

EGLL — LONDON HEATHROW

EGLL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

EGLL — LONDON HEATHROW

EGLL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	Lat: 512839N Long: 0002741W Mid point of Runway 09L/27R
2	Direction and distance from city	12 nm W of London.
3	Elevation / Reference temperature	83 ft / 20 C
4	Geoid undulation at AD ELEV PSN	151 FT
5	Magnetic Variation/ Annual Change	0.63°W (2017) / 0.15°
6	AD Administration, address, telephone, telefax, AFS, e-mail address, website address	HEATHROW AIRPORT LIMITED Post: The Compass Centre, Nelson Road, Heathrow Airport, Hounslow, TW2 2GW. Phone: 08700-000123 (HAL) Phone: 020-8750 2560 (NATS Ltd) Fax: 020-8745 4290 (HAL) Fax: 020-8750 2561 (NATS Ltd) Telex: 934892 (HAL)
7	Type of Traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Telephone calls to NATS Ltd operational areas may be recorded. Types of traffic permitted: IFR/VFR/SVFR.

EGLL AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	H24
2	Customs and Immigration	H24
3	Health and sanitation	
4	AIS Briefing Office	
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	
7	Air Traffic Service	H24 See also AD 2.18.
8	Fuelling	H24 Refer to AD 2.20 item 1.
9	Handling	H24 Refer to AD 2.20 item 1.
10	Security	H24 Refer to AD 2.20 item 1.
11	De-icing	H24 Refer to AD 2.20 item 1.
12	Remarks	

EGLL AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Full.
2	Fuel and oil types	AVTUR JET A-1 Oils: Various by arrangement with fuel companies.
3	Fuelling facilities/capacity	Hydrant refuelling. Very limited bowser capacity.
4	De-icing facilities	By arrangement with handling agent.
5	Hangar space for visiting aircraft	By arrangement with BA or Virgin Atlantic.
6	Repair facilities for visiting aircraft	Maintenance and repair (by arrangement).
7	Remarks	

EGLL AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in vicinity.
2	Restaurants	Restaurant, buffet and bar.
3	Transportation	Underground and Express to Central London, Buses, Coaches, taxis and car hire.
4	Medical facilities	Occupational Health Department. Tel: 020-8745 7211/7047/7048.
5	Bank and Post Office	Post Office Second Floor, Departures Building, Terminal 3.
6	Tourist Office	
7	Remarks	

EGLL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	RFF Category A10
2	Rescue equipment	
3	Capability for removal of disabled aircraft	By arrangement with nominated recovery company.
4	Remarks	

EGLL AD 2.7 SEASONAL AVAILABILITY - CLEARING

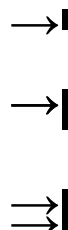
1	Type of clearing equipment	Mechanical, Chemical de-icing, Sanding/Gritting.
2	Clearance priorities	Standard. See AD 1.2.2.
3	Remarks	Braking action by ASFT and Grip Tester. Latest information from: Airfield Duty Manager (AfDM).

EGLL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Surface: Concrete. except Stand 357, which has block paving.
2	Taxiway width, surface and strength	Taxiway : 23 m. Surface: Concrete and asphalt. Taxiway : 30 m. Surface: Concrete and asphalt. Taxiway : 37 m. Surface: Concrete and asphalt.
3	Altimeter checkpoint location and elevation	Central Area 77 FT - Southern helicopter pad 75 FT - Cargo Centre Southside 76 FT.
4	VOR checkpoints	
5	INS checkpoints	See Aircraft/Parking Docking Charts
6	Remarks	

EGLL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Nose in parking is in operation throughout the airport. Heathrow Airport operates a variety of stand types and configurations such as Standard Apron/Stand, Multiple Aircraft Ramp System (MARS) and Multi Choice Apron (MCA). Standard Apron/Stands will have a single yellow centre-line. Each stand will have an individual stand number. MARS stands consist of a main centre-line painted yellow and will have two subsidiary centre-lines either side of the main centre-line. These subsidiary centre-lines are painted yellow/white and are given the designation of the stand number with 'L' (Left) and 'R' (Right) added. Multi Choice Aprons use multiple centre-lines to allow the operation of a variety of different combinations of parked aircraft. The airline operative will select the assigned stand Visual Docking Guidance System (VDGS) to allow the aircraft to park, or a marshal shall assist with the aircraft parking. Each stand will have an individual stand number. Illuminated stand number indicators are provided on most stands. The majority of stands are equipped with the 'Safedock' Visual Docking Guidance System (VDGS). A marshalling service will be provided for the minority of the remaining stands that do not have VDGS fitted.
2	Runway and taxiway markings and lighting	Runway marking aid(s): 09L/27R: Full ICAO runway designation, threshold, centre-line, aiming point and touchdown zone. Lead-offs from the runway are marked by a continuous yellow line from the centreline of the runway. 09R/27L: Full ICAO runway designation, threshold, centre-line, aiming point and touchdown zone. Lead-offs from the runway are marked by a continuous yellow line from the centreline of the runway. Runway light(s): : Threshold - HI green lights. Edge - HI white lights. Centreline - HI colour coded white/red lights. Touchdown zone - HI white lights. Stop end - HI red lights. Colour coded amber/green lights indicate the runway turn-offs routes to the CAT III stop bars. Taxiway marking aid(s): : Yellow centre-line.
3	Stop bars	Illuminated red stop bars are provided where appropriate.
4	Remarks	Pilots must not enter an aircraft stand unless the Visual Docking Guidance System (VDGS) is illuminated or a marshaller has signalled clearance to proceed. In the event of there being no activated VDGS displayed upon approach to the stand, flight crews should contact Ground Movement Control (GMC) and Company. Aircrew must not attempt to self-park if the VDGS is not illuminated or calibrated for their aircraft type. Tug Crews, when towing aircraft under the guidance of a Marshaller, must not park on stand unless guided to do so by the use of daylight-fluorescent wands, table-tennis bats, marshalling gloves. Illuminated wands shall be used at night or in low visibility. Illuminated wind direction indicators are located adjacent to the touchdown zones of Runways 09L, 09R, 27L and 27R.



EGLL AD 2.10 AERODROME OBSTACLES

In Approach/Take-off areas						
Obstacle ID/Designation	Obstacle Type	Obstacle Position	Elevation/Height		Obstruction Lighting Type/Colour	Remarks
1	2	3	4		5	6
(10284) 09L APPROACH	Tree	512847.09N 0002947.06W	141.93 ft		No	
(5227) 09L APPROACH	Tree	512845.58N 0002937.48W	134.22 ft		No	
(10253) 09L APPROACH	Tree	512842.68N 0002947.89W	131.10 ft		No	
(10429) 09R APPROACH	Tree	512746.84N 0002925.46W	113.45 ft		No	
(10417) 09R APPROACH	Tree	512746.41N 0002923.44W	113.71 ft		No	
(7911) 09R TAKE-OFF	Lamp-post	512756.74N 0002527.83W	117.95 ft		No	
(9821) 09R TAKE-OFF	Tree	512751.02N 0002542.48W	107.97 ft		No	
(9807) 09R TAKE-OFF	Tree	512750.46N 0002543.85W	103.84 ft		No	
09R/TAKE-OFF	Tree	512747.34N 0002548.61W	116 ft		No	
09R/TAKE-OFF	Tree	512747.27N 0002549.18W	115 ft		No	
09R/TAKE-OFF	Tree	512747.26N 0002551.42W	114 ft		No	
09R/TAKE-OFF	Tree	512746.88N 0002552.18W	115 ft		No	
09R/TAKE-OFF	Tree	512746.46N 0002543.63W	123 ft		No	
09R/TAKE-OFF	Tree	512746.36N 0002550.79W	113 ft		No	
(9828) 27L APPROACH	Tree	512749.26N 0002538.83W	111.68 ft		No	
(9803) 27L APPROACH	Tree	512749.09N 0002544.47W	109.25 ft		No	
(7101) 27L APPROACH	Tree	512747.72N 0002537.23W	117.45 ft		No	
(9822) 27L APPROACH	Tree	512747.57N 0002540.19W	118.24 ft		No	
(10560) 27L TAKE-OFF	Tree	512757.24N 0002933.69W	114.47 ft		No	
(2424) 27L TAKE-OFF	Floodlight	512756.68N 0002923.92W	98.33 ft		No	
(10541) 27L TAKE-OFF	Tree	512755.50N 0002934.32W	109.78 ft		No	
(10527) 27L TAKE-OFF	Tree	512754.15N 0002937.48W	113.94 ft		No	
(10503) 27L TAKE-OFF	Tree	512752.32N 0002933.76W	105.54 ft		No	
(10498) 27L TAKE-OFF	Tree	512751.51N 0002934.02W	103.51 ft		No	
27L/TAKE-OFF	Tree	512746.86N 0002925.49W	112 ft		No	
27L/TAKE-OFF	Tree	512746.68N 0002924.67W	111 ft		No	
27L/TAKE-OFF	Tree	512746.43N 0002923.45W	113 ft		No	
27L/TAKE-OFF	Tree	512746.36N 0002923.82W	111 ft		No	
(3182) 27R APPROACH	Floodlight	512834.27N 0002546.26W	95.05 ft		No	
27R/TAKE-OFF	Tree	512847.29N 0002946.41W	133 ft		No	

EGLL AD 2.10 AERODROME OBSTACLES (continued)

In Approach/Take-off areas						
Obstacle ID/Designation	Obstacle Type	Obstacle Position	Elevation/Height		Obstruction Lighting Type/Colour	Remarks
1	2	3	4		5	6
27R/TAKE-OFF	Tree	512847.28N 0002946.66W	138 ft		No	
27R/TAKE-OFF	Tree	512847.17N 0002946.85W	140 ft		No	
27R/TAKE-OFF	Tree	512847.08N 0002947.00W	141 ft		No	
27R/TAKE-OFF	Tree	512847.02N 0002947.18W	139 ft		No	
27R/TAKE-OFF	Tree	512846.92N 0002947.35W	137 ft		No	
27R/TAKE-OFF	Tree	512845.96N 0002934.58W	121 ft		No	
27R/TAKE-OFF	Tree	512845.75N 0002933.06W	125 ft		No	
27R/TAKE-OFF	Tree	512845.75N 0002933.22W	129 ft		No	
27R/TAKE-OFF	Tree	512845.73N 0002933.41W	129 ft		No	
27R/TAKE-OFF	Tree	512845.59N 0002934.67W	127 ft		No	
27R/TAKE-OFF	Tree	512845.53N 0002937.99W	126 ft		No	
27R/TAKE-OFF	Tree	512845.45N 0002934.73W	124 ft		No	
27R/TAKE-OFF	Tree	512845.31N 0002937.26W	116 ft		No	
27R/TAKE-OFF	Tree	512845.28N 0002936.11W	125 ft		No	
27R/TAKE-OFF	Tree	512845.25N 0002936.49W	113 ft		No	
27R/TAKE-OFF	Tree	512844.96N 0002933.88W	122 ft		No	
27R/TAKE-OFF	Fence	512844.82N 0002928.78W	102 ft		No	
27R/TAKE-OFF	Lights	512844.60N 0002923.28W	99 ft		No	
27R/TAKE-OFF	Lights	512844.49N 0002924.29W	99 ft		No	
27R/TAKE-OFF	Lights	512844.37N 0002925.32W	99 ft		No	
27R/TAKE-OFF	Lights	512844.25N 0002926.34W	99 ft		No	
27R/TAKE-OFF	Lights	512844.13N 0002927.35W	99 ft		No	
27R/TAKE-OFF	Lights	512844.01N 0002928.35W	99 ft		No	
27R/TAKE-OFF	Lights	512843.88N 0002929.38W	102 ft		No	
27R/TAKE-OFF	Lights	512843.75N 0002930.39W	102 ft		No	
27R/TAKE-OFF	Fence	512843.74N 0002929.94W	104 ft		No	
27R/TAKE-OFF	Bridge	512843.54N 0002929.95W	105 ft		No	
27R/TAKE-OFF	CCTV	512842.84N 0002930.52W	103 ft		No	
(3155) 27R TAKE-OFF	Post	512842.60N 0002937.48W	97.64 ft		No	
(10278) 27R TAKE-OFF	Tree	512842.16N 0002940.49W	102.69 ft		No	



EGLL AD 2.10 AERODROME OBSTACLES (continued)

In Approach/Take-off areas						
Obstacle ID/Designation	Obstacle Type	Obstacle Position	Elevation/Height		Obstruction Lighting Type/Colour	Remarks
1	2	3	4		5	6
(10212) 27R TAKE-OFF	Tree	512841.77N 0003010.35W	153.41 ft		No	
(10240) 27R TAKE-OFF	Tree	512841.51N 0002947.67W	126.51 ft		No	
(10239) 27R TAKE-OFF	Tree	512841.30N 0002947.96W	129.89 ft		No	
(10252) 27R TAKE-OFF	Tree	512841.20N 0002944.43W	120.44 ft		No	
(10203) 27R TAKE-OFF	Tree	512837.02N 0002944.64W	110.04 ft		No	
27R/TAKE-OFF	Lights	512832.35N 0002934.30W	115 ft		No	
27R/TAKE-OFF	Lights	512832.29N 0002935.57W	112 ft		No	
27R/TAKE-OFF	Fence	512832.13N 0002935.34W	110 ft		No	
27R/TAKE-OFF	Tree	512832.03N 0002940.78W	120 ft		No	
27R/TAKE-OFF	Bridge	512831.98N 0002934.90W	112 ft		No	
27R/TAKE-OFF	Road Sign	512831.89N 0002937.58W	115 ft		No	
27R/TAKE-OFF	Sign	512831.78N 0002937.31W	115 ft		No	
27R/TAKE-OFF	Tree	512831.18N 0002939.63W	127 ft		No	
27R/TAKE-OFF	Tree	512830.97N 0002940.02W	124 ft		No	
27R/TAKE-OFF	Tree	512830.76N 0002940.42W	123 ft		No	

In circling area and at aerodrome						
Obstacle ID/Designation	Obstacle Type	Obstacle Position	Elevation/Height		Obstruction Lighting Type/Colour	Remarks
1	2	3	4		5	6
	Radar Mast	513017.42N 0002735.26W	247 ft		Yes Red	
	Chimney	513006.25N 0002452.94W	284 ft		Yes Red	
	Telecom aerial	512939.07N 0002722.77W	254 ft		Yes Red	
	Chimney	512908.49N 0003017.94W	319 ft		Yes Red	
	Radar	512822.82N 0002713.10W	226 ft		Yes Red	
	New Control Tower	512818.53N 0002755.76W	362 ft		Yes Red	
	Building with Aerial	512649.40N 0002443.66W	236 ft		Yes Red	

EGLL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	MET OFFICE EXETER.
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	MET OFFICE EXETER. 30 Hours
4	Trend forecast Interval of issuance	TREND. 30 Minutes.

EGLL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED (continued)

5	Briefing/consultation provided	Self briefing/telephone.
6	Flight documentation Language(s) used	Charts abbreviated plain language text. TAFs/METARs. English
7	Charts and other information available for briefing or consultation	
8	Supplementary equipment available for providing information	
9	ATS units provided with information	LONDON HEATHROW.
10	Additional information (limitation of service, etc.)	

EGLL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY Number	True bearing	Dimensions of RWY	Surface of RWY/ SWY/ Strength (PCN)	THR co-ordinates/ THR Geoid undulation	THR elevation/ Highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
09L	089.67°	3902 x 50 m	RWY surface: Asphalt, grooved. PCN 83/F/A/W/T SWY surface: Asphalt, grooved.	512839.00N 0002906.05W 151 ft	THR 79 ft
27R	269.71°	3902 x 50 m	RWY surface: Asphalt, grooved. PCN 83/F/A/W/T SWY surface: Asphalt, grooved.	512839.63N 0002559.74W 151 ft	THR 78 ft
09R	089.68°	3660 x 50 m	RWY surface: Asphalt, grooved. PCN 83/F/A/W/T SWY surface: Asphalt, grooved.	512753.25N 0002856.41W 151 ft	THR 75 ft
27L	269.72°	3660 x 50 m	RWY surface: Asphalt, grooved. PCN 83/F/A/W/T SWY surface: Asphalt, grooved.	512753.83N 0002602.68W 151 ft	THR 77 ft

Slope of RWY/ SWY	SWY dimensions	Clearway dimensions	Strip Dimensions	OFZ	Remarks
7	8	9	10	11	12
			4022 x 300 m		RWY 09L Northern runway shoulders between A1 and A11 are 20.5 m and between A11 and A13 are 12.5 m
		78 x m	4022 x 300 m		RWY 27R Northern runway shoulders between A1 and A11 are 20.5 m and between A11 and A13 are 12.5 m
					RWY 09R Southern runway shoulders between N1 and N7 are 20.5 m and between N7 and N11 are 12.5 m.
					RWY 27L Southern runway shoulders between N1 and N7 are 20.5 m and between N7 and N11 are 12.5 m.



EGLL AD 2.13 DECLARED DISTANCES

Runway designator	TORA	TODA	ASDA	LDA	Remarks
1	2	3	4	5	6
09R	3658 m	3658 m	3658 m	3350 m	LDA: 09R landing threshold is displaced by 308 m
27L	3658 m	3658 m	3658 m	3658 m	
09R	2853 m	2853 m	2853 m		Take-off from intersection with SB7
09R	2244 m	2244 m	2244 m		Take-off from intersection with S6
09R	2325 m	2325 m	2325 m		Take-off from intersection with N6
09R	2852 m	2852 m	2852 m		Take-off from intersection with N7
09R	3351 m	3351 m	3351 m		Take-off from intersection with N8
09R	3528 m	3528 m	3528 m		Take-off from intersection with N10
09R	1704 m	1704 m	1704 m		Take-off from intersection with N5W
27L	2702 m	2702 m	2702 m		Take-off from intersection with N4E
27L	3212 m	3212 m	3212 m		Take-off from intersection with S3
27L	3224 m	3224 m	3224 m		Take-off from intersection with N3
27L	3380 m	3380 m	3380 m		Take-off from intersection with N2W
27L	3536 m	3536 m	3536 m		Take-off from intersection with N2E
27L	2081 m	2081 m	2081 m		Take-off from intersection with S5W
27L	2091 m	2091 m	2091 m		Take-off from intersection with N5E
27L	2222 m	2222 m	2222 m		Take-off from intersection with S5E
27L	2589 m	2589 m	2589 m		Take-off from intersection with S4E
27L	2606 m	2606 m	2606 m		Take-off from intersection with S4W
27L	2441 m	2441 m	2441 m		Take-off from intersection with N4W
09L	3901 m	3901 m	3901 m	3592 m	LDA: 09L landing threshold is displaced by 309 m.
27R	3882 m	3960 m	3882 m	3882 m	
09L	1789 m	1789 m	1789 m		Take-off from intersection with A9E
09L	1992 m	1992 m	1992 m		Take-off from intersection with A9W
09L	2354 m	2354 m	2354 m		Take-off from intersection with A10E.
09L	2661 m	2661 m	2661 m		Take-off from intersection with A10W.
09L	2838 m	2838 m	2838 m		Take-off from intersection with A11.
09L	3362 m	3362 m	3362 m		Take-off from intersection with A12.
27R	3539 m	3617 m	3539 m		Take-off from intersection with A4
27R	3136 m	3214 m	3136 m		Take-off from intersection with A5
27R	2862 m	2940 m	2862 m		Take-off from intersection with A6
27R	2617 m	2695 m	2617 m		Take-off from intersection with A7
27R	2414 m	2492 m	2414 m		Take-off from intersection with A8
27R	2142 m	2220 m	2142 m		Take-off from intersection with A9E
27R	1947 m	2025 m	1947 m		Take-off from intersection with A9W

EGLL AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY	Approach lighting Type/Length/Intensity	Threshold lighting Colour/Wing bars	VASIS/MEHT/PAPI	TDZ lighting Length	Runway Centre Line lighting Length/Spacing/Colour/Intensity	Runway edge lighting Length/Spacing/Colour/Intensity	Runway end lighting Colour/Wing bars	Stopway lighting Length/Colour	Remarks
1	2	3	4	5	6	7	8	9	10
09L	860 m Light intensity high.	HI Green with HI wingbars	PAPI/3° 66 ft	900 m	HI Bi-directional colour coded 15 m spacing 3901 m Length	HI Bi-directional 60 m spacing 3901 m Length White.	Red.		Approach Lighting: Coded centre-line with five crossbars Supplementary lighting inner 300 m PAPI dist from THR: 417 m Runway 09L: On full length departures, the first 300 m of edge lights are red due to displaced threshold
27R	905 m Light intensity high.	HI Green with HI wingbars	PAPI/3° 73 ft	901 m	HI Bi-directional colour coded 15 m spacing 3884 m Length	HI Bi-directional 60 m spacing 3884 m Length White.	Red.		Approach Lighting: Coded centre-line with five crossbars Supplementary lighting inner 300 m PAPI dist from THR: 469 m
09R	939 m Light intensity high.	HI Green with HI wingbars	PAPI/3° 67 ft	899 m	HI Bi-directional colour coded 15 m spacing 3660 m Length	HI Bi-directional 60 m spacing 3660 m Length White.	Red.		Approach Lighting: Coded centre-line with five crossbars Supplementary lighting inner 300 m PAPI dist from THR: 420 m Runway 09R: On full length departures, the first 300 m of edge lights are red due to displaced threshold.
27L	922 m Light intensity high.	HI Green with HI wingbars	PAPI/3° 64 ft	901 m	HI Bi-directional colour coded 15 m spacing 3660 m Length	HI Bi-directional 60 m spacing 3660 m Length White.	Red.		Approach Lighting: Coded centre-line with five crossbars Supplementary lighting inner 300 m PAPI dist from THR: 420 m

EGLL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	
2	LDI location and lighting Anemometer location and lighting	Anemometer: 09L: 512842.70N 0002848.25W - 27R: 512843.30N 0002619.52W - 09R: 512749.14N 0002839.38W - 27L: 512749.68N 0002621.49W.
3	TWY edge and centre line lighting	Taxiway: . Centre line. Green centre-line lights with selective switching on all taxiway routes.
4	Secondary power supply/switch-over time	Yes - CAT I/II/III. 1 second.
5	Remarks	Apron floodlighting. Obstacle lighting.

EGLL AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	TLOF : 512744.27N 0002704.97W
2	TLOF and/ or FATO elevation	TLOF : 75 ft
3	TLOF and FATO area dimensions, surface, strength, marking	TLOF : 18 m sided triangular aiming point.
4	True bearing of FATO	
5	Declared distance available	
6	Approach and FATO lighting	
7	Remarks	Refer to AD 2.20 paragraph 5 for Helicopter Operations at Heathrow and AD 2-EGLL-4-1 for the Helicopter Crossing Operations chart. Refer to AD 2.22 paragraph 9 for VFR/Special VFR helicopter flights in the London CTR and paragraph 11 for Helicopter Routes in the London CTR.

1	Coordinates TLOF or THR of FATO Geoid undulation	FATO :
2	TLOF and/ or FATO elevation	FATO :
3	TLOF and FATO area dimensions, surface, strength, marking	FATO :
4	True bearing of FATO	269.48°
5	Declared distance available	
6	Approach and FATO lighting	FATO lighting: FATO : No approach lighting. Helicopter aiming point is lit with 6 heliport low intensity omni-directional inset white lights.
7	Remarks	Refer to AD 2.20 paragraph 5 for Helicopter Operations at Heathrow and AD 2-EGLL-4-1 for the Helicopter Crossing Operations chart. Refer to AD 2.22 paragraph 9 for VFR/Special VFR helicopter flights in the London CTR and paragraph 11 for Helicopter Routes in the London CTR.

EGLL AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

Designation and lateral limits	Vertical Limits	Airspace Class	ATS unit callsign/ language	Transition Altitude	Remarks
1	2	3	4	5	6
LONDON CTR 513611N 0004133W - 513611N 0001253W - thence clockwise by the arc of a circle radius 12 nm centered on 512812N 0002713W to 512013N 0001255W - 512013N 0003800W - 512104N 0004242W - thence clockwise by the arc of a circle radius 12 nm centered on 512812N 0002713W to 513611N 0004133W	Upper limit: 2500 ft ALT Lower limit: SFC	D	HEATHROW RADAR English	6000 ft	See EGLL AD2.22, Flight Procedures, item 8 for details of Local Flying Areas. Hours: See AD 2.18
LONDON HEATHROW ATZ A circle, 2.5 nm radius centred at 512839N 0002741W on longest notified runway (09L/27R)	Upper limit: 2000 ft Lower limit: SFC	D	HEATHROW RADAR English	6000 ft	
LONDON CTR TMZ 513611N 0004133W - 513611N 0001253W - thence clockwise by the arc of a circle radius 12 nm centered on 512812N 0002713W to 512013N 0001255W - 512013N 0003800W - 512104N 0004242W - thence clockwise by the arc of a circle radius 12 nm centered on 512812N 0002713W to 513611N 0004133W	Upper limit: 2500 ft ALT Lower limit: SFC	D	HEATHROW RADAR English	6000 ft	Procedures applicable to flights within the Transponder Mandatory Zone are detailed in GEN 1.5 paragraph 5.3 and EGLL AD 2.22.

EGLL AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service Designation	Callsign	Channel(s)	Hours of Operation	Remarks
1	2	3	4	5
APP	HEATHROW DIRECTOR	119.725 MHz	H24	ATZ hours coincident with Approach hours.
		120.400 MHz When instructed by ATC.	H24	
		127.525 MHz When instructed by ATC.	H24	
		134.975 MHz When instructed by ATC.	H24	
		121.500 MHz Emergency frequency O/R.	H24	
TWR	HEATHROW TOWER	118.500 MHz DOC 25 nm/4,000 ft.	H24	
		118.700 MHz DOC 25 nm/4,000 ft.	Winter: 0700-2200 or as directed Summer: 0600-2200 or as directed	
		124.475 MHz When instructed by ATC.	H24	
		121.500 MHz Emergency frequency O/R.	H24	
	HEATHROW DELIVERY	121.975 MHz Ground Movement Planning Departing aircraft are to make initial call to 'Heathrow Delivery' on this frequency during hours of operation. At other times call 'Heathrow Ground'. DOC 5 nm/GND.	Winter: 0630-2200 or as directed Summer: 0530-2200 or as directed	
	HEATHROW GROUND	121.900 MHz DOC 5 nm/GND. Ground Movement Control.	As directed by ATC	
		121.700 MHz DOC 5 nm/GND. Ground Movement Control.	As directed by ATC	
RAD	HEATHROW RADAR	125.625 MHz VFR and Special VFR flights in the London CTR and the London City CTR/CTA. DOC 60 nm/20,000 ft.	H24	Outside the hours 0700-2030 (Winter), 0600-1930 (Summer) 125.625 MHz will be monitored by Thames Radar: 0600-0700 and 2030-2230 (Winter), 0500-0600 and 1930-2130 (Summer) or Heathrow Director: 2230-0600 (Winter), 2130-0500 (Summer).
		127.525 MHz When instructed by ATC.	H24	
		121.500 MHz Emergency frequency O/R.	H24	
Arrival ATIS	HEATHROW INFORMATION	128.075 MHz DOC 60 nm/20,000 ft.	Winter: 0320-2300 Summer: 0220-2200	
		113.750 MHz DOC 60 nm/20,000 ft. Broadcast on Bovingdon VOR.	Winter: 0320-2300 Summer: 0220-2200	
		115.100 MHz DOC 60 nm/20,000 ft. Broadcast on Biggin VOR.	Winter: 0320-2300 Summer: 0220-2200	

EGLL AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES (continued)

Service Designation	Callsign	Channel(s)	Hours of Operation	Remarks
1	2	3	4	5
Departure ATIS	HEATHROW INFORMATION	121.935 MHz DOC 5 nm/GND.	Winter: 0320-2300 Summer: 0220-2200	This is an 833 KHz frequency. Non 833 equipped aircraft should contact Delivery on 121.975 MHz to obtain weather information.
Other	HEATHROW FIRE	121.600 MHz When instructed by ATC. Non-ATS frequency.	Available when Fire vehicle at- tending aircraft on the ground in an emergency.	

EGLL AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid CAT of ILS/MLS (For VOR/ILS/MLS, give VAR)	Ident	Frequency	Hours of Operation	Position of transmitting antenna co- ordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DME	IAA	40X 110.300 MHz	HO	512843.84N 0002732.51W	98.56 ft	DME I AA (RWY 09L) On AD. DME freq paired with ILS I AA and I RR. Zero range is indi- cated at THR of Runway 09L and Runway 27R.
DME	IBB	32X 109.500 MHz	HO	512749.74N 0002730.90W	92.85 ft	DME I BB (RWY 09R) On AD. DME freq paired with ILS I BB and I LL. Zero range is indi- cated at THR of Runway 09R and Runway 27L.
ILS III 0.63°W (2017)	IAA	110.300 MHz	HO	512839.70N 0002537.13W		I AA (RWY 09L) Particular care should be exercised in selecting the ap- propriate ILS/MLS facility as more than one ILS/MLS will normally be radi- ating.
ILS/GP	IAA	335.000 MHz	HO	512843.50N 0002850.43W		I AA (RWY 09L) 3° ILS Ref Datum Hgt 51 ft. Certified for ex- tended range to 15 nm. Not for use be- low 2200 ft at this range.
ILS III 0.63°W (2017)	IRR	110.300 MHz	HO	512838.88N 0002937.48W		I RR (RWY 27R) Particular care should be exercised in selecting the ap- propriate ILS/MLS facility as more than one ILS/MLS will normally be radi- ating.
ILS/GP	IRR	335.000 MHz	HO	512843.83N 0002617.50W		I RR (RWY 27R) 3° ILS Ref Datum Hgt 58 ft. Certified for ex- tended range to 15 nm. Not for use be- low 2200 ft at this range.
ILS III 0.63°W (2017)	IBB	109.500 MHz	HO	512753.89N 0002541.69W		I BB (RWY 09R) Particular care should be exercised in selecting the ap-

EGLL AD 2.19 RADIO NAVIGATION AND LANDING AIDS (continued)

Type of Aid CAT of ILS/MLS (For VOR/ILS/MLS, give VAR)	Ident	Frequency	Hours of Operation	Position of transmitting antenna co- ordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
						appropriate ILS/MLS facility as more than one ILS/MLS will normally be radiating.
ILS/GP	IBB	332.600 MHz	HO	512748.97N 0002840.54W		I BB (RWY 09R) 3° ILS Ref Datum Hgt 50 ft. Certified for extended range to 15 nm. Not for use below 2200 ft at this range.
ILS III 0.63°W (2017)	ILL	109.500 MHz	HO	512753.14N 0002928.28W		I LL (RWY 27L) False Capture may be experienced when approaching from the north and south. Note: Particular care should be exercised in selecting the appropriate ILS/MLS facility as more than one ILS/MLS will normally be radiating.
ILS/GP	ILL	332.600 MHz	HO	512749.47N 0002620.00W		I LL (RWY 27L) 3° ILS Ref Datum Hgt 56 ft. Certified for extended range to 15 nm. Not for use below 2200 ft at this range.
MLS III	MHBB	514	HO	512749.66N 0002842.72W		MHBB (RWY 09R)
MLS/AZ 0.63°W (2017)	MHBB	514	HO	512753.88N 0002542.03W		MHBB (RWY 09R) At ranges greater than 15 nm, low MLS signal strength may be experienced outside the sector ±10 of centreline at altitudes below 4000 ft.
MLS III	MHAA	522	HO	512842.60N 0002852.87W		MHAA (RWY 09L)
MLS/AZ 0.63°W (2017)	MHAA	522	HO	512839.71N 0002537.43W		MHAA (RWY 09L) At ranges greater than 15 nm, low MLS signal strength may be experienced outside the sector ±10 of centreline at altitudes below 4000 ft.
MLS III	MHRL	514	HO	512750.20N 0002617.80W		MHRL (RWY 27L)
MLS/AZ 0.63°W (2017)	MHRL	514	HO	512753.14N 0002927.92W		MHRL (RWY 27L)
MLS III	MHER	522	HO	512843.05N 0002615.33W		MHER (RWY 27R) Note: Particular care should be exercised in selecting the appropriate ILS/MLS facility as more than one ILS/MLS will normally be radiating.
MLS/AZ 0.63°W (2017)	MHER	522	HO Summer: HO	512838.88N 0002937.07W		MHER (RWY 27R)
NDB	BUR	421.000 kHz	HO	513108.44N 0004037.89W		DOC: 15 nm except for Sector 340-020 where DOC is 30 nm

2 Feb 2017

EGLL AD 2.19 RADIO NAVIGATION AND LANDING AIDS (continued)

Type of Aid CAT of ILS/MLS (For VOR/ILS/MLS, give VAR)	Ident	Frequency	Hours of Operation	Position of transmitting antenna co- ordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
NDB	CHT	277.000 kHz	HO	513723.31N 0003106.88W		Range 25 nm.
NDB	EPM	316.000 kHz	HO	511910.44N 0002219.12W		Range 25 nm.
DME	IRR	40X 110.300 MHz	HO	512843.84N 0002732.51W	89 ft	I RR (RWY 27R) On AD. DME freq paired with ILS I AA and I RR. Zero range is indi- cated at THR of Runway 09L and Runway 27R.
DME	ILL	32X 109.500 MHz	HO	512749.74N 0002730.90W	92 ft	I LL (RWY 27L) On AD. DME freq paired with ILS I BB and I LL. Zero range is indi- cated at THR of Runway 09R and Runway 27L.

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS

1 Airport Regulations

- (a) Use governed by regulations applicable to the London CTR.
- (b) The following conditions and procedures apply to single-engined and light twin-engined aircraft not fully equipped with radio apparatus (including ILS receiver) as specified at GEN 1.5 but carrying at least the VHF RTF frequencies to permit communication with London (Heathrow) Airport Approach/Director/Radar, Tower and Ground Movement Control:
 - (i) The flight must be made on a VFR or Special VFR clearance under the weather conditions and along the routes specified in the EGLL AD 2.22, paragraph 11.
 - (ii) The first VHF RTF communication with Approach Control must include the words 'Customs required' if the flight is an international one.
- (c) An operator which has not operated a scheduled service or a series charter service from Heathrow prior to 1 November 1992 shall only be permitted to commence a scheduled service or a series charter service from Heathrow to a destination which was not served from the airport by any operator in the twelve months prior to 1 November 1992 if any jet aircraft to be used meets the requirements ICAO Annex 16, Chapter 3.
- (d) When applying for permission to commence a service falling within the terms of this Condition, documents attesting that jet aircraft comply with Chapter 3 Noise certification standards must be produced. If these documents are not produced the aircraft will be regarded as a non Chapter 3 aircraft.
- (e) All flights are at all times subject to PPR within the terms of the Heathrow Rule 1 Traffic Distribution Rules 1991. The filing of a flight plan with NATS or receipt of an ATC clearance does not constitute permission to use London Heathrow.
- (f) Availability: H24, subject to the approval of the Airside Director, Heathrow Airport Ltd, and the acceptance of the flight by the coordinator (Airport Co-ordination Ltd). For the purposes of this paragraph, Scheduled Flights shall mean: commercial passenger flights; commercial all-cargo flights; positioning flights to operate a planned commercial service or to undergo essential maintenance; ambulance flights; other non-commercial flights operated in support of commercial operations including but, not limited to, air tests, training flights, technical stops. Subject to paragraph (g), the airport may not be used by aircraft other than those engaged on Scheduled Flights unless:
 - (i) prior written permission and a clearance number for each flight is obtained from the Airside Director, Heathrow Airport Limited; and
 - (ii) a slot has been obtained in advance of each movement from the airport co-ordinator.

Applications for prior permission must be made in writing not more than 10 days and not less than 24 hours before the proposed flight to the Airside Director, The Compass Centre, Nelson Road, Heathrow Airport, Tel: 020-8757 4470. Once permission has been granted to an operator for a particular operation, permission will be deemed granted on subsequent occasions provided there is no material difference in the type of operation (in such cases a further application for prior permission must be made as above) and provided that the Airside Director shall not have revoked the permission, which he shall be able to do in his absolute discretion.

Applications for a slot must be made not less than 24 hours before the proposed flight, and should be addressed to the Manager, Airport Co-ordination LTD, by Tel: 020-8564 0613, Fax: 020-8564 0690, available during office hours; or by email: LONACXH@acl-uk.org.

Both applications must include the following information.

- (i) Aircraft owner/operator;
 - (ii) Aircraft type and registration;
 - (iii) Origin and/or destination;
 - (iv) ETA and ETD;
 - (v) Number of passengers;
 - (vi) A handling agent (Airline Operator or Handling Agent based at Heathrow) is a requirement for all flights including general aviation and helicopter movements;
 - (vii) Purpose of flight.
- Use is also subject to limitations imposed by Night Noise Restrictions (see current supplements).
- (g) For the purposes of this paragraph (g), 'General or Business Aviation' shall mean any air traffic not falling into any of the following categories:
 - (i) Scheduled Flights (as defined in paragraph (f));
 - (ii) Air-Taxi Services which shall mean: non-scheduled air transport operations for hire or reward in the case of passenger air transport operations where the seating capacity of the aircraft used exceeds 10;
 - (iii) Official Flights which shall mean: any traffic engaged on the Queen's flight or on flights operated primarily for the purpose of the transport of Government Ministers or visiting Heads of State or dignitaries from abroad.

Operators of General or Business Aviation aircraft may not operate at any time unless:

- (i) they obtain prior written permission to do so from the Airside Director, Heathrow Airport Limited; and

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- (ii) they obtain a slot in advance of each movement also from the airport co-ordinator; and
- (iii) irrelevant of their time of arrival and departure, they operate the movement (departure and arrival) to the approved slot time.

Those who fail to comply with (g) (i), (ii), or (iii), are liable to be prohibited from operating thereafter, unless Airside Director, Heathrow Airport Limited is satisfied that the movement amounted to an emergency or other circumstances beyond the control of the operator or the commander of the aircraft.

Applications for prior permission must be made in writing not more than 10 days and not less than 24 hours before the proposed flight to the Airside Director, The Compass Centre, Nelson Road, Heathrow Airport, Tel: 020-8757 4470. Once permission has been granted to an operator for a particular operation, permission will be deemed granted on subsequent occasions provided there is no material difference in the type of operation (in such cases a further application for prior permission must be made as above) and provided that the Airside Director shall not have revoked the permission, which he shall be able to do in his absolute discretion.

Applications for a slot must be made not less than 24 hours before the proposed flight, and should be addressed to the Manager, Airport Co-ordination LTD, by Tel: 020-8564 0613, Fax: 020-8564 0690, available during office hours; or by email: LONACXH@acl-uk.org.

- (i) Aircraft owner/operator;
- (ii) Aircraft type and registration;
- (iii) Origin and/or destination;
- (iv) ETA and ETD;
- (v) Number of passengers;
- (vi) A handling agent (Airline Operator or Handling Agent based at Heathrow) is a requirement for all flights including general aviation and helicopter movements;
- (vii) Purpose of flight.

Flights for recreational, commemorative, charity and record breaking purposes, light twin engined private aircraft and all light single engined aircraft will not be permitted to use the airport. 'Light aircraft' shall be defined as any aircraft that has a maximum gross take-off weight of 12,500 lb (5,670 kg) or less.

- (h) Diversion Procedure – Airline and other operators are requested to resist filing London Heathrow as an alternate. However, where this is unavoidable, they are required to have made arrangements for ground handling with an airline from the appropriate terminal. It should be noted that during the night, ground handling facilities are very limited without prior arrangement. Nothing in this procedure shall, however, prevent an aircraft that has declared an emergency from landing.
- (i) The operation of the Antonov An124 and An225 is subject to prior approval of the Airside Operations, Tel: 0776-762 0134.
- (j) Fixed-wing and rotary aircraft using London Heathrow Airport do so in accordance with the Heathrow Conditions of Use document. A copy of the document is available at www.heathrowairport.com.
- (k) In order to provide a stable and deliverable schedule during times of disruption, Heathrow Airport Ltd operates a Demand v Capacity (DvC) process which aims to minimise impact to the local community by reducing the risk of movements during the night period, prevent short-notice cancellations, and provide airlines with the opportunity to pre-tactically cancel flights in advance of disruption.
 - (i) The Heathrow Aircraft Flow Manager will decide if there is a developing risk to the normal operation of the airfield and will host a conference call with the airport community. The outcome of this conference call may be that airlines are required to make a pre-tactical reduction in their schedules. Heathrow may also decide not to accept diversions during the period of disruption, and ad-hoc slots may be suspended. All outcomes will be communicated via NOTAM.
 - (ii) Airport Coordination Limited (ACL) is responsible for monitoring the utilisation of slots and applying the "use it or lose it" (80:20) rule as required under the European Union Regulation 95/93 amended by 794/2004. ACL will review each activation of the Demand v Capacity process on a case by case basis. ACL will look favourably on those air carriers that comply with the request by the airport to cancel in advance of predicted disruption following the issuing of a NOTAM and will provide alleviation for 80:20. ACL will review cancellations that occur in the same way it would for any other disruption, which may lead to further alleviations. For further information, contact the Aircraft Flow Manager on +44(0)208-757 3501.

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

2 Ground Movement

(a) General

- (i) Ground Movement Control (GMC) is in continuous operation and all surface movement of aircraft, vehicles and personnel on the Manoeuvring Area is subject to ATC authority.
- (ii) Directions issued by ATC should be followed specifically. RTF transmissions must be brief, concise and kept to the minimum number.
- (iii) Within the Movement Area, pilots will be cleared to and from the aircraft stands under general direction from GMC. Pilots are reminded of the extreme importance of maintaining a careful lookout at all times.
- (iv) Pilots are to use the minimum power necessary when manoeuvring on the taxiway system. This is of particular importance when manoeuvring in the apron cul-de-sacs, where jet blast can affect adjacent stands.
- (v) Flight crew are reminded of the extreme importance of maintaining a careful lookout at all times and are at all times responsible for wing tip clearance. The taxiway lighting system is an aid to pilots when they are operating on the manoeuvring area during darkness or in poor visibility. Notwithstanding the taxiway lighting system, pilots continue to remain responsible for wing tip clearance.
- (vi) In promulgated holding areas, ATC may require aircraft to pass each other. Avoidance of other aircraft is the responsibility of the flight crew involved. If doubt exists as to whether other aircraft can be safely overtaken, aircraft must stop, advise ATC, and request ATC for alternative instructions.
- (vii) ATC will clear aircraft to the holding point of the departure runway in use. Until a line-up clearance of sequence instruction is issued, commanders are to position their aircraft in such a way that the entrances to the runways are not obstructed.
- (viii) Heathrow Airport is equipped with an advanced surface movement radar utilising Mode-S.
 - (1) Aircraft operators intending to use London Heathrow Airport should ensure that Mode S transponders are able to operate when the aircraft is on the ground
 - (2) Flight crew should:
 - Select XPNDR or the equivalent according to specific installation, AUTO if available, not OFF or STDBY, and the assigned Mode A code.
 - From the request for push back or taxi whichever is earlier;
 - After landing, continuously until the aircraft is fully parked on stand
 - After parking the Mode A code 2000 must be set before selecting OFF or STDBY.
 - (3) Flight crew of aircraft equipped with Mode S having an aircraft identification feature should also set the aircraft identification. This setting is the aircraft identification specified in Item 7 of the ICAO ATC Flight Plan. The aircraft identification should be entered from the request for push back or taxi, whichever is earlier, through the FMS or the Transponder Control Panel.
- (ix) Pilots are required to inform Heathrow Delivery if the aircraft livery conflicts with the aircraft call sign.

(b) Manoeuvring Area

- (i) The manoeuvring area designation system is illustrated on page AD 2-EGLL-2-1. The taxiway designation system uses alphabetical letters to identify main taxiways. Stub taxiways that connect main taxiways are designated as 'Link'. The runway holding areas have named reporting points. Entrance/exits for the runways have alpha/numeric designations.
- (ii) The Manoeuvring Area is equipped with the following forms of taxiway guidance:
 - (1) Yellow painted taxiway centre-lines;
 - (2) Yellow painted holding position lines at the approach to runways;
 - (3) Yellow painted special holding position lines related to runway protection in CAT II/III;
 - (4) Green taxiway centre-line lights and red stopbars controlled from the Tower;
 - (aa) Aircraft may be requested to 'follow the greens', in addition to being given a verbal clearance limit. This means aircraft should follow the green centre-line lights, until either the verbal clearance limit or a red stop bar is reached. Aircraft should not proceed past a verbal clearance limit without ATC approval, even if no red stop bar exists.
 - (5) An illuminated red stopbar means STOP. Aircraft must not proceed until the stopbar is extinguished or ATC permission is received;
 - (6) Runway Guard Lights: Pairs of alternately flashing ground mounted yellow lights at each side of the taxiways, where they connect with a runway, operate H24.
- (iii) Ground movement of large aircraft:

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- (1) A380 aircraft - taxiway routes available to the A380 are shown on chart AD 2-EGLL-2-3, marked in yellow. Reduced 'taxiway centre-line to object clearance' of 49 m applies on Taxiway Echo between Bravo and Link 36 and on Taxiway Whiskey between Taxiway Sierra and Taxiway Tango and on Taxiway Sierra centre-line between SY6 and Tango. Reduced clearance of 47.5 m to an airside road to the east of Taxiway Alpha at MORRA. Pilots are to ensure that aircraft remain on the taxiway centre-line at all times. A380 pilots are to use minimum power when manoeuvring in Terminal 4.
- (2) Pilots of Code E aircraft must exercise caution when using Taxiway Sierra between Reporting Point SY6 and Taxiway Z as wing tip clearances to the south are minimal.
- (3) All B747/400 aircraft on Taxiway Zulu must be under tow.
- (4) A340-600 and B777-300 aircraft - it is recommended that flight crews use judgemental steering at all times when manoeuvring on the taxiways. These aircraft are not permitted to use the following route; Eastbound on Taxiway Sierra at TULLA - turning right onto Link 41 to face west.

Eastbound on Taxiway Sierra at S1N - turning right onto Link 41 to face west.
- (5) Pilots of B747, B777, A340 and Code F aircraft are not permitted to route north on Taxiway Tango turning left on Taxiway Sierra facing west under power.
- (iv) Code E taxiway-taxiway separation of 80 m is not met as follows: Taxiways Alpha-Bravo between Hotel and AY5.
- (v) Code E taxiway to stand, or taxiway to object separation of 43.5 m is not met to the east of Taxiway Foxtrot between F1 and Taxiway Golf (42.5 - 43 m), and to the south of Taxiway Sierra between SY6 and Taxiway Z (37 m).
- (vi) Code F taxiway to stand, or taxiway to object separation of 51 m is not met to the south of Taxiway Bravo (N) between stands 336 and 357 (49 m).
- (vii) Taxiway Yankee between HANLI and Taxiway Alpha is restricted to aircraft with a maximum size of A321.

(c) Engine Ground Running

Accountability for the control of ground noise at Heathrow rests with Heathrow Airport Limited (HAL). Various restrictions regarding aircraft operations are related to the planning conditions (as amended) for Terminals 4 and 5. In addition, the running of Auxiliary Power Units is controlled.

(i) Operations at Terminal 4

- (1) **Stands 401-403 and 429-432**, except in an emergency, **between 2330 and 0600 (local)**; no use of aircraft engines shall be permitted to, from or onto these stands;
- (2) **Taxiway route 'S' east of 'V' apron or through 'Link 41' to S1 and reverse.** Aircraft are prohibited from accessing and departing from the terminal site by taxiing on the route above between 2330 and 0600 (local) except in an emergency or as a consequence of essential maintenance work on the alternative access routes.

(ii) Operations at Terminal 5

Between 2330 and 0600 (local):

- (1) Aircraft arriving at Terminal 5 and those scheduled to depart in that period, will use stands closest to the centre of the site in preference to outer stands;
- (2) Taxiing operations to the north and south of the T5 application site will be restricted to inner taxiways only, except in an emergency or for the maintenance of the runway and taxiway system.

(iii) Hierarchy of power sources

The following hierarchy of power sources must be followed:

- (1) FEGP - to be used whenever supplied and serviceable;
- (2) GPU - only to be used when FEGP is not supplied or the unit is unserviceable;
- (3) APU - only to be used when neither FEGP nor GPU is supplied or both units are unserviceable.

(iv) Auxiliary Power Units (APU) procedures

- (1) APU must be shut down at the earliest opportunity on arrival on stand.
- (2) APUs are not permitted to be used between 2330-0600hrs (local) on:

Cargo Area stands 601-609 and 611-616;

Stands 401-403 and 429-432, except in an emergency.
- (3) No APU is to be left running unless either a qualified person is in attendance or the APU has both an auto-shut down and auto-extinguishing facility.

(v) Restrictions on the use of APUs are:

	Before Scheduled Time of Departure - start	Arrival terminating operation - shut down
Narrow Body Aircraft	No more than 15 minutes †	10 minutes after arrival on stand †

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

Wide Body Aircraft (B747, B767, B777, B787, MD11, A300, A310, A330, A340)	No more than 50 minutes † Or not more than 90 mins prior to departure when the FEGP has not been upgraded to provide enough power to support the FMS	10 minutes after arrival on stand †
A380	No more than 90 minutes †	15 minutes after arrival on stand †

† Exceptions to these restrictions are:

- (1) When an aircraft is scheduled to be towed off to another location the APU may be restarted for safety reasons not in excess of 10 minutes prior to the planned movements.
- (2) When the planned towing movement as specified under 1 is delayed due ATC, then the APU may be left running.
- (3) Where no fourth FEGP plug is available on stand, A380 aircraft are permitted to use a GPU to support FEGP usage.
- (4) When the external air temperature is below 5°C or above 20°C as stated on the ATIS, then the APU restriction for Narrow body aircraft is extended to 40 minutes before STD.
- (5) When the external air temperature is below 5°C or above 20°C as stated on the ATIS, then the APU restriction for Wide body aircraft is extended to 75 minutes before STD.
- (6) When the external air temperature is below 5°C or above 20°C as stated on the ATIS, then the APU restriction for A380 aircraft is extended to 120 minutes before STD.

- (vi) If an Airline wishes to make use of the Engine Ground Run pens they should contact British Airways maintenance control on 020-8513 0880. Requests will only be accepted when there is spare capacity.

(d) **Runway Crossing Procedure (Runway 09R/27L)**

- (i) Aircraft and vehicles which are required to cross active runways will be issued instructions by the Ground Movement Controller, which will include a holding point as a clearance limit, at which the aircraft or vehicle will be required to hold short of the active runway.
- (ii) When reaching the clearance limit specified in the taxiing instructions, the aircraft or vehicle will be instructed to change frequency to that of the Air Controller of the appropriate runway.
- (iii) After crossing the runway and having reported 'runway vacated' with the Air Controller, the aircraft or vehicle will be instructed to revert to the GMC frequency for further clearance. In the absence of further clearance it is essential that the aircraft or vehicle holds position when clear of the runway.

(e) **Start-up Procedures**

(i) General

- (1) ATC are responsible for clearance delivery as a separate function from Ground Movement Control (GMC). **Pushback approval must be obtained from GMC.** Pilots who wish to start engines on stand must request permission from GMC. Pushback approval includes permission to start engines during pushback.
- (2) Pilots are to report their aircraft type, stand number, QNH and the identification letter of the received ATIS information on first contact with 'Heathrow Delivery'.
- (3) All jet aircraft are to advise ATC if, for any reason, they are unable to accelerate after noise abatement procedures to 250 kts. Note that poor departure speed performance may result in a short delay at peak periods.

(ii) **Airport - Collaborative Decision Making (A-CDM)**

(1) TOBT/TSAT

- (aa) Pilots should take note of the **TSAT** which they receive from their AO/GH or ATC and comply with it;
- (bb) **If TOBT or TSAT** can no longer be met, at any time, then TOBT must be updated by AO/GH;
- (cc) Pilot should ensure that the flight is ready to depart at **TOBT (window of -5 to +5 minutes)**.

(2) Start Request - Heathrow Delivery

- (aa) Pilot should report ready to Heathrow Delivery at **TOBT (window of -5 to +5 minutes)**;
- (bb) ATC will then **approve start** or in the case of a delay will **advise the TSAT**;
- (i) Pilots to monitor the frequency from this point, as TSAT can improve up to TOBT;
- (ii) Start approval will be issued, based on TSAT and the prevailing traffic situation;
- (iii) Pilots will be informed of an ATC delay to TSAT in excess of 5 minutes.
- (cc) If at **TOBT + 5 minutes** ATC have not received a start up request the aircraft may lose its position in the sequence.
- (i) ATC will advise the pilot that a new TOBT is required;

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- (ii) Once the new TOBT is entered the flight will be re-sequenced according to a new TOBT, with a subsequent delay;
- (iii) The aircraft will not be allowed to depart until a valid TOBT is entered and revised TSAT given and complied with.
- (3) Pushback Request - Heathrow Ground
 - (aa) Pushback/Start clearance must be requested from Ground no later than 5 minutes after being transferred from Delivery;
 - (bb) If unable to meet this constraint, the aircraft will not be allowed to pushback. A valid TOBT must then be issued by the AO/GH and ATC will then issue a revised TSAT.
- (4) Remote Holding Request
 - (aa) If an eligible AO is aware of a CTOT and wishes to take the delay on a taxiway rather than on the stand, then they should contact the Tower Supervisor by telephone to arrange it;
 - (bb) In this instance, the TSAT will be adjusted to allow the aircraft to be transferred to GMC earlier for the remote hold.
- (5) Aircraft De-icing Requirements.
 - (aa) Annually, Heathrow publishes an Aircraft De-icing Plan (HADIP). All airline operators should ensure that they have read and understood this document. A copy of the plan can be downloaded from www.heathrow.com/airside.
 - (bb) During periods of high demand for de-icing, Heathrow activates the A-CDM 'Winter Module' which includes aircraft de-icing rig allocation capability.
 - (cc) In order to request de-icing, pilots should follow their company's standard procedure. In accordance with Heathrow's de-icing plan, operators will enter the requirement for de-icing into A-CDM, which will ensure that de-icing resources are allocated appropriately. If the aircraft is to be de-iced remotely, operating companies will pass this information to pilots prior to push. Remote de-icing facility locations are shown on chart AD 2-EGLL-2-8.
 - (dd) When doors are closed and ready to commence de-icing on gate, pilots must call Heathrow Delivery stating "Ready for de-icing". This call must be made at +/- 5 minutes from TOBT.
 - (ee) Once de-icing on the gate is complete, pilots should call Heathrow Delivery again, stating 'De-icing complete, ready to push and start'.
 - (ff) Pilots who have been allocated a remote de-icing area should contact Heathrow Delivery, stating 'Ready to push and start for remote de-icing'.
- (iii) Clearance Delivery
 - (1) ATC departure clearances may be obtained by Voice RTF or Data link Departure Clearance Service (DCL) (via SITA or ARINC (623)).
 - (2) Voice RTF
 - (aa) Between 0630 and 1400 and between 1500 and 2200 (local), pilots of operators who have been briefed with regard to the correct phraseology may call for ATC clearance up to 15 minutes prior to being fully ready to push-back. **All other operators must be fully ready before calling on frequency.**
 - (3) Datalink Departure Clearance Service (DCL) (via SITA or ARINC (623))
 - (aa) The DCL service is available from EOBT -25 until EOBT +15 minutes.
 - (bb) DCL Clearances will not be issued if requested later than EOBT +15 minute. Successful clearances must be ACCEPTED within 5 minutes of receipt or a 'Revert to voice' message will be received.
 - (cc) If any data errors are detected by the system or the controller a 'revert to voice' message will be received.
 - (dd) If the attempt to obtain a clearance is unsuccessful the aircraft should revert to voice RTF.
 - (ee) Further details of the DCL service may be obtained from ATC operations on + 44 (0)208-750 2621.
 - (ff) **Regardless of clearance source, departing aircraft must report their aircraft type, stand number, QNH and the identification letter of the received ATIS information to 'Heathrow Delivery' when fully ready for pushback and start.**
 - (gg) In strong crosswind conditions (crosswind component above 35 knots), pilots are requested to advise Ground Movement Planning, on start-up, of their aircraft crosswind limitations. This is to enable better tactical planning at the Runway Holding point and a more efficient departure rate. In those conditions, this requirement will be confirmed through ATIS broadcast and NOTAM (if sufficient time allows).
- (iv) RVR below 400 m

When the RVR is below 400 m pilots are not to request start-up clearance until the reported RVR is equal to or greater than the appropriate value in the following table:

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

AIRCRAFT TAKE-OFF MINIMA	MINIMUM RVR FOR START-UP CLEARANCE
350 Metres RVR	300 Metres RVR
300 Metres RVR	250 Metres RVR
250 Metres RVR	200 Metres RVR
200 Metres RVR	150 Metres RVR
150 Metres RVR	150 Metres RVR
100 Metres RVR	100 Metres RVR
75 Metres RVR	75 Metres RVR

It is emphasised that these measures will apply only when the reported RVR is below 400 m and the co-operation of all pilots is sought in maintaining the safety level in low minima operations.

- (v) During busy periods (normally following disruption), aircraft that are fully ready may be transferred to 'Heathrow Planning' prior to to GMC. The 'Planning' controller will determine the order that start approvals are issued and will issue expected start times accordingly. Pushback approval must be obtained from GMC.

(f) **Push-back procedure**

- (i) Following push-back from cul-de-sac stands, all aircraft must be pulled forward to a minimum of 100 m from the blast screen (indicated by a painted mark on the taxiway centre-line) before disconnecting the tug. Due to exhaust fume ingestion within the buildings at the ends of each cul-de-sac, engine start-up must be delayed until the aircraft has reached the 100 m point. Pilots should be aware that, in order to maximise capacity within the Kilo (S) Cul-de-sac, push-back clearances provided by ATC may include reference to a numbered 'Tug Release Point' TRP 1, TRP 2 or TRP 3, which should be passed to ground crew along with the clearance. Ground handlers will understand these clearances and perform the push accordingly.
- (ii) Before flight crew calls for push-back they must ensure that the tug driver is in the tug, ready to push, and able to listen to the communication with ATC.

(g) **Departures – Minimum Runway Occupancy Time**

- (i) On receipt of line-up clearance pilots should ensure, commensurate with safety and standard operating procedures, that they are able to taxi into the correct position at the hold and line up on the runway as soon as the preceding aircraft has commenced its take-off roll.
- (ii) Pilots in receipt of a conditional line up clearance on a preceding departing aircraft (for example; '**ABC123 behind the departing Sky Train A330, line up Runway 27L behind**') should remain behind the subject aircraft but may cross the runway holding point (subject to there being no illuminated red stop bar) and enter the runway upon receipt of the clearance. There is no requirement for the subject aircraft to have commenced its take-off roll before entering the runway. **Pilots must be aware that there may be a blast hazard as the aircraft on the runway applies power.**

Pilots in receipt of a conditional line up clearance on a preceding arriving aircraft (for example; '**ABC123, behind the landing Sky Train A330, line up Runway 27L behind**') may cross the runway holding point (subject to there being no illuminated red stop bar) as soon as the landing aircraft has passed the runway entry point.

Pilots are advised that there is an increased risk of Runway Incursions when holding at N11 and NB11. Pilots may mistakenly believe that when on reaching the front of the queue, they have been given permission to line up in turn. Pilots are to be extra vigilant as to whether they have received a line-up clearance from ATC and seek confirmation where there is doubt.

- (iii) Pilots who require to back-track the runway (including line up from N2W onto Runway 27L) must notify ATC prior to arrival at the holding point.
- (iv) Whenever possible, cockpit checks should be completed prior to line up and any checks requiring completion whilst on the runway should be kept to the minimum required. Pilots should ensure that they are able to commence the take-off roll immediately take-off clearance is issued.
- (v) Pilots not able to comply with these requirements should notify ATC as soon as possible once transferred to Heathrow Tower Departures Frequency.

(h) **Intersection Departures**

- (i) Runway 27R; A4; Runway 27L, N3 and S3, Runway 09R; N8 and N10 are **NOT**, for the purposes of vortex wake, considered by ATC to be intersection departures.
- (ii) Pilots in receipt of a conditional line up clearance holding at an intersection (for example; '**ABC123, behind the departing Sky Train from the full length, line up Runway 27L via NB3 behind**') should remain behind the runway holding point until the subject aircraft has passed the intersection at which they are holding.

(i) **Reduced Engine Taxi**

- (i) Whenever operationally and safely feasible, all aircraft are requested to shut down as many engines as possible while taxiing and holding on the ground, EXCEPT in the following circumstances:

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- aa. By any aircraft that is required to cross an active runway;
- bb. By any aircraft exiting T and turning west onto S due to jet blast affecting Stand 412;
- cc. By B777 variants in G and H due to jet blast;
- (ii) Pilots who intend to execute Reduced Engine Taxi on departure **MUST** report their intention to Heathrow Delivery on first contact by data link or if not possible by RT. This is essential for safety and operational reasons.

In the apron areas minimum engine power shall be used as far as possible, and use of reverse thrust for manoeuvring to and from a stand is not permitted.

3 CAT II/III Operations

- (a) Runways 09R, 09L, 27R and 27L, subject to serviceability of the required facilities, are suitable for Category II and III operations.
- (b) During Category II and III operations, special ATC procedures (ATC Low Visibility Procedures) will be applied. Pilots will be informed when these procedures are in operation by Arrival and Departure ATIS or by RTF. ATC Low Visibility Procedures will only be applied when the RVR is less than 600 m.
- (c) The ILS on the departure runway will be turned off when the IRVR is greater than 250 m. Pilots requiring the ILS for departure when the IRVR is in the range 275 m to 550 m must inform Heathrow Delivery.
- (d) Arriving Aircraft: Surface Movement Guidance and Control System (A-SMGCS) is normally available and all runway exits will then be illuminated. Pilots should select the first convenient exit.
- (e) Pilots are to delay the call 'runway vacated' until the aircraft has completely passed the end of the green/yellow colour coded taxiway centre-line lights.
- (f) When Low Visibility Procedures are in force a much reduced landing rate can be expected due to the requirement for increased spacing between arriving aircraft. In addition to the prevailing weather conditions, such factors as equipment serviceability may also have an effect on actual landing rates. For information and planning purposes, the approximate landing rates that can be expected are:

IRVR (m)	Expected landing Rate
Between 1000 and 600	34
Between 600 and 150	24
Less than 150	Less than 20

4 Warnings

- (a) Pilots are warned, when landing on Runway 27R in strong southerly/south westerly winds, of the possibility of building-induced turbulence and large windshear effects.
- (b) Similarly, Runway 27L arrivals may be affected by winds with a strong Northerly component. Building-induced turbulence may be experienced at the mid sections of each runway from winds with a strong Southerly, or strong Northerly component.
- (c) Electricity pylons running on a line NE/SW and 2.6 nm W from ARP at 182 ft aal/262 ft amsl.

5 Helicopter Operations

- (a) General
 - (i) Normal Flight Priority (defined in CAP 493 Manual of Air Traffic Services) helicopter overflights of Heathrow are only permitted on a VFR clearance provided that the Heathrow reported visibility is 5 km or greater and the reported cloud ceiling 1500 ft or greater. Below these minima Special VFR helicopter arrivals and departures shall be via H9 south of Heathrow and are permitted provided that the Heathrow reported visibility is 2 km or greater and cloud ceiling 600 ft or greater.
 - (ii) High Flight Priority (Category A to E) helicopters are permitted to overfly Heathrow on a VFR or Special VFR clearance, provided that the Heathrow reported visibility is 2 km or greater and the reported cloud ceiling 600 ft or greater.
 - (iii) Helicopter operations at Heathrow commence and terminate at Sipson to the north and Bedfont or Feltham to the south. Helicopters must hold at these points unless instructed otherwise by ATC. See chart AD 2-EGLL-4-1.
 - (iv) Whilst holding at Sipson or Feltham, helicopters are separated for both ATC and wake turbulence purposes from fixed wing aircraft landing on, departing from, or executing missed approaches to all runways.
 - (v) When the meteorological conditions exist for VFR flight (detailed in (i)), helicopters approaching the airfield from the south will be held at Bedfont. These helicopters will be separated for wake turbulence but pilots must remain in visual contact with aircraft on approach to 27L. Pilots are warned that missed approach aircraft will turn left at 1000 ft aal.

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- (vi) When the meteorological conditions do not exist for VFR flight (detailed in (i)), helicopters may require IFR separation and will be held at Feltham to the south. Integration of this traffic will require an increased gap in the IFR arrival stream and the helicopter may incur a significant delay.
 - (vii) Helicopters are not to cross Heathrow below altitude 800 ft.
 - (viii) There are occasions when the departure runway is required for landing traffic. This will also incur extra delay as the helicopter crossing procedures cannot be carried out with aircraft inbound to both runways simultaneously.
- (b) Crossing procedures Runways 27L/R
- (i) Helicopters will normally be instructed to cross the departure runway to the east of the threshold. See chart AD 2-EGLL-4-1.
 - (ii) When a suitable gap in the landing stream exists, ATC will pass traffic information on a fixed-wing landing aircraft and issue a crossing clearance behind. The helicopter will cross in the gap after the subject aircraft as close to the threshold as practicable and as expeditiously as possible. Once clear of the runway, route to the east of the departure runway and resume the route to Sipson/Bedfont as appropriate to hold, unless otherwise instructed by ATC.
 - (iii) Where the departure runway is crossed first, holding prior to crossing the landing runway will be permitted between the two main runways. For aircraft in a holding pattern, this operation must take place between the departure threshold and a line drawn east-west through the southern edge of the Virgin hangar. Chart AD 2-EGLL-4-1 refers. (The hangar has Virgin on all sides and is to the east of the fire training ground where the green 'aircraft' is sited). No helicopter is to cross this line until a clearance to cross the landing stream is received. Having crossed the landing runway route to Sipson/Bedfont as appropriate to hold, unless otherwise instructed by ATC.
 - (iv) In the event of a loss of communication, see paragraph e
- (c) Crossing procedures Runways 09L/R
- (i) The northbound route for helicopters is: Bedfont-Stanwell-West of Terminal 5-Longford-Sipson. See chart AD 2-EGLL-4-1.
 - (ii) If there is inbound traffic to 09R, helicopters will be instructed by ATC to route Bedfont-Stanwell. The pilot will be instructed to hold at Stanwell and will wait for a suitable gap in the approach. If there is no 09R inbound, helicopters will be routed Bedfont-Stanwell-hold West of Terminal 5. This operation is to take place between the departure threshold and a line drawn east-west through the mid-point of Terminal 5 main building. Chart AD 2-EGLL-4-1 refers. No helicopter is to cross this line until a clearance to cross the 09L landing stream is received. When a suitable gap in the 09L landing stream exists, ATC will pass traffic information on a fixed-wing aircraft and issue a crossing clearance behind. The helicopter will cross in the gap as close to the runway threshold as possible. Once clear of the landing stream, route Longford-Sipson to hold, unless otherwise instructed by ATC.
 - (iii) The southbound route for helicopters is: Sipson-Longford-West of Terminal 5-Stanwell-Bedfont. See chart AD 2-EGLL-4-1.
 - (iv) Helicopters will be instructed by ATC to route Sipson-Longford to hold. When a suitable gap in the 09L landing stream exists, ATC will pass traffic information on a fixed-wing landing aircraft and issue a crossing clearance behind. The helicopter will cross in the gap as close to the runway threshold as possible (this may be before Longford) and as expeditiously as possible. Once south of the runway the helicopter will route to the west of Terminal 5 and rejoin the route; West of Terminal 5-Stanwell-Bedfont (and must remain west of 09R). If there is inbound traffic on the approach of 09R no clearance will be issued beyond Longford. On completion of the route, hold at Bedfont unless instructed otherwise by ATC.
 - (v) Longford and Stanwell are separated for both wake vortex and ATC visual separations only. Whilst helicopters are transiting between Bedfont and Sipson and vice versa, traffic information will be passed to fixed-wing aircraft for the relevant runway.
 - (vi) In the event of a loss of communication, see paragraph e.
- (d) Landing and Departing Procedures.
- (i) All helicopters to and from Heathrow are subject to **PPR**.
 - (ii) Inbound and outbound helicopters will routinely use the helicopter aiming point (HAP). Procedures to/from the HAP are visual to/from Bedfont. If prevailing weather conditions do not permit this, see Paragraph a (ii), Feltham will be used and standard separation will apply.
 - (iii) If inbound from/outbound to the north, the helicopter will be instructed by ATC to cross both runways from/to Bedfont or Feltham, see paragraphs b or c.
 - (iv) When instructed to route to the HAP from Bedfont or Feltham, or vice versa, remain south of 27L/09R at all times.
 - (v) A 4 minute wake vortex separation exists for all helicopter movements to/from the HAP subsequent to any A380 departures to/from 27L/09R.
 - (vi) The helicopter aiming point is located on the taxiway area east of Link 43. It is marked with an 18 m sided triangle with a conventional 'H'. This aiming point is lit and available for use throughout operational hours. The take-off and climb surface has been protected to 8% to the east and west of the aiming point (see Chart AD 2-EGLL-4-1). Pilots

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

are advised of the presence of a radar tower located on grass area 170 m east of the aiming point. Tower height 31 ft aal/107 ft amsl.

- (vii) Caution must be exercised when using this aiming point which is on a live taxiway.
- (viii) Helicopters alighting at the aiming point will ground or air-taxi to the parking areas as directed by ATC.
- (e) Loss of Communications Procedures
 - (i) If no onward clearance has been received before reaching, or when holding at, Sipson or Bedfont, **reverse track and leave the CTR** via: H2-H10-Cookham if approaching **Sipson** or H9 if approaching **Bedfont**. **Do not attempt to cross London Heathrow Airport.**
 - (ii) For helicopters overflying or landing at London Heathrow Airport.
 - (1) Between Sipson and Bedfont:
 - aa if the landing runway has already been crossed, cross the departure runway downwind of the threshold, exercising extreme caution with regard to possible landing traffic; **and leave the CTR via H2-H10-Cookham or H9** to the south as appropriate.
 - bb if the departure runway has been crossed, with instructions given to hold at the Virgin hangar or West of Terminal 5 to, **reverse track** and to cross the departure runway downwind of the threshold, exercising extreme caution with regard to the possibility of landing traffic; and **leave the CTR via H2-H10-Cookham or H9** to the south as appropriate.
 - (2) If landing at London Heathrow Airport by day or night, and having crossed the runways, if necessary as detailed above:
 - aa **Proceed to hold at Bedfont;**
 - bb **Wait for the Helicopter Aiming Point to illuminate;**
 - cc **Land with caution and await Leader vehicle escort.**

Note: the selection of squawk 7600 will alert Air Traffic Control to your RTF failure.

6 Use of Runways

- (a) Preferential Runway System
 - (i) In weather conditions when the tail wind component is no greater than 5 knots on the main Runway 27R and 27L, these runways will normally be used in preference to Runways 09R and 09L, provided the runway(s) surface is dry.
 - (ii) Pilots who ask for permission to use the runway into wind when, in accordance with these procedures, Runway 27R or 27L are in use, should understand that their arrival or departure may be delayed.
 - (iii) Departures – Wake Vortex separation.

Wake vortex separations are in accordance with the 5 Group Scheme and are as detailed in UK AIC P 072/2010. On departure, when in receipt of line up clearance, the pilot must inform ATC if greater wake vortex separation will be required behind the preceeding aircraft than that laid down in UK AIC P 072/2010. Failure to do so may result in additional delay.
 - (iv) Arrivals – Minimum Runway Occupancy Time

Pilots are reminded that rapid exit from the landing runway enables ATC to apply minimum spacing on final approach that will achieve maximum runway utilisation and will minimise the occurrence of 'go-arounds'.
 - (v) Landing aircraft are to vacate expeditiously. All arrivals are to ensure that they are fully vacated before stopping.
- (b) Runway Vacation Guidelines
 - (i) Due to the High Intensity Runway Operations at Heathrow it is necessary to ensure pilots adhere to the following guidelines.
 - (ii) A380 pilots are reminded that a long landing roll will infringe the Extended Instrument Landing System Localiser Critical Area. This increases the likelihood of the following aircraft having to break off its approach if unable to continue visually. Pilots are advised that the furthest preferred exit for each runway is as follows: 09L - A5; 09R - S4E and N4E; 27L - S6 and N7; 27R - A11.
 - (iii) **Aircraft lands but cannot contact Heathrow Ground due to RTF congestion:** In this case the pilot should completely vacate the landing runway and taxi into the first taxiway available. The pilot should then hold position until contact with GMC can be established.
- (c) Aircraft Separation
 - (i) In certain weather conditions 2.5 nm radar separation may be applied on final approach. The conditions when this separation may be utilised are:
 - (1) Visibility and cloud ceiling equal to or better than 10 km and 1500 ft with a minimum recommended headwind component of approximately 10 kt.

EGLL AD 2.20 LOCAL TRAFFIC REGULATIONS (continued)

- (2) Braking action is good.
- (3) When aircraft involved in the procedure are being operated normally. It is the pilot's responsibility to inform ATC if they are operating their aircraft other than in the normal manner.
- (4) Speed on final approach and 2.5 nm separation from preceding traffic must be stabilised by 8 nm.

7 Training

Not applicable

EGLL AD 2.21 NOISE ABATEMENT PROCEDURES

Notice under Section 78(1) of the Civil Aviation Act 1982

Whereas:

(1) By virtue of the Civil Aviation (Designation of Aerodromes) Order 1981 (a) Heathrow Airport – London is a designated aerodrome for the purpose of Section 78 of the Civil Aviation Act 1982 (b);

(2) the requirements specified in this notice appear to the Secretary of State to be appropriate for the purpose of limiting, or of mitigating the effect of, noise and vibration connected with the taking off or, as the case may be, landing of aircraft at Heathrow Airport – London;

Now, therefore, the Secretary of State, in exercise of the powers conferred on him by Section 78 (1) and (12) of the Civil Aviation Act 1982, by this notice published in the manner prescribed by the Civil Aviation (Notices) Regulations 1978 (c), hereby provides as follows:

1 This notice may be cited as the Heathrow Airport – London (Noise Abatement Requirements) Notice 2010 and shall come into operation on 1 July 2010.

2. The Heathrow Airport – London (Noise Abatement Requirements) Notice 2004 (d) is hereby revoked.

3 It shall be the duty of every person who is the operator of any aircraft which is to take off or land at Heathrow Airport – London to secure that, after the aircraft takes off or, as the case may be, before it lands at the aerodrome the following requirements are complied with:

1. After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1000 ft aal at 6.5 km from start of roll as measured along the departure track of that aircraft.

2. The sites of the noise monitoring terminals relating to Heathrow Airport – London are:

Description	OS Co-ordinates	Elevation above aerodrome	Latitude	Longitude
Site 6: Thames Water, Wraysbury	TQ 0204 7510	-6 m	*512756N	0003157W
Site 19 (A): Colnbrook	TQ 0263 7700	-4 m	*512857N	0003124W
Site 18 (B): Poyle	TQ 0278 7647	-4 m	*512840N	0003117W
Site 17 (C): Horton	TQ 0219 7566	-6 m	*512814N	0003148W
Site 15 (D): Coppermill	TQ 0197 7477	-7 m	*512745N	0003201W
Site 14 (E): Wraysbury Reservoir (South)	TQ 0169 7409	-7 m	*512724N	0003216W
Site 11 (F): Hounslow West	TQ 1151 7606	-3 m	*512821N	0002345W
Site 12 (G): Hounslow Cavalry Barracks	TQ 1166 7560	-3 m	*512806N	0002338W
Site 10 (H): Hounslow Heath	TQ 1163 7495	-3 m	*512745N	0002340W
Site 13 (I): East Feltham	TQ 1164 7398	-4 m	*512714N	0002341W
Site 20 (J): Hounslow Cavalry Barracks North	TQ 1172 7577	-3m	*512812N	0002334W
Site 21 (K): Hounslow Heath Golf Course	TQ 1148 7462	-4 m	512735N	0002348W

3. Subject to sub-paragraphs (5) and (6) below, any aircraft shall, after take-off, be operated in such a way that it will not cause more than 94 dBA L_{max} by day (from 0700 hours to 2300 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2) above.

4. Subject to sub-paragraphs (5) and (6) below, any aircraft shall, after take-off, be operated in such a way that it will not cause more than 89 dBA L_{max} by night (from 2300 to 0700 hours local time) **and** that it will not cause more than 87 dBA L_{max} during the night quota period (from 2330 to 0600 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2) above.

5. The limits specified in sub-paragraphs (3) and (4) above shall be adjusted in accordance with the following table in respect of any noise monitoring terminal at any of the sites referred to in the table in sub-paragraph (2) above to take account of the location of that terminal and its ground elevation relative to the aerodrome elevation .

EGLL AD 2.21 NOISE ABATEMENT PROCEDURES (continued)

Description	Adjustment dBA
Site 6	minus 0.3
Site 19 (A)	plus 2.3
Site 18 (B)	plus 4.8
Site 17 (C)	minus 0.3
Site 15 (D)	minus 0.6
Site 14 (E)	minus 1.0
Site 11 (F)	plus 0.9
Site 12 (G)	minus 0.1
Site 10 (H)	plus 1.2
Site 13 (I)	minus 0.3
Site 20 (J)	minus 0.2
Site 21 (K)	plus 1.7

6. For the purpose of determining an infringement of the limits specified in sub-paragraphs (3) and (4) above, if the aircraft was required to take-off with a tailwind, an amount of up to 2dB of the noise recorded at the noise monitor should be disregarded. The amount to be disregarded shall be:

- 0.4 dB for a tailwind of up to 1 knot
- 0.8 dB for a tailwind exceeding 1 knot but not exceeding 2 knots
- 1.2 dB for a tailwind exceeding 2 knots but not exceeding 3 knots
- 1.6 dB for a tailwind exceeding 3 knots but not exceeding 4 knots
- 2.0 dB for a tailwind exceeding 4 knots.

For this purpose, tailwind is to be calculated from the wind data measured in the on-airfield anemometers and wind vanes according to the formula:

$$(\text{windspeed} \times \cosine(\text{runway heading minus wind direction})) \times -1.$$

7. Where the aircraft is a jet aircraft, after passing the point referred to in sub-paragraph (1) above, it shall maintain a gradient of climb of not less than 4% to an altitude of not less than 4000 ft. The aircraft shall be operated in such a way that progressively reducing noise levels at points on the ground under the flight path beyond that point are achieved.

8. After the aircraft takes off from any runway specified in the first column of the following table, the aircraft shall follow the Noise Preferential Routeing Procedure specified in the third column of the table which relates to the ATC clearance previously given to the aircraft and specified in the second column of the table, whether flying in IMC or VMC:

(a) Provided that nothing in this sub-paragraph (8) shall apply:

- (i) to any propeller driven aircraft whose MTWA does not exceed 5700 kg; or
- (ii) during the period between 0600 hours and 2330 hours (local time), any propeller driven aircraft whose MTWA does not exceed 17000 kg or any Dash 7 aircraft.

Take-off Runway	ATC Clearance	Procedure	Take-off Runway	ATC Clearance	Procedure
27R	Via Woodley	Straight ahead to intercept LON VOR RDL 258 until LON DME 7 then turn right onto QDM 271 to WOD NDB (LON DME 16).	27L	Via Woodley	Straight ahead to intercept LON VOR RDL 258 until LON DME 7 then turn right onto QDM 271 to WOD NDB (LON DME 16).
	Via Chiltern	Straight ahead to be established on BUR NDB QDM 300 by LON DME 4. At LON DME 6 turn right onto QDM 056 to CHT NDB.		Via Chiltern	Straight ahead to be established on BUR NDB QDM 300 by LON DME 3. At LON DME 6 turn right onto QDM 056 to CHT NDB.
	Via Burnham/WOBUN	Straight ahead to be established on BUR NDB QDM 300 by LON DME 4. At LON DME 7 turn right to follow BUR NDB QDR 358 to abeam BNN VOR (LON DME 16).		Via Burnham/WOBUN	Straight ahead to be established on BUR NDB QDM 300 by LON DME 3. At LON DME 7 turn right to follow BUR NDB QDR 358 to abeam BNN VOR (LON DME 16).
	Via Midhurst	Straight ahead to intercept LON VOR RDL 258 until LON DME 5 then turn left onto BUR NDB QDR 163. At LON DME 12 turn right onto MID VOR RDL 013 to MID VOR.		Via Midhurst	Straight ahead to intercept LON VOR RDL 242 until LON DME 5.5 then turn left onto BUR NDB QDR 163. At LON DME 12 turn right onto MID VOR RDL 013 to MID VOR.
	Via Epsom/ Detling	Straight ahead until LON DME 2 then turn left onto QDM 139		Via Epsom/ Detling	Straight ahead until I-LL DME 1.0 (LON DME 2) then turn left

EGLL AD 2.21 NOISE ABATEMENT PROCEDURES (continued)

Take-off Runway	ATC Clearance	Procedure	Take-off Runway	ATC Clearance	Procedure
		to EPM NDB then left onto DET VOR RDL 273 to abeam Biggin (DET DME 21).			onto QDM 139 to EPM NDB then left onto DET VOR RDL 273 to abeam Biggin (DET DME 21).
09L	Via Woodley	Straight ahead until LON DME 1.5 then turn right onto QDM 283 to WOD NDB (LON DME 16)	09R	Via Woodley	Straight ahead until LON DME 2 then turn right onto QDM 283 to WOD NDB (LON DME 16).
	Via Ockham/GOGSI	Straight ahead until LON DME 1.5 then turn right onto LON VOR RDL 127 until LON DME 5 then right onto OCK VOR RDL 044. At OCK DME 2 turn right onto OCK VOR RDL 255 by OCK DME 3.		Via Ockham/GOGSI	Straight ahead until LON DME 2 then turn right onto LON VOR RDL 127 until LON DME 5 then right onto OCK VOR RDL 044. At OCK DME 2 turn right onto OCK VOR RDL 255 by OCK DME 3
	Via Midhurst	Straight ahead until LON DME 1.5 then turn right onto LON VOR RDL 127 until LON DME 3.5 then turn right onto MID VOR RDL 027 to MID VOR.		Via Midhurst	Straight ahead until LON DME 2 then turn right onto LON VOR RDL 127 until LON DME 3.5 then turn right onto MID VOR RDL 027 to MID VOR.
	Via Detling	Straight ahead until LON DME 1.5 then turn right onto track 123° MAG. At LON DME 4 turn left to establish on DET VOR RDL 285 by DET DME 34 to DET DME 20.		Via Detling	Straight ahead until LON DME 2 then turn right onto track 123° MAG. At LON DME 4 turn left to establish on DET VOR RDL 285 by DET DME 34 to DET DME 20.
	Via BUZAD	Straight ahead until LON DME 1.5 then turn left onto track 052°MAG to intercept LON VOR RDL 073. At LON DME 10 turn left onto BIG VOR RDL 331 to BUZAD		Via BUZAD	Straight ahead until LON DME 2 then turn left onto track 052°MAG to intercept LON VOR RDL 073. At LON DME 10 turn left onto BIG VOR RDL 331 to BUZAD.
	Via Brookmans Park	Straight ahead until LON DME 1.5 then turn left onto track 052°MAG to intercept LON VOR RDL 073. At LON DME 10 turn left onto BPK VOR RDL 198 to BPK VOR.		Via Brookmans Park	Straight ahead until LON DME 2 then turn left onto track 052°MAG to intercept LON RDL 073. At LON DME 10 turn left onto BPK VOR RDL 198 to BPK VOR.

9. Where the aircraft is approaching the aerodrome to land it shall commensurate with its ATC clearance minimise noise disturbance by the use of continuous descent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in AD 2 paragraphs 3 and 4). Where the use of these procedures is not practicable, the aircraft shall maintain as high an altitude as possible. In addition, when descending on initial approach, including the closing heading, and on intermediate and final approach, thrust reductions should be achieved where possible by maintaining a 'clean' aircraft configuration and by landing with reduced flap, provided that in all the circumstances of the flight this is consistent with safe operation of the aircraft.

10. Subject to sub-paragraph (11) below:

- (a) Between 0600 and 2330 hours (local time) where the aircraft is approaching Runway 27 (L or R) and is using the ILS in IMC or VMC it shall not descend on the glidepath below an altitude of 2500 ft (Heathrow QNH) before being established on the localizer, nor thereafter fly below the glidepath. An aircraft approaching without assistance from the ILS shall follow a descent path which will not result in its being at any time lower than the approach path that would be followed by an aircraft using the ILS glidepath, and shall follow a track to intercept the extended runway centre-line at or above 2500 ft.
- (b) Between 2330 and 0600 hours (local time) where the aircraft is approaching runway 27 (L or R) and is using the ILS in IMC or VMC it shall not descend on the glidepath below an altitude of 3000 ft (Heathrow QNH) before being established on the localizer at not less than 10nm from touchdown, nor thereafter fly below the glidepath. An aircraft approaching without assistance from the ILS shall follow a descent path which will not result in its being at any time lower than the approach path that would be followed by an aircraft using the ILS glidepath, and shall follow a track to intercept the extended runway centre-line at or above 3000 ft.
- (c) Between 0700 and 2300 hours (local time) where the aircraft is approaching Runway 09 (L or R) and is using the ILS in IMC or VMC it shall not descend on the glidepath below an altitude of 2500 ft (Heathrow QNH) before being established on the localizer, nor thereafter fly below the glidepath. An aircraft approaching without assistance from the ILS shall follow a descent path which will not result in its being at any time lower than the approach path that would be followed by an aircraft using the ILS glidepath, and shall follow a track to intercept the extended runway centre-line at or above 2500 ft.
- (d) Between 2300 and 0700 hours (local time) where the aircraft is approaching Runway 09 (L or R) and is using the ILS in IMC or VMC it shall not descend on the glidepath below an altitude of 3000 ft (Heathrow QNH) before being established on the localizer at not less than 10 nm from touchdown, nor thereafter fly below the glidepath. An aircraft approaching without assistance from the ILS shall follow a descent path which will not result in its being at any time lower than the approach path that would be followed by an aircraft using the ILS glidepath, and shall follow a track to intercept the extended runway centre-line at or above 3000 ft.

EGLL AD 2.21 NOISE ABATEMENT PROCEDURES (continued)

11. Nothing in sub-paragraph (10) above shall apply to any propeller driven aircraft whose MTWA does not exceed 5,700 kg.

12. Without prejudice to the provisions of sub-paragraphs (1) - (11) above, the aircraft shall at all times be operated in a manner which is calculated to cause the least disturbance practicable in areas surrounding the aerodrome.

13. The requirements set out in sub-paragraphs (1) - (12) above may at any time be departed from to the extent necessary for avoiding immediate danger or for complying with the instructions of an Air Traffic Control Unit.

4 In this notice, except where the context otherwise requires:

'local time' means, during any period of summer time, the time fixed by or under the Summer Time Act 1972 (e), and outside that period, Universal Co-ordinated Time;

'dBA' means a decibel unit of sound level measured on the A-weighted scale, which incorporates a frequency dependent weighting approximating the characteristics of human hearing;

Lmax' means the highest instantaneous sound level recorded (with the noise monitoring terminal set at the slow meter setting);

other abbreviations used are defined in GEN 2-2 of the United Kingdom Aeronautical Information Publication (Air Pilot).

J Hotchkiss
Divisional Manager
Aviation Environmental Division
Department for Transport

7 April 2010

- (a) S.I. 1981/651.
- (b) 1982 c.16.
- (c) S.I. 1978/1303.
- (d) The Heathrow Airport – London (Noise Abatement Requirements) Notice 2004 signed by G Pendlebury on 24 March 2004.
- (e) 1972 c.6.

Notes

(These notes are not part of the notice)

1. The Noise Preferential Routeing Procedures specified in the above notice are compatible with normal ATC requirements. The use of the routeings specified above is supplementary to noise abatement take-off techniques as used by piston-engined, turbo-prop, turbo- jet and turbofan aircraft.

2. The attention of operators is drawn to the provisions of Section 78 (2) of the Civil Aviation Act 1982, under which if it appears to the Secretary of State that any of the requirements in this notice have not been complied with as respects any aircraft, he may direct the manager of the aerodrome to withhold facilities for using the aerodrome from the operator of the aircraft. However, the Secretary of State accepts that occasional and exceptional breaches of the noise limits, or of the height requirement, would not be expected to lead to sanctions under Section 78 (2). Such breaches would, however, run the risk of financial penalties.

3. Noise from ground running of aircraft engines is controlled in accordance with instructions issued by Heathrow Airport Limited.

4. In the interests of noise abatement, certain restrictions are imposed on the operation of training flights at this aerodrome. Operators concerned are advised to obtain details from Heathrow Airport Limited.

5. To minimise disturbance in areas adjacent to the aerodrome, commanders of aircraft are requested to avoid the use of reverse thrust after landing, consistent with the safe operation of the aircraft, between 2330 hours and 0600 hours (local time).

6. Full details concerning the maximum number of occasions and the types of aircraft which are permitted to take off or land at night during specified periods at this aerodrome are promulgated by Supplement.

7. For monitoring purposes, a descent will be deemed to have been continuous provided that no segment of level flight longer than 2.5 nautical miles (nm) occurs below 6000 ft QNH and 'level flight' is interpreted as any segment of flight having a height change of not more than 50 ft over a track distance of 2 nm or more, as recorded in the airport Noise and track-keeping system.

8. For monitoring purposes, a departure will be deemed to have complied with the Noise Preferential Routeing (NPR) if, in the portion of flight below the appropriate vectoring altitude (see note 9 below), it is properly recorded by the airport's noise and track-keeping (NTK) system as having flown wholly within the Lateral Swathe (LS). The LS is defined from the centre-line of the relevant route coded in the NTK system, based upon a map accredited for this purpose by the Department for Transport, by the closer to the route centre-line depicted on the map of (a) a pair of lines either side, each diverging at an angle of 10° from a point on the runway centre-line 2000 m from start-of-roll; and (b) a pair of parallel lines representing a distance of 1.5 km either side of the route centre-line. For avoidance of doubt, the depicted route and LS may include curved sections representing turns.

9. Aircraft which have attained an altitude of 4000 ft (Heathrow QNH) may be directed by air traffic controllers onto a different heading and commanders complying with any such direction will not by reason of so complying be deemed to have departed from the Noise Preferential Routeing.

EGLL AD 2.22 FLIGHT PROCEDURES

1 Arrival Routes

- (a) Standard Arrival Routes (STARs) for aircraft inbound via the ATS Route System are detailed at AD2-EGLL-7-1 to 7-13.
- (b) Aircraft inbound other than via the ATS Route System:
 - (i) Aircraft inbound to London Heathrow Airport direct from the London FIR will be required to use the procedures for flights via the ATS Routes System.
 - (ii) Aircraft departing from aerodromes outside the geographical boundary of the London TMA will normally be required to route via one of the Terminal Holding Points detailed in paragraph 2 (b).
 - (iii) Pilots of aircraft departing from an aerodrome less than 10 minutes flying time from the London CTR boundary are to contact the LTCC Group Supervisor Airports on 02380-401106 before departure.
- (c) Aircraft positioning from other London Airports:
 - (i) Aircraft positioning from London Gatwick Airport will be cleared via BIG VOR as detailed in AD 2-EGKK-6-2.
 - (ii) Aircraft positioning from London Luton Airport will be cleared via BNN VOR as detailed in AD 2-EGGW-1-14 paragraph 5.

2 Holding

- (a) Terminal Holding Fixes are established at Biggin (BIG), Bovingdon (BNN), Lambourne (LAM) and Ockham (OCK) VORs as detailed on the appropriate STAR charts. Alternate holding fixes for use when the primary VOR is out of service are established at WEALD, BOVVA, TAWNY and TOMMO respectively. Aircrew are not required to state time and level when entering/reaching the holding fix.
- (b) Holding patterns for use following a missed approach are established as follows:

Holding Point	Holding Procedures
CHT NDB	Holding axis 293° M inbound, turning left, Maximum holding speed 220 kt, Holding level 3000 ft ALT
EPM NDB	Holding axis 274° M inbound, turning left, Maximum holding speed 220 kt, Holding level 3000 ft ALT

- (c) From the holding patterns, aircraft will normally be directed by the Radar Controller, as detailed in paragraph 3 below, to a position from which a straight-in final approach can be made. When traffic conditions permit, suitably equipped and approved aircraft will be permitted to carry out P-RNAV approach procedures as detailed in paragraph 4 below. Exceptionally, when circumstances necessitate, pilots may be instructed to carry out the Approach procedures without Radar Control as detailed in paragraph 5 below. Pilots are reminded of the Continuous Descent Approach noise abatement requirements detailed in AD 2.21.

3 Approach Procedures with Radar Control

- (a) When arriving traffic is being sequenced under radar direction, that part of the approach between the holding fix and the Final Approach track will be flown under direction from the Radar Controller. Once the aircraft is under the jurisdiction of 'Heathrow Director' changes of heading or Flight Level/altitude will be made only on instructions from the Radar Controller except in the case of Radio Communications Failure in the aircraft or at the ATS Unit
- (b) The procedures are designed to maximise runway capacity and to minimise noise disturbance in the areas overflown during the approach. Aircraft commanders are requested to conform to low power, low drag operating techniques to the maximum extent practicable.
- (c) Detailed Procedures
 - (i) Headings and flight levels at which to leave the holding facility will be passed by ATC. Radar vectors will be given and descent clearance will include an estimate of the track distance to touchdown. Further distance information will be given between initial descent and the intercept heading onto the ILS/MLS.
 - (ii) **Descent profile:** On receipt of descent clearance the pilot should descend at the rate he judges will be best suited to the achievement of continuous descent, the objective being to join the glide path at the appropriate height for the distance without recourse to level flight.
***Note:** Pilots of suitably equipped aircraft may monitor their route against the approach procedures without radar control in order to better judge their descent profile against distance to touchdown. However, if doing so pilots are reminded of the need to comply with the instructions of the radar controller at all times.*
 - (iii) **Speed Control:** Adherence to speeds assigned by ATC is mandatory. Pilots should typically expect the following speed restrictions to be enforced: 220 kt from the holding facility during the initial approach phase; 180 kt on base leg/closing heading to final approach; between 180 kt and 160 kt when established on final approach and thereafter 160 kt to 4 DME. These speeds are applied for ATC separation purposes. In the event of a new (nonspeed related) ATC instruction being issued (eg an instruction to descend on ILS) pilots shall continue to maintain the previously allocated speed. All speed restrictions are to be flown as accurately as possible. Aircraft unable to conform to these speeds must inform ATC and state what speeds can be used. In the interests of accurate spacing, pilots are

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

requested to comply with speed adjustments as promptly as is feasible within their own operational constraints. Pilots should advise ATC if circumstances necessitate a change of speed for aircraft performance reasons.

- (iv) **Final Approach:** Time Based Separation minima are in use for wake turbulence separation in place of UK fixed distance based rules. No special crew procedures apply, and the importance of speed control adherence as described in paragraph (iii) above remains.
- (v) **Transfer to Tower:** Pilots are to report their callsign, distance from touchdown, type of approach and runway to which they are making their approach, on transfer to Heathrow Tower, (for example, ABC123, 7 miles, ILS, Runway 27L).
- (vi) **Runway Occupancy:** The spacing provided between aircraft will be designed to achieve maximum runway utilisation within the parameters of safe separation minima (including wake turbulence separation) and runway occupancy. It is important to the validity of the separation provided, and to the achievement of optimum runway capacity, that runway occupancy time is kept to a minimum consistent with the prevailing conditions.
- (vii) **Missed Approach:** Missed Approach procedures are detailed on the appropriate Instrument Approach Charts. Special procedures are also detailed for use in the event of a Radio Communications Failure following Missed Approach
- (d) **Radar Failure:** In the event of radar failure, new instructions will be issued to each aircraft under radar control and the procedures detailed in paragraph 5 will be brought into use.
- (e) **Radio Communications Failure at the ATC Unit:** If radio communications fails at the ATC Unit when under radar control, pilots are to contact 'Heathrow Tower' on 118.700 MHz for new instructions.

4 Approach Procedures without Radar Control

- (a) Exceptionally, when traffic is not being sequenced by radar direction, aircraft will be cleared from the holding facility to carry out the appropriate Initial Approach Procedure without Radar Control as detailed on the Charts at AD 2-EGLL-7-7 to 7-13.
- (b) The procedures are profiled to be compatible with a Continuous Descent Approach vertical profile and assume aircraft can maintain a descent gradient of approximately 320 ft per nm (3° descent angle).
- (c) The procedures are, as far as is practicable using conventional navigation means, laterally and vertically profiled and incorporate speed control to approximate the nominal flight profiles used by aircraft when under radar direction. They may therefore assist pilots of suitably equipped aircraft to monitor their position and assist in the achievement of the Continuous Descent Approach noise abatement requirement when under radar direction.

5 Loss of Communications Procedures (arriving aircraft)

- (a) In the event of a complete radio communications failure in an aircraft the pilot is to adopt the appropriate procedures detailed at ENR 1.1.3 except as detailed below.
- (b) When complete radio communications failure occurs in the aircraft before ETA, or before EAT when this has been received and acknowledged the aircraft will:
 - (i) fly to the appropriate terminal holding point as detailed in the STAR;
 - (ii) hold until the last acknowledged ETA plus 10 minutes, or EAT when this has been given;
 - (iii) then commence descent for landing in accordance with the appropriate initial approach procedures without radar control as detailed at AD 2-EGLL-7 and appropriate instrument approach procedure detailed in AD 2-EGLL-8 and;
 - (iv) land within 30 minutes (or later if able to approach and land visually).
- (c) If complete radio communications failure in the aircraft occurs after the aircraft has reported to ATC on reaching the holding point the aircraft will:
 - (i) maintain the last assigned holding level at the terminal holding point until:
 - (1) ATA over the holding point plus 10 minutes or 10 minutes after the last acknowledged communications with ATC, whichever is the later; or
 - (2) EAT when this has been received and acknowledged.
 - (ii) then commence descent for landing in accordance with the appropriate initial approach procedures without radar control as detailed at AD 2-EGLL-7 and appropriate instrument approach procedure detailed in AD 2-EGLL-8 and;
 - (iii) land within 30 minutes (or later if able to approach and land visually).
- (d) If complete radio communications failure in the aircraft occurs during initial approach under radar direction, the procedures to be followed are detailed on the Chart at AD 2-EGLL-5-1.
- (e) If complete radio communications failure in the aircraft occurs following a missed approach the aircraft will:
 - (i) fly to the appropriate missed approach holding point at 3000 ft ALT;
 - (ii) complete at least one holding pattern;

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

- (iii) then commence an approach for landing in accordance with the appropriate initial approach procedures without radar control as detailed at AD 2-EGLL-7.

6 Departure Procedures

- (a) Standard Instrument Departure (SID) procedures for aircraft departing from London Heathrow Airport are detailed at AD 2-EGLL-6-1 to 6-7 and incorporate the Noise Preferential Routes (NPRs) detailed in AD 2.21.
- (b) Departure Speed Restriction: In order to optimise the departure flow and assist in the separation between successive departing aircraft a speed limit of 250 kt IAS below FL 100 is applicable until removed by ATC. ATC may remove the speed restriction by using the phrase 'No ATC Speed Restriction'. **Pilots are reminded that this phrase does not relieve the pilot of the responsibility to adhere to the ground track of the Noise Preferential Route, which may require a speed/power limitation.**
- (c) If for any reason pilots are unable to comply with the 250 kt IAS speed restriction the pilot should immediately advise ATC and state the minimum speed acceptable. If a pilot anticipates before departure that they will be unable to comply with the speed restriction, they should inform ATC when requesting start-up clearance, stating the minimum speed acceptable. In this case the pilot will be informed before take-off of any higher speed limitation.

7 VFR and Special VFR Clearance in the London Control Zone

- (a) VFR and Special VFR clearances for flights within the London CTR may be requested and will be given whenever traffic conditions permit. These flights are subject to the general conditions laid down for VFR and Special VFR flights detailed at ENR 1.2 and will normally be given only to aircraft which carry RTF including the appropriate frequencies listed in EGLL AD 2.18.

Note: *Pilots holding a Private Pilots Licence (Aeroplanes) are reminded of the visibility requirements for Special VFR flights laid down in Schedule 7 of the Air Navigation Order 2009 and the related notification at ENR 1.4 paragraph 2.4.1.1.*

- (b) The use of VFR and Special VFR clearances is intended to be confined to the following types of flight:
 - (i) Light aircraft that wish to proceed to or from an aerodrome within the CTR or to transit the CTR at the lower levels; except that aircraft using the local flying areas and the access lanes notified for Brooklands, Denham, Fair Oaks and White Waltham and complying with the published procedures will be considered as complying with a VFR or Special VFR clearance as appropriate to the weather conditions;
 - (ii) Aircraft carrying out special flights, such as photographic survey flights, which may require penetration of the London CTR in VMC.
- (c) Access to the Inner Area of the London CTR (see paragraph 10 and AD-2-EGLL-3-2) requires PPR by telephone on the day at least 60 minutes in advance. Prior notification of Inner Area flights, other VFR or Special VFR flights and general enquiries about flights in the London CTR may be made via the London Terminal Control Senior Watch Assistant, Tel: 02380-401110.
- (d) Pilots who wish to leave Heathrow on a VFR or Special VFR clearance should pass brief details of their flight to Heathrow ATC, by telephone 020-8750 2578, and not to ATC by RTF.
- (e) Non-scheduled flights by single-engined and light twin-engined fixed wing aircraft which are unable to accept an IFR clearance will be cleared to London Heathrow on a VFR or Special VFR clearance, at an altitude below 2500 ft (London Heathrow QNH) subject to the following:

The weather conditions must be such as to permit the pilot to navigate by visual means, with a visibility of at least 5 km and a cloud ceiling of not less than 1500 ft. (If the weather observations at London Heathrow are below either of these minima, clearance to enter the London CTR will not be granted).
- (f) It will remain the responsibility of the pilot to remain at all times in flight conditions which will enable him to determine his flight path and to keep clear of obstacles, and to ensure that he is able to comply with SERA.3105 Minimum Heights unless otherwise permitted by the CAA. Pilots must inform the Radar Controller if compliance with the above entails a change of heading or height.
- (g) VFR and Special VFR flights may be subject to delay when parts of the route are outside radar cover or when they cannot be fitted readily into gaps in the IFR traffic flow. Pilots should therefore always ensure that they have adequate fuel reserves and are able to divert to another aerodrome if necessary.

8 Local Flying arrangements and Special Access Lanes for Brooklands, Denham, Fair Oaks, London Heliport, Northolt and White Waltham Aerodromes.

- (a) Flights within the Local Flying Areas (LFA) of aerodromes within, or adjacent to, the London CTR, may be made subject to certain conditions. Details of those for Denham, Fair Oaks, London Heliport, Northolt and White Waltham appear in the relevant AD sections. An additional local flying area is established for the unlicensed aerodrome at Brooklands and is detailed below.
- (b) Brooklands
 - (i) Within a local flying area of 1 nm radius, centred on position 512103N 0002812W, but excluding that part to the east of the B374 road and a line bearing 180°T from the A245/B374 road junction and excluding the area south of the

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

southern boundary of the London CTR, VFR or Special VFR flights may take place subject to the following conditions:

- (1) Aircraft to remain below cloud with the surface in sight;
- (2) Maximum Altitude: 1500 ft QNH;
- (3) Minimum flight visibility: 3 km;
- (4) Prior permission **must** be obtained from Brooklands Museum Trust Ltd.

Note 1: Pilots of aircraft flying in the local flying area are responsible for providing their own separation from other aircraft operating in the relevant airspace.

Note 2: In addition to paragraph (b), VFR flights must also comply with the VMC minima for Class D airspace detailed at ENR 1.2.

Note 3: Aircraft unable to operate VFR may operate Special VFR within the LFA subject to the conditions in paragraph (b) and the requirements for Special VFR flights detailed at ENR 1.2.

Note 4: Brooklands will advise London Terminal Control, Group Supervisor Airports (02380-401106) prior to commencing and upon cessation of operations.

Note 5: The carriage of a Mode S Transponder within the LFA is encouraged, however there is currently no requirement for aircraft operating in the Brooklands LFA to comply with the requirements of the London CTR Mode S Transponder Mandatory Zone (TMZ). Pilots of suitably equipped aircraft shall utilise the transponder to the maximum serviceable extent with altitude information selected when fitted.

9 VFR and Special VFR Helicopter Flights in the London CTR

(a) General Arrangements

- (i) VFR and Special VFR helicopter flying in the London CTR is mostly restricted to flights at or below specified altitudes along defined routes. These routes have been selected to provide maximum safety by avoiding built up areas as much as possible. Details of the major landmarks on these routes, the altitudes and reporting points are listed at paragraph 11 and are illustrated at AD 2-EGLL-3-2. The precise routes are overprinted on the 1:50 000 chart entitled – Helicopter Routes in the London Control Zone. This chart may be obtained from NATS Ltd Chart Stockists - see www.ais.org.uk for details. The illustration also shows the Specified Area of Central London (EG R160) over which flight by single-engined helicopters is virtually prohibited except along the River Thames because of the requirement to be able to land clear of the area in the event of engine failure. Permission in writing from the Civil Aviation Authority is required for flight within the Specified Area by single-engined helicopters.
- (ii) All VFR and Special VFR helicopter flying in the London CTR is subject to ATC clearance, except for the Local Flying Areas of Brooklands, Denham, Fairoaks and White Waltham.
- (iii) The following routes are not available to single-engined helicopters at night: H7, H9 (Hayes to Gutteridge) and H10 (Gutteridge to Kew Bridge).

(b) Procedures for flight along Helicopter Routes

- (i) VFR and Special VFR flights in the London Control Zone are not to be operated unless helicopters can remain in a flight visibility of at least 1 km. Weather minima for crossing, taking-off from, or landing at London Heathrow are detailed at AD 2.20 paragraph 5.
- (ii) VFR and Special VFR helicopters must remain clear of cloud with the surface in sight.
- (iii) Altimeter setting will be London Heathrow QNH.
- (iv) Maximum route altitudes are shown in column 3 at paragraph 11. ATC will refer to these altitudes as 'Standard Operating Altitudes' when issuing clearances. Pilots may fly at altitudes below the maximum route altitude except for between Perivale and Chiswick Bridge on H10 where the maximum published altitude must be flown accurately. ATC may restrict aircraft to altitudes below the published route maximum as necessary to provide separation from other aircraft.
- (v) Pilots should fly the precise routes as depicted on the 1: 50 000 Map entitled Helicopter Routes in the London Control Zone. 'Corner cutting' is to be avoided. In order to obtain sufficient lateral separation from opposite direction traffic, pilots may temporarily deviate to the right of the route.
- (vi) When flying along the River Thames within the Specified Area (EG R160), pilots should normally fly over that part of the river bed lying between high water marks, but not so near the banks as to become a nuisance on account of noise. When deviating from the river, in accordance with paragraph (v) above, single-engined helicopters must at all times be able to return to the river in the event of engine failure, in order to alight clear of the Specified Area.

(c) Noise

- (i) On all notified helicopter routes, in order to minimize noise nuisance, pilots should maintain the maximum altitude compatible with their ATC clearance and with the prevailing cloud conditions. For the purposes of SERA.3105 Minimum Heights and SERA.5005(f) an aircraft operated on the notified helicopter routes is permitted to fly below 1000 ft above the highest obstacle within a radius of 600 m but no closer than 500 ft to any person, vessel, vehicle or structure.

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

- (ii) Pilots are requested wherever possible to avoid overflying hospitals, palaces, schools and prisons.
- (d) Air Traffic Control Clearance
 - (i) Pilots must obtain a VFR or Special VFR clearance from Heathrow Radar (125.625 MHz). Heathrow Radar provides a service to transit aircraft operating in the London CTR and London City CTR/CTA. Pilots are requested to contact Heathrow Radar three minutes before reaching the Zone Boundary, giving details of call sign, aircraft type, route, ETA at the CTR boundary, entry point and destination.
- (e) Holding
 - (i) VFR and Special VFR helicopters, particularly those using London Heathrow or the routes close to it, may be required to hold at any of the locations on the route, shown in column 1 at paragraph 11 and on the illustration at AD 2-EGLL-3-2 except on that portion of H4 that lies between Vauxhall and Westminster Bridges.
- (f) Communications
 - (i) Helicopters using London Heliport via the Local Flying Area or any other routes must be able to communicate with the Heliport (Battersea Tower 134.275 MHz).
 - (ii) Helicopters flying along the routes in the London CTR and London City CTR must be able to communicate with Heathrow Radar, and in the case of H9 and H10, also with Northolt Approach Control (126.450 MHz). 'Compulsory' and 'On-Request' reporting points are shown in column 1 at paragraph 11.
 - (iii) Helicopters using London Heathrow must also be able to communicate with Heathrow Tower.
- (g) Loss of Communications Procedures
 - (i) In the event of a communications failure in a helicopter operating in accordance with these procedures, the pilot is to adopt the procedure detailed at ENR 1.1 except as described below.
 - (ii) If a VFR or Special VFR clearance has been received to transit the CTR along a Helicopter Route continue the flight in accordance with the clearance.
 - (iii) Where an intermediate clearance limit has been given (or clearance issued for only a part of the requested transit), proceed to the specified clearance limit and hold for 3 minutes. Then proceed via the requested Helicopter Route at the published maximum altitude for the Route.
 - (iv) If no onward clearance has been received before reaching, or when holding at, Sipson or Bedfont, **reverse track and leave the CTR** via H2-H10-Cookham if approaching **Sipson**, or **H9 if approaching Bedfont. Do not attempt to cross London Heathrow Airport.**
 - (v) For helicopters overflying or landing at London Heathrow Airport, see EGLL AD 2.20 paragraph 5.
- (h) Separation between Special VFR helicopters
 - (i) Separation may be decided between Special VFR helicopters on the Helicopter Routes, on the basis that pilots of helicopters will be asked by ATC to maintain visual separation from other helicopter traffic, provided that:
 - (1) the visibility at London Heathrow is 5 km or more and the helicopters can operate clear of cloud and in sight of the ground or water and remain in a flight visibility of at least 5 km;
 - (2) there is agreement between the helicopter pilots concerned;
 - (3) the current route structure, the altitudes applicable and communication procedures are adhered to;
 - (4) appropriate traffic information is passed to the helicopter pilots. (Normally for this purpose it will only be necessary for ATC to pass general traffic information eg..... 'Two helicopters westbound along H10 at 1000 ft in the vicinity of Perivale - acknowledge.')
 - (ii) If a pilot refuses or considers that the conditions are such that he is unable to maintain visual separation, he will be provided with the Special VFR separations currently in force.

10 Inner Area of the London Control Zone

- (a) The Inner Area of the London CTR is that part of the London CTR from surface to altitude 2500 ft contained within the area enclosed by: BUR NDB – Iver RP – Helicopter Route H10 – Barnes RP – Helicopter Route H3 – Thorpe RP – Ascot Heliport – BUR NDB.
- (b) With the exception of those aircraft categories listed below, all VFR and Special VFR aircraft requesting to enter the Inner Area of the London CTR are subject to Prior Permission Required (PPR) from London Terminal Control, via the Senior Watch Assistant on 02380-401110:
 - (i) Flight Priority Category A, B, C, D, E traffic who shall follow their own notification procedures where appropriate;
 - (ii) Aircraft subject to an Airspace Coordination Notice (ACN) who shall follow the notification process detailed within the ACN;
 - (iii) Aircraft subject to a Non-Standard Flight (NSF) who shall follow the notification process detailed within the NSF;
 - (iv) Helicopters that remain on the published helicopter routes without landing or departing inside the Inner Area;

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

All other VFR and Special VFR aircraft are required to obtain PPR (by telephone) to enter the Inner Area of the London CTR on the same day at least 60 minutes before entry clearance is required. Approved aircraft will be given a PPR approval code to quote over the radio when requesting entry clearance from controllers.

- (c) Due to the intense Heathrow IFR operations and very high ATC workload within the Inner Area of the London CTR during the hours 0430-2300 local time, it is unlikely that aircraft will receive approval to operate inside the Inner Area within these times, unless there is a specific task that can only be completed within that airspace, e.g. helicopters accessing private landing sites.
- (d) The following procedures have been established to ensure safe integration with IFR traffic, avoid excessive airborne holding, and reduce delays to both Heathrow movements and helicopter operators wishing to use landing sites within the Inner Area of London CTR.
- (i) Inbound
- (1) Contact the London Terminal Control Senior Watch Assistant (02380-401110) on the day of operation at least 60 minutes prior to the estimated time of arrival;
 - (2) Provide the name, latitude and longitude of the landing site, the requested routing, the estimated time of arrival and a contact telephone number;
 - (3) Heathrow Tower Supervisor and Heathrow Radar will be consulted to determine the route that the pilot can expect (subject to the Heathrow runway configuration, meteorological conditions and the likelihood of being able to utilise reduced separation in the vicinity of the aerodrome);
 - (4) If the safe integration of the inbound flight will cause delay to Heathrow traffic it will be subject to the equivalent Heathrow delay. The pilot will be contacted by telephone and advised the route that can be expected and, if appropriate, an amended ETA incorporating the Heathrow inbound delay;
 - (5) The pilot must arrange the flight to arrive at the site within 10 minutes of the approved ETA. Failure to adhere to this time window may result in further delay or, in extreme circumstances, refusal of clearance. Upon establishing two-way communications the helicopter will be cleared to the landing site as soon as practicable commensurate with the safe integration with IFR traffic.
- (ii) Outbound
- (1) Prior to departing the site contact LTC SWA at least 60 minutes in advance of the estimated time of departure from the site to provide the name, latitude and longitude of the site, requested routing, planned ETD and a contact telephone number;
 - (2) If the outbound flight will cause delay to Heathrow traffic it will be subject to the equivalent Heathrow delay. The pilot will be contacted by telephone and advised the route that can be expected and, if appropriate, an amended ETD incorporating the Heathrow outbound delay;
 - (3) Within 10 minutes of the approved ETD, the pilot must contact ATC on the ground. If two way contact with ATC cannot be established on the ground either directly or via relay from other aircraft, the pilot must remain on the ground and contact London Terminal Control Group Supervisor Airports (02380-401106) to agree an exact departure time and initial altitude with the controllers concerned in order that safe integration with IFR traffic can be ensured.

Note: If the intention is to be on the ground for less than 60 minutes, both the inbound and outbound arrangements may be agreed during the initial contact with LTC SWA.

11 Helicopter Routes in the London Control Zone and London/City Control Zone

- (a) Abbreviations :

H — Holding Point ▲ — Compulsory Reporting Point Δ — On Request Reporting Point

Map references are to the 1: 50 000 Ordnance Survey Map of Great Britain

- (b) The precise routes which must be adhered to are portrayed on the 1: 50 000 Map entitled Helicopter Routes in the London Control Zone. An indication of the routes network is shown on the illustration at AD 2-EGLL-3-2.
- (c) Pilots are required to be at the lower altitudes on arrival at the point at which the lower altitude applies.
- (d) On all notified helicopter routes within the London Control Zone and London/City Control Zone and for the purposes of SERA.3105 Minimum Heights and SERA.5005(f) Visual Flight Rules an aircraft operated on the notified helicopter routes is permitted to fly below 1000 ft above the highest obstacle within a radius of 600 m but no closer than 500 ft to any person, vessel, vehicle or structure.

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H2 Δ Iver TQ 035 826 513157N 0003031W Δ West Drayton TQ 052 784 512939N 0002909W ▲ Airport Spur TQ 075 786 512944N 0002715W	Delaford Park		H	
		1000 ft		
	Junction of M4 Motorway and Motorway Spur to London Heathrow		H	

Note: Unless otherwise cleared by ATC, pilots are not to fly south of the M4 between West Drayton and Airport Spur.

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H3				
▲ Bagshot SU 908 619 512057N 0004157W	Intersection of London Control Zone/M3 Motorway	2000 ft	H	Note
	M3 Motorway Junction 3	1000 ft		
△ Thorpe TQ 018 679 512402N 0003216W	M3 Motorway south of Thorpe Green (M25 inter- section)		H	
▲ Sunbury Lock TQ 112 683 512409N 0002416W	Midway between Sunbury Lock and the middle of Knight reservoir		H	
△ Teddington TQ 170 714 512547N 0001906W	Weir on River Thames	1000 ft	H	
	North edge of Richmond Park			
▲ Barnes TQ 234 765 512827N 0001325W	River Thames at Barn Elms Park			
▲ London Heliport TQ 266 762 512812N 0001046W	London Heliport		H	Note

Note: When Heathrow Runways 09L/09R are in use and the Heathrow reported cloud ceiling is below 2000 ft, the route H3 between Sunbury Lock and Barnes is not available to VFR helicopters.
When Heathrow Runways 09L/09R are in use, the Route H3 between Sunbury Lock and Barnes is not available to Special VFR helicopters.
These closures do not apply to Flight Priority Category A, B & C helicopters (defined in CAP 493 Manual of Air Traffic Services).
Helicopter pilots are recommended to obtain Heathrow runway information on the ATIS frequency 128.075 MHz before contacting Heathrow Radar on 125.625 MHz, or London Heliport on 134.275 MHz.

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H4				
▲ Isle-of-Dogs TQ 381 781 512902N 0000042W	Specified Area Boundary crossing River Thames			Note 2
△ London Bridge TQ 330 805 513027N 0000504W	London Bridge (road bridge)	2000 ft		Note 3 Note 4
▲ Vauxhall Bridge TQ 302 782 512915N 0000736W	CTR Boundary crossing River Thames			

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
▲ Chelsea Bridge TQ 286 778 512902N 0000900W	Chelsea Road Bridge	1500 ft	H	Note 1
▲ London Heliport TQ 266 762 512812N 0001046W	London Heliport			

Note 1: There are no Holding Points on H4 east of London Heliport. The nearest Holding Point is at Greenwich Marshes, outside the 'Specified Area' (EG R160).

Note 2: Cable car crosses River Thames at 513009N 0000042E approximately 1 nm east/downstream of Isle of Dogs. Supporting towers (289 ft and 285 ft amsl) equipped with aviation warning lights; cable between towers unlit.

Note 3: Ferris Wheel: The London Eye Ferris Wheel (464 ft amsl) lies within the boundary of H4 at Jubilee Gardens (513012N 0000711W) between London Bridge and Vauxhall Bridge. Pilots are reminded that aircraft operated on the notified helicopter routes are not permitted to fly closer than 500 ft to any person, vessel, vehicle or structure.

Note 4: No helicopters to hold on that portion of H4 that lies between Vauxhall and Westminster Bridges. This does not apply to traffic operating under Flight Priority Category A or B.

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H5 ▲ Northwood TQ 071 906 513612N 0002719W △ Uxbridge Common TQ 062 855 513332N 0002813W	Zone Boundary midway between Harefield and Northwood	2000 ft	H	Note 1
	Roundabout on A40 road north of Uxbridge Common		H	

Note: Pilots may be required to communicate with Northolt Approach (126.450 MHz).

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H7 ▲ Banstead TQ 243 614 512014N 0001301W △ Morden TQ 229 672 512327N 0001407W △ Caesar's Camp TQ 220 711 512532N 0001446W	Golf course northwest of town	2000 ft	H	
	Sutton/Epsom railway Cemetery northeast of Gas Works	1500 ft		
	Golf course southwest corner of Wimbledon Common	1000 ft	H	

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
▲ Barnes TQ 234 765 512827N 0001325W ▲ London Heliport TQ 266 762 512812N 0001046W	River Thames at Barn Elms Park London Heliport	 	 H	

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H9 ▲ Oxshott West TQ 101 609 512014N 0002512W △ Esher Common TQ 136 621 512051N 0002210W OR ▲ Oxshott East TQ 160 611 512014N 0002006W △ Arbrook TQ 149 624 512058N 0002100W △ Esher Common TQ 136 621 512051N 0002210W THEN ▲ Sunbury Lock TQ 112 683 512409N 0002416W △ Feltham TQ 095 726 512630N 0002533W △ Bedfont TQ 088 745 512732N 0002610W △ Sipson TQ 076 772 512900N 0002706W	Intersection of London Control Zone/A3 Trunk Road A3 Trunk Road West of A3/A244 intersection Prince's Coverts Intersection of A3 Trunk Road / Railway Line A3 Trunk Road West of A3/A244 intersection London/Woking railway Midway between Sunbury Lock and the middle of Knight reservoir Open space south of Railway Line East of Terminal Four, South of the A30 Open space northeast of the junction Motorway Spur and Main Road A4 at north perimeter of London Heathrow	 2000 ft 2000 ft 1500 ft 1000 ft 800 ft 	 H H H H H H	Note 4 Notes 3 and 4

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
▲ Airport Spur TQ 075 786 512944N 0002715W Δ Hayes TQ 082 804 513042N 0002636W Δ Gutteridge TQ 097 845 513254N 0002507W ▲ Northwood TQ 071 906 513612N 0002719W	Junction of M4 Motorway and Motorway Spur to London Heathrow	1000 ft	H	Note 1
	Gravel pits at Goulds Green	1500 ft	H	
	A40, south of Northolt Aerodrome Runway Intersection	2000 ft	H (Note 2)	Note 1
	Zone Boundary midway between Harefield and Northwood		H	

Note 1: Between Northwood and Airport Spur, pilots may be required to communicate with Northolt Approach (126.450 MHz).

Note 2: The holding manoeuvre is to be carried out to the south of the Northolt Aerodrome Boundary.

Note 3: Helicopters will be held at Bedfont during daylight hours when the reported weather conditions are equal to or better than 5 km visibility and 1500 ft reported cloud ceiling and will be held at Feltham at all other times.

Note 4: Due to environmental restrictions, H9 south of London Heathrow Airport is not normally available to SVFR helicopter traffic between 2100 and 0800 (local) when London Heathrow Runways 09L/09R are in use.

Warning: Runway 27L missed approach procedure requires a left turn at 1000 ft aal. Pilots holding at Bedfont must remain in visual contact with aircraft on final approach to Runway 27L.

EGLL AD 2.22 FLIGHT PROCEDURES (continued)

HELICOPTER ROUTES				
Route Designator Significant Points and National Grid & Lat/Long	Description of Reference	Maximum Altitude (London Heathrow QNH)	Holding Point	Remarks
1	2	3	4	5
H10 ▲ Cookham SU 898 857 513345N 0004222W △ Iver TQ 035 826 513157N 0003031W △ Uxbridge Common TQ 062 855 513332N 0002813W △ Gutteridge TQ 097 845 513254N 0002507W △ Perivale TQ 170 828 513156N 0001852W △ Brentford TQ 186 791 512951N 0001731W △ Kew Bridge TQ 190 778 512914N 0001716W ▲ Barnes TQ 234 765 512827N 0001325W ▲ London Heliport TQ 266 762 512812N 0001046W	CTR Boundary	2000 ft	H	
	Bridge over River Thames north of Cookham			
	Delaforde Park	1500 ft	H	Note 3
	Roundabout on A40 road north of Uxbridge Common		H	
	A40, south of Northolt Aerodrome Runway Intersection		H (Note 4)	Note 5
	On A40, north of Golf course divided by River Brent	1200 ft (Note 1)	H (Note 2)	Note 3 Note 6
	North edge of Gunnesbury Park Gunnersbury Park north of Chiswick Fly-over		H	
	Bridge across River Thames at northeast corner of Gardens and Common	800 ft (Note 1)	H	Note 5
	Chiswick Bridge River Thames at Barn Elms Park	1000 ft		
	London Heliport		H	

Note 1: Between Perivale and Chiswick Bridge, pilots must fly at the published maximum altitude.

Note 2: The holding manoeuvre is to be contained to the west of Perivale.

Note 3: Between Iver and Perivale, pilots may be required to communicate with Northolt Approach (126.450 MHz).

Note 4: The holding manoeuvre is to be carried out to the south of the Northolt Aerodrome Boundary.

Note 5: When Heathrow Runways 09L/09R are in use, Route H10 between Gutteridge and Kew Bridge is subject to severe delays:

for SVFR helicopters

for VFR helicopters when the Heathrow reported cloud ceiling is below 2000 ft.

Helicopter pilots are recommended to obtain Heathrow runway information on the ATIS frequency 128.075 MHz before contacting Heathrow Radar on 125.625 MHz, or London Heliport on 134.275 MHz.

Note 6: Between Perivale and Brentford the route alignment turns from the A40 to the A406 at the Hanger Lane intersection. Pilots should ensure correct visual identification of the turn point due to the interaction with Heathrow Runway 27R final approach track.

EGLL AD 2.22 FLIGHT PROCEDURES (continued)**12 The Specified Area (EG R160)**

Straight lines joining:

Kew Bridge (512912N 0001716W) —

Eastern extremity of Brent Reservoir (513420N 0001407W) —

Gospel Oak Station (513318N 0000904W) —

Southeast corner of Springfield Park (513409N 0000318W) —

Bromley-by-Bow Station (513130N 0000045W) —

Southwest corner of Hither Green (512645N 0000044W) —

Herne Hill Station (512712N 0000610W) —

Wimbledon Station (512515N 0001222W) —

Northwest corner of Castlenau Reservoir (512854N 0001407W) —

Kew Bridge (512912N 0001716W),

excluding so much of the bed of the River Thames as lies within that area between the ordinary high water marks on each of its banks.

13 London CTR Transponder Mandatory Zone (TMZ)

- (a) The London CTR is notified as a Mode S Elementary Transponder Mandatory Zone (TMZ) as detailed at GEN 1.5, paragraph 5.3.
- (b) The London CTR TMZ has the same vertical and lateral dimensions as the London CTR, see EGLL AD 2.17.
- (c) TMZ exceptions are detailed in GEN 1.5 paragraph 5.3.4, AD-2 EGLD, AD-2 EGTF, AD-2 EGLM, AD-2 EGWU and for Brooklands see EGLL AD 2.22 paragraph 8.

EGLL AD 2.23 ADDITIONAL INFORMATION**1 Mode S Barometric Pressure Setting Data**

- (a) London Terminal Control has the ability to downlink Mode S Barometric Pressure Setting (BPS) data. Therefore, if the downlinked pressure data is at variance with the BPS expected by Air Traffic Control, pilots can expect additional challenge. When Air Traffic Control pass a reminder of the appropriate BPS, it is anticipated that the aircrew will cross check the altimeter settings and confirm set.

2 Time Based Separation (TBS) for Final Approach

- (a) Time Based Separation minima are in permanent use for wake turbulence separation in place of UK fixed distance based minima for wake turbulence. This change has been made on the basis of an extensive data collection campaign of measured wake vortex behaviour over a number of years at Heathrow. A system of using real time aircraft data to derive Met conditions has been proven using operational data.
- (b) When in stronger headwind conditions, a moderate reduction in separation distances from lead and follower aircraft may be observed in comparison to distance based wake turbulence minima. For further details, please refer to AIC P 001/2015.
- (c) During TBS operations, RNAV (GNSS) final approach requests may be refused by Heathrow Director to ensure runway efficiency is maintained.

EGLL AD 2.24 CHARTS RELATED TO AN AERODROME

Figure: AERODROME CHART - ICAO

AD 2-EGLL-2-1

Figure: AIRCRAFT GROUND MOVEMENT/ALL TAXIWAYS CHART - ICAO

AD 2-EGLL-2-2

Figure: AERODROME CHART A380/CODE F AIRCRAFT GROUND MOVEMENT - ICAO

AD 2-EGLL-2-3

Figure: AIRCRAFT GROUND MOVEMENT/PARKING/DOCKING - TERMINAL 5 CHART - ICAO

AD 2-EGLL-2-4

EGLL AD 2.24 CHARTS RELATED TO AN AERODROME (continued)

Figure: AIRCRAFT GROUND MOVEMENT/PARKING/DOCKING - TERMINAL 4 CHART - ICAO

AD 2-EGLL-2-5

Figure: AIRCRAFT GROUND MOVEMENT/PARKING/DOCKING - TERMINAL 3 CHART - ICAO

AD 2-EGLL-2-6

Figure: AIRCRAFT GROUND MOVEMENT/PARKING/DOCKING - TERMINAL 1 & 2 CHART - ICAO

AD 2-EGLL-2-7

Figure: AIRCRAFT GROUND MOVEMENT - REMOTE DE-ICING AREAS LOCATION CHART - ICAO

AD 2-EGLL-2-8

Figure: GROUND MOVEMENT CHART - HOLDING AREAS FOR RUNWAY 27R - ICAO

AD 2-EGLL-2-9

Figure: GROUND MOVEMENT CHART - HOLDING AREAS FOR RUNWAY 27L - ICAO

AD 2-EGLL-2-10

Figure: GROUND MOVEMENT CHART - HOLDING AREAS FOR RUNWAY 09L - ICAO

AD 2-EGLL-2-11

Figure: GROUND MOVEMENT CHART - HOLDING AREAS FOR RUNWAY 09R - ICAO

AD 2-EGLL-2-12

Figure: LONDON CTR LOCAL FLYING AND ENTRY/EXIT PROCEDURES

AD 2-EGLL-3-1

Figure: HELICOPTER ROUTES IN THE LONDON CTR AND LONDON/CITY CTR

AD 2-EGLL-3-2

Figure: HELICOPTER CROSSING OPERATIONS

AD 2-EGLL-4-1

Figure: ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AD 2-EGLL-5-1

Figure: ATC SURVEILLANCE MINIMUM ALTITUDE CHART INFORMATION - ICAO

AD 2-EGLL-5-2

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) COMPTON 3F 3G 5J 4K - ICAO

AD 2-EGLL-6-1

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) MIDHURST 4F 3G 3J 3K - ICAO

AD 2-EGLL-6-2

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) BROOKMANS PARK 7F 7G 6J 5K - ICAO

AD 2-EGLL-6-3

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) WOBUN 3F 3G - BUZAD 4J 3K - ICAO

AD 2-EGLL-6-4

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) DET 2F 2G 1J 1K - ICAO

AD 2-EGLL-6-5

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) GOGSI 1F 1G GASGU 1J 1K - ICAO

AD 2-EGLL-6-6

Figure: STANDARD DEPARTURE CHART - INSTRUMENT (SID) MAYFIELD 3F 2G 2J 2K - ICAO

AD 2-EGLL-6-7

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via BIGGIN - ICAO

AD 2-EGLL-7-1

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via WEALD (VOR BIG u/s) - ICAO

AD 2-EGLL-7-2

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via BOVINGDON - ICAO

EGLL AD 2.24 CHARTS RELATED TO AN AERODROME (continued)

AD 2-EGLL-7-3

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via BOVVA (VOR BNN u/s) - ICAO

AD 2-EGLL-7-4

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via LAMBOURNE - ICAO

AD 2-EGLL-7-5

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via OCKHAM (North and West) - ICAO

AD 2-EGLL-7-6

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via TOMMO (North & West) VOR OCK u/s - ICAO

AD 2-EGLL-7-7

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via OCKHAM (South-West) - ICAO

AD 2-EGLL-7-8

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via TOMMO (South-West) VOR OCK u/s - ICAO

AD 2-EGLL-7-9

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via OCKHAM (east) - ICAO

AD 2-EGLL-7-10

Figure: STANDARD ARRIVAL CHART - INSTRUMENT (STAR) via TOMMO (east) VOR OCK u/s - ICAO

AD 2-EGLL-7-11

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 09L/R Without Radar Control via BIG and OCK

AD 2-EGLL-7-12

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 09L/R Without Radar Control via BNN and LAM

AD 2-EGLL-7-13

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 27L/R Without Radar Control via BIG

AD 2-EGLL-7-14

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 27L/R Without Radar Control via OCK

AD 2-EGLL-7-15

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 27L/R Without Radar Control via BNN and LAM

AD 2-EGLL-7-16

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 09L/R Without Radar Control via CHT and EPM

AD 2-EGLL-7-17

Figure: INITIAL APPROACH PROCEDURES - ILS or MLS RWY 27L/R Without Radar Control via CHT and EPM

AD 2-EGLL-7-18

Figure: INSTRUMENT APPROACH CHART ILS/DME I-AA RWY 09L - ICAO

AD 2-EGLL-8-1

Figure: INSTRUMENT APPROACH CHART LOC/DME I-AA RWY 09L - ICAO

AD 2-EGLL-8-2

Figure: INSTRUMENT APPROACH CHART MLS/M-HAA DME I-AA RWY 09L - ICAO

AD 2-EGLL-8-3

Figure: INSTRUMENT APPROACH CHART RNAV (GNSS) Z RWY 09L - ICAO

AD 2-EGLL-8-4

Figure: INSTRUMENT APPROACH CHART ILS/DME I-BB RWY 09R - ICAO

AD 2-EGLL-8-5

Figure: INSTRUMENT APPROACH CHART LOC/DME I-BB RWY 09R - ICAO

AD 2-EGLL-8-6

Figure: INSTRUMENT APPROACH CHART MLS/M-HBB DME/I-BB RWY 09R - ICAO

AD 2-EGLL-8-7

EGLL AD 2.24 CHARTS RELATED TO AN AERODROME (continued)

Figure: INSTRUMENT APPROACH CHART RNAV (GNSS) Z RWY 09R - ICAO

AD 2-EGLL-8-8

Figure: INSTRUMENT APPROACH CHART ILS/DME I-LL RWY 27L - ICAO

AD 2-EGLL-8-9

Figure: INSTRUMENT APPROACH CHART LOC/DME I-LL RWY 27L - ICAO

AD 2-EGLL-8-10

Figure: INSTRUMENT APPROACH CHART MLS/M-HRL DME/I-LL RWY 27L - ICAO

AD 2-EGLL-8-11

Figure: INSTRUMENT APPROACH CHART RNAV (GNSS) Z RWY 27L - ICAO

AD 2-EGLL-8-12

Figure: INSTRUMENT APPROACH CHART ILS/DME I-RR RWY 27R - ICAO

AD 2-EGLL-8-13

Figure: INSTRUMENT APPROACH CHART LOC/DME I-RR RWY 27R - ICAO

AD 2-EGLL-8-14

Figure: INSTRUMENT APPROACH CHART MLS/M-HER DME/I-RR RWY 27R - ICAO

AD 2-EGLL-8-15

Figure: INSTRUMENT APPROACH CHART RNAV (GNSS) Z RWY 27R - ICAO

AD 2-EGLL-8-16

Figure: INSTRUMENT APPROACH PROCEDURE CODING TABLES RNAV (GNSS) Z

AD 2-EGLL-8-17