

Los Angeles Noise Mitigation



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FedEx Express Fleet Check Airman
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FedEx Express

-FedEx Is committed to reducing NOISE and carbon footprint for both air and ground operations.



How does FedEx Express Mitigate Noise in L.A.?

- All flight operations procedures for ground ops, takeoff, departure, arrival and taxi-in are tailored to **minimize** noise while reducing emissions.
- Pilots going through initial training, recurrent training and checking events are briefed and evaluated on compliance with noise-reduction initiatives and procedures. Compliance is mandatory.



Modern Aircraft

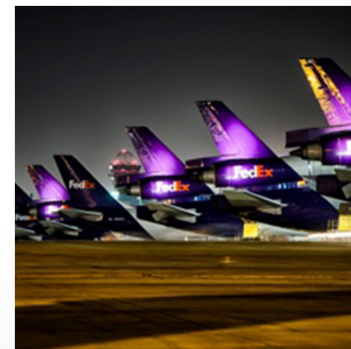
- Older aircraft, such as the Boeing 727 have been phased out; the complete fleet is now ICAO Stage 3 or the more stringent Stage 4 Noise compliant aircraft, like this brand-new B-777. All our new aircraft are twin-engine, B-757, B-767, B-777.



Newer Aircraft

Twin engine fuel thriftiness, less noise and less carbon footprint for the same payload of some of our older (1992 generation) aircraft. Our brand-new B-777 and B-767 freighters have some of the most advanced and fuel efficient engines on the market today.

- As our older MD-10 freighters (three engine ICAO Stage 3 noise compliant) are phased out, they are replaced with brand-new B-767 freighters. These MD-10's currently are in use daily here in Los Angeles.



Ground/Taxi Noise-Reduction Initiatives

- Each of our aircraft here in Los Angeles, at every gate, is attached to electrical ground power rather than using the onboard APU (auxiliary power unit) until the power must be removed to push back the aircraft for engine start. No noise.



Ground Power



Start and Taxi-out...

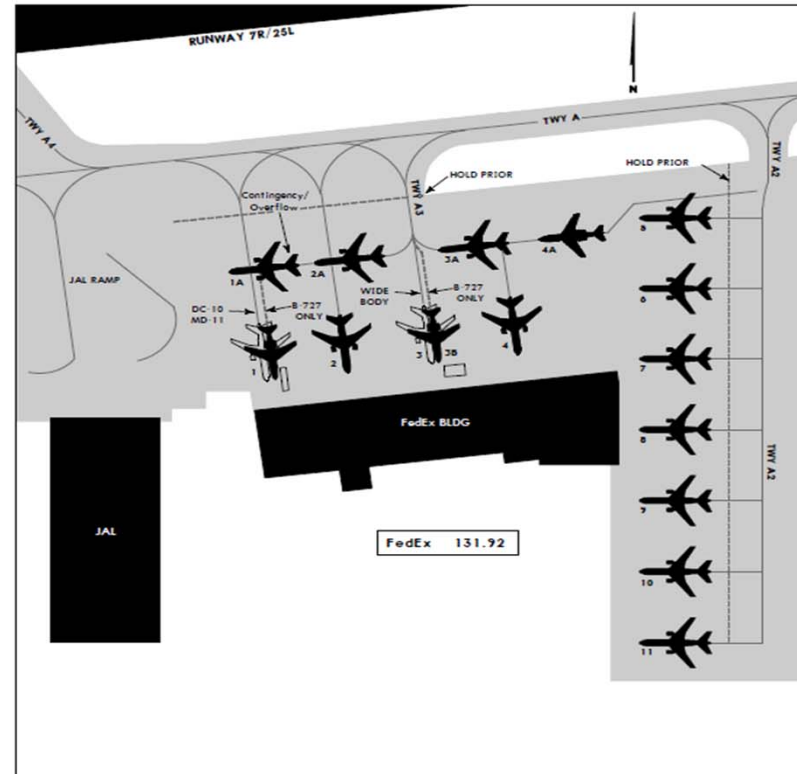
- As the aircraft is pushed out, our procedure is to start only ***one*** engine on twin-engine aircraft, two on three engine aircraft, always the engine **AWAY** from the south side. This cuts the noise significantly.
- The remaining engine(s) started just prior to taking the runway for departure, usually three minutes.



Taxi to the Runway



KLAX/LAX FedEx



LOS ANGELES, CALIF LOS ANGELES INTL
10-10 11 OCT 13

FedEx Park: Air Cargo RAMP

Inbound:

1. Gates 1-4 MD11 & smaller, Power-in/Pushback. Contact GDN prior to pushback. Gates 1&3 due to insufficient clearance to platforms No B757 permitted.
2. If 4A is occupied, gates 1, 2, & 3 Power-in.
3. If 3A is occupied, gates 1&2 Power-in
4. If 2A is occupied, gate 4 Power-in.
5. If 2A is occupied, gates 1&3 Tow-in.
6. If 1A is occupied, gates 3&4 Power-in.
7. If 1A is occupied, gate 2 Tow-in.

Alpha Gates Sequence:

8. 1A Power-in.
9. 3A Power-in. Nose West on ramp edge. TL Pushback to spot 4A.
10. 2A Power-in.
11. Gates 5-10 MD11 & smaller. Tow-in/Tow-out. Contact GND prior to pushback.
12. Tug connect/disconnect point north of gate 6 lead-in line.

FedEx Office: (310) 348-2121/2131
ASOS: (310) 568-1486

Special Procedures:

1. Special Noise Abatement Procedures Apply; see 10-10A.

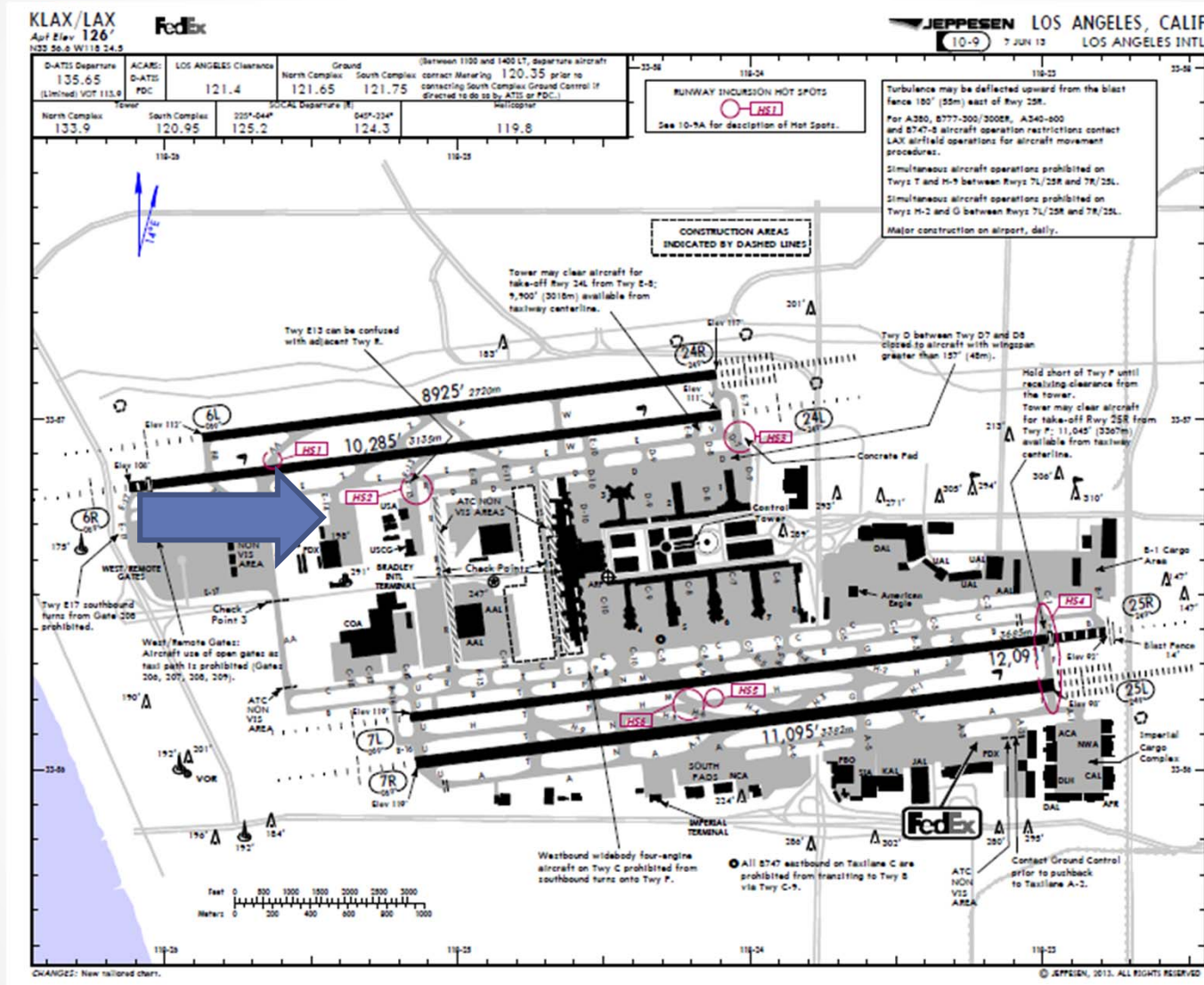
Remarks:

1. When landing Rwy's 7L/R, do not use closed paved area just west of Twy G.
2. **CAUTION:** LAX allows ground vehicles to drive on taxiways due to limited space. Vehicles should maintain a safe distance from the aircraft, give way to the aircraft, be single file, and not drive under any part of the aircraft. This is especially true on Twy A2. Report any problems to Flight Safety.
3. Feeder park at Gate 5 if available.
4. MX hanger at Twy E-14 (N33-56.7 W116-25.3).
5. When available, all crewmembers and jumpseaters should ride shuttle bus to end from aircraft.
6. LAX is 8.7 NM Southwest of Los Angeles.
7. ACARS InRange gate assignment available. Contact ramp control after landing.

CHANGES: None.

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Runway selection?



Runway selection

- All pilots procedurally are required to request the inboard runways, away from residential areas, for takeoff. Runway 25R or 24L, if eastbound, 07L, 06R. This puts the noise footprint farther away so as to be less intrusive. Why do we see aircraft still departing runway 25L?
- Takeoff flaps are *procedurally* selected **minimum** for less thrust required, less noise, less carbon footprint.





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LIDO Chart NOTAMs

ID: **KLAX** 09 Sep 00:00 2013 Last Modification
LIDO Chart NOTAMs have been retired

To request Jeppesen Chart Change Notices for any airport or FIR use
<http://www.jetplan.com/weather/html/text/CCNAdHocForm.shtm>

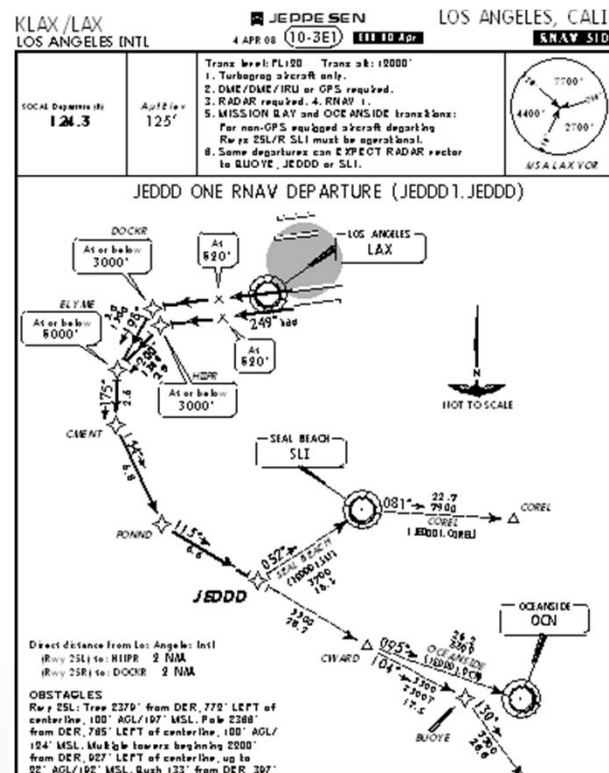
Domestic NOTAMs

- ID: **11/090** 11 Nov 19:19 2013 Last Modification
!LAX 11/090 LAX Rwy 7R/25L CLSD DAILY 0700-1500 1311120700-1311151500
- ID: **05/112** 16 May 16:22 2013 Last Modification
!LAX 05/112 LAX Rwy 25R PAPI OTS WEF 1305161621
- ID: **05/111** 16 May 16:18 2013 Last Modification
!LAX 05/111 LAX Rwy 25L PAPI OTS WEF 1305161618
- ID: **09/043** 13 Sep 22:21 2011 Last Modification
!LAX 09/043 LAX Rwy 24L AT TWY E8 TORA 9900
- ID: **11/092** 12 Nov 19:52 2013 Last Modification
!LAX 11/092 LAX TWY R BTN TWY C AND TWY D CLSD DAILY 0800-1400 1311130800-1311151400
- ID: **11/086** 10 Nov 04:30 2013 Last Modification
!LAX 11/086 LAX TWY F BTN APCH END Rwy 25L AND TWY A CLSD 1311121700-1311122100
- ID: **11/087** 10 Nov 04:30 2013 Last Modification
!LAX 11/087 LAX TWY T BTN Rwy 7R/25L AND TWY A CLSD 1311122100-1311122359
- ID: **10/189** 24 Oct 17:39 2013 Last Modification
!LAX 10/189 LAX TWY R NOT STD TAXI BTN TWY C AND CHECKPOINT 2 1310241727-1312201400EST
- ID: **10/060** 08 Oct 19:36 2013 Last Modification
!LAX 10/060 LAX TWY R BTN TWY D AND TWY C WORK IN PROGRESS CONST ADJ EAST EDGE 1310081934-1312201300
- ID: **07/092** 20 Jul 23:32 2012 Last Modification
!LAX 07/092 LAX TWY E17 SOUTHBOUND TURNS FROM GATE 208 PROHIBITED



Departure Routing

- All departures are run strictly by the established RNAV or charted/published departures. No early turns unless directed by ATC. Pilots must adhere carefully to heading assignments or SID when heading west and turning south.



Climb-out Procedures

- Departing over water, initially westbound, Noise Abatement Departure Procedure (NADP) number 2 is used- clean up gear and flaps at 1000 feet, accelerate *away* from land rapidly, then climb to meet the restrictions on the RNAV charted departures.
- A new initiative we are using for departures from the east-facing runway, use NADP-1, which is climb first rapidly to 3000 feet for less surface noise, then clean up. Less intrusive during early hours.



Arrival Procedures

- All arrivals are via a charted RNAV procedure or via radar vectors to a precision approach. FedEx is proactive in mandating Constant Descent Angle (CDA) arrivals and final descents- this procedure assures the minimum thrust required will be used at all times and the minimum landing flaps used to reduce the noise footprint to the minimum possible.
- Final landing flap selection and gear down are done as late on the approach as is safe to reduce the noise footprint farther out to the absolute minimum.
- CDA arrivals are the norm in Europe and some of Asia, eventually the United States will mirror and CDA arrivals will be the norm here.



Landing

- Early morning hours (normally 6 A.M.) the landing runway **assigned** will be towards the east, 07L or R, 06 L or R, depending on NOTAM closures and atmospheric conditions.
- Our new initiative to reduce noise is to mandate IDLE REVERSE THRUST on landing, safety permitting. This significantly cuts the DB for adjoining neighborhoods.
- The APU will not be started after landing (noise) and our mandate is less-than-all-engine-taxi, shutting an engine down immediately after clearing the runway.



Other Noise Cutting Measures?

- FedEx maintains a heavy aircraft maintenance facility on the west end of the airport right between the runways. The Managing Director of Maintenance has implemented a curfew on engine runs, not to be done between 10:30 P.M. and 6:30 A.M.
- Questions?



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