



# LOS ANGELES INTERNATIONAL AIRPORT/ COMMUNITY NOISE ROUNDTABLE WORK PROGRAM

Revised May 19, 2021

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## INTRODUCTION

The Mission of the LAX/Community Noise Roundtable is clearly articulated in the Roundtable's Bylaws. The mission as stated in Article II of the bylaws is:

"The Los Angeles International Airport/Community Noise Roundtable (hereinafter referred to as Roundtable) is an association of local communities, Los Angeles World Airports (LAWA), the Federal Aviation Administration (FAA), and airline industry representatives. These parties are interested in participating in an interactive forum to address current aircraft noise issues associated with aircraft operations to, from and at Los Angeles International Airport. **It is the intent of the Roundtable to identify noise impacts in the surrounding communities and to recommend courses of action that could reduce noise over affected communities without concentrating an undue noise burden on any one community via Metroplex.**" (Emphasis added)

As stated, the Roundtable's primary mission is twofold:

1. To identify noise impacts in the surrounding communities, and
2. To recommend courses of action that could reduce noise over affected communities.

This Work Program presents the agreed upon actions identified by the Roundtable designed to accomplish one, or both of the aforementioned goals. The Work Program identifies the noise issue, a description of the impact, the areas affected by the noise issue, and the activities to be conducted by the Roundtable designed to address the targeted noise issue. In addition, the Work Program identifies the agency/organization (if any) with primary responsibility for completion of the activity, and assigns a priority for accomplishment of the work.

Work Program items are reviewed on an on-going basis at Roundtable meetings. Additionally, the entire Work Program is reviewed on an annual basis to evaluate progress of activities, make course corrections, and to add/remove actions as agreed upon by the Roundtable.

The effectiveness of the Roundtable's efforts depends on the interaction among the parties-at-interest represented by the airport owner, the FAA, the airline industry and community representation.

## A. AIRCRAFT OPERATIONS

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### **A1. FAA Southern California Airspace Redesign Project**

#### **Impact Description:**

FAA initiated the So. Calif. Airspace Redesign Project (SCARP) to improve the safety and efficiency of the Southern California airspace. The FAA began initial work on the project and then stopped the project due to funding cuts.

#### **Areas Primarily Affected:**

Global issue affecting all sectors

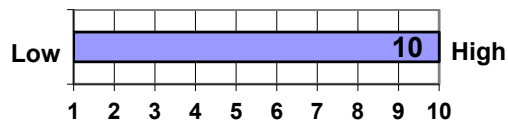
#### **Mitigation Activities:**

- Roundtable sent two letters in 2006 to FAA Administrator requesting restoration of funding. FAA responded but did not provide a definitive answer as to whether or not funding will be restored.
- LAWA provided information update on the East Coast Airspace Redesign Project in March 2008.
- Roundtable issued 3rd letter, in February 2009, to FAA Administrator requesting restoration of funding. FAA did not provide a definitive answer as to whether or not funding will be restored.
- In September 2010, HMMH provided a presentation on the airspace redesign project to show the possible effects it has on surrounding communities; in most cases, the project resulted with narrower flight paths, which could cause more noise exposure for residents located directly under the aircraft routes while providing noise relief for others.
- In November 2011, LAWA indicated that the FAA has started the conceptual design work for the Optimization of Airspace and Procedures in the Metroplex (OAPM) project for the Southern California area. The purpose of this project is to optimize flight procedures and to improve airspace efficiency in Southern California where possible and where it would not require the preparation of an EIS. It is possible that some of the issues that would be addressed in a comprehensive airspace redesign may be included in this OAPM project. LAWA invited the FAA to present information to the Roundtable which the FAA agreed to do so when it is further along in the project.
- In July 2012, LAWA reported that funding is available for the Optimization of Airspace and Procedures in the Metroplex project which is similar to the Airspace Redesign project.
- In September 2012, Roundtable sent a letter to FAA to recommend specific changes to various aircraft flight procedures at LAX that may help reduce noise for FAA's consideration in the OAPM project. FAA responded in January 2014 indicating that it has reviewed the Roundtable's recommendations and plans to discuss specific options with the Roundtable at a future date.
- Throughout 2013, FAA provided periodic updates on the progress of the OAPM project to the Roundtable. FAA indicated they would continue informing the Roundtable as the project moved forward. As of June 2014, the procedure design process of the project was 100% complete. Environmental review for the project was underway and was expected to be completed by mid-2015.
- In January 2014, the accepted abbreviation for Optimization of Airspace and Procedures in the Metroplex was changed from OAPM to simply Metroplex or SoCal Metroplex, which are the terms used going forward.

- In June 2015, the FAA released the Draft Environmental Assessment (EA) for the SoCal Metroplex project and provided a 30-day public comment period. Subsequently, the Roundtable submitted a letter to the FAA requesting a 30-day extension. After receiving a number of requests from other parties as well, the FAA extended the public comment period for 60 days followed by another 30 days resulting in a total public comment period of 120 days. The final deadline for public comments was October 8, 2015.
- In July 2015, the Roundtable Facilitator reviewed some of the key proposed flight procedures of the SoCal Metroplex with Roundtable members and pointed out the potential noise implications of the project. The facilitator also reviewed the extent to which the Roundtable's September 2012 recommendations were incorporated into the Metroplex project and noted that only one of the proposed procedures may partially address the Roundtable's recommendations. The proposed North Downwind Required Navigation Performance (RNP) arrival procedures may partially reduce overflights for Monterey Park.
- In September 2015, the Roundtable submitted a comment letter to the FAA on the SoCal Metroplex project to express concerns about the potential noise implications, to provide additional suggestions on certain proposed procedures, and to comment on other related issues.
- In July 2016, LAWA provided a brief overview of the SoCal Metroplex project covering a few key flight procedures, anticipated upcoming project schedule, and efforts made by Roundtable and LAWA thus far.
- In September 2016, the Roundtable Facilitator covered highlights of the Final SoCal Metroplex Final EA and the Finding of No Significant Impact/Record of Decision (FONSI/ROD) that were released on August 31, 2016. The FONSI/ROD enables the FAA to begin the phased implementation of proposed procedures beginning in November 2016 and continuing through April 2017. He also covered procedure changes that the FAA made since the Draft EA was published, and reviewed the FAA's responses to the Roundtable letters (dated Sept. 2012 and Sept. 2015).
- In October 2016, FAA representatives attended and participated in the special Roundtable meeting to discuss the details of the FAA's responses to the two Roundtable letters pertaining to the Metroplex project. The FAA covered each point of the Roundtable comment letters, reviewed each of the Roundtable-recommended noise abatement measures, and explained whether or not the measures were addressed as part of the project. The FAA also reviewed those procedures that were scheduled for implementation in November 2016.
- In March 2017, LAWA reviewed and discussed some of the changes associated with key Metroplex flight procedures that were scheduled for implementation in March and April 2017. LAWA also noted potential effects on residential communities associated with those procedures.
- In May 2017, FAA provided an update on the Metroplex Project indicating that most Metroplex procedures were implemented with the exception of RNP procedures since these procedures require additional components such as the Terminal Sequencing and Spacing (TSAS) tool and certain aircraft equipment in order to be fully functional. No expected timeframe was provided for RNP implementation.
- In November 2017, the Roundtable created the Metroplex/Wide Area Ad Hoc Committee to work on noise issues relating to the implementation of Metroplex procedures.

**Status:** Active

**Assigned Priority:**



**LAWA Workload: Low**

## **A2. East Departures between 12 AM and 6:30 AM during Over-Ocean or West Ops**

### **Impact Description:**

Aircraft departing to the east between Midnight and 6:30 a.m. when LAX is not in East Ops create a serious noise disturbance to residents of numerous communities that are subjected to these overflights.

### **Areas Affected:**

Eastern, Southern and Northern Sectors

### **Mitigation Activities:**

- LAWA provided data to the Roundtable that these operations occur.
- In July 2002, Roundtable sent a letter to LAWA to request assistance in arranging for airline representatives to participate in the Roundtable for discussion on east departures.
- Chief Pilots of the top 5 airlines committing these departures attended the September 2002 Roundtable meeting.
- Roundtable requested LAWA to initiate Part 161 Study to eliminate these departures.
- LAWA opened Part 161 Study in June 2005.
- Study was on hold in March 2007 pending preparation of new fleet mix forecasts that are consistent with LAX Specific Plan Amendment Study. Part 161 consultants prepared the modeling using the new forecasts.
- The fleet mix forecast was finalized on October 1, 2008 and the work on the Part 161 Study has recommenced.
- HMMH provided an update on the Part 161 Study in April 2011.
- In September 2011, LAWA started sending notification letters to air carriers who departed east during Westerly or Over-Ocean Ops to request them to fill out a form. The form requests specific information about each operation including the reason for the east departure, wind speed and direction, weight of the aircraft, and other relevant information. The intent of this voluntary measure is to discourage air carriers from departing east when possible.
- HMMH provided updates on the progress of the Part 161 Study in March and November of 2012.
- In December 2012, Roundtable submitted an official comment letter to LAWA during the Part 161 Public Review/Comment Period to express its support and appreciation of LAWA's efforts to complete the Part 161 Study.
- LAWA completed the study and submitted the application to FAA in January 2013.
- In May 2013, LAWA reported that the FAA determined the Part 161 application to be incomplete and requested LAWA provide additional information for five areas where the FAA felt the submittal fell short of the Part 161 requirements. In June 2013, LAWA submitted the revised information to FAA for review, which they again determined to be incomplete and provided additional direction. LAWA again worked

with the FAA to ensure that the submittal would meet all of the Part 161 requirements.

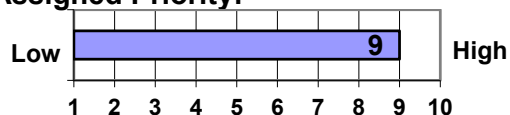
- In July 2014, the Roundtable Facilitator reported that the FAA deemed LAWA's Part 161 application complete and the FAA planned to subsequently render a decision approving or disapproving the proposed restriction. He also reviewed the history and process of Part 161 and noted the extreme difficulty of receiving FAA approval on proposed airport noise restrictions since the enactment of the 1990 Airport Noise and Capacity Act.
- In July 2014, the Roundtable sent two letters regarding the Part 161 restriction: one addressed to the FAA to express support for LAWA's FAR Part 161 application and the other to the surrounding communities to urge them to submit their own letters in support of the proposed restriction.
- In November 2014, LAWA reported that it received a decision from the FAA indicating the disapproval of the Part 161 application as it had failed to meet three of the six statutory requirements. In March 2015, LAWA provided a detailed Roundtable briefing regarding the FAA Part 161 determination; LAWA acknowledged acceptance of the FAA's decision and does not plan to pursue the proposed restriction any further.
- In May 2018, LAWA reported that it ceased sending notification letters to air carriers who departed east at night as such effort is not effective in deterring carriers from departing east as they do so due to shifts in wind direction and speed.
- LAWA included non-conforming East Departures as a scoring element in the LAX Fly Quieter Program (FQP), launched in 2020. Air carriers with no or very few non-conforming East Departures score higher on this element of the FQP. Quarterly FQP notifications are sent to all eligible operators.

**Ongoing Actions:**

- LAWA to continue to monitor non-conforming east departures and provide statistical updates to the Roundtable. This update is currently scheduled for January and July of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** High

**A3. Early Turn of Aircraft Departing to the West**

**Impact Description:**

Aircraft departing to the west turn before crossing the shoreline overflying communities causing noise disturbances. Early turns can occur for a number of reasons including wake turbulence avoidance, aircraft separation, wind drift, and other factors.

**Areas Primarily Affected:**

Southern Sector (El Segundo), Northern Sector (Playa Del Rey)

**Mitigation Activities:**

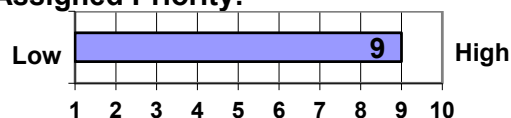
- In late 2006, LAWA monitored RNAV departure procedures (HOLTZ, OSHNN, and KARVR) that caused an increase in early turns and reported the issues associated with these procedures to FAA. In early 2007, LAWA worked with FAA to adjust these RNAV procedures to reduce aircraft from flying over the communities. Revised procedures were sent from FAA TRACON to FAA Oklahoma City Division for review and consideration. FAA published revised RNAV procedures in December 2007 to help reduce early turns from runway 25R departures.
- In March 2012, LAWA increased its effort with its Early Turn Notification Program by sending notices to aircraft operators on a more frequent and timely basis. In most cases, the notices are sent directly to the chief pilots via email.
- In July 2012, LAWA invited SkyWest, Southwest, American, and United to the Roundtable to learn more from the pilot's perspective of why early turns occur and to explore the possibility of reducing these operations. SkyWest's representative attended the meeting and provided a thorough explanation of why early turns occurred but did not offer any solution to minimize these operations.
- In July 2012, LAWA asked FAA to look into the possibility of not referencing the LAX VOR when issuing turning instructions to aircraft departing at LAX as this practice would most likely result in aircraft turning early. FAA representative indicated that he will look into that possibility.
  - In April 2013, FAA air traffic controllers started referencing the shoreline instead of the VOR when issuing routine turning instructions to aircraft as a way to reduce early turns. To maintain safety requirements, controllers may still direct aircraft to turn prior to the shoreline when necessary.
- Roundtable's letter to FAA on OAPM (Metroplex) recommendations dated September 2012 included suggestions to 1) explore options that could help pilots and controllers to reduce early turn operations and 2) explore the possibility of adding a waypoint in the RNAV procedures or use other emerging technologies to assist pilots in identifying the shoreline during IFR conditions that could in turn help reduce early turns.
  - In October 2016, FAA responded that the proposed waypoints were too close to the runway end for the aircraft's flight management system to detect. As an alternative, the FAA placed waypoints further out over the ocean to help reduce early turn operations.
- LAWA included Early Turn operations as a scoring element of the Fly Quieter Program (FQP) launched in 2020. Quarterly FQP notifications are sent to all eligible operators. Air carriers with no or very few pilot-initiated Early Turns score higher on this element of the FQP.

**Ongoing Actions:**

- LAWA to continue its Early Turn program by monitoring early turns and notifying the FAA and the airlines when they occur.
- LAWA to continue providing statistical updates of early turn operations to the Roundtable. This update is currently scheduled for January and July of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

#### **A4. Missed Approaches/Go-Arounds**

**Impact Description:**

At times aircraft arriving at LAX are required to abort their landing and execute a missed approach procedure. Historically, aircraft executing a missed approach have impacted the communities to the north and south of the airport depending on the runway complex they were originally assigned.

**Areas Primarily Affected:**

Northern and Southern Sector

**Mitigation Activities:**

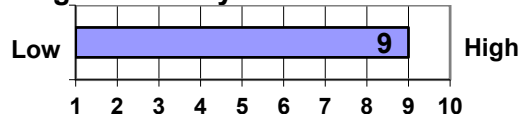
- Letter sent to FAA in July 2002 requesting revisions to procedures.
- FAA presentation to Roundtable reported that arriving aircraft having to go around will maintain runway heading unless aircraft on adjacent runway starts take-off roll, and only then will be turned over the communities.
- The South Airfield Improvement Program (SAIP), which began in July 2006 and has since been completed, caused an increase in the incidence of overflights of El Segundo. LAWA staff has provided information to the FAA and the Roundtable to establish a record of over flight events before and after the runway project for both the northern and southern sectors.
- In July 2012, LAWA invited SkyWest and other airlines to the Roundtable to explore the possibility of reducing go-around operations. SkyWest’s representative attended the meeting and indicated that there wasn’t anything that SkyWest can do to minimize these operations.
- In September 2015, LAWA reported that the closure of RWY 24R/6L for approximately 3 months that commenced in late June 2015 for the Runway Safety Area construction had temporarily caused an increase in the incidences of aircraft executing go-arounds that overflow residential communities. These events decreased following the reopening of Runway 24R/6L in early October 2015.

**Ongoing Actions:**

- LAWA to continue to monitor go-around operations and provide statistical updates to the Roundtable. This update is currently scheduled for January and July of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

#### **A7. Extended Downwind Approach**

**Impact Description:**

Aircraft arriving to LAX from the west and the north utilize an extended downwind approach at times. During certain weather conditions causing low visibility at LAX, and during periods of heavy air traffic, the downwind portion of this approach extends a

substantial distance to the east. Because of changes in topography in some of these communities, aircraft flying this approach create significant noise impacts to these communities.

**Areas Primarily Affected:**

Eastern Sector (Monterey Park, San Gabriel Valley)

**Mitigation Activities:**

- In early 1998, LAWA staff developed a radar “gate” system for obtaining over flight information.
- A report was prepared by the Wadell Engineering Corp. for the City of Monterey Park: *Overflights By Aircraft Arriving at Los Angeles International Airport, December 1999*. This report offered six alternatives:
  - Reduce the number of flights
  - Redirect flights to other airports
  - Switch the altitude requirement where aircraft intercept the ILS between the north and south runway complexes so that the altitude over Monterey Park will be higher.
  - Increase the glide slope angle for the north runways
  - Formalize a high altitude cross-over procedure to the southern runways
  - Formalize a flight track from the Santa Monica VOR to narrow the spread
- Letter to the FAA, dated November 2002, asking for five mitigation actions (1, 3-6 from above mentioned report.) Response from the FAA on three of the suggested actions included items 2, 3 and 4 noted above.
- Report from the Flight Track Data Subcommittee, August 2002, included LAWA staff measurements.
- Worked with FAA Air Traffic to recommend they develop changes in standard approach procedures.
- Roundtable’s letter to FAA on OAPM (Metroplex) recommendations dated September 2012 included suggestions to 1) increase the minimum altitude as much as possible for aircraft on the extended downwind and base legs of the approach to reduce noise and 2) explore options to reduce the requirement of using the extended downwind approach as a way to minimize Monterey Park overflights.
- In July 2015, based on review of the Metroplex proposed procedures, the Roundtable Facilitator indicated that the proposed North Downwind Required Navigation Performance (RNP) arrival procedures may partially reduce overflights for Monterey Park. Some aircraft will still fly over Monterey Park since the FAA controllers have the option of vectoring aircraft to fly further east on the north downwind leg for safety, weather and traffic considerations, and for aircraft not equipped to fly RNP procedures.
- In July 2016, a resident, who was also a Planning Commissioner, from City of Monterey Park, speaking on behalf of the City, provided several recommendations to improve the noise situation in Monterey Park for the Roundtable’s consideration.
- In September 2016, the Roundtable Facilitator evaluated each of these recommendations, and provided his independent assessment and suggestions to the Roundtable. The item was continued at the November 2016 meeting for further discussion.
- At the November 2016 meeting, the Roundtable decided to defer action on the proposals presented in July 2016 until after the Metroplex implementation in order to determine whether the proposed North Downwind RNP procedure may result in fewer aircraft operating on the extended downwind approach procedure.
- At the November 2016 meeting, members from the Cities of Monterey Park, Montebello, and Rosemead requested receiving the statistical update for the



Extended Downwind Approach over Monterey Park on a monthly basis. LAWA agreed to provide this information monthly.

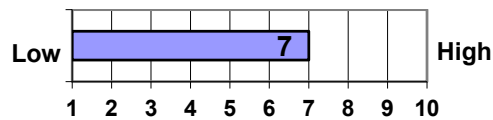
- In May 2017, LAWA provided an initial comparison of the Extended Downwind Approach before and after the implementation of Metroplex. The comparison showed a concentration of flights on the downwind leg of the north arrival pattern indicating RNAV STAR procedures (IRNMN, HUULL, and RYDRR) are in use after Metroplex implementation. However, a dispersion of flights still exists on the base leg of the pattern, where the turn is designed to occur between the 110 and 710 freeways, suggesting that the RNP arrival procedure is not in use yet. The RNP procedure is dependent on the TSAS tool and aircraft equipage in order to be operational.
- In August 2017, the Roundtable submitted a letter requesting that FAA expedite deployment of the TSAS tool for the SoCal TRACON as a way to move the RNP procedure implementation forward. FAA responded in September 2017 that modifying the schedule of the TSAS tool deployment for the SoCal TRACON would adversely affect the entire schedule for all FAA facilities; therefore, it is unable to accelerate the TSAS deployment at the SoCal TRACON. FAA noted the TSAS tool is scheduled for deployment in the 2nd Quarter of Fiscal Year 2020 for the SoCal TRACON facility. FAA's correspondence to the City of Los Angeles dated January 17, 2019 indicated that the TSAS tool is presently undergoing testing and is currently not scheduled for deployment at LAX.
- In April 2018, Roundtable sent letters to 96 airlines operating at LAX to encourage them to have all the required RNP capabilities in place in order to take advantage of RNP procedures once they are available. A few airlines responded that they already have the required capabilities in place.
- In November 2018, LAWA provided a new report that includes more meaningful information regarding Monterey Park overflights. The report is available online on the LAX Noise Management webpage.
- In May 2019, the Roundtable sent another letter requesting that FAA reconsider prioritizing TSAS deployment for LAX and provide a presentation on how TSAS works at a Roundtable meeting. FAA responded in August 2019 indicating that TSAS is still in the early testing phase and has not scheduled to deploy the tool at LAX. FAA provided a presentation on TSAS to the Roundtable in November 2019.
- In October 2019, Roundtable sent follow-up letters to 96 airlines operating at LAX to reiterate the request for airlines to equip their aircraft and certify their pilots in order to fly RNP approaches at LAX and to provide a status on their RNP capability. The letter also requested airlines to consider flying RNP procedures at night if equipped to do so. A few airlines responded noting that they have the required capabilities in place to fly RNP procedures and may consider using such procedures if possible.

**Ongoing Actions:**

- LAWA to continue monitoring extended downwind approach operations and provide statistical updates to the Roundtable at the March and September meetings each year.
- LAWA to continue producing monthly statistical reports covering the Extended Downwind Approach operations and post these reports on LAWA's website.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Low

### **A9. Departures on Runway 25L**

**Impact Description:**

Aircraft departing from RWY 25L create noise disturbances to the communities south of LAX, especially during the nighttime hours.

**Areas Primarily Affected:**

Southern Sector (El Segundo)

**Mitigation Activities:**

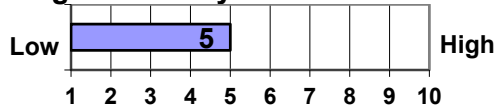
- In July 2010, LAWA looked into 25L departures at nighttime and discovered that, in most cases, 25R closure was the cause for aircraft to depart on 25L. LAWA also looked into the possibility of minimizing closure on 25R as a way to reduce overall 25L departures. LAWA reported that the practice of minimizing closure is already in place since it consolidates all maintenance work during a planned closure and closes 25R on a reduced timeframe.
- In November 2012, LAWA inquired FAA Tower personnel about the possibility of minimizing departures on Runway 25L. FAA representative explained that controllers will assign aircraft from the Central Terminal Area to Runway 25R for departures, but noted that GA and Cargo aircraft whose facilities are located south of the outboard runway must cross two active runways to depart on 25R, which is a safety concern due to the potential for runway incursions. Despite this challenge, FAA has managed to assign more GA and Cargo aircraft to 25R than 25L for departures.
- In May 2013, LAWA inquired Fed Ex at the Roundtable meeting about the possibility of having Fed Ex pilots request Runway 25R for each departure as a way to minimize aircraft departing on Runway 25L. In November 2013, Fed Ex indicated that all of its pilots are requesting the inboard runway (25R) for departures at LAX with the understanding that the FAA controller may not grant the request or that the inboard runway may be closed during that time.
- In May 2014, Roundtable Facilitator provided a briefing on the LAX Preferential Runway Use Report which examined the effectiveness of the Preferential Runway Use Policy at LAX. The report indicated that adherence to the Policy continued to be high with over 90% of the operations complying with the Policy and included recommendations to further improve adherence. The report was prepared and submitted to Caltrans as part of the Title 21 Noise Variance process.

**Ongoing Actions:**

- LAWA to continue to work with the FAA in an effort to minimize the use of 25L for departures.
- LAWA to continue to monitor runway utilization on the south complex and provide periodic statistical updates to the Roundtable. This update is currently scheduled for May and November of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

**A10. Turboprop Community Overflights**

**Impact Description:**

Turboprop aircraft departing to the south with destinations to the east overfly the PV Peninsula and Torrance heading to the Seal Beach VOR.

**Areas Primarily Affected:**

Southern Sector (PV Peninsula, Torrance)

**Mitigation Activities:**

- In 2002, FAA has routed most turboprops off the PV Peninsula, with only ONT, PSP and SNA operations overflying communities.
- Roundtable sent a letter to FAA, in May 2003, to request remaining aircraft to be routed offshore from Palos Verdes Peninsula.
- Roundtable sent a letter to FAA, in February 2004, requesting the floor altitude of the Class B airspace to be increased near PV Peninsula. FAA did not make the requested change.
- FAA established and implemented the HOLTZ, KARVR and OSHNN RNAV departure procedures, in late 2004, to move jet departures that would be flying the LAXX DP further offshore with the intent of possibly moving more turboprops over the ocean.
- FAA developed a new RNAV procedure for turboprop aircraft called JEDDD in April 2008 to reroute turboprops further offshore from the PV Peninsula. Testing is required before the procedure can be utilized. FAA anticipated that the procedure will be active by April 2010. The JEDDD procedure will not reroute turboprops with destinations to ONT, PSP, and SNA. FAA will explore alternative options for these aircraft.
- In December 2010, Roundtable sent a letter to FAA to inquire the status on the JEDDD procedure. In January 2011, FAA responded to indicate that it decided not to implement the procedure because, through testing, it was not able to maintain aircraft separation between jets and turboprops without vectoring aircraft off the JEDDD route. However, FAA noted that it will explore other options such as redesigning the JEDDD procedure or creating an entirely new RNAV procedure for turboprop aircraft.
- Roundtable's letter to FAA regarding OAPM (Metroplex) recommendations dated September 2012 included suggestions to 1) explore options of redesigning the JEDDD procedure that will meet all necessary requirements to allow full implementation of the procedure, 2) reroute the remaining turboprop aircraft that are currently overflying the Peninsula to offshore routes, and 3) if option 2 proves infeasible, then increase the minimum altitude of turboprop aircraft that overfly the Peninsula.
- In October 2016, FAA confirmed the cancellation of the JEDDD procedure due to aircraft separation issues as noted previously in the FAA's January 2011 response letter. The FAA indicated that developing a new departure procedure for turboprop aircraft would require Class B airspace modification, which is outside the scope of

the Metroplex project. Furthermore, the FAA indicated that the turboprop traffic at LAX has decreased significantly since SkyWest retired its turboprop aircraft in mid-2015.

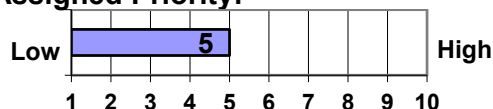
- In July 2017, LAWA provided a preliminary analysis indicating an increase in lower altitude turboprop operations over PV Peninsula. This may have occurred due to Mokulele Airline's Cessna Caravan performance characteristics and an FAA altitude restriction in place for this aircraft type.
- In May 2018, Roundtable sent a letter requesting FAA to raise the 5,000 feet altitude restriction for Mokulele Airline's Cessna Caravan that flies over the Palos Verdes Peninsula. The FAA provided a general response in July 2018 and did not offer a specific plan to resolve this issue.

**Ongoing Actions:**

- LAWA to continue monitoring turboprop operations and provide statistical updates to the Roundtable. This update is currently scheduled for May and November of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

**A12. Noise Exposure From A320 Family of Aircraft**

**Impact Description:**

Researchers in Europe have identified a high-pitched noise from the older A320 family of aircraft as the aircraft descends for landing, caused by air flowing across open cavities under the wing. The noise can be heard several miles from the runway before the deployment of landing gear. Researchers have developed a simple solution called the Vortex Generator that solves this particular problem. The Vortex Generator is a small metal device placed in front of the open cavities that changes the air flow and reduces the noise by 2 dB to 6 dB. Airbus is already placing vortex generators on newly manufactured aircraft and Lufthansa and Air France are retrofitting their existing aircraft that operate in Europe.

August 2014 statistics indicate that approximately 17% of the total arrivals at LAX are comprised of A320 family aircraft. The Roundtable is interested in recommending that airlines install the device on their existing A320 aircraft to help reduce noise for airport communities in the U.S.

**Areas Primarily Affected:**

Global issue affecting all sectors

**Mitigation Activities:**

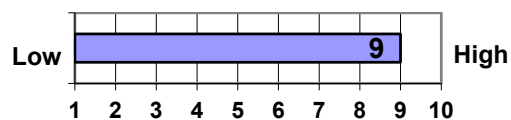
- In January 2015, LAWA reached out to O'Hare Noise Compatibility Commission (ONCC) to learn more about its outreach efforts. ONCC submitted letters to two airlines to encourage them to install the vortex generators on their aircraft. One of the airlines responded and said that they preferred to invest their limited resources

in new aircraft as new planes have greater effects on noise reduction. LAWA also reported that it has reached out to Airbus to learn more about the vortex generator installation.

- In March 2015, LAWA reported that Lufthansa spent about 5-6 million Euros to retrofit all of its 157 A320 aircraft with vortex generators. Germany’s Frankfurt Airport provides Lufthansa with a 40% discount on their landing fees as incentive to retrofit A320s with the device. Currently, no such incentive exists in the U.S., and in fact is prohibited by federal law.
- In September 2015, the Roundtable Facilitator began evaluating several strategies to move this work program item forward, and will provide more information at subsequent meetings.
- In March 2016, the Roundtable Facilitator reviewed several strategies to encourage U.S. airlines to install vortex generators on their fleet of A320 aircraft. These strategies included obtaining Congressional funding support, offering reduced landing fees to airlines, partnering with an airline to serve in a champion role, and partnering with another airport to urge the airlines to do so. Research suggested that the options involving financial incentives are not feasible as they could be time consuming, costly to implement, and would likely be challenged by the FAA and the airlines as being discriminatory. Therefore, the most viable option was to continue pursuing this effort without incentives.
- In May 2016, LAWA reported that it had submitted a letter to United Airlines to request the installation of the vortex generators on their A320s. Two other airports, SFO and ORD, also submitted letters to United.
- In December 2016, United responded to indicate that it has agreed to install the vortex generators on its A320s with the first aircraft retrofit expected to be completed in early 2017, and subsequent aircraft to be completed at a rate of two per month.
- In November 2017, the Roundtable Facilitator provided an update on United’s A320 Vortex Generator Retrofit Program, which will retrofit over 150 aircraft and take several years to complete. The retrofit is performed during scheduled heavy maintenance at a rate of about 2 to 3 aircraft per month.
- In October 2018, JetBlue announced that by the end of 2021 it would retrofit its entire A320 fleet with vortex generators to reduce arrival noise.
- The pandemic in 2020 may have affected these A320 retrofit schedules as less aircraft were brought in for maintenance, which is when the vortex generator installation occurs.
- Jet Blue and United are recognized in the LAX Fly Quieter Program for their efforts in retrofitting A320 aircraft with vortex generators under the program element “Noise Reduction Efforts”, which includes implementing any equipment, technology, or procedural type effort to reduce aircraft noise.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** High

**A14. Aircraft Not Adhering to Minimum Altitude Requirements at DAHJR and GADDO waypoints under the North Downwind Arrival procedures (HUULL, IRNMN, and RYDRR)**

**Description:**

Under the SoCal Metroplex Project, three RNAV arrival procedures (HUULL, IRNMN, and RYDRR) have a minimum altitude restriction at DAHJR waypoint and a proposed minimum altitude restriction at GADDO waypoint. Since the implementation of these procedures in April 2017, most aircraft are still flying below the minimum altitudes at both waypoints. Aircraft flying below the minimum altitudes cause noise disturbances for residential communities under the flight path.

**Areas Primarily Affected:**

West Adams, Jefferson Park, Adams-Normandie, University Park, Council Districts 8 & 10

**Mitigation Activities:**

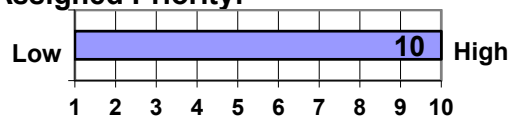
- In September 2017, LAWA presented an altitude data comparison for the LAX North Downwind Arrivals at DAHJR waypoint indicating there has been a concentration of flights traveling along the north downwind route towards the DAHJR waypoint, and aircraft were flying at similar altitudes before and after Metroplex implementation.
- In September 2017, the Roundtable held a special meeting to review flight procedures and submit several comment letters to the FAA pertaining to proposed revisions of HUULL, IRNMN, and RYDRR that include a new minimum altitude restriction of 6,000 feet at waypoint GADDO.
- In October 2017, the Roundtable submitted a letter to FAA requesting that air traffic controllers require aircraft to adhere to the 6,000 ft. minimum altitude at DAHJR waypoint, especially during nighttime and early morning hours.
- In November 2017, FAA responded to the Roundtable letters dated 9/23/17 and 10/1/17 indicating that it cannot discuss these matters at the present time due to the FAA's current participation in a court-ordered confidential mediation program. After the mediation process is complete, the FAA will respond. In February 2018, FAA provided a follow-up response to the October and November 2017 Roundtable letters.
- In November 2017, the Roundtable submitted a letter responding to the FAA's declination to brief the Roundtable on information regarding flight procedures that were open for public comment
- In November 2017, the Roundtable established the Metroplex/Wide Area Ad Hoc Committee to start working with the FAA to maintain altitude requirements at DAHJR and GADDO waypoints.
- In November 2017, the Metroplex Ad Hoc requested that LAWA provide monthly altitude data at DAHJR and GADDO waypoints. LAWA provided the data and will continue providing altitude data at these two waypoints on a monthly basis.
- In December 2017, the Roundtable submitted a letter to the FAA inviting representatives from So Cal TRACON, LAX Tower, and Procedure Design Team to attend the January 10, 2018 and future Roundtable meetings to discuss air traffic control practices, procedure design processes, and aircraft noise issues pertaining to the HUULL, IRNMN, and RYDRR procedures. FAA began participating in the Metroplex Ad Hoc meetings in early 2018.
- In working with the Metroplex Ad Hoc Committee, in August 2018 the FAA agreed to assign all arrival flights to a minimum of 5,000 ft. at DAHJR between 1 AM and 5 AM and will consider increasing aircraft altitudes to 6,000 ft. over DAHJR in March 2019 as a way to reduce noise at night.

- In October 2018, at the request of the Metroplex Ad Hoc Committee, LAWA sent a letter to the FAA requesting that it evaluate the feasibility of implementing new Charted Visual Flight Procedures (CVFPs) at LAX that would help aircraft maintain minimum altitude requirements.
- In October 2018, the City of Los Angeles sent a letter requesting FAA to 1) consider keeping aircraft above 6,000 ft. at DAHJR waypoint between 10 pm and 7 am, 2) reinstitute CVFPs, and 3) commit to a date for deploying the TSAS tool, in an effort maintain altitude requirements at DAHJR.
- In January 2019, FAA responded to note that 1) it may be able allow aircraft to remain above 6,000 feet at DAHJR between 1 AM and 5 AM based on current operational complexity and traffic volume at LAX, 2) it plans to form a work group to analyze the operational suitability of CVFPs at LAX and make a determination no later than June 2019, and 3) the TSAS tool is currently undergoing testing and is not currently scheduled for deployment at LAX.
- In February 2019, the City of Los Angeles submitted a follow up letter to FAA to 1) request keeping aircraft above 6,000 ft. at DAHJR between 12 AM and 5 AM, 2) acknowledge FAA's response regarding the evaluation of reinstating CVFPs at LAX, and 3) request disclosure of anticipated schedule and milestones to develop, test, and deploy the TSAS tool and other similar technologies for LAX arrivals. FAA responded in June 2019 noting that 1) efforts are in place to keep aircraft at or above 6,000 ft at DAHJR between 1 AM and 5 AM, 2) the FAA working group determined that CVFPs would not meet FAA's operational and safety criteria and therefore does not support using CVFPs at LAX and 3) reaffirming that TSAS is not scheduled for deployment at LAX.
- In February 2019, the Roundtable sent a letter to the FAA requesting support of the Metroplex Ad Hoc Committee in determining the reasons for aircraft flying below 6,000 ft at DAHJR waypoint during nighttime hours.
- In May 2019, the Roundtable sent a letter to the FAA requesting to relocate the JUUSE waypoint farther offshore as a way to reduce noise for coastal communities living near the North Downwind Arrival Route.
- In July 2019, the Metroplex Ad Hoc Committee reported that due to a lawsuit filed against the FAA by the City of Los Angeles, FAA representatives are not able to participate in Roundtable discussions regarding the North Downwind Arrival until the lawsuit is resolved. However, the FAA can still continue working on improving altitudes at DAHJR during nighttime hours as this effort was started before the lawsuit was filed.
- In July 2019, a Roundtable member presented the Community Proposal that included two options to provide noise relief for residents under the North Downwind Arrival Route for Roundtable's consideration. Option A increases the altitudes of aircraft on this route and extends the route farther east to San Bernardino. Option B directs aircraft to follow a different path than the North Downwind Arrival Route to join the final approach in the San Bernardino area. Prior to submitting the proposal to FAA for consideration, the Roundtable requested that LAWA conduct a technical assessment and noise evaluation of the proposal. Subsequently, LAWA hired the consulting firm, CSDA Design Group, to conduct this study.
  - In January 2020, CSDA presented the study results indicating that both options of the proposal have the potential to cause increased airspace conflicts, increased controller/pilot workload, increased noise for new communities, and other implications. For these reasons, CSDA noted that it is highly unlikely that the FAA would consider adopting either option of the Community Proposal. The proposal would also need consensus from affected communities and acceptance from various aviation stakeholders before moving forward.

- The Roundtable deferred taking action on submitting the Community Proposal to the FAA for consideration and requested that the Metroplex Ad Hoc Committee look into Option B of the proposal further.
- In July 2020, the Roundtable passed a motion to have the LAX Metroplex/Wide Area Ad-Hoc Committee, in collaboration with Quiet Skies LA and LAWA, prepare a proposed flight path alternative for the north downwind arrivals that reflects Option B as provided by Quiet Skies LA, and submit the proposal to the FAA for viability review.
- Throughout 2020, LAX Metroplex/Wide Area Ad Hoc Committee Chair continued to provide DAHJR and GADDO altitude trend updates at every Roundtable meeting.
- In May 2021, Members of this Ad Hoc Committee met to discuss the progress of the Community Proposal and engaged with the airlines in exploring ways to improve adherence to the minimum altitudes.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** High

**A15. Aircraft Noise Affecting 360 at South Bay Community**

**Impact Description:**

Residents from 360 at South Bay Community reported that they experienced loud noise from LAX aircraft operations beginning in November 2015 and continuing to present.

**Areas Primarily Affected:**

360 at South Bay Community in Hawthorne

**Mitigation Activities:**

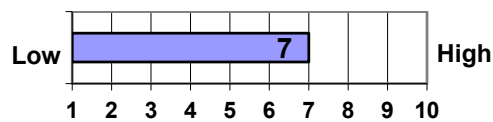
- In November 2017, the Hawthorne Roundtable representative invited residents from the 360 at South Bay Community to the Roundtable meeting to express their concerns about increased noise and requested LAWA to conduct a study to determine the causes of increased aircraft noise and make noise reduction recommendations, if possible.
- In March 2018, LAWA reported that it had contracted with HMMH to conduct this study, which consisted of investigating historical noise events and conducting noise measurements at the 360 complex to determine the cause(s) of increased aircraft noise. LAWA also provided periodic updates on the study progress thereafter.
- In September 2018, HMMH presented the study results noting that the periods of increased noise levels at the 360 at South Bay community were highly correlated to certain weather conditions such as temperature inversions and winds. HMMH also noted that since the noise problem at the 360 at South Bay community is primarily weather related and the source of the noise is from normal aircraft operations at LAX, there are no feasible recommendations that can be made to mitigate this noise issue.



- In December 2018, LAWA released the study report which documents the scope, methodology and findings of the study. The report is also posted on the Noise Management webpage.
- In March 2019, the 360 at South Bay sent a letter to LAWA to express dissatisfaction with the study and request additional clarification and information. LAWA responded in June 2019 to provide additional information regarding the noise metrics used for the study, clarifying that the study did examine noise effects associated with temporary changes in operations, and reaffirming that no feasible recommendations are available to mitigate this issue as it is primarily weather-related.
- In late 2019, 360 at South Bay requested noise measurement data consisting of hourly decibel levels from the portable noise monitor used for this study. In early 2020, LAWA provided the requested noise data.
- 360 at South Bay representatives subsequently requested a more detailed noise dataset. In May 2021, LAWA followed up with them to provide a more detailed dataset comprising of all noise events captured by the portable noise monitor for the study's noise measurement period of March 17, 2018 to May 13, 2018.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** High

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## B. NOISE MONITORING AND REPORTING

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### **B2. Evaluate the 60 dB CNEL Noise Contour for Eligibility for Sound Insulation**

**Impact Description:**

Persons living outside LAX's 65 dB CNEL noise eligibility contour (4Q1992), but within the 60 dB CNEL contour are not eligible for noise insulation, but are impacted by the noise from LAX operations. LAWA currently cannot produce an accurate 60 dB CNEL noise contour, but will be able to do so once the new ANOMS noise monitoring system is operable.

**Areas Primarily Affected:**

Global Issue affecting all sectors

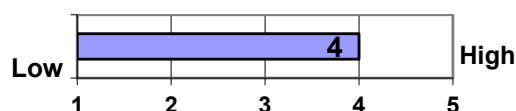
**Mitigation Activities:**

- LAWA to produce the 60 dB CNEL noise contour once one year's monitoring is completed using the new ANOMS system after it has been approved by Caltrans.

- Roundtable to evaluate the possibility of using the 60 dB CNEL contour as a soundproofing eligibility contour when the contour is produced, and request LAWA to adopt for soundproofing eligibility.
- From 2008 to 2009, LAWA staff participated in the Airport Cooperative Research Program in which it appointed HMMH to conduct study and survey of the various programs offered by airports in the U.S. to address noise issues outside of the 65 DNL/CNEL noise contour. Study is now complete and the report entitled “Compilation of Noise Programs in Areas Outside DNL 65” is available online at [http://onlinepubs.trb.org/onlinepubs/acrp/acrp\\_syn\\_016.pdf](http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_016.pdf).
- In March 2010, HMMH provided the Roundtable a presentation summarizing the results of the ACRP project.
- In 2014, ACRP published [Web-Only Document 17: Research Methods for Understanding Aircraft Noise Annoyances and Sleep Disturbance](#).
- Largely based on the above research, FAA performed an annoyance survey that was sent out to communities in the vicinity of 20 undisclosed U.S. airports. FAA is currently reviewing the survey results. The FAA may then consider whether a change in the current noise policy is required, including altering the current standard of 65 DNL (similar to CNEL used in California).
  - As the FAA Annoyance Study results have not yet been released, the Roundtable in January 2020 sent a letter to the FAA to request expediting the release of the study results. (See update below regarding release of the Annoyance Study.)
- In October 2018, the President signed the FAA Reauthorization Act into law. The Act requires that the FAA complete an evaluation of alternative metrics to the current Day Night Average Sound Level (DNL) 65 standard by October 5, 2019.
- The Reauthorization Act also requires that the FAA conduct a review of the impact of noise exposure on communities around airports. The FAA is required to submit a report to Congress on its findings by October 5, 2020, including FAA’s recommendations for revisions to its land use compatibility guidelines in Part 150 of Title 14 CFR.
- In November 2020, the Roundtable sent a letter to FAA endorsing the U.S. Conference of Mayors and National League of Cities resolutions regarding supersonic aircraft noise certification standard, lowering the 65 DNL/CNEL threshold and using alternative metrics to DNL/CNEL.
- After releasing the Neighborhood Environmental Survey (previously known as Annoyance Survey) results on January 13, 2021, FAA subsequently held a public webinar to share the study results and extended the public comment period to April 14, 2021, allowing an additional month for public comment submittal.
- The FAA provided a presentation on the Neighborhood Environmental Survey’s study methodology and results to the Roundtable on March 10, 2021. The Roundtable then submitted a comment letter to the FAA expressing the need to minimize delays in considering noise policy changes and suggested certain research topics for consideration.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

**B3. Ground Run-ups During Restricted Hours (2300 to 0600 hrs.)**

**Impact Description:**

Ground run-ups during the hours of the restriction create noise disturbances during these noise sensitive hours to the surrounding communities. There is currently no effective way to actively monitor all run-up activities at LAX.

**Areas Primarily Affected:**

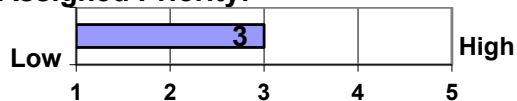
Northern Sector, Southern Sector

**Mitigation Activities:**

- Ground run-up monitoring system was built as part of the LAX Noise Monitoring System replacement project. The system allows LAWA to monitor certain run-up activities at LAX and to evaluate the noise impact of such events.
- LAWA provided a presentation in May 2008 on the installation of a ground run-up monitoring unit at the Fed Ex maintenance facility.
- LAWA provided a status update in March 2009 indicating that the installation of the GRU monitoring unit is completed.
- Certain GRU software functionalities have been integrated into ANOMS.
- In September 2015, LAWA provided an overview of the 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 its noise reduction performance. The study identified two potential sites to be the most suitable for the GRE installation and indicated the noise reduction performance to be favorable.
  - Due to other construction projects currently underway at LAX that limit the availability of required space for the GRE, LAWA determined not to move forward with the GRE development at this time.
- In December 2019, LAWA adopted a tiered penalty program for the engine run-up restriction at LAX as a way to further improve the enforcement capability of this restriction and thereby further minimize noise for the residential communities. Aircraft operators that violate this restriction are subject to a monetary penalty with the amount of the penalty to be progressively higher for each repeat violation that occurred within a one year period.
- Engine Run-ups during restricted hours are included in the LAX Fly Quieter Program scoring elements. Air carriers with no engine run-ups during restricted hours score highest on this element of the FQP.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

**B4. Review Use of Single Event Noise Metrics**

**Impact Description:**

Noise Subcommittee has reported to Roundtable regarding use of single event noise metrics.

**Areas Primarily Affected:**

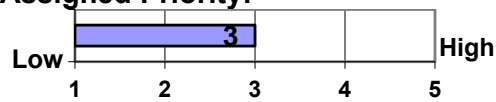
Global Issue affecting all sectors

**Mitigation Activities:**

- At the March 13, 2002 meeting, Mr. Bill Albee of Wyle Labs made a presentation on alternative noise metrics including single event metrics to the Roundtable.
- At its meeting of February 8, 2006, the Noise Subcommittee noted the need to acquire single noise event data from the new ANOMS.
- ANOMS has the capability to use single event metrics to measure aircraft noise.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Medium

**B5. Status Report on Soundproofing Program**

**Description:**

The Soundproofing Program reduces interior noise levels for residents who live within the 65 CNEL boundary by providing acoustic modifications to their homes. LAWA manages the soundproofing program for residents in the City of Los Angeles and provides funding for agencies in other municipal jurisdictions (County of Los Angeles, City of El Segundo, and City of Inglewood) to perform soundproofing for their respective residents.

**Areas Primarily Affected:**

Global issue affecting all sectors

**Mitigation Activities:**

- LAWA started providing annual status report on the soundproofing program in 2012.
- In September 2012, Roundtable sent a letter to the FAA expressing concerns with the new Program Guidance Letter (PGL) for Airport Sound Insulation Programs. The PGL includes stricter requirements for residents to qualify for sound insulation such as requiring the interior noise level of residential properties that are within the noise impact area to be at or above 45 dB in order to qualify for the program. No response was received from the FAA. The FAA moved forward with the stricter requirements for the sound insulation programs as set forth in the PGL.
- In January 2014, LAWA reported that it has started the process to update the LAX Part 150 Noise Exposure Maps (NEMs) to ensure sound insulation programs continue to receive funding from FAA.
- Throughout 2014 and 2015, the Roundtable Facilitator provided the Roundtable with periodic updates on the LAX Part 150 NEM Update project.
- LAWA hosted public workshops for the LAX Part 150 NEM Update to afford the public the opportunity to learn more about the project and to submit comments. Public workshops were held in May 2014 and May 2015.

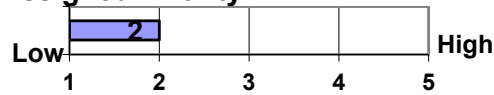
- The final LAX NEM document was submitted to the FAA on September 23, 2015 for official review.
- In October 2015, new FAA rules for two-step eligibility requirements went into effect which require homes to be located inside the 65 dB contour boundary and their interior noise levels be 45 dB or greater in order to qualify for the sound insulation program.
- In October 2015, LAWA released the Acoustical Testing Plan for use at LAX to determine the property's interior noise level.
- In February 2016, the FAA notified LAWA that it has accepted the LAX NEMs. The 2020 NEM is currently used to determine eligibility for participation in the noise mitigation programs at LAX.
- In May 2016, LAWA authorized jurisdictions (Inglewood and LA County) to begin acoustic testing to determine whether homes meet the new 45 dB interior noise level requirements.
- LAWA has provided annual status updates on the sound insulation programs since 2012. The last update was in January 2021 covering the overall status of the programs for homes and schools including funding status, eligibility requirements, numbers of units insulated, and other related items.

**Ongoing Actions:**

- LAWA to continue providing annual status report on the soundproofing program. Status report for this item is currently scheduled for July of each year.

**Status:** Active

**Assigned Priority:**



**LAWA Workload:** Low

**C. NOISE AND AVIATION INFORMATION**

**C1. Establish Working Relationships with Other Roundtables**

**Impact Description:**

Roundtable membership desires to establish formal ongoing working relationships with other airport noise Roundtables or other community forums.

**Areas Primarily Affected:**

Global Issue affecting all sectors

**Mitigation Activities:**

- Roundtable sent copies of letters to SFO and ORD (O'Hare) noise commissions/roundtable.

- In July 2009, David Carbone, Program Manager of the SFO Roundtable, attended the LAX Roundtable to provide a presentation on SFO Roundtable and to establish a working relationship between the two Roundtables.
- In November 2011, Roundtable facilitator pointed out the benefits and drawbacks of establishing working relationships with other roundtables and provided recommendations on ways to allow for increased connectivity with other organizations. He also sought input from Roundtable members as to what they wish to get out of from having working relationships with other roundtables. As members did not provide any immediate ideas at the meeting, LAWA sent a follow-up email to ask them for their suggestions. No responses were received.
- In January 2014, a representative from Portland International Airport (PDX) attended the Roundtable meeting to provide a presentation about PDX's Citizen Noise Advisory Committee and noise management programs.
- In November 2014, representatives from the SFO Roundtable provided an update on the SFO Roundtable activities as well as the FAA Metroplex Project for the San Francisco Bay Area.
- In September 2017, an SFO Roundtable representative provided a briefing on the organization and operation of the SFO Roundtable and its programs to reduce aircraft noise including its efforts related to the NorCal Metroplex Project.
- In September 2019, Roundtable Facilitator provided a presentation on the Santa Clara/Santa Cruz Roundtable covering its organizational and operational structure as well as the noises issues that this body is dealing with.
- In September 2020, a Charlotte Douglas International Airport (CLT) Community Roundtable representative provided a presentation covering the history of this body, processes used, and recommendations submitted to the FAA to address noise concerns related to the implementation of the Metroplex at CLT.

**Ongoing Actions:**

- Roundtable Facilitator will continue to arrange for guest speakers from other airport noise forums.

**Status:** Active

**Assigned Priority:** N/A

**LAWA Workload:** Low

**C2. Briefings on Technical Advances Within the Industry**

**Impact Description:**

The Roundtable needs to be informed of the evolving technology in aircraft engine and airframe, airspace utilization, and airline marketing as it relates to noise impacts in surrounding communities.

**Areas Primarily Affected:**

Global Issue affecting all sectors

**Mitigation Activities:**

- Presentation by the Roundtable consultant of the Wyle Labs “before-and-after study” of single event noise impacts at Eagan, MN as a result of a new runway at MSP – February 8, 2006.

- Boeing conducted a presentation on aircraft quiet engine technology on September 13, 2006.
- Roundtable Facilitator provided information on retirement of B727 aircraft from UPS and Fed Ex in January 2008. Roundtable sent letter to Fed Ex, in February 2008, to encourage expedited replacement of B727 with quieter aircraft. Fed Ex responded that the aircraft replacement process will take several years to complete. Fed Ex's presentation at the November 2013 Roundtable meeting indicated that Fed Ex has retired all of their fleet of B727s. No letter was sent to UPS since it does not operate B727 at LAX.
- LAWA staff provided information about replacement of B747-200 with quieter A330 aircraft from Northwest Airlines in March 2008.
- Pratt & Whitney provided a presentation on its "Geared Turbofan Engine Technology" to the Roundtable in May 2009.
- Roundtable Facilitator provided a presentation on Next Generation Air Traffic Control System to the Roundtable in September 2009.
- Southwest provided a presentation on RNP procedures to the Roundtable in September 2009.
- NASA representative provided a presentation on LAX Oceanic Tailored Arrivals to the Roundtable in January 2010.
- In May 2010, Roundtable Facilitator began providing updates on aviation noise information at each meeting.
- In July 2010, LAWA subscribed to the Airport Noise Report newsletter and began weekly distribution of the newsletter to Roundtable members. This newsletter provides updates on litigation, regulations, and technological developments as they relate to aviation noise.
- In November 2012, the Boeing Company provided a presentation to the Roundtable on various noise reduction technologies that are available on the B737-800, B747-800, and B787 aircraft.
- In July 2013, FAA provided an update on the LAX Oceanic Tailored Arrivals project to the Roundtable.
- Throughout 2017, the Aviation Noise News updates prepared by the Roundtable Facilitator documented several technical advances in aircraft noise reduction including:
  - The roll out of Boeing's 787-10 with Trent 1000 Ten and Genx-1B engines which incorporate state-of-the-art noise reducing technologies to keep the 85 dBA Lmax contour on the airfield
  - Boeing and jetBlue's investment in the development of a hybrid-electric aircraft that would cut community noise by 75 percent
  - NASA's transfer of its Terminal Spacing and Sequencing (TSAS) Tool to the FAA for testing, certification, and implementation
  - Southwest Airlines taking delivery of its first Boeing 737-8 MAX aircraft that is quieter and more fuel efficient than the 737-300 it's replacing
- Throughout 2018, the Aviation Noise News updates prepared by the Roundtable Facilitator documented several technical advances in aircraft noise reduction including:
  - A series of NASA technologies implemented on a Gulfstream GIII business jet test aircraft has demonstrated airframe (non-engine) noise reductions of over 70% on landing approach
  - Electric-powered regional aircraft with a 650 nautical mile range that is quieter than its conventional equivalent is expected to start service in 2019
  - United Airlines took delivery of the first of ten B737 MAX 9 aircraft, which is quieter, flies farther on less fuel, and reduces CO2 emissions compared to older generation aircraft

- Rolls-Royce is creating a family of jet engines known as Pearl with an improvement in noise reduction to power the Bombardier Global family of very-long-range business jets that are scheduled for service in 2019
- Throughout 2019, the Aviation Noise News updates prepared by the Roundtable Facilitator documented several technical advances in aircraft noise reduction including:
  - Several companies are conducting research and development with supersonic aircraft that can produce significantly less sonic boom effects than the Concorde while operating at supersonic speeds.
  - Certain aircraft manufacturers are developing small-to-medium sized aircraft that can use alternative fuel sources such as electric, liquid-hydrogen fuel cell, or a hybrid of gasoline and electric. These aircraft are intent to fly short distances, carry a small number of passengers, and may be quieter than their conventional equivalent.
  - Airbus announced that it would cease production of the A380 in 2021 as wide-body aircraft with smaller noise footprints such as the A350, B777, and B787 offer airlines a less expensive alternative to the A380 since they can operate long-haul flights at the same or lower seat-mile costs.
- Throughout 2020, the Aviation Noise News updates prepared by the Roundtable Facilitator documented several technical advances in aircraft noise reduction including:
  - An MIT study evaluated the effects of aircraft speed on noise with results showing the potential noise reduction effects are more beneficial for arrivals than departures.
  - The NASA Quiet SuperSonic Technology to be used in the experimental X-59 aircraft will reduce the classic “sonic boom” associated with supersonic (faster than sound) flight down to a “gentle thump.”
  - The first test flight of an all-electric Cessna 208 Grand Caravan occurred in May 2020 in Moses Lake, Washington. This aircraft was converted from a traditional fuel-powered system to an all-electric model.
- In January 2021, LAWA informed the Roundtable of the decision to discontinue the Aviation Noise News handout provided at each Roundtable meeting. The information provided was fairly duplicative of the articles in the Airport Noise Report and discontinuing this handout allows LAWA to focus resources on items that are of higher value and priority for the Roundtable going forward.

**Ongoing Actions:**

- Airport Noise Report and Roundtable Facilitator will continue to provide periodic updates on technical advances within the industry.

**Status:** Active

**Assigned Priority:** N/A

**LAWA Workload:** Low



### **C3. Briefings on Relevant Legislative and Regulatory Actions by International, Federal and State Agencies**

#### **Impact Description:**

The Roundtable needs to be informed of actions by agencies that relate to noise impacts in surrounding communities.

#### **Areas Primarily Affected:**

Global Issue affecting all sectors

#### **Mitigation Activities:**

- In September 2001, Roundtable sent a letter to comment on the Draft Update of the National Noise Policy. FAA dropped the update effort.
- In September 2001, Roundtable sent letters to Congressional Representatives to oppose H.R. 2107—a bill that would allow federal intervention in local airport decision process. Bill did not pass.
- In February 2005, Roundtable made comments via letter to the FAA on proposed actions involving “levels of significance” criteria for NEPA compliance.
- Comments on the ICAO Committee on Aviation Environmental Protection actions involving aircraft certification criteria.
- In February 2006, Roundtable sent a letter to FAA to comment on FAA Order 5050.4B, which failed to address new noise levels of significance.
- In 2007, Roundtable sent letters to FAA and Congressional Representatives to provide support of the FAA Reauthorization Bill.
- LAVA provided a status update on the FAA Reauthorization Act of 2009 in June 2009.
- In July 2010, Roundtable sent letters to Congressional and Senatorial representatives to urge passage of the FAA Reauthorization Bill and to support two provisions in the bill—funding allocation for airspace redesign projects and elimination of Stage 2 aircraft. Bill was not passed in 2010.
- In March 2011, Roundtable sent a letter to the House Subcommittee on Aviation to oppose the Categorical Exclusion provision proposed in S.223 FAA Air Transportation Modernization and Safety Act. Final FAA Reauthorization Bill was passed in February 2012 with Categorical Exclusion provision included.
- In July 2011, Roundtable sent letters to Congresswoman Janice Hahn and the Senate conferees to urge them to reinstate the provision in the FAA Reauthorization Bill that provides funding allocation for airspace redesign projects and to reaffirm the Roundtable’s support of the two provisions in the Bill—funding allocation for airspace redesign projects and elimination of Stage 2 aircraft. Bill passed in February 2012. It includes Stage 2 aircraft prohibition and funding for *Optimization of Airspace and Procedures in the Metroplex* project.
- In January 2012, Roundtable sent letters to the House and Senate Committees on Aviation Matters to express support for the L.A. Residential Helicopter Noise Relief Act of 2011. Bill did not pass.
- In May 2013, Roundtable wrote letters to the House and Senate committees on aviation matters to offer support for the Los Angeles Residential Helicopter Noise Relief Act of 2013. Bill did not pass. In January 2014, Congress passed a separate appropriations bill that included a helicopter provision that directs the FAA to move forward with the voluntary measures as set forth in the FAA’s Report on the Los Angeles Helicopter Noise Initiative. The provision also directs the FAA to develop helicopter regulations, if after one year from the bill’s enactment, the FAA cannot demonstrate the voluntary measures to be effective.

- In October 2014, Roundtable submitted a comment letter to FAA opposing use of the Net Noise Reduction (NNR) Method for evaluating noise exposure of Performance Based Navigation (PBN) procedures. The NNR Method would introduce different noise analysis methodologies in the environmental review process to determine qualification for a Categorical Exclusion when implementing PBN procedures, possibly resulting in shifts in noise exposure which are incompatible with the Roundtable By Laws.
- In March 2016, the Roundtable submitted a comment letter to FAA to express support for a proposed Stage 5 aircraft noise standard for new aircraft operating in the U.S. and to encourage FAA to include a provision that will phase out existing Stage 3 aircraft as part this proposal. In 2017, the FAA finalized the Stage 5 noise standards for new aircraft but did not propose a plan to phase out existing Stage 3 aircraft.
- In March 2017, the Roundtable submitted a letter to the House Subcommittee on Aviation to express support for H.R 598 Airplane Impacts Mitigation Act - a bill that directs the FAA to conduct a study examining the health effects of residents in certain metropolitan areas where the implementation of FAA's NextGen program has occurred. Bill H.R.598 was referred to the Subcommittee on Aviation on January 20, 2017 and has not been advanced to the floor for a vote. The study on health effects relating to Metroplex is included as a provision in the approved FAA reauthorization bill.
- In March 2018, Roundtable submitted a letter to the House Committee on Transportation and Infrastructure to express opposition of privatizing FAA's Air Traffic Control as a private entity overseeing this important function would be far less responsive and accountable on aircraft noise matters. Congress did not include a provision in the FAA reauthorization bill to privatize the FAA's Air Traffic Control.
- In November 2018, the Roundtable Facilitator gave a presentation on the October 5, 2018 FAA Reauthorization Act that included 13 measures related to aircraft noise.
- In March 2020, the Roundtable Facilitator gave a presentation on 13 proposed federal legislations relating to aviation noise. The Roundtable in July 2020 unanimously approved sending a letter to congressional and senatorial representatives in support of 11 of the 13 proposed bills regarding aircraft noise issues. None of those proposed bills were passed into law in the 116<sup>th</sup> Congress.
- In July 2020, the Roundtable unanimously approved sending a letter as part of the public comment period of the Notice of Proposed Rulemaking (NPRM) related to certified noise levels proposed for supersonic aircraft on arrival and departure (subsonic speeds) at airports. The letter primarily requests supersonic aircraft to meet Stage 5 requirements.
- In March 2021, the Roundtable approved sending a letter to congressional and senatorial representatives supporting two proposed bills introduced in the 117<sup>th</sup> Congress relating to aviation noise.

#### **Ongoing Actions:**

- With access to the Airport Noise Report and Roundtable Facilitator, roundtable members continue to obtain updates on relevant legislative and regulatory actions as they become available.

**Status:** Active

**Assigned Priority:** N/A

**LAWA Workload:** Low

#### **C4. Aircraft Noise Stringency Standards via the ICAO and CAEP Processes**

**Impact Description:**

Roundtable is interested in increasing the noise stringency standards for aircraft operating at LAX to reduce the noise produced by aircraft arrivals and departures, and reducing the noise impacts to the communities.

**Areas Primarily Affected:**

Global Issue affecting all sectors

**Mitigation Activities:**

- In August 2001, Roundtable sent a letter to FAA requesting that turboprop aircraft be included in ICAO Stage 4 aircraft standards. This request was not honored.
- In December 2001, Roundtable sent a letter to Carl E. Burleson of the FAA to request a presentation on Stage 4 standards and CAEP process. Carl Burleson provided the presentation to the Roundtable in March 2002.
- In November 2007, LAWA staff participated in the CAEP meetings as an observer for ACI-NA.
- LAWA staff continues to work closely with ACI-NA through its Environmental Affairs Committee and the Noise Working Group, as well as directly with the ACI's ICAO Liaison to influence the CAEP process and attempt to get additional noise stringency standards added to the CAEP Work Program.
- In March 2013, Roundtable Facilitator provided an update on the ICAO/CAEP process indicating that CAEP/9 recommended the ICAO Council to adopt the new noise standard of Stage 4/Chapter 4 minus 7 EPNdB that is expected to go into effect in 2017 for newly manufactured large aircraft and in 2020 for newly manufactured small aircraft.
- In November 2017, the Aviation Noise News Update prepared by the Roundtable Facilitator documented the FAA's promulgation of Stage 5 noise standards for new airplanes designs requiring a cumulative 7-dB reduction over the Stage 4 noise standards with at least a 1-dB over Stage 3 standards at each certification measurement site. Airplanes with a maximum certificated takeoff weight of 121,254 pounds or more must comply with the Stage 5 standards on or after December 31, 2017. Airplanes with a maximum certificated takeoff weight of less than 121,254 pounds must comply with the Stage 5 standards on or after December 31, 2020.

**Ongoing Actions:**

- Roundtable to continue monitoring future noise stringency actions proposed by ICAO and CAEP and will comment accordingly.
- Airport Noise Report and Roundtable Facilitator continue to provide updates on this topic as they become available.

**Status:** Active

**Assigned Priority:** N/A

**LAWA Workload:** Low