

Reduced Night Noise (RNN) Trial

Gatwick Arrivals Data (2017-2023)

Context

This data supports the Trial Submission Pack for Gatwick Airport's RNN Trial. This data was used as a basis to estimate the number of arrivals that could potentially participate in the trial.

Structure

2017	Data summary for Jan – Dec 2017
2018	Data summary for Jan – Dec 2018
2019	Data summary for Jan – Aug 2019
2023	Data summary for Jan – Jun 2023

Notes on the data

The data enclosed is summarised from IDAHO data that covers Gatwick arrivals between Jan 2017 to Aug 2019.

The data added for Jan – Jun 2023 to support the submission pack V2.1 is summarised from ANOMS.

2017 Data (Jan-Dec)

Total number (absolute and % of total traffic) and average number of arrivals between 01:30-05:00 per month, and maximum number of arrivals seen in any one night for each month.

Month	Total		Average/Night	Max*
Jan	55	2%	1.8	6
Feb	62	2%	2.2	7
Mar	60	2%	1.9	6
Apr	179	6%	6.0	13
May	337	11%	10.9	22
Jun	453	14%	15.1	26
Jul	567	18%	18.3	33
Aug	542	17%	17.5	33
Sep	502	16%	16.7	38
Oct	294	9%	9.5	21
Nov	44	1%	1.5	8
Dec	61	2%	2.0	5
Total:	3156	100%		

**Refers to the highest number of arrivals seen in any one night during the month*

Percentage of aircraft easterly vs. westerly per month (0130-0500)

Month	E	W
Jan	50.9%	49.1%
Feb	45.2%	54.8%
Mar	30.0%	70.0%
Apr	26.8%	73.2%
May	53.1%	46.9%
Jun	12.1%	87.9%
Jul	14.6%	85.4%
Aug	15.7%	84.3%
Sep	22.9%	77.1%
Oct	3.4%	96.6%
Nov	11.4%	88.6%
Dec	9.8%	90.2%

Total number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
0130-0159	14	13	17	101	131	163	167	164	180	115	2	8	
0200-0259	9	9	8	49	109	154	215	198	177	97	10	19	
0300-0359	4	6	6	18	61	86	123	116	94	47	9	9	
0400-0459	26	34	29	11	35	50	60	63	51	34	22	24	
0500 sharp	2	0	0	0	1	0	2	1	0	1	1	1	Total
Total	55	62	60	179	337	453	567	542	502	294	44	61	3156

Percentage number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
0130-0159	25%	21%	28%	56%	39%	36%	29%	30%	36%	39%	5%	13%	
0200-0259	16%	15%	13%	27%	32%	34%	38%	37%	35%	33%	23%	31%	
0300-0359	7%	10%	10%	10%	18%	19%	22%	21%	19%	16%	20%	15%	
0400-0459	47%	55%	48%	6%	10%	11%	11%	12%	10%	12%	50%	39%	
0500 sharp	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	Total
Total	55	62	60	179	337	453	567	542	502	294	44	61	3156

Average number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0130-0159	0.5	0.5	0.5	3.4	4.2	5.4	5.4	5.3	6.0	3.7	0.1	0.3
0200-0259	0.3	0.3	0.3	1.6	3.5	5.1	6.9	6.4	5.9	3.1	0.3	0.6
0300-0359	0.1	0.2	0.2	0.6	2.0	2.9	4.0	3.7	3.1	1.5	0.3	0.3
0400-0459	0.8	1.2	0.9	0.4	1.1	1.7	1.9	2.0	1.7	1.1	0.7	0.8
0500 sharp	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total	1.8	2.2	1.9	6.0	10.9	15.1	18.3	17.5	16.7	9.5	1.5	2.0

Total number of nights with more than 20 aircraft (0130-0500)

No. of Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
>15	0	0	0	0	4	16	22	19	17	4	0	0	82
>20	0	0	0	0	1	5	9	7	7	1	0	0	30

2018 Data (Jan-Dec)

Total number (absolute and % of total traffic) and average number of arrivals between 01:30-05:00 per month, and maximum number of arrivals seen in any one night for each month.

Month	No. of Arrivals		Average/Night	Max*
Jan	51	1%	1.6	4
Feb	49	1%	1.8	9
Mar	106	3%	3.4	18
Apr	182	5%	6.1	11
May	432	12%	13.9	34
Jun	552	15%	18.4	40
Jul	664	18%	21.3	41
Aug	658	18%	21.3	43
Sep	487	13%	16.2	26
Oct	334	9%	10.7	20
Nov	78	2%	2.6	5
Dec	114	3%	3.7	9
Total:	3707	100%		

*Refers to the highest number of arrivals seen in any one night during the month

Percentage of aircraft easterly vs. westerly per month (0130-0500)

Month	E	W
Jan	33.3%	66.7%
Feb	63.3%	36.7%
Mar	53.8%	46.2%
Apr	44.5%	55.5%
May	60.9%	39.1%
Jun	58.0%	42.0%
Jul	66.0%	34.0%
Aug	92.2%	7.8%
Sep	64.5%	35.5%
Oct	65.9%	34.1%
Nov	48.7%	51.3%
Dec	69.3%	30.7%

Total number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
0130-0159	7	11	41	83	153	174	210	204	160	121	6	10	
0200-0259	14	7	29	54	166	201	249	231	174	125	14	33	
0300-0359	5	7	9	25	84	128	150	164	103	59	9	25	
0400-0459	25	22	27	20	29	48	54	58	49	28	46	44	
0500 sharp	0	2	0	0	0	1	1	1	1	1	3	2	Total
Total	51	49	106	182	432	552	664	658	487	334	78	114	3707

Percentage number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
0130-0159	14%	22%	39%	46%	35%	32%	32%	31%	33%	36%	8%	9%	
0200-0259	27%	14%	27%	30%	38%	36%	38%	35%	36%	37%	18%	29%	
0300-0359	10%	14%	8%	14%	19%	23%	23%	25%	21%	18%	12%	22%	
0400-0459	49%	45%	25%	11%	7%	9%	8%	9%	10%	8%	59%	39%	
0500 sharp	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	4%	2%	Total
Total	51	49	106	182	432	552	664	658	487	334	78	114	3707

Average number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0130-0159	0.2	0.4	1.3	2.8	4.9	5.8	6.8	6.6	5.3	3.9	0.2	0.3
0200-0259	0.5	0.3	0.9	1.8	5.4	6.7	8.0	7.5	5.8	4.0	0.5	1.1
0300-0359	0.2	0.3	0.3	0.8	2.7	4.3	4.8	5.3	3.4	1.9	0.3	0.8
0400-0459	0.8	0.8	0.9	0.7	0.9	1.6	1.7	1.9	1.6	0.9	1.5	1.4
0500 sharp	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total	1.6	1.8	3.4	6.1	13.9	18.4	21.4	21.2	16.2	10.8	2.6	3.7

Total number of nights with more than 20 aircraft (0130-0500)

No. of Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
>15	0	0	1	0	9	20	24	23	11	4	0	0	92
>20	0	0	0	0	7	8	12	12	6	2	0	0	47

2019 Data (Jan-Aug)

Data for 2019 is included up to the time of Trial Pack submission (September 2019).

Total number (absolute and % of total traffic) and average number of arrivals between 01:30-05:00 per month, and maximum number of arrivals seen in any one night for each month.

Month	No. of Arrivals		Average/Night	Max*
Jan	71	3%	2.3	5
Feb	95	3%	3.4	6
Mar	107	4%	3.5	7
Apr	200	7%	6.7	13
May	397	14%	12.8	24
Jun	542	19%	18.1	29
Jul	735	26%	23.7	44
Aug	675	24%	21.8	40
Total:	2822	100%		

**Refers to the highest number of arrivals seen in any one night during the month*

Percentage of aircraft easterly vs. westerly per month (0130-0500)

Month	E	W
Jan	17.5%	82.5%
Feb	37.9%	62.1%
Mar	13.3%	86.7%
Apr	72.5%	27.5%
May	24.4%	75.6%
Jun	22.2%	77.8%
Jul	26.5%	73.5%
Aug	28.7%	71.3%

Total number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
0130-0159	8	20	24	90	127	182	191	188	
0200-0259	9	19	23	48	134	197	304	262	
0300-0359	28	24	24	43	94	115	165	159	
0400-0459	25	31	35	19	39	47	71	66	
0500 sharp	1	1	1	0	3	1	4	0	Total
Total	71	95	107	200	397	542	735	675	2822

Percentage number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
0130-0159	11%	21%	22%	45%	32%	34%	26%	28%	
0200-0259	13%	20%	21%	24%	34%	36%	41%	39%	
0300-0359	39%	25%	22%	22%	24%	21%	22%	24%	
0400-0459	35%	33%	33%	10%	10%	9%	10%	10%	
0500 sharp	1%	1%	1%	0%	1%	0%	1%	0%	Total
Total	71	95	107	200	397	542	735	675	2822

Average number of flights within each hour/30 mins/sharp (0130-0500)

Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
0130-0159	0.3	0.7	0.8	3.0	4.1	6.1	6.2	6.1
0200-0259	0.3	0.7	0.7	1.6	4.3	6.6	9.8	8.5
0300-0359	0.9	0.9	0.8	1.4	3.0	3.8	5.3	5.1
0400-0459	0.8	1.1	1.1	0.6	1.3	1.6	2.3	2.1
0500 sharp	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Total	2.3	3.4	3.5	6.7	12.8	18.1	23.7	21.8

Total number of nights with more than 20 aircraft (0130-0500)

No. of Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
>15	0	0	0	0	7	20	28	25	80
>20	0	0	0	0	1	10	21	17	49

2023 Data (Jan-Jun)

Data for 2023 is included to be representative of the equivalent trial period Jan – Jun 2023.

Total number (absolute and % of total traffic) and average number of arrivals between 01:30-05:00 per month, and maximum number of arrivals seen in any one night for each month.

Month	No. of Arrivals		Average/Night	Max*
Jan	71	4%	2.4	5
Feb	54	3%	2.2	4
Mar	126	7%	4.3	14
Apr	340	19%	11.3	20
May	477	27%	15.4	28
Jun	699	40%	23.3	31
Total:	1767**	100%		

**Refers to the highest number of arrivals seen in any one night during the month*

****Trial will only be conducted for the southern runway where the expected number of arrivals is approximately 75% of total arrivals. Therefore, the expected number of arrivals evaluated from the equivalent trial period in 2023 is **1325**.**

Percentage of aircraft easterly vs. westerly per month (0130-0500) (75% total arrivals)

Month	E	W
Jan	27%	73%
Feb	46%	54%
Mar	28%	72%
Apr	52%	48%
May	71%	29%
Jun	66%	34%

Total number of flights within each hour/30 mins/sharp (0130-0500) (75% total arrivals)

Time	Jan	Feb	Mar	Apr	May	Jun	
0130-0159	23	16	28	101	117	134	
0200-0259	11	11	40	101	150	227	
0300-0359	8	6	17	32	62	112	
0400-0459	12	8	10	21	29	52	
0500 sharp	0	0	0	0	0	0	Total
Total	53	41	95	255	358	524	1325

Percentage number of flights within each hour/30 mins/sharp (0130-0500) (75% total arrivals)

Time	Jan	Feb	Mar	Apr	May	Jun	
0130-0159	42%	39%	29%	39%	33%	26%	
0200-0259	20%	26%	42%	40%	42%	43%	
0300-0359	15%	15%	18%	13%	17%	21%	
0400-0459	23%	20%	10%	8%	8%	10%	
0500 sharp	0%	0%	0%	0%	0%	0%	Total
Total	53	41	95	255	358	524	1325

Average number of flights per night within each hour/30 mins/sharp (0130-0500) (75% total arrivals)

Time	Jan	Feb	Mar	Apr	May	Jun	
0130-0159	0.7	0.6	0.9	3.4	3.8	4.5	
0200-0259	0.3	0.4	1.3	3.4	4.8	7.6	
0300-0359	0.3	0.2	0.6	1.1	2.0	3.7	
0400-0459	0.4	0.3	0.3	0.7	0.9	1.7	
0500 sharp	0	0	0	0	0	0	
Total							

Total number of nights with more than 20 aircraft (0130-0500) (75% total arrivals)

No. of Aircraft	Jan	Feb	Mar	Apr	May	Jun	Total
>15	0	0	0	3	9	5	17
>20	0	0	0	0	4	17	21