MEETING MINUTES OAKLAND AIRPORT-COMMUNITY NOISE MANAGEMENT FORUM

January 15, 2020

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1. INTRODUCTIONS

The January 15, 2020 meeting of the Oakland Airport-Community Noise Management Forum was called to order at 6:32 p.m. by the Forum's Elected Co-Chair, San Leandro Councilmember Benny Lee. Co-Chair Lee said he would be facilitating the meeting in the absence of the Forum's facilitator, Mike McClintock. Co-Chair Lee asked the Forum members and advisors to introduce themselves for the benefit of the audience:

Forum Members/Alternates Present:

Kristi McKenney, Assistant Director of Aviation, Port of Oakland

Benny Lee, Co-Chair/Councilmember, City of San Leandro

Walt Jacobs, Co-Chair/Citizen Representative, Alameda

Tony Daysog, Councilmember, City of Alameda

Ernest DelliGatti, Citizen Representative, Alameda County

Cheryl Davila, Councilmember, City of Berkeley

James Nelson, Citizen Representative, Berkeley

Edward Bogue, Citizen Representative, Hayward

Peter Marcuzzo, NextGen/Metroplex Subcommittee Chair/Citizen Representative, Oakland

Tom Wagner, Citizen Representative, San Leandro

FAA Representatives

Tamara Swann, Deputy Regional Administrator, FAA Western-Pacific Region

Adam Vetter, FAA Western Service Area Operations Support Group, Analytics/Community Engagement Team Lead

Sky Laron, FAA, Community Engagement Officer

Staff Members/Advisors/Guests:

Matt P. Davis, Airport Operations Manager, Port of Oakland

Matt Davis, Governmental Affairs Director, Port of Oakland

Jesse Richardson, Acting Noise Abatement Supervisor/Sr. Noise and Environmental Affairs Specialist

Joan Zatopek, Manager of Aviation Planning, and Development, Port of Oakland

Allen Tai, Planning Services Manager, City of Alameda

Kyle Bertsche, FAA, Front Line Manager, Oakland Air Traffic Control Tower

Rhea Gundry, HMMH, Acoustical Consultant

Adam Scholten, HMMH, Airspace Consultant

Tom Middleton, HMMH, Noise Consultant

Christian Valdes, Technical Consultant, Landrum & Brown

Valerie E. Jensen Harris, Court Reporter (CSR 4401)

Facilitator Lee noted that if anyone had any questions or wished to speak on any of the agenda items, they should fill out a speaker's card and give it to him. He said for public comment, speakers should mark down agenda item 5 on the card.

2. ANNOUNCEMENTS

A. Acceptance of 3rd Quarter 2019 Noise Report

Co-Chair Lee asked if there were any questions on the 3rd quarter 2019 noise abatement report, noting that he had some questions of his own. He commented to Matt P. Davis that in going through the report he found it to be phenomenal because "there is so much more content that we can actually [use and understand], and identify the issues and actually see if there's any action items we need to [look at]." He asked about the differences in compliance data for the nighttime noise abatement departure procedure for the 2019 Q3 data versus the 2018 Q3 data. He asked Mr. Davis to speak to this and explain what caused it, and if there are any action items we need to take? Matt responded that in the 3rd quarter, SFO was overlaying one of its parallel runways. Runway 28 was closed from September 1 through September 20. During that time, because of the additional traffic on Runway 01, the FAA asked that, basically, our noise abatement procedure be suspended at 6:00 a.m. instead of 7:00 a.m. for the three-week period so they

could complete the work. Basically, what would happen otherwise was there would be significant delays at both Oakland and San Francisco. During that time, he said, we did have departures that were non-compliant. The report breaks them out, and every single flight that occurred before 7:00 a.m. was considered non-compliant. Davis said he could review the data and develop a separate compliance report for this time period and compare the differences between what it looked like and what it could have looked like. He noted also, that they had reached out to the communities and advised them we would have a three-week period of additional flights in the morning hours.

Co-Chair Lee said his question was whether this was a scheduled or unscheduled repair. Davis replied that it was both "yes and no," adding that SFO has had a series of pavement failures on Runways 28L and 28R. Normally, these types of repairs are scheduled months and even years in advance, as was the case with the runway safety area work in 2018. The work was scheduled, but in order to complete it on time, it was necessary to modify the noise abatement hours. This was not something that was presented to the Port prior to the FAA's request, but we tried to notify the communities as quickly as possible once we were made aware of it. Lee asked if the Port maintained a schedule for projected maintenance. Davis replied that "yes," they do, but he could not speak for SFO. Typically, an asphalt runway has a fifteen-year life cycle. However, the runway issue at SFO was unanticipated. It was a failure of the subbase due to high usage. He noted that at OAK, they try to complete runway maintenance work on Monday mornings prior to 6:00 a.m.

James Nelson said he had spoken with a Berkeley resident regarding the complaint summary, and had discussed this with Jesse Richardson. Evidently, he said, there is an app/website that competes with the Port's noise complaint hotline—stop.jet.noise.net. It was his understanding that numerous complaints are registered on stop.jet.noise.net that do not show up in the Oakland noise report. He said he was wondering if there was any way to incorporate these complaints into the Port's noise reports? He understands that SFO is able to do this. Facilitator Lee said this is a question for staff because stop.jet.noise.net is a separate system outside the Port's noise complaint reporting system.

Matt P. Davis responded that the Port does not integrate the actual stop.jet.noise.net information with its noise reports. However, he noted, users of this app can e-mail their input to the app to the noise office where it will be incorporated into the noise reports. The information will show up if it is e-mailed to the noise office immediately. So, he said, if someone files a complaint through the app, and that's all they do, that individual's complaint would not be known to the noise office, and, hence, not be logged-in. However, if that individual e-mails the complaint information to the noise office, it is logged-in to the system. So, in terms of actually integrating the app data. This issue came up a few years ago. Because this software is a third-party app it is not supported by the airport. Alternatively, he said, the airport asked its noise management system vendor, Bruel & Kjaer (B&K) to help produce an app. This has been available for some time now it would be great to have additional feedback on that app. The airport always prefers to have a noise management app produced by B&K because it can work directly with them for integration and implementation. Matt said he thought that there was another app created for Alameda, but that it was no longer compatible when the airport upgraded its noise system. He noted that, for any third-party app, they may be able to integrate it into the airport's system, but they cannot guarantee that it will continue to integrate effectively when the system is upgraded. His primary concern with respect to the stop.jet.noise.net app, is that if it is integrated with the airport's noise system it may not continue to function as the system is upgraded. Assistant Aviation Director McKenney noted that it was important for them to continue to work with sustainable software and apps. She encouraged staff to continue to share with the community the tools that the airport provides so that they know that all noise complaints will be counted accurately; and that they can be categorized and analyzed appropriately.

Alameda Councilmember Tony Daysog said that he thought that this issue is a broader one having to do with open data. A lot of governments at all levels, whether local or state, are committing to providing

data in an open way so that people can figure out how they want to use it. Perhaps, he said, that's something for not only the Forum, but for the Oakland Airport as well. He suggested that the other airports get together to figure out what's their policy toward open data policy sharing. Co-Chair Lee concurred, saying that at the last Forum meeting we had a presentation regarding Viewpoint, a publicly-available interactive tool being developed for the airport. Lee said that he had discussions with Jesse Richardson about reaching out to the vendor to see how we can use this tool to leverage this information from a regional perspective and separate out data for SFO, Oakland and San Jose, but combine it when we need to. These, he said, are some of the things that I think we'll have future discussions on.

Ernie DelliGatti said he had reviewed the number of noise complaints for July through September. He noted that in the "complaints by aircraft," under "other" for July there were 137 aircraft, for August there were 139, and for September there were 215. That's a total of 491 "other" aircraft. He asked, what are considered to be other types of aircraft? Mr. Richardson replied that the category of "other" would be those aircraft that were not identified by the ANOMS system; but the system did provide other data, such as date, time of day, and tail number. Jesse said that the airport continues to work with B&K to try to capture all of the data, but some of it gets missed or filtered out. Kristi McKenney explained that the category of "other" should not be construed to imply that it is another type of aircraft versus unidentified or something else. She thought the term "other" might need to be changed. Co-Chair Lee asked if it is identified as either general aviation or commercial? Jesse said it was not. Lee said that this was a work in progress and that it would be better if we could identify and properly classify the aircraft.

James Nelson said he would follow-up with Jesse with re the stop.jet.noise.net app. He thought that a separate report for these external complaints would be appropriate because he was concerned about the double counting of duplicate complaints. He suggested that the noise office might investigate some alternatives or additions to the current noise report to provide a summary of stop.jet.noise.net complaints. Facilitator Lee said he wanted to follow-up on this, asking if the Viewpoint app can identify aircraft in the "other" category. Matt P. Davis said he would have the noise office staff look into this. He said he did not think that there was any app that can do this, because it entails a manual process of listening to air traffic control tapes to get a tail number, then correlating that number with the aircraft registration to get the aircraft type. Davis said they would look at what needs to be done to clean-up the "other" category. Ernie DelliGatti asked if the "other' category had anything to do with general aviation aircraft that refuse to broadcast their ID numbers. Davis said that this could be part of the issue. Matt Pourfarzaneh of CLASS said he had briefly discussed the issue of noise complaints about the increased number of SFO flights over the East Bay. He asked how these noise complaints were being documented, and noted that there will be time when it will be necessary to "approach [the FAA] to do a better job." He said the Forum would be the best venue for this. Facilitator Lee concurred, and added that he thought that this dialogue has made staff aware that there is further work we have to do in terms of trying to improve the situation.

Facilitator Lee called for a second on the motion to receive and file the 3rd Quarter 2019 noise report. Tom Wagner so moved. The question was called and the motion approved.

3. APPROVAL OF MINUTES

A. October 16, 2019

Co-Chair Lee asked if there were any questions or comments with re the October 16, 2019 draft meeting minutes? Tom Wagner moved approval. Councilmember Davila moved to second. James Nelson noted one correction that he had already provided to Mike McClintock concerning his status as a registered professional mechanical engineer in California and the State of Washington and Washington D.C. Motion was amended to ensure that the Forum's regular facilitator would make the change as was noted by Mr. Nelson. Peter Marcuzzo seconded. The draft minutes were approved.

4. NEXTGEN RELATED NOISE CONCERNS

A. SUBCOMMITTEE REPORT

Peter Marcuzzo, NextGen/Metroplex Subcommittee Chair, began his report by thanking the FAA representatives who came today: Ms. Tamara Swann, Adam Vetter and Sky Laron. They came in early today and have met with the NextGen Subcommittee, where they discussed the current progress of changes proposed on the instrument departure and other approaches that we suggested; basically four topics: (1) The Cal State Visual Approach, which the FAA emphasized is on hold until the Forum can advise them of what it would like to see. Ernie DelliGatti is working on this and HMMH will provide more information on this later on; (2) The WNDSR arrival procedure, which was somewhat delayed due to the difficulty in achieving a quorum in their working group because of the Holiday Season. Right now, he said, they are working furiously to make up for the lost time. Peter noted that the FAA working group is comprised of representatives from the airlines, FAA technical staff and air traffic, and labor. They are seeking to determine the best methods and ways they can amend the WINDSR arrival. So, he said, this is in progress; (3) The WNDSR SID and the HUSSH departure SID were discussed along with the changes we'd like to see on that procedure. This has been entered into the FAA's Instrument Flight Procedures Gateway so it now has a line item number and it is in progress. But, there are still a lot of steps yet to be taken; and (4) The SUNNE ONE departure out of Oakland, which is a "proceduralization" or a graphic fix for pilots for what is currently the left turn off of Runway 30 down the bay for departures going southbound. He said it is a really a good procedure for noise abatement, and it helps a lot of people out, not to mention reducing both controller and pilot workload. It will be easier for controllers to issue a "SUNNY ONE" departure, instead of having to tell the pilot to turn left, climb, maintain, do this or that, etc. Lastly, he said, the Subcommittee's next meeting with the FAA will be on April 15, 2020, the date of the next Forum meeting.

James Nelson pointed out that it would take about 18 to 24 months for the HUSSH clearance to go through and asked where the WNDSR procedure was in the IFP Gateway. Peter concurred with the 18- to 24-month timeline for HUSSH and said that the WNDSR IFP Gateway proposal was just beginning [N.B. Mr. Marcuzzo asked Adam Vetter for a copy of the slide used in an earlier-in-the-day presentation that shows the processes and the timeline. Mr. Vetter said, "yes"]. Co-Chair Lee thanked Mr. Marcuzzo for his leadership in this area and working with the FAA. He also thanked the FAA representatives for their attendance at the Forum and Subcommittee meetings, and for their commitment to working with the Forum to solve these problems.

B. FAA NOISE FORUM MEETINGS UPDATE

Kristi McKenney updated the Forum on the FAA Western Service Region noise forums for airports. She said the last one was a couple months ago in Colorado Springs, and it had a very productive agenda. Discussion included some of the communications methods that the FAA is using with communities. The FAA has found that it really helps them if they hear from airports that are working directly with community members. They are receiving more feedback on the type of information the communities are looking for, and are better able to get them that information and work with them. She said, she thinks that this shows that the FAA has made great strides in its commitment to engage with affected communities. The next meeting is going to be in Tucson at the end of February, and she is helping to shape the agenda and will be reflecting the issues that we are concerned about here in the East Bay, Oakland, and the Bay Area in general. The next meeting will be in May, and will be hosted by the Oakland Airport. She said she was pleased with the progress made by this group since it started some 18 months or so ago. These relationships keep building every meeting, and they have resulted in some of the same people who are engaged in these meetings participating in our meetings and our working groups. So, she said, this is how we hoped they would go.

C. FAA DEPUTY REGIONAL ADMINISTRATOR UPDATE

Deputy FAA Regional Administrator Tamara Swann thanked the Forum for the opportunity to be here, and said that her team is looking forward to continuing the work that they've been doing with the subcommittee. She that today was her first opportunity to meet with the Forum's NextGen/Metroplex Subcommittee, and was impressed with the presentations and the collaboration that went on. It was very valuable and helped in moving things forward, she said, and that they would continue to support the Forum by bringing the right subject matter experts, as appropriate to the agenda, to the meetings. She said she appreciated the procedure updates that Peter Marcuzzo provided. She noted that the nighttime HUSSH procedure was still in environmental review, and that this is independent of OAK's requested amendment, which is still moving along. Peter Marcuzzo said that this was an SFO request—"the turn out of the gate?" Ms. Swann said, "yes."

Ernie DelliGatti said, with respect to the environmental review, is the FAA using the standard aircraft narrow body/wide body heading? He said, he was asking because the airlines constantly swap out aircraft based on load factors and other things. He said, he was curious if the FAA was using a generic aircraft for the environmental review. Adam Vetter replied that the aircraft used in the model were not necessarily generic. Generally, he said, depending on the level of review, it takes into account a certain number of days of historical aircraft operations; meaning the past 365 days or past calendar year. Whatever the fleet was during the study period is what is used to assess any potential changes within the model; in this case for the HUSSH procedure or for any procedure. He said they understand that fleet mixes do change, and sometimes our fleet mix database is slow to catch up, but it is updated about every six months.

Co-Chair Lee thanked the FAA for its participation, and noted that there is a lot of focus on data He said, he thought that this would be of great help in terms of identifying past events and help to improve future outcomes. Benny also thanked the NextGen/Metroplex Subcommittee for the work they are doing in working collaboratively with the FAA, and that he is looking forward to solving the issues that we have in our communities.

5. PUBLIC COMMENT

Dr. Yvonne McHugh of Point Richmond said she was asking for help to find out who to contact for help concerning all of the flights concentrated over Point Richmond, and is this part of a plan? She said Point Richmond experiences a lot of noise and a lot of aircraft—sometimes 50 planes in 1½ hours. She said she would like to know who to contact. Peter Marcuzzo said he would meet with her after the meeting and he would explain it to her. Kristi McKenney offered that the airport noise office is always available to answer such questions, and that the airport's web site is a good source of information. Jesse Richardson is also available to speak with her individually. Ms. McHugh said that Jesse had been "remarkable" with his support and in helping her to visualize what's going on. She said also, that she likes "Stop Jet Noise" because all you have to do is press a button, while the airport's system is "much more time consuming." Facilitator Lee asked about Richmond's historical relationship with the Forum. [NB: Western Contra Costa County (Richmond) was a member of the Forum for a short period of time before dropping out due to financial considerations]. Benny said reaching out to Richmond could be added as an item of new business.

6. LEGISLATIVE UPDATE

Tim Middleton from HMMH provided background and a briefing on some recent bills that have been introduced in committees of both the United States House of Representatives and the United States Senate. Some of these bills have been moved out of the committee they were submitted in, and most were submitted in November 2019 by California Representative Jackie Speier, who represents the northern two-

thirds of San Mateo County and the southwest quarter of San Francisco. Tim gave an overview of the individual bills:

• **RESPECT Act (H.R 5105)**

The "Responsive Employees Support Productive Educated Congressional Talk Act." This act requires the administrator of the FAA to respond to requests for information from members of Congress and for other purposes. Essentially, he said, this bill would put timelines on when FAA staff would have to respond to members of Congress.

• REST Act of 2019 (H.R. 5106)

The "Restore Everyone's Sleep Tonight Act," would amend U.S.C. Title 49 [N.B. the part of the U.S. Code that governs transportation] to allow airports to impose access restrictions for certain hours and assess certain penalties against air carriers and aircraft operators. Tim said that this could change how airports impose curfews and could potentially change how a lot of airports could operate. He did not believe it would actually pass, but noted that over the years since the "Airport Noise Control Act of 1990" (ANCA) was approved, there have been numerous efforts to impose curfews on airports. Because of potential impacts on interstate commerce, few, if any, ever get approved.

• SNORE Act of 2019 (H.R. 5107)

The "Serious Noise Reduction Efforts Act of 2019" would amend the U.S.C. Title 49 to establish a program at SFO for purposes of sound proofing residential buildings in the vicinity of the airport, and it only apples to SFO. Tim did not think it had much chance of passing.

• SHHH Act (H.R. 5108)

The "Southbound HUSSH and NIITE Help Households Act" would require the FAA administrator to continue processing the proposed SFO night departure, southbound transition and the OAK HUSSH departure. This is in response, he presumed to the Congresswoman's perception that the process isn't moving as quickly as it should.

• F-AIR Act (H.R. 5109)

The "Fairness in Airspace Includes Residents Act amends the U.S. Code to expand priorities of the FAA administrator in developing plans and policies for the use of navigable airspace. Tim said this bill has more support than some of the others. If enacted, it would amend and re-prioritize the FAA's mission statement. The text of the bill has the full mission statement in it. It would maintain safety as the first priority of the FAA, but then it would elevate noise and health impacts to have an equal footing as efficiency. The perception here is that if environmental noise and health impacts are on the same level as efficiency, the idea is perhaps that this would be more favorable for some people.

• APPRISE Act (H.R. 5110)

The "All Participating in Process Reaching Informed Solutions for Everyone Act" would direct the FAA administrator to ensure that representatives of aviation roundtables may participate in the NextGen performance-based navigation implementation process of the FAA. This would basically ensure that the roundtable technical representatives were involved in the design procedure. Tim thought that this comes out of the perception that airspace procedures are designed in a box, and that people find out about them after the fact.

• **NOTIFIED Act (H.R. 5111)**

The "Notify Officials to Inform Fully and Impel Educated Decisions Act" would require the FAA administrator to notify the public of proposed new Performance Based Navigation Implementation Process flight procedures (PBN) implementation process. Tim said this act is similar to the previous act. It is very broad, and essentially says that the FAA would have to notify all relevant local, state and federal reps and aviation roundtables within five miles of the flight path for changes to airspace under 18,000 feet, which is a very large swath of land. This again, he said, seems to have come from the perception that all relevant parties have not been notified or that there isn't a standard notification procedure for airspace changes.

• LEAVE Act (H.R. 5112)

The "Low-frequency Energetic Acoustics and Vibrations Exasperate Act" would address the ground-based noise from aircraft takeoffs and landings. Tim felt that this bill was somewhat premature, in that it's directing the states to define how they would implement ground-based noise measuring and monitoring, and then establish new compliance requirements for this.

The next two bills [NB: the bills were not specifically identified because Tim was speaking from an onscreen presentation] were introduced into both the House and Senate at the same time and are identical. This was done, he suspected, in the hope that they might move through both chambers that much quicker. They direct the FAA administrator to enter into arrangements with the National Academy of Sciences to provide a report on the health impacts of air traffic noise and pollution, which, he said, is slightly redundant to the FAA re-authorization bill, which specified multiple studies for the FAA to conduct concerning the health impacts of aircraft and air traffic noise and pollution. Lastly, Tim introduced H.R. 2351, as the "Protecting Airport Communities from Particle Emissions Act" Again, he said, it directs the FAA to conduct a study relating to ultra-fine emission particles. If it were to be passed, it specifically names the NorCal Metroplex as a region to look at.

Ed Downing, vice president of CLASS, said that based on his reading of H.R. 5108 it would seem to indicate that Oakland and the impact of the HUSSH departure on the Oakland community would be somewhat secondary to what's happening at SFO, because the primary part of it is going to the SFO Roundtable. Tim replied that because SFO is in Ms. Speier's district, that would appear to be the case. Downing asked if Barbara Lee had signed on to the bill as a co-sponsor. Tim replied that, that was the case. Ed noted further that Representative Lee was a co-sponsor on most, if not all of Ms. Speier's proposed noise/aviation legislation. Facilitator Lee noted that there was no representative from Barbara Lee's office in attendance tonight. Tim Middleton said that there should have been a column on the spreadsheet that indicated if Rep. Lee had co-sponsored any of the bills. He said that could be fixed. Benny Lee commented that he had gone to the legislation website and noticed that some of the bills have two or three co-sponsors and others have up to 14 co-sponsors. Kristi McKenney added that outside of the legislation, the actual FAA process mandated in the reauthorization act includes Oakland. Facilitator Lee continued, noting that there needs to be a minimum of 200 co-sponsors in order to move the propose legislative item to a vote.

7. FORUM WORK PLAN 2020

This item was tabled by Co-Chair Lee until the Forum's regular facilitator returned.

8. ANALYSIS OF PROPOSED SAN LORENZO 1 (SLZ1) VISUAL APPROACH

Adam Scholten of HMMH reviewed the proposed Runway 30 San Lorenzo One visual approach. He said that this was a proposal submitted from the community to address concerns regarding compliance with the Oakland 100-degree radial noise abatement procedure where aircraft were supposed to maintain an altitude of at least 3,000 feet when crossing the 100-degree radial. The proposed procedure is designed to keep aircraft higher until they turn to align with Runway 30, and to utilize a flight path over the more industrialized areas of Hayward and San Lorenzo that maximizes overflight off the bay to the maximum extent possible. Adam provided graphical imagery of the proposed procedure. He said HMMH did an analysis of the land uses underlying the proposed procedure as it was submitted to them. Of note, he said, is that due to the design of the procedure, it would only be able to be used under visual flight rule (VFR) conditions because the procedure relies on utilizing visual landmarks. Adam referred to additional graphical representations of the proposed procedure showing underlying land uses; specifically, residential, commercial, public use, and industrial. He noted that the proposed procedure is actually an offset approach. Arriving aircraft won't initially align with the runway heading on final approach, but will have to fly out over the bay a little more and come in to the runway at a slight angle. When an aircraft gets closer to the airport, it will have to turn to align with the runway for touch down.

Another of Adam's slides depicted where aircraft would make the turn to do the offset to the runway. The turn would primarily be over industrialized land uses, but prior to getting to that point, he said, it would come in over Hayward, where there's a mixture of commercial and multi-family, single family uses, as well as numerous other places of worship, schools and hospitals. These are all within one half nautical mile on either side of the proposed procedure. Adam's next slide reviewed the FAA's proposed Runway 30 Cal State visual approach. The FAA's proposed procedure would have aircraft fly out a little farther away from the airport and then cross the Cal State East Bay campus at an altitude of about 3,000 feet and then make the turn to align straight in with the runway; still flying over the industrial area, but closer to land and not flying over the bay. His next slides compared the land use impacts of both procedures. The biggest difference between the two proposed procedures, he said, is where they'd make the turn to align with the runway and the fact that San Lorenzo One would be offset in terms of it being over the bay until coming close to the runway end.

Also, he noted, with the Cal State visual approach, arriving aircraft would turn a little farther to the southeast of Hayward over the Cal State East Bay campus. He reviewed additional differences between the two proposed approaches on subsequent slides and summarized the potential benefits and disbenefits of the San Lorenzo One approach. Some of the potential benefits of this proposed approach are that it may improve the noise abatement procedure compliance with the OAK 100-degree radial, and it would provide an additional visual reference that would allow pilots to better comply with the 100-degree radial. It also would provide a semi-repeatable route for navigation by the aircraft flight crews. Today, he said, when aircraft come in and do visual approaches from the north, they make the turn to final at various points over a wider area, and not necessarily on one path that every single aircraft flies, each and every time, as would be the case with a charted visual approach. Also, he added, with the San Lorenzo One procedure there would be less single- family residential and mixed uses that would be overflown as compared to the proposed Cal State visual approach.

Adam went on to discuss additional advantages and disadvantages of the two proposed procedures in greater detail. Noting that, in general, both procedures as published charted visual approaches would concentrate the arrival flight path over the communities of Hayward, Mount Eden, Cherryland, and Castro Valley. Specifically, he said, the San Lorenzo One procedure would increase arrivals over downtown Hayward, and there would be more potential for overflying more multi-family residential land use than with the proposed Cal State visual approach, even though there would be less single family residential and mixed use. Both the San Lorenzo One and Cal State visual approaches would overfly numerous residences, schools, places of worship and hospitals. He concluded that this didn't necessarily mean that San Lorenzo One is any more beneficial or any worse than the Cal State visual approach.

Ernie DelliGatti said he had several questions concerning HMMH's analysis. He asked if HMMH analyzed the two procedures by means of computer modeling or did they actually have somebody go out and walk the neighborhood? The second question was, if someone did walk the neighborhood, did anyone talk to the residents? His third question was, did anyone contact the Hayward airport manager because the additional margin of safety was overlooked. By implementing the San Lorenzo One or the Cal State approach, you'd have an extra margin of safety for aircraft taking off from Hayward Airport. His last question was, did anyone take the time to talk to him about the proposal? He said, when he was asked to go ahead and put this proposal together back in November 2018 by the Forum, he asked specifically how many schools were located under the San Lorenzo One approach. He said this information was missing from Adam's presentation. He noted that, within San Lorenzo alone, There are currently a total of seven elementary schools, two high schools, and one adult school for a population of over 12,288 people; not including the people that are currently going to school at Life West Chiropractic College in Hayward, and Chabot College which total an additional 13,751 people currently being overflown on a daily basis because that's where incoming flights to OAK intersect, and it is a wide intersection. He said, as a resident of the

San Lorenzo area for the past 25 years, he can say that the OAK traffic has gotten progressively worse; hence his pushing for the past five years to gain some relief from the noise, because as it stands right now, they are not only getting noise from both OAK and Hayward airports, they also have trans-oceanic flights over San Lorenzo that turn down toward Union City on the QUIET bridge approach into SFO. So, Ernie said, some of your analyses and conclusions are likely flawed simply because HMMH "cherry-picked" some of the information. Based on his analyses and the fact that he has lived in the area for so long, he has concluded that there will be less noise by shifting the arrival track one to two degrees farther out over the bay as opposed to now, where you currently have aircraft overflying San Lorenzo and San Leandro neighborhoods.

Co-Chair Lee asked Adam to respond. He replied that as to the first question, it was a computerized analysis based on the data that HMMH had received. The procedural data were plotted geospatially and collected land use data collected from the various jurisdictions around the airport. For the second part of that question, in terms of going out and physically walking the route, he said, they did not do that. They were instructed to look at what the land uses were in that area and where the procedure would lie accordingly. As for question 2, he said, he personally did not talk to the Hayward Airport manager, nor did he know if anyone else had; the issue raised by Mr. DelliGatti was not part of HMMH's assignment, which was specific to land uses and what the implications for the two procedures might be. Facilitator Lee interceded to comment that, as appointed and elected representatives, we represent the voices of our community. HMMH was retained by the Port to conduct these simulations and analyses, and this gives us the opportunity to provide feedback. He said, he had some questions himself, but would hold them in reserve until after the members had a chance to ask their questions.

Mr. DelliGatti repeated that HMMH's presentation was "skewed" because from his experience of having lived under the arrival paths for Oakland, Hayward, and now SFO he believes that the HMMH presentation needs to be "reviewed and fleshed-out because there's still a lot of holes in it that he has pointed out." He yielded to the next commenter. Berkeley Councilmember Cheryl Davila asked if there was a difference in the respective altitudes of the two proposed flight procedures. Adam replied that they were roughly the same. James Nelson asked if either of the two proposals were in response to noise concerns or are they an extension of the concentration of flights? He said his concern was the potential for the concentration of the flight paths. The reduction of the dispersion of the flight paths was problematic, he said, based on the Forum's experience to date. The concentration of aircraft along a specific track is what generates quite a few complaints. Facilitator Lee asked staff how the criteria for HMMH's analysis was formulated. Matt P. Davis replied that this evolved through a couple of different phases. Again, he said, the Cal State visual approach analysis came out of the Forum's concerns over the concentration of flight tracks and the need for some relief for aircraft cutting the corner over San Leandro. To be fair, he said, the Cal State visual approach does have some control and efficiency enhancements from the FAA's perspective. This was before the flight track concentration became an issue, and at that time, it seemed like a good idea to develop a procedure to help aircraft to avoid short-cutting the 100-degree radial and overfly San Lorenzo. With all the work FAA was doing with the Metroplex, it went away for a while and came back a little more than a year ago. At that time, knowing more about the problems with the concentration of traffic, HMMH was asked to look at what the procedure would look like. That analysis was performed and presented to the Forum. Then, in response to questions from Mr. DelliGatti, the path the FAA had designed was considered to be problematic. To this end, Mr. DelliGatti was asked to prepare a presentation for an alternative procedure; one that would concentrate the incoming traffic over an industrial area. So, the task was then for HMMH to analyze the work DelliGatti had done to see if his alternative approach would provide any benefit over what the FAA had proposed in terms of overflight of residences, schools and impacted communities. The task was for a computer analysis; it was not to go out to the community itself. Co-Chair Lee stated that it was his belief that more outreach to Mr. DelliGatti and the community

would have resulted in less misunderstanding of HMMH's role and responsibility in this matter. He suggested that this be revisited under new business. Lee thanked HMMH for its analyses, and felt that their work was very comprehensive.

Co-Chair Lee asked Adam to bring some of the maps back up. He noted that the proposed flight tracks overfly the unincorporated area around San Leandro, particularly Ashland and Cherryland; which are historically very underserved, low-income communities. So, he said, the optics don't actually look too good. He thought that more community feedback was needed; what are the characteristic of these neighborhoods? This procedure is going to have impacts, regardless of how we may change it or shift it around, he said. We are trying to find some optimal relief, and we want to make sure that it serves the public well. He said he was concerned about the safety of any of this. Matt P. Davis commented that the airport also wants this to be looked at; while the FAA, when they look at the Cal State visual or any visual approach, they look at the flyability of it. That would have to be analyzed; could you fly this safely? Benny Lee asked if some of the proposed flight turns are based on visual reference points, what happens in inclement weather. Peter Marcuzzo responded that the procedure could not be used.

Edward Bogue asked to see the visual comparison of the two procedures again. He said that this was not what he was expecting to see in the final presentation because this appears to have more effect on Hayward than was the case with the previous visuals. The problem in Hayward occurs when aircraft end up using any number of different tracks. He said the San Lorenzo One proposal covers a lot of the area where he gets most of his complaints from when they cut in short, and he didn't think that this was going to be very popular. He was not too thrilled with the proposal at all, he said. Tony Daysog said he wanted to followup on Cheryl Davila's question about relative altitudes, and the statement that there is basically no difference between the two proposals. When he looks at the two procedures, he has to ask if the one requiring the tighter turn doesn't need to make a steeper approach, and if it does that as it passes over Hayward's Jackson Street doesn't this have a greater acoustical impact? Adam replied that, in general, even though the turn is a little steeper, the aircraft isn't necessarily going to descend that much more because it still has to cross the 100-degree radial above a certain altitude, and should not get below the glideslope to the runway. Ms. Davila said she was curious as to why the proposed Cal State procedures didn't incorporate a wider turn over the East Bay hills instead of the urban area. Adam said that this was a question for the FAA because HMMH did not design the procedure. Scholten replied that he thought it was designed the way it is was because the FAA sought to basically overlay the existing arrival path. James Nelson asked Peter Marcuzzo if the current problem of overflights in San Lorenzo are due to making that turn? Peter replied that these two proposed approaches are designed to keep pilots from cutting the corner over the Hayward Airport and over residential areas on the way into OAK's South Field (Runway 30). That's what both of these approaches do is keep airplanes out wider, more over the industrial areas, and provide a path for the aircraft to follow that will keep them west and south of the Hayward Airport, thus alleviating, he believed, a majority of the issues. Adam concurred. James Nelson said he was a firm believer of spreading the impact. His big concern with both of these proposals is the concentration of flight paths. Facilitator Lee said it was time to move forward and hear from the public.

Ed Downing said that, as someone who has flown the existing procedure many, many times off the 100-degree radial, the higher you try and keep an airplane as it approaches the airport, the more unstable that approach becomes, and you start to introduce safety issues. We'd all like to keep airplanes high so they don't generate noise, he said, but eventually they have to get down and, and doing it from a stable approach, not a power-off thing where they're in a seven degree slide; these are considerations when you undertake to redesign these procedures. Based on his knowledge of the existing procedure, he believes that this is a case of the solution looking for a problem. It was his understanding that he compliance rates for the 100-degree radial are in the 99 percent area historically. To him, we're all trying to find a solution to a problem that doesn't exist, and the idea that we would make a university with thousands of students the visual approach point to avoid noise, when you've got classes going on doesn't make any sense whatsoever. Co-

Chair Lee asked Ernie DelliGatti if he wished to formulate a basis for further discussion when we get to agenda 1tem 13? Ara Balian, airport noise and operations specialist at the Hayward Executive Airport, noted that references to the chart showing the flight tracks should be interpreted to say "east of the airport," not west. Secondly, he said, with re the Cal State visual approach, Cal State is actually a "reporting" point for arrival aircraft coming into Hayward. One other thing of concern to him is making sure that there is adequate separation between aircraft coming into Hayward and flights going into Oakland. Another thing to also consider, he said, are the arrivals for Oakland going into the North Field; how would this affect this proposed approach? Co-Chair Lee thanked both Ernie DelliGatti and HMMH for their work on this issue. He said, we do need to find that median point with respect to the criteria and make sure it's confirmed, reviewed, and acknowledged before it's submitted to HMMH. That way, there is less consternation when it comes to the discussion.

9. TECHNICAL WORKING GROUPS REPORT

A. North Field/South Field Research Group Action Items

Matt P. Davis provided a summary of the last North Field/South Field Research Group meeting. He presented the action items from the last meeting of the North and South Field Research Group. One is still a work in progress that they've been working on; the request from the Mayor of Alameda to reduce jet traffic off of Runway 33. For reference, he noted, Runway 33 is the short, almost north-south facing runway on the North Field. He said they have reached out to the carriers that operated jets off that runway, and they were able to work with them successfully. They no longer use Runway 33 for departure; they elect now to go to Runway 30. With this agreement they are seeing virtually zero jet traffic off of Runway 33. At its peak, there were 280 jet departures off that runway by small business jets, not Southwest Airlines. He said they'll continue to work to make sure they do not use Runway 33 for any more jet takeoffs. Davis said they are working with SFO to schedule another TRACON tour. The NorCal TRACON controls all the origin and destination air traffic in the Northern California region around the Bay Area at certain altitudes, and approaches and departures into and out of Oakland, San Francisco, and San Jose airports. We've done these tours before and the give people chance to meet with the controllers and talk to them. Sometimes, someone gets a chance to sit at one of the radar scopes to see what the controllers are actually seeing. It's a good opportunity for folks to see how the FAA operates. It's a good learning experience.

There was a request to review helicopter activity in Alameda's Fernside neighborhood. The results were provided to the Forum. There was also some interest in the number of freight flights over the past six years, including trends, what types of aircraft were being used by FedEX and UPS, and hours of operations. This was also provided to the Forum. FedEx and UPS are slowly retiring some of their older aircraft and bringing on newer planes. They are also looking at what hours they fly over the past six years. Another item in the pipeline is a three-year report showing compliance trends. In the realm of making it easier for people to voice their concerns or complaints to the airport is an update on efforts to reduce the time required to complete a phone complaint, along with ways to automate certain other procedures. The noise office wants to be able to focus on complaints and issues. "Complaint" versus "comment" has become a minor issue. The noise office is neutral on this, but, based on feedback from the NextGen subcommittee, the preferred term is "complaint." Another issue is the auto response that follows the filing of a noise complaint. People have complained that it does not provide a unique ID number, which it previously did, that allows you to track your complaint. We will put this feature back in.

Runway 28R will be closed for the next few months as a result of a taxiway rehabilitation adjacent to 28R. To facilitate this, 28R was converted to a taxiway for a three-month period so that aircraft are able to bypass the construction area. Jets still have taxi to South Field to take off. Concern was expressed over the SALAD departure procedure; where aircraft immediately turn to the right off the North Field at night to avoid Alameda residences. During this three-month period while 28R is closed, folks may see a slight

decrease in compliance. We reached out to CLASS to advise them there could be a little difference for Alameda based on the runway closure. That's it for the action items from the research group. Co-Chair Lee asked if there were any questions. Ed Downing thanked the airport for the efforts it made in reducing the jet departures off Runway 33. Matt Pourfarzaneh said that when he logs in to the airport's noise app, all of his information is right there. He doesn't need to log in every time; he stays logged-in. Jesse said that this is good to know, because it was his understanding that if you go to Viewpoint and do not log in, your preferences cannot be stored. Jesse said that he would need to take this back to B&K to see what they have versus what the stop.jet.noise.net app has. Yvonne McHugh said she liked the stop.jet.noise.net app. James Nelson wondered if Richmond could be added to the list of cities in the noise report. Co-Chair Lee and Kristi McKenney both said we need to reach out to Richmond.

10. NOISE OFFICE REPORT

A. Update on Action Items from October 16, 2019 Meeting

No items to report.

B. Viewpoint Update

This brings us back to the question on the stop.jet.noise.net app versus the Viewpoint app. Can Viewpoint store personal knowledge without first having to log in? Can Viewpoint be made to work like a touch type, so it's more like other apps? Unfortunately, there is not currently a way for Viewpoint to store personal information without logging in. Modern smart phones can this, but Viewpoint can't. However, the airport noise office is working with B&K on a mechanism where, if you do log in, you input your name and password then all your information automatically comes up; you won't have to input it all over again. There will be more updates on this as things progress.

11. NOISE NEWS AND UPDATE

Christian Valdes from Landrum & Brown said tonight's news starts out with Boston. Three cities around Boston Logan International Airport requested the FAA and the airport to model and implement a departure procedure off of Runway 33L that more equitably disperses aircraft noise. With the implementation of a RNAV departure from Runway 33L in 2013, residents of the three cities have been severely impacted by aircraft noise; often starting as early as 5 a.m. In response to the cities' request, the FAA is working closely with the airport and MIT as part of a 2016 memorandum of understanding which included identifying specific proposals to reduce noise from RNAV concentrations, to assess the feasibility of specific noise abatement operational or procedural design ideas, to design a model feasible to assess the level of benefits and potential impacts for testing or implementation, and to incorporate community outreach and feedback in the whole process. Back in 2016, then FAA administrator Huerta said if the Boston case was successful, they would be able to implement these ideas at other metropolitan airports. Unfortunately, Christian said, to date there is no specific date when MIT will complete its work.

Moving on to Southern California, where the City of Los Angeles sued the FAA for shifting the departure from the Burbank Airport's Runway 15; demanding that the FAA change it back to where it used to be prior to Metroplex. This will be a fairly tall order, Christian said, and perhaps even impossible, because the procedure itself, in the area in question south on the airport, has not changed. The Metroplex did not change it, and the FAA can't change it back to where it used to be, since it's still in the same place. The San Fernando Valley Noise Task Force is meeting tonight to continue working on this issue. In late breaking news, LAX made the national and international stage when Delta flight 777 departed out of LAX and immediately had engine failure. One of the engines had a compressor stall. The pilot declared an emergency, and quickly turned back to the airport. Valdes showed a photo of what appeared to be contrails coming off the aircraft's wings, but they were not contrails. The airplane was dumping fuel over

the city. The plane was enroute to Shanghai and full of fuel with 181 passengers. It flew over six schools and, unfortunately, the children and adults were outside. Many of the children reported skin and eye irritation, and trouble breathing. The FAA is investigating. A quick note about Oakland Airport aircraft. The majority of aircraft used at OAK do not have fuel release capabilities.

The House Quiet Skies Caucus met with FAA Administrator Stephen Dickson in October to discuss priorities and solutions to aircraft noise problems. One is to disperse flight patterns, to complete and release noise studies, to create a central complaint portal, and to increase community outreach. Next, the FAA is seeking public comment on the national sleep study which will investigate the relationship between aircraft noise and the probability of waking up. The goal is to select about 400 subjects. Each will receive a package of instruments to use over a five-day period. The population candidate pool is based upon the amount of nighttime aircraft noise that a candidate experiences and is not limited to a specific airport vicinity.

Several developments have taken place on the 737 MAX situation in the last months. Boeing CEO Dennis Muilenburg testified before Congress in October and explained Boeing made mistakes in the software responsible for the two crashes, but has worked diligently to fix the software and pilot documentation. In December, the FAA administrator also appeared before Congress and said the agencies should have grounded the MAX after the first accident in October 2018. The FAA continues to look into the certification of the MAX, which will return to service only after the FAA determines the aircraft to be safe. No set timeline has yet been released on when the MAX will be back in service. Both these gentlemen were heavily criticized by members of Congress for lack of correct action and mistakes. On December 23, Boeing fired CEO Muilenburg. The Boeing Board of Directors determined a change of leadership was necessary to get confidence in the company moving forward, and they will proceed with a new commitment to full transparency, including effective and proactive communications. Boeing settled with airlines, including Southwest and American Airlines, for financial losses due to the grounding of the MAX. Boeing estimates the price tag for the eventual settlement with all parties will be about \$5.7 billion, although some analysts think this figure will go much higher. Just last week, Boeing said it recommends simulator training for pilots of the 737 MAX, after previously stating such training was not necessary.

Across the pond, the UK government introduced an air traffic management and unmanned aircraft bill which would give the Transport Secretary new powers to not only ensure airports modernize their airspace but also fine those airports that don't implement changes quickly enough. Airspace modernization would facilitate quicker, quieter and cleaner flights. The bill would also give police greater power to stop unlawful use of unmanned aircraft/drones. Police would have the ability to require a person to land a drone, issue fines and penalties for drone related offenses, and introduce stop and search powers. Continuing with drones, Christian said, Boeing and Porsche joined forces to enter the urban air mobility (UAM) market: drones with leather seats and better stereos. A 2018 study by Porsche forecasts the UAM market will pick up speed after 2025 when premium UAMs will become a key market segment. NASA will host a series of urban air mobility challenges this year to gain public confidence in the safety of UAMs. These challenges will also support the FAA in developing an approval process for UAM vehicle certification, develop flight procedure guidelines and categorize vehicle noise levels. During the noise task, they'll measure noise variability, test flight profiles that minimize noise, and assess community response to that sound. The first challenge will involve the transportation of a payload equivalent to at least one adult within a simulated urban environment.

Good news for electric commercial aircraft. The world's first fully electric commercial aircraft took its 15-minute flight over Vancouver skies. It was a 62-year-old de Havilland Beaver but retrofitted with a 750-horsepower electric motor. It is owned by Harbor Air, which ferries about half a million passengers a year over the Vancouver and Whistler ski area airspace. Their goal is to retrofit all 40 of its aircraft and save on maintenance and produce zero emissions. As for NASA, the X-59 Supersonic Jet has been cleared

for final assembly and may see its first flight in 2021. NASA has also come up with an alloy with unique properties so it can be trained. It can go through solid state phases, and it can be stretched, bent, heated and cooled, and it still remembers its original shape. NASA is currently using this on Vortex Generators; small engines installed on aircraft wings to control air flow during flight. Most Vortex Generators do not move; they're solid, so, at cruising speeds and altitude, they produce drag, which is not good. These so-called Vortex Generators are trained to move as they sense change in temperatures. Valdes showed a video of what happens when a Vortex Generator is sprayed with cool, cold air. Facilitator Lee thank Christian for his presentation.

12. CONFIRM NEXT MEETING - April 15, 2020

The next Forum meeting is scheduled for Wednesday, April 15, 2020

13. NEW BUSINESS/ADJOURNMENT

Ernie DelliGatti said that the Forum needs to revisit the San Lorenzo One proposal to fine tune it before it can go to the FAA. Facilitator Lee asked the Port staff how they thought this should be approached. Kristi McKenney responded that we have to trust that the proposed routing and land use data are accurate, but we can certainly sit down with Ernie again and go over the details in terms of what we think is different about the land use calculations he may have done, and what we have done. Co-Chair Lee said he thought the minutes would reflect where any discrepancies might lie. He asked Ernie if he agreed that what needed to be done would be to try to converge and make sure that we are in consensus and agreement that this is what we're looking to propose. Mr. DelliGatti concurred. Ms. McKenney said she thought she more than just that. It may be what Ernie proposed, but she heard others say that they had concerns about both the FAA Cal State proposal and the revised Cal State San Lorenzo One proposal of Ernie. McKenney said that they can bring back to the Forum whatever they are looking for, but at some point they will have to vote on whether they actually want to pursue these changes or not, and if this is actually a solution to whatever issues were identified. It may exacerbate things or create different issues. Edward Bogue said he agreed. The Forum needs to revisit this and have more discussion to know if we are going to move things forward.

Co-Chair Walt Jacobs asked if there was anything different you would do in the approach to revisiting it again? Kristi said, she believes that they've done an extremely-thorough job on both of these proposals, and they were discussed at several meetings, but we will again need to sit down if Ernie feels there is something missing, just to make sure we checked all the boxes. Walt expressed his concern that no one had discussed any of these issues with Ernie beforehand. Kristi said Jesse can speak with Ernie, and we can spend more time with him if need be. Benny Lee suggested that once that discussion happens, we document exactly what comes out of it, and that needs to be presented to the Forum. Then the comments from the Forum will be the basis for the final decision. James Nelson said he'd like to see some copies of the statistical analysis of flight paths, heat maps or other documentation. Co-Chair Lee said that this would be part of the review process, and that we will need to decide what that will be before we submit them for analysis. Matt P. Davis said they could reference some of the previous reports, and HMMH did present, at a previous meeting, heat maps to show what the expected concentration level would be. We can bring sort of the full breadth of the information HMMH provided to us to give a full and complete picture to the Forum. Lee thanked the Port staff and Forum members, along with the FAA for their collaborative work. Kristi McKenney thanked Benny for facilitating the meeting and leading the discussions.

The meeting was adjourned at 8:45 p.m.