MEETING MINUTES OAKLAND AIRPORT-COMMUNITY NOISE MANAGEMENT FORUM

January 15, 2014

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1. INTRODUCTIONS

The January 15, 2014 meeting of the Oakland Airport-Community Noise Management Forum meeting was called to order at 6:38 p.m. by the Forum's Facilitator, Michael McClintock. Mr.

McClintock welcomed the Forum members and guests. He asked the Forum members and advisors to introduce themselves for the benefit of the audience:

Forum Members/Alternates Present:

Walt Jacobs, Co-Chair/Citizen Representative, Alameda

Barbara Tuleja, Alt. Citizen Representative, Alameda

Tony Daysog, Elected Representative, Alameda

Jesse Arreguin, Elected Representative, Berkeley

Margery Eriksson, Alt. Citizen Representative, Berkeley

Barbara Halliday, Elected Representative, Hayward

Edward Bogue, Citizen Representative, Hayward

Michael McEneany, Elected Representative, Marin County

Benny Lee, Co-Chair and Elected Representative, San Leandro

Will Fernandez, Citizen Representative, San Leandro

Deborah Ale-Flint, Director of Aviation

Staff Members/Advisors:

Matthew Davis, Airside Operations Manager, Port of Oakland

Larry Galindo, Noise Office, Port of Oakland

Wayne Bryant, Noise Office, Port of Oakland

Susan Fizzell, Noise and Environmental Office, Port of Oakland

Jesse Richardson, Noise and Environmental Office, Port of Oakland

Vince Mestre, Acoustical Consultant, Landrum & Brown

Harvey Hartmann, Airspace Consultant

Gene Reindel, Acoustical Consultant, Harris Miller Miller & Hanson

Jeff Dickinson, Assistant Chief Pilot, Southwest Airlines

Don Kirby, FAA NorCal TRACON (NCT)

Dave Foyle, FAA Terminal District Manager

Patty Daniel, N. California Metroplex Project Manager

Ryan Weller, FAA Environmental Specialist

Carole Lozito, Chief, FAA Oakland Tower

Terry Calhoun, FAA Oakland Tower Staff Specialist

Sean Moran, Noise Analyst, Hayward Executive Airport

Valerie E. Jensen, CSR, Stenographer

Mike McClintock, Forum Facilitator

2. ANNOUNCEMENTS

A. New FAA OAK Tower Chief

Facilitator McClintock introduced Carole Lozito as the new FAA air traffic control tower chief for OAK and welcomed her to the Forum.

B. Acceptance of 1st and 2nd Quarter 2013 Noise Reports

The facilitator said the first and second quarter 2013 noise reports were distributed with the agenda packages and were ready to be received and filed unless there were any questions. He noted that previous action on the two quarterly reports had been deferred due to a lack of a quorum and the awards presentations. Motion to receive and file approved.

C. Acceptance of 3rd Quarter 2013 Noise Reports

McClintock said that unless there were any questions he would accept a motion to receive and file the 3rd Quarter 2013 noise report. Margery Eriksson commented that Berkeley appreciates the 90% compliance rate, but that still meant that over 300 aircraft overflew Berkeley neighborhoods during the reporting period. Larry Galindo concurred, and said that his office would continue to work toward 100% compliance. Motion to receive and file approved.

3. CORRESPONDENCE

The facilitator noted that there was no correspondence.

4. APPROVAL OF MINUTES (APRIL 17, 2013) (JULY 17, 2013) (OCTOBER 16, 2013)

Facilitator McClintock noted that this item was for the approval of the draft minutes of the April 17, 2013 and July 17, 2013 meetings. He said he would entertain any changes or corrections to the draft minutes. Co-Chair Jacobs moved approval of the minutes. Seconded by Councilmember Halliday. Motion approved.

With respect to the draft October 16, 2013 meeting minutes, the facilitator said he had received some comments concerning needed corrections, i.e., "widow" should have been "windows," and Wafaa Aborashed had asked a question about why a commercial service airport would have less lead pollution than a general aviation airport. McClintock said "commercial service airport" was repeated. So the other type of airport should have been the general aviation airport. The corrections have been made. He asked if there were any other corrections, and, if not, would entertain a motion to approve. Walt Jacobs moved approval. Seconded by Councilmember Lee. Motion approved.

5. PUBLIC COMMENT

The facilitator announced that this was the time for members of the public to speak on issues not on the agenda but relevant to airport noise at Oakland International Airport. There being no one who wished to address the Forum, the facilitator closed the public comment session.

The public comment period was reopened at the request of a community member who had inadvertently arrived late.

Kurt Peterson from Alameda said that the amount of aircraft activity over the west end of Alameda varies considerably, but that he had been working with Larry Galindo to improve these conditions. His concern, he said, was that "there appears to be nothing that happens to any carriers that decide to fly over [his] house under 3,000 feet." He asked for clarification of this and who approved the 3,000-foot level. He said from two to three flights per day "break that

agreement," and it is his understanding that there is no penalty or recourse for violators. He said he was attending the meeting to be able to speak with FAA representatives to see if the situation can be improved. The facilitator replied that representatives from the FAA were present at the meeting and that the Noise Office would be presenting a report on Runway 30 right turns over Alameda.

Wafaa Aborashed of the Davis West Neighborhood Group in San Leandro expressed her concern about the rumbling that has been awakening people in her neighborhood at 3 o'clock in the morning and continues to 6:00 a.m. They then cannot get back to sleep. She said the sleep deprivation is affecting her work. She said she wanted to understand more about the impact of sleep deprivation on communities near airports. She said she would like to know more about the nature of these events, but the Airport does not have any noise monitoring devices near her neighborhood. She wanted to know how this problem could be mitigated. Facilitator McClintock recommended that Ms. Aborashed work with Mr. Galindo and his staff to determine the cause of the problem and come up with potential mitigation measures. There being no one else who wished to address the Forum, the facilitator closed the public comment session.

6. 2014 WORK PLAN UPDATE PROCESS

The facilitator said that Forum members had received a memorandum in their agenda packages that included a copy of the adopted 2013 Forum work plan. He said that the 2014 Work Plan would be submitted for approval at the April 16 Forum with any recommended additions, changes, etc. He asked that anyone having suggested changes to the work plan contact Larry Galindo or himself. Councilmember Lee offered that more data from the web track system is needed. He said he has been looking into this on his own to capture any excessive noise levels. He cited an example where he was able to find a number of noise incidents that exceeded acceptable levels. He said he would continue to work with Larry Galindo and the noise office to look at the data itself instead of relying solely on complaints, even though the complaint process is very effective in itself. Mr. Lee stated his belief that analysis of the noise data will actually reveal more incidents than the complaints alone. McClintock asked Lee if he could formulate this into a statement for potential inclusion in the work plan. Benny said we could call it data intelligence. McClintock said he would add it to the draft work plan to be submitted to the Forum in April.

He asked if there were any other ideas or comments. Councilmember Halliday asked about the noise awards program. McClintock said that he would move it to the "completed" section. Ms. Halliday asked about the helicopter issues. McClintock said that it will continue to be an initiative of the Forum. She also asked that the ALUC planning process and said that this was an important issue for the City of Hayward. McClintock said that he would try to arrange a presentation from the Alameda County Airport Land Use Commission. Benny Lee noted that San Leandro was undertaking an environmental review for the development of the Marina Shoreline. He said he didn't know how the Airport would impact this project. McClintock offered that this would be a good subject to brief the Forum on after the EIR is completed. Councilmember Daysog said that there were some residents present who wished to make some comments. At Mr. Daysog's request the facilitator re-opened the public comment period (see above).

7. FAA PRESENTATION – OPTIMIZATION OF AIRSPACE & PROCEDURES IN THE METROPLEX (OAPM)

Ms. Patty Daniel, Project Manager for the FAA's Design & Implementation of the Northern California Optimization of Airspace and Procedures in the Metroplex (OAPM) and Mr. Ryan Weller, Environmental Specialist, of the FAA's Western Service Center Operational Support Group, provided the Forum with an update on the status of this project. Ms. Daniel apologized for not being able to attend the Forum's October meeting to make her presentation because of the temporary shutdown of the FAA and other government services. She explained that the project was driven as part of the FAA's initiative to upgrade the nation's air traffic control system and implement operational improvements as part of the Next Generation Air Transportation System (NextGen). Included in this process is the planning necessary to implement Performance-Based Navigation (PBN) procedures on a Metroplex basis, including Area Navigation (RNAV) and Required Navigation Performance (RNP). She said this was the first time in her long-time FAA career that a comprehensive study of regional airspace interactions had been undertaken on such a large scale. The Northern California OAPM study is but one of a number of similar studies taking place around the country.

Ms. Daniel said that the purpose of the OAPM initiative is to optimize air traffic procedures and airspace on a regional scale, in this case all of Northern California excluding the Reno, Nevada area. The Northern California Metroplex study includes Oakland, San Francisco San Jose and Sacramento International Airports. The project analyzed and identified airspace and procedural issues with these airports, and looked at potential solutions to the problems identified. This is being accomplished by developing procedures that take advantage of technological advances in navigation, such as RNAV, while ensuring that aircraft that are not equipped to use RNAV continue to have access to the National Airspace System (NAS). This approach addresses congestion and other factors that reduce efficiency in the busy Northern California Metroplex area and accounts for the four primary air carrier airports and their airspace. The overall intent of the OAPM study is to use limited Metroplex airspace as efficiently as possible through available technology, modernizing published procedures, establishing repeatable and predictable flight paths, making more efficient use of airspace, reducing controller and pilot workload, and increasing fuel planning accuracy. The objective of the OAPM study team is to enhance safety and improve efficiency by moving away from ground-based navigational aids into a satellite-based navigation system.

In 2011, the NorCal OAPM Study Team held a series of outreach meetings with local facilities (e.g., air traffic control), airspace users (e.g., pilots), and aviation industry representatives to learn more about the challenges of operating in the Northern California Metroplex. These meetings helped identify operational challenges associated with existing procedures and potential solutions that would increase efficiency in the Northern California Metroplex airspace. They identified about 123 issues from the TRACON center, ATC towers, and airspace user groups – general aviation, pilots, aviation businesses, etc. Of the 123 issues identified, 35 were related to the terminal airspace and the tower/TRACON environment, 26 to en route operations and 30 from industry sources. Most interesting is that 76 percent of the issues were in common to the different groups. Some of the issues included departure flight tracks that differed from published procedures, excess fuel loading due to legacy procedures, and not enough exit fixes to make the airspace as efficient as possible. Patty showed graphical examples of some of the issues and suggested potential solutions. She noted that actual flight

tracks do not follow current procedures, including inefficient vertical profiles and a lot of transitions that have been on the charts for years and maybe were used at one time but aren't being used today. The study team's goal is to clean up some of these procedures.

Ms. Daniel said that her design and implementation team started their work in March 2012. She said they were now in the environmental and operational review period, and would have a draft Environmental Assessment (EA) available for review and comment around March 24, 2014. Following this there will be a period for public comment, as well as some public workshops for people to come and see what the designs are that are being evaluated in the EA. She said she anticipates having a final EA around July 2014. Implementation of the modified procedures would probably begin around November 2014 and continue into 2015. She noted that her team did not work on every procedure and did not develop new approaches. Their efforts were focused on higher altitude airspace interactions including standard terminal arrivals (STARS) and standard instrument departures (SIDS) for the four airports.

Ryan Weller discussed the FAA's environmental review process for the project. He talked about the outreach and briefings afforded to governmental agencies and the newspaper and mail notices. He said the team was currently in the process of setting up venues for public information meetings when the draft EA is released. After comments are received on the draft EA, the FAA will prepare a final environmental assessment. Ryan next reviewed the large geographical area associated with the OAPM study, but noted that the study area was based upon aircraft operating at 10 thousand feet above ground level (AGL) and below only for the flight procedures that could be potentially changed. He said the draft EA will evaluate a lot of different impact categories, but the main one would be noise.

Co-Chair Benny Lee thanked Patty and Ryan for the presentation. He asked that the FAA place notice of the public information meetings in the San Leandro Times. Aviation Director Ale Flint suggested that if Forum members had other newspaper that notices should be published in they should let staff know. Ryan Weller said that they would have to have at least 30-days' notice before that. He said he would like to nail the mailing list down by mid-February. Benny Lee also added that the FAA should consider the diverse nature of the Bay Area and include notices in foreign language publications, including Spanish, Chinese, and Tagalog. Michael McEneany asked that notice also be published in the Marin Independent Journal newspaper. McClintock added, the San Mateo Times too. Wafaa Aborashed asked Ryan to explain "environmental justice." It was explained that environmental justice is one of the specific impact categories required to be evaluated in the EA. It is based on Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (February 1994). It directs each Federal Agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations," including tribal populations.

Kurt Peterson asked about deviations from departure procedures. He said he assumed that the fact that aircraft were turning over Central Alameda below 3,000 feet was a deviation. Ms. Daniel answered that the OAPM study is directed at published procedures only. Published procedures are what airlines, general aviation, or business aircraft use to file a flight plan. The OAPM study process does not aim to tell air traffic controllers what tools they can or can't use

to do their jobs in keeping aircraft in flight safely separated as they move through the airspace. The OAPM study is designed to clean up the published procedures and build useful, modernized, RNAV-based procedures. However, the controllers will still be able to use all the tools they have available to them. They will continue to vector airplanes for traffic, law enforcement, military operations, weather, and other things; and to sequence airplanes to get them out of the airspace safely. Kurt Peterson asked Ryan Weller how noise would be evaluated in the OAPM EA. Ryan replied that the process used in the EA is different than the noise monitors that the Port has on the ground monitoring the daily aircraft operations activity. He said the FAA uses a computerized noise model that utilizes a year's worth of flight track data as a baseline and compares these data to any proposed new procedures to assess any potential change in noise conditions. Peterson commented that because the FAA was not using data from the remote noise monitoring sites, it did not have a true baseline. Weller replied that the one-year baseline they use is based upon real radar tracking data and the computer noise model has built-in noise profiles for all of those types of aircraft. In a sense, it's not the true data like you would see from a monitor that stayed on the ground, but it's the tool that the FAA requires to be used.

Red Wetherill submitted that the FAA's method for measuring and assessing aircraft noise was deficient because it threw away "the low frequency energy and [dealt] only with A-weighted measures." Ryan said he would be happy to discuss this with Red after the meeting. Councilmember Tony Daysog asked that the Alameda Sun and Alameda Journal be included in the notification process. He also asked if one of the purposes of the OAPM study was to deal with noise issues and if any of the prospective recommendations would have the potential to make noise conditions worse. Director Ale Flint asked what factors would determine where the noise would go. Ms. Daniel replied that the OAPM mission was technology driven, but that noise and other specific impact categories would have to be addressed in the EA. However, their plan was to minimize any potential environmental impacts on any one locale so that the noise levels would not increase.

Larry Galindo said that he has worked with Patty for a long time and that Northern California airports had been anticipating this study for a long time. He likened the process to remodeling a house, where the building department and your contractor come to you and say, "We need to make some adjustments to your house's floor plan that will make it compliant with the current building code," we all understand that. With the OAPM there will be no moving of any major structures, none of the walls will be moved. Your roof is going to be maintained, there may be some entryways to widen, and you may have different air conditioning ducting and maybe the electrical panels will be upgraded. The FAA is endeavoring to make the movement of aircraft into [and out of] the Bay Area safer and efficient. They are using new satellite technology so the aircraft and the pilots are not reliant on land-based installations. A smoother flight track is most often quieter and cleaner. He said that staff will work to review the draft EA and report on any issues of interest to the Forum communities.

Margery Eriksson added that there were two on-line newspapers in Berkeley that people use to get their news: the Berkeleyside and the Berkeley Patch. Councilmember Jesse Arreguin added that there was also the Berkeley Voice. He also suggested that information about the community meetings could be placed on the Port's website. Michael McEneany expressed concern that the technological and efficiency components of the OAPM project might undercut noise considerations. He asked if any of the routes would change; is the traffic going to be

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going anywhere different. Ms. Daniel replied that the Bay Area airspace is quite constrained and air traffic flows are conditioned by wind and weather, and the layouts of the four air carrier airports. As a result, the way Bay Area air traffic moves will not change. Over the years shortcuts have evolved, and if that's the way the traffic moves most safely and efficiently, then it might be worthwhile to make these shortcuts the default routes. In other words, because of the way the air traffic control system is, and because of the relative proximity of the four airports, and because of the complexity of handling so many arrivals and departures, we didn't make any major changes in where the traffic is moving. McEneany asked if it was accurate to say that published routes will be changed to conform to where the traffic is actually going. Ms. Daniel said that this was pretty much the case. Ms. Eriksson asked about the terms "SIDS and STARS." Patty responded that a STAR is an acronym for a standard terminal arrival route. A SID is a standard instrument departure. Benny Lee asked for an electronic copy of the presentation. Wayne Bryant said he had an extra copy he could provide to Mr. Lee.

Kurt Peterson said he just wanted to make sure that any references to "efficiency" related to the FAA and safety, and not to the air carriers. Ms. Daniel said the concern was for safety, efficiency, and complexity. She said the FAA and the airport users work together on these issues. Peterson said that efficiency for the air carriers in terms of making money, being on time and on schedule seems to be in direct conflict with the issue of noise. Patty said that they did work with the airlines and that they know that their airplanes are in a safer configuration if they're allowed to fly the way they're designed to fly. Today's aircraft are not designed to make steep descents; they're designed to make a more gradual descent and fly more like a glider on arrival. She said they want to take this into account when they build procedures, because the old procedures – the keep them high in the sky kind of a thing—just does not work anymore. There are so many things about today's aircraft that we're trying to make safer by having safer procedures. It's also easier for the controllers to not have to take an airplane off of a published procedure and turn them on that shortcut, because every time they make a radio transmission, they've got to listen carefully to make sure that the pilot reads the instructions back exactly right. A lot of times the pilot doesn't get it right, and sometimes the controller doesn't catch it. She said they were trying to reduce the number of transmissions and the number of chances that this pilot steps on another pilot: When this one is trying to check in; he keeps this pilot from hearing that transmission. So, when we talk about efficiency, safety and complexity, all of these things, if we have fewer radio transmissions, we have made the sky safer. So, while we worked with the airlines, it wasn't about the money issue.

8. NOISE OFFICE REPORT

The facilitator noted that Larry Galindo had two presentations: the first would be the results of the research done by Harris Miller Miller and Hanson Inc. (HMMH) on the Runway 30 right turns; his second presentation would be an update on helicopter noise issues. McClintock asked Galindo to present his report and said it was his understanding that Port staff and HMMH had done a considerable amount of research on this issue since the October meeting.

A. Runway 30 Right Turns

Mr. Galindo reported that this item had to do with concerns expressed by Alameda resident, Mr. Kurt Peterson, who, with his wife, was present. Galindo introduced the FAA representa-

tives present for Mr. Peterson's benefit. He asked Gene Reindel of HMMH to go over the operational review his firm conducted in response to Mr. Peterson's concerns and the petition with over 200 signatures that he delivered to the Forum at its January meeting. Mr. Reindel talked about the existing noise abatement procedure involving right turns from Runway 30 departures over Alameda and the analysis performed by HMMH. He said that the airport has monitored compliance with this noise abatement procedure for some time now. He should a graphical illustration of the virtual gate that is used by Port staff to assess compliance with the procedure. He described a typical day of Runway 30 departures and how this related to the concerns of the Alameda residents who signed Mr. Peterson's petition. He explained why aircraft departing on Runway 30 do not always continue straight-out over the Bay and why it was often necessary for air traffic controllers to have the departing aircraft turn right over Alameda. He said that aircraft are sometimes turned over the western end of Alameda to allow them to go north or east and/or maintain separation from other air traffic in the area. Only the FAA has the authority to control aircraft while in flight, not the Airport. He also commented on the perceived notion that aircraft flight activity had increased over Alameda. He said records going back to 2007 were studied, and from 2007 to 2010 departures on Runway 30 actually declined. From 2010 to 2013 operations increased, but only at a modest rate. So the number of aircraft that actually turn right over Alameda is, on average, less than 5 percent.

He next discussed the number of aircraft that were actually in non-compliance with the noise abatement procedure (i.e., do not turn Runway 30 departures to the right below 3,000 feet). He alluded to the gate previously shown as being the "compliance gate" – any aircraft flying through the gate at or above 3,000 feet are deemed to be compliant. These aircraft operations are monitored 24-hours per day, 365 days per year. The analysis showed there was more than 95 percent compliance with the noise abatement procedure. Therefore, only about one-quarter of 1percent of all the aircraft departing Runway 30 turn over western Alameda at an altitude of less than 3,000 feet. What this means is that there are a couple of flights a day that are turning over Alameda prior to reaching 3,000 feet. However, some of these flights may have directed to make an early turn for air traffic control purposes. Nonetheless, the Airport staff has been meeting with the FAA to discuss ways to improve the compliance rate by refocusing on the noise abatement procedure to see if there are things they can do to improve the compliance rate.

Mr. Reindel next discussed the federal aircraft noise standards as codified in Title 14 of the Code of Federal Regulations Part 150 (14 CFR Part 150). Simply stated, federal law uses the day-night noise level (DNL) metric to assess land use compatibility in the airport environs. DNL is comparable to the noise metric used by the State of California to assess aircraft noise impacts. This is the Community Noise Equivalent Level (CNEL). Both the federal government and the state government recognize a cumulative noise level criterion of 65 decibels (65 dB DNL/CNEL) as the standard for land use compatibility, i.e., noise sensitive land uses in areas exposed to less than 65 dB DNL/CNEL are deemed to be compatible with airport noise. Reindel showed a graphical illustration of the 2012 annualized aircraft noise contour for the Oakland Airport. The study area was not located in an area subject cumulative aircraft noise levels above DNL/CNEL 65 dB. He concluded that there has been only a minimal increase in Runway 30 departures since the recent low in 2010, and of these departures fewer than two per day, on average, could be considered non-compliant. As he said previously, the Port plans to continue to work with the FAA to improve the procedure. He noted also that after the January Forum meeting staff placed a portable noise monitoring device at a nearby high school.

Mr. Reindel asked Don Kirby, FAA NorCal TRACON air traffic manager, to respond to Kurt Peterson's question as to "who owns these early turns." Mr. Kirby said the FAA owns the early turns. He said the aircraft departing Runway 30 do a great job following ATC instructions. They tell them what to do, and they do it. He said the procedures being discussed here, as well as many others, are standard operating practices. There is a published FAA order that describes how controllers are to go about their daily work and oversee the interaction between the airspace sectors and where airplanes will go and how they get there, to include speed, altitude, radio frequencies, et cetera. Kirby said that he felt it was important that Larry Galindo's leadership in working with the FAA on operational and noise abatement issues be recognized. So far this has resulted in the firming up of the 3,000-foot turn restriction, which, in an earlier form allowed turns to be made before 3,000 feet. However, he said, that any of these procedures are predicated on the issue of "when traffic permits." This simply means that safety is always first and foremost in the minds of controllers.

Lastly, he said that since December ATC personnel have been participating in the agency's semi-annual noise abatement briefings. Every one of the 200-plus controllers in the facility where they work are getting an opportunity to work with their supervisors for about an hour each face-to-face on the noise abatement procedures and our standard operating practices specific to the area they work. There are about controllers who are assigned to overseeing Oakland departures, and who received a briefing about these procedures, including turns to the north and northeast. He said he was anxious to see what the compliance numbers will look like for the first quarter of 2014. Larry Galindo thanked Gene and Don and noted that since the October Forum meeting, which raised this issue, the third quarter noise statistics show that there were 187 noncompliant flights for the 90 days of the quarter. That's an average of a little more than two per day. For the 4th quarter 2013, it was reduced to 125 noncompliant flights, or less than two per day. Galindo said that Mr. Peterson and others were always welcome to join the Forum on any of its upcoming tours of the region's air traffic control facilities.

Kurt Peterson thanked Mr. Galindo and his staff, but took exception to the size of the sample used in the analysis. He said that some days are worse than others, so randomly picking out a day here or there is probably not a fair representation. He said anything less than 100 percent is not compliant. He did not feel that it was appropriate to direct aircraft over his house at less than 3,000 feet, especially the heavily-laden DC-10s. What if one of these aircraft was to come down? That would be a problem. He expressed concern over potential noise impacts on students at Encinal High School. He said that his neighbors had "oil" on their outdoor furniture. These turns did not happen when NAS Alameda was in operation, and, somehow, the Airport managed to get aircraft out over the Bay. He said he was counting on everyone to take care of this problem, even two or three planes over his house is an issue. There should be none. With regard to flight activity over his home, he said it was stated that only approximately 2% of the aircraft flew over his house/neighborhood. He commented that it appeared that the presenters felt that this was an acceptable and safe procedure. He stated that he did not believe so and asked the Forum if it would be considered safe if only 2% of the public ran stop lights. If the Airport and FAA cannot do their jobs properly, he said, and then he would have no choice but to take this matter to his Congressional Representative and U.S. Senator. He just wants everyone to act responsibly for the noise impacted neighborhoods.

The facilitator said that staff needed to continue working with Mr. Peterson and the FAA to delve deeper into this issue and see if there is any possible mitigation. Larry Galindo added that the noise monitoring at Encinal High School is still in progress. When the data becomes available it will be shared with us. Also, he said, it was important to keep in mind that "non-compliant" aircraft are not in compliance with the Port's noise abatement policies. They are not non-compliant with respect to FAA air traffic control procedures or instructions. The facilitator thanked the representatives from the FAA, especially those who came down from Mather Field east of Sacramento. Alameda Councilmember Daysog said he wished to thank Mr. and Mrs. Peterson for their passion on this issue. He also thanked staff and the FAA for their active participation in pursuing this matter. He said there are challenges here and that he was pleased to see that staff was working to improve the compliance numbers.

B. Helicopter Noise Update

Mr. Galindo began his presentation by noting that at the last Forum meeting Gene Reindel had made a very good presentation about the helicopter issue in Los Angeles. He noted that there were three bills -- one in the U.S. Senate, SB 208, sponsored by Senator Feinstein, and HR 456, the House version of it called the "Los Angeles Helicopter Noise Relief Act." It would require the FAA to set up procedures to control helicopter altitudes and routes to reduce helicopter noise impacts over residential areas in Los Angeles. There is also a California version of this bill. The question to the Forum is should we support the passage of these bills that are specific to Los Angeles and would have no impact on Bay Area helicopter operations. To see if a broader national bill will be introduced. Currently helicopter noise complaints are down, but can resurface in the event of a high-profile media event, such as occupy Oakland or the Berkeley tree sitters. There are a lot more helicopters in L.A than in the Bay Area, and their activities are largely media and law enforcement driven. In the Bay Area most of the news organizations helicopter flight operations originate from the Hayward Airport. And on a daily basis don't generate a lot of complaints. Those that do are based on excessive hovering or lingering over a specific location. Of course, when the next high profile helicopter-monitored event takes place the Forum will hear all about it.

Councilmember Arreguin pointed out that the federal legislation didn't talk about any sort of broader legislation that would affect helicopter noise issues throughout California, or even nationally. He said it would be appropriate for the Forum to ask our state and federal elected representatives to propose legislation to address this issue on a broader scale. Councilmember Halliday pointed out that the bills are largely advisory and recommend restricting routes, operating hours and flight levels. She wondered if these bills were really going to address the problem. Vince Mestre replied that the language is quite ambiguous. It basically says that not later than one year after the date of enactment, the FAA will adopt rules that include requirements relating to the flight paths and altitudes associated with such operations to reduce helicopter noise pollution in residential areas. That's all it says. So, the FAA will adopt some rules to establish paths and altitudes for noise reduction, but the legislation does not how much noise reduction; it doesn't set a noise standard; and it puts the entire onus of defining what those regulations would be on the FAA.

Barbara Halliday said she liked the idea of having the local news organizations pool their coverage so there would not be six helicopters at one time covering the same event. She said that even though it would not help us, it might be worthwhile to prepare a letter expressing our

interest in the issue and saying that we understood their concerns. McClintock said he understood her to say that the Forum should request of the executive director of the Port of Oakland that a letter be prepared to the sponsors of both the state and federal legislation indicating our interest in this subject and raising it to the higher level. Director Ale Flint said that the Port would support any such action of the like by the Forum, but that this might be premature because an assessment of all of the issues involved in the L.A. situation should probably be done first. This is an extremely complicated issue, and if we want to raise it to a higher level we should have a better understanding of the issues and what is at stake. From the Port's perspective there would have to be a legislative and political assessment. We could begin by getting copies of the Los Angeles reports and speaking to some of the staff down there, and then determine a position and approach. Her recommendation would be to do this first and then determine what we really want in the way of legislation. She said she would ask the Forum to say that's what we should study. Then we'll work through our consultants. Jesse Arreguin concurred. Ms. Ale Flint said this already in the Work Plan. McClintock said he would work with Larry Galindo to develop an approach.

Mr. Arreguin apologized for not being able to attend the October Forum meeting, but wanted to say that he appreciated the dialogue with the helicopter operators and that he thought that this approach was very helpful, if for no other reason than to make them aware of the noise concerns of some of the residents. It might encourage them to be more considerate and take different approaches in terms of how they operate. He asked if he could obtain a copy of a May 2013 report on the L.A. Helicopter Noise Initiative about implementing a stage 3 helicopter noise standard for the entire country, not just L.A. Larry Galindo said he would get a copy for Jesse. The facilitator asked Galindo if, in terms of the broader issue, and not only in tracking what's going on with the legislation in L.A., but with the whole issue of helicopter noise in L.A. and their approach to it, this is this something we can ask the North Field and South Field Research Groups to follow up on and report back to us? Larry replied that they've already had interest and discussions about helicopter issues with the North Field/South Field Group. They are already familiar with the impacts to the areas surrounding the airport, especially San Leandro and Alameda. He said helicopter noise is a growing national issue and it's not going away. He noted that the Oakland Airport is going to participate in a very important study that the Transportation Research Board (TRB) will be conducting. The purpose of the study is to assess community annoyance to helicopter noise. You have to have a standard of noise before the FAA can determine what flight levels or where to put aircraft to meet that standard. We have those standards in Title 21 for California around the airport. However, there is no standard for helicopter noise, nor is it fully understood. This project will shed some light on that. It is scheduled to start in 2014. McClintock thanked Larry and said that we'll go ahead and bump this up to the North Field/South Field Group to followup on and report back to the Forum at our next meeting.

9. NOISE NEWS UPDATE

Vince Mestre said he would provide an abbreviated version of his report due to the lateness of the hour. Ms. Eriksson said she would like to have a copy of Vince's report. He began by noting that there is an effort in Congress to require that all aircraft meet stage 4 requirements by 2035. In fact, almost all of the stage 3 aircraft operating today do meet stage 4 noise limits. The proposed legislation would result in the recertification of these aircraft at a cost of millions of dollars. This would be a giant paperwork exercise, which would make absolutely

no difference to anyone on the ground except for a few older cargo aircraft that really don't operate in this area. The intent is good, but the idea is bad. He said the FAA is seeking comment on clarifying language to determine whether tax revenue from the sale of aviation fuel can be used for noise mitigation purposes. The rule is currently unclear on this subject, but the clarifying language is even more obtuse. Mestre disparaged the writing style of Yogi Bear, whom, he assumed to be the author of the obtuse prose. He noted that the FAA was also attempting to categorically exclude some of the changes they're proposing as part of the Modernization and Reform Act. Some have claimed that doing so would be a violation of the National Environmental Policy Act (NEPA). In New York, the FAA has brokered an agreement with tour operators who operate out of a heliport in Jersey City. These operators provide helicopter tours of the Manhattan area. Under this agreement, the tour operators will limit their hours of operation and their numbers of operations.

The Airport Cooperative Research Program is launching a study to assess community annoyance to helicopter noise. This is a fairly detailed study that will begin in 2014 and look at the problem of using the noise standard we have for fixed-wing aircraft and applying it to helicopters. It is fairly well established that people judge helicopters as being more annoying at the same noise level than fixed-wing aircraft. The ACRP also has a number of other noise studies scheduled to begin in 2014. He said that Delta Airlines recently retired its last DC-9. These aircraft are rarely seen on the West Coast because of airport noise restrictions. These aircraft have been in the fleet for nearly 50 years, which is a testimonial to how well they were built. Even with the trend to newer, quieter and more fuel efficient aircraft, many of these older aircraft will remain in the fleet for quite a long time. As for good news, new technology open rotor aircraft engines have the potential to provide a great deal of new efficiencies if their inherent noisiness can be overcome.

Mestre noted that the governor of New York has directed the Port of New York to do Part 150 noise and land use compatibility studies for JFK and La Guardia Airports, and to form a Roundtable or Forum-like structure because they've worked so well here on the West Coast. The governor wants it because they don't have a residential sound insulation program. They have designed quiet routes into and out of New York for so long; it has become a cottage industry of studying routes. It's not likely you'll change that to get any noise benefit. The noise benefit to La Guardia and JFK would be the residential sound insulation program. Similarly, two New York representatives already want the FAA to establish a school sound insulation program in Queens because of new flight procedures out of La Guardia.

In Europe, there have been suggestions that passing regulations to limit greenhouse gas emissions, regulate fuel efficiency and regulate noise would not be as effective as simply charging a fee according to how much noise or how much fuel an aircraft burns. There is a body of evidence saying that this would be a more effective way to get quieter and more efficient aircraft in the fleet. Since 1990, such fees are illegal in the U.S. The Santa Monica saga continues with the City, which is trying to close the airport, filing a lawsuit against the FAA on the basis of a reversionary clause in the documents transferring the airport back to the city after WWII. This clause states that if the city does not continue to operate the airport as such, then the land reverts to the FAA. The city has said that the reversionary clause is invalid. The FAA has responded by saying that the city had ten years in which to challenge the reversionary proviso, but that clause expired over 50 years ago. In 1984 the city signed a 20-year settlement agree-

ment with the FAA. That agreement is set to expire this year. Mestre said it will be interesting to see what will happen next.

Vince discussed a respite study at Heathrow Airport where instead of measuring how loud things were, they measured how long the time period was between noisy events. That's what "respite" is. He said the British have become quite enthralled with the idea of measuring respite as part of measuring the benefits of any noise reduction program. They did a nighttime respite program where, for five months, every other week, approaches into Heathrow were moved from one location to another, and they found, as is found when any annoyance is relocated, there are groups that benefit and groups that don't benefit. He commented on the fact that the idea of motors on the noise wheel of aircraft to limit greenhouse gas emissions is gaining traction, and airports are studying how to prepare for this. Also, the FAA will require airports that want to install solar projects to get approval through the FAA because of glare, glint and reflections off of solar panels can cause problems to the tower or to pilots.

Vince said that Boeing announced they will get a 14 percent improvement in fuel burn over the earlier versions of its B-737. Also, NASA and Boeing just completed a wind tunnel study on reducing the size of the tail of a B-757. If they can make it smaller it will save fuel. Alaska Airlines announced that they will retrofit their B-737s with a split winglet, as has Southwest Airlines. Southwest has estimated they would save 55 thousand gallons of fuel per plane per year with the split winglet. This amounts to about \$14 million a year in fuel savings for its aircraft. Rolls-Royce announced a regional engine for their Airbus A330. This is a very large, wide body aircraft normally used for very-long-haul flights; say from SFO to Japan or Hong Kong. In Asia, these aircraft are used for short-haul flights of 500 to a thousand miles, but the engines on that aircraft were not designed for short flights. They're not efficient in short-haul use. So Rolls-Royce is now producing an engine for regional use of an Airbus A330 aircraft. So imagine your regional jet now holding 400 passengers instead of 50 or 70. He said he doubted that we would see this in near future in this country.

Mestre showed a chart depicting the costs of the new generation of fuel efficient aircraft. The Airbus A320 sells for \$94 million with a discount if you buy in quantity. The A320 NEO costs about \$13 million more which is the price premium you pay for the fuel efficient version. Compared to a Volkswagen Jetta with a gasoline engine, the Volkswagen Jetta with a diesel engine costs about 20 percent more. The cost differential between hybrid and non-hybrid automobiles is also about 20 percent. Both the A320 NEO and the B-737 MAX will be about 14 percent more fuel efficient. Switching to the subject of drones, Mestre said the FAA has issued their plan for domestic drone use. It's on their web site. Don't run out and get it because it's a plan to develop a plan; it's not really a plan for drone use. The little discussion that there is still focuses on safety and privacy, and we're still not seeing any discussion of potential noise impacts. He showed a slide of the Navy's newest drone. It is the size of a B-757. So now drones range in size from a thumbnail to a commercial jetliner.

Barbara Halliday asked Vince to recap why the FAA wanted regulate solar panels. Mestre replied that the FAA wants to review solar panel installations on airports to ensure that any glare or reflection would not create a problem for pilots or controllers. Dave Foyle commented that, unfortunately, the FAA has had some bad experiences with poorly sited solar panel arrays. Edward Bogue said that conditions will also vary with the time of day.

10. STATUS REPORTS—NORTH AND SOUTH FIELD WORKING GROUPS

A. Technical Working Groups—NFG/SFG

Matt Davis said the working groups met on December 18. The South Field Group continues to engage FedEx and Allegiant in their meetings. He said FedEx's participation has been pretty good, and they continue to reach out to Allegiant to get them to participate on specific issues. Allegiant is a very compliant operator, but their MD-80 aircraft do produce more noise than other aircraft. He said the group would continue to engage Allegiant on this issue. He said the FAA also remains engaged with the group and their participation is appreciated. The South Field Working Group has been discussing nighttime noise issues to get to the source of the disturbances, which are potentially from ground run-ups or engine maintenance run-ups. He said the noise data do not support an increase in ground run-ups. Gene Reindel advised the group that the number of run-ups is actually decreasing due to technology—the engine functions are monitored by computers. With respect to FedEx, there was discussion as to whether or not the very successful nighttime rolling takeoff procedure pertained specifically to the old generation aircraft like the B-727s or if it really pertained to FedEx's entire fleet. With the removal of the B-727s from FedEx's fleet there is a desire to ensure continuance of the rolling takeoffs. He said they will continue to engage with FedEx to ensure that the procedure will be followed.

Regarding the North Field Group, the major item for review is the request to allow very light jets (VLJs) to operate off the North Field runways. VLJs are less than 12,000 pounds, and have a very quiet signature. Noise data support the fact that they be quieter than many pistonengine airplanes. He said they were envisioning another six months of meetings and discussion on this issue before they have an answer.

B. Runway Safety Area Project Update

Mr. Davis gave a quick recap of the Runway Safety Area (RSA) project. He said the RSA work must be completed by December 31, 2014. He said the requirement for RSAs is a federal mandate to ensure that aircraft landing short of, or overrunning the runway end has a safe place in which to stop. The RSA must also be sufficiently strong to support the weight of rescue and firefighting equipment. The biggest problem has been with Runway 12-30 (formerly 11-29) where it is too close to the water on one end, and which has wetlands on the other end. Consequently, the landing end of Runway 30 had to be shifted 520 feet in a westerly direction and the Runway 12 end extended by 520 feet. The net effect was to maintain the current runway length. Construction problems have resulted in delays that have brought the project into the rainy season. Good (dry) weather is necessary for painting runway stripes and enumerations and paving cannot be done when the nighttime temperature drops below 45 degrees. The result of these delays has been that paving and painting activities have had to be compressed into a very small window of time, and the work must be completed before February 10. The best time for these activities is on Sunday nights because there is little traffic on the South Field at that time. However, given the tight time frame and the fact that nighttime temperatures are hovering in the low 40s, it will be necessary to perform the needed construction during daylight hours. So, he said, there is a planned closure of Runway 12-30 scheduled for Sunday, January 19 from 11:00 a.m. to 3:00 p.m. This time period was selected because there was no heavy FedEx aircraft scheduled during that time period. A community advisory was

sent out earlier today about this, and they have been working with the carriers to minimize any impacts to the community. After February 10, things should start to quiet down for another six months. Benny Lee asked how the RSA project would affect noise. Matt replied that aircraft departing Runway 30 will start their takeoff roll about 1,500 feet farther to the west and landings would occur the same distance down the runway. Takeoffs from the Runway 12 end would not change. Walt Jacobs asked about how many jet operations would be transferred to the North Field while the South Field was closed. Davis said probably less than twenty. The facilitator said that he hoped the runway would be reopened before the football games started...

11. N.O.I.S.E. MEETING RECAP

On November 13, 2013, Forum facilitator McClintock attended the N.O.I.S.E. Policy Summit/Community Involvement Workshop in Seattle, WA. The purpose of the workshop was "to provide an opportunity for local government officials and other N.O.I.S.E. mitigation stakeholders to interact directly with leading aviation officials, researchers and mitigation experts to gain knowledge and information that will directly benefit their communities." The meeting convened at 1:00 p.m. with welcoming remarks by Dennis McGrann, N.O.I.S.E. Executive Director, followed by an update on "Airport Noise and the Health of Your Community." McGrann provided an overview of several PARTNER (the Partnership for AiR Transportation Noise and Emissions Reduction) projects beginning with Project No. 44 "Aviation-Related Noise Effects on the Elderly." McGrann also presented overviews of PARTNER Projects 19, 24, and 25. Project 19 "Health Effects of Aircraft Noise" has been completed. Project 24 "Noise Exposure Response: Annoyance" and Project 25 "Noise Exposure Response: Sleep Disturbance" are currently underway. It is interesting to note that Vince Mestre has kept the Forum informed on the status of these projects during his Noise News Updates. Here is the link to the current PARTNER studies: http://partner.mit.edu/projects

Steve Vecchi of THC, Inc. gave a presentation on the "Challenges of FAA Program Guidance Letter to U.S. Sound Insulation Programs." This presentation was particularly interesting because on August 17, 2012, the FAA issued a Program Guidance Letter (PGL) that established a major change in sound insulation program eligibility (note that the PGL only applies where federal funds are involved).

Sean Newsum from the Boeing Commercial Airplane Company gave a presentation entitled "Reducing Noise at the Production Level: Update on Airplane Developments." Newsum's presentation was very informative, but lacked the depth of information that Vince usually provides the Forum on this subject. Other presentations included localized reports on mitigating noise impacts on local communities, strategies for growing a sustainable airport area economy, and muting aviation noise at the local level. These were all good presentations but contained nothing new or exciting that would be of benefit to the Forum member communities. Lastly, N.O.I.S.E. has not released its 2014 Legislative Priorities list yet, but their 2013 priorities list is attached FYI.

12. NEXT MEETING – April 16, 2014

13. NEW BUSINESS/ADJOURNMENT

There being no new business the meeting was adjourned at 9:11 p.m.

End