

HMMH

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MEMORANDUM

To: Patrick Lammerding
Deputy Executive Director
Hollywood Burbank Airport

From: Gene Reindel, Task Force Facilitator

Date: December 12, 2019

Subject: Task Force Member Questions - September 2019 - Revised

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 the questions submitted in a memo provided to you in a letter dated September 27, 2019.



For this memorandum, HMMH sorted, combined and modified the questions as deemed appropriate. Please review the questions below and forward to the proper entity to obtain responses. Some FAA responses, as noted below, are expected to have relatively short response time while others will require more in-depth analysis and/or research to properly respond and take additional time to prepare the responses. We suggest all quick turnaround responses be provided at the third Task Force meeting while the others be provided as soon as possible, but no later than the fifth meeting as the Task Force will need to have the responses in order to prepare recommended changes to the FAA for their consideration.

The remainder of this memorandum provides the questions organized by the expected entity required to respond. 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:

- = 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

The logo consists of the lowercase letters 'hmmh' in a white, cursive-style font, set against a solid red rectangular background.

restrictions that would prevent the FAA from increasing the minimum climb rate? Where do 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 be 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.

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?**

No response to date.

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.

- i. 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 Meterplex website at: http://www.metroplexenvironmental.comsocial_metroplex/social_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.

- i. 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.



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.

- i. 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.

- 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.

- i. 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.



- 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.

- i. 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.

- 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.

- i. 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.

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 conducive to implementing routes on a test of 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?



No response to date.

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?

No response to date.

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.

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 least 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.

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



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.

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?

No response to date.

- 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?**

No response to date.

- 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 least 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.



- 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?**

No response to date, but was addressed by the Southwest Airline pilot at the November 6, 2019 Task Force Meeting.

- 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).

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 SLAPP 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 SLAPP 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.

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

No response to date.



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

No response to date.

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

No response to date.

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

No response to date.

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?**

No response to date.

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

No response to date.

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

No response to date.



- 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.

- The FAA looked at BUR departures on the third Thursday of August in 2014 and 2019.
- 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.
- 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.
- 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.
- 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.

- 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.

- The FAA selected four locations under the BUR departure path to compare pre- and post-Metroplex altitudes.
- Post-Metroplex average altitudes are higher than pre-Metroplex average altitudes over each of the four points.
- The FAA found the exact same aircraft flying a very similar route from pre- and post-Metroplex to compare the departure altitude.
- 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.
- Through the entirety of the track profile, the 2019 flight track was higher. This was only a one on one track comparison.

- 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?**

No response to date.

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 meeting¹. 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.

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 meeting². 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 historically 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.

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 and once obtained, will provide updated information.

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?

No response to date.

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?

No response to date.

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). HMMH has yet to determine, from the data, whether there is a correlation between temperature, humidity and flight paths.

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?

No response to date.

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

No response to date.



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

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. Once you have line-of-sight to the aircraft, you 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.



10. What specific laws prevent curfews from being mandatory?

No response to date.

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

No response to date.