**SANTA CLARA/SANTA CRUZ COUNTIES**
**AIRPORT/COMMUNITY ROUNDTABLE**
PO Box 3144
Los Altos, CA 94024

11/24/2020

Ms. Raquel Girvin
Regional Administrator, AWP-1
FAA Western-Pacific Region
777 South Aviation Boulevard, Suite 150
El Segundo, CA 90245

Subject: Response to FAA PIRAT letter dated May 27, 2020

Dear Administrator Girvin,

Thank you for your letter dated May 27, 2020, which included your responses to the four requests regarding PIRAT and related changes from July 2018 through February 2019.

We are responding to your latest May 27 letter on PIRAT. Our new questions that we would like the FAA to address related to previous FAA presentations and responses on PIRAT (including the FAA's PIRAT presentation to the SCSC RT February 26, 2020 meeting) are listed in Attachment 2 to this letter.

On behalf of the SCSC Roundtable, thank you for your attention to these requests. We look forward to receiving your written response by the January 27, 2021 SCSC Roundtable meeting.

Sincerely,

Mary-Lynne Bernald

Mary-Lynne Bernald

Chairperson, SCSC Roundtable

cc: SFO Community Roundtable – Chairperson Ricardo Ortiz

**ATTACHMENT**

- Comments and Additional Questions on PIRAT Procedure

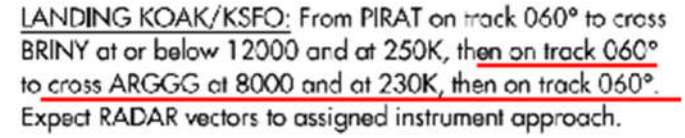
## Attachment 1

## COMMENTS AND ADDITIONAL QUESTIONS ON PIRAT PROCEDURE

This section includes follow-up questions for the FAA in regards to the May 27, 2020[1] FAA response to the SCSC Roundtable and previous FAA presentations and responses on PIRAT (including the FAA's PIRAT presentation to the SCSC RT February 26, 2020[2] meeting).

Notes:

- The FAA implemented the RNAV PIRAT ONE procedure first, but quickly replaced it with PIRAT TWO when the FAA discovered that PIRAT ONE did not specify the 15,000 ft altitude at waypoint PIRAT (far away over the Pacific Ocean) -- the critical missing data created conflicts between PIRAT ONE arrivals and some departures.
- The only difference between PIRAT TWO and PIRAT ONE is the 15,000 ft altitude requirement at waypoint PIRAT. This difference does not affect any community. Therefore, for simplicity purposes, we decided to use the word **"PIRAT" in this document to refer to the RNAV Oceanic arrivals procedure that replaced Tailored Arrivals and non-Tailored Arrivals to SFO and OAK**.
- For everyone's benefit, we have summarized below the sequence of events on PIRAT:
    - The FAA issued a CATEGORICAL EXCLUSION DECLARATION/RECORD OF DECISION for several procedures, including the PIRAT STAR on July 17, 2018, date of the last signature by the Western Service Area Director.
    - The CATEX/ROD stated that "*The PIRAT STAR will be an Optimized Profile Descent (OPD) STAR, requiring aircraft to cross a new waypoint ARGGG at 8,000 feet MSL or approximately 5,820 feet AGL. The waypoint ARGGG will replace the WOODSIDE VOR (OSI), and is located approximately 100 feet west of OSI along the existing track. The PIRAT STAR does not connect to IAPs* [Instrument Approach Procedure]*. At ARGGG, ATC will vector aircraft to final approach course for KSFO and/or KOAK.*"
        - The last sentence about vectoring is critical. Per the CATEX document, pilots should have expected to receive vectoring instructions from ATC at ARGGG. The published PIRAT procedure chart, however, does not specify "Expect Vectors at ARGGG". Instead, the chart specifies an on track heading of 060, which leads to SIDBY (see insert with red underline for emphasis):


LANDING KOAK/KSFO: From PIRAT on track 060° to cross BRINY at or below 12000 and at 250K, then on track 060° to cross ARGGG at 8000 and at 230K, then on track 060°. Expect RADAR vectors to assigned instrument approach.

    - At the request of the SFO Roundtable, the FAA presented PIRAT on February 6, 2019[3] and stated then that PIRAT:
        - was a request of the Select Committee.[4]

[1] https://storage.googleapis.com/proudcity/scscroundtable/uploads/2020/06/FAA-response-to-Mary-Lynne-Bernald-SCSC-letter-dated-03.06.20_.pdf

[2] https://storage.googleapis.com/proudcity/scscroundtable/uploads/2020/02/1_Final_SCSC_Roundtable_Agenda-Packet_Full_02-26-20_Meeting_v4_2020022

[3] https://sforoundtable.org/meeting317/

[4] https://storage.googleapis.com/proudcity/scscroundtable/uploads/2019/07/SelectCommitteeReportNovem.pdf

  - was an OPD and therefore would be quieter as airplanes will glide down to the airport.
  - would end at ARGGG with planes being vectored after that because of congestion due to two other SFO arrival routes (BDEGA-west and SERFR). The FAA did not explain how vectored planes would glide down to the airport, but added that the FAA did not control how pilots fly their aircraft (e.g., when pilots deploy flaps and slats to slow planes down or use engine power to maintain or increase speed).
  - would not increase traffic.
  - would be used by OAK on an exception basis.
  - was an overlay of the TA arrivals and therefore nothing would change.
  - NOTE: The FAA did not mention any safety or efficiency concerns in the presentation.
- The Feb 22, 2019 letter from FAA Regional Administrator Raquel Girvin[5] to then Palo Alto Mayor Eric Filseth reiterated that planes would be vectored after ARGGG and follow the same ground tracks as before (no mention of a change in the heading from MENLO to SIDBY and the addition of a charted heading to SIDBY):

  arrives at the Woodside VOR (OSI). The PIRAT STAR would end at the ARGGG waypoint, located approximately 100 feet west of OSI along the existing track. Currently, aircraft cross the OSI at 6,000 feet mean sea level (MSL). However, aircraft would cross the ARGGG waypoint at 8,000 feet MSL on the PIRAT STAR. After ARGGG, aircraft would be vectored to final and into the arrival sequence. We anticipate SFO and OAK oceanic arrivals will follow the same ground track as they do today, including being vectored after the OSI. Due to the dynamic nature of air traffic control, there may be

- We learned subsequently that PIRAT was not a Select Committee recommendation, planes did not glide to the airport, the volume increased substantially, and that PIRAT was not a strict overlay given the **new** and **charted heading** ("on track 060") that automatically directed planes to SIDBY instead of being vectored to the MENLO waypoint as before. Using a new heading **changes ground tracks**: from Woodside, going to MENLO is a 040 heading, going to SIDBY is a 060 heading. Adding a charted heading **automatically concentrates planes** into a narrow corridor over the communities beyond ARGGG.

[5] https://www.cityofpaloalto.org/civicax/filebank/documents/71896

## Questions for the FAA

The SCSC Roundtable would like the FAA to address the following three topics and respond to the questions listed under each topic:

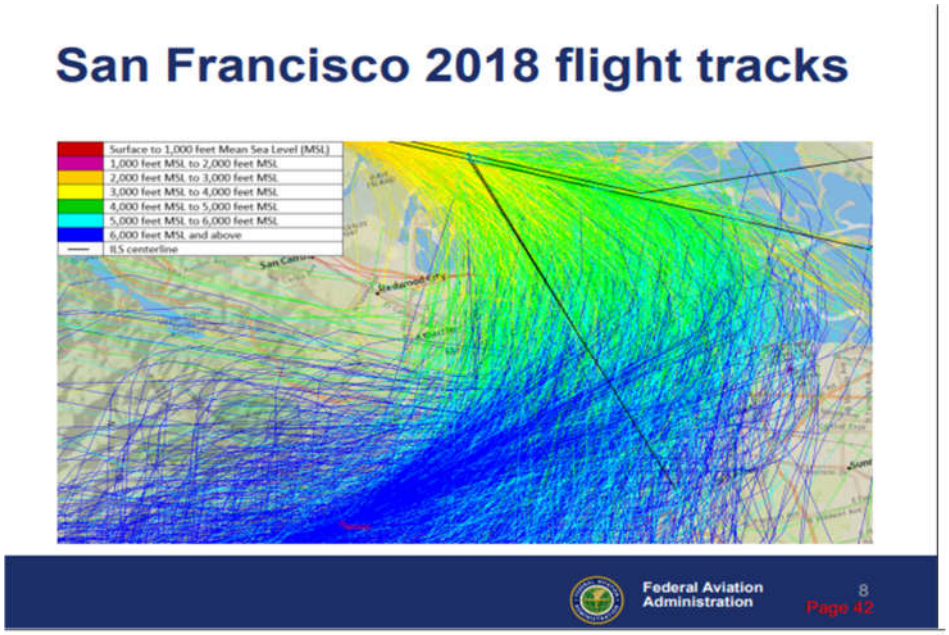
1. **Environmental Review:**
    a. As requested previously in our letter of March 6, 2020[6], can the FAA provide documentation that shows that the airport proprietor supported PIRAT?
        i. Please specify the dates, participants, and notes/emails of any FAA discussions with SFO regarding the PIRAT RNAV procedure that was published on Feb 28, 2019.
    b. Was the issue of shifting noise considered in the PIRAT IER for the ground track prior to ARGGG as well as after ARGGG?
        i. If so, please provide documentation.
        ii. If not, please explain why it was not considered.
    c. Can the FAA clarify the legitimacy of the July 17, 2018 PIRAT CATEX/ROD given that the description of the vectoring after ARGGG in the CATEX document is substantially different from the charted heading of 060 that is specified in the published PIRAT procedure chart?
    d. Can the FAA clarify what process exists, if any, to audit the content of an environmental review (CATEX or otherwise) when there is material evidence that assumptions or statements were either subjective, incorrect, or inconsistent, that methods used were invalid, or that the FAA did not seek answers to critical questions?
        i. If so, please describe the audit process and possible outcomes.

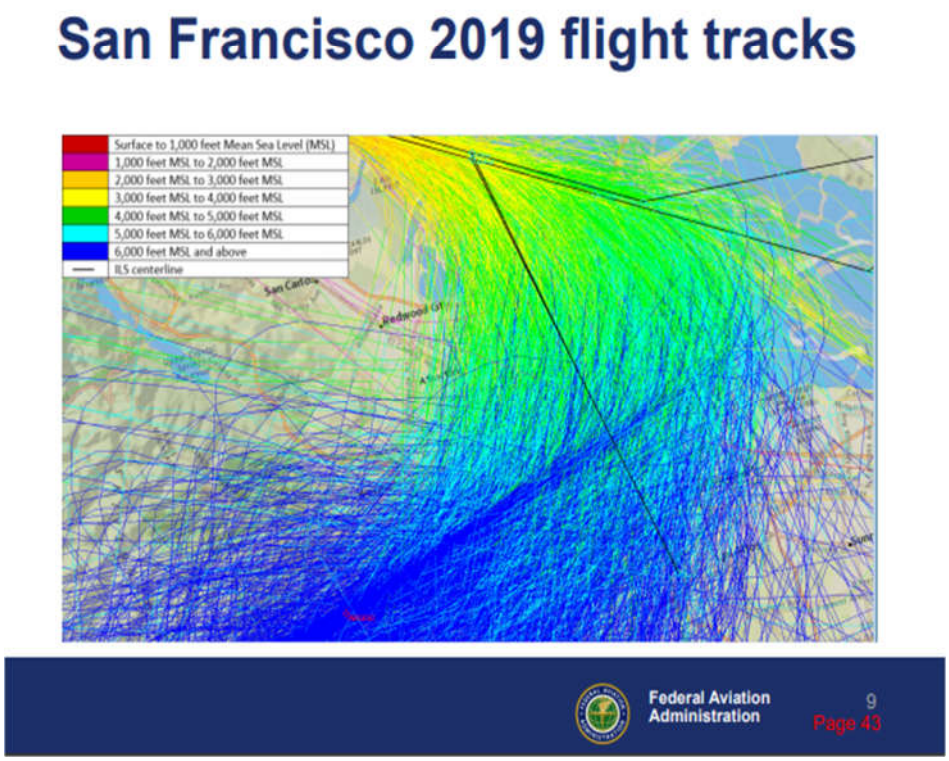
2. **Community concerns:**
    **a.** Why did the FAA disregard community concerns that were raised by residents and several cities in the fall of 2018, after the IER was concluded, but months before PIRAT ONE went live on Feb 28, 2019?
    **b.** Why did the FAA continue to disregard the lack of community support for the new procedure when it modified PIRAT ONE to create PIRAT TWO, which went live in April 2019? By then, the FAA was fully aware that the community was very concerned about PIRAT and was not supportive of the procedure as implemented.

3. **Root cause of the increase in Oceanic arrivals after PIRAT was implemented:**
    a. Can the FAA substantiate with a data analysis its statement that the 35.5% increase in the PIRAT procedure operations is solely due to an increase in market demand and has nothing to do with converting a private Tailored Arrival to SFO and other Oceanic Arrivals to SFO and OAK into a public RNAV/OPD that can now be used in the optimization algorithms used by airlines in requesting a flight plan and programmed in the Flight Management Systems?
        i. A comparison of the same 4-month period in 2018 and 2019 indicate that Oceanic arrivals at both SFO and OAK increased by 35.5% while overall arrivals at both airports increased by less than 2% (1.7% for SFO, 1% for OAK).

[6] Ibid.

As shown in the FAA slides below (pages 42 and 43 of the Feb 26, 2020 Santa Clara Santa Cruz Roundtable meeting packet[7]) the FAA "shifted noise" because PIRAT substantially increased aircraft concentration after the end of the STAR: in 2018, there were three concentrated SFO Oceanic arrivals tracks while in 2019, there is only one single concentrated track.



## Traffic data changes July 2016 vs. July 2014

| Arrival routes | # of aircraft July 2014 | # of aircraft July 2016 | Delta (Jul16 – Jul14) # of aircraft | Delta (Jul16 – Jul14) % |
|---|---|---|---|---|
| OCEANIC | 1139 | 867 | - 272 | -23.9% |
| NORTHERN (GOLDN/BDEGA) | 4400 | 4929 | +529 | +12.0% |
| SOUTHERN (BSR/SERFR) | 4752 | 5576 | +824 | +17.3% |
| EASTERN (MOD/DYAMD) | 7728 | 7300 | -428 | -5.5% |
| TOTAL SFO | 18019 | 18672 | +653 | +3.6% |

- SERFR: 824 more planes/month → ~27 more planes/day; ~10,000 planes/year
- BDEGA: 529 more planes/month → ~18 more planes/day; ~6,000 more planes/year
- OCEANIC: 272 fewer planes/month →~9 fewer planes/day; ~3,000 fewer planes/year

- **SFO:** 653 more planes/month: ~22 more planes/day; **~8,000 more planes/year**
- **DYAMD**: 428 fewer planes/month: ~14 fewer planes/day; **~5,000 fewer planes/year**

Sources: FAA data shared at the November 3, 2016 Select Committee meeting. SFO Airport Director Reports

SFO and OAK operations data for the same 4-month period in 2018 and 2019:

- **Increase in Oceanic Arrivals: 1,435 flights for both OAK and SFO** (source: FAA data)
- Increase in SFO operations: 1.7% or 2,794 flights (source: SFO Airport Director Reports)
- **Increase in SFO arrivals: 1,397 flights** (assuming an even split between arrivals and departures)
- Increase in OAK operations: 1% or 851 flights (source: OAK Airport statistics)
- **Increase in OAK arrivals: 426 flights** (assuming an even split between arrivals and departures)
- **Combined increase in SFO and OAK arrivals: 1,823 flights**