



# Meeting Announcement

## Technical Working Groups

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**Thursday, July 12, 2018**  
**1:00 p.m. – 4:00 p.m.**

David Chetcuti Community Room – Millbrae City Hall  
450 Poplar Avenue – Millbrae, CA 94030

Note: To arrange an accommodation under the Americans with Disabilities Act to participate in this public meeting, please call (650) 363-1853 at least 2 days before the meeting date.

### **REVISED AGENDA**

1. **Introductions, Brief Overview of Framework for Review/Analysis Process**
2. **Review/Analysis of Topic 5 – Near Bay Daytime Operations (RWY 10 Departures Only)**  
*BREAK*
3. **Ground Base Augmentation System (GBAS), preliminary research updates by Lean Engineering**
4. **Review/Analysis of Miscellaneous Topics (time permitting)**
5. **Summarize Action Items**
6. **Discuss and Announce Next Technical Working Group Meeting Dates**
7. **Public Comments on Items NOT on the Agenda**  
\*Speakers are limited to two minutes. Roundtable members cannot discuss or take action on any matters not included as part of the agenda.
8. **Adjourn**



June 24, 2018

TO: Roundtable Members and Interested Parties

FROM: Justin W. Cook – INCE, LEED GA  
Roundtable Technical Consultant - HMMH

SUBJECT: Technical Working Group (TWG) Meeting Agenda for Thursday, July 12, 2018

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Below is the agenda for the July 12, 2018 Technical Working Group meeting. It is expected that future TWG meetings will follow a similar agenda until the TWG has completed their review and analysis of all FAA responses.

1. Introductions, Brief Overview of the Framework for the Review/Analysis Process
2. Review/Analysis of Topic 5 – Near Bay Daytime Operations (RWY 10 Departures Only)

*Break*

3. SFO Aircraft Noise Abatement Office Discussion/Presentation
4. Review/Analysis of Miscellaneous Topics *\*Time Permitting*
5. Summarize Action Items
6. Discuss and Announce Next Technical Working Group Meeting Dates
7. Public Comments on Items NOT on the Agenda
8. Adjourn

## Agenda Item #5 – Review/Analysis of Topic 5 – Near Bay Daytime Operations – Runway 10 Departures Only

This section provides brief descriptions of the recommended measures, the FAA responses provided to date and the recommendations resulting from the TWG review grouped into the three areas: recommendations the FAA has or will address, recommendations requiring further analysis/information for the FAA to address and recommendations the FAA determined they would not address.

### Recommendations the FAA Has or Will Address

The following recommended measures include those that the FAA either has or will address through changes to their ongoing implementation of the Northern California Metroplex:

#### 1. SAHEY

**FAA’s Update on Phase 2 Initiative Document Reference:** Page 43 – Item 38, Page 65 – Item 42

**Summary of Recommendations:** Roundtable to work with FAA to redesign the SAHEY departure to mirror historic flight tracks that keep aircraft over the Bay. When using, do not vector and fly procedure as charted.

**Summary of FAA Responses:** NCT will continue to be active participant in Roundtable meetings. FAA has no plans and is restricted from creating procedures that involve opposite direction operations. The FAA analyzed historic tracks for aircraft that filed the SAHEY procedure and found that 93% of those aircraft pass within 1 NM of the SAHEY waypoint. FAA concurs with recommendation that aircraft fly SAHEY procedure as published to extent feasible. NCT will continue to reinforce the use.

**Summary of TWG Discussion:** \_\_\_\_\_

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#### 2. Create New Departure Procedure

**FAA’s Update on Phase 2 Initiative Document Reference:** Page 42 – Item 36

**Summary of Recommendations:** SFO Roundtable will provide information to the FAA to assist in a review of options for aircraft to use Runway 10 that does not use same flight path as a Runway 28 arrival.

**Summary of FAA Responses:** NCT will continue to be active in Roundtable meetings to provide expertise in seeking solutions. Roundtable will provide information to FAA to assist in review of options for aircraft to use Runway 10 that does not use same flight path as Runway 28. However, FAA has no plans and is restricted from creating procedures that involve opposite direction operations.

**Summary of TWG Discussion:** \_\_\_\_\_

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### Recommendations Requiring Further Analysis/Information for the FAA to Address

The following recommended measures include those that the FAA responded that additional analysis, investigations and/or information is required to proceed with changes to their ongoing implementation of the Northern California Metroplex:

None

### Recommendations the FAA Determined They Will Not Address

The following recommended measures include those that the FAA rejected and stated changes to their ongoing implementation of the Northern California Metroplex will not occur:

#### 3. NIITE

**FAA's Update on Phase 2 Initiative Document Reference:** Page 40 – Item 24, Page 46 – Item 48

**Summary of Recommendations:** The NIITE departure and all transitions be amended to include authorization for its safe use by aircraft taking off from Runway 10.

**Summary of FAA Responses:** The NIITE departure procedure once contained a transition for both Runways 01 and 10, but Runway 10 transition was removed for safety. FAA does not support the reinstatement of a Runway 10 transition to the NIITE procedure.

**Summary of TWG Discussion:** \_\_\_\_\_

#### 4. 330 Degree Heading – Up the Bay

**FAA's Update on Phase 2 Initiative Document Reference:** Page 39 – Item 21, Page 41 – Item 29

**Summary of Recommendations:** NCT use its longstanding noise abatement procedure to vector Runway 10 departing aircraft up the Bay then vector as needed for routes of flight such as NIITE to GOBBS.

**Summary of FAA Responses:** The NIITE departure procedure once contained a transition for both Runways 01 and 10, but Runway 10 transition was removed for safety. FAA does not support the reinstatement of a Runway 10 transition to the NIITE procedure. A south transition for the NIITE departure procedure for southbound destinations is feasible but issues of congestion, noise shifting and flying distance remain

**Summary of TWG Discussion:** \_\_\_\_\_

**FOGGG**

**FAA's Update on Phase 2 Initiative Document Reference:** Page 63 – Item 34

**Summary of Recommendations:** When weather conditions dictate the use of Runway 10, we encourage the use of FOGGG as published and not vector off the procedure.

**Summary of FAA Responses:** The FOGGG departure procedure has a high climb gradient, requiring aircraft to cross the FOGGG waypoint at 4,000 feet MSL. OAK arrivals pass underneath this at 3,000 feet MSL; there is no room for error (minimum vertical separation between aircraft is 1,000 feet). Many aircraft have been unable to meet this requirement, primarily due to aircraft performance limitations (weight, weather, etc.). Therefore, this has led to the FOGGG departure being unused for safety.

**Summary of TWG Discussion:** \_\_\_\_\_

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**Create New Departure Procedure**

**FAA's Update on Phase 2 Initiative Document Reference:** Page 42 – Items 34-35, Page 65 – Item 43, Page 66 – Item 46

**Summary of Recommendations:** Create a procedure that includes the ability of aircraft to depart Runway 10 on a heading that is not a direct path of aircraft arriving on Runway 28. Create a Runway 10 departure that mirrors the decommissioned DUMBARTON procedure.

**Summary of FAA Responses:** The FAA does not support creating a departure procedure off Runways 10 for nighttime operations. This would counter to current FAA criteria for opposite direction operations. Creating a procedure that contradicts this program is simply not permissible under opposite direction criteria.

**Summary of TWG Discussion:** \_\_\_\_\_

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## Review/Analysis of Miscellaneous Topics

This section provides brief descriptions of the recommended measures, the FAA responses provided to date and the recommendations resulting from the TWG review grouped into the three areas: recommendations the FAA has or will address, recommendations requiring further analysis/information for the FAA to address and recommendations the FAA determined they would not address.

### Recommendations the FAA Has or Will Address

The following recommended measures include those that the FAA either has or will address through changes to their ongoing implementation of the Northern California Metroplex:

#### 1. Land Use and Terrain Height Data

**FAA's Update on Phase 2 Initiative Document Reference:** Page 33 – Item 42

**Summary of Recommendations:** Roundtable will provide data regarding land use and terrain height for areas throughout the region to assist NCT in using less sensitive noise areas for vectoring. SFO and the Roundtable will work with airline representatives to encourage the use of “noise-friendlier” options for flight planning and operations. Roundtable provide community input to the FAA and make recommendations to the FAA based on community consensus for changes.

**Summary of FAA Responses:** NCT will continue to be an active participant in Roundtable meetings, providing subject matter expertise in seeking solutions.

**Summary of TWG Discussion:** \_\_\_\_\_

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#### Noise Modeling or Other Tools

**FAA's Update on Phase 2 Initiative Document Reference:** Page 50 – Item 62

**Summary of Recommendations:** Roundtable is available to provide community input to the FAA with the use of modeling or other tools to determine the effects of other “noise-friendlier” departure paths.

**Summary of FAA Responses:** NCT will continue to be an active participant in Roundtable meetings, providing subject matter expertise in seeking solutions.

**Summary of TWG Discussion:** \_\_\_\_\_

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#### Pilot Outreach Program

**FAA's Update on Phase 2 Initiative Document Reference:** Page 59 – Item 17, Page 60 – Item 20, Page 61 – Item 22

**Summary of Recommendations:** Work with the SFO ANAO on a pilot outreach program to encourage aircraft to stay over water while on approach after receiving their cleared to land instructions.

**Summary of FAA Responses:** They reference “noise-friendlier” approach responses. When weather conditions and equipment/crew capabilities allow, the recommended approaches are used to the extent feasible.

**Summary of TWG Discussion:** \_\_\_\_\_

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## 2. HUSSH

**FAA’s Update on Phase 2 Initiative Document Reference:** Page 63 – Item 33

**Summary of Recommendations:** Encourage use of HUSSH and reduce vectors off of the HUSSH departure for the same reasons as NIITE.

**Summary of FAA Responses:** The requirement for aircraft to remain on NIITE/HUSSH departure procedures as much as operationally feasible was added to NCT’s SOP in February 2017. May 2017 analysis of traffic data reveals that 70% of HUSSH aircraft passed within 1 NM of the NIITE waypoint. July 2015 it was at 68% compliance. NCT will continue to reinforce the use of this procedure. After February 2017 update to the NCT SOP, there has been a tradeoff. The capacity limitations of the departure corridor (which contains both NIITE and HUSSH procedures) remains unchanged. Therefore, in order for aircraft on the NIITE and HUSSH procedures to remain on their respective procedure until the NIITE waypoint while also maintaining the required minimum separation, ATC must delay aircraft on the ground prior to departure. June 2017 showed 103 reportable delays at SFO/OAK. June 2016 showed 1 reportable delay at SFO/OAK. (Reportable delay = 15 minutes or more).

**Summary of TWG Discussion:** \_\_\_\_\_

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### Recommendations Requiring Further Analysis/Information for the FAA to Address

The following recommended measures include those that the FAA responded that additional analysis, investigations and/or information is required to proceed with changes to their ongoing implementation of the Northern California Metroplex:

None

### Recommendations the FAA Determined They Will Not Address

The following recommended measures include those that the FAA rejected and stated changes to their ongoing implementation of the Northern California Metroplex will not occur:

#### 3. SERFR

**FAA's Update on Phase 2 Initiative Document Reference:** Page 24 – Item 8, Page 34 – Item 2, Page 35 – Item 5, Page 47 – Item 51

**Summary of Recommendations:** FAA increase the in-trail spacing of aircraft on the SERFR arrival, flying the procedure as charted, which will decrease need for vectoring. Increase the altitude of the arrivals. Roundtable will work with airline representatives and the FAA to request that all nighttime arrivals from south (SERFR) file for a routing and arrival that would terminate east of the Bay for connection to Runway 28R.

**Summary of FAA Responses:** FAA is continuously working to improve aircraft setup and sequencing between facilities. As identified in previous meetings with the Select Committee and Roundtable, the Bay Area airspace is very complicated with three major airports close together. SJC airspace lies two miles east of the SERFR arrival. Without coordination with the SJC controller, NCT must keep their aircraft at a minimum of 1.5 miles away from SJC's airspace. Directing aircraft east or north of MENLO will encroach upon it, which the FAA cannot endorse. The higher as aircraft flies while in the vicinity of MENLO, the farther away from SFO it must travel in order to descend to the appropriate altitude for approach. The available airspace does not allow this.

**Summary of TWG Discussion:** \_\_\_\_\_

#### HUSSH

**FAA's Update on Phase 2 Initiative Document Reference:** Page 49 – Item 61

**Summary of Recommendations:** Utilize the OAK HUSSH departure procedure during the day to avoid conflicts with SFO SSTIK, reduce vectoring, increase separation between the flight paths, and increase safety. From CNDEL, direct aircraft to GOBBS and south.

**Summary of FAA Responses:** Same concerns regarding congestion, noise shifting, and flying distance as previously discussed.

**Summary of TWG Discussion:** \_\_\_\_\_



**Backblast Noise**

**FAA's Update on Phase 2 Initiative Document Reference:** Page 32 – Item 40

**Summary of Recommendations:** SFO to allocate funds or work with the FAA to obtain grant money to commission an updated technical study of backblast noise from aircraft departures.

**Summary of FAA Responses:** Not FAA's action.

**Summary of TWG Discussion:** \_\_\_\_\_

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**Upgraded Radar Display Equipment**

**FAA's Update on Phase 2 Initiative Document Reference:** Page 33 – Item 41

**Summary of Recommendations:** FAA determine if upgraded radar display equipment or notations on the map using symbols would be helpful to NCT to increase the use of less impactful areas if vectoring is required for safety.

**Summary of FAA Responses:** NCT is equipped with the latest radar equipment available to FAA Tracons, to include STARS, FUSION, and ADS-B. Adding notations and/or symbols to radar maps is not a step that is taken lightly in the FAA. Every effort is made by the FAA to reduce radar amp clutter for safety.

**Summary of TWG Discussion:** \_\_\_\_\_

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