number of planes using these routes is reducing
  - Increasing this approach leads to significantly less residential noise impact
  - In 2015, 32% of the South flow flights approached SJC from an easterly direction \*\*  
\*\*Per analysis of FAA FOIA data conducted by Robert Holbrook
  
3. **The tight turn (RNP path) needs to be eliminated (Row L in spreadsheet)**
  - Preliminary decibel meter testing is indicating that the RNP flight path (tight loop) is generating excessive noise
  - RNP routes create precise rails that disregard and seriously impact residents underneath
  - RNP should be eliminated – At minimum optimize for noise, not efficiency
  
4. **Break the rails - No narrow concentrated (single line) flight paths (Rows Q, W, R, T in sheet)**
  - These narrow single-line flight paths are causing large spikes in noise for residents
  - Discretionary paths currently being flown into San Jose Airport are being eliminated
  - This elimination needs to be stopped; Full flight path dispersion is necessary
  - Rails disproportionately impact one resident over another, and should be discouraged?
  
5. **Stop disproportionately impacting residents**
  - Changes should consider historical use, and account for all parties involved
  - Changes should not affect any one resident over another
  
6. **Modify procedures (Rows A-K in spreadsheet)**
  - Gliding in without power (reduces engine noise)
  - Reduce air speed (reduces airframe noise)
  - Utilize vortex generators for Airbus (reduces air frame whine)
  - Dropping/remove waypoints (can create dispersion/path flexibility)
  - Verify if wind speed trigger for South flow can be increased (reduces South flow flights)
  - Raising altitudes (alleviates noise)
    - Note: Altitude changes must be significant for any noise mitigation
    - A few hundred ft altitude change is insignificant for relieving airplane noise -Per FAA
  - FAA Modeling and before & after implementation testing necessary to confirm results

## Priority List – SJC Southflow Mitigations (continued)

### 7. FAA to prioritize safety and noise over dense residential areas

- FAA priorities to be safety, impacts to communities, and efficiency *in that order*
- Quality of life of citizens on the ground must take priority over airline profit & efficiency
- FAA directive needed from Congress to prioritize noise/health over dense residential

### 8. Limit flights between 10PM and 6:30AM over high density residential (Row DD in sheet)

- Taper/alter flights prior to curfew
- Reduce planes overhead during hours that residents are at home most

## Strategic Suggestions:

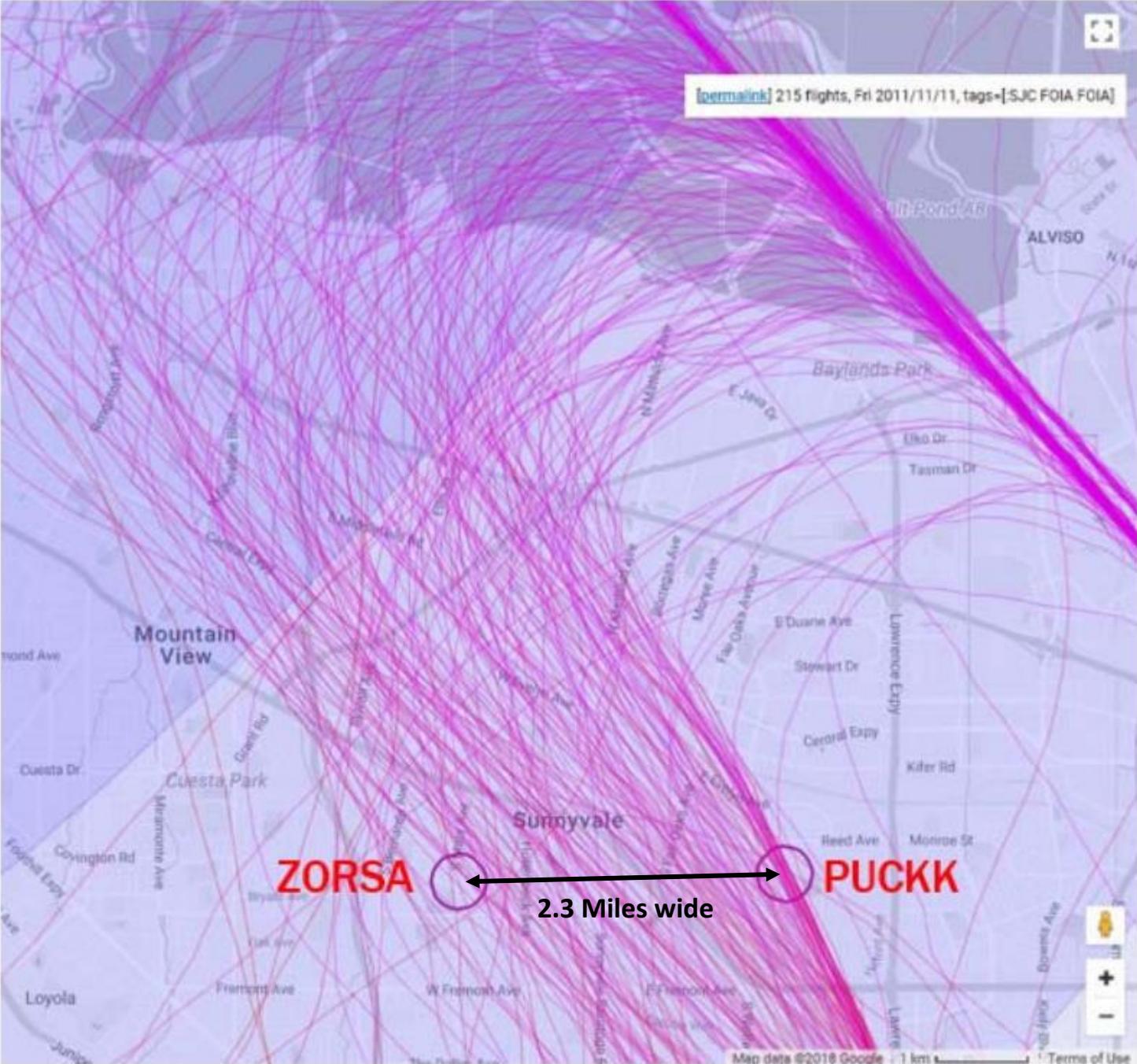
- **Make sure the South flow flight path and any proposed changes do not disproportionately impact any one resident**
- **All changes should be FAA computer modelled prior to implementation in order to minimize excessive impact to single residents**
  - If forecasted impact does not match expected result, then the change will need to be rolled back and alternate mitigations determined
  - Modelling should be conducted based on real world conditions- i.e. varying wind conditions, temperatures, cloud covers, etc.
- **Analysis of proposed change should continue after implementation & success criteria defined**
  - Success criteria needs to be defined and measured
    - Success criteria needs to include effective metrics to confirm significant resident relief/ mitigation
  - If the changes result in little or no improvement, then re-evaluation of the changes needs to take place & further mitigations will be necessary
  - Our team would like to see a marked improvement of this flight path; preserving quality of life and impacting no single resident disproportionately
  - Historical flight tracks need to be preserved.
- **Initiate Technical working group to continue the process**
  - Create a technical working group that can interact directly with the FAA to create new procedures
  - Group to include subject matter experts & close interaction with residents
  - Meetings open for public viewing & comment
  - The technical group / FAA will then present its findings & recommendations to contact personnel designated in the ad hoc report (& members of the public) for full discussion, findings, and final decision(s)

## Administrative Suggestions

- **SJC to increase fines for curfew violators**
- **Establish landing fees based on flight noise generated by the plane(s) during arrival procedures**

# Phase 1 - FULLY DISPERSED FLIGHT PATH

## Prior to FAA flight path changes



*South Flow Dispersion up to 2012  
11/11/2011, 215 arrivals to SJC*