

Appendices

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Appendix 1

Runway Scheduling Limits Winter 2016

Arrivals Hour (UTC)																		Average	Total
	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22		
Winter 2015	37	38	33	44	38	40	40	42	41	43	43	40	41	40	38	41	20	38.8	659
Capacity change			2	-1					1	-1		1				-1	-1		
Winter 2016	37	38	35	43	38	40	40	42	42	42	43	41	41	40	38	40	19	38.8	659

Departures Hour (UTC)																		Average	Total
	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22		
Winter 2015	28	43	45	42	43	44	43	44	43	43	43	44	44	45	38	31	23	40.4	686
Capacity change			-2	1		1	-1		-1		1	1		1	-1	-1	1		
Winter 2016	28	43	43	43	43	45	42	44	42	43	44	45	44	46	37	30	24	40.4	686

Air Transport Movement Cap

Weekly Planning Limit: 9,220

Appendix 2

Additional Runway Scheduling Constraints Winter 2016

Arrivals

- 1 Within each hour, and having regard to historic rights, no more than 5 arrivals should be scheduled in each 5 minute period in the hour.
- 2 The schedule, having regard to historic rights, will be co-ordinated to a 20 minute slot constraint, offset by 10 minutes. No more than 15 arrivals should be scheduled in each 20 minute period.
- 3 Only Airlines with Night Quota are allowed to schedule arrivals at 0610 or 0615.

Departures

- 1 Within each hour, and having regard to historic rights, no more than 5 departures should be scheduled in each 5 minute period in the hour.
- 2 The schedule, having regard to historic rights, will be co-ordinated to a 20 minute slot constraint, offset by 10 minutes. No more than 16 departures should be scheduled in each 20 minute period.
- 3 Each hour, and having regard to historic rights, will be coordinated to an offset rolling hour. The hour is offset by 10 minutes and rolls through the hour every 20 minutes. No more than 45 departures will be scheduled in any rolling hour between 0600 and 2255 (UTC), except between 1650-1905 (UTC) when the rolling hour capacity will be 46.

Time (UTC)	0600 - 1645	1650 - 1905	1910 - 2255
Capacity	45	46	45

Arrivals and Departures

- 1 Ad Hoc slots will be unavailable between 0430 and 0800 (UTC).
- 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 2016. 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 2016 Capacity	37	38	35	43	38	40	40	42	42	42	43	41	41	40	38	40	19
Reduced Capacity at the hand-back deadline			-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Winter 2016 Capacity for ad hoc recycling	0	0	33	41	36	38	38	40	40	40	41	39	39	38	36	38	17

Departures	Hour (UTC)																
	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
Winter 2016 Capacity	28	43	43	43	43	45	42	44	42	43	44	45	44	46	37	30	24
Reduced Capacity at the hand-back deadline			-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Winter 2016 Capacity for ad hoc recycling	0	0	41	41	41	43	40	42	40	41	42	43	42	44	35	28	22

- 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 16

Terminal	A/D	Constraint	Coordination Limit	Upper Theoretical Limit
T2	D	Combined 1 Hour	2800	3500
		Combined 3 Hour	6800	8550
	A	International & CTA 1 Hour	2600	3900
		International & CTA 2 Hour	5100	6500
		Domestic 1 Hour	400	600
T3	D	International 1 Hour	3000	3500
		International 3 Hour	7000	8100
	A	International 1 Hour	3500	4000
		International 2 Hour	5000	7500
T4	D	International 1 Hour	2000	2800
		International 3 Hour	4250	6000
	A	International 1 Hour	1800	2500
		International 2 Hour	3000	4300
T5	D	Combined 1 Hour	4500	5000
	A	International 1 Hour	3750	4500
		Domestic 1 Hour	950	1200

Check-in Limits

Terminal 2

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

Terminal 3

Zone	Desks	Declaration
A	35	35
B	18	18
C	31	31
D	27	27
E	32	32
F	27	27
G	28	28

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

Terminal 3 Integrated Baggage System Limit

Coordination Limit: 33 laterals
Upper Limit: 40 laterals

Appendix 4

Load Factors Winter 16

Winter 2016	T2 Domestic	T2 CTA & International	T2 Combined	T3 International		T4 International		T5 Domestic	T5 International	T5 Combined
Day of Week	A	A	D	A	D	A	D	A	A	D
1	84%	83%	79%	84%	86%	82%	84%	88%	85%	82%
2	81%	79%	77%	80%	85%	83%	82%	84%	81%	78%
3	78%	78%	78%	75%	86%	79%	85%	84%	79%	80%
4	76%	79%	84%	78%	88%	82%	86%	84%	82%	84%
5	77%	82%	86%	82%	90%	85%	88%	84%	86%	86%
6	73%	86%	88%	85%	91%	85%	88%	84%	87%	87%
7	82%	86%	83%	87%	89%	88%	86%	87%	88%	85%

Appendix 5
Stand Limits Winter 16
Table 5.1

Total Physical Stand Supply - For Information Only, this is not the W16 Declared Stands

Winter 16										
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	0	0	0	0
T2	10	10	0	3	0	0	12	0	0	35
T3	10	19	4	4	2	1	3	0	0	43
T4	6	12	7	2	2	0	4	1	0	34
T5	15	15	10	0	4	0	15	1	0	60
Total exc. Cargo	41	56	21	9	8	1	34	2	0	172
CARGO	0	10	0	2	0	0	0	0	0	12
Total inc. Cargo	41	66	21	11	8	1	34	2	0	184

- T1 Stands now either closed or allocated to T2
- MARS – main centrelines counted except MARS stands which are predominately used by narrow body aircraft and therefore are declared as two centre-lines, e.g.:
 - 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
- Stands 122, 701 & 702 – no live movements
- Stand 139 Permanently Closed from Summer 16

Table 5.2

Stand outages for construction work

Winter 16 Stand Outages for Construction Work										
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	0	0	0	0
T2	0	0	0	0	0	0	0	0	0	0
T3	0	-2	0	0	0	0	0	0	0	-2
T4	0	-2	-2	0	0	0	0	0	0	-4
T5	0	0	0	0	0	0	0	0	0	0
Total exc. Cargo	0	-4	-2	0	0	0	0	0	0	-6
CARGO	0	0	0	0	0	0	0	0	0	0
Total inc. Cargo	0	-4	-2	0	0	0	0	0	0	-6

T1: All stands now closed or allocated to T2; Closure of Pier 4a and Northern Pier 4 stands to facilitate Bravo Taxiway Code F and Kilo Taxiway projects

T2: Stand 139 Closed for Kilo Taxiway works (new for W16)

T3: Construction of Temporary Transfer Facility and T3 Cluster Work
Stand 323 remains closed
Stand 322 (or similar) closed for T3 Cluster Work

T4: Construction of Sierra Taxiway Code F project
Stands 429 – 432 closed

Table 5.3

Stand downgrades for project work and/or operational resilience

Winter 16 Stand Downgrades for Projects or Ops. 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	0	0	0	0	0	0
T2	-4	4	0	0	0	0	0	0	0	0
T3	-4	2	2	0	0	0	0	0	0	0
T4	-2	0	2	0	0	0	0	0	0	0
T5	-4	4	0	0	0	0	0	0	0	0
Total exc. Cargo	-14	10	4	0	0	0	0	0	0	0
CARGO	0	0	0	0	0	0	0	0	0	0
Total inc. Cargo	-14	10	4	0	0	0	0	0	0	0

Remote Code F stands are downgraded to Code E3 to prevent A380 remotes

T2: Stands 253, 254, 255, 258 Code F remotes restricted to Code E3

T3: Stands 318 and 327 restricted to E2(747-400)
Stands 594, 595, 596 Code F remotes restricted to Code E3

T4: Stands 440, 441 restricted Code E3 to E2(747-400)
Stands 453 and 454 Code F remotes restricted to Code E3

Table 5.4

Additional stand outages due to operational issues; e.g. maintenance, stand cleaning, off slot performance, etc.

Winter 16 Additional Stand Outages, e.g. Maint, Off-slot Perf.										
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	0	0	0	0
T2	-1	-2	0	0	0	0	-2	0	0	-5
T3	-1	-1	-2	-1	0	-1	0	0	0	-6
T4	-1	-1	-3	-1	0	0	-1	0	0	-7
T5	-1	-1	-1	0	0	0	-1	0	0	-4
Total exc. Cargo	-4	-5	-6	-2	0	-1	-4	0	0	-22
CARGO	0	-5	0	-2	0	0	0	0	0	-7
Total inc. Cargo	-4	-10	-6	-4	0	-1	-4	0	0	-29

Additional stand outage declaration maintains a similar level of contingency to the S16 declaration:

One Pier Served Code F stand removed in each terminal

T2: Requirement as declared for S16

T3: Requirement as declared for S16

T4: Stands 441 & 455 removed for T3 towing – reduced T3 allocation from W15 due to Sierra works closing 429-432. These will be reinstated when Sierra Taxiway works are complete. In meantime a CTA or Cargo solution will be required for some T3 tows.
Stand 456 removed due to frequent Royal Suite use

T5: Requirement as declared for S16

Cargo: Requirement as declared for S16. Stands 601-606 removed due to no fuel, reverse parking or GA use.

Table 5.5

W16 Total Stands Declared for Schedule Coordination

Winter 16										
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	0	0	0	0
T2	5	12	0	3	0	0	10	0	0	30
T3	5	18	4	3	2	0	3	0	0	35
T4	3	9	4	1	2	0	3	1	0	23
T5	10	18	9	0	4	0	14	1	0	56
Total exc. Cargo	23	57	17	7	8	0	30	2	0	144
CARGO	0	5	0	0	0	0	0	0	0	5
Total inc. Cargo	23	62	17	7	8	0	30	2	0	149

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

Appendix 6

Additional Constraints and Explanatory Notes

W16 Runway Scheduling Limits

For any flex requests received by ACL before the RSL meeting but not approved during the RSL meeting, the RSL Working Group has agreed to re-consider the requests after the distribution of this letter, but prior to the circulation of the SAL (Schedule Airline Listing) in early June 2016 and again after the IATA conference in late June 2016.

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 2016 season, is set at 9,220 per week.

Additionally, after the slot hand back deadline in August 2016, the total seasonal number of air transport movements allocated should not exceed 193,620.

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 Airfield Duty Manager (AfDM) 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 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.

Following consultation at the Terminal and Stands Limits Working Group (TSL), the Winter 16 Terminal limits have been agreed.

Heathrow will no longer declare lower limits for any terminals, as a result of the check-in and baggage limits that have been introduced. Heathrow will continue to assess any capacity overage requests that fall within the boundaries of the initial coordination limits and the upper limits which reflect the theoretical capacity of the terminals.

Heathrow will continue to declare limits for the Terminal 3 Integrated Baggage System.

Heathrow will continue to declare limits for check-in in Terminals 2 & 4. This will allow the removal of the lower limits for the Terminal 2 & 4 departures constraints. In S16 season, we introduced a check-in limit for Terminal 3. We will continue declaring a Terminal 3 check-in limit in W16 season. This check-in limit has allowed us to remove lower limits in the Terminal 3 departures constraints.

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	2

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 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.

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 16. 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.

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 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.

The General Aviation Declaration must fit around scheduled operations and any construction or development work. It will therefore need to be flexible and subject to change at short notice within each season.

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 E3

Winter 16 - GA									
	F	E3	E2 (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		2					3		5

**Stands 457(L&R) will be used for live GA movements and can either be used by 2x Code C A321 or 1x Code E1. For red carpet movements Stand 458 (E3) can be used. Live aircraft above Code E1 size that are not using the red carpet, will most likely arrive/depart from Stand 456 or another 450 stand.*

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.

Peak periods will require the following restrictions to GA Parking:

- Thanksgiving – no GA Parking (live declaration not affected), 2 days before until 2 days after
- Christmas – no GA Parking (live declaration not affected), 23rd December to 27th December inclusive.
- New Year – no GA Parking (live declaration not affected) 30th December to 2nd January inclusive.

Roads

The Central Terminal Area 2-way scheduling limit remains at 14000pph for Winter 16.