



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

Western-Pacific Region
Office of the Regional Administrator

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El Segundo, CA 90245

May 27, 2020

Ms. Mary-Lynne Bernald
Chairperson
Santa Clara/Santa Cruz Counties Airport/Community Roundtable
PO Box 3144
Los Altos, CA 94024

Dear Ms. Bernald:

Thank you for your letter dated March 6, 2020, which contained four requests regarding the PIRAT TWO Standard Terminal Arrival Route (STAR). In responding to these requests, the Federal Aviation Administration (FAA) would like to emphasize that the environmental review document and assumptions referenced as the basis of the Santa Clara/Santa Cruz Counties Airport/Community Roundtable (SCSC Roundtable) questions include multiple procedures in addition to the PIRAT STAR.

The FAA completed its procedure design and environmental review for the PIRAT ONE STAR on July 17, 2018. A crossing restriction of “at or below 15,000 feet MSL” at the PIRAT waypoint—located above the Pacific Ocean, approximately 22 nautical miles (NM) from land—was part of the procedure design and included in the FAA’s Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) plug-in data, and considered as part of the environmental review of PIRAT ONE. When the PIRAT ONE was published in the U.S. Terminal Procedures Publication on February 28, 2019, the crossing restriction at the PIRAT waypoint was inadvertently omitted. The PIRAT TWO procedure—published in the U.S. Terminal Procedures Publication on April 25, 2019—simply added the missing crossing restriction. The FAA briefed the SCSC Roundtable about the difference between PIRAT ONE and PIRAT TWO on three occasions: May 22, 2019, August 28, 2019, and February 26, 2020.

In your first request, you asked us to explain seven assumptions made in the FAA’s PIRAT ONE Initial Environmental Review (IER) that you consider unreasonable.

Assumption 1 – The FAA noted, “An increase in operations is not expected.”

FAA Response: Assumption 1 is reasonable. The IER, upon which the FAA based its Categorical Exclusion (CATEX), assumes that the number of operations for oceanic arrivals to the Bay Area will not increase *as a result* of the new PIRAT STAR. The CATEX analysis was a comparison of the environmental impacts of the no action, or current state, compared to implementing the proposed action. A new procedure, such as the proposed action, provides a different navigational method but does not by itself

increase the overall number of oceanic operations. The same number of operations occur whether the proposed action or no action is implemented.

Any increase in operations in oceanic arrivals to the Bay Area would result from factors, such as market conditions, that would occur regardless of the arrival procedures in place, and, therefore, outside the scope for environmental review at the time of environmental analysis. The FAA implemented the PIRAT arrival route to increase the operational safety and efficiency of arrivals in the congested and complex Bay Area airspace. It would be unreasonable to expect this action to have a direct impact on an increase or decrease of operations at San Francisco International Airport (SFO) and Oakland International Airport (OAK).

Assumption 2 – The FAA denotes the project as a “Community Request.”

FAA Response: Assumption 2 is reasonable. Prior to the implementation of the PIRAT arrival procedure, oceanic arrivals to SFO and OAK were brought in one of two ways: 1) via the private Tailored Arrival, or 2) via Air Traffic Control (ATC) instruction to cross the PIRAT waypoint and, subsequently, Woodside Very High Frequency Omnidirectional Range (OSI) (most OAK arrivals were vectored north prior to reaching OSI). The Select Committee on South Bay Arrivals (SC) recommended aircraft at OSI be restricted to 8,000 feet Mean Sea Level (MSL) (SC Recommendation 2.3, R1). The SC also recommended revision of the private Tailored Arrival, so it, too, would be restricted to cross OSI at 8,000 feet MSL (SC Recommendation 2.3, R2). In response to these two SC recommendations, the FAA chose to combine the two arrival methods (the Tailored Arrival and ATC instruction) by creating the public PIRAT arrival procedure, which restricts all oceanic aircraft assigned to the procedure to cross the ARGGG waypoint at 8,000 feet MSL. The ground location of ARGGG waypoint and OSI differ by approximately 100 feet.

The FAA designs procedures in accordance with current FAA design criteria and ensures the designs meet all FAA safety standards. The FAA used the recommendations provided by the SC as a basis to develop a procedure that meets current FAA safety standards and design criteria. This applies to any flight procedure change request irrespective of the proponent.

Assumption 3 – The FAA states that the “proposed changes do not capture any of the Select Committee/SF Roundtable [SC/SFO Community Roundtable] recommendations, rather they are a result of design work to address safety and operational concerns.”

FAA Response: Assumption 3 requires clarification. As mentioned in the previous response, the FAA designs procedures in accordance with current FAA design criteria and ensures the designs meet all safety standards. Also, the FAA always seeks ways to improve the operational safety and efficiency of the national airspace. Upon identifying a need for a public area navigation (RNAV) procedure for oceanic arrivals to SFO and OAK, the FAA considered the SC/SFO Community Roundtable recommendations in developing the procedure. What we were trying to explain in that

statement was that the FAA could not capture all of the SC recommendations because there were several procedural changes and amendments needed for operational safety and efficiency. The FAA used the recommendations provided by the SC as a basis to develop procedures that meet current FAA safety and design criteria. The SC recommendations were reviewed and considered, as reported in the Phase One and Phase Two reports from the FAA on the Northern California Initiative (NorCal Initiative). However, irrespective of initial considerations, it is the responsibility of the FAA Design Team Full Work Group (FWG) to ensure the procedures' designs conform to FAA criteria for safety and operational feasibility.

Assumption 4 – The FAA marked “Yes” to the question, “Are the airport proprietor and users providing general support for the proposed project?”

FAA Response: Assumption 4 is reasonable. Airport proprietors are invited to, and part of, the FWG. FWG concurrence is needed to show support of procedure designs and amendments, and the FWG concurred with the proposed project.

While specific approval from airport proprietors is not required, as part of our enhanced commitment to working with communities, we have increased efforts to ensure we have their support as part of the FWG concurrence; support may include being part of a joint community engagement or education plan. While the airport was not an official member of the FWG, there were discussions held with the airport regarding the PIRAT STAR.

Assumption 5 – The FAA denoted “No” impact for an established community on page 48 of the CATEX. Did the FAA look at Environmental and Social Justice as part of the PIRAT STAR environmental review process?

FAA Response: Assumption 5 is reasonable. In accordance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, 59 FR 7629 (Feb. 11, 1994), and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the FAA's analysis considered the potential impact on minority and low-income populations from the implementation of the proposed action as compared to the no action alternative (which refers to not implementing the proposed action). In weighing whether the proposed action raises Environmental Justice concerns, the FAA considered whether a proposed action might have disproportionately high and adverse human health or environmental effects on minority and low-income populations. This analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality. The FAA must evaluate these factors in light of context and intensity to determine if there are significant impacts, as the sole existence of the factors does not indicate significance. Implementation of the proposed action would not adversely affect air quality or land use within the vicinity of the proposed changes. Additionally, the results of the noise screening analysis indicate that changes in aircraft noise exposure would be below the threshold of significance when comparing the proposed action and the no action alternative. As a result, there are no disproportionate impacts on minority or low-income populations of the proposed action, as compared to the no action alternative;

an impact related to Environmental Justice is not anticipated, as referenced in the IER, Section B6.

Assumption 6 – The FAA denoted “Yes,” local citizens and community leaders are aware of the proposed project and then states that it is “UNKNOWN” if they oppose or support it, on page 50 of the CATEX.

FAA Response: Assumption 6 is reasonable. During the spring of 2016, to facilitate community involvement within their respective districts, the Congressional delegation designated a total of 12 representatives—locally-elected officials from Santa Cruz, Santa Clara, San Mateo, and San Francisco Counties—to serve on the SC. The SC’s role was to gather public input within their represented areas, about measures to address noise concerns and to make recommendations that reflected public input. The SC worked to identify which initially-feasible recommendations, including amendments and/or new procedures, could be included within the second phase of the NorCal Initiative. The SFO Community Roundtable provided guidance and assistance to the SC’s efforts.

The SC held a total of ten public meetings, and the SFO Community Roundtable concurrently discussed the NorCal Initiative during its own regularly scheduled meetings. In November 2016, the Congressional delegation provided the FAA with 104 recommendations from these two bodies.

In July 2017, the FAA issued an interim report on its efforts to evaluate those recommendations. At that time, the FAA was still considering how to address more than 50 percent of them, but later determined how it would proceed with the full set of recommendations. The FAA subsequently issued a November 2017 update that detailed a total of 203 items, which consisted of the original 104 recommendations and each of their sub-recommendations. Of these, 101 have already been addressed, 25 will be addressed in the future, and 77 were not endorsed. The review process is the same regardless of who submits the change request. The FAA environmental review process does not interpret recommendations as either support or opposition, but rather as possible alternatives. The FAA considers reasonable alternatives in the environmental review process that meet the purpose and need of the project.

As explained above in Assumption 2, the proposed project was the FAA’s approach to responding to the SC Recommendations 2.3 R1 and R2. This approach was documented in the FAA’s quarterly updates.

Assumption 7 – The FAA denotes “No” the FAA has not received one or more comments objecting to the project on environmental grounds from citizens or elected officials.

FAA Response: Assumption 7 is reasonable. The PIRAT ONE arrival procedure was published on February 28, 2019. The proposed procedure design and environmental review were finalized on July 17, 2018. At the time the environmental review was completed, the indication of “No” was correct and appropriate. As noted above in

Assumption 6, the FAA's November 2017 update documented PIRAT as the approach to respond to SC Recommendations. Therefore, any objecting comments received by the FAA prior to final design determination were not interpreted as objection on final designs.

Your second request asks why the FAA is not meeting the noise abatement agreement documented in a 2000 letter with Representative Eshoo for MENLO at 5,000 feet. We are aware of a letter from Congresswoman Eshoo to Uproar in which she states that the FAA would raise the crossing restriction at MENLO; however, we do not have any documentation that the FAA entered into an agreement.

The third request asks about the history of PIRAT development since 2013. There was a tentative design/draft of the PIRAT arrival route in 2013. However, that proposal was canceled prior to the completion of environmental and other analyses. The 2013 draft version of the PIRAT arrival procedure required aircraft to fly from PASIF waypoint to PIRAT waypoint, cross PIRAT waypoint at or above 15,000 feet MSL, then fly to BRINY waypoint and cross at or below 12,000 feet MSL at a speed of 250 knots, then fly to ARGGG waypoint and cross at or below 6,000 feet MSL, then fly to MENLO waypoint and cross at or below 4,000 feet MSL at a speed of 210 knots. The 2013 PIRAT arrival procedure ended at MENLO waypoint, where aircraft would receive instructions from ATC, such as joining an instrument approach procedure to SFO runways 28 Left/Right.

In the current version, the FAA used the recommendations provided by the SC as a basis to develop a procedure that meets current FAA safety and design criteria.

Your final request has five questions from your letter dated January 17, 2020.

1. Articulate the benefits that have been realized through the implementation of PIRAT (benefits statements must be supported by data), and in particular the incremental benefits gained from the prior procedures (Pacific 2 Tailored Arrival and non-Pacific 2 Tailored Arrival).

FAA Response: The benefits of the PIRAT STAR include, but are not limited to, the following:

- a. Reduced dependence on radar vectoring and altitude and speed assignments, which results in fewer required ATC radio transmissions and pilot readbacks.
- b. Increased safety through simplification of pilot/ATC communications and continuous descent procedures that reduce controller and pilot workload.
- c. Increased efficiency through less circuitous routes and optimized airspace, especially in lower flight altitude stratum.

2. Explain how the altitude increase that occurred at ARGGG does not increase the noise exposure of PIRAT arrivals over the residential areas between ARGGG and the final approaches to SFO or OAK, which did not change. Describe in particular the changes in the flying altitudes and descent angles of aircraft between ARGGG and

final approaches that may have occurred given the minimum 8,000 [feet] altitude at ARGGG.

FAA Response: Prior to the implementation of the PIRAT arrival route, oceanic aircraft arriving at OSI (and not on the Tailored Arrival) departed OSI on a heading of 060 degrees and at 8,000 feet MSL. ATC would then vector aircraft to the assigned instrument approach. Other than OSI being replaced by ARGGG waypoint, this has not changed with the PIRAT STAR, and altitudes and flight paths between ARGGG and the assigned instrument approach remain unchanged. The retention of the 8,000-foot altitude was consistent with the SC request. Additionally, as stated in our letter dated February 21, 2020, noise screening for this action determined that potential impacts were not expected due to the nature of the action and amount of change; therefore, further noise screening was not required in accordance with FAA Order 1050.1F, and is consistent with both the National Environmental Policy Act and the Council of Environmental Quality regulations (40 CFR Parts 1500-1508).

3. Identify who decided to combine the Tailored Arrival procedure with the ATC vectoring instruction as described in the FAA written answer to the Roundtable question 5 from May 2019 and list all stakeholders who were consulted on the proposal prior to the decision.

FAA Response: The decision was made by the FWG members to include: the Performance Based Navigation team, National Air Traffic Control Association representatives, air traffic controllers and support personnel from Oakland Air Route Traffic Control Center and Northern California Terminal Radar Approach Control, and airline industry representatives. The FAA also used the recommendations provided by the SC as a basis to develop a procedure that meets current FAA safety and design criteria.

4. Identify the stakeholders and elected officials who were involved in the current PIRAT design discussions as well as the timeframe of such discussions.

FAA Response: There were no stakeholders or elected officials involved with the latest change to the PIRAT STAR. As stated in our previous letters and during SCSC Roundtable briefings on May 22, 2019, August 28, 2019, and February 26, 2020, the last change implemented to the PIRAT STAR was adding a crossing altitude that was left off PIRAT ONE. The PIRAT TWO procedure simply added a crossing restriction of “at or below 15,000 feet MSL” at the PIRAT waypoint, which is located above the Pacific Ocean, approximately 22 NM from land.

5. Document when and how SFO and the City and County of San Francisco expressed their support of the current PIRAT procedure.

FAA Response: As stated in the previous answer, the last change to the PIRAT STAR (PIRAT TWO) was the addition of crossing altitude that was left off PIRAT ONE. The addition of a crossing altitude of “at or below 15,000 feet MSL” provides procedural separation from air traffic crossing above.

The PIRAT STAR remains in use and there are currently no planned changes for this procedure in the foreseeable future.

We are committed to continue our work together and look forward to working with you on other areas of interest.

If I can be of further assistance, please contact my office at (424) 405-7000.

Sincerely,

A handwritten signature in black ink, appearing to read "Raquel Girvin". The signature is fluid and cursive, with a prominent initial "R" and a long, sweeping tail.

Raquel Girvin
Regional Administrator