

TRA AirRailHub - indicative comparison of key UK hub proposals - 28 May 2014

Promotor		Thames Reach Airport			Airport Com	Heathrow Ltd		Heathrow Hub		
Type	unit	TRA-3w	TRA-4w	TRA-4L	AC-4c	reference	HR-2w	HR-3w	HR-3L	HR-4L
configuration		Jul-13	Jul-13	May-14	Jul-13	Jul-13	Jul-13	Jul-13	Jul-13	Jul-13
revision date		3wide	4wide	2long	2x2 close par	2wide	3wide	1w + 1long	2long	
runways	no									
Dimensions										
runway separation	m	1520	1520	1520	1900/750	1420	1420/1320	1420	1420	
runway length	km	4	4	7.6/2	4	3.7	3.5	6.6/2	6.6/2	
ancillary/cargo area	km2	5	7	1	6	1	5	2	2	
operating hours	h	24	24	24	24	18	18	18	18	
Capacity										
peak capacity (arrivals per h)		150	200	100	160	100	150	100	100	
typical annual ATM per runway		438,000	438,000	438,000	438,000	328,500	328,500	328,500	328,500	
no of runways		3	4	4	4	2	3	3	4	
peak capacity (arrivals per h)		150	200	100	160	100	150	100	100	
runway configurion loss **		100%	100%	88%	65%	100%	100%	91%	88%	
nominal ATM		1,314,000	1,752,000	1,541,760	1,138,800	657,000	985,500	896,805	1,156,320	
use factor		75%	75%	75%	75%	75%	75%	75%	75%	
projected ATM		985,500	1,314,000	1,156,320	854,100	492,750	739,125	672,604	867,240	
aircraft load factor		175	175	175	175	175	175	175	175	
projected mppa		172	230	202	149	86	129	118	152	
additional air-rail substitution	mppa	20	20	20	10	5	5	5	5	
opening year		2028	2032	2028	2029	existing	2026	2028		
Cost										
promotor	£bn	21	26	24	25	0	10	10	20	
apportioned surface access	£bn	10	15	11	25	0	3	3	10	
Environmental										
platform	km2	19	28	16	25	13	18	15	20	
property taken	no	0	indust.	100	1600	0	1500	720		
landtake (non-flood)	km2	1	2	1	4	0	5	2	7	
landtake (floodrisk)	km2	7	10	5	9	0	0	0	0	
intertidal (platform only)	km2	10	10	10	9	0	0	0	0	
deap water (platform only)	km2	3	3	0	3	0	0	0	0	
nature2000 (platform only)	km2	15	16	11	17	0	0	0	1	
noise polution (people)	no	1,000	2,000	1,000	1,400	150,000	142,600	180,900		
noise polution (people)	net	- 230,000	- 230,000	- 230,000	- 230,000	0	8,000	30,000		
air polution (people)	non	non	non	non	non	high	very high	very high	very high	
Surface access catchment										
population (staff) within 45min	mio	11*	11*	11*	9		14	17		
population within 1h	mio	16*	16*	16*	13		16	18		
population within 2h		35*	35*	35*	25		36	38		
Interventions										
infrastructure			LNG move		LNG move		M25 tunnel	M25 tunnel	M25 tunnel	
heritage loss		0	0	0	8		30	8		
SS Montgomery		x	x	x	x	x	x	x	x	x

Reference data based on AC long-term-options-sift-3, Dec2013

* higher estimate, due to more direct rail services with "Check-In-Train" ©

** configuration loss to be analysed