



LAX/COMMUNITY NOISE ROUNDTABLE

Recap of the Regular Meeting of September 9, 2015

Roundtable Members Present

Denny Schneider, Chairman, Westchester Neighbors Association
Carl Jacobson, Vice Chairman, City of El Segundo
Blake LaMar, City of Palos Verdes Estates
Petra Schneider, City of Rancho Palos Verdes
Danna Cope, LAX Area Advisory Committee
Yvonne Bedford, Ladera Heights Civic Association
Martin Rubin, North Westdale Neighborhood Association
Stephen Murray, City of Culver City
Chris Arriola, City of Monterey Park
Jim Withrow, City of Inglewood
Rolan Morel, Federal Aviation Administration
Scott Tatro, LAWA

LAWA, Airline, and Consultant Staff

Kathryn Pantoja, LAWA
René Spencer, LAWA
David Chan, LAWA
Mark Vicelja, LAWA
Jay Vaswani, LAWA
Steve Alverson, Roundtable Facilitator

A quorum of the members was present.

1. Welcome/Review of the Meeting Format

Roundtable Facilitator Steve Alverson welcomed everyone to the meeting and reviewed the meeting format. Mr. Alverson indicated that the Roundtable meetings are facilitated in order to stay on topic and on schedule. He added that there is a period for public comments and Chairman Schneider may entertain questions from the audience as time permits.

2. Call to order

Roundtable Chairman Denny Schneider called the meeting to order at 7:00 pm PST in the Samuel Greenberg Boardroom at LAX. During introductions of the Roundtable and audience members, FAA representative Rolan Morel announced that he is retiring and this would be his last Roundtable meeting. Mr. Morel introduced LAX Airport Traffic Control Tower Support Manager Terry Boyle as his replacement on the Roundtable. The Roundtable Members thanked Mr. Morel for his contribution.

3. Comments from the Public

There were no requests to speak during the public comment period.

4. LAX Ground Run-Up Enclosure

Mr. Jay Vaswani, LAWA's Chief of Airport Planning, provided an overview of LAWA's recent Ground Run-up Enclosure (GRE) siting and feasibility study. The purpose of this study was to determine a feasible location at LAX to build the GRE and to assess the GRE's noise reduction performance. The study analyzed a GRE design that would be large enough to accommodate aircraft design group (ADG) VI aircraft.

LAWA's initial focus was to place the GRE in the West Aircraft Maintenance Area, but later considered the entirety of LAX by examining 12 potential sites. These potential sites received a ranking of either low, medium, or high based on a set of evaluation criteria including, but not limited to: existing land use at the site, compatibility of the GRE with future land use plans, proximity of the site to the nearest noise sensitive receptors, and travel distance to and from each site. Of the 12 potential sites, four sites (Sites 1, 2, 7, and 10) had received "high" ratings and were chosen for further evaluation.

Two of the four sites (Sites 1 and 10) that underwent detailed evaluation were eliminated from further consideration for several reasons, including the distance to each site, the need to relocate or eliminate existing uses, and the impact on airfield efficiency. The remaining two sites on the west end of the airfield (Sites 2 and 7) received additional evaluation, including an aircraft noise analysis. The noise analysis showed some increases in noise levels for area northwest of the airport due to the relocation of all high-power run-ups to a single location at LAX. This issue can be resolved by tilting the GRE or extending the GRE's northern wall for the two potential site locations.

LAWA conducted the noise analysis for Sites 2 and 7 using the Community Noise Equivalent Level (CNEL) metric. The analysis examined the noise exposure from GRE run-ups only and the noise exposure from GRE run-ups plus aircraft in flight. The GRE-only scenario provided a 1.5 to 20 decibel noise reduction over existing run-up conditions. For scenarios that examined the GRE run-ups plus aircraft in flight, the changes in CNEL ranged from only 0 to .5 decibels. The noise analysis results demonstrated that noise exposure levels in the communities near LAX are dominated by the noise generated by aircraft in flight.

Based on the study results, it was determined that LAWA would focus on a GRE capable of accommodating ADG VI aircraft and would evaluate whether further refinements are possible for Sites 2 and 7. The next steps are to present the results to LAWA's executive management team and, if approved, to undertake an environmental review process for Sites 2 and 7. LAWA would also consider refining the operations and policies associated with implementing a GRE at LAX.

A member asked whether run-ups conducted in the GRE are associated with takeoffs or with maintenance. LAWA staff said the GRE would be used for conducting run-ups associated with maintenance activities.

An inquiry was made on how the GRE noise analysis accounted for such positive noise reduction results. LAWA representative indicated that the study assumed all of the run-ups would be conducted in the GRE, whereas currently all of the run-ups are conducted in the open without the benefit of a GRE. About 60 to 70 percent of engine run-ups are conducted by United and American Airlines. A follow-up question was asked on whether the run-up noise modeling accounted for the effects of the local inversion layer. LAWA indicated that it would need to check to see if the noise modeling accounted for an inversion layer and report back to the Roundtable.

A member inquired on whether LAWA had looked into fully enclosed hush houses. LAWA staff responded that the team considered a range of possible facilities and an enclosed facility was deemed infeasible for commercial jet aircraft due to the high volume of air flow that needs to enter the engines. In addition, aircraft need to perform engine run-ups facing into the wind, which is why the entrance to the GRE does not have walls.

An inquiry was made as to whether the current nighttime curfew on run-ups would continue after installing the GRE. LAWA responded that the study examined the full range of GRE uses and was hopeful that the current run-up rules would continue.

In responding to inquires about the quantity, size, and location of the GRE, LAWA indicated that the current noise variance includes a condition that requires LAWA to design two GREs at LAX. The current study examined the feasibility of one GRE for now. One GRE can accommodate up to 90 percent of the run-ups at LAX but consolidating all of the run-ups into one location could be more of an issue. A GRE that is sized to accommodate an ADG VI aircraft takes up a great deal of space. A below-grade GRE site would require a very long ingress/egress ramp and there is simply not sufficient space at LAX to install one.

The complete presentation on the LAX Ground Run-up Enclosure can be found on the Roundtable webpage at <http://www.lawa.org/LAXNoiseRoundTable.aspx>.

5. LAX Runway Safety Area Update

Mr. Mark Vicelja, P.E., Project Manager of LAWA's Runway Safety Area Program, provided an update on the ongoing Runway Safety Area projects at LAX. The Runway Safety Areas (RSA) are defined surfaces surrounding the runway designed to reduce the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. The FAA dimensional requirements for RSA are 1,000 feet by 500 feet at the runway ends and 250 feet from the runway centerline. All airports are required to meet FAA's minimum RSA standards by December 31, 2015.

With four different runways to bring into compliance and the volume of traffic LAX handles on a daily basis, LAWA must work on one runway at a time. As such, some RSAs will still be under construction after 2015. LAWA will temporarily issue declared distances on runways with RSA constructions occurring after 2015 in order to meet RSA requirements.

The status of the RSA work on each runway is as follows:

- Runway 7R-25L RSA and Temporary Repair was completed in April 2015.
- Runway 6L-24R RSA and Rehabilitation Work is currently under construction with completion scheduled for October 2015.
- Runway 6R-24L RSA is scheduled to begin in November 2015 and be completed by October 2016.
- Runway 7L-25R RSA and Rehabilitation Work is in the final design stage and construction is scheduled from October 2016 through June 2017.

LAWA indicated the remaining RSA work would not require the full closure of any of the north airfield runways moving forward. The future work associated with the Runway 6R-24L RSA may require shortening the runway by using declared distances to allow aircraft to continue operating on the runway during construction.

The Runway 7L-25R RSA work would also require the runway to be shortened for three-and-a-half months beginning around October or November of 2016 and then closed for four months beginning in the January or February 2017 timeframe.

The cost for the various RSA improvements at LAX is approximately \$250 million.

In responding to inquiries relating to the Argo Ditch, LAWA indicated that the Argo Ditch located just north of the airport will remain in the same location, but it is being enclosed in a reinforced box structure. The water in the box culvert will continue going into the storm drain system.

An inquiry was made as to how many incidents there have been of aircraft overshooting a runway at LAX. FAA representative said that he was aware of a DC-10 aircraft going off of the end of Runway 6R.

A member asked if any of the runways were equipped with EMAS.¹ LAWA indicated that EMAS was not used for any of the LAX RSA projects.

The complete presentation on the Runway Safety Area Update can be found on the Roundtable webpage at <http://www.lawa.org/LAXNoiseRoundTable.aspx>.

LAWA Representative Scott Tatro provided a presentation on operations relating to the Runway Safety Area Improvement Project for Runway 6L-24R. The presentation included a description regarding the nature of a go-around and statistics for go-around operations. The noise concern is go-arounds that do not maintain runway heading as aircraft fly over residential communities at low altitudes. These operations occur at LAX as the FAA directs aircraft performing a go-around off of runway heading to maintain safe separation from another nearby aircraft.

LAWA explained that LAX's preferential runway use policy for noise abatement encourages departures on the inboard runways and arrivals on the outboard runways. When all four runways are available and used in this manner, there is less likelihood of traffic conflict on the runway. However with the northernmost runway, Runway 6L-24R, closed during the RSA construction, LAX is operating with only three runways and requires Runway 6R-24L to handle both arrivals and departures, which increases the potential for go-arounds.

¹ Engineered Material Arresting System.

LAWA provided statistics that indicate go-arounds not maintaining runway heading had increased significantly during the RSA runway closure with “departure traffic on the runway” as the primary reason responsible for the greatest number of go-arounds during the Runway 24R closure. Statistics for runway use also show that the south runway complex is picking up additional arrival and departure operations because of the closure of Runway 6L-24R.

LAWA believes the worst is over, in terms of go-arounds not maintaining runway heading, as aircraft operations will begin to decrease moving into fall and LAWA is on schedule to open Runway 6L-24R by October 18, 2015, if not sooner.

A member inquired about the doubling in the number of go-arounds when comparing November 2014 to May 2015. LAWA explained that there has always been a fluctuation in the number of go-arounds as these are unplanned operations.

A member asked if TRACON selects the arrival runway. The FAA representative said that the LAX Tower works with the approach controllers to bring arriving aircraft to the appropriate runway complex. He further explained that there are rules for maintaining separation between departing and arriving aircraft. A go-round is an unplanned event that may cause controllers to direct aircraft to deviate from the normal course to maintain separation standards. In that situation, aircraft may fly a divergent heading of 15 degrees, which puts the aircraft over the community.

Due to the fact that go-around results in aircraft flying low over a great deal of residents, a member was inquiring whether the FAA can work with the pilots to improve the performance of departing aircraft or to delay the arrivals as a way to minimize go-around operations. Several members noted that the FAA expects the pilot to be ready for takeoff after receiving the takeoff clearance, and in most cases, the aircraft will takeoff promptly after receiving the clearance. Sometimes unexpected issues will come up that require the pilot to resolve before the aircraft can takeoff. In terms of delaying the arrivals, the FAA LAX Tower is already requesting the arriving aircraft to be separated by five miles in trail. Delaying the arrivals further may increase overflights over Monterey Park.

The complete presentation on the Runway Safety Area Improvement Projects and Related Operations can be found on the Roundtable webpage at <http://www.lawa.org/LAXNoiseRoundTable.aspx>.

6. Update on the FAA Radar Data Feed

LAWA staff member Kathryn Pantoja provided a follow up on an August 2015 e-mail blast to the Roundtable members regarding the loss of the FAA Automated Radar Terminal System (ARTS) radar data feed that provides the flight track, altitude, and aircraft identification information for LAWA’s ANOMS and WebTrak systems. The FAA has informed LAWA that the ARTS radar data feed is scheduled for termination on September 30, 2015. This would require LAWA to obtain the data from alternative sources.

LAWA has been investigating various alternative radar data sources including the FAA’s National Offload Program (NOP) to replace the ARTS data source. The normal delay for receiving NOP data is eight hours with the possibility of reducing the delay down to three hours. This delay is still significantly longer than the 21-minute delay associated with the current radar data on WebTrak.

LAWA also looked at using PASSUR data to replace the ARTS data feed since LAWA is currently using PASSUR data to serve as a backup to the ARTS data. The PASSUR data can be used as a feed to WebTrak, but the data quality for PASSUR is not as accurate or as complete as the ARTS data. Therefore, LAWA plans on using the FAA NOP data when the current system is switched off.

LAWA reported that using the NOP data feed is an intermediate solution until the FAA has all of its data come through its System Wide Information Management (SWIM) system in 2016. Once the SWIM data feed is available, LAWA may be able to return to a 21-minute delay on WebTrak.

A member asked why the FAA would not allow LAWA to keep the ARTS data feed until the SWIM data connection is available. LAWA staff responded that the FAA has already given LAWA several extensions. The Southern California TRACON has now completed testing on a more secure system, so they are ready to turn off the ARTS Gateway data feed.

Member Petra Schneider asked if the Roundtable could look at the radar data on a more granular basis. Mr. Tatro said that the ARTS data represents the best flight track and operations data available. The accuracy of the data is very good for the purposes for which LAWA uses them. He said LAWA would take member Schneider's request under consideration.

8. Statistical Update on Aircraft Operations

LAWA staff member David Chan started off the presentation by reviewing the annual aircraft operations at LAX from 1994 through 2014, indicating that the total passengers using LAX reached 70.6 million in 2014, surpassing the previous high of 67.3 million in 2000. On the other hand, aircraft operations in 2014 were approximately 636,000, which are down from the high of approximately 783,000 in 2000. The reason for this trend is that airlines are carrying more passengers per flight and the average aircraft size is getting larger. As a result, the airlines at LAX are operating fewer flights while increasing the load factor than in previous years.

Work Program Item A6: Improperly Flown LOOP Departures

<p>Description: The LOOP departure procedure directs aircraft on westerly departures to turn back and re-cross the shoreline at the LAX VOR at or above 10,000 ft. to head to eastern destinations.</p>
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Mr. Chan then reviewed LOOP departures that did not meet the minimum altitude requirement of 10,000 feet when re-crossing the shoreline. On an annual basis, the number of LOOP Departures not meeting the minimum altitude is declining due to newer aircraft having improved climb performance. There is a recurring trend with the loop operations: the number of aircraft flying under 10,000 feet at the shoreline tends to increase during the summer months when temperatures are higher, which degrades aircraft climb performance. Most aircraft are at altitudes between 10,000 and 15,000 feet when they re-cross the shoreline.

SkyWest Airlines has the most LOOP Departures not meeting the minimum altitude. Further research is needed to determine the cause.

Work Program Item A8: Aircraft Arrivals Outside Regular Approach Paths (Short Turns)

Description: The short turn procedure refers to jet arrivals on the north downwind leg that turn to base leg and final prior to reaching the Harbor Freeway. This operation usually increases when a high-visibility condition exists and/or when the north arrival traffic is light. Conversely, short turn operations decrease when there is an increase in traffic and/or when there is a low-visibility condition. The short turn is also inversely related to the Extended Downwind Approach.

Mr. Chan indicated that since 2009, Short Turn operations have been declining on an annual basis, reaching an all-time low in 2014. Short Turns are at the lowest level during the so-called June-Gloom periods of low visibility in the Los Angeles Basin. In July 2015, there were just 12 short turns. SkyWest has the most Short Turns during the past year because it has the most north arrivals.

Member Murray asked how Short Turns are initiated. Mr. Chan said that after the air traffic controller issues a clearance for a visual approach, the pilot has the discretion to initiate the turn, with some turning prior to reaching the harbor freeway.

Member Murray asked whether aircraft that are issued clearance for a visual approach descend to 2,500 feet before making the turn onto final. Member LaMar said that aircraft must remain above the glide slope. Mr. Morel added that issuing the visual approach is a time saver and reduces controller workload, because once the visual approach is issued, the pilot is responsible for maintaining separation from other aircraft.

Member Schneider asked, since there are so few Short Turns, why the Roundtable looked at them. Mr. Chan indicated that there are few Roundtable members who are still interested in monitoring this operation.

Work Program Item A7: Extended Downwind Approach

Description: Aircraft arriving to LAX from the west and the north utilize an extended downwind approach at times causing aircraft to overfly Monterey Park and neighboring communities at low altitudes. Usually, the greater the number of north arrivals, the greater the need for aircraft to travel further east on the downwind leg. Weather conditions that produce low visibility can also cause this operation to increase as the FAA would need to increase the separation distance between aircraft for safety.

Mr. Chan reviewed the annual trends for the Extended Downwind Approach noting that this operation reached a peak in 2007 due to construction on the south airfield complex. The Extended Downwind Approach also corresponds to the overall increase in traffic at LAX for recent years. Month-to-month statistics for the past 13 months showed that the number of Extended Downwind Approaches was at the highest in July 2015 with weather and runway closure (RSA project) contributing to the increase.

There is an inverse relationship between Short Turns and Extended Downwind Approaches: when one is up the other is down. A comparison of the aircraft altitudes over Monterey Park for one month for the past three years indicates the altitudes have remained the same with

the majority of the aircraft flying between 2,400 and 4,000 feet. The peak periods for Extended Downwind Approaches are also very similar for the past three years with the peak occurring between 8 and 9 a.m. in the morning and between 8 and 9 p.m. at night. SkyWest also has the most Extended Downwind Approaches because it has the most north arrivals.

Ms. Pantoja said that LAWA has received more noise complaints recently from areas further east of LAX including Whittier and La Habra Heights because aircraft were being pushed further east over these areas before turning to the west for arrival at LAX due the north runway closure for the RSA project.

The complete presentation on the Statistical Update on Aircraft Operations can be found on the Roundtable webpage at <http://www.lawa.org/LAXNoiseRoundTable.aspx>.

10. Aviation Noise News Update

Mr. Alverson reviewed several recent aviation noise news items for the Roundtable including articles:

- Regarding statements by U.S. Transportation Secretary Anthony Foxx expressing doubt that a long-term funding bill will be passed by Congress before the September 30, 2015 federal fiscal year deadline.
- Noting that Boeing had finalized the design for the 777-9, a 400-plus seat variant of the current 777 that will go into production in 2017.
- Stating that FedEx hosted a NextGen summit for more than 50 airlines and vendors at its Memphis operations center to help them prepare for the transition to NextGen technology by January 1, 2020.
- Indicating that total passenger growth at LAX for the period between July 2014 and July 2015 was being driven by the 12 percent growth in international passengers, while aircraft operations during that same period grew by less than one percent.
- Regarding Chicago Mayor Rahm Emanuel's plan to address growing community concerns about Chicago's O'Hare International Airport aircraft noise levels.
- Regarding an announcement by the National Academy of Sciences regarding the 17 approved projects for the Airport Cooperative Research Program for Fiscal Year 2016; none of the approved research projects were directly related to aircraft noise.

Mr. Alverson closed the presentation by reviewing the six ongoing ACRP research projects focused on noise and their estimated completion dates.

The complete Aviation Noise News Update presentation can be found on the Roundtable webpage at <http://www.lawa.org/LAXNoiseRoundTable.aspx>.

11. Roundtable Member Discussion

Member Petra Schneider requested that LAWA report back on its progress on obtaining information on the Airbus A-320 vortex generator.

Mr. Chan mentioned that the UC Davis Aviation Noise Symposium is scheduled from February 28 to March 2, 2016 and that LAWA sends a representative from the LAX Area Advisory Committee or the Roundtable to the Symposium on alternating years. Next year is the Roundtable's turn to send a Roundtable member. He asked the Roundtable to think

about who they would like to send, so a decision can be made by the next Roundtable meeting.

Member Rubin asked if the Roundtable could get an update from the FAA on their efforts to deconflict LAX and SMO departures.

Mr. Tatro noted that the comment period for the Southern California Metroplex had been extended another 30 days.

Member Murray thanked Mr. Tatro and Chairman Schneider for attending a community meeting in Culver City on aircraft noise. He added that he had received all of the data he had requested from the FAA regarding the Metroplex Environmental Assessment.

Member Petra Schneider asked if LAWA could provide a flow diagram on noise complaints and what causes them. Mr. Tatro said LAWA would be open to having a discussion about LAWA's noise complaint review process. He added that LAWA Noise Management staff are very familiar with the operations at LAX and other area airports and have a good idea about which operations cause noise complaints. Member Petra Schneider said that while it is good for LAWA staff to have this process in their heads, it would be helpful for the Roundtable to hear about how complaints are processed. Mr. Tatro said that LAWA could give a presentation to the Roundtable about its noise complaint handling process.

Member Cope noted that the next regularly scheduled Roundtable meeting falls on the Veteran's Day holiday. Mr. Chan reminded members that earlier in the year, the Roundtable had voted to move the November 2015 meeting to Tuesday, November 10, 2015.

12. Review of Roundtable Action Items

Mr. Alverson reviewed the following Roundtable actions taken and member requests made during tonight's meeting:

Formal Action Items

None.

Requests from Members

Member Petra Schneider requested that the radar data be analyzed on a more granular basis to allow a better understanding on the accuracy of the data. LAWA representative Scott Tatro said LAWA would consider the request.

Member Petra Schneider requested an update on the A320 vortex generator outreach effort. LAWA staff member David Chan said he would provide an update at the November 10th Roundtable meeting.

Member Petra Schneider requested a flow diagram of LAWA's current noise complaint review process to gain a better understanding of the relationship between aircraft operations and noise complaints. She indicated that there is an opportunity to identify specific operational trends from the noise complaint data and to explore options to minimize those specific operations that cause multiple complaints. LAWA representative Scott Tatro said, as

a starting point, LAWA could provide a presentation on the complaint handling process at a future Roundtable meeting.

Member Martin Rubin requested a detailed briefing on the FAA's efforts, as part of the SoCal Metroplex project, to de-conflict SMO and LAX westbound departure paths.

13. Adjournment

Chairman Schneider adjourned the meeting at 9:15 pm.