

Ad Hoc Advisory Committee on South Flow Arrivals

Requests, Questions, and Next Steps

February 28, 2018

Requests for the FAA - Questions

1. Review and determine if the "Track" of the South Flow path has moved or changed since the implementation of NextGen?
2. Can we determine if Hand Flying by Pilots verses computer control - causes more ground noise?
 - a. What assumptions about ground noise does the FAA computer simulations or models use?
3. What are the specific questions we would like address that are in the Holbrock wrote-up?
 - a. How have south flow flight procedures changed around ZORSA, JESEN, and PUCKK from pre-NextGen (2011) to post-NextGen (2016)? Did planes shift slightly west? Are more planes using the ZORSA instead of PUCKK?
 - b. Did the minimum altitude for ZORSA change from 3200' to 3000'? Did ZORSA move? If it did decrease, what was the reason for the altitude change? Is it possible to return this minimum altitude back to 3200'?
 - c. It seems that planes are flying slightly faster on the south flow approach than in the past. Is this true? Does it matter? Are the planes flying faster because of a steeper decent? How does the modeling predict this impact on noise?
4. How would the Committee push for GBAS?
 - a. How close to operational is it?

Airport: According to an [FAA report dated September 2017](#) Honeywell has an operational CAT I GBAS system available at Newark and Houston as Non-Federal systems (airport sponsored). Current airlines utilizing this system at these two airports which also operate at SJC are United, Delta, Lufthansa and British Airways. However, only select planes have the necessary equipment to utilize the system. Are places still experimenting with it or is it operational at some airports?

Airport: yes it's still very much in development and testing. CAT II/III systems are not yet operational. Boeing is also testing a GBAS system.
 - b. How do we get more facts to see if GBAS would improve or make worse the ground noise issues we have?

Airport: Yet to be determined, initial reports are that it probably lowers overall noise impacts in some communities due to the steeper approach. It appears to be more advantageous long-term to the FAA as ground based navigational equipment are phased out as well as perhaps a way to reduce congestion delays.

If GBAS allows a steeper approach does this create more noise for communities near the airport?

Airport: Yet to be determined. It's probably important to understand that the

installations currently using GBAS or piloting GBAS are all large hub airports, which serve as a hub for a commercial airlines or are participating as part of R&D. As an example EWR and IAH are both hubs for United Airlines, as is SFO, which is currently conducting a pilot program. Since this is a non-federal program the airlines and airports are paying not only for the installation but also the maintenance of GBAS. These costs may be prohibitive for a medium hub airport, especially one without an airline hub.

5. Can we get a copy (or link) to any FAA Environmental reports that have been done related to SJC, since 2011?
6. Something about 1050.1f Environmental report
 - a. Airport: Environmental Impacts: Policies and Procedures is available at: https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/documentNumber/1050.1
7. Can we get a Horizontal view altitude map for the South Flow Path?
 - a. And for the "Normal" approach flow to SJC?
8. What does the FAA use as Baseline information in its simulations and modeling for south flow into SJC?
9. Does the FAA take noise into consideration when creating flight procedures?
10. Re-asking the question. If SFO needs airspace as far down as Sunnyvale during their normal landing pattern - why can't SJC use some of the airspace when SFO changes their landing direction?
 - a. FAA said something about SFO aircraft needing that airspace when they depart SFO. But, aren't the departing aircraft much higher, by the time they get to the South Bay? Can't SJC get even an additional 1,000 feet of altitude during these configurations?
 - b. Related question, if SFO routes over Santa Clara County were slightly higher (or less concentrated near MENLO), could this allow SJC south flow flights to be higher?

Questions to the Committee from the FAA

11. Where do we want aircraft to fly over our cities? Can we agree to a preferred path for aircraft as part of south flow to SJC?
[Next Steps: To discuss at the next meeting.](#)
12. The FAA said they could get us more details about particular South Flow flights into SJC.
 - a. Request to the Committee. Need to get these from our residents. Request was to compare 2 flights: 1 'louder' and 1 'quieter' with both on the same flight path (ideally with the same type of airplane) to try to determine how the plane flew differently

Questions to the SJC from the Committee

13. Can we get some Pilots perspective on this?
 - a. Can we get some knowledgeable Pilots at a meeting?

Airport: SJC is looking into finding an appropriate pilot who understands the approach and issues. It would be helpful to have a list of the type of questions the committee is interested in.
14. What is the role of the Airport in Procedures and Noise Control, in a post NextGen world?

Airport: Currently airports are not involved in the development of aircraft flight procedures. SJC does not have the technical expertise, breadth of staffing, or jurisdiction to assist in the development of aircraft flight procedures. Airports can assist in the development of an FAA/Community forum such as the Ad Hoc Advisory Committee when issues are identified.
15. Can you re-post the links to your reports that show monthly flight numbers and percentage of flights using South Flow?
 - a. Airport: Noise reports from SJC are available at: <http://flysanjose.com/noise>

Possible Mitigations to be Ranked for Investigation

16. Limit planes to a maximum of 200 knots once the planes are under 4,000 feet
 - a. Given the discussion on Friday, it sounds like speed limits don't work as certain planes require a certain speed for safety purposes.
17. Increase recommended altitude of ZORSA waypoint back to 3,200 feet
 - a. Make this a minimum altitude
 - b. Are there other waypoint as part of the South Flow path to SJC that should be modified to be minimums?
18. On Airbus 320 Aircraft, request the installation of an air deflector to quiet the whining noise.
 - a. Airport: The Select Committee made a recommendation that the FAA require operators of the A320 family to install "wake vortex generators", however the FAA response was that this was outside their area of authority. SJC estimates that roughly 6.7% of south flow flights are from this family of aircraft.
19. Create a procedure or mechanism to disperse the south flow traffic into SJC over a wider area
 - a. Relax the Positional criteria of waypoints? i.e. create ranges that could be used?
 - b. Revert the waypoint on the STAR of ZORSA
 - c. Create Charted Visual Flight Procedures
 - d. Create a specific procedure to disperse traffic.
20. Are there procedures that would be relevant to south flow SJC that are quieter than other types of procedures without impacting safety? Any special procedures that could reduce ground level noise?
21. Expand Northern Loop

22. Use of GBAS
23. Can we modify the trigger point of wind speed (5 knots) that initiates South Flow to SJC?
24. Create an east side south flow procedure in to SJC
 - a. Even if it is used only a portion of the time?
25. OPD (Have planes gradually descend along a smooth decent flight pattern to limit stepping and the need for engine changes to maintain altitude)
 - a. Do more of this?
 - b. Is it quieter?

Disclaimer: Airport comments are based on information available to Airport staff to assist the Committee in the research of south flow arrivals. It is not the definitive source of information about flight paths. The FAA has the sole mandate by Congress to determine safe and efficient flight paths for the nation's airports.