

Appendices

- 1 Runway Scheduling Limits
- 2 Additional Runway Scheduling Constraints
- 3 Terminal Scheduling Limits
- 4 Load Factors - to be used for terminal scheduling calculations
- 5 Stand Limits
- 6 Additional Constraints and Explanatory Notes

Appendix 1

Pre-Coordination Runway Scheduling Limits Winter 2014

Arrivals																			
Hour (UTC)	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	Average	Total
Winter 2013	36	36	34	42	39	36	43	40	43	43	44	40	40	39	38	41	22	38.6	656
Capacity change				1	-1	2	-1	1	-1	1	-2	3	-3	3	-2	-1			
Winter 2014	36	36	34	43	38	38	42	41	42	44	42	43	37	42	36	40	22	38.6	656

Departures																			
Hour (UTC)	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	Average	Total
Winter 2013	28	42	42	43	43	41	44	42	42	41	44	44	43	43	38	36	22	39.9	678
Capacity change								1					1	-2					
Winter 2014	28	42	42	43	43	41	44	43	42	41	44	44	44	41	38	36	22	39.9	678

Air Transport Movement Cap
Weekly Planning Limit: 9,262

Appendix 2

Additional Runway Scheduling Constraints Winter 2014

Arrivals

- 1 Within each hour, and having regard to historic rights, no more than 8 arrivals should be scheduled in each 10 minute period in the hour; the first 10 minute period to commence at five past the hour.
- 2 During the period 0605 to 0830 (UTC), and having regard to historic rights, no more than 7 arrivals should be scheduled in each 10 minute period.

Departures

- 1 Within each hour, and having regard to historic rights, no more than 8 departures should be scheduled in each 10 minute period in the hour; the first 10 minute period to commence at five past the hour.
- 2 Each hour and having regard to historic rights will be coordinated to an offset rolling hour. The hour is offset by 5 minutes and rolls through the hour every 10 minutes. No more than 45 departures will be scheduled in any rolling hour between 0600 and 2255 (UTC), except between 1545-1800 (UTC) when the rolling hour capacity will be 46.

Time (UTC)	0600-1540	1545-1800	1805-2255
Capacity	45	46	45

Arrivals and Departures

- 1 Ad Hoc slots will be unavailable between 0430 - 0800 (UTC). The period from 26 October to 2 November 2014 inclusive will be exempted from the zero availability due to airline schedule adjustments related to the season boundary.
- 2 A reduced ad-hoc capacity will be declared in all hours both for arrivals and departures following the hand-back deadline on 31 August 2014. Before ad-hoc slots can be allocated in any hour the declared capacity will reduce by two arrivals and two departures. Therefore in any hour to re-allocate slots there must be a minimum of 3 cancellations for 1 ad-hoc and 4 cancellations for 2 ad-hoc flights.

Arrivals	Hour (UTC)																
	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
Winter 2014 Capacity	36	36	34	43	38	38	42	41	42	44	42	43	37	42	36	40	22
Reduced Capacity at the hand-back deadline			-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Winter 2014 Capacity for ad hoc recycling	0	0	32	41	36	36	40	39	40	42	40	41	35	40	34	38	20

Departures	Hour (UTC)																
	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
Winter 2014 Capacity	28	42	42	43	43	41	44	43	42	41	44	44	44	41	38	36	22
Reduced Capacity at the hand-back deadline			-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Winter 2014 Capacity for ad hoc recycling	0	0	40	41	41	39	42	41	40	39	42	42	42	39	36	34	20

- 3 Ad-Hoc slot allocation will be suspended when weather conditions deteriorate. (Exceptions contained in ANNEX 3 of Local Rule 2 will be allowed to operate during the suspension.)

Appendix 3

Heathrow Terminal Scheduling Limits Winter 14

Terminal	A/D	Constraint	Time Period (GMT)	Lower Limit	Initial Coordination Limit	Upper Limit
T1*	D	Combined 1 Hour	0000 - 2359	350	500	1000
		Combined 3 Hour	0000 - 2359	1000	1200	2000
	A	International 1 Hour	0000 - 2359	250	500	1100
		International 2 Hour	0000 - 2359	500	1000	2200
		CTA 1 Hour	0000 - 2359		0	750
		Domestic 1 Hour	0000 - 2359		0	500
T2	D	Combined 1 Hour	0000 - 2359	2500	2800	3500
		Combined 3 Hour	0000 - 2359	6000	6800	9000
	A	International & CTA 1 Hour	0000 - 2359		2600	3900
		International & CTA 2 Hour	0000 - 2359		5100	6500
		Domestic 1 Hour	0000 - 2359		400	600
T3 – W14 live	D	International 1 Hour	0000 - 2359	1700	2000	4000
		International 3 Hour	0000 - 1559	4200	5000	9000
			1600 - 2359	4000	4200	9000
	A	International 1 Hour	0000 - 2359	3000	3500	4000
T3 – “end game”***	D	International 1 Hour	0000 - 2359	2700	3000	4000
		International 3 Hour	0000 - 2359	5800	7000	9000
	A	International 1 Hour	0000 - 2359	3000	3500	4000
T4	D	International 1 Hour	0000 - 2359	1500	1650	2350
		International 3 Hour	0000 - 2359	3250	3750	5000
	A	International 1 Hour	0000 - 2359	1400	1800	2500
		International 2 Hour	0000 - 2359	2800	3200	4300
T5	D	Combined 1 Hour	0000 - 2359		4500	5000
	A	International 1 Hour	0000 - 2359		3750	4500
		Domestic 1 Hour	0000 - 2359		950	1150

* As T1 will be closing in 2016 at the latest, the declared T1 capacity is for use by T1 incumbents only, unless it is deemed as operationally necessary by Heathrow.

**The T3 “end-game” declaration is to be coordinated with the T3 W14 occupancy, plus BA’s two terminal schedule, TAM and Malaysia Airlines. The capacity declaration reflects the revised occupancy and the future infrastructure.

Check-in Limits

Terminal 2

Zone	Desks	Declaration
A	32	32
B	26	26
C	12	12
D	46	46

Terminal 4

Zone	Desks	Declaration
A	14	12
B	5	3
C	26	22
D	16	14
E	16	14
F&H	40	35
G	10	8

Appendix 4
Winter 14 Load Factors

Winter 14	T1 Domestic	T1 CTA	T1 International	T1 Combined	T2 Domestic	T2 CTA & International	T2 Combined	T3 International		T4 International		T5 Domestic	T5 International	T5 Combined
Day of Week	A	A	A	D	A	A	D	A	D	A	D	A	A	D
1	79%	86%	76%	78%	84%	80%	75%	83%	84%	80%	84%	88%	85%	81%
2	74%	82%	75%	76%	81%	77%	73%	79%	84%	81%	83%	86%	80%	76%
3	72%	81%	76%	77%	78%	76%	76%	73%	84%	77%	85%	85%	78%	79%
4	73%	79%	79%	80%	80%	78%	81%	78%	89%	78%	86%	85%	82%	83%
5	73%	82%	78%	77%	79%	80%	81%	79%	88%	81%	88%	84%	86%	84%
6	68%	74%	76%	79%	75%	82%	84%	83%	90%	83%	88%	80%	86%	85%
7	80%	85%	84%	82%	81%	84%	81%	86%	87%	88%	86%	86%	87%	84%

Appendix 5
Stand Limits Winter 14

Table 5.1

Winter 2014 – Total Physical Stand Supply										
Apron	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	B	TOTAL
T1	0	0	0	1	1	7	8	2	0	19
T2	10	10	0	3	0	0	13	0	0	36
T3	9	19	5	3	2	5	3	0	0	46
T4	4	14	8	1	2	0	4	1	0	34
T5	15	15	10	0	4	0	15	1	0	60
Total exc. Cargo	38	58	23	8	9	12	43	4	0	195
CARGO	0	6	3	0	0	0	0	0	0	9
Total inc. Cargo	38	64	26	8	9	12	43	4	0	204

- MARS – main centrelines counted except MARS stands which are predominately used by narrow body aircraft and therefore are declared as two centre-lines:
 - Stand 192 declared as 192L & 192R
 - Stand 218 declared as 218L & 218R
 - Stand 221 declared as 221L & 221R
- MCA - allocated based on current predominate usage requirement:
 - Stands 415 – 420 declared as 3 x C(A321) and 1 x C(319)
 - Stands 449 – 452 declared as 2 x E
- Terminal 3 Stands 334, 336 and 340 reopened
- Stands 122, 701 & 702 – no live movements
- Excludes leased stands 604-606

Table 5.2

Winter 2014 – Stand outages for construction works										
Apron	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	B	TOTAL
T1	0	0	0	0	0	-4	-3	-2	0	-9
T2	0	0	0	0	0	0	0	0	0	0
T3	0	-2	-1	0	0	0	0	0	0	-3
T4	1	-3	-1	0	0	0	0	0	0	-3
T5	0	0	0	0	0	0	0	0	0	0
Total exc. Cargo	1	-5	-2	0	0	-4	-3	-2	0	-15
CARGO	0	0	0	0	0	0	0	0	0	0
Total inc. Cargo	1	-5	-2	0	0	-4	-3	-2	0	-15

- T1: Closure of Pier 4a and Northern Pier 4 stands to facilitate Bravo Taxiway Code F project
 - Stands 174 – 184 and 108 – 110

- T3: Construction of Temporary Transfer Facility and Bravo Taxiway Code F project
 - Stand 323
 - Stands 332 and 353 closed Nov '14 – end Jan '14
 - Stands 355 and 192 closed Feb '15 – end Apr '15
 - Declaration removes 'worst case' of 1 x Code E and 1 x E (747-400) for entire W14

- T4: Construction of Code F Pier Served Stands and Sierra Taxiway Code F project
 - Stand 410 reopened as Code F. Stands 411 and 412 closed
 - Stand 432

Table 5.3

Winter 2014 – Stand downgrades for project work and/or operational resilience										
Apron	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	B	TOTAL
T1	0	0	0	0	-1	-2	3	0	0	0
T2	-4	4	0	0	0	0	0	0	0	0
T3	-3	1	2	0	0	0	0	0	0	0
T4	-2	0	2	0	0	0	0	0	0	0
T5	0	0	0	0	0	0	0	0	0	0
Total exc. Cargo	-9	5	4	0	-1	-2	3	0	0	0
CARGO	0	0	0	0	0	0	0	0	0	0
Total inc. Cargo	-9	5	4	0	-1	-2	3	0	0	0

Remote Code F stands are downgraded to Code E to prevent scheduled A380 remotes

- T1: Stands 101-105 restricted to C (A321) for Bravo Taxiway Code F project
- T2: Stands 253, 254, 255, 258 Code F remotes restricted to Code E
- T3: Stands 318 and 327 restricted to E (747-400)
Stands 594, 595, 596 Code F remotes restricted to Code E
- T4: Stands 440, 441 restricted Code E to E (747-400)
Stands 453 and 454 Code F remotes restricted to Code E

Table 5.4

Winter 2014 – Additional stand outages for operational requirements. E.g. maintenance, stand cleaning, off slot performance										
Apron	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	B	TOTAL
T1	0	0	0	0	0	0	-1	0	0	-1
T2	-1	-2	0	0	0	0	-2	0	0	-5
T3	-1	-1	-2	-1	0	-1	0	0	0	-6
T4	-1	-4	-3	-1	0	0	-1	0	0	-10
T5	-1	-1	-1	0	0	0	-1	0	0	-4
Total exc. Cargo	-4	-8	-6	-2	0	-1	-5	0	0	-26
CARGO	0	-3	-1	0	0	0	0	0	0	-4
Total inc. Cargo	-4	-11	-7	-2	0	-1	-5	0	0	-30

Additional stand outage declaration maintains a similar level of contingency to the S14 declaration:

- One Pier Served Code F stand removed in each terminal
- T1: Requirement as declared for S14 Post-T2 opening
- T2: Requirement as declared for S14 Post-T2 opening
- T3: Requirement as declared for S14
- T4: Four Code E stands removed to allow for T3 towing requirements (five in S14 declaration)

Stand 456 removed due to frequent Royal Suite use, as in S14

Remainder as declared for S14:

- T5: Requirement as declared for S14
- Cargo: Requirement as declared for S14

Table 5.5

Winter 2014 – Total Stands Declared for Schedule Coordination										
Apron	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	B	TOTAL
T1	0	0	0	1	0	1	7	0	0	9
T2	5	12	0	3	0	0	11	0	0	31
T3	5	17	4	2	2	4	3	0	0	37
T4	2	7	6	0	2	0	3	1	0	21
T5	14	14	9	0	4	0	14	1	0	56
Total exc. Cargo	26	50	19	6	8	5	38	2	0	154
CARGO	0	3	2	0	0	0	0	0	0	5
Total inc. Cargo	26	53	21	6	8	5	38	2	0	159

Note: GA capacity is declared separately (see Appendix 6)

Appendix 6

Additional Constraints and Explanatory Notes

W14 Runway Scheduling Limits

The RSL Working Group has agreed to consider any flex requests received from ACL after the distribution of this letter, but prior to the circulation of the SAL (Schedule Airline Listing) at the end of May 2014.

New or Retimed slots after 22: 40 (local)

In order to minimise the unplanned use of scarce night allocation movements due to delayed operations, no new or retimed services shall be allocated slots later than 22:40 (local) without a proportionate allocation of night quota - if such quota is available for allocation. If no such quota is available, relative to the forecast use for the airline, then no slots shall be allocated.

ATM Cap

A cap on the annual number of Air Transport Movements (ATMs) at Heathrow of 480,000 was introduced as a planning condition for the development of Terminal 5. In order not to exceed this level, a limit on the number of slots that may be allocated for air transport movements during the Winter 2014 season, is set at 9,262 per week. Additionally, after the slot hand back deadline in August 2014, the total seasonal number of air transport movements allocated should not exceed 203,764.

Night Flight Restriction

Aircraft of Quota Count 4 (QC4) will not be scheduled to operate between 23:30 and 06:00 (local) i.e. in the night quota period.

(This applies to Scheduled times only and does not apply to flights which have been delayed into the night period.)

Voluntary Agreement on Night Flights

The informal voluntary agreement between Heathrow and the Heathrow airlines regarding night flights is:

- Early morning arrivals will not land before 04:30 (local).
(This does not apply to arrivals delayed from the day before. However, if they have been subject to such severe delays that a further delay to ensure that they arrive after 04:30 would make little difference, then the Duty Manager Airside

may decide to refuse permission for an arrival before 04:30.)

- Cargo flights will not be scheduled to operate between 23:30 and 06:00 (local). (This applies to Scheduled times only and does not apply to flights which have been delayed into the night period.)

Terminal Declarations

As throughput increases, it is becoming increasingly difficult to encapsulate the complicated nature of each operational/facility constraint within a simple declared capacity limit for each terminal. We would appreciate your continued cooperation in assessing the full impact of scheduling changes, notably new entrant airlines and significant changes from existing carriers, including slot exchanges.

Heathrow has continued to declare lower limits and upper limits for terminals, which are to come into effect from Monday 16th June, after the IATA Slot Conference. Heathrow will continue to assess any capacity overage requests that fall within the boundaries of the lower and upper limits.

Following consultation at the Terminal and Stands Limits Working Group, the Winter 14 Terminal limits have been agreed. The terminal limits will remain unchanged from Summer 14 for T2, T4 and T5.

The T1 limits have been reduced to reflect the significant reduction in occupancy, following the opening of T2 in Summer 14, and the planned closure of T1.

The Winter 14 T3 declaration has been reduced to account for the construction works that are taking place through the Winter 14 season for the T3 Integrated Baggage project that will temporarily reduce check-in capacity by up to 34%.

We are also declaring a T3 capacity for the “end-game” occupancy with the completion of the Integrated Baggage system. We ask that for Winter 14, T3 is coordinated against both sets of occupancies and limits.

Following collaborative working between HAL and ACL, we are declaring check-in capacity for the first time, with the objective of reducing the amount of scheduling limit overage requests. In T2, this has enabled the three hour departure limits to remain unchanged, whilst capturing constraints that exist within the check-in capacity. We are also declaring T4 check-in, to enable ACL to see which type of requests that go above the one hour and three hour constraints are likely to be accommodated. Check-in is not a constraint in T1 or T5 in W14. T3 check-in is currently deemed too complex for ACL to model due to the T3IB project which will remove over 34% of check-in capacity, and require airlines to move between check-in zones through the season.

Airline Moves

The opening of Terminal 2 on 4th June will trigger a number of airline moves that Heathrow has consulted on through the Terminal Occupancy Working Group (TOWG) and the Airline Relocations Working Group (ARWG). Following consultation at the Terminal and Stands Limits Working Group and as outlined at the Heathrow Coordination Committee AGM, we request that ACL ensure the coordination process accounts for the future airline moves that need to take place. Heathrow will keep ACL informed of all of the airline moves and dates for Winter 14 and future seasons.

A380 Reclaim Belts

Heathrow has a number of A380 flights operating at the airport. Although there is variation in the seat capacity and transfer volumes of the A380 flights, in general a larger reclaim belt is required for an A380 operation.

As a continuation from Winter 11 onwards, through agreement at the Terminal and Stands Limits Working Group, Heathrow declares a limit on the number of A380 flights arriving within 60 minutes in Terminals 2, 3 and 4.

Based upon our assessments as to what is suitable for an A380 operation, we declare the following arrivals reclaim capacity for A380 operations, in a rolling hour:

Terminal	Reclaim Belts declared suitable for A380 operations
T2	6
T3	3
T4	1

Any breaches of this limit should be referred to Heathrow Airport to assess the individual flight to take account of seat capacity and transfer volumes.

Transit Flights

From Winter 10 onwards, through agreement at the Terminal and Stands Limits Working Group a new limit was introduced on the number of transit flights within each terminal in a given period. Transit flights require all passengers to be processed through transfer security unless held in transit gate lounges. Due to the resulting peak passenger flows this has a disproportional impact on transfer security capacity. It is therefore important to separate transit flights to enable them to use the limited transit gate facilities or to limit the impact on transfer security.

Therefore only one transit flight should be scheduled in each terminal with any 90 minute period. This limit is to be enforced for new transit flights.

Stands

Stand capacity is a critical constraint at Heathrow. Modelled stand demand versus available supply will continue to constitute a formal co-ordination parameter for each apron for Winter 14. Stand supply needs to be assessed at terminal level on all campuses. Where any breaches of the terminal stand declarations occur, we request that ACL either seek airline scheduling adjustments to resolve any overages, or refer the overage to Heathrow for assessment, to determine if a solution can be found within the constraints of the apron concerned.

From Winter 11, as agreed by the airline community and Heathrow, with regards to the T3/T5 boundary, all stands starting with '5' east of stand 582 (including 582) will be T3 and all stands starting with '5' west of stand 582 (excluding 582) will be T5. This allows a better balance of stand capacity for T3 and T5.

Modelling of capacity at Heathrow has shown that to ensure aircraft flow is maintained effectively it will be necessary to use other terminals' stands for aircraft from Terminal 3. This will increase the number of towing movements which in turn may cause congestion on associated taxiways. In mitigation, we must ensure as part of the co-ordination process that the likelihood of this is minimised, and not exacerbated, by changes to slot allocations or timing.

We ask you to be mindful of the need to minimise carriers' ground time in the peak period and give this a high priority in the allocation of available runway slots.

Code F Stands

As agreed with the airline community at the Heathrow Stand Governance Board, Heathrow should not plan for remote A380 operations. The remote code F stands at the airport have generally been designed for remote parking and contingency use only, due to their locations and equipment. As agreed by the Terminal and Stands Limits Working Group, to ensure there are limited remote A380 operations and to assist in A380 resilience, all Code F remotes have been declared as Code E. Thus the remote code F stands will be available for all scheduling up to and including Code E aircraft.

All 747-800 Cargo Flights wishing to operate at Heathrow, must be referred to Heathrow Airside Operations. This aircraft is categorised as Code F, and the largest Cargo Stand is Code E, with the current taxiway access also Code E. However, Heathrow has developed procedures - in conjunction with the CAA - to allow 747-800 types onto specific Cargo stands, providing certain conditions are met.

We kindly request that ACL continue to refer to Heathrow any requests that exceed this declared capacity to assess the characteristics of the flight and the operational issues.

Domestic, CTA, International Stand Capacity

As agreed at the Summer 13 Terminal and Stands Limits Working Group, there is a need for the schedule coordination process to consider domestic, CTA, and international stands capacity.

As a continuation from Summer 13, we request that ACL carry out high level assessments that differentiate domestic, CTA, and international demand against capacity in Terminals 2 and 5. The assessment is to be carried out at Initial Coordination, after the IATA Conference, and after the slot hand back deadline. The results are to be shared with Heathrow. This will enable a trigger for early notification of issues and prompt any actions required to address the problems, including the potential re-timing of slots.

General Aviation (GA) Stand Capacity

As agreed at the Summer 14 Terminal and Stands Limits Working Group, to ensure GA stand demand does not exceed supply, a separate stand capacity limit for GA is required.

Declarations will make a distinction between GA stands capable of servicing live movements and stands capable of parking tows only. Assessments carried out should therefore be able to distinguish between stand demand that requires live stands and demand that can be decanted to parking only stands.

Five stands are required for GA parking and two for GA live movements

- GA parking = 3x narrow body and 2x wide body
- GA live = 2 x Code C or 1 x Code E

Winter 14									
Stand Category	F	E	E (747-400)	E (777-200)	D (767-300)	D (757)	C (A321)	C (A319)	TOTAL
Live*		1					2		2x code-C or 1x code E3
Parking Only Total		2					3		5
Parking Declared		1					-		1

**Stands RSA/RSB will be used for live GA movements and can either be used by 2x code C or 1x code E*

During Sierra Taxiway construction works 1 E and 3 x CA321 stands will be allocated to Signature Aviation leaving 1 x Code E for GA Declaration.

GA stand declarations only impact cargo stands capacity i.e. cargo is reduced by 3 narrow body stands. Other stands declared as GA were previously already excluded from

capacity declarations.

Roads

The Central Terminal Area 2-way scheduling limit remains at 14000pph for Winter 14.