LOS ANGELES (LAX/KLAX)

Elevation 126ft

CATEGORY B

BAV AV brief not yet available.

GENERAL

- Airfield located in the coastal suburbs with high ground inland and to the N.
- Expect runway changes at any time.

Threats

CFIT

- City covers an area of 20 nm by 30 nm.
- San Gabriel mountains lie to the NE, highest peak ~10,100ft asl at 45 nm.
- Closer in Mt. Wilson with its observatory to ~6,200ft asl at 23 nm NE.
- 10 nm N in the Santa Monica area, the terrain rises to ~3,000ft asl.
- 12 nm S San Pedro hill on the coast to ~1,600ft asl.

Runway Excursion

- Degraded breaking action in wet conditions.
- 747 – Departures from Rwy 06R Full Length via Twy E17 require a very tight turn onto the runway. Consider the use of Twy E16 intersection for departure if take-off weight allows.
- 777-300ER – not authorised to turn onto Rwy 06R from Twy E17.

Runway Incursion

- Exercise caution when taxiing to Rwy 24L, not to pass Twy V unless given specific direction from the controllers. Lido AGC, Hot Spot 7 refers.

Mid Air Collision

- Very high traffic density, much of it light aircraft operating from nearby airfields.

ARRIVAL

- If an aircraft arrives in excess of STA ±30 mins, the assigned stand may be lost and a remote parking position could be allocated. Turnaround on a remote stand increased the chance of disruption and may lead to a late departure. If route and winds are favourable (arrival > 30mins early) please contact LAX Ops to find out whether this may result in a remote stand. Ensure that the aircraft arrives no more than 25 mins early if this is likely to result in remote stand allocation.

Diversion Airports			
ONTARIO INTL(USA)	ONT/KONT	041 nm/080°T	CAT B
SAN DIEGO	SAN/KSAN	095 nm/140°T	CAT B
SAN FRANCISCO	SFO/KSFO	294 nm/319°T	CAT B
Others that may be used include Phoenix and Las Vegas.			

- Rwys all have the same QDM but are defined as 06/24 and 07/25 for convenience.
- An ILS approach followed by a 'sidestep' manoeuvre to the parallel runway is a common clearance; the phraseology will be, e.g. "ILS 07L expect 07R sidestep".

A380

East Operations

- Runway 06L is the designated primary runway. Whenever possible should be used for A380 aircraft parking on the north side of the airfield.
- Runway 07R is the alternate runway for A380 aircraft.

West Operations

- Runway 24R is the designated primary runway. Whenever possible should be used for A380 aircraft.
- Runway 25L is the alternate runway for A380 aircraft.

ALL

Approach

- Simultaneous ILS approaches used to some parallel Rwys. Aircraft may appear very close on finals.
- Altitude steps on ILS approaches are achieved using ILS/DME ranges; the ILS glideslope is frequently too shallow.
- 90% of approaches are made using W'ly runways.
- During an ILS approach, when over the OM or relevant intersection give code name, (e.g. KOBEE for Rwy 24R) to assist controller.
- Unless otherwise cleared, aircraft on approach to Rwy 07L must pass between the flashing green beacons W of the Rwys.
- N and S tower frequencies used. Late landing clearances are common.

A380

STAR and Approach

- If given a "Descend via the XXXX arrival" clearance without the addition of any altitude constraint, the aircraft may descend to the lowest altitude/level on the XXXX STAR. All intermediate lateral and vertical constraints along the STAR must be met.
- Confirm that the altitude/level constraints and waypoints are correctly programmed in the FMS; best achieved using managed NAV and managed DES with the lowest altitude/level of the IAF set in the AFS CP.
- If OPEN DES is used, each intermediate vertical constraint at each lateral waypoint must be set in the AFS CP to ensure the vertical profile is complied with.
- If ATC give an alternative altitude/level constraint at any time as part of the clearance this must be set in the AFS CP.
- ATC may clear crews for the ILS approach a considerable distance from the runway. It is acceptable to select APPR mode BUT *OM A(2) Section 4.3.15.15 – Descent on the ILS Glide Slope* applies and descent on the glide slope as sole means of vertical guidance beyond 10 nm from the runway is NOT allowed. ILS DME should be used to confirm the glide slope indication beyond 10 nm and the normal cross-checks at the FAF should be made.
- The lower values of the level constraints equate to a 3° path.

Crews will need to brief the following carefully:

- The plan to reduce speed whilst in a continuous descent (at flap 1+F or greater the spoiler deflection is reduced).
- When to change the altimeter setting.
- When to select APPR mode.
- Terrain clearance.

ALL

GROUND

- N and S ground frequencies are used. The division between the two is Check Point 1/2/3 on taxiways S/R/AA.
- BA have parked on stands 130, 134, 148, 150, 153, 154, 156 and 159.
- Jedbridges on BA stands are very sensitive to aircraft parking position and will not operate if aircraft stops in incorrect position.
- Please taxi onto stand slowly and follow VGDS guidance accurately to ensure correct stop position is achieved.

B747 B777 B787

- When parking on Stand 134, follow markings for 134A. Taxi line for 134 is for use by A380/B748 ONLY.

B747 B777

- Taxiway routes for B747/B777 aircraft give only minimum clearance in some areas; see Lido charts for particular hazards.

B777

- See separate ground chart for 777-300ER aircraft.

A380

- LAX Airside Operations personnel will no longer monitor aircraft movements that transition through areas that meet FAA separation standards.
- In areas where there is less than the required separation standard, an Airport Operations Superintendent will monitor vehicle traffic in that area, allowing for A380 aircraft to transition without vehicle conflicts. These areas include:
    - Twy E between Twy S and Twy E6.
    - Twy A between Twy U and Twy F.
    - Twy B between Twy AA and C10 is only available when prior coordination is made with LAX Airfield Operations by LAX ATCT for the closure of VSR C.
- Any positive contact with the flight crews on VHF 123.45 will no longer be necessary. Any advisories from Airport Operations to the flight crews will go through the ATC tower on the appropriate VHF Ground Control frequency.
- If an ADG VI aircraft comes to a stop while taxiing in to a gate the aircraft must be towed in the remaining distance.
- LAX Airside Operations ensure personnel are available to respond to emergencies and other airfield responsibilities during A380 movements.
- LAX Airside Operations monitors will ensure that the required clearances are met by shadowing the A380 aircraft wingtips and ensuring that Vehicle Service Road (VSR) traffic and equipment remain clear of minimum distances.
- The table below shows historical data for the percentage of flights when the time between vacating the runway and parking the aircraft was greater than 7 minutes. An opportunity therefore existed to shut down engines 1 & 4 (or 2 & 3).

Considerations:

1. Whilst taxiing, lookout and monitoring are of prime importance. The risk of GCOL must always be addressed;

2. The time period of 7 minutes assumes a 5 minute engine cool-down period and also allows a buffer of 2 minutes to park the aircraft.

Note: **Shutting engines down whilst parking the aircraft could cause unnecessary distraction and is inadvisable;**

3. Ground testing has shown that there is no perceptible difference in manoeuvrability dependent on whether engines 2 & 3 or 1 & 4 are shut down.

Landing Runway	% Flights with Taxi-in time >7 min
24R	98%
24L	100%
25L	100%

Runways

- Runway availability for A380 is shown on LAX Lido Chart 1-80. Preferred landing runway is 24R. If landing performance permits, BTV should be set for RET AA as a default, ATC may occasionally request BB.
- 25L should NOT be requested unless the additional LDA is required for landing performance.
- Owing to the restrictions on taxi routes and runway vacation routes for A380 late runway changes that have not been fully briefed should be discouraged.

Northern Runways

- 06R/24L usable for A380 departures and arrivals.
- 06L/24R is only available for landing and taxi. A380 departures are not permitted.

Southern Runways

- 07R/25L usable for A380 departures and arrivals.
- 07L/25R is not available for A380 departures and arrivals.
- 07L/25R is available for taxi if required.

Note: **Rwy 07L/25R is not available for any other aircraft departure or arrival when an A380 aircraft is on Twy B or an A380 is facing East/West on Twy H.**

Taxiway and Taxilanes

- Taxi routes for A380 shown on LAX Lido Charts 3-90 and 3-100 – marked in green.
- Access to parking positions shall be via an acceptable route in accordance with the Lido charts 3-90 and 3-100.

Ramp

- Short turnaround at LAX may lead to excessive brake temperatures delaying the subsequent departure. If an extended taxi-in is anticipated consider 2-eng taxi. If brake temperatures are excessive, request brake fans via Engineer.
- Tom Bradley International Terminal (TBIT) gates 130, 134, 148, 150, 152, 154, 156 and 159 are possible A380 gates for passenger aircraft, BA Virtual A380 operations will primarily use stands 148, 150, 152.
- If an aircraft arrives in excess of STA ±30 mins, the assigned stand may be lost and a remote parking position could be allocated. Turnaround on a remote stand increased the chance of disruption and may lead to a late departure. If possible, please ensure arrival within STA ±30 mins.
- Imperial Cargo Complex (ICC), Korean Air Cargo, Imperial Terminal, and the West Gate area are designated areas for cargo and military ADG VI aircraft.

BAV Crew Reports
• *A380-capable stands 148, 150 and 152 use highly sensitive stand guidance systems which enable automatic jetty docking. Feedback suggests this guidance system is more sensitive than similar systems in place at other airports. Care must be taken to ensure the aircraft accurately stops when instructed. If the aircraft does stop short or overruns and a tug is required, ensure Beacon on so that it is clear to ground teams that the aircraft will move again.*

Gate 130/134

- Gates 130 and 134 are marked for both A380 and ADG V aircraft with separate lead-in lines.
- A380 should follow markings for 130/134. ADG V aircraft should follow markings for 130A/134A.
- Gates are equipped with a self-docking system and have three boarding bridges. Two for lower deck operations and the third is for upper deck operations on the A380 type aircraft.
- Access to the gate is via Taxilane S and the approved routing on Lido charts 3-90 and 3-100.

Gates 148, 150, 152, 154, 156

- These gates are equipped with a self-docking systems and each has three boarding bridges. Two for lower deck operations and the third is for upper deck operations.
- Gate 148 restricted due to construction.

Gate 159

- Gate 159 is equipped with a self-docking systems and each has three boarding bridges. Two for lower deck operations and the third is for upper deck operations.
- Departing Gate 159 aircraft shall push-back onto Taxilane C10, N of Twy B, then pull forward abeam the gate (facing W) for engine start and disconnect.
- Do not push back tail East on Taxilane C.

West Gates

- Six available parking positions for A380 aircraft, four for passenger operations and two for Remain Over Night (RON) operations.
- Available gates are as follows: Gates 401, 405, 406B, 407B, 412B and 416B.
- Only gates 412B and 416B provide for upper deck operations.

CAUTION: ***The West Gates area contains many obstacles such as lighting poles and vigilance is required to ensure A380 approved taxiways are followed. If obstacle clearance is in doubt, immediately stop the aircraft and ask for LA City Ops/ATC to help to assess clearance.***

West Gate Arrival Procedures

- Gate 401 – Access via Taxilane E15. Southbound on Taxilane E15, aircraft may taxi onto the apron. Northbound on Taxilane E15 aircraft must stop clear of Taxilane E17 and be towed onto the apron.
- Gate 405 - Access via Taxilane E15. Southbound on Taxilane E15, aircraft may taxi onto the apron. Northbound on Taxilane E15 aircraft must stop clear of Taxilane E17 and be towed onto the apron.

Note: **Access to West Gates stand 406B and 407B is now tow-only.**

- Twy E17 is only approved of A380 taxi operations under own power between AA and E15.
- To reach stands 406B and 407B West of E15, the aircraft must be towed.
- Gate 412B - Access via Taxilane E15. Southbound on Taxilane E15, aircraft may taxi onto the apron. Northbound on Taxilane E15 aircraft must stop clear of Taxilane E17 and be towed onto the apron.
- Gate 416B - Access via Taxilane E15. Southbound on Taxilane E15, aircraft may taxi onto the apron. Northbound on Taxilane E15 aircraft must stop clear of Taxilane E17 and be towed onto the apron.

West Gate Departure Procedures

- Gate 401 – Pushback tail north or south on Taxilane E15 as instructed by ATC.
- Gate 405 – Pushback tail north or south on Taxilane E15 as instructed by ATC.
- Gate 406B – Pushback tail north on Taxilane E17 south of Gate 406 only then tow forward and stop short of Taxiland E15 for disconnect and taxi.
- Gate 407B – Pushback tail north on Taxilane E17 south of Gate 406 only then tow forward and stop short of Taxiland E15 for disconnect and taxi.
- Gate 412B – Pushback tail north or south on Taxilane E15 as instructed by ATC.
- Gate 416B – Pushback tail north or south on Taxilane E15 as instructed by ATC.
- Gates 412B, 416B, 406B and 407B on W side of airport may be used during off schedule operations and/or simultaneous A380 flights of passenger aircraft.
- Gates 401 and 405 may be used for Remain Over Night (RON) activity.

Equipment Staging

- All TBIT and West Gates are common use gates and have no provision for equipment storage parking. Aircraft servicing equipment are staged only for flight arrivals and departures for a period of time that is reasonable to prepare for flights.

DEPARTURE

A380

Best Practices for APU Inoperative Operations from Apron Area

The ground manoeuvring of ADG VI aircraft under tow can pose some challenges due to the size and the weight of the aircraft. This is compounded when one or more of the aircraft's engines are running, due to an inoperative Auxiliary Power Unit (APU). Understanding that there are times when this is required, the following practices are recommended:

- All equipment (tow tractor, tow bar, shear pins, towbarless tractor) should be in accordance with the manufacturers specification and rated for use on ADG VI aircraft.
- If an airline is aware prior to arrival of an aircraft with an inoperative APU, communication to the ARCC should be made as soon as practical to limit being gated on Gate 156 or Gate 159. If no other gates are available, a West Gate may be assigned.
- If an aircraft is required to have more than one engine running during push-back it is recommended that a towbarless tractor be used.
- Ground crews should limit changing the direction of travel from backwards to forwards of the aircraft while more than one engine is running. This could result in an "extended" push-back until the aircraft is in a position where it can be released.

- Should the aircraft need to return to the gate for any reason while engines are running and the push-back tractor is still attached to the aircraft, it may be necessary to shut down the engines to pull back onto the gate.
- Extreme caution should be taken from both the ground crew and the flight crew to stop the aircraft immediately during any phase of the push-back.
- A towbarless tractor is recommended for all operations from Gate 156 and Gate 159.

ALL

Starting and Taxi

- Due to surface condition at Spot One exit of C10 alley a higher than standard taxi EPR/N1 may be reqd to break away. Check with Ramp Tower Controller before applying higher than normal thrust to ensure no blast hazards exist.
- If the full length of Rwy 25R is required for take-off, advise ATC well in advance for approval and instructions.
- 777-300ER – not authorised to turn onto Rwy 06R from Twy E17.
- Performance Restrictions and Emergency Turn Procedures are available from CARD/ Fleet Performance Manuals (located on BAV FORUMS > OM B).
- CLIMB-OUT SPEED – Departure sequencing assumes 250 kts to 10,000ft. Advise ATC when calling for clearance a speed greater than 250 kts is required.

A380

Departures

- Access to the departure runway via an acceptable route in accordance with the Lido Charts 3-90 and 3-100.
- No ADG VI aircraft may be beyond 457 m from the departure threshold of Rwy 06R/24L, while on Twy E, when other ADG VI aircraft is departing Rwy 06R/24L.
- No ADG VI aircraft may be beyond 457 m from the departure threshold of Rwy 07R/25L, while on Twy E, when other ADG VI aircraft is departing Rwy 07R/25L.

East Operations (Departures)

- Runway 06R is the designated primary runway and whenever possible should be used for A380 departures.
- A380 flight crews should use caution not to taxi past Twy DD when preparing to depart Rwy 06R.
- Runway 07R is the alternate runway for A380 aircraft.

ALL

West Operations (Departures)

- SEBBY 2 departures: Ensure the turn onto the required heading after crossing the SMO R160 is achieved promptly. Crew should be aware that FMC navigation may not achieve the required heading and that basic heading modes may need to be used.

A380

- Runway 24L is the designated primary runway and whenever possible should be used for A380 departures.
- Runway 25L is the alternate departure runway and could be used for A380 aircraft departures.
- ADG VI aircraft on Twy S are prohibited from making westbound turns on Twy C due to jetblast hazards.

ALL

WEATHER

- Smog and poor visibility – worst months September to January. Car exhaust fumes and industrial smoke collect beneath a marked inversion associated with anticyclonic conditions. Conditions seldom go below landing limits.
- With smog conditions, there is often a marked inversion over the sea which will affect climb capability.
- May to September – Dry season. Area is susceptible to low cloud and fog from the sea. Visibility below the cloud is restricted by smoke and haze. Usually the low cloud moves inland by late afternoon or early evening.
- Strong SW'ly winds in excess of 45 kts have been recorded during May.
- November to April some rain falls, but poor conditions are mainly due to radiation fog, aggravated by smoke.
- Worst conditions of visibility and cloud ceiling are generally found in the morning, throughout the year.

OPERATIONAL INFORMATION

Handling Agent	BA Customer Service/Menzies Ramp Handling
Handling Agent VHF	130.375 Speedbird Los Angeles
Potable Water	Uplift Permitted

IF ONLY Electrical Power is required	Use ground power at all times
If BOTH electrical power and air conditioning is required:	Use both ground services at all times