Agenda

• LAX Roundtable Recommendations
• November 10, 2016 Procedures
• Community Engagement
• Schedule
• Questions/Answers
LAX ROUNDTABLE RECOMMENDATIONS EVALUATED
• A3 - Early turn of aircraft departing to the west (El Segundo / Westchester centric)
  • Criteria does not allow RNAV waypoints to be placed at the shoreline due to close proximity to end of LAX runways
  • The Metroplex LAX RNAV departure procedures have waypoints that are located beyond the shoreline and do not turn prior to that point
    • Exceptions are separation and safety
• A6 - Improperly flown LOOP departures (Beach Cities)
  • The LAX ORCKA RNAV SID was designed to remain away from beach communities
  • Provides positive course guidance
LAX Roundtable Recommendations Evaluated
(2 of 3)

• A10 - Turboprop community overflights (Palos Verdes centric)
  • The largest turboprop operator at LAX was SkyWest Airlines
    • SkyWest retired their Embraer Brasilia fleet in mid-2015
  • LAX turboprop departures over Palos Verdes have fallen by an average of 55%
  • Development of turboprop SID would require Class Bravo airspace redesign
    • Class Bravo airspace changes are regulatory and out of scope for Metroplex projects
  • The LAX JEDDD SID used by turboprop departures has been canceled
    • Turboprop aircraft flying the Seal Beach SID proceed straight out until crossing the shoreline then as assigned by ATC
A11 - Continuous Descent Approaches at Lower Altitudes (La Habra Heights centric)

- La Habra Heights is located in an area where LAX arrivals are being sequenced
- Criteria for glideslope angle is 3 degrees or less
  - LAX glideslopes are at 3 degrees
- Higher altitudes would require interception of LAX glideslope at an unsafe angle
Shifting and Exposing Noise to New Residential Areas
EA Comment (290-01)

(1 of 3)

• LAX Roundtable EA Comments:
  • Shifting noise from one community to another
    • The LAX east flow BIGBR 1 and BRUEN 1 STARS shifted traffic up to 2.3 nautical miles from its current location
  • Exposing new residential areas to overflights
    • The TRTON 1 SID shifted routes towards the beach cities
    • The GARDY1 SID shifted routes to areas that do not experience departure traffic
  • Lowering altitudes over certain communities
  • Creating a concentration of flights over a narrow area when compared over existing conditions
• FAA Response
  • Procedures were designed wherever possible to remain within the existing historical flight tracks
  • Close proximity of LAX to other Metroplex area airports presents design challenges
  • LAX east flow SIDs procedurally separate from LAX arrivals to the east flow runways
  • The BIGBR and BRUEN STARs were designed to establish independent flows between north and south runway complex traffic
    • Reduces ATC and flight deck workload
• FAA Response (cont’d):
  • The LAX TRTON SID procedurally separates traffic from Special Activity Airspace (hazardous military activities)
  • The LAX GARDY SID:
    • Procedurally separates from ONT SIDs and STARs and LAX east flow STARs
    • Establishes a usable procedure to climb over rapidly rising terrain
      • Reduces excessive radar vectors by ATC
Aircraft Flying at Lower Altitudes
EA Comment (290-02)
(1 of 2)

- LAX Roundtable EA Comments:
  - Aircraft on easterly and over ocean operations will fly over CLIFY at 7000 feet when previously they flew at 8000 feet
  - Aircraft will fly 1000 feet lower over Malibu on the LADYJ
Aircraft Flying at Lower Altitudes
EA Comment (290-02)
(2 of 2)

• FAA Response:
  • East operations are utilized less than 5% of the time due to weather phenomenon
  • Aircraft are 1000 feet lower over CLIFY/SMO in LAX east operations for connectivity to the newly design RNP approaches
    • Procedures will be closely monitored and evaluated to determine feasibility of a higher vertical window
  • Created LAX MDNYT STAR serves LAX arrivals from midnight to 6:30 AM
    • MDNYT STAR allows aircraft to fly up to 2000 feet higher
    • MDNYT STAR closely follows the flight tracks of existing procedures
  • Increasing the altitude of the LAX LADYJ SID would create numerous traffic conflicts
Concentration of Flight Paths
EA Comment (290-03)
(1 of 2)

• LAX Roundtable Comments:
  • New RNPs concentrate flights over waypoints such as CLIFY and TRNDO
  • Design Team considered routing aircraft over commercial, industrial, overwater and highway areas where possible
Concentration of Flight Paths
EA Comment (290-03)
(2 of 2)

• FAA Response:
  • Design Team considered routing aircraft over commercial, industrial, overwater and highway areas where possible
  • Each procedure was designed individually and considered the proximity to other procedures
  • Advanced navigation may result in concentration of flight tracks
Making Adjustments to Procedures after Implementation

EA Comment (290-04)

(1 of 2)

• LAX Roundtable Comments:
  • Many people will only notice changes after implementation
  • Consider making adjustments to procedure after implementation
  • The Roundtable would like to work in collaboration with the FAA to identify areas of concern
Making Adjustments to Procedures after Implementation
EA Comment (290-04)
(2 of 2)

• FAA Response:
  • FAA will closely monitor and evaluate the performance of the procedures
  • FAA fully intends to continue to support the LAX Roundtable
Roundtable's September 24, 2012 Recommendations
EA Comment (290-05)
(1 of 2)

• LAX Roundtable Comments:
  • A7: Extended Downwind Approach (Monterey Park centric)
  • A10: Turboprop Community Overflights (Palos Verdes centric)
  • A6: Improperly Flown LOOP Departures (Beach Cities)
  • A3: Early Turn of Aircraft Departing to the West (El Segundo / Westchester centric)
  • A11: Continuous Descent Approaches at Lower Altitudes (La Habra Heights centric)
Roundtable's September 24, 2012 Recommendations
EA Comment (290-05) (2 of 2)

• FAA Response:
  • The FAA received and considered the recommendations during the design process as previously discussed except for A7
  • The Metroplex Design Team developed RNP approaches to the west flow runways at LAX to remain west of I-710
De-confliction of SMO and LAX Departure
EA Comment (290-06)
(1 of 2)

• LAX Roundtable Comment:
  • The Roundtable support the proposed procedures that will de-conflict SMO and LAX
De-confliction of SMO and LAX Departure
EA Comment (290-06)
(2 of 2)

• FAA Response:
  • The Metroplex Design Team developed a SID that reduces reportable
ground delays from SMO Runway 21
Noise Metrics
EA Comment (290-07)
(1 of 2)

• LAX Roundtable Comment:
  • Requests FAA to conduct noise analysis using CNEL since FAA accepts CNEL for airport improvement projects
Noise Metrics
EA Comment (290-07)
(2 of 2)

• FAA Response:
  • CNEL for airport improvement projects accommodates state requirements for airport sponsors
  • SoCal Metroplex is solely an FAA federal project and does not involve local or state agencies
Information Provided in the Draft EA
EA Comment (290-08)
(1 of 2)

• LAX Roundtable Comments:
  • The Draft EA provides insufficient information such as altitudes, waypoints coordinates, number of flights, and RNP/RNAV adoption rates
  • Subsequent information on Google Maps provides additional information but lacks ability to allow specific assessments of impacts
  • The Draft EA does not provide assumptions such as temperature, weather conditions, volume of traffic after 2021, runway configuration, or changing fleet mix
• FAA Response:
  • Noise modeling and methodology met NEPA Requirements
    • Years modeled were 2016 and 2021
  • The Final EA discusses in details assumptions, methodology, temperature, humidity
## SIDs, STARs and Approaches
**November 10, 2106 Implementation**

<table>
<thead>
<tr>
<th>Source Code Desc</th>
<th>Destination Desc</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUR/VNY WEESL ONE STAR (RNAV)</td>
<td>LAX ILS or LOC RWY 07R (Conventional)</td>
</tr>
<tr>
<td>LAX/SMO WAYVE ONE STAR (RNAV)</td>
<td>LAX GPS Y RWY 07R (RNAV)</td>
</tr>
<tr>
<td>LAX ILS or LOC RWY 06R (Conventional)</td>
<td>LAX RNP Z RWY 07R (RNAV)</td>
</tr>
<tr>
<td>LAX GPS Y RWY 06R (RNAV)</td>
<td>LAX ILS or LOC RWY 07L (Conventional)</td>
</tr>
<tr>
<td>LAX GPS Z RWY 06L (RNAV)</td>
<td>LAX GPS Y RWY 07L (RNAV)</td>
</tr>
<tr>
<td>LAX ILS or LOC RWY 06L (Conventional)</td>
<td>LAX RNP Z RWY 07L (RNAV)</td>
</tr>
<tr>
<td>LAX RNP Z RWY 06L (RNAV)</td>
<td>SMO GPS RWY 21 (RNAV)</td>
</tr>
<tr>
<td>LAX GPS Y RWY 06L (RNAV)</td>
<td>SMO VOR-A (Conventional)</td>
</tr>
</tbody>
</table>
LAX/SMO WAYVE ONE STAR (RNAV)

- The current LAX STAR prop STAR is a conventional ground based procedure
- The STAR was designed without vertical navigation due to complex interaction with other SIDs and STARS
- The STAR provides a segregated route from BUR and VNY airports entering the terminal area
- LAX traffic on this procedure are props only
Proposed LAX RNAV (RNP) RWYs 06L/R and 07L/R

- The Design Team developed the east flow RNAV/RNP approach procedures to gain safety & operational efficiencies.
- The LAX east flow STARs and the midnight operations tie into the LAX RNAV/RNP approaches.
## Scheduled Community Engagement

<table>
<thead>
<tr>
<th>Audience</th>
<th>Date and Location</th>
<th>Location/Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUR, ONT, PSP, SBA and VNY</td>
<td>October 17, 2016 6:00-7:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>FUL, LGB, SLI, SNA and TOA</td>
<td>October 17, 2016 8:00-9:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>FUL, LGB, SLI, SNA and TOA</td>
<td>October 18, 2016 6:00-7:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>CRQ, NZY, SAN and SDM</td>
<td>October 18, 2016 8:00-9:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>LAX and SMO</td>
<td>October 20, 2016 6:00-7:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>BUR, ONT, PSP, SBA and VNY</td>
<td>October 20, 2016 8:00-9:15 PM</td>
<td>Webinar</td>
</tr>
<tr>
<td>LAX and SMO</td>
<td>October 25, 2016 6:00-9:00 PM</td>
<td>D.W. Griffith Middle School, 4765 East 4th Street, Los Angeles, CA 90022</td>
</tr>
<tr>
<td>LAX and SMO</td>
<td>October 26, 2016 6:00-9:00 PM</td>
<td>Palms Middle School, 10860 Woodbine St., Los Angeles, CA 90034</td>
</tr>
<tr>
<td>CRQ, NZY, SAN and SDM</td>
<td>October 27, 2016 6:00-9:00 PM</td>
<td>Liberty Station-Corky McMillin Event Center, 2875 Dewey Rd., San Diego, CA 92106</td>
</tr>
<tr>
<td>CRQ, NZY, SAN and SDM</td>
<td>November 1, 2016 6:00-9:00 PM</td>
<td>La Presa Middle School, 1001 Leland St., Spring Valley, CA 91977</td>
</tr>
<tr>
<td>FUL, LGB, SLI, SNA and TOA</td>
<td>November 2, 2016 6:00-9:00 PM</td>
<td>El Modena High School, 3920 E. Spring Street, Orange, CA 92869</td>
</tr>
</tbody>
</table>
Our Commitments

• To partner with our local airports and aviation teams to adhere to established noise abatement policies

• To update the community on changes the Metroplex project is making to the airspace
  • To make the images from this presentation available on the web and in other mobile applications
    • Metroplex Environmental Website
Your Support

• We are hoping you can support FAA where possible
• After implementation and beyond the project's lifetime, FAA will continue to work with you to address concerns
  • Roundtable or Noise Forum
Thank you!