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MEMORANDUM

To:	Patrick Lammerding Deputy Executive Director Hollywood Burbank Airport
From:	Gene Reindel, Task Force Facilitator
Date:	January 31, 2020
Subject:	Task Force Member Questions - September 2019 - Status of Responses to Date
Reference:	HMMH Project Number 310870

During the September 11, 2019 meeting of the Southern San Fernando Valley Airplane Noise Task Force (Task Force), Task Force members asked questions of the Federal Aviation Administration (FAA), HMMH and/or the Hollywood Burbank/Van Nuys Airports staff. Questions not on the agenda are to be answered at a later date. Since Task Force members requested that they be allowed to submit additional questions in writing, the Task Force requested all questions be submitted by September 18, 2019 (within one week of the meeting). HMMH assembled, sorted and combined the questions submitted in a memo provided to you in a letter dated September 27, 2019.

The remainder of this memorandum provides the questions organized by the intended responding entity. Please note that not all questions provided by the Task Force members are included below as some questions cannot be answered until after the Task Force provides the FAA with their recommended changes as the FAA should not be asked to conduct feasibility and or implementation analyses for measures until such measures are formally recommended by the Task Force. The following is a response key code for the checkboxes that will proceed each question.

Response Key Code: (*note: as of January 31, 2020, all questions have full responses*)
☐ = No Response to Date
⊟ = Partial Response Provided (See Appendix for Responses)
☒ = Full Response Provided (See Appendix for Responses)

Questions/Request for Information to the FAA Likely Not Requiring Analysis/Research

The FAA should respond relatively quickly to the following questions as very little, if any, research is required for response:

☒ 1. What governing body decides when the skies are at their limit and no more planes can arrive or depart from a specific airport? If the airport, then what if the airports try to handle more planes than the Air Traffic Controllers can manage?

☒ 2. In 2015, the FAA established the noise steering committee to address environmental noise related issues associated with PBN, would it be possible to get more information about that committee or any documents that come from that committee to aid us in finding solutions?

☒ 3. Did the FAA complete an Environmental Impact Report for the implementation of the Metroplex?

☒ 4. What outreach and community engagement was conducted prior to the implementation of the Metroplex? Were any communities notified by the FAA regarding these changes in flight paths and flight altitudes? Why didn't the FAA let the public know it is happening?

☒ 5. Was topography factored into the design of the Metroplex procedures?

☒ 6. Did the FAA conduct safety analyses of the SoCal Metroplex procedures prior to implementation, particularly with respect to the topography in the Southern San Fernando Valley, other aircraft in the area (e.g., helicopters and private planes vs. commercial fixed wing aircraft) and engine failure? If so, please provide information showing the results of the analyses. If not, will the FAA investigate the safety hazards that come with flying at low altitudes above the Santa Monica Mountain Range?

☒ 7. Was the FAA aware of the fire danger in the Southern San Fernando Valley? If so, was that taken into account when designing the Metroplex procedures?

☒ 8. Was there a study completed that looked into the impacts on the wildlife in the Santa Monica Mountain Range?

☒ 9. Why did the FAA not implement a pilot project prior to implementation of the Metroplex?

☒ 10. Can the Metroplex procedures be suspended and return to the previous conventional procedures until the results of the Task Force are completed? If not, why not?

☒ 11. Are there any temporary solutions that can be put in place during this interim period while the Task Force continues to meet and discuss? Are there any possible noise alleviations for these communities that could be implemented quickly while the Task Force continues to determine recommended changes for the FAA to consider?

☒ 12. What role does the FAA play in determining when and how airplanes take off and land, in determining the number of frequency of takeoffs and landings at a particular airport, in determining the departure route of individual flights, and the time of day for takeoffs and landings?

☒ 13. Are there altitude and/or safe distance requirements for incoming and outgoing flights that must be met when aircraft are departing, ascending or being vectored, and what are those requirements?

☒ 14. What factors are considered when determining the direction (north, east, south and west) for aircraft operations?

☒ 15. Which entities provide ATC services from departure until an aircraft reaches its cruising altitude and at what point(s) is that guidance transferred from one entity to another?

☒ 16. Can the FAA, local ATC or an airport dictate that aircraft operators not use autopilot, and if so, what if any safety concerns are presented?

☒ 17. What is the standard climb rate for aircraft taking-off? Is there a policy at the FAA for climbing at a certain rate? Do airlines have a choice in climb rate or do they follow the direction of ATC? Are there any restrictions that would prevent the FAA from increasing the minimum climb rate? Where does the abilities to affect aircraft climb procedures fall? Does heat, weight, and/or season affect the climb rate and altitude?

☒ 18. At what point can a plane initiate a turn after departure? Does climate have an impact on aircraft turning radius? Does the point change seasonally? What are the reasons that flights are not all turning before crossing the 101 Freeway?

☒ 19. Which entities (pilots, local ATC, FAA etc.) determine when it is appropriate for southbound departing aircraft to commence a 210-degree turn headed west?

☒ 20. Can aircraft depart BUR to the east? If not, why not?

☒ 21. Was any outreach and community engagement conducted prior to the FAA's publication of the proposed SLAPP ONE and OROSZ ONE waypoints?

☒ 22. Have the FAA's proposed SLAPP ONE and OROSZ ONE waypoints for airplanes departing Hollywood Burbank Airport been implemented?

☒ 23. How were the locations of the FAA's proposed SLAPP ONE and OROSZ ONE waypoints for airplanes departing Hollywood Burbank Airport decided on?

☒ 24. How was the location of the Metroplex PPRRY waypoint for airplanes departing Van Nuys Airport determined?

☒ 25. Why did the FAA publish a new FATKO waypoint in 2017? Did the new FATKO waypoint provide the results expected?

Questions/Request for Information to the FAA That May Require Analysis/Research

The FAA may require additional time to respond to the following questions as some research may be required for response:

☒ 1. Can the FAA provide a presentation on the airspace prior to and after the implementation of the SoCal Metroplex in and around the Southern San Fernando Valley, including the interactions with other nearby airports?

☒ 2. What are the limiting factors in turning aircraft onto the 210-degree heading sooner after departing Runway 15?

☒ 3. Explain exactly what happens between liftoff and 3000' and if you could explain all the different protocols associated with all the vectoring.

☒ 4. Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously? If so, why is that the case? (Note: The FAA may want to wait until HMMH responds to the first question before responding.)

☒ 5. Our office has been told by VNY that the FAA states that aircraft are actually at a higher altitude now than they were before the Metroplex changes, could the FAA please confirm or deny this statement?

☒ 6. A joint analysis team was deployed in 2018 for Southern California. Is there any updated when we can get the cost/benefit analysis new information from the joint analysis team when they are looking specifically at the southern California region?

Questions/Request for Information to HMMH

☒ 1. Are maps available showing flight paths/routes for pre- and post-Metroplex implementation?

☒ 2. Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously?

☒ 3. Would we be able to get data from May 2018 to now? (Particularly data from July/August 2018 - July/August 2019 as many constituents report a dramatic shift in flights during this time period.)

☒ 4. Do any airplanes departing or landing at Van Nuys Airport continue to use conventional navigation and pre-Metroplex procedures, and if so, what percentage of flights continue to do so?

☒ 5. If a change were made to the minimum rate of climb, would there by any restrictions pursuant to the Airport Noise and Capacity Act of 1990?

☒ 6. Is there a correlation between the climate and flight altitudes and flight patterns at BUR?

☒ 7. If the FedEx and UPS jets are too big and heavy to get out of BUR without flying over the Santa Monica Mountains, then shouldn't they be forced to use a more accommodating airport like LAX or Ontario?

☒ 8. Will the FAA continue to push airlines to introduce quieter engines similar to the 737 MAX 8?

☒ 9. What topographical considerations factor into increased airport / airplane noise and do the Santa Monica Mountains possess a topography that would account for increased decibel levels?

☒ 10. What specific laws prevent curfews from being mandatory?

☒ 11. Is there any way to informally promote these voluntary curfews to companies, primarily companies that charter private jets?

Questions/Request for Information to Hollywood Burbank Airport

☒ 1. For the proposed Hollywood Burbank Airport replacement terminal, what is the aircraft traffic baseline (base year, number of flights, types of aircraft, etc.) and the same information with the replacement terminal built that are being used for the NEPA study? How do these numbers compare with what is occurring today?

☒ 2. Has shortening Runway 15 at Hollywood Burbank Airport been proposed to the FAA in the past, and if so, was that presented for noise abatement reasons and what was the FAA's response?

☒ 3. What are the current voluntary curfew guidelines for BUR?

Questions/Request for Information to Van Nuys Airport

☒ 1. What are the current voluntary curfew guidelines for VNY?

Questions/Request for Information to Hollywood Burbank and Van Nuys Airports

☒ 1. What role do airports play in determining when airplanes take off and land, in determining the number of frequency of takeoffs and landings at a particular airport, in determining the departure route of individual flights, and the time of day for takeoffs and landings?

☒ 2. What factors are considered when determining the direction (north, east, south and west) for runway construction?

☒ 3. What is the feasibility of deploying our own noise monitors to areas?

☒ 4. Does the FAA, Hollywood Burbank Airport and/or Van Nuys Airport have the authority and funding available to conduct noise monitoring in the impacted neighborhoods south of the two airports?

☒ 5. What are the parameters by which Van Nuys Airport, Hollywood Burbank Airport and the FAA conducts airplane / airport noise monitoring?

Appendix – Responses to Questions/Request for Information

Questions/Request for Information to the FAA Likely Not Requiring Analysis/Research

The FAA should respond relatively quickly to the following questions as very little, if any, research is required for response:

1. **What governing body decides when the skies are at their limit and no more planes can arrive or depart from a specific airport? If the airport, then what if the airports try to handle more planes than the Air Traffic Controllers can manage?**

   FAA partially responded during the December 4, 2019 Task Force Meeting. PowerPoint Presentation Air Traffic 101 Slide 7:

   i. The FAA uses an Airport Capacity Metric which is determined by:
      1. Fleet Mix
      2. Runway Configuration
      3. Runway Occupancy Time

   ii. The Airspace Capacity is determined by:
      1. Airspace Complexity
         a. Terrain
         b. Volume of traffic and Tasks
      2. Number of ATC positions open
         a. They open/close positions based on known or projected traffic and the number of controllers available to open positions. This is also based on budgetary constraints.

   FAA provided a written response dated January 14, 2019.

   > The Federal Aviation Administration's (FAA) Air Traffic Control System Command Center (Herndon, VA), along with the Traffic Management Units at Los Angeles Air Route Traffic Control Center (Palmdale, CA) and Southern California Terminal Radar Approach Control facility (San Diego, CA), continuously monitors the National Airspace System (NAS). Part of their responsibility is to notice and react to constraints to the efficient flow of air traffic, including but not limited to: weather systems, exceptional demand on arrival airport or complex airspaces, and special events. If necessary, the FAA implements departure delays or other restrictions.
   >
   > The FAA does not have regulatory control or influence over the schedules of flights to or from public airports. Air Traffic Control (ATC), using prescribed rules and procedures, allows aircraft to depart/arrive from/to public airports as long as the operations can be conducted in a safe manner.

2. **In 2015, the FAA established the noise steering committee to address environmental noise related issues associated with PBN, would it be possible to get more information about that committee or any documents that come from that committee to aid us in finding solutions?**

   FAA provided a written response dated January 14, 2019.

   > In January of 2016, the FAA initiated the Noise Steering Group (NSG) to provide a forum for senior FAA executives to discuss matters related to aircraft noise. Executives across the Agency participate in the NSG to better coordinate ways to manage noise concerns, including those associated with the introduction of Performance Based Navigation. To support the NSG and provide additional support for active project considerations, the Noise Working Group (NWG), co-chaired by the Executive Director of the Office of Environment and Energy and the Air Traffic Executive Director for Airspace Services, was also established in July of 2018.
   >
   > Both the NSG and the NWG serve to advise ongoing strategic and project initiatives to address aircraft noise, but do not themselves produce any specific documentation.

3. **Did the FAA complete an Environmental Impact Report for the implementation of the Metroplex?**

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Presentation Slide 1.

> An Environmental Impact Report is a requirement of the California Environmental Quality Act (CEQA). Federal agencies such as the FAA are subject to federal environmental laws rather than state environmental laws. Accordingly, the FAA complied with the requirements of the National Environmental Policy Act and completed an Environmental Assessment (EA) for the Southern California (SoCal) Metroplex Project. The FAA issued the final EA and signed the Findings of No Significant Impact (FONSI)/Record of Decision (ROD) on Aug. 31, 2016. On September 2, 2016, the FAA issued the Notice of Availability of the EA and FONSI/ROD through the Federal Register. The administrative process is closed. As a legal matter, the FAA's decision became final on September 2, 2016, and will not be revisited. The EA is available on the FAA's Southern California Metroplex website at: http://www.metroplexenvironmental.comsocal_metroplex/socal_introduction.html

FAA provided a written response dated January 14, 2019.

> No, an Environmental Impact Report was not completed. However, the FAA followed applicable federal laws and regulations, as well as Agency orders, and completed an Environmental Assessment (EA) for the Southern California (SoCal) Metroplex project.
> An Environmental Impact Report is a requirement of the California Environmental Quality Act (CEQA). Federal agencies such as the FAA are subject to federal environmental laws, including the National Environmental Policy Act (NEPA). Pursuant to NEPA and applicable FAA policies, the FAA conducted an EA for the SoCal Metroplex project. The FAA issued the Final EA and signed the Finding of No Significant Impact (FONSI)/Record of Decision (ROD) on August 31, 2016. On September 2, 2016, the FAA issued the Notice of Availability of the EA and FONSI/ROD through the Federal Register.
> The administrative process is closed. As a legal matter, the FAA's decision became final on September 2, 2016, and will not be revisited.
>
> The EA is available on the FAA's SoCal Metroplex website at:
> http://www.metroplexenvironmental.com/socal_metroplex/socal_introduction.html.

4. What outreach and community engagement was conducted prior to the implementation of the Metroplex? Were any communities notified by the FAA regarding these changes in flight paths and flight altitudes? Why didn't the FAA let the public know it is happening?

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Presentation Slides 2 and 3.

> The FAA conducted extensive outreach for this project. The outreach we conducted included early notification letters, invitations for government briefings, State Historic Preservation Office consultation, Tribal briefings, public workshops, and public notice of the draft and final EA. The FAA released the draft EA for public review and comment on June 10, 2015. The FAA published notices of availability of both the draft and final EAs in local newspapers and via email, provided local libraries with copies, made it available online, and notified local, State and Federal officials with constituents residing in the study area. The FAA sent email notices about the availability of the draft and final EA to more than 700 government officials throughout Southern California, including Cities of Los Angeles and Burbank, Congressional office, state legislators' offices, and Bob Hope Airport, as it was then known. Additionally, the FAA conducted outreach through press releases and direct contacts with new organizations, posted information about the project and associated public workshops on our social media platforms, and sent emails asking government officials to help us alert their constituents about the workshops. The FAA conducted 11 public workshops, including one in Burbank on July 1, 2015. The public comment period for the draft EA was open for 120 days, from June 10, 2015 through Oct. 8, 2015. The FAA received and evaluated more than 4,000 comments on the draft EA. The draft and final EA along with appendices, technical reports, and responses to comments, are located on the Metroplex website: http://www.metroplexenvironmental.com/socal_metroplex/socal_docs.html
> Appendix A of the final EA describes all of the outreach and notification done for the EA.

FAA provided a written response dated January 14, 2019.

i. What outreach and community engagement was conducted prior to the implementation of the Metroplex?

The FAA conducted extensive outreach for this project. The outreach the FAA conducted included early notification letters, invitations for government briefings, State Historic Preservation Office consultation, Tribal briefings, public workshops, and public notice of the Draft and Final EA.

The FAA released the Draft EA for public review and comment on June 10, 2015. The FAA published notices of the availability of both the Draft and Final EAs in local newspapers and via email, provided local libraries with copies, made it available online, and notified local, state and federal officials with constituents residing in the study area. The FAA sent email notices about the availability of the Draft and Final EA to more than 700 government officials throughout Southern California, including from the Cities of Los Angeles and Burbank, Congressional offices, state legislators' offices, and Bob Hope Airport, as it was then known. Additionally, the FAA conducted outreach through press releases and direct contacts with news organizations, posted information about the project and associated public workshops on its social media platforms, and sent emails asking government officials to help us alert their constituents about the workshops.

The FAA conducted 11 public workshops, including one in Burbank on July 1, 2015. The public comment period for the Draft EA was open for 120 days, from June 10, 2015, through Oct. 8, 2015. The FAA received and evaluated more than 4,000 comments on the Draft EA.

The Draft and Final EA, along with appendices, technical reports, and responses to comments, are located on the SoCal Metroplex website: http://www.metroplexenvironmental.com/socal_metroplex/socal_docs.html.

Appendix A of the Final EA describes all of the outreach and notification done for the EA.

Additional information is provided below.

Elected official notifications:

January 16, 2014

October 24, 2014

Elected official briefings:

November 18, 2014, Ventura, CA

November 19, 2014, Los Angeles, CA

November 20, 2014, Burbank, CA

December 9, 2014, San Diego, CA

December 10, 2014, Palm Desert, CA

December 11, 2014, Costa Mesa, CA

Tribal meetings:

October 28, 2014, Escondido, CA

October 29, 2014, El Cajon, CA

October 30, 2014, Cathedral City, CA

Letters to State Historic Preservation Offices/Tribal Historic Preservation Officers:

February 24, 2015

June 5, 2015

Public comment periods:

June 10, 2015, to July 10, 2015

July 9, 2015, extended to September 5, 2015

September 18, 2015, extended to October 8, 2015

FONSI/ROD: Signed September 2, 2016

Public Notices:

July 9, 2015, FAA Website Announcement

July 10, 2015, FAA Facebook Announcement

July 10, 2015, FAA Twitter Announcement

July 11, 2015, San Diego Union Tribune

July 12, 2015, Los Angeles Times

July 14, 2015, The Press-Enterprise

July 14, 2015, Santa Barbara News-Press

July 14, 2015, Ventura County Star

July 14, 2015, Inland Valley Daily Bulletin

August 15, 2015, La Opinion

August 21, 2015, El Latino

August 21, 2015, Hoy Los Angeles

August 21, 2015, Excelsior

August 22, 2015, Enlace

Public workshops:

June 16, 2015

McFadden Intermediate School – Auditorium 2701 S. Raitt St., Santa Ana, CA 92704

June 17, 2015

Santa Monica Public Library – Multipurpose Room 601 Santa Monica Blvd., Santa Monica, CA 90401

June 18, 2015

Proud Bird Restaurant – Grand Ballroom West 11022 Aviation Blvd., Los Angeles, CA 90045

June 22, 2015

Logan Heights Library – Community Room 567 South 28th St., San Diego, CA 92113

June 23, 2015

Palm Desert Library – Community Room 73-300 Fred Waring Dr., Palm Desert, CA 92260

June 24, 2015

Ken Miller Auditorium 3341 Torrance Blvd., Torrance, CA 90503

June 25, 2015

Beach High School – Auditorium 3701 E. Willow St., Long Beach, CA 90815

June 29, 2015

E.P. Foster Library – The Elizabeth R. Topping Room 651 East Main St., Ventura, CA 93001

June 30, 2015

The Westside Neighborhood Center – Auditorium 423 W. Victoria St., Santa Barbara, CA 93101

July 1, 2015

Burbank Community Services Building – Room 104 150 N 3rd St., Burbank, CA 91502

Webinars:

October 17, 2016

- Santa Barbara Municipal Airport (SBA)
- Bob Hope Airport (BUR)
- Palm Springs International Airport (PSP)
- Ontario International Airport (ONT)
- Van Nuys Airport (VNY)
- Long Beach Daugherty Field (LGB)
- John Wayne Orange County Airport (SNA)
- Los Alamitos Army Airfield (SLI)
- Fullerton Municipal Airport (FUL)
- Zamperini Field (TOA)

· October 18, 2016

- Long Beach Daugherty Field (LGB)
- John Wayne Orange County Airport (SNA)
- Los Alamitos Army Airfield (SLI)
- Fullerton Municipal Airport (FUL)
- Zamperini Field (TOA)
- San Diego International Airport (SAN)
- McClellan Palomar Airport (CRQ)
- Brown Field Municipal Airport (SDM)
- North Island Naval Air Station (NZY)

October 20, 2016

- Los Angeles International Airport (LAX)
- Santa Monica Municipal Airport (SMO)
- Santa Barbara Municipal Airport (SBA)
- Bob Hope Airport (BUR)

- Palm Springs International Airport (PSP)
- Ontario International Airport (ONT)
- Van Nuys Airport (VNY)

January 18, 2017

- Los Angeles International Airport (LAX)
- Santa Monica Municipal Airport (SMO)
- Los Angeles International Airport (LAX)
- Bob Hope Airport (BUR)
- Van Nuys Airport (VNY)
- Santa Barbara Municipal Airport (SBA)
- Camarillo Municipal Airport (CMA)
- Point Mugu Naval Air Station (NTD)

January 19, 2017

- Orange County John Wayne International Airport (SNA)
- Long Beach (Daugherty Field) Airport (LGB)
- Fullerton Municipal Airport (FUL)
- Torrance (Zamperini Field) Airport (TOA)
- Los Alamitos Airfield (SLI)
- San Diego International Airport (SAN)
- McClellan-Palomar Airport (CRQ)
- Brown Field Municipal Airport (SDM)
- Montgomery Field Airport (MYF)
- Gillespie Field Airport (SEE)
- Palm Springs International Airport (PSP)
- Ontario International Airport (ONT)

ii. Were any communities notified by the FAA regarding these changes in flight paths and flight altitudes

Yes, the FAA notified communities about changes in flight paths and flight altitudes as part of the SoCal Metroplex Draft EA and Final EA outreach.

Appendix A of the Final EA describes the outreach and notification efforts completed by the FAA. It includes early notification letters, invitations for government briefings, State Historic Preservation Office consultation, Tribal briefings, public workshops, and public notice of the Final EA. The FAA published notices of the Draft and Final EAs' availability in local newspapers, local libraries were provided copies, the EAs were made available online, and notifications were given to local, state, and federal officials with constituents residing in the study area. Email notices of the availability of the Draft and Final EAs were sent to over 700 government officials, including the City Attorney, City Manager, Senior Assistant City Attorney, Senior Planner, and Interim Director of the City of Burbank.

On September 2, 2016, the FAA issued the notice of availability of the Final EA and FONSI/ROD through the Federal Register. The notice was also published in major newspapers, in both English

and Spanish, published online, and announced through email notification. Notices were sent to federal and state agencies, local elected officials, study airports, and libraries.

iii. Why didn't the FAA let the public know it is happening?

As evidenced above, the FAA provided extensive public notification. The FAA released the Draft EA to the public for review on June 10, 2015. It is important to note the public comment period for the SoCal Metroplex Draft EA was open for 120 days. During that time, the FAA received more than 4,000 comments. The FONSI/ROD was signed on September 2, 2016.

5. Was topography factored into the design of the Metroplex procedures?

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Presentation Slide 4 and Slide 5.

The FAA took topography into account as it relates to the safety of flight in procedure design, per agency requirements. Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized. The FAA evaluated the procedures using our Safety Management System (SMS) process. In compliance with SMS requirements, a Safety Risk Management Panel (SRMP) evaluated the procedures following a five-step process. The FAA also undertook validation exercises that further refined the procedures to ensure they were viable, taking into account the limitations imposed by mountainous terrain, Class B airspace, and Special Use Airspace. Before implementing the routes that were part of the SoCal Metroplex Project, the FAA did extensive modeling, simulation, testing and validation to ensure they were safe, flyable and operationally feasible. Additionally, the noise model that the FAA used accounted for terrain. The model- the Noise Integration Routing System (NIRS) – accounted for changes in elevation.

FAA provided a written response dated January 14, 2019

The FAA took topography into account as it relates to the safety of flight in procedure design, per agency requirements. Terrain and obstacle clearance are primary considerations for departure procedure development. Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized

6. **Did the FAA conduct safety analyses of the SoCal Metroplex procedures prior to implementation, particularly with respect to the topography in the Southern San Fernando Valley, other aircraft in the area (e.g., helicopters and private planes vs. commercial fixed wing aircraft) and engine failure? If so, please provide information showing the results of the analyses. If not, will the FAA investigate the safety hazards that come with flying at low altitudes above the Santa Monica Mountain Range?**

   FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Presentation Slide 4 and Slide 5.

   > The FAA took topography into account as it relates to the safety of flight in procedure design, per agency requirements. Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized. The FAA evaluated the procedures using our Safety Management System (SMS) process. In compliance with SMS requirements, a Safety Risk Management Panel (SRMP) evaluated the procedures following a five-step process. The FAA also undertook validation exercises that further refined the procedures to ensure they were viable, taking into account the limitations imposed by mountainous terrain, Class B airspace, and Special Use Airspace. Before implementing the routes that were part of the SoCal Metroplex Project, the FAA did extensive modeling, simulation, testing and validation to ensure they were safe, flyable and operationally feasible. Additionally, the noise model that the FAA used accounted for terrain. The model- the Noise Integration Routing System (NIRS) – accounted for changes in elevation.

   FAA provided a written response dated January 14, 2019

   > Yes, safety analyses were conducted on SoCal Metroplex procedures prior to their implementation. The safety analyses included, though were not limited to: mountainous terrain, Minimum Vectoring Areas, location of adjacent airports, air traffic flow and volume, and topography of Southern San Fernando Valley.
   >
   > The FAA took topography into account as it relates to the safety of flight in procedure design, per agency requirements. Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized.
   >
   > The FAA evaluated the procedures using its Safety Management System (SMS) process. In compliance with SMS requirements, a Safety Risk Management Panel (SRMP) evaluated the procedures following a five-step process. The FAA also undertook validation exercises that further refined the procedures to ensure they were viable, taking into account the limitations imposed by mountainous terrain, Class B airspace, and Special Use Airspace. Before implementing the routes that were part of the SoCal Metroplex project, the FAA did extensive modeling, simulation, testing, and validation to ensure they were safe, flyable, and operationally feasible.
   >
   > Additionally, the noise model that the FAA used accounted for terrain. The model - the Noise Integration Routing System (NIRS) – accounted for changes in elevation.

7. **Was the FAA aware of the fire danger in the Southern San Fernando Valley? If so, was that taken into account when designing the Metroplex procedures?**

   FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Slide 6.

   > Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized. The FAA evaluated the procedures using our Safety Management System (SMS) process. In compliance with SMS requirements, a Safety Risk Management Panel (SRMP) evaluated the procedures following a five-step process. The FAA also undertook validation exercises that further refined the procedures to ensure they were viable, taking into account the limitations imposed by mountainous terrain, Class B airspace, and Special Use Airspace. Before implementing the routes that were part of the SoCal Metroplex Project, the FAA did extensive modeling, simulation, testing and validation to ensure they were safe, flyable and operationally feasible.

   FAA provided a written response dated January 14, 2019

The FAA is aware of wildfire dangers. When necessary, the FAA establishes temporary flight restrictions, implements and certifies temporary airport traffic control towers, and enacts other measures to support fire suppression activities. The FAA conducted an EA in accordance with applicable federal laws and regulations.

Every route that was part of the SoCal Metroplex project was subjected to a rigorous safety analysis before it was finalized.

The FAA evaluated the procedures using its SMS process. In compliance with SMS requirements, an SRMP evaluated the procedures following a five-step process. The FAA also undertook validation exercises that further refined the procedures to ensure they were viable, taking into account the limitations imposed by mountainous terrain, Class B airspace, and Special Use Airspace. Before implementing the routes that were part of the SoCal

Metroplex project, the FAA did extensive modeling, simulation, testing, and validation to ensure they were safe, flyable, and operationally feasible.

8. Was there a study completed that looked into the impacts on the wildlife in the Santa Monica Mountain Range?

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Slide 7.

> The FAA conducted an EA in accordance with applicable federal laws and regulations. The analysis within the EA, and the environmental impact categories analyzed, are dictated by those laws and regulations. A significant impact would be likely to occur if the project's proposed changes were to jeopardize the existence of special-status species or result in destroying or adversely modifying critical habitat in the project Study Area. The proposed changes to flight paths primarily occurred at or above 3,000 feet AGL, so there was not potential for these effects in the project Study Area. Accordingly, the analysis focused on the potential for significant impacts to species – birds or bat - resulting from increased wildlife strikes with aircraft. The EA determined no significant impacts to bird or bat species was anticipated.

FAA provided a written response dated January 14, 2019

> Yes, the FAA considered impacts on wildlife in the SoCal Metroplex EA. The FAA conducted the EA in accordance with applicable federal laws and regulations. The analysis within the EA, and the environmental impact categories analyzed, are dictated by those laws and regulations. A significant impact would be likely to occur if the project's proposed changes were to jeopardize the existence of special-status species or result in destroying or adversely modifying critical habitat in the project Study Area. The proposed changes to flight paths primarily occurred at or above 3,000 feet above ground level, so there was no potential for these effects in the project Study Area. Accordingly, the analysis focused on the potential for significant impacts to species – birds and bats - resulting from increased wildlife strikes with aircraft. The EA determined no significant impacts to bird or bat species was anticipated.

9. Why did the FAA not implement a pilot project prior to implementation of the Metroplex?

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Slide 8.

i. The FAA in the early 2000s began implementing individual satellite-based routes at various locations throughout the US. The agency undertook the Metroplex process to coordinate the implementation of routes serving multiple airports in major metropolitan areas where heavy airport activity and environmental constraints combine to hinder the efficient movement of air traffic. Before implementing the routes that were part of the SoCal Metroplex project, the FAA did extensive modeling, simulation, testing and validation to ensure they were safe, flyable and operationally feasible. In addition, the Southern California Metroplex project encompassed more than 150 routes so making these changes in the busy and complex Southern California airspace is a vast undertaking. In addition to validating any new routes, changes require extensive pilot and controller training, and software uploads to aircraft flight computers and traffic control computers systems. This is not conductive to implementing routes on a test of pilot project basis.

FAA provided a written response dated January 14, 2019

Implementation of Metroplex projects is the result of a nationwide Congressional mandate to modernize the airspace around the busiest terminal areas in the National Airspace System (NAS).

In the early 2000s, the FAA began implementing individual satellite-based routes at various locations throughout the U.S. The Agency undertook the Metroplex process to coordinate the implementation of routes serving multiple airports in major metropolitan areas where heavy airport activity and environmental constraints combine to hinder the efficient movement of air traffic. Before implementing the routes that were part of the SoCal Metroplex project, the FAA did extensive modeling, simulation, testing, and validation to ensure they were safe, flyable, and operationally feasible.

In addition, the SoCal Metroplex project encompassed more than 150 routes, so making these changes in the busy and complex Southern California airspace was a vast undertaking. In addition to validating any new routes, changes require extensive pilot and controller training, and software uploads to aircraft flight computers and traffic control computer systems. This is not conducive to implementing routes on a test or pilot project basis.

10. Can the Metroplex procedures be suspended and return to the previous conventional procedures until the results of the Task Force are completed? If not, why not?

FAA provided a written response dated January 14, 2019

Implementation of Metroplex projects is the result of a nationwide Congressional mandate to modernize the airspace around the busiest terminal areas in the National Airspace System (NAS).

Prior to the introduction of Global Positioning System (GPS)-enabled flight paths, pilots were navigating toward and over fixed navigation aids to various destinations – and in several directions – and not a precise or highly predictable path.

Flight paths created by the use of GPS via satellite navigation are inherently safer because aircraft are now on a precise and predictable path that is preplanned and does not require vectoring by an air traffic controller. This reduces frequency congestion (too many people trying to talk at once on the frequencies used between pilots and controllers) and opportunities for missed communication between pilots and controllers. When an aircraft is on a GPS-enabled procedure, it is safely separated from other aircraft flying procedures in that airspace. Conventional flight paths using ground-based navigation were, and are, safe due to standards we built into the system; but, by design, having an aircraft on a precise and repeatable path is safer. Because satellite-based navigation is foundational to modernization of the airspace, the FAA will not return to ground-based navigation.

All the procedures approved in the SoCal Metroplex Project decision were implemented no later than mid-2017. Any subsequent amendment or newly proposed air traffic procedure is an independent action, subject to its own legal, environmental, and technical analyses.

11. **Are there any temporary solutions that can be put in place during this interim period while the Task Force continues to meet and discuss? Are there any possible noise alleviations for these communities that could be implemented quickly while the Task Force continues to determine recommended changes for the FAA to consider?**

FAA provided a written response dated January 14, 2019

Since Van Nuys Airport (VNY) and Hollywood Burbank Airport (BUR) are surrounded by communities and large population areas, any change – whether temporary or permanent – will result in moving noise from one community to another. Any change requires coordination and collaboration with all affected communities, as well as community groups such as the Southern San Fernando Valley Airplane Noise Task Force.
Implementation of temporary flight procedures is not a simple or easy solution, and would take time. Air Traffic Controllers must be trained, aircraft flight guidance and management systems need to be updated, and inter-facility agreements need to be updated to reflect the changes.

12. **What role does the FAA play in determining when and how airplanes take off and land, in determining the number of frequency of takeoffs and landings at a particular airport, in determining the departure route of individual flights, and the time of day for takeoffs and landings?**

FAA partially responded during the December 4, 2019 Task Force Meeting. PowerPoint Air Traffic 101 Slide 7.

i. The FAA uses an Airport Capacity Metric which is determined by:
    1. Fleet Mix
    2. Runway Configuration
    3. Runway Occupancy Time
ii. The Airspace Capacity is determined by:
    1. Airspace Complexity
        a. Terrain
        b. Volume of traffic and Tasks
    2. Number of ATC positions open
        a. They open/close positions based on known or projected traffic and the number of controllers available to open positions. This is also based on budgetary constraints.

FAA provided a written response dated January 14, 2019

The FAA does not have regulatory control or influence over the schedules of flights to or from public airports. The FAA's role in determining when and how airplanes take off and land is to ensure the highest level of safety of flight. Through prescribed rules and procedures, ATC ensures positive separation of each aircraft such as arrivals vs. departures and aircraft to/from BUR vs. VNY. While the pilot in command and flight crews must follow all ATC instructions, the individual flight profile and compliance with the instruction(s) will vary between each carrier/company, and aircraft flight crew. The operation of each aircraft is the sole responsibility of the pilot in command. The frequency of aircraft departing a public airport is dictated by the demand (the number of aircraft that wish to depart at a given time); the supply of the airspace is dictated by the ability of ATC to accept that demand, while being able to clear each aircraft to depart with the appropriate amount of space from other aircraft.

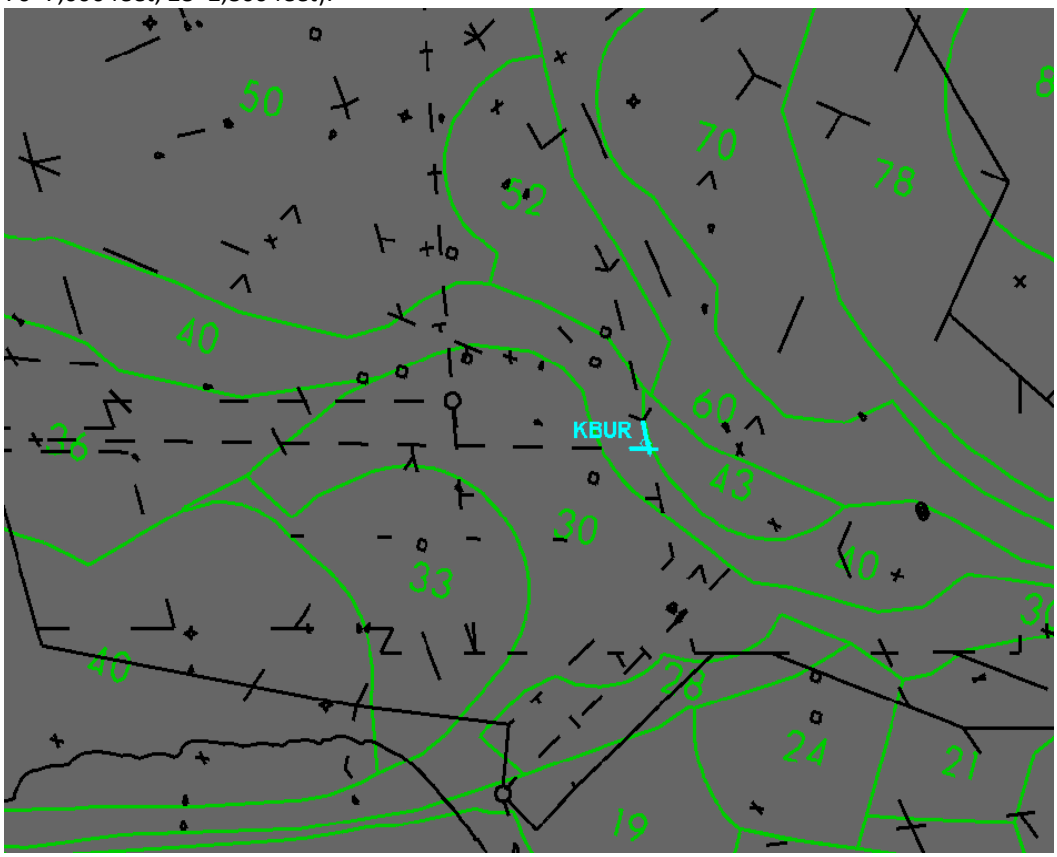
13. Are there altitude and/or safe distance requirements for incoming and outgoing flights that must be met when aircraft are departing, ascending or being vectored, and what are those requirements?

FAA partially responded during the December 4, 2019. PowerPoint Presentation Air Traffic 101 Slide 16.

i. The vast majority of BUR Runway 15 departures must, for safety reasons, fly south of the 101 Freeway before turning west. This has been the case for decades.
ii. FAA rules require aircraft to be at last three nautical miles apart in the airspace around airports.
iii. The final approach from the west to BUR Runway 08 is three miles north of the 101 Freeway. Therefore, departing aircraft generally must fly south of the 101 Freeway before turning west to remain at least three nautical miles from the BUR Runway 08 arrivals.

FAA provided a written response dated January 14, 2019

ATC is regulated by specific procedures and rules to ensure and maintain the highest level of safety in the National Airspace System (NAS). These regulations and procedures are contained within various orders and manuals that all air traffic controllers follow. In general, airborne aircraft, regardless of whether they are arrival or departure aircraft, must remain vertically separated by at least 1,000 feet, and laterally separated by at least 3 NM in the terminal airspace around airports. There are specific cases where this separation requirement can decrease or, in some cases, where more space is needed. ATC may use vectoring to establish and/or maintain this safe distance. However, except under very specific exceptions, vectoring can only occur when aircraft are above what is known as the Minimum Vectoring Altitude. To assist air traffic controllers in ensuring necessary separation between aircraft and terrain/obstacles, each air traffic control "sector" is divided into smaller "polygons," each with a minimum altitude that is the necessary height above any obstacle within that polygon. The graphic that follows shows the Minimum Vectoring Altitude in the various polygons around BUR. Add two zeros to the numbers to get the altitude (for example: 70=7,000 feet, 28=2,800 feet).



14. What factors are considered when determining the direction (north, east, south and west) for aircraft operations?

FAA responded during the December 5, 2019 Task Force Meeting. PowerPoint Air Traffic 101 Slide 5

i. Runway selection is made by air traffic control base on the following factors:
   1. Wind - Normally out of the east/southeast at approximately 7 knots
   2. Terrain - High terrain to the north and east of BUR
   3. Instrument Flight Procedures - BUR has only an instrument flight procedure developed to Runway 08 arrivals
   4. Other airports and their operating practices – VYN and WHP are in close proximity to BUR and their configurations are similar to BUR

FAA provided a written response dated January 14, 2019

The FAA takes various factors into consideration when determining the landing/take-off direction for aircraft. The primary consideration for runway use is wind velocity and direction. Except under very specific circumstances, aircraft must take-off or land into the wind. Individual aircraft performance capabilities and weight may also dictate the direction of departure/arrival. Terrain and obstacle clearance are primary considerations for departure procedure development. The climb gradient(s) needed to provide a safe clearance distance from the ground and obstacles may also dictate the direction of operations to ensure safety of flight. Lastly, the direction/flow of other airports in the area is a consideration.

15. Which entities provide ATC services from departure until an aircraft reaches its cruising altitude and at what point(s) is that guidance transferred from one entity to another?

FAA responded during the December 4, 2019 Task Force Meeting. PowerPoint Air Traffic 101 Slide 2, Slide 8, Slide 10, and Slide 18.

i. Before an aircraft begins their journey with air traffic control and Prior to departure, the airline/pilot will file a flight plan. The items used to determine which route to fly are: fuel, traffic patterns, weather (between their departing and destination airports) and required routes (these are in an out of major metropolitan airports such as New York or Los Angeles).
ii. Once the aircrew is ready to departure, they will contact the Tower.
   1. The first air traffic controller they will speak to at the tower is clearance delivery. Clearance delivery approves or changes the route the aircraft or pilot has filed to their destination.
   2. Next they will talk to the ground controller. This controller will issue pushback instructions, taxi the aircraft to and from the gate and sequence departures as they taxi out for departure.
   3. The local controller's primary function is to ensure the runway is clear. They also work overflights in the airspace that is designated to them.
iii. Once the flight is airborne and turned to the 210 heading it is turned over to the approach control, which for BUR is the Southern California Terminal Radar Approach Control (TRACON). Southern California TRACON (SCT) handles airspace up to 23,000 feet.
iv. After SCT turns aircraft on course, the aircraft works with Los Angeles Center. They provide safe passage at altitude to your destination.
v. In reverse SCT will sequence arrivals, hand them off to the tower, the tower will ensure there is a clear runway and taxi the aircraft to the gate.

FAA provided a written response dated January 14, 2019

Depending on the complexity and demand on the local airspace, there may be several air traffic facilities with which flight crews will communicate. The transfer of control and communications is coordinated at a set point, or on an individual basis, to ensure the safest and most efficient control of that aircraft. For aircraft that depart BUR, pilots communicate with several different operating positions in the BUR Airport Traffic Control Tower (ATCT), the Southern California Terminal Radar Approach Control facility, and the Los Angeles Air Route Traffic Control Center. This "flow" of

communications is the same for aircraft departing VNY, except that flight crews communicate with VNY ATCT instead of BUR ATCT.
Please refer to the following link for additional information:
https://www.faa.gov/air_traffic/community_involvement/bur/media/BUR_ATC_101_Briefing_December_4.pdf.

16. **Can the FAA, local ATC or an airport dictate that aircraft operators not use autopilot, and if so, what if any safety concerns are presented?**

FAA provided a written response dated January 14, 2019

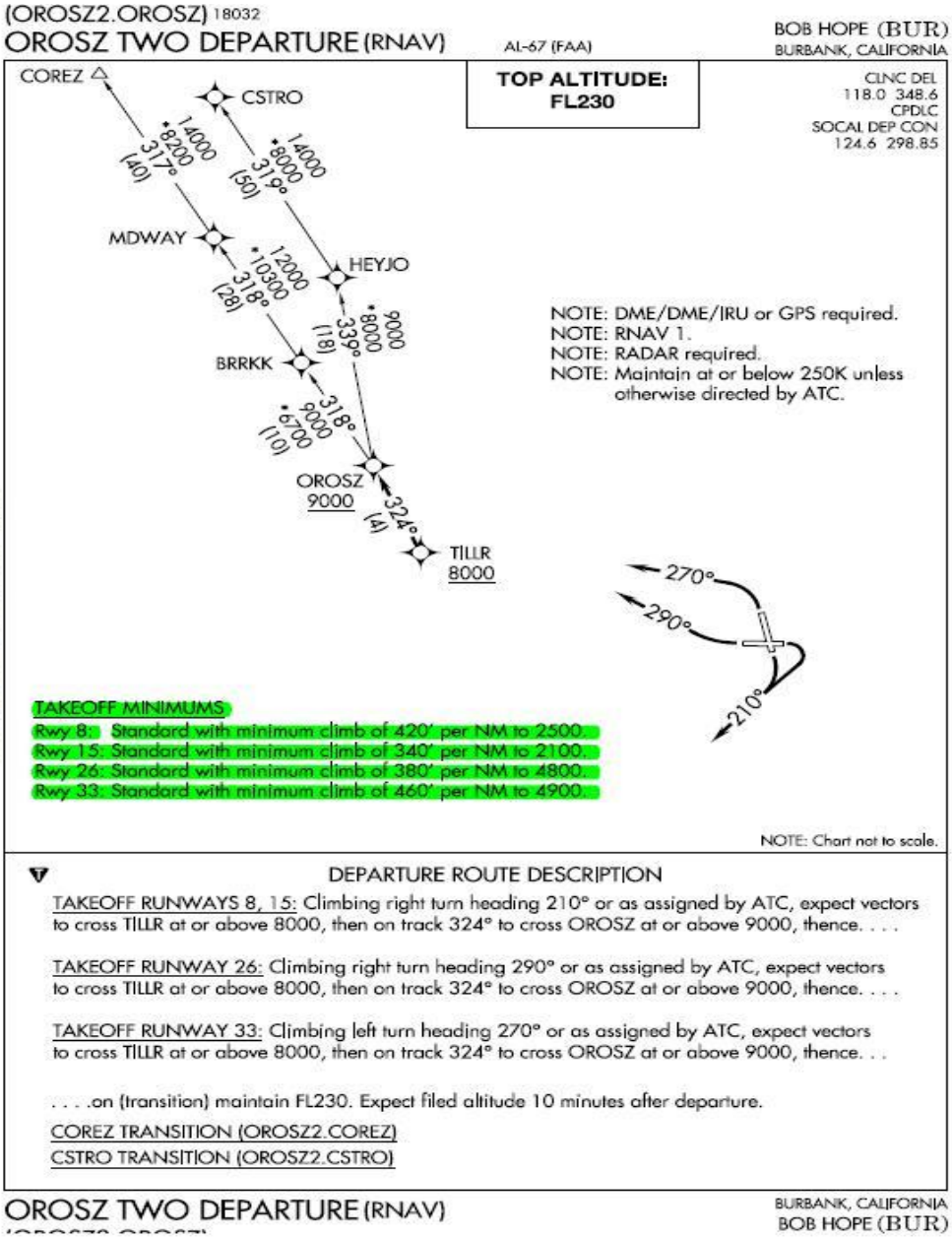
For normal flight procedures and operations, the FAA does not dictate or require specific means for how aircraft operators control aircraft. The decision to use any flight control system, including autopilot, is at the sole discretion of each carrier's directives and the pilot in command of each aircraft. If necessary to maintain the safety of flight, air traffic controllers can issue immediate control actions such immediate climbs, descents, turns, or vectors.

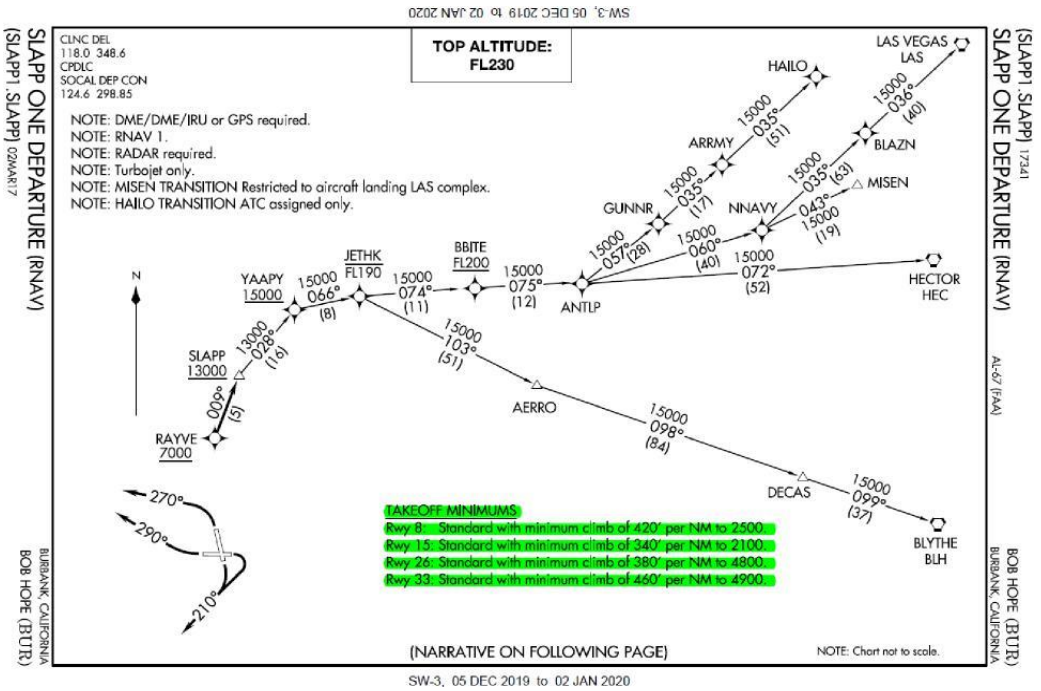
17. **What is the standard climb rate for aircraft taking-off? Is there a policy at the FAA for climbing at a certain rate? Do airlines have a choice in climb rate or do they follow the direction of ATC? Are there any restrictions that would prevent the FAA from increasing the minimum climb rate? Where does the abilities to affect aircraft climb procedures fall? Does heat, weight, and/or season affect the climb rate and altitude?**

FAA provided a written response dated January 14, 2019

i. What is the standard climb rate for aircraft taking off?

It is important to note that the rate at which an aircraft climbs is different than the gradient, and is variable based on the speed of the aircraft. There is no standard climb rate. Per FAA Order 8260.3, the standard climb gradient for departures procedures is 200 feet per NM, although most aircraft are able to meet a steeper climb gradient. The material highlighted in green in the following graphics show the climb gradients for the SLAAP and OROSZ departure procedures.


(OROSZ2.OROSZ) 18032
OROSZ TWO DEPARTURE (RNAV)
AL-67 (FAA)
BOB HOPE (BUR)
BURBANK, CALIFORNIA
TOP ALTITUDE: FL230
CLNC DEL 118.0 348.6 CPDLC
SOCAL DEP CON 124.6 298.85
COREZ
CSTRO
MDWAY
HEYJO
BRRKK
OROSZ 9000
TILLR 8000
14000 *8200 317° (40)
14000 *8000 319° (50)
12000 *10300 318° (28)
9000 *8000 339° (18)
9000 *6700 318° (10)
324° (4)
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: Maintain at or below 250K unless otherwise directed by ATC.
270°
290°
210°
TAKEOFF MINIMUMS
Rwy 8: Standard with minimum climb of 420' per NM to 2500.
Rwy 15: Standard with minimum climb of 340' per NM to 2100.
Rwy 26: Standard with minimum climb of 380' per NM to 4800.
Rwy 33: Standard with minimum climb of 460' per NM to 4900.
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAYS 8, 15: Climbing right turn heading 210° or as assigned by ATC, expect vectors to cross TILLR at or above 8000, then on track 324° to cross OROSZ at or above 9000, thence. . . .
TAKEOFF RUNWAY 26: Climbing right turn heading 290° or as assigned by ATC, expect vectors to cross TILLR at or above 8000, then on track 324° to cross OROSZ at or above 9000, thence. . . .
TAKEOFF RUNWAY 33: Climbing left turn heading 270° or as assigned by ATC, expect vectors to cross TILLR at or above 8000, then on track 324° to cross OROSZ at or above 9000, thence. . .
. . . .on (transition) maintain FL230. Expect filed altitude 10 minutes after departure.
COREZ TRANSITION (OROSZ2.COREZ)
CSTRO TRANSITION (OROSZ2.CSTRO)
OROSZ TWO DEPARTURE (RNAV)
BURBANK, CALIFORNIA
BOB HOPE (BUR)
SW-3, 05 DEC 2019 to 02 JAN 2020
SW-3, 05 DEC 2019 to 02 JAN 2020



SW-3, 05 DEC 2019 to 02 JAN 2020

ii. Is there a policy at the FAA for climbing at a certain rate?

There is no FAA policy for climb rates, but FAA Order 8260.3 sets climb gradient standards for procedure development. Per this order, climb gradients above 200 feet per NM require additional justification. Gradients in excess of 500 feet per NM require special approval, known as a waiver, as they become a "nonstandard Instrument Flight Procedure (IFP)." Every effort must be made to formulate IFPs in accordance with the standards contained in FAA Order 8260.3. However, obstacles, navigation information, or traffic congestion may require special consideration where justified by operational requirements. In such cases, nonstandard IFPs that deviate from these criteria may be allowed, provided they are documented, approved, and an equivalent level of safety exists.

iii. Do airlines have a choice in climb rate or do they follow the direction of ATC?

Pilots may climb at any rate they determine safe provided it meets the minimum climb gradient and ATC clearance. Pilots, regardless of the type of aircraft they operate, must follow all ATC directions, including compliance with the lateral and vertical requirements of assigned IFPs. Regarding this specific question, the pilot in command of each aircraft can elect to fly at any climb rate that he/she determines is safe and appropriate for his/her flight/aircraft, provided it meets the minimum climb gradient of the assigned IFP.

iv. Are there any restrictions that would prevent the FAA from increasing the minimum climb rate?

As noted in response to 17 i), the rate at which aircraft climbs is different from the climb gradient, and is variable based on the speed of aircraft. There is no FAA policy for climb rates, but FAA Order 8260.3 sets climb gradient standards for procedure development. FAA Order 8260.3 outlines requirements and restrictions on climb gradient determinations when designing IFPs. The FAA does not dictate specific climb rates to aircraft flight IFPs; these are determined by many variables (e.g., aircraft speed and weight, angle of climb, temperature), and are a result of the pilot's control of the aircraft to meet the required climb gradient of the procedures. Again, every effort must be made to formulate IFPs in accordance with these standards (those contained in FAA Order 8260.3); however, obstacles, navigation information, or traffic congestion may require special consideration where justified by operational requirements. In such cases, nonstandard IFPs that deviate from these criteria may be approved, provided they are documented and an equivalent level of safety exists.

v. Where does the abilities to affect aircraft climb procedures fail?

The pilot in command has the sole discretion in determining how to fly the aircraft in compliance with the assigned IFP. FAA Order 8260.3 outlines specific requirements as to how IFPs are designed.

vi. Does heat, weight and/or season affect aircraft climb rate and altitude?

Yes, heat (air temperature), weight, and seasonal changes in temperature are several of the factors that may affect the performance of an aircraft (including climb). To adjust for these factors, additional thrust (power) from aircraft engines may be required.

18. At what point can a plane initiate a turn after departure? Does climate have an impact on aircraft turning radius? Does the point change seasonally? What are the reasons that flights are not all turning before crossing the 101 Freeway?

FAA partially responded during the December 4, 2019. PowerPoint Presentation Air Traffic 101 Slide 16.

i. The vast majority of BUR Runway 15 departures must, for safety reasons, fly south of the 101 Freeway before turning west. This has been the case for decades.
ii. FAA rules require aircraft to be at last three nautical miles apart in the airspace around airports.
iii. The final approach from the west to BUR Runway 08 is three miles north of the 101 Freeway. Therefore, departing aircraft generally must fly south of the 101 Freeway before turning west to remain at least three nautical miles from the BUR Runway 08 arrivals.
iv. Aircraft are turned as soon as a controller can safely turn the aircraft.

FAA provided a written response dated January 14, 2019

i. At what point can a plane initiate a turn after departure?

Speaking generally, the point at which an aircraft turns after departure is dictated by either a published departure procedure or a specific instruction from ATC. For a published procedure, the establishment of the turn point must meet all applicable procedure design criteria. If that turn is a specific and/or dynamic instruction from ATC, it is at the sole discretion of the pilot to safely, and without undue delay, comply with that control instruction. This altitude is at least 400 feet (for conventional procedures) or 500 feet (for RNAV procedures) above the ground.

ii. Does climate have an impact on aircraft turning radius?

Speaking generally, in addition to the factors mentioned in the response to question 17 (air temperature, aircraft weight, and seasonal weather changes), wind direction, wind velocity, aircraft velocity, and air density may affect the airborne turning radius.

iii. Does the point change seasonally?

Speaking generally, weather factors – such as air temperature and wind – can affect when aircraft begin their turns.

iv. What are the reasons that flights are not all turning before crossing the 101 Freeway?

Because this question relates to issues raised in pending litigation filed by the City of Los Angeles, the FAA will not answer this question at this time.

19. Which entities (pilots, local ATC, FAA etc.) determine when it is appropriate for southbound departing aircraft to commence a 210-degree turn headed west?

This was addressed by the Southwest Airline pilot at the November 6, 2019 Task Force Meeting.

FAA provided a written response dated January 14, 2019

Because this question relates to issues raised in pending litigation filed by the City of Los Angeles, the FAA will not answer this question at this time.

20. Can aircraft depart BUR to the east? If not, why not?

FAA responded during the December 4, 2019 Task Force Meeting. PowerPoint Presentation Air Traffic 101, slide 6.

i. Aircraft cannot departure Runway 33 for the following reasons:
   1. Runway 33 is uphill and with the wind
   2. It lacks the same airspace protections as the normal configuration due to the airspace surrounding WHP.
   3. Opposite direction of operations at VNY and WHP.
      a. If aircraft departs, Runway 33 it would have to turn west/northwest and that airspace is occupied by VNY arrivals.
   4. Airport layout at BUR
      a. BUR does not have a full-length taxiway that accommodates most departures, so aircraft have to back taxi onto the runway.
   5. Significant increase to controller workload and introduces significant risk to the National Airspace System (NAS).

FAA provided a written response dated January 14, 2019

Departures to the east on Runway 8 are restricted to aircraft weighing less than 12,500 pounds (such as a smaller turboprop aircraft) due to mountainous terrain. Rapidly rising terrain precludes the design of an instrument departure procedure to the east for larger aircraft. Many of the larger aircraft would be unable to meet the climb gradient to safely clear the terrain if they departed to the east.

21. Was any outreach and community engagement conducted prior to the FAA's publication of the proposed SLAPP ONE and OROSZ ONE waypoints?

FAA responded during the November 6, 2019 Task Force Meeting. PowerPoint Slide 9.

i. If this question references the SLAPP ONE and OROSZ ONE procedures that were part of the SoCal Metroplex project: the FAA conducted extensive outreach for the Metroplex project. The FAA implemented the SLAAP ONE and OROSZ ONE on March 2, 2017. The satellite-based route segments begin 11 nautical miles north, and 17 nautical miles northwest, of Hollywood Burbank airport. The FAA did not change how it handles Burbank departures in the immediate airport environment.
ii. If this question references the proposed amendments to the existing SLAAP and PRPSZ routes: the FAA on Nov. 7 and Nov. 8, 2018 held two heavily-attended public workshops about the proposed route amendments. The FAA is conducting an Environmental assessment on the proposed amendments.

FAA provided a written response dated January 14, 2019

The SLAPP ONE and OROSZ ONE procedures were part of the SoCal Metroplex project; the FAA conducted extensive outreach for the Metroplex project.

22. Have the FAA's proposed SLAPP ONE and OROSZ ONE waypoints for airplanes departing Hollywood Burbank Airport been implemented?

FAA provided a written response dated January 14, 2019

The FAA implemented the SLAPP ONE and OROSZ ONE on March 2, 2017. The satellite-based route segments begin 11 nautical miles (NM) north, and 17 NM northwest, of BUR.

23. How were the locations of the FAA's proposed SLAPP ONE and OROSZ ONE waypoints for airplanes departing Hollywood Burbank Airport decided on?

FAA provided a written response dated January 14, 2019

Waypoint location considerations include, though are not limited to: type of aircraft, aircraft characteristics, procedure design criteria, environmental issues, and adjacent airports.

24. How was the location of the Metroplex PPRRY waypoint for airplanes departing Van Nuys Airport determined?

FAA provided a written response dated January 14, 2019

The PPRRY waypoint was not implemented as part of the SoCal Metroplex project. However, Los Angeles World Airports (LAWA) determined that procedures implemented at VNY caused aircraft to turn earlier than what was prescribed in the VNY noise abatement procedures. In response, the FAA created the PPRRY waypoint as close as design criteria would allow – to where aircraft were previously turning – without violating minimum RNAV segment lengths.

25. Why did the FAA publish a new FATKO waypoint in 2017? Did the new FATKO waypoint provide the results expected?

FAA provided a written response dated January 14, 2019

The original procedure designs proposed for VNY, in the SoCal Metroplex project, included a specific turn and altitude at a waypoint near the current PPRRY. However, a Procedure Review Board determined these were not acceptable designs. The Procedure Review Board did approve a design that, by placing the FATKO waypoint directly over the south end of the runway, allowed for vectoring almost immediately after departure. FATKO worked as it was intended; however, LAWA determined that this allowed aircraft to turn earlier than what was prescribed in the VNY noise abatement procedures. In response, the FAA created the PPRRY waypoint as close as design criteria would allow – to where aircraft were previously turning – without violating minimum RNAV segment lengths.

Questions/Request for Information to the FAA That May Require Analysis/Research

The FAA may require additional time to respond to the following questions as some research may be required for response:

1. **Can the FAA provide a presentation on the airspace prior to and after the implementation of the SoCal Metroplex in and around the Southern San Fernando Valley, including the interactions with other nearby airports?**

   FAA provided a written response dated January 14, 2019

   > The FAA presented this information at the Southern San Fernando Valley Airplane Noise Task Force meeting on December 4, 2019. Please see the December 9 update on the following website: https://www.faa.gov/air_traffic/community_involvement/bur/.

2. **What are the limiting factors in turning aircraft onto the 210-degree heading sooner after departing Runway 15?**

   FAA provided a written response dated January 14, 2019

   > Because this question relates to issues raised in pending litigation filed by the City of Los Angeles, the FAA will not answer this question at this time.

3. **Explain exactly what happens between liftoff and 3000' and if you could explain all the different protocols associated with all the vectoring.**

   FAA provided a written response dated January 14, 2019

   > Because this question relates to issues raised in pending litigation filed by the City of Los Angeles, the FAA will not answer this question at this time.

4. **Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously? If so, why is that the case? (Note: The FAA may want to wait until HMMH responds to the first question before responding.)**

   FAA responded during the December 4, 2019 Task Force Meeting. PowerPoint Presentation San Fernando Valley Task Force Briefing, slide 2, slide 3, slide 4 and slide 5.

   i. The FAA looked at BUR departures on the third Thursday of August in 2014 and 2019.
   ii. August 21, 2014 there were a total of 91 departures, 46 aircraft turned north and 45 aircraft turned south of the TURN AVG 2014 point.
   iii. August 15, 2019 there were a total of 151 departures, 76 aircraft turned north and 75 aircraft turned south of the TURN AVG 2019 point.
   iv. The distance between the TURN AVG 2014 point and TURN AVG 2019 point is 0.33 miles. The 2019 aircraft are turning 0.33 miles further south on the average than the 2014 aircraft.
   v. This data is only for one day, FAA can certainly do additional analysis in this area. It will take a while because of all the data the FAA needs to compile.

   FAA provided a written response dated January 14, 2019

   > Because this question relates to issues raised in pending litigation filed by the City of Los Angeles, the FAA will not answer this question at this time.

5. **Our office has been told by VNY that the FAA states that aircraft are actually at a higher altitude now than they were before the Metroplex changes, could the FAA please confirm or deny this statement?**

   FAA responded during the December 4, 2019 Task Force Meeting. PowerPoint Presentation San Fernando Valley Task Force Briefing, slide 6 and slide 7.

   i. The FAA selected four locations under the BUR departure path to compare pre- and post-Metroplex altitudes.

ii. Post-Metroplex average altitudes are higher than pre-Metroplex average altitudes over each of the four points.
iii. The FAA found the exact same aircraft flying a very similar route from pre- and post-Metroplex to compare the departure altitude.
iv. The FAA found a B737 aircraft departure track in 2014 and 2019 that came very close to each other as far as the track profile.
v. Through the entirety of the track profile, the 2019 flight track was higher. This was only a one on one track comparison.

FAA provided a written response dated January 14, 2019

Please provide more specific information so the FAA can respond to this inquiry.

6. **A joint analysis team was deployed in 2018 for Southern California. Is there any updated when we can get the cost/benefit analysis new information from the joint analysis team when they are looking specifically at the southern California region?**

FAA provided a written response dated January 14, 2019

The Joint Analysis Team's methodology was used by the SoCal Metroplex Post Implementation Team to compute the projected annual benefits of $8.8 million for implementation of the SoCal Metroplex (see https://www.faa.gov/nextgen/snapshots/metroplexes/index.cfm?locationId=18&pdf).

The Joint Analysis Team is not conducting any additional cost/benefit analysis for the SoCal region beyond the SoCal Metroplex Post Implementation Team's analysis.

Questions/Request for Information to HMMH

1. **Are maps available showing flight paths/routes for pre- and post-Metroplex implementation?**

   HMMH responded via its presentation at the November 6, 2019 Task Force meeting[1]. Please see the flight track plots within the presentation that depict arrivals and departures out of Hollywood Burbank airport using complete years of radar flight track data from 2010 through 2018. Additional flight track plots will be provided during a presentation at the February 19, 2020 Task Force meeting.

2. **Are departing aircraft starting their initial turn from Runway 15 at Hollywood Burbank Airport later than they did previously?**

   HMMH responded via its presentation at the November 6, 2019 Task Force meeting[2]. Please see the flight track plots within the presentation that depict arrivals and departures out of Hollywood Burbank airport using complete years of radar flight track data from 2010 through 2018. The radar flight track data shows that aircraft are turning onto the 210-degree heading as they have historical done and the "initial turn" is not occurring any later. However, the turn off of the 210-degree heading is occurring approximately 1 nautical mile further down the flight path in 2018 as compared to 2010. Additional flight track plots will be provided during a presentation at the February 19, 2020 Task Force meeting.

3. **Would we be able to get data from May 2018 to now? (Particularly data from July/August 2018 - July/August 2019 as many constituents report a dramatic shift in flights during this time period.)**

   HMMH responded via its presentation at the November 6, 2019 Task Force meeting. Please see the flight track plots within the presentation that depict arrivals and departures out of Hollywood Burbank airport using complete years of radar flight track data from 2010 through 2018. HMMH has requested 2019 from Hollywood Burbank Airport. Additional flight track plots with that updated data will be provided during a presentation at the February 19, 2020 Task Force meeting.

4. **Do any airplanes departing or landing at Van Nuys Airport continue to use conventional navigation and pre-Metroplex procedures, and if so, what percentage of flights continue to do so?**

   Aircraft are continuing to be equipped to fly NextGen procedures, but it will be some time before the integration is complete. It is currently difficult to determine the percentage of flights using NextGen procedures.

5. **If a change were made to the minimum rate of climb, would there be any restrictions pursuant to the Airport Noise and Capacity Act of 1990?**

   If a change to the minimum rate of climb resulted in aircraft no longer being able to operate at an airport or to operate at a lower weight at an airport, this would trigger an Aircraft Noise and Access Restriction study per Title 14 of the Code of Federal Regulations Part 161 as required through the Airport Noise and Capacity Act (ANCA) of 1990.

6. **Is there a correlation between the climate and flight altitudes and flight patterns at BUR?**

   HMMH responded via its presentation at the November 6, 2019 Task Force meeting. As temperature and altitude increase, air density increased. Therefore, on a hot and humid day, aircraft will accelerate slower and will gain altitude slower. As a result, flight paths may be altered to allow additional time to gain altitude before turning to the next fix (navigational aid).

7. **If the FedEx and UPS jets are too big and heavy to get out of BUR without flying over the Santa Monica Mountains, then shouldn't they be forced to use a more accommodating airport like LAX or Ontario?**

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[1] http://hollywoodburbankairport.com/wp-content/uploads/2019/11/HMMH-BUR_JointStakeholdersTaskforce_Meeting3_HMMH_Presentation.pdf

[2] http://hollywoodburbankairport.com/wp-content/uploads/2019/11/HMMH-BUR_JointStakeholdersTaskforce_Meeting3_HMMH_Presentation.pdf

Each runway at an airport has a limiting design aircraft for which it constructed and maintained. Aircraft operators must abide by the design limits of the runway in which they are operating. To modify the design criteria that results in limiting aircraft for noise purposes would trigger an Aircraft Noise and Access Restriction study per Title 14 of the Code of Federal Regulations Part 161 as required through the Airport Noise and Capacity Act (ANCA) of 1990.

8. **Will the FAA continue to push airlines to introduce quieter engines similar to the 737 MAX 8?**
On January 1, 2018, the FAA required newly designed aircraft to meet ICAO Chapter 14 (Stage 5 in the U.S.), which will help continue to reduce aircraft noise for aircraft being manufactured after January 1, 2018. Called "Stage 5 Airplane Noise Standards," this FAA rule ensures that the latest available noise reduction technology is incorporated into new aircraft designs. As a result, new airplane type designs in the subsonic jet airplanes and subsonic transport category large airplanes will operate at least 7 decibels (dBs) quieter than airplanes in the current fleet.

   The FAA is committed to reducing aircraft noise through a "balanced approach" through the reduction of noise at its source (i.e., the aircraft); improved land use planning around airports; and, a wider use of aircraft operating procedures and restrictions that abate noise.

9. **What topographical considerations factor into increased airport / airplane noise and do the Santa Monica Mountains possess a topography that would account for increased decibel levels?**

   HMMH responded via its presentation at the November 6, 2019 Task Force meeting. Overall, terrain will not result in a noticeable increase in noise level except for the decreased distance from the receiver on a hill to the flight path. Terrain may have three effects on sound propagation. An observer on a hill is higher and closer to an aircraft than if on flat terrain. Terrain can also act as a sound barrier that can shield and/or reflect the noise.

   When an aircraft is directly overhead, the sound experienced by an observer is largely only affected by weather conditions. However, when the aircraft is at a lower elevation angle, the sound experienced by an observer is the sum of the sound that travels in a straight line from the aircraft and the sound reflected off of the ground (including terrain).

   A person may experience an effect where you think you hear an aircraft in one direction, but it is really coming from a different direction due to the aircraft noise being reflected off a nearby surface (terrain could act as a reflecting surface). Once the observer has line-of-sight to the aircraft, the observer will hear more direct noise than reflected noise. The reflected noise may produce longer durations of aircraft noise events. Direct noise will always be higher in level than reflected noise unless the observer is adjacent (within a couple of feet) to the reflecting surface.

10. **What specific laws prevent curfews from being mandatory?**

    The Airport Noise and Capacity Act (ANCA) of 1990.

11. **Is there any way to informally promote these voluntary curfews to companies, primarily companies that charter private jets?**

    Voluntary curfews can be implemented via Part 150, Part 161 or working with the aircraft operators to accommodate the airport voluntary curfews. For example, San Francisco International Airport was conducting a Part 161 study to retire Stage 2 aircraft prior to the government phase out. While the Part 161 study was not completed, the process resulted in the aircraft operators agreeing to phase out their Stage 2 fleet from SFO before the government mandate. Similarly, curfews can be worked out with the operators because ultimately the success of the voluntary curfews rely on compliance by the aircraft operators.

Questions/Request for Information to Hollywood Burbank Airport

1. **For the proposed Hollywood Burbank Airport replacement terminal, what is the aircraft traffic baseline (base year, number of flights, types of aircraft, etc.) and the same information with the replacement terminal built that are being used for the NEPA study? How do these numbers compare with what is occurring today?**

   Hollywood Burbank Airport responded via written response. The FAA is currently conducting the Environmental Impact Statement under NEPA and therefore this question should be directed towards them.

2. **Has shortening Runway 15 at Hollywood Burbank Airport been proposed to the FAA in the past, and if so, was that presented for noise abatement reasons and what was the FAA's response?**

   Hollywood Burbank Airport responded via written response. Shortening Runway 15 was presented by previous airport management as part of a method of meeting airport design standards, not as noise abatement. The interpretation of those standards by the airport was incorrect.

3. **What are the current voluntary curfew guidelines for BUR?**

   Hollywood Burbank Airport responded via written response. The voluntary curfew is applicable to scheduling of air carrier operations. Air Carriers are requested not to schedule arrivals or departures between the hours of 10 p.m. and 7 a.m.

Questions/Request for Information to Van Nuys Airport

1. **What are the current voluntary curfew guidelines for VNY?**

   Van Nuys Airport responded via written response. Although VNY does not have a voluntary curfew program, it does operate under a Noise Abatement and Curfew Regulation that includes a mandatory nighttime departure curfew for noisier jet aircraft. Between the hours of 10 p.m. and 7 a.m., jet aircraft with noise levels exceeding 74.0 dBA, as per Advisory Circular 36-3H, are restricted from departing VNY. Between 10 p.m. and 11 p.m., the departure curfew does not affect Stage III aircraft. Arriving aircraft have no restrictions. Exceptions include: helicopter operations, active military and any government owned and operated aircraft used in law enforcement, emergency, and/or fire rescue operations; and aircraft engaged in medical or life-saving emergency flights.

Questions/Request for Information to Hollywood Burbank and Van Nuys Airports

1. **What role do airports play in determining when airplanes take off and land, in determining the number of frequency of takeoffs and landings at a particular airport, in determining the departure route of individual flights, and the time of day for takeoffs and landings?**

   Hollywood Burbank Airport responded via written response. Airports do not dictate time of individual aircraft operations, publish navigation procedures, provide aircraft separation, or manage airspace. Some airports include restrictions or prohibitions on certain types of operations or the hours of the day for operations to take place. These prohibitions may be mandatory or voluntary. Mandatory restrictions or prohibitions were typically in place prior to the Airport Noise and Capacity Act of 1990, which prohibits airport or municipalities from enacting local rules or ordinances that implement mandatory restriction on aircraft operations.

   Van Nuys Airport responded via written response. VNY plays a primary role in implementing aircraft ground procedures pertaining to noise abatement, such as imposing restrictions on engine run-up locations and times. VNY also recommends noise abatement operational procedures in support of voluntary programs such as The Quiet Jet Departure Program established in 1994. Under this program, pilots agree to use established noise abatement techniques to decrease noise in the communities south of and closest to, the airport. The Quiet Jet Departure Program serves as the cornerstone for the annual Friendly Flyer Awards Program launched in 2012 to recognize jet operators who achieve a 99 percent or

greater compliance with all voluntary noise abatement programs and full compliance with all mandatory noise abatement policies. Last year alone, VNY honored 40 jet operators for achieving these goals. VNY does not have a role in determining departure routes.

2. **What factors are considered when determining the direction (north, east, south and west) for runway construction?**

   Hollywood Burbank Airport responded via written response. The determination of the direction of a runway prior to construction is a combination of prevailing wind conditions, land availability, and land use.

   Van Nuys Airport responded via written response. Runways are built to align with wind patterns specific to each airport. VNY has two parallel north/south runways that were constructed according to prevailing winds.

3. **What is the feasibility of deploying our own noise monitors to areas?**

   Hollywood Burbank Airport responded via written response. Noise monitoring is a component of an overall noise study, typically conducted as per FAR Part 150. Noise studies model noise contours which define the Day/Night Noise Equivalency Levels surrounding an airport. These noise contours are used in a Part 150 study to determine the areas eligible for residential sound insulation programs. Noise monitors are used to confirm the accuracy of the noise contours, and so are located in those areas. It is generally found that the actual measurements are lower than the modeled levels as impediments to sound such as structures are not accounted for in the modeling.

   Van Nuys Airport Responded via written response. WNY has seven permanent/fixed noise monitors located in communities surrounding VNY in order to determine the location of the Noise Impact Boundary (annual 65 dB CNEL contour) per California Airport Noise Standards (CCR Title 21). These noise monitors encompass the noise impact boundary and are located in an area bound by Parthenia Street to the north, Sepulveda Basin to the south, Balboa Boulevard to the west and Haskell Avenue to the east.

4. **Does the FAA, Hollywood Burbank Airport and/or Van Nuys Airport have the authority and funding available to conduct noise monitoring in the impacted neighborhoods south of the two airports?**

   Hollywood Burbank Airport responded via written response. A Part 150 Noise Study analyzes the noise generated by an individual airport. Particularly busy airspace areas like the San Fernando Valley, aircraft overflights beyond the immediate environment of each airport will be the result of aircraft arriving or departing from multiple airports and aircraft transitioning in the area enroute to other destinations. As such, if modeling and monitoring were hypothetically preformed and an area beyond the immediate environment of any individual airport was determine to be within the 65 DNL (CNEL in the State of California) and therefore eligible for inclusion in a residential sound insulation program, it would likely be the case of that municipality in which the area reside would be the sponsor for the application for Federal funds through the Airport Involvement Program.

   Van Nuys Airport Responded via written response. Currently, VNY does not have the resources or funding to conduct noise monitoring in neighborhoods outside the noise impact boundary. The neighborhoods farther sound of VNY (south of the 101 Freeway) are well outside the state-defined noise impact boundary and measuring aircraft noise in those communities will not demonstrate any new “impact” as defined by the state or federal policies.

5. **What are the parameters by which Van Nuys Airport, Hollywood Burbank Airport and the FAA conducts airplane / airport noise monitoring?**

   Hollywood Burbank Airport responded via written response. Airports in the United States conduct airport noise compatibility planning under the guidance of Part 150 under Title 14 of the Code of Federal Regulations.

   Van Nuys Airport responded via written response. As noted earlier, VNY complies with CA Airport Noise Standards (CCR Title 21), which provides specific requirements for airports that are declared by their

respective county as having a "noise problem" to measure aircraft noise and prepare noise contour maps and other required operational information for submittal each quarter to the County wherein the airport is located, and to the State. In 2012, the Sate acknowledged that VNY no longer had a noise impact area due to the sound insulation of eligible homes within the noise impact boundary. VNY has been measuring and reporting the aircraft noise levels since the 1970's and continues to do so each quarter as available on the following website: *https://www.lawa.org/en/lawa-environment/noise-management/van-nuys/vny---quarterly-noise-report*